



eRAD RIS

**COMBINED CUSTOMER
RELEASE NOTES**

for Build 2.42.0 through 2.45.1.9

UPDATED MARCH 9, 2022

SUMMARY

This document re-publishes the previously released Customer Release Notes for eRAD RIS Build 2.42.0 through 2.45.1.9 as a single document.

The following documents have been merged:

1. Combined cover page.docx
2. eRAD RIS Customer Release Notes 2.42.0.0.pdf
3. eRAD RIS Customer Release Notes 2.42.0.1.pdf
4. eRAD RIS Customer Release Notes 2.42.0.10.0.pdf
5. eRAD RIS Customer Release Notes 2.42.0.10.1.pdf
6. eRAD RIS Customer Release Notes 2.42.0.11.pdf
7. eRAD RIS Customer Release Notes 2.42.0.12.pdf
8. eRAD RIS Customer Release Notes 2.42.0.2.pdf
9. eRAD RIS Customer Release Notes 2.42.0.3.pdf
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40. eRAD RIS Customer Release Notes 2.43.0.7.pdf
41. eRAD RIS Customer Release Notes 2.43.0.8.pdf
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63. eRAD RIS Customer Release Notes 2.44.5.0.pdf
64. eRAD RIS Customer Release Notes 2.44.5.1.pdf
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66. eRAD RIS Customer Release Notes 2.44.6.pdf
67. eRAD RIS Customer Release Notes 2.44.7.0.pdf
68. eRAD RIS Customer Release Notes 2.44.7.1.pdf
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User Release Notes

for eRAD RIS
Version 2
Build 42

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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 42 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.42.

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 2.42 is considered a new core release of the application and will require a reinstallation of eRAD RIS. 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. New Access Strings and Configuration Settings

Setting Placeholder	Setting	Default	Purpose / Controls Access to
Access string / User Group Permission tables	Clinical.PreviewPreliminaryReport	None	Controls access to preview, print and faxing of unsigned (preliminary) reports
Access string / User Group Permission tables	Clinical.ResolveRadProblem	Full	Controls access to the Resolve Problem window for Transcription users from the All Problem WL
Access string / User Group Permission tables	Clinical.UserPreferences.PACSServerOverride	Disabled	Controls access to the User Preference PACS Server on the Integration tab.
Access string / User Group Permission tables	Clinical.ShowRVUs	None	Controls Access to see the RVUs on the chair selector report
SystemConfig lookup	MRNPrefix		Value entered will be prefixed new MRN's created
SystemConfig lookup	MRNSuffix		Value entered will be appended to new MRN's created
SystemConfig lookup	AccessionPrefix		Value entered will be prefixed to new accession numbers
SystemConfig lookup	AccessionSuffix		Value entered will be appended to new accession numbers
SystemConfig lookup	PrivacyMessageText		Value entered will be displayed on a locked eRAD RIS login window
SystemConfig lookup	CPOELabTestCode	Pathology	Value of the Lab Test code that will be created when a procedure with the CPOE Pathology Flag = Y is signed

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SystemConfig lookup	MUMedlinePlusConnectDebug	N	(value = Y/N) Adds prompt to UI for reviewing MedlinePlusConnect xml messages.
SystemConfig lookup	MUMedlinePlusConnectEnabled	N	(value = Y/N) Enable MedlinePlus Connect MU feature.
SystemConfig lookup	MUMedlinePlusConnectBaseUr1	http://apps.nlm.nih.gov/medlineplus/services/mpconnect_service.cfm	(value = string) MedlinePlus Connect Base URL.
SystemConfig lookup	MUMedlinePlusConnectDrugSearch	mainSearchCriteria.v.cs=2.16.840.1.113883.6.88	(value = string) MedlinePlus Connect Drug RXCUI search specification.
SystemConfig lookup	MUMedlinePlusConnectLabSearch	mainSearchCriteria.v.cs=2.16.840.1.113883.6.1	(value = string) MedlinePlus Connect Lab LOINC search specification.
SystemConfig lookup	MUMedlinePlusConnectProblemSearch	mainSearchCriteria.v.cs=2.16.840.1.113883.6.103	(value = string) MedlinePlus Connect Problem ICD-9-CM search specification.
Ris.exe.config Added in 41.1	MModalDataTransferValue	None	Override the user preference for M*Modal's Data Transfer. See feature Reporting – Ability to Configure MModal Transfer Task in this document for more details

5. New Features and Enhancements

Reporting – Laterality Check when Transcribing Reports

Previous to build 42 the laterality check was performed when signing and verifying reports. Now this option is available in the transcription workflow as well.

As with the radiologist role, the user preference of “Laterality Check” must be selected to enable the feature for transcription users.

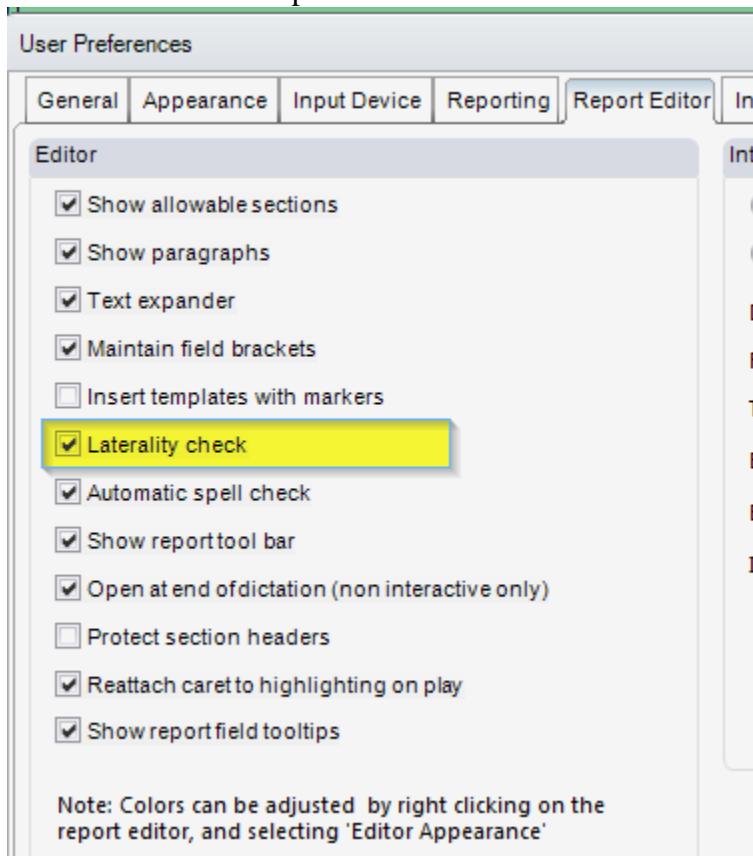


Figure 5.1 – Laterality check user preference for transcription now as well!

If the procedure being reported on has laterality and the report has conflicting left or right the transcriptionist will be presented with a pop up message and the literalities in the report will be highlighted.

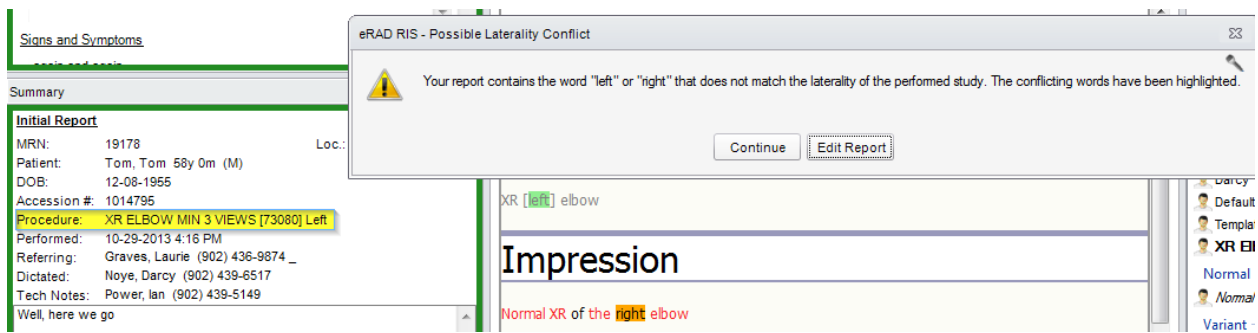


Figure 5.2 – Message presented when conflicting laterality is detected.

The user has the option to “Continue” if they believe the conflict is not valid, example the words left or right are detected in the report but are used in different context not related to the procedures laterality. The other option is “Edit Report”, selecting this button with return the user to the editor window allowing them to make needed corrections if the conflict is related to the procedure laterality.

Reporting – Laterality added to Patient Folder

The patient folder data pane that is available in the reporting windows now has the Laterality column added to its list of columns. In the screenshot below the procedure column may also have the laterality listed, but it was requested that a column specific to laterality also be added due to the fact that the entire procedure name may not be completely in view.

Anchor icon | Anchikowski, Kelly | 04-25-1969 (44y 7m) | Female | #12296 | XR Ankle 2 Views, Bilat | 12-13-2013 12:00 AM | @1015122PE

Patient Folder							
pared	Flags	Nuggets	Status	Procedures	Scheduled Date	Laterality	Accession #
			Exam Done...	US Breast Uni Or Bil [76645] - Breast	06-23-2009 10:53 AM		1014993
			Cancelled	US Breast Uni Or Bil [76645] - Breast - Bilateral	05-19-2014 7:45 AM	bilateral	1014947
			Scheduled	US Breast Uni Or Bil [76645] - Breast - Bilateral	05-19-2014 7:45 AM	bilateral	1014949
			Signed	US Breast Uni Or Bil [76645] - Breast - Bilateral	11-20-2013 1:00 PM	bilateral	1014946
			Signed	US Breast Uni Or Bil [76645] - Breast - Bilateral	11-20-2013 7:45 AM	bilateral	1014948
			Signed	US Breast Uni Or Bil [76645] - Breast - Bilateral	11-15-2013 1:20 PM	bilateral	1014931
			Exam Done	US Breast Uni Or Bil [76645] - Breast - Left	11-26-2013 11:30 AM	left	1014979
			Exam Done...	US zBREAST & MA DIGITAL MAMMO CB DIAG BI [...]	03-13-2012 9:54 AM	bilateral	1010534
			Exam Done	XR Ankle 2 Views, Bilat [RD37] - Ankle joint - Bilateral	12-13-2013 10:43 AM	bilateral	1015122PE
			Scheduled	XR ANKLE MIN 3 VIEWS [73610] - Ankle joint - Left	03-23-2012 10:16 AM	left	1010538
			External Re...	XR Elbow 2 Views [73070] - Elbow - Bilateral	11-26-2013 2:00 PM	bilateral	1014980
			Cancelled	XR Elbow 2 Views [73070] - Elbow - Bilateral	12-11-2012 5:30 PM	bilateral	1012414

Figure 5.3 – Laterality column added to the patient folder of the reporting windows.

It should be noted that it is the Laterality description text that is being used from the Laterality lookup table and not the Laterality Code.

Reporting – MT Edit Text Color

Previous to build 42, Interactive Dictation users had the option to set color preference for edits made from the All Signed Pending QA worklist by setting the QA Edit Text color option. If the job was submitted (not signed) to transcription, any edits performed could not be colored in the same way as when edited via QA workflow.

We have added another option to the Editor Appearance window for possible edits made in transcription.

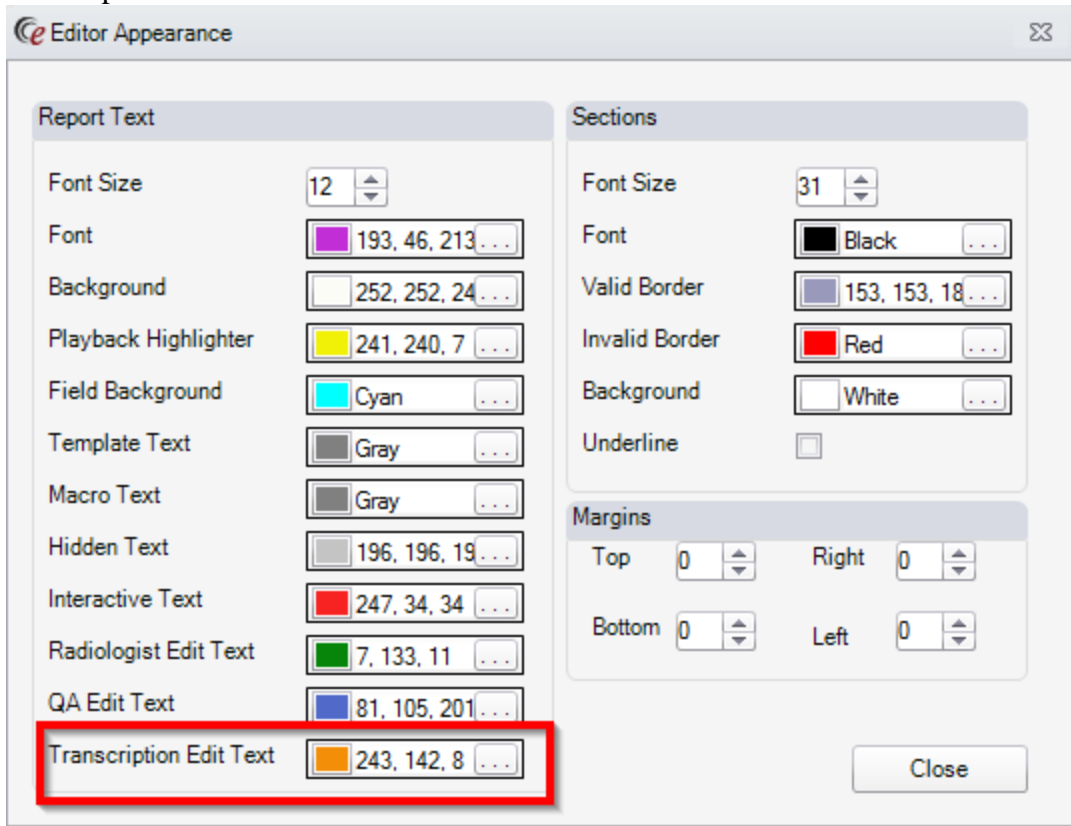


Figure 5.4 – Transcription Edit Text color option in Editor Appearance window.

This text color option is titled Transcription Edit Text and has a default value of black.

Reporting – Available Speechmike Buttons for Mapped Commands and Input Device Redesigned and New Button Options

The Speechmike now has additional buttons that can be mapped to use commands within the reporting windows. The buttons for “Play, Record, and INS/OVR” have been added. In addition the layout of the Input Device tab has been changed to be more intuitive with the layout of the Speechmike.

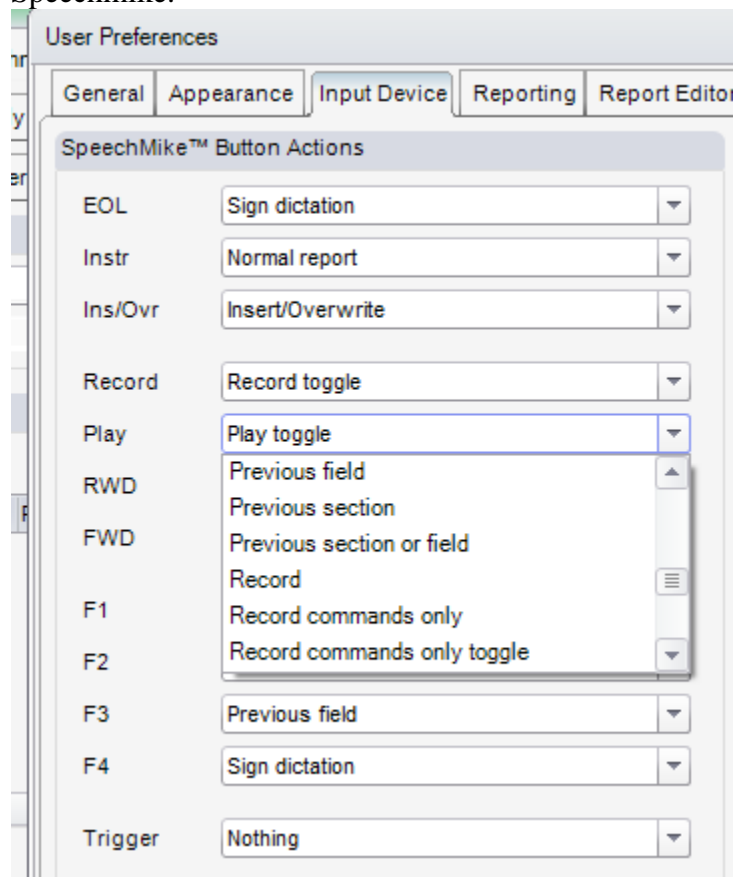


Figure 5.5 – Input tab additions and redesign

To accommodate the potential re-mapping of the play, record and Insert/Overwrite buttons their actions have also been added for use with other buttons.

Additional new commands added are:

Play – Enables play function to the assigned button

Play toggle – Start and stops play function with press/release of assigned button. This replaces the User Preference “Stop playback with button is released”

Record – Enable record function to the assigned button

Record toggle – Starts and stops record function with press/release of assigned button. This replaces the User Preference “Stop recording when button is released”

Record commands only – allow the user to issue commands without dictating in the report. This can make editing reports easier and increases voice command recognition.

Record commands only toggle – Same function as Record commands only with this command the function starts and stops with the button press/release

Insert/Overwrite – Enables insert/overwrite function to assigned button

Cap that - The first letter of each word in the selected range of text is capitalized.

Example:  results in 

Reporting – New Voice Commands for Reporting Windows

Newly added voice commands added in build 42 are:

Submit report – voice command will perform submit button click

Suspend report – voice command will perform suspend button click

Close report / Skip report – voice command will perform the skip/close button click. Invokes the button click and will use the current assigned button click

Cap that – voice command that will capitalize the first letter of each word in the selected range of text.

New line - Now when dictating “new line” you get a new line and “new paragraph” will result in a new paragraph.

Redo that – If text is removed from report while dictating using undo that voice command or select a range of text and delete/overwrite selection, or by way of Speechmike button such as undo or delete word left of cursor, issuing the redo that command will reverse the change.

Reporting – Voice Enabled Message Boxes

We added, to our base message box class, the ability to interact with the buttons on a given message box. Now when a message box is presented we load into our voice command options the following for each button.

Value - This is the value in code for the button. Most often it may equal the text but some instances it may not. For example a button that says “Close without saving” may have a value of “OK” or “Yes”. Overtime a user will get accustomed to which command is more fluid for them.

Text - This is the visible text seen on the button. So a button that shows “Close without saving” will have a voice command of “Close without saving”

Button # - This position the button shows on the message box starting with the number one. So a message box with “YES” and “NO” would have voice commands of “button one” and “button two”.

Option # - This position the button shows on the message box starting with the number one. So a message box with “YES” and “NO” would have voice commands of “option one” and “option two”.

We also added a new icon to the message boxes to indicate they are voice enabled. This icon should show only for radiologists. Even batch users can interact with message boxes via voice command. This new icon has a tooltip that displays the voice command options to invoke each button.

There are some dialog boxes that are not voice enabled. The whole application is not at that state yet.

Spell check, mic wizard, dictionary and user preferences to name a few. Goal of this item was to get most common message boxes.

The image below shows the new icon and tooltip options.

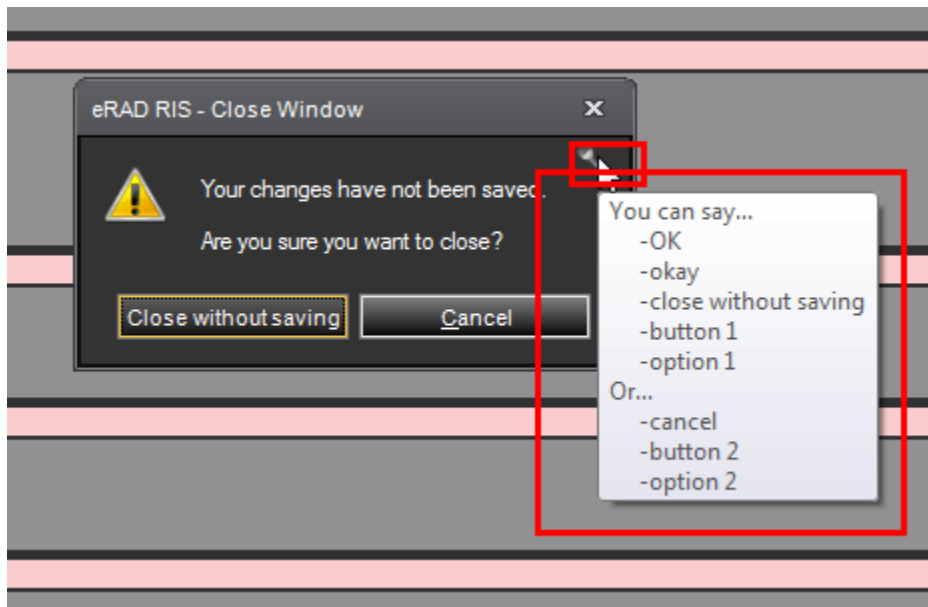


Figure 5.6 – Voice enabled message boxes displaying available command options

Reporting – Support Tracking of Magnet Strength

To start the magnet strength column has been added to the Modality lookup table. The column has a max character length of 10.

Modalities:							
Modality Code	Description	AE title	Digital	Site Code	Magnet Strength	Modality Type Co	
Contai... mr	Contains:	Contains:	Contains:	Contains:	Contains:	contains:	
MR1FH	MR1FH	MR1FH	N	FH (Fisher)	1.5	IR (MRI)	
MR1EL	MR1EL	MR1EL	N	EL (Eldersburg)	3.0	IR (MRI)	

Figure 5.7 – Magnet Strength column added to Modality lookup table.

To have this value added to the template or macro a new custom field is now available in the Template/Macro editor.

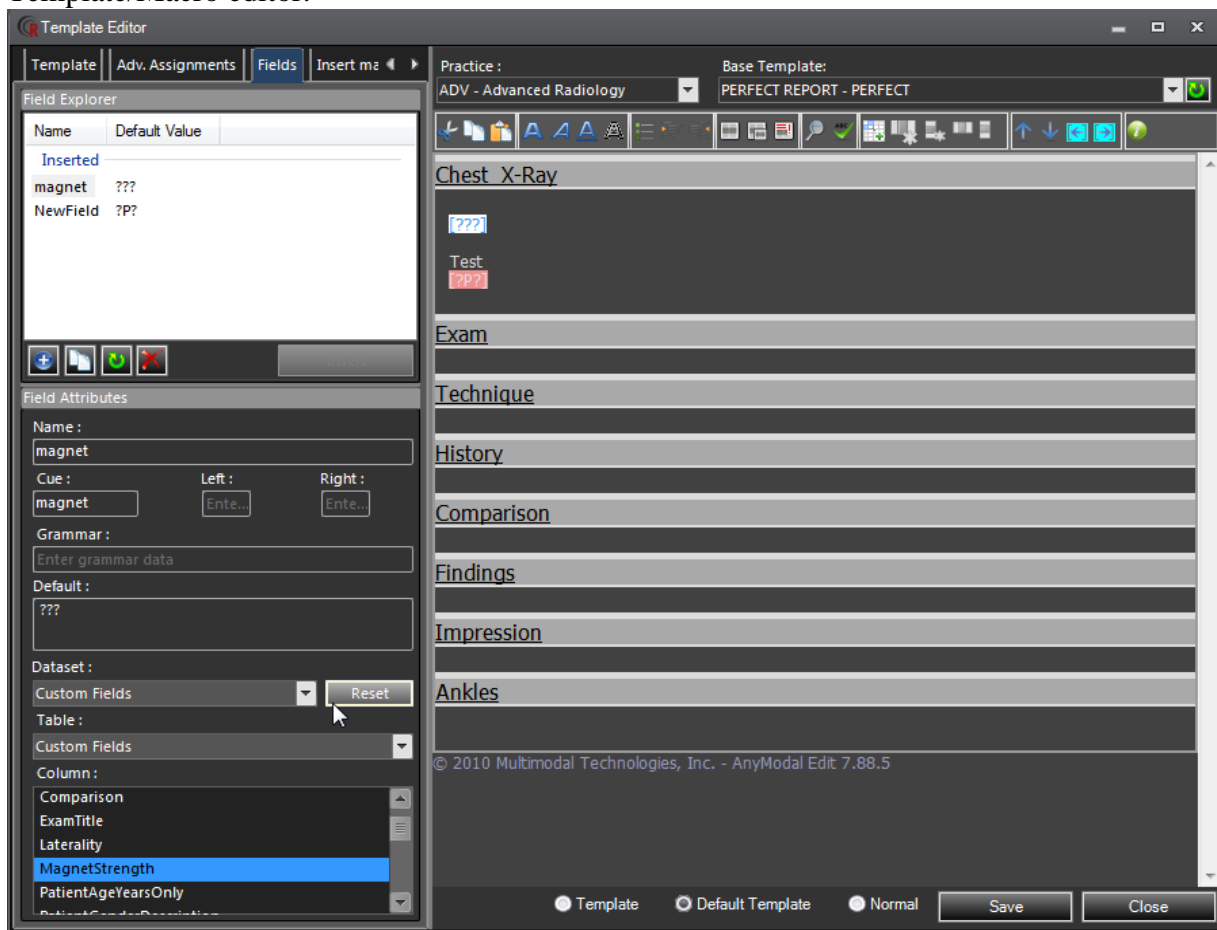


Figure 5.8 – MagnetStrength added as a custom field

Reporting – Talked to Doctor Macro

Additional custom fields have been added to aid users in creating a “Talked to Doctor Macro”. Below are the custom fields and examples of values for each field

TimeStamp12 – 6:30pm

TimeStamp24 – 18:30

Today – 08-13-2013

ReferringShort – Dr. Last

ReferringLong – Dr. First Last

In the Macro editor these custom fields can be used to create a the “Talked to Doctor Macro”.

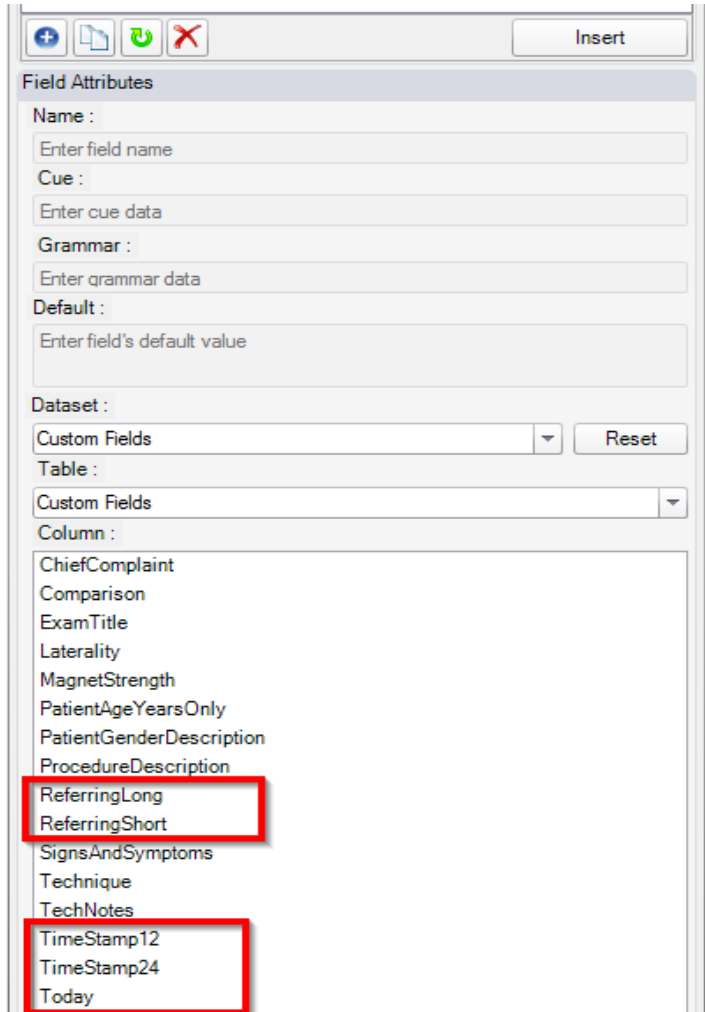


Figure 5.9 – New custom fields to support talked to doctor macro

The results will look something like this



Spoke with referring doctor [Dr. Laurie Graves] on [12-18-2013] at [3:57 PM]

Figure 5.10 – Talked to Doctor macro used in template

Reporting – No Wait Insert Macro

We have altered how we handle our ‘insert macro’ commands. You can now dictate and insert a macro without pausing. Once the macro is inserted a ‘beep’ (existing) will sound indicating dictation can progress. Users **MUST** wait for the macro to insert because there may be fields within the macro that direct report creation.

Reporting – No Wait Undo/Redo that Voice Commands

Currently there is no option for “redo that” voice command. Also when using the “undo that” command it rarely is recognized on the initial attempt. It will render things like “underline” or “undo that” as text. We need “undo that” and “redo that” to work well without pausing or rendering the text into the editor.

Added in build 42 is the “Redo that” voice command. Also, we now have a concept of adding word to the recognizer and lowering the cost of these words. Think of it as increasing the possibility that these words will be spoken – resulting in better recognition of these particular words.

We now have “undo that” and “undo last” added in this category. These commands existed previously but are not low cost.

We added a completely new voice command(s) “redo that” and “redo last” which will undo the undo command.

Reporting – Load Audio when Signing Reports

Using a user preference to enable and disable automatic loading of audio when signing. The user preference is “**Load audio in sign mode**”. This can be accessed in the workflow section of the reporting tab in the user preferences window.

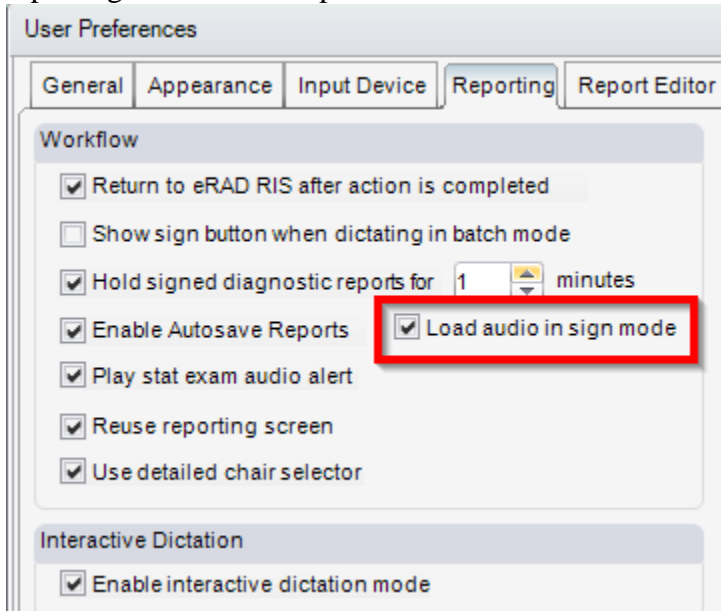


Figure 5.11 – User preference Load audio in sign mode

Reporting – Make STAT Audible Alert Configurable

A new user preference has been added to the Reporting tab / Workflow section titled “**Play stat exam audio alert**”. When selected it will work like it has in the past by informing the user when opening the study in reporting window that it is a STAT exam. When unselected the user will not be presenting with the audible message.

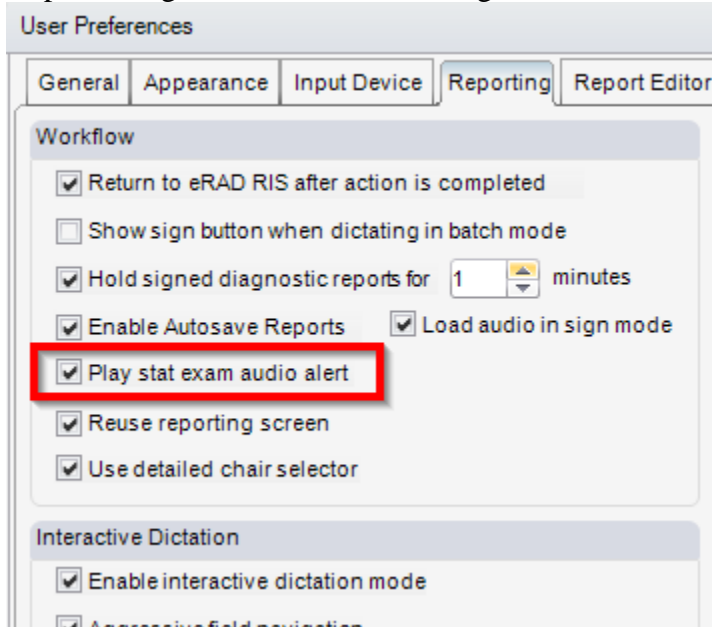


Figure 5.12 – Play stat exam audio alert User Preference

Reporting – Displaying Report Field Tooltips Configurable

Yet another user preference has been added to enable/disable the field tooltips from displaying in the reporting editor. The user preference titled “**Show report field tooltips**” has been added the Report Editor tabs Editor Section.

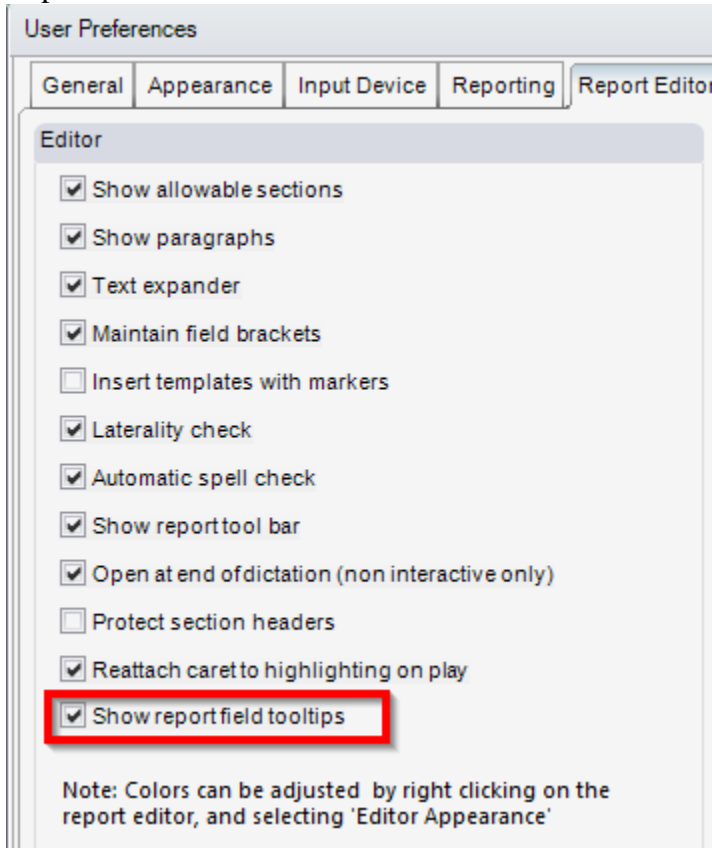


Figure 5.13 – User preference Show report field tooltips

Reporting – Load Dictation Layout in Supervised Radiologist Workflow

In addition to new option in the Sign Report window to load images and patient folder (next feature in this document) we have also added a new user preference that will automatically load the Dictation layout when performing final signature during Supervising Radiologist workflow. The new user preference titled “**Use dictation layout when final signing supervised reports**” will automatically load the users Dictation layout instead of the

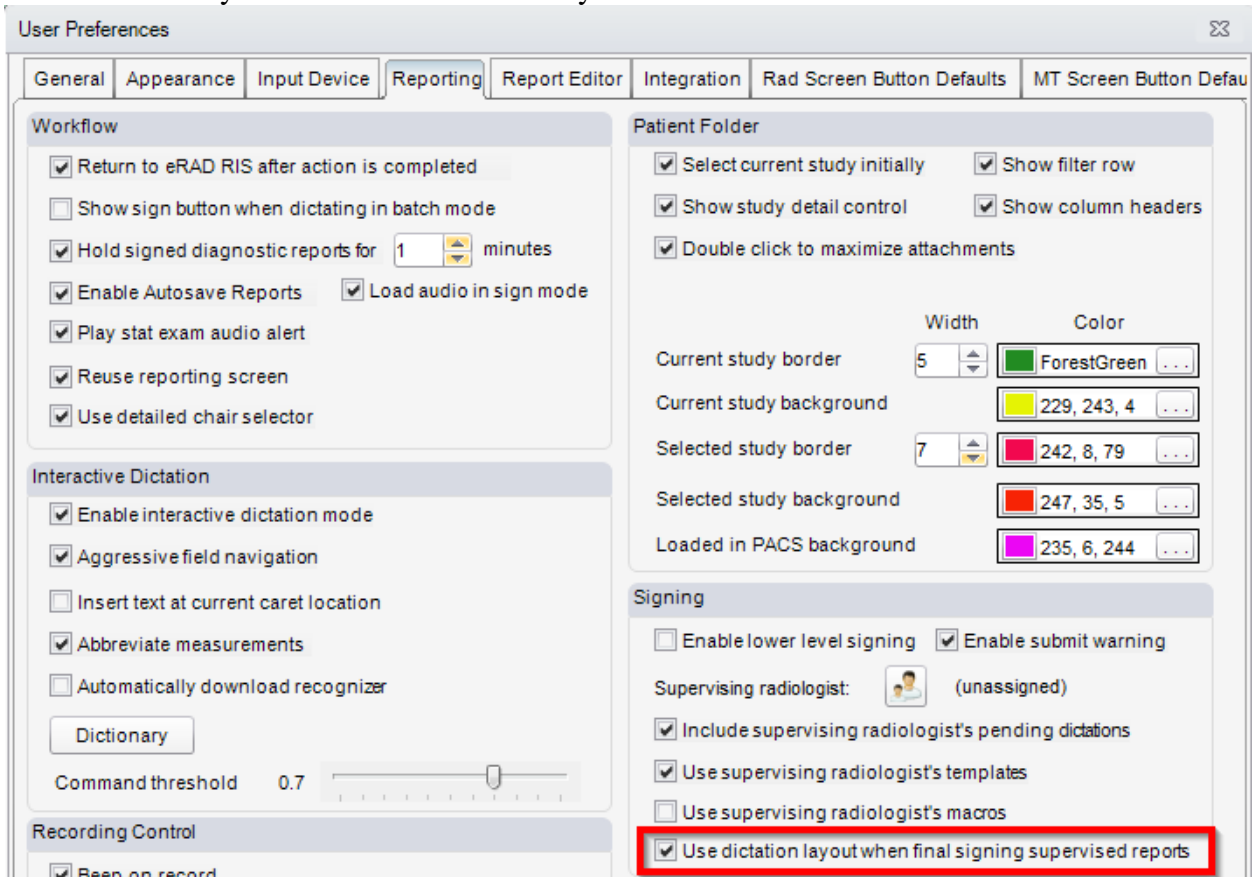


Figure 5.14 – User preference Use dictation layout when final signing supervised reports

Reporting – Open Patient Folder/Images when Signing

Users currently have two main layouts. Either they are signing or dictating. Reason for this is that most signing tasks don't require the full patient folder detail, pacs images or dictation. So the signing layout is typically much smaller or less detailed than the dictation layout.

Users on occasion do want to display the Patient Folder and other detail similar to dictation when signing reports.

We now provide the user ability to load the dictation layout (patient folder) when signing reports. This is a manual click to load the dictating (patient folder) layout.

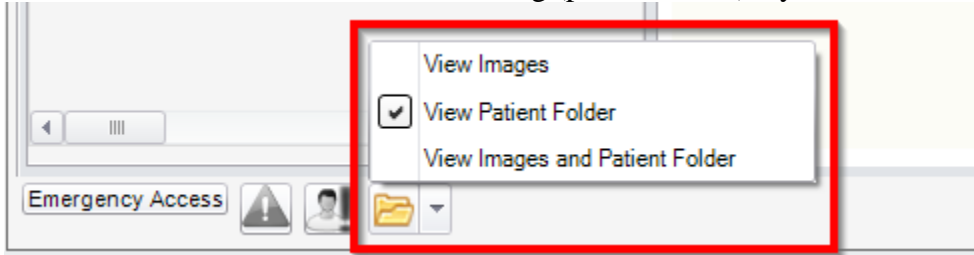


Figure 5.15 – Signing mode layout options

In the example above you can see that the Load Images button has been converted to be a split button with the additional options for “View Patient Folder” and “View Images and Patient Folder” with the “View Patient Folder” currently set as the default. This new dropdown button acts like other dropdown buttons for the reporting screen. Click the arrow to open other options and select option as desired. Holding the CTRL+<option> will render it the default and save in your user preferences.

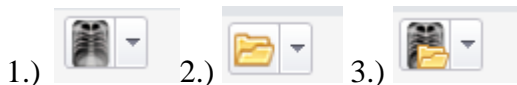


Figure 5.16 – Options available as default

The three images above show the icon when set as default action for 1.) View Images 2.) View Patient Folder 3.) View Images and Patient Folder

When the Sign Report window is reloaded with the next study either from the work list or from the Submit/Sign/Suspend/Skip and Continue option the users Signing Layout will be used. What this means is that it will load the dictation layout when clicking Load Patient Folder but it won't be sticky.

Reporting – Lock Access to Preliminary Reports

Unsigned reports can be previewed, printed and sent to distribution for faxing. To restrict users from distributing preliminary reports we have added a new access string titled

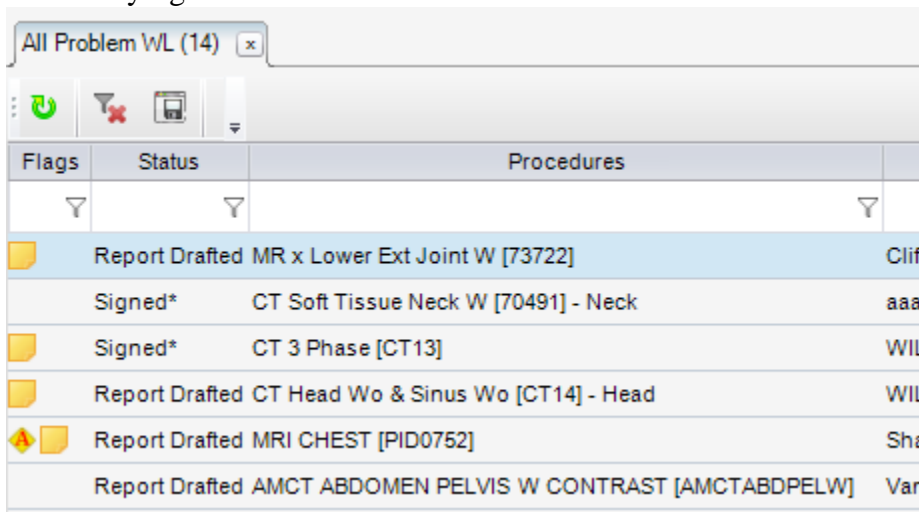
"Clinical.PreviewPreliminaryReport"

If the user does not have this access string set to full, they will not be able to preview, print or fax preliminary reports from context menu within the RIS.

Reporting – Set Problem Flag without Rejecting Report

In previous versions of eRAD RIS users would have to select the Reject/Edit button to enable the Assign to radio buttons. New in build 42 is the ability set the Problem flag without rejecting the report. Along with the Problem radio button, the Transcription list box and Notes fields are also enabled during QA verify report workflow.

Now the All Problem Worklist for MTs will show exams with problem flags set that are in TentativelySigned1 status.



Flags	Status	Procedures	

Figure 5.17 – All Problem WL showing studies in Tentatively Signed status

The Resolve problem window is now accessible in the MTs All Problem Worklist via the context menu. Please note this is dependent on the access string “**Clinical.ResolveRadProblem**”.

RADNET Inc. – eRAD RIS Release Notes

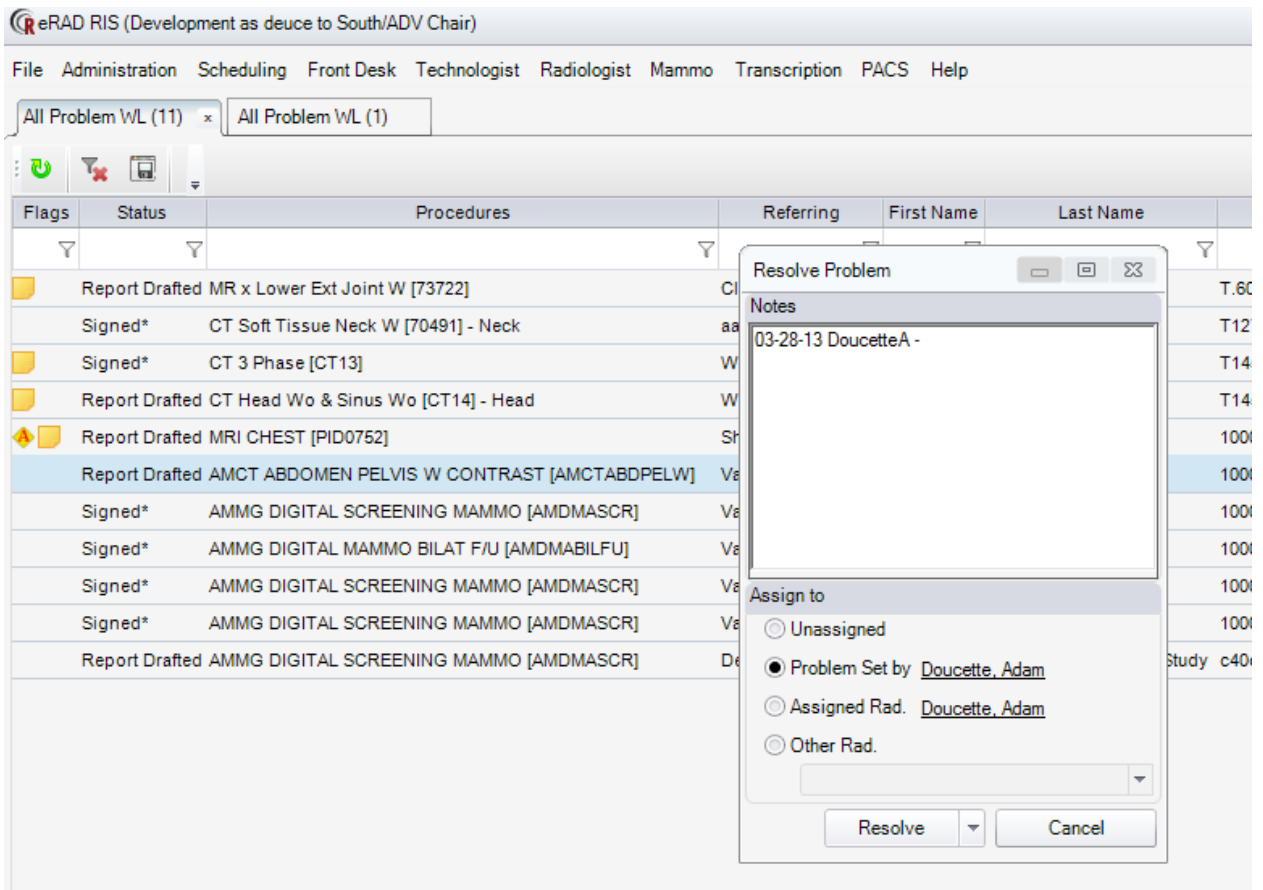


Figure 5.18 – Resolve Problem window accessible from All Problem WL

Reporting – Remove Content Tags from CDA when Creating Macros/Templates

eRAD RIS offers the ability for a user to copy an existing report as a template for future reports. This functionality is inhibited by the fact that the new template they create contains mm:status and mm:part that should be stripped out.

As a result of the mm:status and mm:part still contained in the template, some of the jumping problems we have encountered on play back were related to time stamps being saved in templates and macros at the time of save. To correct this we found we could manually remove the time stamps from the underlying document.

We are now using the convertCdsToCda method to remove the time stamps and unneeded tags.

Reporting – Ability to Configure MModal Transfer Task

The ris.exe.config now has an app setting to override the user preference for M*Modal's Data Transfer Config: **MModalDataTransferValue**

Acceptable values are any sum of the following options:

SUBMIT_TRAINING_INFO: Upload log of user interaction (including recorded audio) to server for profile building. Applicability: only for local recognition; ignored for remote recognition. constant value = **1**

SUBMIT_ERROR_LOGS: Whether to automatically submit an error report for debugging after an uncontrolled shutdown, or when encountering another non fatal error. Applicability: all modes; requires storage manager for crash log uploads (non-fatal error reports can be submitted without). constant value = **2**

STORE_USER_SETTINGS: If set, store user preferences (including audio gain etc) on CDS server, and retrieve on next startup. Applicability: all modes. constant value = **4**

UPDATE_PROFILES: If set, checks at session creation whether an updated user profile is available on the server. If yes it is downloaded in a background thread and used as soon as it becomes available. Until then the recognizer would use either a speaker independent profile, or an older locally cached profile version (only if an IStorageManager is configured). Applicability: local recognition; ignored for remote. constant value = **8**

UPDATE_RECOGNIZER: If set, check in regular intervals whether an updated compatible recognizer version is available on the server. If yes, the recognizer mode is downloaded in a background thread and used when the local recognizer is next instantiated (i.e. not switched out in a running session). Applicability: local recognition; ignored for remote. Requires an IStorageManager, ignored if none is configured. constant value = **16**

WRITE_DEBUG_LOG: Like SUBMIT_TRAINING_INFO, but leaves information in a local IStorageManager for debug purposes instead of (or in addition to) uploading it to a server. Applicability: local recognition; ignored for remote recognition constant value = **32**

If the value is not present or invalid, we resort to existing logic. This would be to check the user config for auto download, if present use 29 else 13

13 = SUBMIT_TRAINING_INFO, STORE_USER_SETTINGS, UPDATE_PROFILES
29 = SUBMIT_TRAINING_INFO, STORE_USER_SETTINGS, UPDATE_PROFILES,
UPDATE_RECOGNIZER

0 (zero) is a valid option. Zero will disable the calls.

Reporting – Make Patient Name Stand Out in Reporting Windows

The reporting windows now have additional optional patient and study information that can be displayed on the top of the main reporting window and also can display on the top of any floating data panes. If a multiple floating panes are grouped together, it will only appear on the title bar of the floating group.

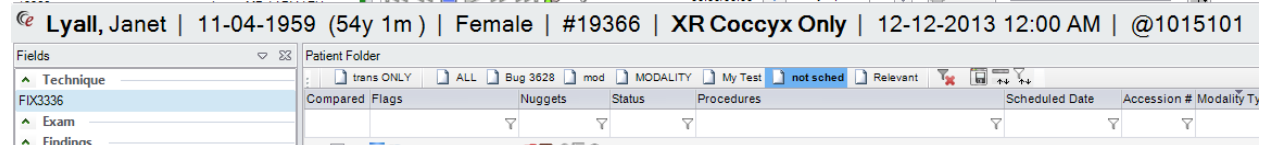


Figure 5.19 – Patient and Study information in title bar

Looking at the figure above I have the font size set to 16. The font size options are from 8-20. The context menu displayed above is accessed via a right click on the title bar. Under the Window Caption option the sub menu allows for font size change and option to display the Patient Information, Study information, both or neither.

Patient Information includes the patients name, DOB/age, gender, and MRN.

Study information includes the procedure, performed start date/time and the accession number

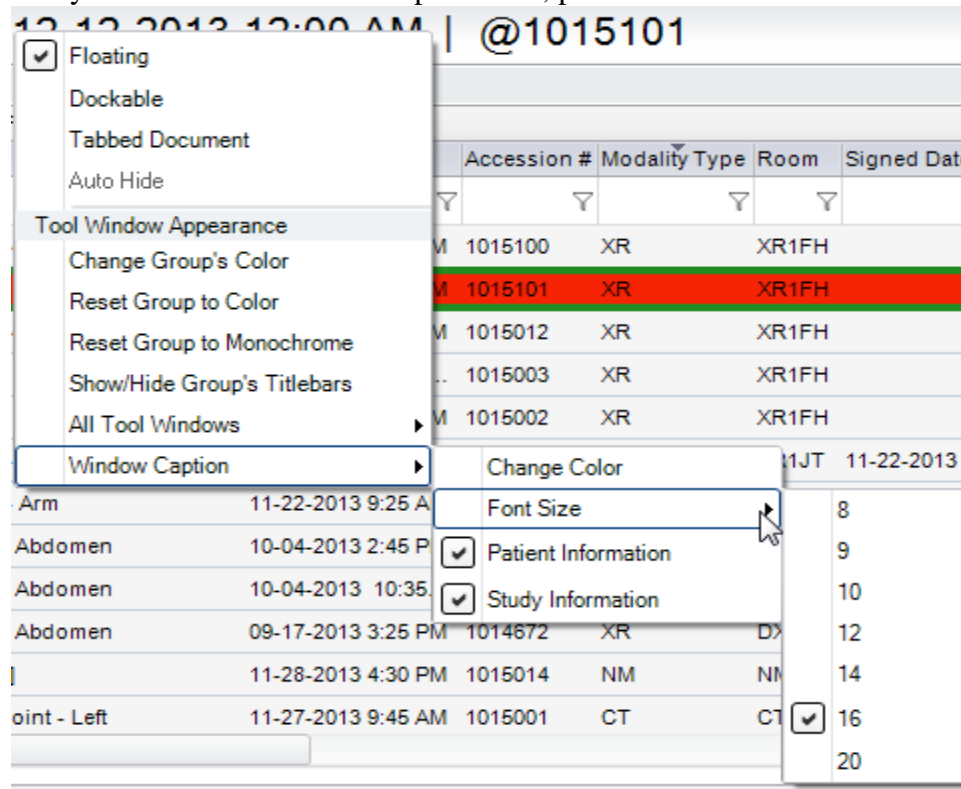


Figure 5.20 – Context menu from title bar showing Window Caption options

Reporting – Create Backup of Capture Log

We now back up old capture logs.

On startup of Interactive, we check for existing capturelog file in \$APP_PATH\captureLog.txt

If exists, we copy a backup to \$APP_PATH\Reporting\CaptureLogs\%USER%\captureLog-yyyy-MM-dd HH.mm.ss.log where yyyy-MM-dd HH.mm.ss is the LAST WRITTEN time on the current existing file.

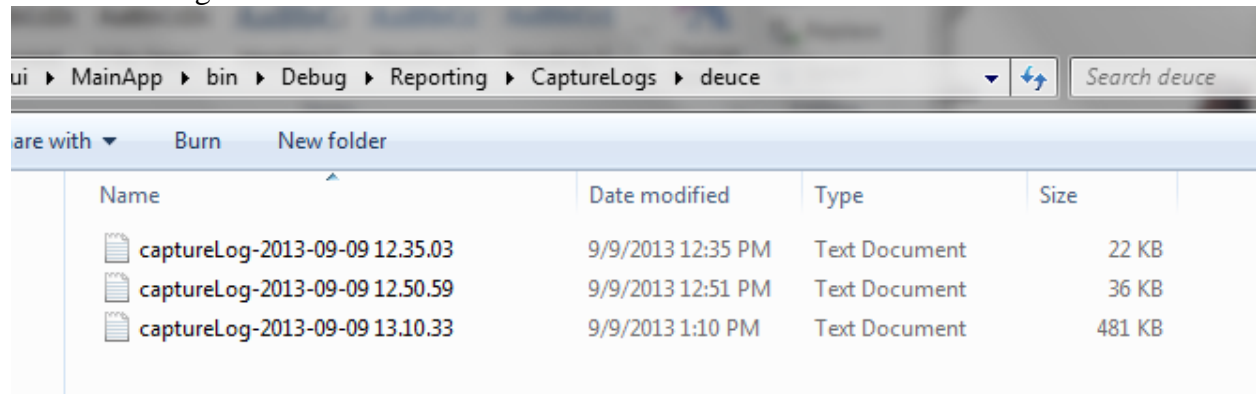


Figure 5.21 – Showing CaptureLogs backup path

Then we start up the new capture log which overwrites the old file location, as we always did.

So the current active capture log file name and location is unchanged. This will make for easy transition for support. Only the backed up logs are in a new location and file name.

Similar to the verbose logs, we check for outdated capture logs on login and delete ones that are older than two weeks and have not been accessed within the last day.

Relevancy Calculation Adjustable via Configuration

In production we have procedure codes that because of legacy data have very different names even on different modality types, but those procedures are actually exactly the same and should match exactly when assigned a relevancy score. Previous to B42 this was not possible because the relevance calculation was based entirely on word matching. A score was assigned based on the number of matching words and words that are modality type, body part or laterality are given great weight in the matching. Furthermore the administrator can setup the site so that only studies done on the same modality are considered relevant.

A new window titled Relevance Override has been added and is accessed from the “Override...” button on the Relevance lookup table.

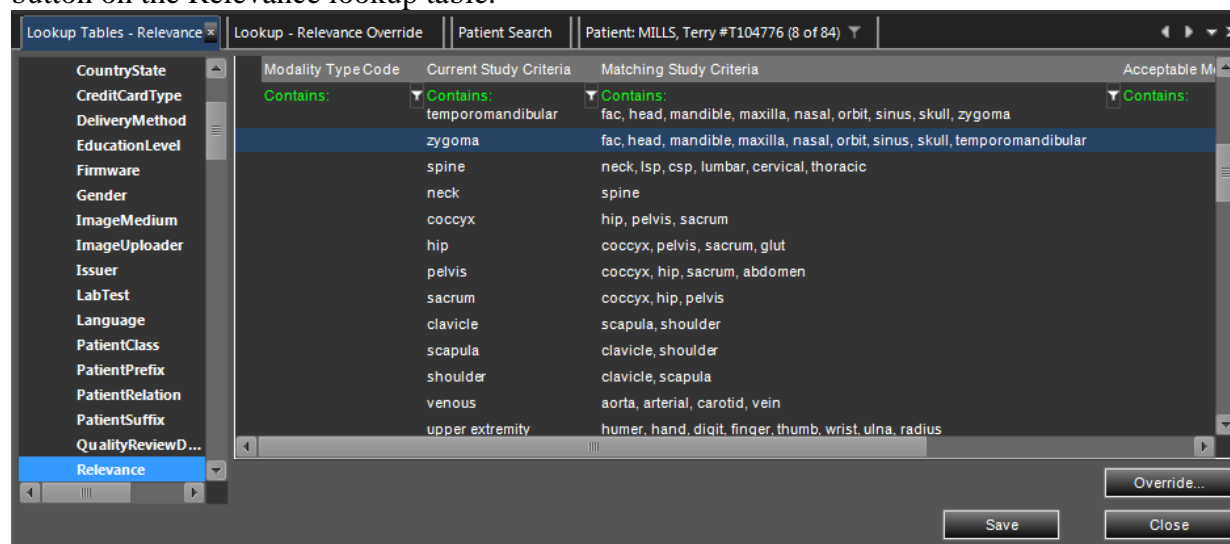


Figure 5.22 – Accessing the Relevancy Override window

When procedures in the patient’s history have a matching relevancy override the configuration defines how much weight will be assigned as part of the procedure matching score (value between 0 and 100) and if the outcome will produce a Matching or Non-Matching Relevance Flag.

This solution also allows laterality to be an option part of the matching criteria. If the laterality is blank then it isn’t considered as part of the matching criteria; however, if laterality is selected as “Same” then the rule only applies if the laterality of both procedures is identical. If the laterality is selected as “Different” then the rule only applies when the laterality differs and can be used to lower the score or make it Not Relevant, which could be useful when you want to give a high score when the laterality matches but a significantly lower score when the laterality is different.

Procedure Code X	Procedure Code Y	Laterality	Adjusted Score	Override Relevancy	Last Updated
76645MA1 US zBREAST & MA DIGITAL MAMMO CB DIAG BI	G0206CB/US MA DIGITAL MAMMO CB DIAG UNI & US BREAST		100	Relevant	08-19-2013 2:52 PM
sample1 XR Chest 2 Views PA and Lateral	sample2 AMDX CHEST 2 VIEWS		100	Relevant	08-19-2013 2:52 PM
71275 CTA Chest W/Wo	71270 CT Chest W/Wo		100	Relevant	08-19-2013 2:52 PM
71275 CTA Chest W/Wo	71250 CT Chest Wo		90	Relevant	08-19-2013 2:52 PM
71275 CTA Chest W/Wo	71260 CT Chest W		90	Relevant	08-19-2013 2:52 PM
71275 CTA Chest W/Wo	CT1 CT Chest Wo & Abdomen Wo		90	Relevant	08-19-2013 2:52 PM
MA511 MA Digital Needle Loc 3 Sites Unilateral W Clip	MA510 MA Digital Needle Loc 2 Sites Unilateral W Clip		0	NotRelevant	08-19-2013 2:52 PM

Figure 5.23 – Relevance Override

When the user clicks on the “Override...” button a tab opens up for the “Relevance Override” table, which allows you to specify two procedures (X and Y). When calculating relevancy if the studies match based on X and Y then the adjusted score will be applied and the relevancy flag will be set based on the selected value in the “Override Relevancy” column.

Note: The “Adjusted Score” and “Override Relevancy” columns are optional. If the “Adjusted Score” is blank then the score will remain as it was calculated without the override but the relevancy flag override would apply. Also, if the “Override Relevancy” column is blank only the score will be adjusted.

In the above Relevance Override configuration the procedures 76645MA1 and G0206CB/US are interesting. One is a US Breast & MA MAMMO CB and the other is a MA Mammo CB and US Breast. The default word matching produces a relevance score that is very close but not exact therefore some installations of RIS will want to correct for this. The following screen shots shows the relevancy results for a test patient’s history – the first screen is with the override rule inactive and in the second screen shot the rule has been activated.

Relevance	Relev...	Flags	Nuggets	Status	Procedures	Scheduled Date
Y	100			Signed	MA DIGITAL MAMMO CB DIAG UNI & US BREAST [G0206CB/US] - Breast - Left	12-13-2012 2:52 PM
Y	72			Signed	MA DIGITAL MAMMO CB DIAG UNI & US BREAST [G0206CB/US]	07-19-2011 10:15 AM
Y	65			Signed	MA Digital Mammo Diag Uni [G0206] - Breast	11-16-2012 8:43 AM
Y	64			Signed	MA DIGITAL MAMMO SCREEN BIL [G0202] - Breast	08-19-2012 1:37 PM
Y	64			Signed	MA DIGITAL MAMMO SCREEN BIL [G0202] - Breast	08-18-2012 12:54 PM
Y	64			Signed	MA DIGITAL MAMMO SCREEN BIL [G0202] - Breast	08-18-2012 12:54 PM
Y	64			Signed	MA DIGITAL MAMMO SCREEN BIL [G0202] - Breast	08-17-2012 1:36 PM
N	68			Signed	US zBREAST & MA DIGITAL MAMMO CB DIAG BI [76645MA1] - Breast - Bilateral	08-18-2012 9:05 AM

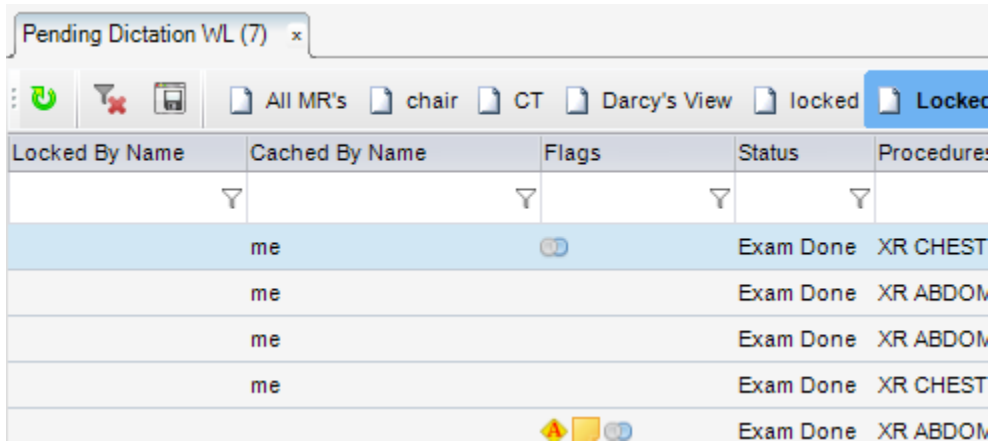
Relevance	Relev...	Flags	Nuggets	Status	Procedures	Scheduled Date
Y	100			Signed	MA DIGITAL MAMMO CB DIAG UNI & US BREAST [G0206CB/US] - Breast - Left	12-13-2012 2:52 PM
Y	99			Signed	US zBREAST & MA DIGITAL MAMMO CB DIAG BI [76645MA1] - Breast - Bilateral	08-18-2012 9:05 AM
Y	72			Signed	MA DIGITAL MAMMO CB DIAG UNI & US BREAST [G0206CB/US]	07-19-2011 10:15 AM
Y	65			Signed	MA Digital Mammo Diag Uni [G0206] - Breast	11-16-2012 8:43 AM

Figure(s) 5.24 – Before and After Override applied

Note: that in the first screen shot without the Relevance Override, the 76645MA1 doesn't even show up as relevant because in the base relevancy rules there is a rule that says only MA modality type studies are relevant to MA studies. In the second screen shot the rule for 76645MA1 and G0206CB/US says the procedure matching will get a score of 100% but since the procedure matching only accounts for half of the total score (the other half is used to sort by date), therefore we see the score increase from 68 to 72 and 76645MA1 actually gets placed before the older G0206CB/US study because it's a recent prior.

Reporting – Cached by Name Column

Cached By Name column has been added to the Pending Dictation Worklist. It shows the formatted name of the user who is caching the study. The logic behind which studies are cached follows the same criteria as the ‘Next’ logic of the Dictation window. That means it starts at the top of the sorted worklist. This is re-evaluated every time the worklist is refreshed. If you are the one that is marked for caching the study it will simply have “me” as the Cached by Name value.



Locked By Name	Cached By Name	Flags	Status	Procedure
	me		Exam Done	XR CHEST
	me		Exam Done	XR ABDOM
	me		Exam Done	XR ABDOM
	me		Exam Done	XR CHEST
			Exam Done	XR ABDOM

Figure 5.25 – Cached by name column on Pending Dictation work list.

Right-clicking on a study on the pending dictation worklist and selecting Add To Cache will cause that study to be cached regardless of its position in the worklist. This uses up one of the available cache slots as dictated by the Max Number to Cache user preference. Multi-selecting studies will cache studies up to this max number. Manually cached studies will be un-cached when either a different study (or set of studies) is selected to be manually cached or when they drop off the worklist due to a worklist sorting change or a change in the status of the study.

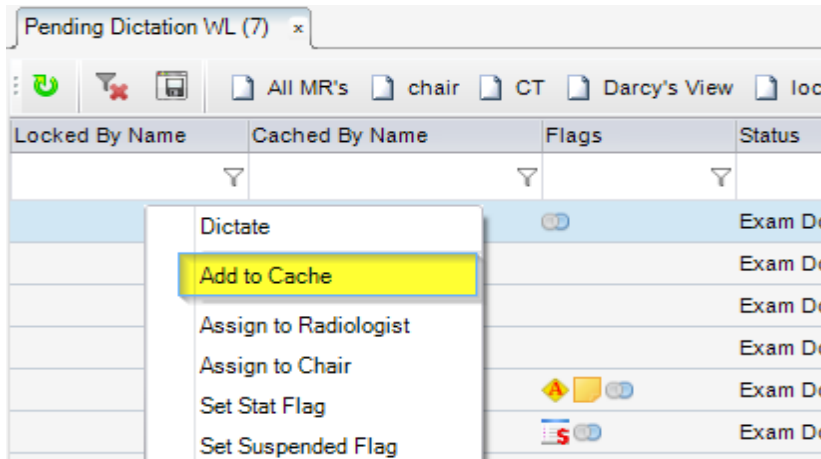


Figure 5.25a – Add to Cache context menu option from Pending Dictation WL

IW PACS “Caching” was attempted by actually opening the study. This has issues where studies that are “caching” sometimes pop up over top of images actually in use. This is probably suitable to be tested by a radiologist with warning they should be cautious and ensure that the images they are sync’d with the study they are reading.

Reporting – PACS Server Override

It has been requested that radiologists be able to access images on eRAD PACS and PACS IW from the same work list without changing the practice selected in the Org picker. This is now possible with the selection of a new user preference.

On the Integration tab there is a new option titled PACS Server and associated list box. This list box will contain the available PACS systems configured in the PACSServer lookup table that are in Active status. An access string named “**Clinical.UserPreferences.PACSServerOverride**” has been added for this preference with a default value of Disabled.

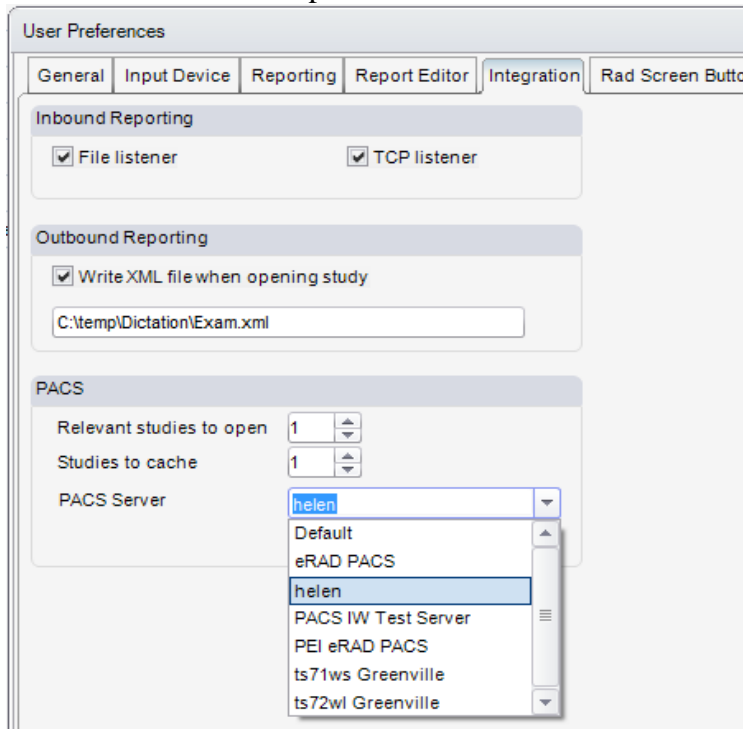


Figure 5.26 – PACS Server user preference

One of the PACS Server options is Default. If this is selected, the default PACS Server associated with your current practice selected in the Org picker will be used (same as before). If a specific server is selected, this will be the PACS that the images are displayed. For instance, if patient A has images on eRAD PACS and also PACS IW Test Server, when that server is selected the call for PACS will be made to that server and not the default for the practice.

NOTE: If the PACS Server user preference selection is changed, the user will need to log out and back in again to pick up the changes. The user may encounter an error if they don't logout after changing the user preference.

Reporting – Noticeable Sign Button in Reporting Windows

To make the Sign button in the reporting windows easier to identify a new user preference was added add color to the background of the button and the option to change the font color. The “**Visually enhance sign button**” user preference is located on the Appearance tab under the Radiologist Reporting Buttons section.

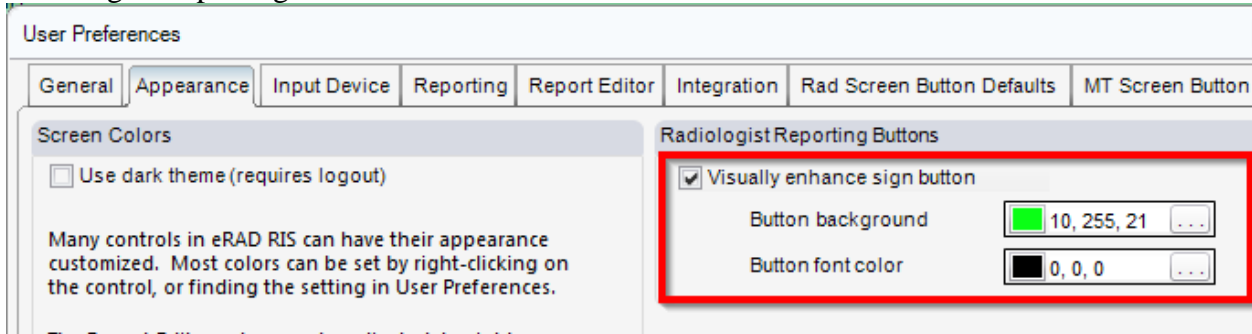


Figure 5.27a – New user preference Visually enhance sign button

With the preference selected and the above colors set the Sign button will look this in the reporting widow.

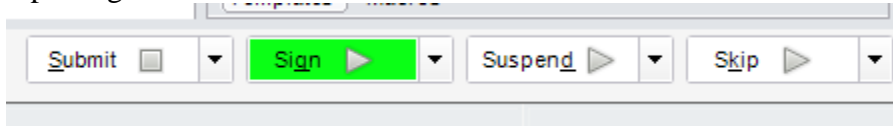


Figure 5.27b – Noticeable Sign Button in Reporting window

Reporting – Chair Workflow Enhancements

You will first notice the Chair workflow enhancements upon login of eRAD RIS in build 42. Users can be presented with the new chair selector.

Chair	Primary Occupant	Directly Assigned	Guests	Exam Units						RVUs					
				To Be Read		Read		Total		To Be Read		Read		Total	
				Left Over	Today	Left Over	Today	Left Over	Today	Left Over	Today	Left Over	Today	Left Over	Today
East	Anchikoski, Randy, Radiologist, janet_r	0	0	0	1	7	0	7	1	0.00	1.00	15.00	0.00	15.00	1.00
West	Martin, Jesse Lee	1	1	0	0	3	0	3	0	0.00	0.00	7.00	0.00	7.00	0.00

Figure 5.27 – New Chair selector

The original chair selector provided a simple drop down list of chairs and an OK and Cancel button. We have augmented this screen to show which radiologists are currently assigned to each chair, and we now describe the amount of work assigned to the chair for today and previous days. The old chair selector is still available and the user can choose “the old” or “the new” chair selector with a new User Preference “**Use detailed chair selector**”. This is found under Reporting>Workflow.

The radiologist can select a chair either by clicking the blue hyperlink for the chair, or they can use a dropdown list if they prefer to make a selection with the keyboard. Once the radiologist selects a chair, the chair selector will disappear, and a chair filter will be applied to the My Pending Dictation WL.

The calendar control in the top left of the chair selector is used to determine the effective date for the statistics shown for each chair e.g. the stats for each chair break down the number of exams into “Today” and “Left Over”. The calendar control defaults to “Today” when the chair selector is initially opened, so the “Today” column represents exams that were assigned to the chair today, while the “Left Over” column covers exams that were assigned in the previous 7 days. If the radiologist changes the date to reflect “Yesterday”, the numbers in the “Today” column will instead reflect the exams assigned “Yesterday”, while the “Left Over” column will again reflect the 7 days prior to “Yesterday”. The calendar control also affects the numbers shown in the “Directly Assigned” column, we calculate the total number of exams assigned to the primary occupants of the chair based on the specified “chair assigned date.”

For practices with a large number of chairs, we may find that there are too many choices to fit onto a single page. The tool strip has “next page / previous page” style controls that will allow the user to browse all of the chairs if desired. The “Find” control on the same tool strip can also be used to help jump to other pages.

Primary Chair vs “View Other Chairs”

The chair selector serves the dual purpose of allowing the radiologist to set their Primary Chair that they will be working for the day, while still allowing them to browse the worklist for other chairs. When the radiologist first logs in, they will be presented with the chair selector with the title “Primary Chair Selection”

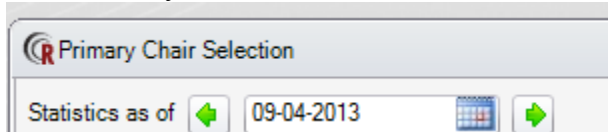


Figure 5.28 – Primary Chair Selection window

The primary chair selection will be used to ensure a particular chair is credited for the work done by the radiologist. We will assign an exam to the radiologist’s primary chair once it is dictated or signed, provided it has not already been set.

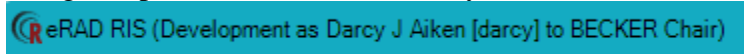


Figure 5.29 – Primary chair displayed in the title bar

After the radiologist selects a primary chair, they can bring up the chair selector by pressing the chair icon on the status bar at the bottom of RIS. The chair selector now has the title “View Other Chairs” and will be used for filtering worklists only, credit will not be assigned to this chair when the radiologist is dictating or signing exams.

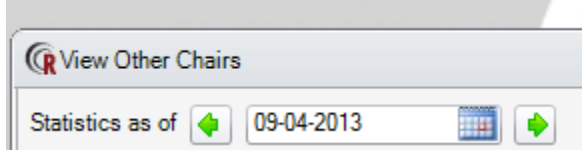


Figure 5.30 – View other chair selector

The figure below indicates that the “South” chair is occupied by Janet i.e. Janet’s Primary Chair is “South” and that “Darcy” is currently filtering his worklist for the “South” chair via the “View Other Chairs” selection. In this case the 2 “Directly Assigned” refers only to the occupant of the chair (i.e. Janet).

Chair: South Occupant: Arsenault, Janet Guests: Aiken, Darcy J	Directly Assigned 2
---	-------------------------------

Figure 5.31 – Occupants and Guests displayed in chair selector

If a user tries to choose a chair that is already occupied by another user, they are presented with a prompt to confirm their choice:

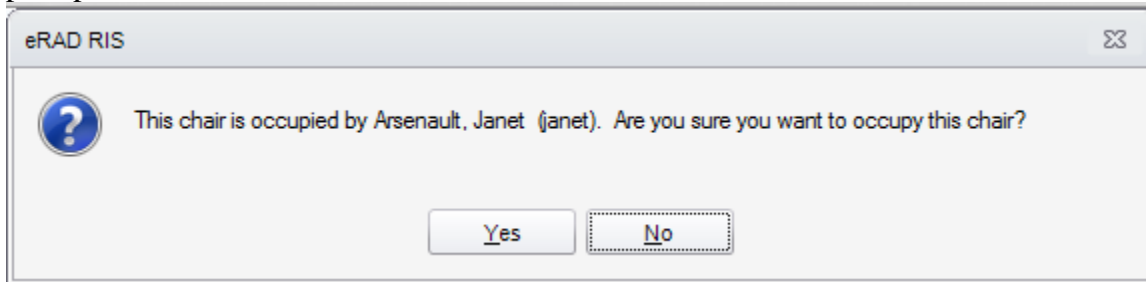


Figure 5.32 – Prompt to confirm when the user selects a chair that is occupied by another user

Previously the RIS back end services were agnostic of the user’s Primary Chair selection, this was a detail managed solely by the client. We were required to save the user’s choices to the database in order to be able to show occupants and guests on the new chair selector. We clear out these choices when the user logs out. In the event of an abnormal application termination (e.g. a power outage or crash), we do not have the opportunity to clear out the chairs. In this case, the chair occupants will remain in their chairs until they log back in and make a new selection, or their chair selection expires. RIS is presently set to occupy a chair for 2 hours or until the user logs out or makes a different selection, these 2 hour chair selections are renewed every hour.

Descriptive Statistics for Chairs

Chair: Becker					Directly Assigned	
Occupant: Powell, Stick Gordon MD; Harding, Clifton L; Waite, Andrew R Jr; Doucette, Adam; Aiken, Darcy J					1	
Guests:						
	To Be Read		Read		Total	
	Left Over	Today	Left Over	Today	Left Over	Today
#	0	0	1	0	1	0
RVU	0.0	0.0	1.0	0.0	1.0	0.0

Figure 5.33 – Close-up of the statistics for a single chair

The following logic was used to calculate the numbers in the chart above:

Label	Definition
Directly Assigned	The total number of exams assigned to all primary occupants of the chair with a chair assigned date that matches the selection in the calendar control on the chair selector
To Be Read	Exams with a status of ExamDone or Signed with an addendum

	requested
Read	Exams with a status of Dictated, Transcribed, Report Drafted, Tentatively Signed, or Signed (excluding Signed Exams with an addendum requested)
Today	Exams with a chair assigned date that matches the selection in the calendar control on the chair selector
Left Over	Exams with a chair assigned date that is within the 7 days prior to the selection in the calendar control on the chair selector
#	The number of exams
RVU	The sum of the weighted value for the exams. These weighted values can be configured by procedure code and practice, the configuration for these weights is discussed later in this document.

Table 5.1 – Detailed explanation on stats in chair selector

Chair Selection Management Report

The tables shown in the chair selector thus far have all been built within a management report. There is a new system configuration setting called “**ChairSelectionReport**”. RIS will fall back to the previous chair selector if this entry is blank. A valid entry for this setting will describe the path to a management report on the report server (e.g. /dev/Management Reports/Custom/ChairSelection). The use of a configuration setting will help with the introduction of different versions of Chair Selection Reports – if the new version has issues, the configuration setting can be set to point back to another version of the report.

The hyperlinks in the chair selection report must be crafted in a particular way in order to be handled by RIS. This approach will initially be managed and refined by eRAD R&D and documented later for use in the field.

Work Unit Configuration (aka RVUs or weights)

Procedures can now be assigned a relative weight to make it easier to ensure radiologists are given the appropriate credit for their work. Some procedures are significantly more involved than others, (e.g. Chest X-Ray vs PET/CT) so comparing just the number of exams is not meaningful. Access to see the RVUs option in the chair selector is configurable based on the new access string “**Clinical.ShowRVUs**”

There is now a new configuration option under Administration -> Configure -> Procedure -> WorkUnit that allows an administrator to assign weights to different procedures.

Procedure	Practice	Work Units	Display Order	Effective Date	Dollar Value	Last Updated	Active
Contains:	Contains:	Equals:	Equals:	Equals:	Equals:	Equals:	Contains:
Click here to add a new row							
CT 3 Phase (CT13)	Advanced Radiology	2.000	1	07-01-2013		08-26-2013 2:08 PM	Y
CT 3 Phase (CT13)	Advanced Radiology	1.100	1			08-26-2013 1:16 PM	Y
CT 3 Phase (CT13)	Advanced Radiology	3.000	1	08-01-2013		08-26-2013 1:13 PM	Y

Figure 5.34 – WorkUnit configuration lookup from Administration -> Configure

Work units are designed to allow different practices to assign their own weights to the same procedure. Rather than require the administrators to map out rules for each procedure and practice, we have a default weight of 1.00 that will be used for any procedure that does not have a weight configured (for a given practice).

Because weights may be subjective, we have built in a date based versioning scheme. If an administrator decides that a Chest X-Ray should have a weight of 0.10 units, they can set the effective date to July 1, 2013 to make the new weight apply to all studies with a date of service greater than July 1, 2013. In the event that their opinion changes as to the relative weight of a Chest X-Ray, they have the option of changing the 0.10 to another value (e.g. 0.20) either by modifying the existing row, or creating a new row with a different effective date. If the new effective date is August 1st, 2013, it will apply only to exams performed after August 1st, while those performed in July will still use the original weight of 0.10. Modifying an existing weight and leaving the previous “effective date” intact will retroactively assign the new weight to exams performed after the effective date.

It is important to note that the default of 1.00 will apply to any exam performed before the earliest effective date for a given procedure and practice. If there is no rule for Chest X-Rays with an effective date earlier than July 1, 2013, then any Chest X-Rays performed in June would be the default 1.00 units. There is also a Dollar Value column that behaves the same as the weights themselves, but this may be removed if it does not add value.

Chair Assigned Date

There is now a new attribute that is set when assigning an exam to a chair: chair assigned date. Whenever a user in the RIS client assigns an exam to a chair, we now set the chair assigned date to the current date and time. Although the “chair assigned date” has not been added to any worklists, the chair assigned date is factored into the statistics on the chair selector’s statistics - “Left Over” vs “Today” is determined using the chair assigned date.

Administration - Display Locked Items in Different Color on the Work List

This requirement was almost achievable without code by using the existing “Conditional Formatting” telerik feature, except for one limitation. The user could have created a conditional format filter with a ‘Contains’ condition looking for their userID. However, this means the filter would have to be created by each radiologist independently and could not be shared since it is unique to each person’s userid. Also, the conditional formatting tool is not a simple and intuitive feature for a novice user, therefore the effort of creating and maintaining these features would have fallen to implementation people to create and maintain for each radiologist. We deemed this too much work, and a feature could be built to support it instead.

The column/cell that will be colored is the locked_by_name column and the cached_by_name column.. Therefore, implicitly this column must be in the worklist you wish to add this feature to.

The user will be able to select the foreground and background colors simply and easily. The user will be able to select either “Colour my rows” or “color other people rows” or both. The system will have default colors that will be compatible with both light and dark mode. The color filters will be part of the worklist views feature; therefore saving a worklist view implicitly saves the color filters.

To implement this, a new control was added to the right-click menu on the worklist.

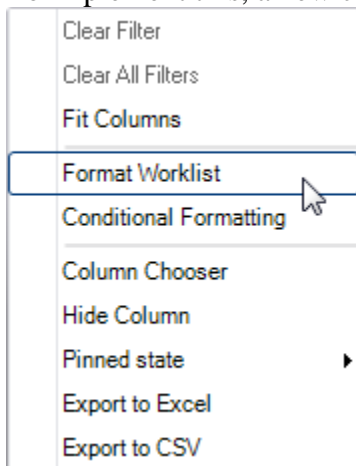


Figure 5.35 – Context menu option to create colored columns for Locked By and Cached By

Selecting Format Worklist from the context menu as displayed above will open the Formal Worklist window.

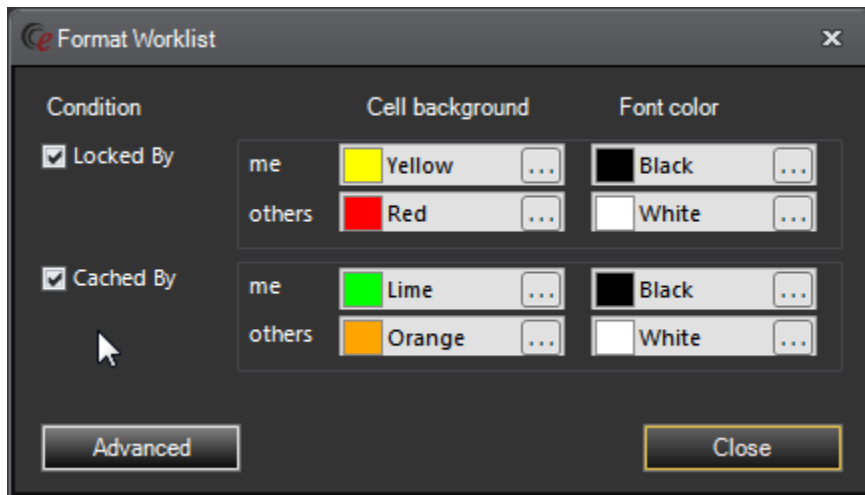


Figure 5.36 – Format Worklist window

This screen allows the user to configure their color filters.

The 'Advanced' button is provided as another way to access the Telerik Conditional Formatting feature. The Close button implicitly stores and invokes the color filters.

NOTE: Once color filters are set, they must be saved into a worklist view if the user would like to keep the selection.

As well, it was mentioned that the user might like a filter condition which would show them only the worklist rows that they currently have locked.

While the user could just create a typical worklist filter condition, it was slightly complicated by the fact that the expected filter condition (ie, starts with 'me') would not work. In fact, it would have to be written as (contains me). To simplify this for the user, a new filter context menu option was added.

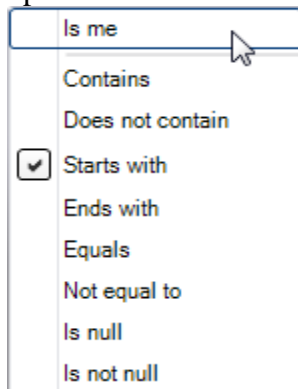



Figure 5.37 – Filter option added

Attachments - “Show Me Everything” Option

The attachment types dropdown can be configured to display only those attachments they want to see appear in the Attachments data pane or data nugget. We have added an option to enable the users to have access to the remaining attachments that may be associated with the patient.

Two new options will appear in the attachment types dropdown

- + Show More
- Show Less

By default the attachment data nugget opens with only the scan document types the user wants to see, which is configurable via the '  button'. By choosing "+ Show More" the attachment data nugget will reopen and display all attachment types regardless of user preference.

These options will not display if there are no additional attachments.

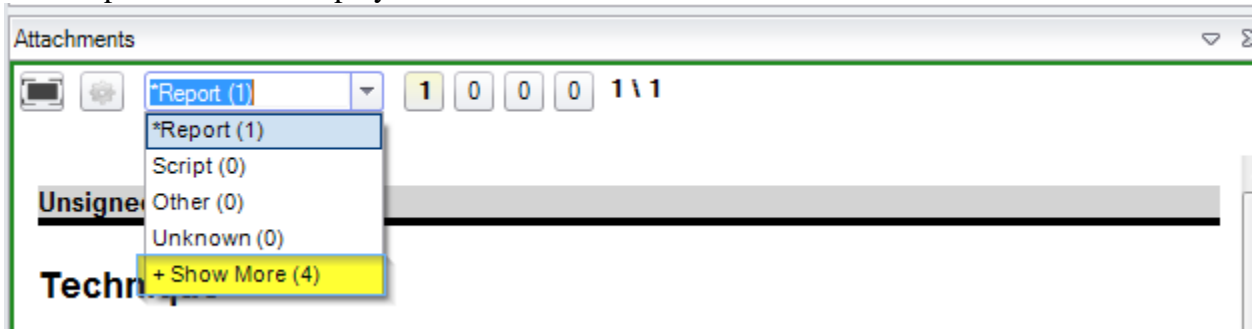


Figure 5.38 – Show more attachments

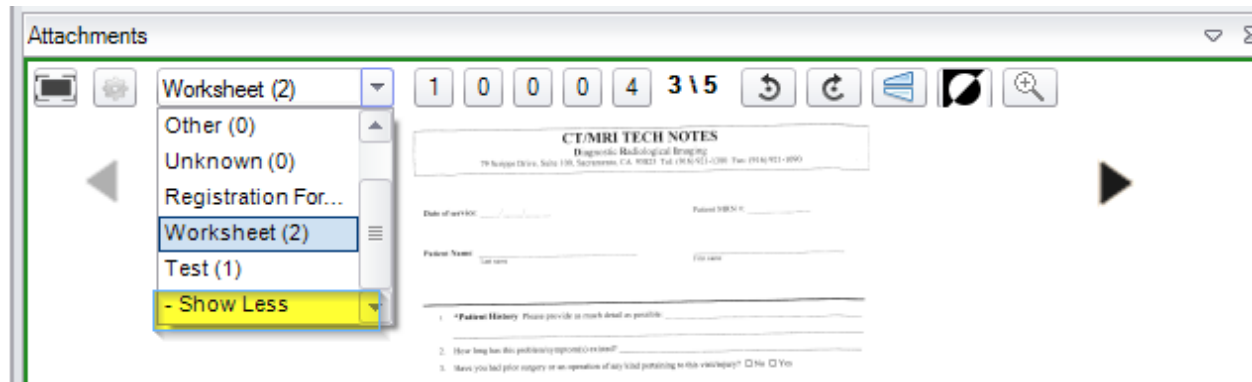


Figure 5.39 – Show less attachment options

Attachments - Ability to Add Attachments from Worklist Context Menu

The ability to add attachments from wordlist’s context menus has been added in build 42. Wordlist’s that allow for “Edit Patient” will now have the context menu option of “Attachments”

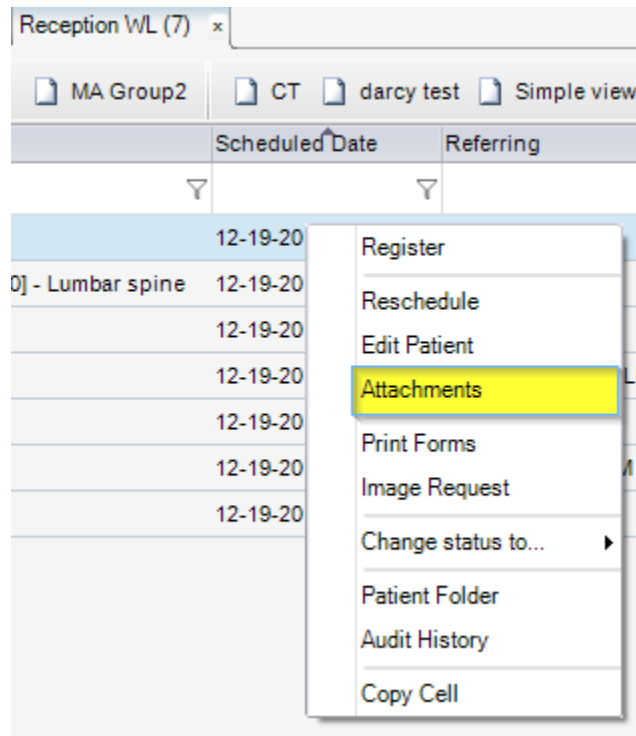


Figure 5.40 – Attachments context menu option

Also added were study details above the attachment list so we know exactly what the current study is.

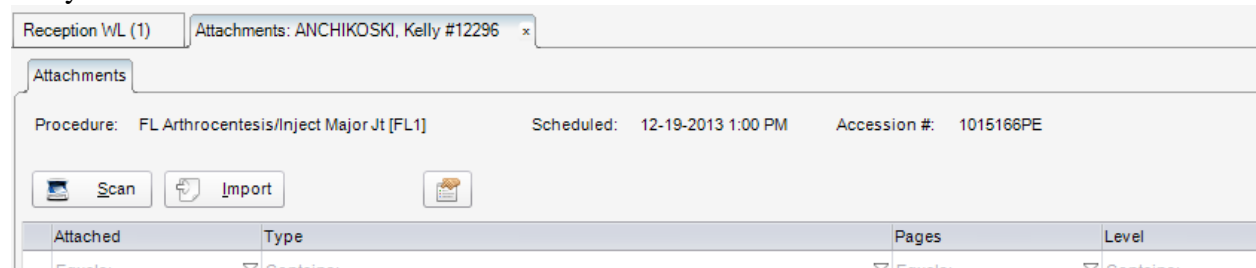


Figure 5.41 – New Attachments window opened from context menu on work list

IVT - Next Follow up Date

Both IVT and Schedulers rely upon the contact log to show the follow-up activity (e.g. phone calls, letters, etc) for a particular patient/exam. The worklist for IVT and scheduling were modified to show the last follow-up type and the date of the last follow-up, but short of opening up the IVT screen or Scheduling screen to read notes, it can be difficult to know which patient/exam to “work” next. Ideally the schedulers and IVT team would have a means to record the “Next Follow Up Date” and/or “Next Follow Up Type” and have it show on the worklist for sorting/filtering purposes in order to reduce the need to open each row on the worklist.

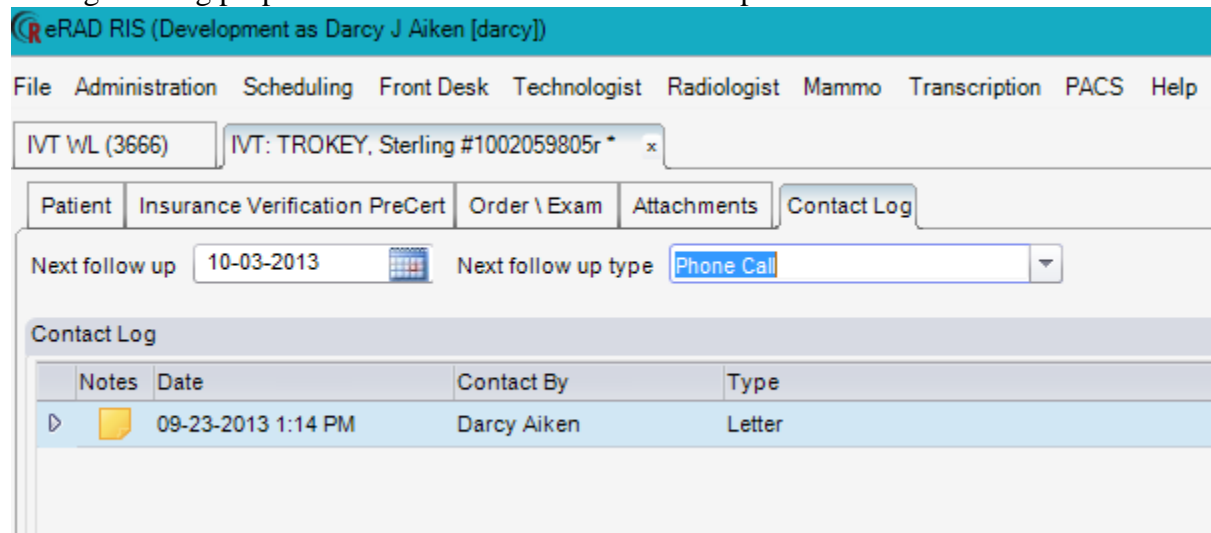


Figure 5.42 – Contact Log on IVT window now includes a Next Follow Up Date

In the above example the “Next Follow Up Date” is stored in a database field specific to IVT.

MRN	Site	Practice	Patient Type	Last Contact	Last Contact Type	Next Follow Up	Next Follow Up Type
	▽	▽	▽	▽	▽	▽	▽
11504608	EL	ADV	Outpatient	05-13-2013 10:57 AM	PhoneCall	09-27-2013	PhoneCall
1000845835r	LU	ADV	Unknown				
1001338084r	FH	ADV	Unknown				

Figure 5.43 – IVT Worklist now includes Next Follow Up / Next Follow Up Type that can be sorted/filtered

The figures above are for IVT, but the Contact Log tab is the same in the Schedule Order window and columns on the Orders To Schedule work list also includes the Next Follow Up and Next Follow Up Type.

The values for the “Next follow up type drop down list are taken from the FollowUpType lookup table under Administration -> Configure -> Mammography -> FollowUpType.

Support Non Order Level Locking

Previous to build 42, RIS used Order Level application locks to reduce the risk of multiple users editing the same data at one time. If one user opens a particular exam, RIS will prevent other users from opening that exam (or any other exam that belongs to the same Order). This causes problems for our users by requiring the user to wait for the lock holder to close out before they can make their changes.

To refine the locking strategy such that we lock single studies instead of the entire order, (where appropriate) taking into consideration the action the user is attempting (e.g. Perform Exam). i.e. Two techs should not be allowed to perform an exam at the same time, but perhaps we should allow a Tech and a Rad to simultaneously have the same exam open. On the other hand, a Radiologist and a Transcriptionist should not be allowed to open the same exam at one time.

In build 42, this has become a reality. Changes to the lock tag generation will allow users to simultaneously make changes to the same study based on the following:

One of the keys to managing locks is that we generate a tag based on what we intend to lock, and if another user requests the same lock tag, we will return a lock failure message. As of build 41, we were generating these lock tags in the form of 123Order where 123 uniquely identifies the order that is locked.

The new approach is to build a 3 part lock: the identifier for the Order or Study being locked (either order_key or study_key), a lock suffix that indicates the type of action being performed e.g. IVT, PerformExam, and finally the word “Order” or “Study”.

Because some screens need to conflict with others (e.g. ReportingRadiologist and the Transcriptionist screens), we map different screens into buckets. In many cases a screen will have its own bucket e.g. IVT and PerformExam. There are a few screens that are report related that are given the same bucket “Report” in order to reduce the likelihood of conflicting changes.

A system table in the database (i.e. one that is not editable through Administration->Configuration in the RIS) assists with the mapping of screens to buckets, and helps determine if the screen will lock on the Order or on the Study.

	lock_hint	study_level_flag	lock_suffix
1	BillingConfirmation	Y	Billing
2	FollowUp	N	FollowUp
3	IVT	N	IVT
4	PerformExam	Y	Tech
5	ReportingRadiologist	Y	Report
6	ReportingTranscription	Y	Report
7	VerifyExternalReport	Y	Report
8	ViewEdit	Y	ViewEdit

Figure 5.44 – Mapping class names in RIS to lock

Any screens or other functionality that is not included in the list above will continue to lock the Order. E.g. Scheduling and Register will lock the Order with a lock tag in the form of “123Order”. Because of the lock tag design, Scheduling and Reception will not block anyone from opening any of the other screens above, but they will conflict with each other.

Server Side Checks for Locks Prior to Saving

Immediately before we save an order or study on the server, a check is performed to see if the user holds a valid lock for the data in question. In the past we simply needed to check for the existence of a valid lock in the database with a lock tag that corresponded to the order being modified. If no valid lock were found, we would throw an error back to the client and not allow the user to save their changes. Under normal circumstances, the only way this would occur would be in the event that an authorized user used the Break Lock functionality.

The new approach is to check for a valid order level lock, if found we allow the save to continue. If there is no valid order level lock, we check for a valid study level lock for each study that is being passed in. If there are enough valid locks we throw an error back to the user, otherwise we allow the save to succeed.

Note that orders and studies that are being created do not require locks, so we exclude them from the lock checks above.

Changes to Lock Management

Each screen that requires locking functionality makes use of a class called GUILockManager that is responsible for refreshing and releasing locks. Previously this class could manage only one lock at a time. We now generate a unique lock identifier that helps to uniquely identify the instance of the lock and can refresh or release multiple locks in a single service call.

In some cases the user may attempt to acquire or refresh multiple locks and the call will be only partially successful – e.g. only two of three locks will be granted. In these cases the client will behave as though the entire lock request has failed.

Changes to Worklists

The worklists that are designed for Radiologists and Transcriptionists include a column that identifies the user that holds a lock on that data. Because the lock tag is calculated differently, the worklist views were updated to filter for the type of locks that are used by Rads. If a Tech has an exam open, previously we would show the tech’s name/userID in the “Locked By” column. Now that we are only interested in specific kinds of locks, we will only populate “Locked By” if it is a “Report” level lock (i.e. opened by another Rad, Transcriptionist, or someone using VerifyReport). Previously the worklists were parsing the lock_item_code in order to join to order, we now have a foreign key to Order and Study to assist with the join.

There are worklists that are not specific to Rads and Transcriptionists that have a locked by column e.g. the BI-RADS 0 and BI-RADS 4/5 worklists. Because the users working this list are not focused on the report, their worklist will only display the type of locks that pertain to them.

Changes to Perform Exam

The Perform Exam screen generates a lock for each study within an Order. When the Perform Exam screen is initially opened, a single lock tag is generated. If the user clicks the include button, we attempt to acquire additional locks to prevent other techs from working on those studies simultaneously. In the event that there is a locking failure when the tech clicks the include button, we display a locking failure message to the tech, uncheck the “Include” box, and reselect the previous exam on the patient history grid. No “break-lock” functionality is planned for this case.

Alerts for Similar Locks

A new alert was created (verbiage to be determined) to warn a user on Perform Exam or View Edit if a Rad or Transcriptionist has the same exam open.

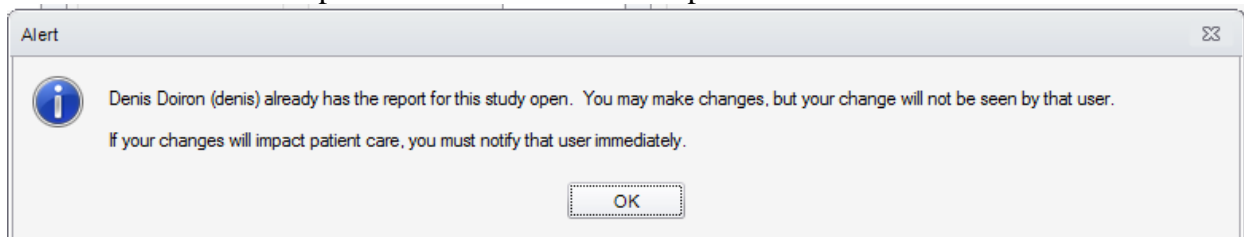


Figure 5.45 – Alert on View Edit and Perform Exam when a Rad or Transcriptionist has the same exam open

We need to determine if these types of warnings will be sufficient, or if we need to have a locking mechanism that can acquire a fine grained lock that can prevent other users from making specific types of changes.

Special Handling for Notes

Our original implementation of “Notes” requires special handling. As users add new notes, we concatenate the new notes to the existing notes. In the case where two users update patient notes at the same time, the second saver wins and the first saver’s notes are lost.

We have updated the concurrency handling to help reduce the risk of issues surrounding simultaneous updates to notes. If two users save changes at the same time, we detect the conflict on the server side and then extract the new notes from the second saver’s update and then concatenate that with the existing notes in the database.

This was tested and works well for updates (i.e. adding new notes), but there is an outstanding issue with deletions. A typical user is not authorized to delete previously saved notes, but there is a permission that can allow an authorized user to edit existing notes. We did not build any handling for deleted notes – if two users update a row at the same time and the second saver deleted some notes, we simply allow the first saver to win.

A future sprint should address the current implementation of notes, possibly considering a design change so that each note is stored in its own row.

Special Handling for Manage Policies

When the user presses Manage Policies on a screen such as Registration, IVT, or ViewEdit, we now attempt to acquire a special insurance related lock. If the attempt to acquire the lock succeeds, the manage policies dialog will appear as before. If the lock acquisition is unsuccessful, the user will be presented with a lock failure message which identifies the lock holder and presents a “Read-Only”, “Cancel”, or “Break-Lock” option (the latter requires a lock override permission).

If a user’s insurance lock is stolen, the GUILockManager will release all other related locks for that screen. E.g. if the user has ViewEdit open, they will lose the study level lock that they were granted when they opened the screen. Break lock for insurances should be used sparingly. Note that there is no enforcement of the insurance lock on the server, i.e. the user requires a lock to open the screen in the GUI, but the server will not reject an insurance update from a user that doesn’t have a lock.

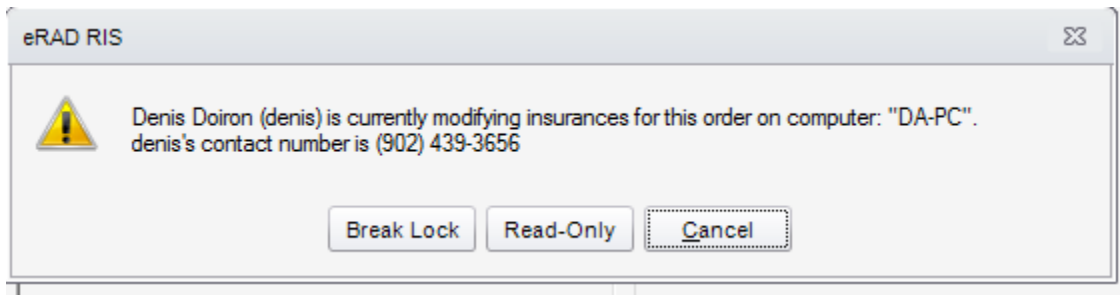


Figure 5.46 – Break lock message

Special Handling for Patient Merge

When a Patient Merge is performed, there is a Source Patient and a Destination Patient. The Source Patient's visits, orders, studies, etc. are moved to the Destination Patient and the Source Patient is marked as Deleted. We have had cases where one user was actively working on the Source Patient during the merge process, and some studies were re-associated with the Source (i.e. deleted) Patient.

The Patient Merge screen has been updated to help reduce the chance of this happening in the future. When the user presses the Merge button on the Patient Merge screen, we now check for any locks on the source patient. If any locks are held for any of that patient's orders or studies, we identify the lock holders (userID and full name) and tell the user that the merge cannot be performed until those users' locks are released.

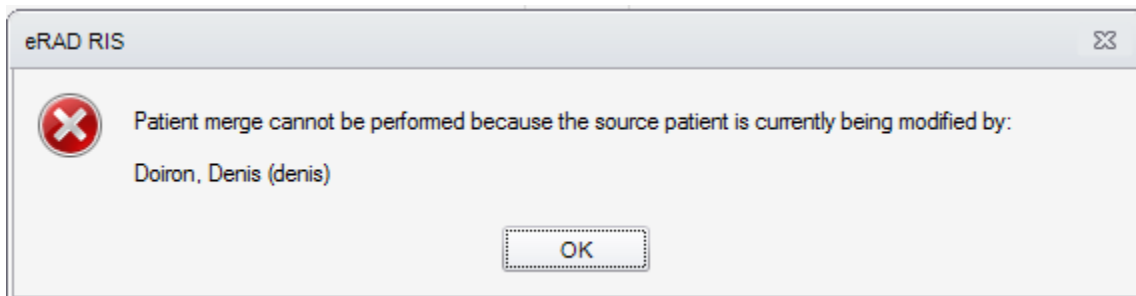


Figure 5.47 – Message prompt on Patient Merge when Source patient is locked

Change Status / Cancel Study / Manual Status Change

Change Status, Cancel Study, and Manual Status Change have been updated to include a check for locks on the same study. We first attempt to acquire a traditional order level lock, if that succeeds we do a secondary check for any locks on the given study. If either of those fail we show a message similar to the following:

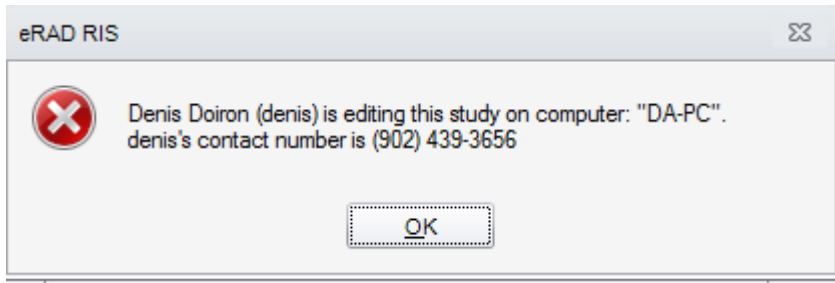


Figure 5.48 – Message prompt from change status, cancel study, manual status change on locked study

Administration - Multiple Person Ids

A grid has been added to the Account tab of the personnel editor. Users can add, edit, and delete alternate ids for the person as well as make them active/inactive. The idea is that a user can have multiple ids from a particular issuer, but only one of them **should** be active, but this is not enforced.

The screenshot shows the 'Account' tab of the personnel editor. It includes fields for 'Active account', 'User ID *' (darcyn), 'Password *' (masked), 'Schedule groups', 'Message groups', 'User groups', and 'Practices'. Below these is a 'System Generated (read-only)' section with 'ID *' (1125) and 'Issuer of ID *' (system). A table titled 'Alternate IDs' is highlighted with a red border, containing one row with ID 5211, Issuer of ID 'test', Active 'Y', and Last Updated '12-19-2013'.

Alternate IDs	ID	Issuer of ID	Active	Last Updated
	5211	test	Y	12-19-2013

Figure 5.49 – Alternate IDs can be added in Personnel Editor

On inbound HL7 messages, the person will be resolved based on id/issuer of all primary and alternate ids and associated to the correct person.

On outbound messages, the wedge will expand the person_key and user_id nodes to include l_child_person nodes which contain the alternate ids. The mappings can then be made on a per-interface basis to select the correct alternate id to use based on the issuer. If multiple ids from that issuer exist, and they are both listed as active, then the mapping must pick one based on some other criteria ie. first one in the list or most recently updated.

Administration - Allow Editing of Billing Units

A new flag column has been added that will allow editing on the Billing Code / Procedure Code combination. In the Administration → Procedure Code lookup table → expand procedure code to view a new setting that allows the Billing Code / Procedure Code combination to be locked to users as far as ability to edit number of Units.

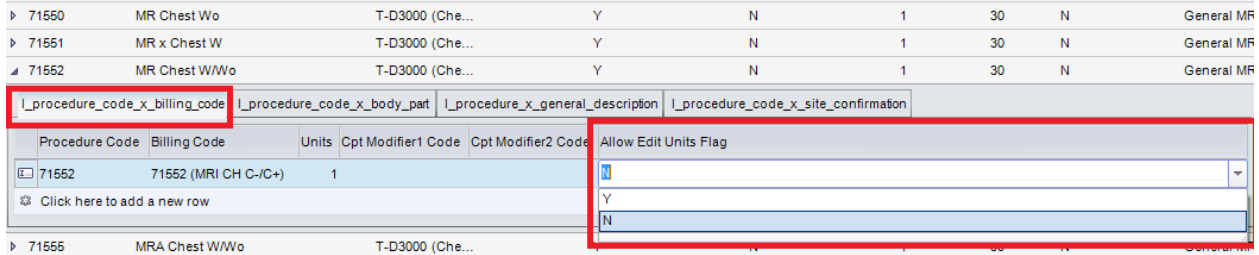


Figure 5.50 – Allow Edit Units Flag

By default editing is enabled to preserve pre-upgrade functionality. If setting is set to “N” users will not be able to edit # of Units.

If set to N, in the billing code grid the user will not be able to edit the number of units from the drop down for that particular procedure/cpt code.

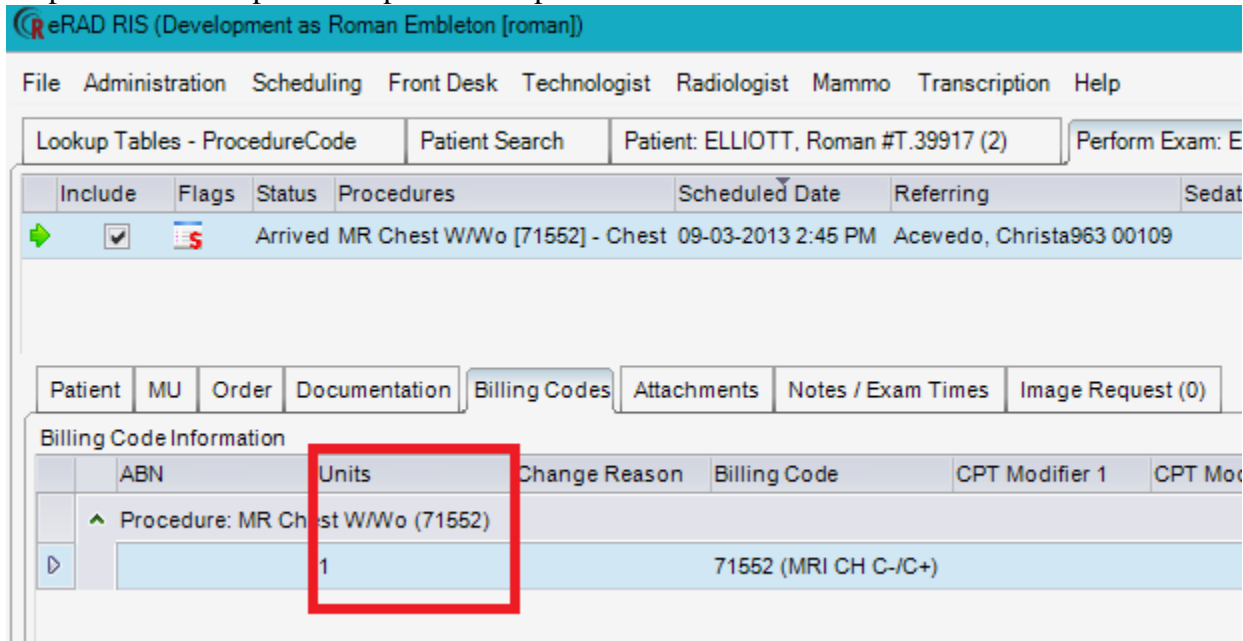
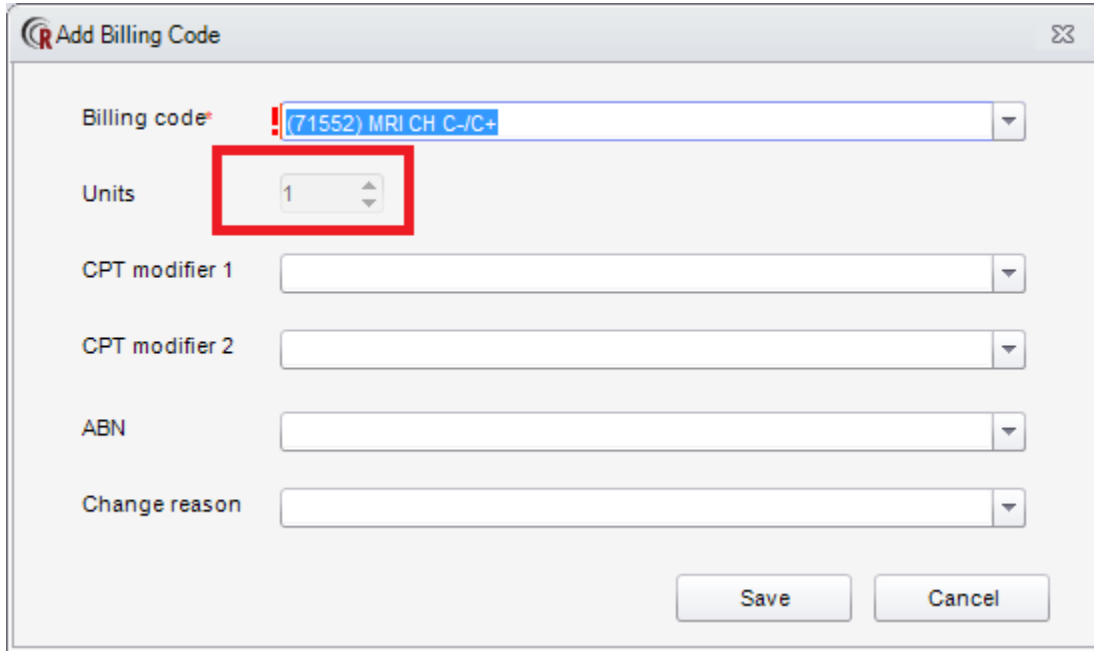


Figure 5.51 – Units on billing code tab cannot be edited when set to N

The user will still be able to add other billing codes that may (or may not) be edited.

If the user attempts to add a billing code to the performed procedure and the value of “Allow Edit Units Flag” is set to N for that procedure, the Add Billing Code window will have the Units field disabled.

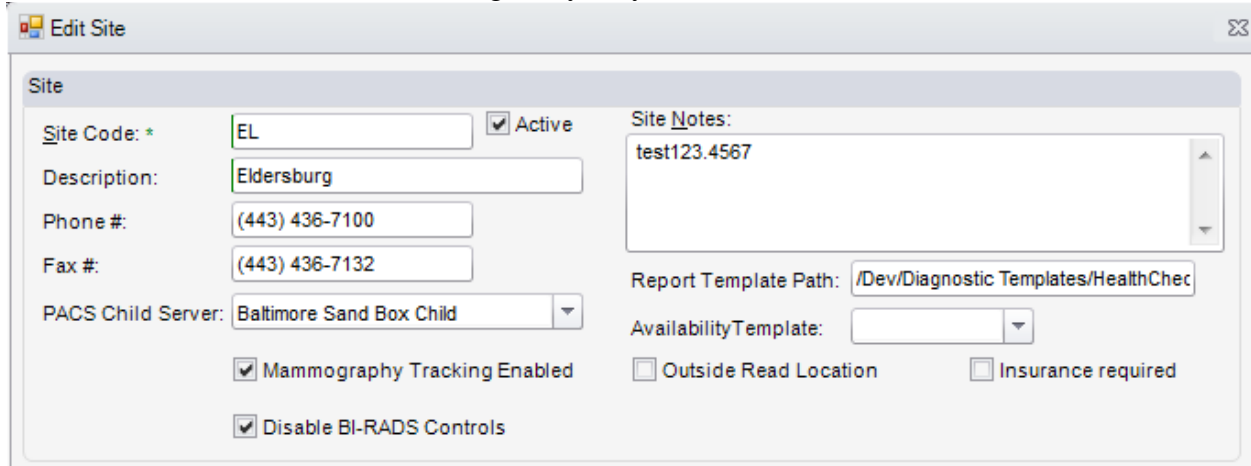


The screenshot shows a window titled "Add Billing Code" with a close button in the top right corner. The window contains several input fields: "Billing code" with a dropdown menu showing "(71552) MRI CH C-/C+", "Units" with a spinner box containing the number "1" (this field is highlighted with a red rectangle), "CPT modifier 1", "CPT modifier 2", "ABN", and "Change reason", each with a dropdown arrow. At the bottom right, there are "Save" and "Cancel" buttons.

Figure 5.51a – Add Billing Code window on billing code that the units cannot be edited

Administration - Disable BI-RADS ® Per Site

In build 42 the ability to disable BI-RADS ® tracking can be turned off per site. The Organization Editor in Administration -> Configure has been updated to include a new checkbox to Disable BI-RADS Controls (verbiage may vary at time of release).



The screenshot shows a web application window titled "Edit Site". The window contains a form with the following fields and controls:

- Site Code: ***: Text input field containing "EL".
- Active**: Checked checkbox.
- Description**: Text input field containing "Eldersburg".
- Phone #**: Text input field containing "(443) 436-7100".
- Fax #**: Text input field containing "(443) 436-7132".
- PACS Child Server**: Dropdown menu with "Baltimore Sand Box Child" selected.
- Site Notes**: Text area containing "test123.4567".
- Report Template Path**: Text input field containing "/Dev/Diagnostic Templates/HealthChec".
- AvailabilityTemplate**: Dropdown menu.
- Mammography Tracking Enabled**: Checked checkbox.
- Outside Read Location**: Unchecked checkbox.
- Insurance required**: Unchecked checkbox.
- Disable BI-RADS Controls**: Checked checkbox.

Figure 5.52 – Ability to disable BI-RADS Controls per site.

By default, “Disable BI-RADS Controls” will be unchecked when creating a new site. Mammography Tracking Enabled means that the site will generate follow-up orders, reminder letters, lay letters, etc. for any BI-RADS enabled mammo procedures.

Disable BI-RADS Controls means that the site will opt out of BI-RADS tracking altogether (in effect the setting for Mammography Tracking Enabled will be ignored if BI-RADS are disabled)

Administration - Ability to Add MRN and Accession Prefix and Suffix

The ability to add and prefix and or suffix to the patients MRN and also to the Accession number has been added. This is controlled by two new system configuration settings.

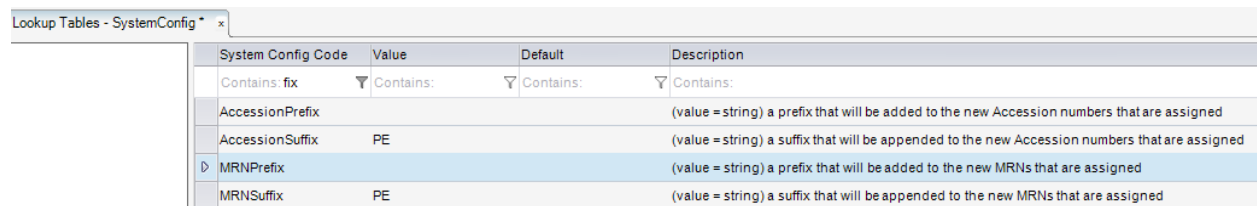
For MRN they are:

“**MRNPrefix**” – Prefix that will be added to new MRN’s

“**MRNSuffix**” – Suffix that will be appended to new MRN’s

“**AccessionPrefix**” – Prefix that will be added to new accession numbers

“**AccessionSuffix**” – Suffix that will be added to new accession numbers



System Config Code	Value	Default	Description
Contains: fix	Contains:	Contains:	Contains:
AccessionPrefix			(value = string) a prefix that will be added to the new Accession numbers that are assigned
AccessionSuffix	PE		(value = string) a suffix that will be appended to the new Accession numbers that are assigned
MRNPrefix			(value = string) a prefix that will be added to the new MRNs that are assigned
MRNSuffix	PE		(value = string) a suffix that will be appended to the new MRNs that are assigned

Figure 5.53 – New systemconfig values

Administration - Privacy Message on Locked eRAD RIS

A new system configuration setting “**PrivacyMessageText**” has been added to the system config lookup table. When this field has a string value, the string is displayed on the lock screen.

System Config Code	Value	Default	Description
Contains: priva	Contains:	Contains:	Contains:
PrivacyReminderText	REMINDER: Do not snoop in patient records!		(value = string) Defines the privacy string that will be displayed on the lock workstation screen.

Figure 5.54 – New system config setting PrivacyMessageText



Figure 5.55 – PrivacyMessageText value displayed on locked eRAD RIS

Billing – Audit Log Capturing Billing Failure \ Reason

The audit table will now capture the success and failure of billing actions. If the billing action was successful the audit log will display “Posted to Billing”

Date	Action	Description	User	Accession #	Order #	Status	Procedure
12-12-2013 10:39 AM	UI_ReportSigned	Study updated	Aiken, Darcy (darcy)	5131280	7405261	Signed	Randy Test 02
12-12-2013 10:39 AM	UI_ReportSigned	Patient updated	Aiken, Darcy (darcy)				
12-12-2013 10:39 AM	Posted to billing		Aiken, Darcy (darcy)	5131280	7405261	Exam Done	Randy Test 02

Figure 5.56 – Successful billing action entry in audit log

An unsuccessful attempt to bill will display “Failed billing validation”. In the event of a billing failure, the reasons for the failure are recorded with the audit log entry.

12-12-2013 10:45 AM	Failed billing validation					System	
12-12-2013 10:40 AM	UI_ReportTentativelySigned	Study updated	Aiken, Darcy (darcy)				
12-12-2013 10:12 AM	UI_AssignRadiologist	Assigned to darcy.	Aiken, Darcy (darcy)				
12-06-2013 3:21 PM	UI_InterpretationSuspended	Study updated	Doiron, Denis (denis)				
12-06-2013 3:18 PM	UI_InterpretationSuspended	Study updated	Doiron, Denis (denis)				
12-06-2013 3:18 PM	UI_InterpretationSuspended	Study updated	Doiron, Denis (denis)				
12-06-2013 3:18 PM	UI_InterpretationSuspended	Study updated	Doiron, Denis (denis)				

Event Time: 12-12-2013 10:45:41.793 AM Client IP Address:

- Patient's address is required
- Insurance is required
- Responsible party's address is required

Figure 5.57 – Failed billing action reasons for failure

External – View Legacy Report PDF's as HTML

The web interfaces are unable to get an html version of the legacy reports, which were imported in the the RIS as PDFs. To solve this we are planning to integrate a PDF to html converter so that when we call the WebAPI interface we get the legacy PDF as html. The following is an example in the dev database of an accession number, which has a legacy PDF report.

<http://localhost:9002/api/DiagnosticReport/1014129?format=HTML4.0>

We decided to use a third party product to convert the legacy PDF documents to HTML so when you call the WebAPI url as described in the description of this issue, that the report will be returned as HTML.

The 3rd party API we are using is called AbcPDF.dll and must exist in the deployment directory for this to work.

Management Report – Dictations by User

Management report was created for displaying the dictation statistics for Radiologists broken down by

- number of reads
- number of edits
- % of their workload identified as a self-edit.
- % of the the total workload.

Dictated By User	Dictated Date	# Reads	# Edits	% Self Edits	%
		3	2	66.67%	9.38 %
	☒ 09-03-2013	1	1	100.00%	
	☒ 09-11-2013	1	1	100.00%	
	☒ 09-16-2013	1	0	0.00%	
		18	14	77.78%	56.25 %
	☒ 09-04-2013	3	3	100.00%	
	☒ 09-05-2013	4	4	100.00%	
	☒ 09-06-2013	5	4	80.00%	
	☒ 09-12-2013	6	3	50.00%	
		3	1	33.33%	9.38 %
	☒ 09-03-2013	1	1	100.00%	
	☒ 09-16-2013	2	0	0.00%	
		6	5	83.33%	18.75 %
	☒ 09-05-2013	1	0	0.00%	
	☒ 09-12-2013	5	5	100.00%	
		2	2	100.00%	6.25 %
	☒ 09-05-2013	2	2	100.00%	
Total		32	24		

Figure 5.58 – Dictation by User management report

Management Report – Direct Referrals

Management report was created to identify all orders and studies identified as a Direct Referral on the order tab. Parameters used are:

- Practice(s)
- Site(s)
- From and to dates
- Modality(s)
- Procedures
- Referring Practice(s)
- Referring Physician(s)
- Primary Carrier(s)

The screenshot shows a search criteria form with the following fields:

- Practice(s): [Redacted]
- Site(s): [Redacted]
- From: 10/1/2013
- To: 10/18/2013
- Modality(s): MRI
- Procedure(s): MR Angiography Cerebral WO
- Referring practice: [Redacted]
- Referring physician(s): [Redacted]
- Primary Carrier(s): [Redacted]

At the bottom of the form, there is a navigation bar showing "1 of 2" pages, a "100%" zoom level, and a "Find | Next" button.

Direct referrals

Practice: [Redacted]
Site(s): [Redacted]
Modality(s): MRI
Date Range: 10/1/2013 - 10/18/2013
Description: This report looks at orders with the direct referral flag set. It excludes cancelled orders, and studies that are cancelled or discontinued.

Acc#	CPT	CPT Description	PreCert Status
Modesto Advanced Imaging Center			
10-01-2013			
MR			
Physician [Redacted]			
Referring practice: None			
Accession: not scheduled		Status: OrderSigned	
Primary Insurance: [Redacted]			
	70553	MRI BRAIN BRAIN STEM W/O &W/CONTRAST MATERIAL	Approved
	A9579	INJECTION, GADOLINIUM-BASED MAGNETIC RESONANCE CONTRAST AGENT, NOT OTHERWISE SPECIFIED (NOS), PER ML	N

Figure 5.59 – Direct Referral management report

Management Report – User List

Management report was created to see the user and which practices and schedule groups the user is associated with.

Active\Inactive:

1 of 6 100% Find | Next

User List

Description: This report lists the users based on active or inactive parameter as well as the practices those users have been assigned.

User Id	Last name	First name	Practices		Schedule Groups								
			X				X						X
			X				X						X
			X				X						X
			X				X						
			X				X						

Figure 5.60 – User List management report

Management Report – Double Count CPT’s

We modified all sales management reports in the Marketing folder to double count cpt codes (74176, 74177, 74178).

Marketing

- Monthly Counts by CPT
- Monthly Variance Raw Data
- Quarterly Counts by CPT
- Referring Practice Annual Volume Potential
- Referring Top N Negative Variance
- Referring Top N Positive Variance
- Sales Referring Practice Data
- Sales Referring Practice Data by Affiliation
- Sales Referring Practice Data by Modality
- Sales Referring Practice Data by Specialty
- Sales Referring Practice Monthly Volume...
- Sales Referring Practice Raw Data
- Sales Referring Practice Raw Quarter Data

Figure 5.61 – Double Count CPT’s

MU – Management Report for Patient List Creation – MU Phase 2

Report Parameters are:

1. From age
2. To age
3. From date (nullable)
4. To date (nullable)
5. Primary language (*multi-select populated from lookup table*)
6. Sex (*multi-select populated from lookup table*)
7. Race (*multi-select populated from lookup table*)
8. Ethnicity (*multi-select populated from lookup table*)
9. Problems (ICD) (*multi-valued, free text expected the ICD code itself*)
10. Medications (*multi-valued, free text using the like syntax where you just need to enter the start of a medication name. ie: pen would look return all results where the medication name starts with pen. Wild cards are added behind the scene*)
11. Medication allergies (*multi-select populated from lookup table*)
12. Lab Test (*multi-select populated from lookup table*)
13. Lab Results (*single valued free text field expecting >, <, = or combination of those comparison operators and a value. Ie: >100*) (nullable)
14. Preferred Communication
15. Max Results (*defaulting to 5000 rows, this helps control the number of results returned in a search, but can be manually increased or decreased if desired*)

The screenshot displays the 'Patient Lists MU2' management report interface. At the top, there are various filter parameters: 'From age' (20), 'To age' (50), 'From date' (checkbox NULL), 'To date' (checkbox NULL), 'Primary language' (English), 'Sex' (Female), 'Race' (No Filter), 'Ethnicity' (No Filter), 'Problem (ICD-9)' (No Filter), 'Medication' (No Filter), 'Medication allergy' (No Filter), 'Exclude Deceased?' (Y), 'Lab Test' (No Filter), 'Lab results (ie. >=100, between 1 and 20)' (checkbox NULL), and 'Preferred Communication' (No Filter). Below the filters is a 'Parameters' table with the following data:

From Age	To Age	From Date	To Date	Language	Sex	Race	Ethnicity	Problem(ICD-9)	Medication	Allergy	Lab	Lab Value	Max Rows
20	50			EN	F	No Filter	No Filter	No Filter	No Filter	No Filter	No Filter		5000

Below the parameters table is a patient list table with the following data:

MRN	Last Name	First Name	Age	Sex	Primary Language	Race	Ethnicity	Preferred Communication
10085	Gruff	Hillary	21	F	English	No race assigned		Not assigned
10091	Kettleon	Holly	41	F	English	American Indian or Alaska Native	Hispanic	Not assigned

Figure 5.62 – Patient Lists MU2 management report

All parameters require a value to execute the report. The “No Filter” value in the parameters is just a placeholder that the stored procedure treats as a null. The No filter will be disregarded if you add values into the parameter, meaning there is no need to delete it out, or uncheck it.

MU – Auto Request Pathology and Follow Up with Lab Worklist

For MU requirement 170.314.b.5, we needed to create a lab test for Pathology when a report is signed for procedures that are configured to require CPOE_Pathology . We then need to track those Pathology requests in the Lab WL.

To start the CpoE Pathology Flag column was added to the Procedure Code lookup table

Procedure Code	Description	CpoE Pathology Flag	External Report Wo
Contains: ▼	Contains: ▼	Contains: ▼	Contains: ▼
Click here to add a new row			
70450	CT Head Wo	Y	N
70460	CT Head W	Y	N
71250	CT Chest Wo	Y	N

Figure 5.63 – CPOE Pathology Flag added to the Procedure Code lookup table

The Practice window from the Organization lookup table had the Track CPOE pathology results in Lab WL for <#> days

Practice Code: Active

Description:

Phone #:

Fax #: MU Required

Time Zone:

PACS Server: Chair workflow enabled

Practice Notes:

CDS Object ID:

Title Color: Gradient

Dashboard Primary Color:

Track CPOE pathology requests in Lab WL for * days

Figure 5.64 – Practice displaying new field in days to be captured to Track CPOE pathology

A new System Configuration setting “**CPOELabTestCode**” was added the system config lookup table with a default value of Pathology

System Config Code	Value	Default	Description
Contains: CPOEL	Contains: ▼	Contains: ▼	Contains: ▼
CPOELabTestCode	Pathology	Pathology	(value = string) lab test code for the lab test that will be created when an CPOE_Pathology_flag procedure is signed.

Figure 5.65 – System configuration setting CPOELabTestCode

When report is signed, if its procedure has CPOE pathology flag = 'Y', and there are no active Lab Test Requests for CPOE pathology, then a lab test result row will be created. The lab test code will have a lab_requested_by_user_id of the dictating rad and will have a requested date equal to the studies performed end date. The c_study.cpoe_request_expiry_date, will get assigned to today + l_practice.days_to_track_cpoe_requests.

The item will then appear in the Lab WL until:

1. User opens the study in View Edit and checks "Skip Lab WL"
2. User Opens the study in View Edit and records a value for the test
3. The current datetime is past cpoe_request_expiry_date
4. Or the lab test is set to the lab_order_status of "Discontinued" or "Active", meaning we've made the call to the patient and have been notified that the pathology test has either been requested or is not going to be addressed.

Note: outside read studies will not show in the Lab WL, even if they are for a procedure that is configured with cpoe_pathology_flag='Y'.

MU - Race Field Allow for Multi Select

Meaningful Use requirement 170.314.a.3.

Previous to build 42 the Race field on the Patient tab would only allow for one value to be selected. Now a user can select multiple values and save with the patient record.

The list box is not a multi select tool (expand the list and select multiple at once) the user will need to select a value one at a time or use the type ahead options

The race type can only be added once for the patient.

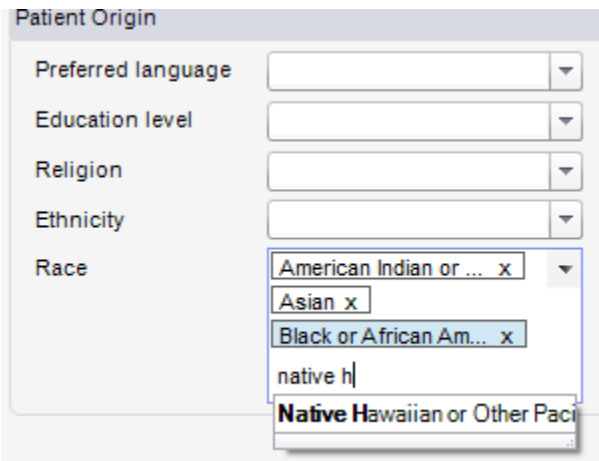


Figure 5.66 – Race field is now multi select/type ahead field

MU – Improvement to How We Record Height

Meaningful Use requirement 170.314.a.4

For this requirement we needed to store the patients height as a single numeric value instead of a character string such as 5ft 7in.

A new column (height_value) was added to the visit table, which will store the height in inches. The height was previously stored in the old column (height) in the visit table.

The pervious character field (height) will continue to be populated for backwards compatibility with existing reports.

Also, the upgrade was created to backfill the new field in the visit table (height_value).

MU – Retain Patients Smoking Status and Height

For existing patients that have previously had the smoking status and height captured in the previous visit, when scheduling a new procedure, these 2 values will be carried forward to the new visit. This is not a meaningful use requirement, but rather a request to try and speed up the scheduling process when capturing MU data.

MU – Problem List for MU Phase 2

Meaningful Use requirement 170.314.a.5

Record - evaluates the capability to enter patient health problems into the EHR to create the patient problem list. The Tester enters the ONC-supplied patient problem test data. The Inspection Test Guide describes several methods by which the EHR can demonstrate conformance with the vocabulary requirement.

Change – evaluates the capability to change patient problem list data which have been previously entered into the EHR. The Tester displays the patient problem list data entered during the Record Patient Problems test

- o The Tester changes the previously entered patient problems data using ONC-supplied patient problem list data.

Access – evaluates the capability to display the patient problem list data that have been previously entered into the EHR, including the capability to display the patient problem list as recorded during multiple ambulatory encounters with the same provider or during a single inpatient hospitalization.

MU – Medication List for MU Phase 2

Meaningful Use requirement 170.314.a.6

Record - evaluates the capability to enter patient active medication data into the EHR to create the patient active medication list

Change – evaluates the capability to change patient medication data that have been previously entered into the EHR. The Tester displays the patient active medication list data entered during the Record Patient Active Medications test . The Tester changes the previously entered active medication data using ONC-supplied medication data, for example, changing a medication dose or frequency and discontinuing a medication

Access – evaluates the capability to display the patient medication list data that have been previously entered into the EHR, including the capability to display the patient medication list as recorded during multiple ambulatory encounters with the same provider or during the duration of an entire inpatient hospitalization

MU – Image Results for MU Phase 2

Meaningful Use requirement 170.314.a.12

This requirement is for eRAD RIS to prove that the images and report can be viewed in the RIS when in the appropriate status. Below is a list of the test cases to validate that fact.

- Create 2 patients IM-Patient-1 and IM-Patient-2 schedule an exam.
- Go to patient folder for IM-Patient-1
- Show in rRIS where imaging information will be for Patient #1(Right click on patient folder there is no option to view images).
- Update Record for IM-Patient-1 bring exam to (Exam Done status)
- Show in rRIS where imaging information will be for Patient #1(Right click on patient folder there is an option to View Images).
- Open IM-Patient-1 and dictate exam and bring to signed1 status.
- In patient folder right click on the patient. There is an option to view narrative interpretation (report>>preview/print report) and View Images.
- Go to patient folder for IM-Patient-2
- Show in rRIS where imaging information will be for Patient #2(no images)...Right click on patient folder there is no option to view images
- Update Record for IM-Patient-2 bring exam to (Exam Done status)
- In patient folder right click on the patient. There is no option to view narrative interpretation (report>>preview/print report) however, the user can View Images.

MU – Audit Reports – MU Phase 2

Meaningful Use requirement 170.314.d.3

Enable a user to create an audit report for a specific time period and to sort entries in the audit log according to each of the data specified in the standards at § 170.210(e).

Create Audit Report – evaluates the capability of the EHR technology to enable a user to generate an audit report for a specific time period

- The Vendor provides the Tester with audit log information containing ten or more entries that was generated by the EHR technology
- Using the Vendor-provided audit log information and reporting functions, the Tester generates an audit report for a time period that includes the time at which the entries in the audit log information were recorded and verifies that the audit report is successfully created

Sort Audit Log Entries – evaluates the capability of the EHR technology to enable a user to sort entries in the audit log or in an audit report

- The Vendor provides the Tester with audit log information containing ten or more entries that was generated by the EHR technology. This could be provided through access to the audit log itself or audit reporting functions.
 - The audit report used in the previous test procedure step can be used for this test procedure step as long as the audit report entries contain the following data elements:
 - Date and time of event
 - Patient identification
 - User identification
 - Type of action (additions, deletions, changes, queries, print, copy)
 - Identification of the patient data that is accessed
- The Vendor identifies the EHR function(s) that are available to sort the audit log information by the previously described data elements

The Tester uses the Vendor-provided audit log information, sorts the audit log entries by each of the data elements listed above, and verifies that the entries were correctly sorted

MU – Goals and Condition

The Goals and Condition fields have been added to the Meaningful User Information window (hidden tab)

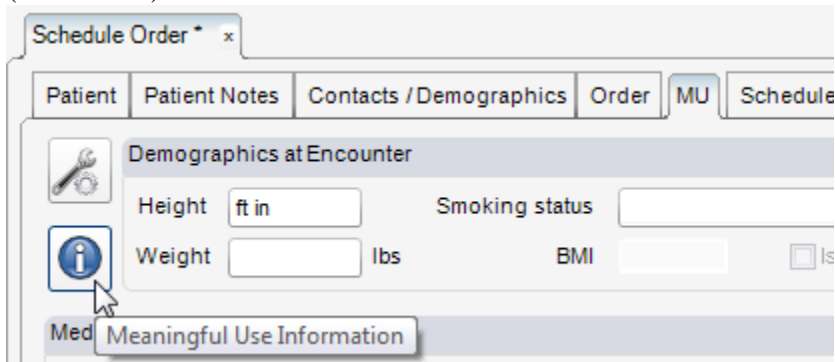


Figure 5.67– Meaningful Use Information window access

The Condition field is a type ahead/multi select field. The Goals option is a grid with 2 columns. The Goal column is list box and the Instructions column is a text field

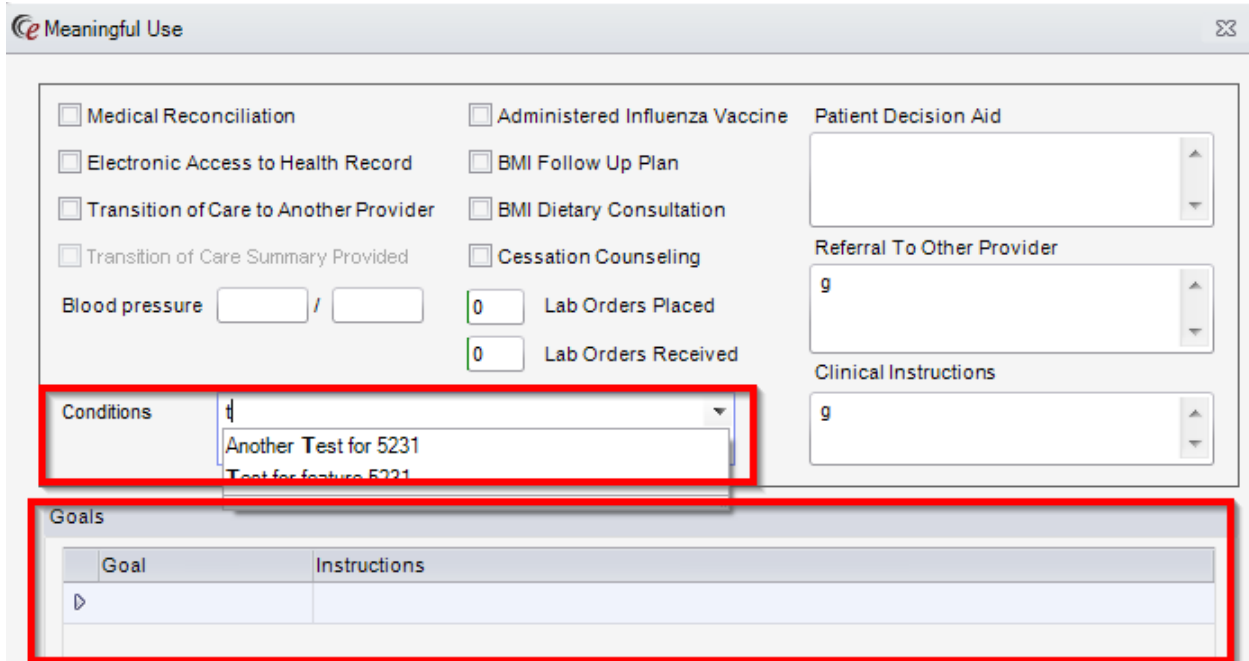
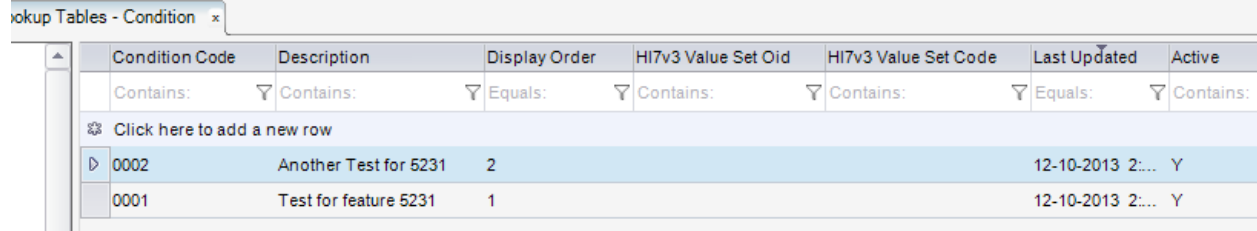


Figure 5.68 – Displaying Conditions and Goals field in Meaningful Use Information window

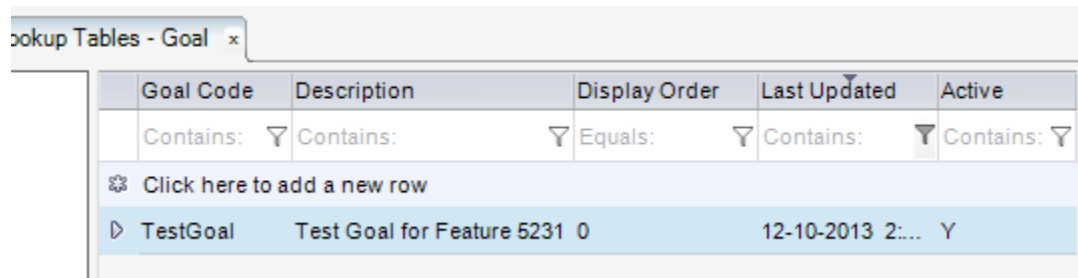
The values for the Conditions field are from a new lookup table Administration>Configure>MU>Condition table. The Description is displayed in the eRAD RIS and the HL7 values are to be mapped to valid SNOMED CT codes used for structured data for generating CCDA.



Condition Code	Description	Display Order	HI7v3 Value Set Oid	HI7v3 Value Set Code	Last Updated	Active
Contains: ▼	Contains: ▼	Equals: ▼	Contains: ▼	Contains: ▼	Equals: ▼	Contains: ▼
✳ Click here to add a new row						
▶ 0002	Another Test for 5231	2			12-10-2013 2:...	Y
0001	Test for feature 5231	1			12-10-2013 2:...	Y

Figure 5.69 – Condition lookup table.

The values for Goals is from another new lookup table Administration>Configure>MU>Goals table. The Description is the value what will appear in the Goal field of the Meaningful Use Information window.



Goal Code	Description	Display Order	Last Updated	Active
Contains: ▼	Contains: ▼	Equals: ▼	Contains: ▼	Contains: ▼
✳ Click here to add a new row				
▶ TestGoal	Test Goal for Feature 5231	0	12-10-2013 2:...	Y

Figure 5.70 – Goal lookup table

MU – Patient Specific Education Resources

For patient education resources we will be using Medline Plus. The Medline Plus info can be accessed from the context menu on the 3 grids of Medication, Medical History and Lab Results on the MU tab and select View Medline Plus Info.

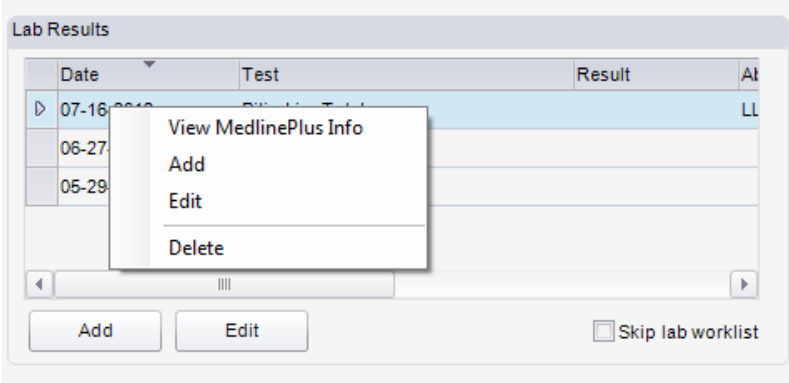


Figure 5.71 – Accessing MedlinePlus Info

Selecting the context menu option will open a modal browser window providing information on the topic selected in the grid you opened the context menu on.



Figure 5.72 – Web browser opens with search on MedlinePlus

You can right click the window and print the information for the patient.

If no results are returned from Medline a message like the following is presented to the user.

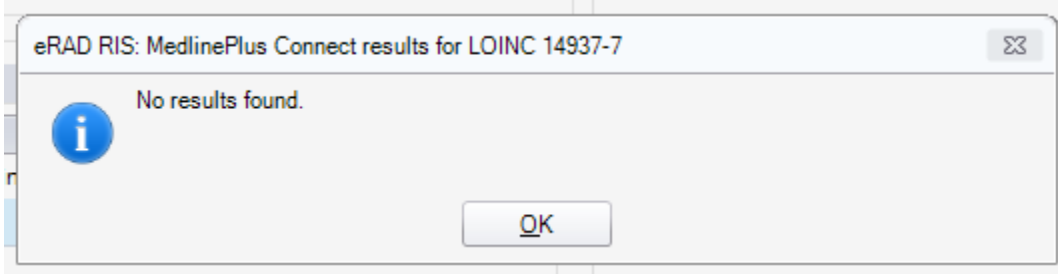


Figure 5.73 – When search doesn't find topic

When you close the browser control, you get prompted with this window to help capture the MU statistic.

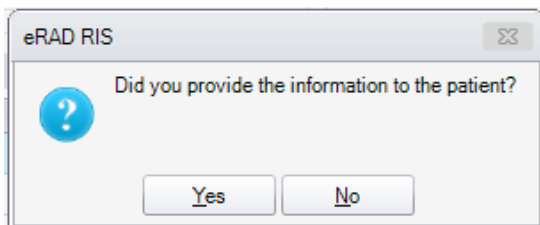


Figure 5.74 – Prompt asking if information was provided to patient

Clicking Yes is the same as checking the “Provided Education Resources” checkbox on the Documentation tab.

For this feature the following new system configuration settings have been added. The table below has the code and its default value.

Code	Default value	Actions
MUMedlinePlusConnectDebug	N	Enables debug mode
MUMedlinePlusConnectEnabled	N	Enables if Medline Plus is on or off
MUMedlinePlusConnectBaseUrl	http://apps.nlm.nih.gov/medlineplus/services/mpconnect_service.cfm	URL path for browser
MUMedlinePlusConnectDrugSearch	mainSearchCriteria.v.cs=2.16.840.1.113883.6.88	Search from Medications grid on MU tab
MUMedlinePlusConnectLabSearch	mainSearchCriteria.v.cs=2.16.840.1.113883.6.1	Search from Lab Results grid on MU tab

MUMedlinePlusConnectProblemSe arch	mainSearchCriteria. v.cs=2.16.840.1.11 3883.6.103	Search from Medical History grid on MU tab
---------------------------------------	---	--

Table 5.2 – MedlinePlus system config settings

Additionally there is a new system configuration value called **“MUMedlinePlusConnectDebug”** which when set to Y puts it into debug mode and will prompt to save the XML returned from the web service when you perform a search.

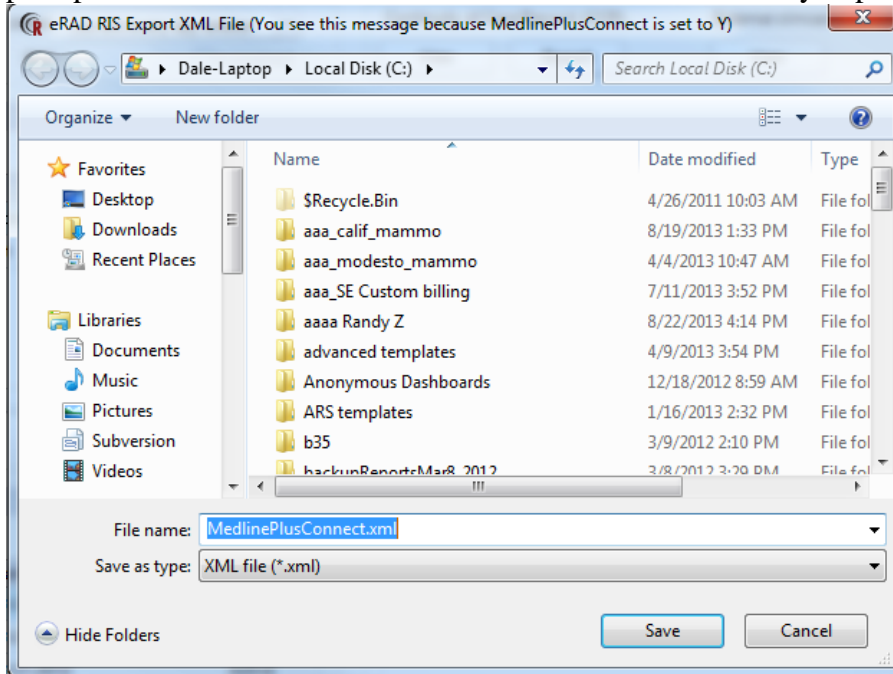


Figure 5.75 – Generating Medline Plus xml

The contents of which looks something like this...

```
<?xml version="1.0" encoding="UTF-8" ?>
- <feed xml:base="http://apps.nlm.nih.gov/medlineplus/services/" xml:lang="en" xmlns="http://www.w3.org/2005/Atom" xmlns:v3="urn:hl7-org:v3" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <title type="text">MedlinePlus Connect</title>
  <subtitle type="text">MedlinePlus Connect results for LOINC 1975-2</subtitle>
  <author>
    <name>U.S. National Library of Medicine</name>
    <uri>http://www.nlm.nih.gov</uri>
  </author>
  <updated type="text">2013-09-12T06:09:33Z</updated>
  <category scheme="REDS_MTO10001UV" term="MATCHED">
    <v3:mainSearchCriteria classCode="OBS" moodCode="DEF" xmlns:v3="urn:hl7-org:v3">
      <v3:code code="KSUBJ" codeSystem="2.16.840.1.113883.5.4" xmlns:v3="urn:hl7-org:v3" />
      <v3:value code="1975-2" codeSystem="2.16.840.1.113883.6.1" displayName="" xmlns:v3="urn:hl7-org:v3" />
    </v3:mainSearchCriteria>
    <v3:informationRecipient typeCode="IRCP" xmlns:v3="urn:hl7-org:v3">
      <v3:patient classCode="PAT" xmlns:v3="urn:hl7-org:v3" />
    </v3:informationRecipient>
  </category>
  <id />
  <entry>
    <title>Billrubin - blood</title>
    <link href="http://www.nlm.nih.gov/medlineplus/ency/article/003479.htm" rel="alternate" />
    <id:tag:.nlm.nih.gov, 2013-12-09:/medlineplus/ency/article/003479.htm</id>
    <updated>2013-09-12T06:09:33Z</updated>
    <summary />
  </entry>
</feed>
```

Figure 5.76 – xml file for Medline Plus when MUMedlinePlusConnectDebug = Y

MU – New Alert Rules – MU Phase 2

Here are the alerts that we have created

1. **NM Stress Test** – you can configure as many of these as you like. Typically one for each procedure_code you want the high blood pressure check on. It also allows you to configure the 200/100 to any value you like. Alert Generator name is **“ProcedureXAndHighBP”**
2. **Empty Lab Test** –This just looks over all lab tests for the patient and if any are blank will prompt with the alert. Note: the administrator isn’t allowed to provide a custom description since the description of the alert is generated dynamically and will include the text of the lab tests that are missing. Alert Generator name is **“LabOrderWithEmptyValue”**
3. **CT Contrast Allergy** & 4. **MR Contrast Allergy** – Fire when the indication specified exists and the patient has the specified contrast allergy code. This alert is highly configurable so that the alert implementation isn’t dependent on specific allergy, indication or modality type codes, which may differ depending on the customer implementation. Alert Generator name is **“IndicationAndSevereContrastAllergy”**

The following screen shot shows the above three generators configured for the 4 rules NM Stress, Empty Lab Test, CT Contrast and MR Contrast Allergies.

Alert Configur...	Description	Alert Generator	Alert Parameters	Internal Comment
Contains	Contains	Contains	Contains	Contains
NMStress1An...	High blood pressure, check if this p...	ProcedureXAndHighBP	AMNJJHEART_200/100	NM Stress Heart Test and High BP
EmptyLabTest		LabOrderWithEmptyValue		Lab test that has an empty result value.
CT Contrast AI...		IndicationAndSevereContrastAllergy	V15.08, 359866008, CT	CT Patient with Previous CT Contrast Reaction & severe allergy to contrast
MR Contrast A...		IndicationAndSevereContrastAllergy	R004,359866008,MR	MR Patient with Previous MR Contrast Reaction & severe allergy to contrast

Figure 5.77 – Alert Configuration table displaying new alerts

In addition to the configuration column “Alert Parameters”, the column “Internal Comments” has also been added, which can be used by the implementer to document the reasons they created or possibly disabled an alert.

The following lookup table validation error displays, if the alert parameters is blank for ProcedureXandHighBP:

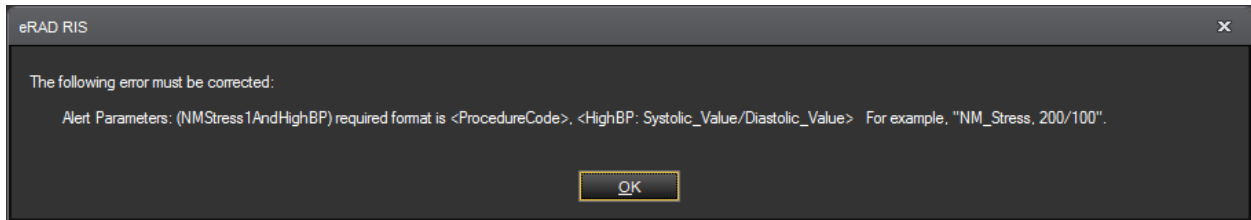


Figure 5.78– Error message presented if ProcedureXandHighBP is blank

The following lookup table validation error displays, if the alert parameters is blank for IndicationAndSevereContrastAlergy:

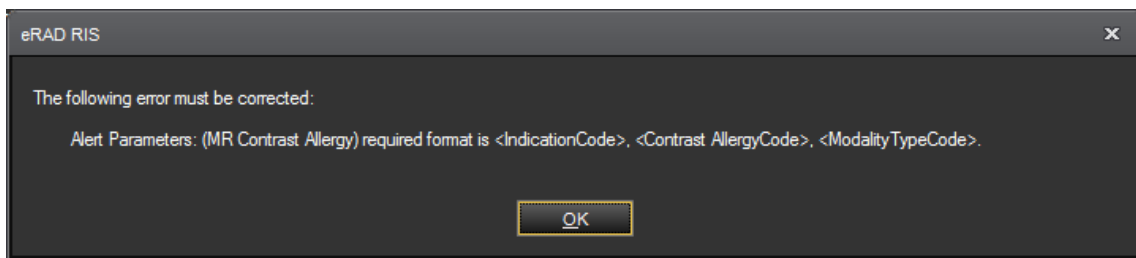


Figure 5.79 – error message presented if alert IndicationAndSevereContrastAlergy is blank

The following lookup table validation error displays, If a code is incorrect such as the Contrast AllergyCode:

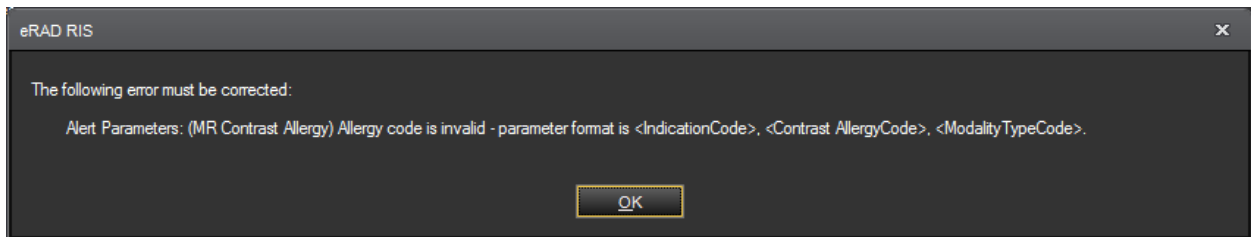


Figure 5.80 – error message presented if Contrast Allergy code is incorrect

MU – CCDA

CCDA information is a lengthy document that can be reviewed from the following URL

http://www.hl7.org/implement/standards/product_brief.cfm?product_id=7

The CDA® Release 2 document can be downloaded from this site as well.

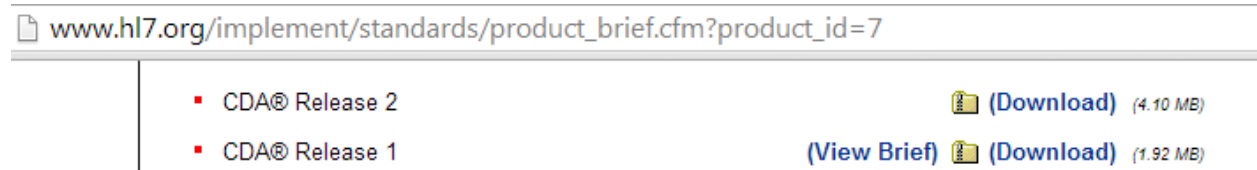


Figure 5.81 – Download CDA Release 2

MU – CCDA Generation

To access the CCDA the user can select the View button under the Clinical Document (C-CDA) section on the MU tab. Selecting this button opens the View Clinical Document (C-CDA) window.

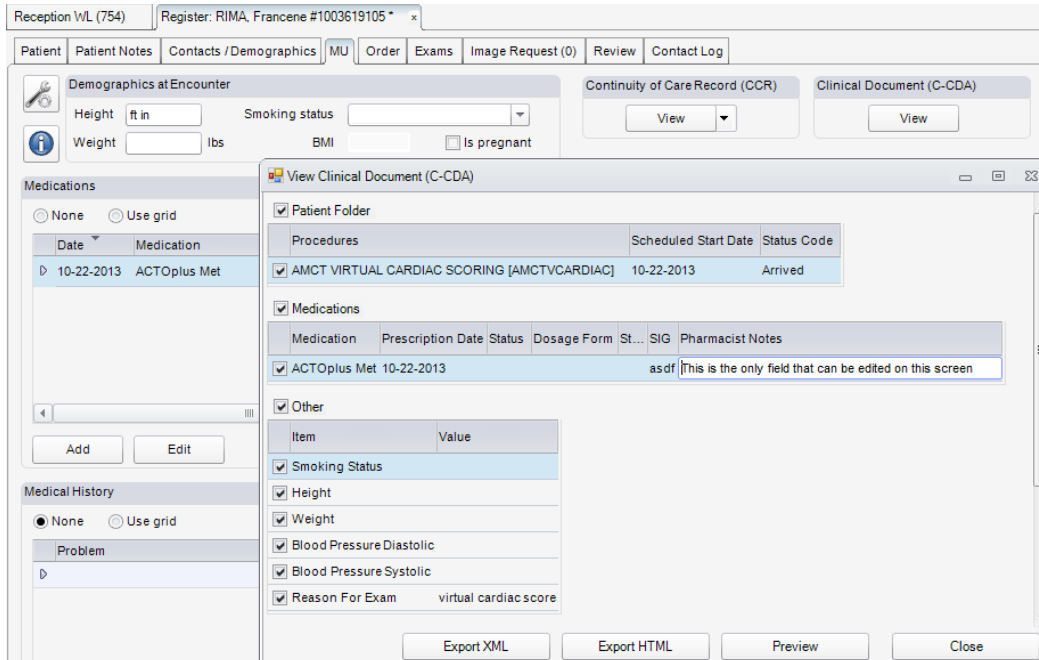


Figure 5.82 – Accessing CCDA

From the View Clinical Document (C-CDA) window the user can select the data elements that will be displayed in the C-CDA.

Options to Export XML, Export HTML, Preview the document and close.

MU – SNOMED CT

Meaningful Use Stage 2 Problems must be recorded in SNOMED CT codes. However, these codes do not necessarily have to be displayed in the user entry but can be stored or mapped elsewhere in the EHR product such as a dictionary map or a database. The specific vocabulary standard is **US Extension to SNOMED CT**. Today, we are recording Problems using ICD9 codes and eventually moving to ICD10 codes by October 1, 2014. We will need to find a mapping table for ICD9 and eventually ICD10 codes to SNOMED CT codes. In order to use SNOMED CT codes in the application we will need a **License Agreement** with IHTSDO (International Health Terminology Standards Development Organisation).

The International Release is updated each year in January and July. The download contains SNOMED CT files in both Release Format 1 (RF1) and the **new Release Format 2 (RF2) versions which eRAD / Radnet will use**. Updates to the US Edition will be available approximately one month after publication of the International Release of SNOMED CT. eRAD / Radnet will use the US Edition of SNOMED CT codes to certify for Meaningful Use Stage 2 (2014). The US Edition of SNOMED CT is the official source of SNOMED CT for use in US healthcare systems. **Note: The March 2013 Release of the US Extension will mark the last time that NLM will make the standalone US Extension files available for download. For future releases, users must download the US Edition to obtain US Extension content.**

For Meaningful Use (2014) we will download Snomed ct codes into two new lookups (l_snomed_concept and l_snomed_description). These get populated with the Snapshot release of the US edition of SNOMED CT codes. We will have to come up with a strategy of populating these in a future release as the codes are released every six months. We also need to download the ICD9 and SNOMED CT mapping file to a new lookup (l_snomed_icd9_map). We will also have to come up with a strategy of populating this mapping table with future releases.

NOTE: these are hidden lookups and cannot be accessed via the GUI

HL7 Payments

In eRAD RIS we are currently able to attach payments manually, no problem.

If there is HL7 integration with a patient kiosk, where a patient can check-in and also make a payment.

Payment is sent to eRAD RIS via HL7 (FT1 - financial segment).

Currently there is a logic gap in Wedge that restricts us from being able to accept payments via HL7.

Current logic --> Delete all current records from c_payment table for visit.
Add new rows provided with Study update.

The issue is the "Delete" --> This would cause an issue if a payment was already entered in RIS, then a new transaction comes through.

Existing payment in RIS would be deleted, new payment added.

Created a new column in Visit.c_payment called external_payment_id as a varchar(50).
If a message comes in that contains a c_payment row with an empty external_payment_id the wedge will throw an exception and reject the message.

The receipt_number field needs to be populated with a value in the format "site_code-?", so in the example below I used "SS-?". The RIS core services handles generating a receipt number value based on this. This site_code value does not need to be a value from the l_site table, but it might be a good idea.

For testing purposes, I created a Mirth channel which simply reads an xml file from disk and sends it to the wedge. The export of the Mirth channel is attached to this bug in Redmine.

The file contained a very empty StudyContainer with only a c_payment row with the needed test data and a c_study row with an existing accession number.

6. Code Stream

eRad RIS– source code evolution



Legend:

Green = Released software

Red = Will not be released

Blue = Future release

7. RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
37	-	1.2.37.12843	1.2.37.12782	1.2.37.12843	1.2.37.12843	Full version release. Core install required.
37	1	1.2.37.13040	1.2.37.13040	1.2.37.13039	1.2.37.13003	Core install required. GUI.zip, web service and database updates
37	2	1.2.37.13069	1.2.37.13040	1.2.37.13069	1.2.37.13003	GUI.zip and Web service updates
37	3	1.2.37.13069	1.2.37.13040	1.2.37.13069	1.2.37.13003	Just WebAPI updated, no version changes. . Web service updates
37	4	1.2.37.13171	1.2.37.13040	1.2.37.13165	1.2.37.13171	GUI.zip, web service, and database updates
37	5	1.2.37.13347	1.2.37.13040	1.2.37.12979	1.2.37.12979	Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we really did not.
37	6	1.2.37.13665	1.2.37.13040	1.2.37.13580	1.2.37.12979	GUI.zip and Web service updates
37	7	1.2.37.13807	1.2.37.13040	1.2.37.13799	1.2.37.13807	GUI.zip and Web service updates. Also MIRTH mapping changes
37	8	1.2.37.13807	1.2.37.13040	1.2.37.13827	1.2.37.13807	Web service update
37	9	1.2.37.13807	1.2.37.13040	1.2.37.13839	1.2.37.13807	Web service update

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37	10	1.2.37.13895	1.2.37.13040	1.2.37.13895	1.2.37.13895	GUI.zip, Web service and database updates
37	11	1.2.37.14161	1.2.37.13040	1.2.37.14161	1.2.37.14161	GUI.zip, Web service, database updates and SQL Management reporting
37	12	1.2.37.14267	1.2.37.13040	1.2.37.14161	1.2.37.14267	GUI.zip, Web service and database updates
37	13	1.2.37.14326	1.2.37.13040	1.2.37.14326	1.2.37.14326	GUI.zip, Web service and database updates
38	-	1.2.38.14486	1.2.38.14486	1.2.38.14486	1.2.38.14486	Full version release. Core install required.
38	1	1.2.38.14748	1.2.38.14748	1.2.38.14748	1.2.38.14748	Core install required
38	2	1.2.38.15182	1.2.38.14748	1.2.38.14748	1.2.38.14748	GUI.zip update only
38	3	1.2.38.15251	1.2.38.14748	1.2.38.14748	1.2.38.14748	GUI.zip update only
38	4	1.2.38.15327	1.2.38.14748	1.2.38.15290	1.2.38.14748	GUI.zip and Web service updates
38	5	1.2.38.15513	1.2.38.15513	1.2.38.15513	1.2.38.15451	Core install required. GUI.zip, Web service and database updates.
38	6	1.2.38.15618	1.2.38.15513	1.2.38.15513	1.2.38.15618	GUI.zip and database updates
38	7	1.2.38.15768	1.2.38.15513	1.2.38.15768	1.2.38.15618	GUI.zip and Web Service updates
39	-	1.3.39.15389	1.3.39.15389	1.3.39.15377	1.3.39.15355	Full version release. Core install required.

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39	1	1.3.39.16026	1.3.39.15943	1.3.39.15943	1.3.39.15957	Core install required. GUI.zip, Web service and database updates
40	-	1.3.40.16659	1.3.40.16659	1.3.40.16659	1.3.40.16659	Core install required. Full version release
40	1	1.3.40.16849	1.3.40.16659	1.3.40.16744	1.3.40.16727	GUI.zip, Web service, database updates and SQL Management reporting
40	2	1.3.40.16868	1.3.40.16659	1.3.40.16868	1.3.40.16727	GUI.zip and Web Service
40	3	1.3.40.16868	1.3.40.16659	1.3.40.16868	1.3.40.16727	DB updated only
40	4	1.3.40.16967	1.3.40.16659	1.3.40.16932	1.3.40.16961	GUI.zip, Web service, database updates
40	5	1.3.40.17087	1.3.40.16659	1.3.40.17069	1.3.40.17087	GUI.zip, Web service, database updates
40	6	1.3.40.17146	1.3.40.16659	1.3.40.17146	1.3.40.17146	GUI.zip, Web service, database updates
40	7	1.3.40.17268	1.3.40.16659	1.3.40.17268	1.3.40.17259	GUI.zip, Web service, database updates
40	8	1.3.40.17364	1.3.40.16659	1.3.40.17362	1.3.40.17343	GUI.zip, Web service, database updates
40	9	1.3.40.17370	1.3.40.16659	1.3.40.17370	1.3.40.17370	GUI.zip, Web service, database updates
40	10	1.3.40.17435	1.3.40.16659	1.3.40.17435	1.3.40.17370	64 BIT web service. GUI.zip, Webservice.
40	11	1.3.40.17435	1.3.40.16659	1.3.40.17525	1.3.40.17370	Web service update

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40	12	1.3.40.17685	1.3.40.16659	1.3.40.17685	1.3.40.17648	GUI.zip, Web service, database updates
40	13	1.3.40.17776	1.3.40.16659	1.3.40.17776	1.3.40.17648	GUI.zip, Web service
40	14	1.3.40.18063(3GB)	1.3.40.16659	1.3.40.18063	1.3.40.18063	GUI.zip, Web service, database updates
40	14.1	1.3.40.18063(3GB)	1.3.40.16659	1.3.40.18107	1.3.40.18063	Web service
40	15	1.3.40.18127(3GB)	1.3.40.16659	1.3.40.18127	1.3.40.18127	GUI.zip, Web service, database updates
40	16	1.1.3.40.18585 (3GB)	1.3.40.16659	1.3.40.18585	1.3.40.18646	GUI.zip, Web service, database updates
40	16.1	1.3.40.18705 (3GB)	1.3.40.16659	1.3.40.18585	1.3.40.18646	GUI.zip
40	17	1.3.40.18780 (3GB)	1.3.40.18756	1.3.40.18756	1.3.40.18646	Core install required for Radiologist User Group. GUI.zip, Core setup, and Web Service updates
40	18	1.3.40.19253(3GB)	1.3.40.18756	1.3.40.18756	1.3.40.19253	GUI.zip, Web Service and database updates
40	19	1.3.40.19909(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	GUI.zip, Web Service
40	20	1.3.40.20086(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip and Recognizer
40	21	1.3.40.20703(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip
40	22	1.3.40.20898(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip
41	-	1.3.41.19135(3GB)	1.3.41.19135	1.3.41.19135	1.3.41.19135	Full version release
41	1	1.3.41.19256(3GB)	1.3.41.19135	1.3.41.19256	1.3.41.19256	GUI.zip,

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						Web Service and database updates
41	2	1.3.41.19620(3GB)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip and Web Service
41	2sf	1.3.41.19620SF(3G)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip
41	2.1	1.3.41.20622(3GB)	1.3.41.19135	1.3.41.20617	1.3.41.19346	GUI.zip and Web Service
41	3	1.3.41.20125(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip , Web Service and Recognizer
41	4	1.3.41.20285(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip
41	5	1.3.41.20809(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip, Core install, Web Service and database updates
41	6	1.3.41.20912(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip
41.1	-	1.3.41.20918(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip
41.1	1	1.3.41.20987(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip
41.1	2	1.3.41.21162(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip, Web Service and DB updates
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release

8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.42. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.42.

Bug #	Priority	Subject	Category	Found Version
5785	Immediate	Automacros containing fields lose their field attributes	Radiology Reporting	1.41.1
5165	Immediate	Losing default value for fields when saving template/macro	Radiology Reporting	40.019
2972	Immediate	multi sign - personnel search from administration will not populate the sign level saved with the user	Thick Client GUI	1.39.001
5827	Urgent	InsertTextAtPastCaretPositions is causing undesired behavior for rads when editing.	Radiology Reporting	1.40.022
5758	Urgent	Mammo follow-up orders no longer included in the list of outstanding orders when scheduling	Thick Client GUI	1.41.006
5338	Urgent	Reporting - Dictionary Add / Train changes	Radiology Reporting	1.40.20
4972	Urgent	RadNet - Sales Reports - Adjust all reports to CPT based	Mgt Reports	1.4
4710	Urgent	Reporting - inserting a template or macro with interactive timestamps will cause playback corruption and confusion	Radiology Reporting	1.41
4641	Urgent	RRR- support issue. Outside Read Bug	Thick Client GUI	40.17
5604	High	Error after login: nullable object must have a value (see alternative steps to reproduce)	Thick Client GUI	1.41.002.1
5576	High	Saving system layout saved signing layout as editing and vice versa.	Radiology Reporting	1.40.21
5438	High	Reporting - possible wrong document model loading if more than one practice	Radiology Reporting	1.40.20
5348	High	Reporting - ability to navigate cued fields without pausing	Radiology Reporting	1.4
5298	High	Next fields wraps document but previous field does not	Radiology Reporting	1.40.020

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5210	High	Not able to arrive a patient (MSK)	Thick Client GUI	41.002
5196	High	Date filter not working correctly on - Last Followup Date column (RRR)	Thick Client GUI	41.002
5171	High	Cancelled by Reason Core management report fails to run (RRR)	DB	41.002
5152	High	Correction dialog can cause word duplication	Radiology Reporting	1.40.018
5141	High	Editing fields in template editor sometimes throws an exception	Radiology Reporting	40.019
5137	High	Management Reports - Modifications to reports in Operations Folder	Mgt Reports	1.4
4987	High	Tentatively signed studies that are suspended should be better protected	Radiology Reporting	1.40.017
4984	High	HL7 --> placer order number contains literal		41.001
4856	High	Wedge fails to insert order and returns Patient and OrderPlacerNumber reference check failure The transaction ended in the trigger. The batch has been aborted. to Mirth	DB	1.41
4823	High	Reporting Screens fail to load if unable to find a good description for the current procedure code	Thick Client GUI	1.4
4803	High	Template/macro add ability to assign to Modality Type	Radiology Reporting	1.4
4751	High	Next workflow broken when using multiple tabs of different types	Radiology Reporting	1.41
4681	High	Able to sign a report when the field(s) in a template do not not have a value.	Thick Client GUI	1.41
4671	High	Unknown CC physician --> not displayed properly on Unknown reconsiliation WL (RRR)	Thick Client GUI	40.17
4649	High	Error adding a procedure plan for new appointment	Thick Client GUI	1.41
4626	High	Protect Section Headers - Two new cases to handle	Radiology Reporting	1.41

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4625	High	Reporting - ability to open multiple dictations in batch mode	Radiology Reporting	1.4
4597	High	RRR - HTML Codes are breaking prep instructions	Thick Client GUI	40.18127
4580	High	Special Accommodations Flag does not get turned off if Special Accommodations is the only flag that is turned on and the user switches the Yes to a No	Web Services/DB	1.4
4546	High	Patient Merge event while another user has that patient open on a screen.	Thick Client GUI	1.4
4545	High	Referrings with No delivery preference in any address do not get their reports.	Document Distribution	1.40.16
4479	High	Reporting - using re-use causing confusion when getting a message box like "Addendum Requested"	Radiology Reporting	1.41
4379	High	All signed by date column sorts	Radiology Reporting	1.41
4378	High	Canceling Unscheduled orders not appearing on Patient Folder	Thick Client GUI	1.41.18633
4375	High	Patient Merge - Suggest button causes Index error when trying to add to the Patient Merge WL	Thick Client GUI	1.41
4366	High	Transcribe next workflow (beeps)	Radiology Reporting	1.41
4281	High	Template / macro user assignment screen slow to load.	Radiology Reporting	1.4
4198	High	patient folder doesn't load unless part of the initial layout on open of rad screen	Thick Client GUI	1.41
4005	High	Memory leak - Reporting - Resizing floating panes	Thick Client GUI	1.40.013
3909	High	Show / Hide titlebars from view menu throws exception	Thick Client GUI	1.40.010
3845	High	Lookup editor drop down won't must show existing values	Thick Client GUI	40.006
3575	High	RadNet - West Coast - Add Age as an Pre-Cert rule option	Thick Client GUI	1.39

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3570	High	Reporting - Playback then record does not work with Interactive Dictation.	Thick Client GUI	1.40.005
3528	High	Magview reports come in via HL7 containing 	HL7	1.4
3036	High	Reporting - Pending Signature worklist not obtaining lock for patients with multiple studies from same order	Thick Client GUI	1.39.001
2941	High	Request Addendum	Thick Client GUI	1.37
2532	High	access to changing the access strings needs to read only.	Thick Client GUI	1.39
5788	Normal	xkeys - insert template is not working		1.41
5779	Normal	c_selectreporttable throwing error on report server when there is no table for the dx report	Web Services/DB	1.41
5729	Normal	Exam Search with Scheduled Date Range includes one extra day	Thick Client GUI	1.41.006
5641	Normal	Parameter is not valid error while loading thumbnail images in document viewer	Thick Client GUI	1.41.005
5631	Normal	Special Accommodations flag does not display properly	Thick Client GUI	1.4
5623	Normal	null reference error when opening administration / management reports	Thick Client GUI	1.41.005
5612	Normal	null reference error from CDImportManager	Thick Client GUI	1.41.005
5600	Normal	ICM Dashboard - outside read site code issue	Web Services/DB	1.4
5599	Normal	wrong data in c_study._site_code for outside read	Web Services/DB	1.41
5583	Normal	Spell check on the fly no longer turned on. Squigly lines are not shown under misspelled words	Radiology Reporting	1.40.21
5577	Normal	Report Fields do not update when you load a new layout	Radiology Reporting	1.41
5561	Normal	foreign key error when adding follow-up / contact log entries	Thick Client GUI	1.41.005

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5525	Normal	Scanning - Performs scan but returns no pages.		1.41
5516	Normal	Error when reprinting Receipts	Thick Client GUI	1.41.002.1
5507	Normal	Patient Folder - Null Scheduled Dates should show at top as most recent.		1.41
5487	Normal	Procedure code assignment screen in template editor keeps button disabled	Radiology Reporting	1.41.002
5478	Normal	MERGE - Birad picker either shows on non Birads studies or doesn't show on birad studies.	Radiology Reporting	41.002
5460	Normal	When deleting, activating or deactivating items in the template/macro editor, all rows are updated	Radiology Reporting	1.41
5443	Normal	Reporting - rad edit text default color is yellow - should be "#810000"	Radiology Reporting	1.40.20
5408	Normal	Object Reference Error entering an OutsideRead 41.004	Thick Client GUI	41.004
5394	Normal	missing index on c_summary_mu_history	DB	1.41
5379	Normal	right click Print Report should record an audit log entry	Thick Client GUI	1.40.003
5377	Normal	Stored procedure for Radar confirmations in core install is out of date in relation to SE	Web Services/DB	1.4
5351	Normal	Reporting - Laterality check causing duplicate words	Radiology Reporting	1.40.020
5346	Normal	Reporting - report history requires a lock and offers a read only mode that will not allow you to view anything		1.40.020
5345	Normal	Playback with bouncing ball, preventing word selection with double click.	Radiology Reporting	40.016
5332	Normal	Reporting - no wait navigate fails when dictating and then clicking next field > 1 time without pausing	Radiology Reporting	1.40.019
5327	Normal	Problem with AME Spellcheck CP-14969		1.40.020
5308	Normal	Reporting - dictating negative 5 percent will render the word percent not the symbol	Radiology Reporting	1.40.20

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5273	Normal	CD Import: import fails, if images don't have an accession number		1.41
5272	Normal	Reporting - Automatic spell check "on the fly" marks words as misspelled that are at the beginning of a field	Radiology Reporting	1.40.020
5271	Normal	Field navigation popup not showing for FFF	Radiology Reporting	40.02
5244	Normal	Copy and pasting words into a report should add leading and trailing space as in MS Word	Radiology Reporting	1.4
5242	Normal	Input device invokable events need proper display text	Radiology Reporting	9
5221	Normal	Reporting - User preference for Redo needs to be selected twice to work	Radiology Reporting	1.40.020
5219	Normal	Reporting - Function key action DeleteWordLeftOfCursor will delete fields and section titles	Radiology Reporting	1.40.020
5217	Normal	Solution name is wrong in installer - and possibly icon for shortcuts.		1.38
5211	Normal	Prompt when creating templates if the word colon is in a cue		1.40.019
5203	Normal	Unable to dictate a new line (shift+enter). Always renders as a paragraph	Radiology Reporting	1.40.019
5202	Normal	Next/Previous section unusable due to inconsistent results		1.40.019
5201	Normal	Rendering of spine levels have changed in 7.88		1.40.019
5200	Normal	First word in field persisting and will not overwrite	Radiology Reporting	1.41
5179	Normal	DEA blank vs Null	Thick Client GUI	1.41
5178	Normal	Template - cannot remove a value in either the Grammar or Default value fields	Thick Client GUI	41.003
5170	Normal	Reporting - template/macro editor cue text box too small	Radiology Reporting	1.41
5169	Normal	Aggressive field cue navigation fails after editing a cue on a template.	Radiology Reporting	1.40.019

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5160	Normal	Prompt when creating templates if the word colon is in a cue		1.40.019
5145	Normal	Next field voice command, showing field popup for one field too far.	Radiology Reporting	40.18
5136	Normal	Management Report updates - removals	Mgt Reports	1.4
4979	Normal	Advanced needs created date to appear on the dx template next to each addendum	Web Services/DB	1.4
4977	Normal	forms will not print for exams scheduled in closed rooms	Thick Client GUI	1.4
4976	Normal	Appliction icon is rris icon instead of eRAD icon - and is grainy / blocky in task bar		1.4
4974	Normal	RadNet - Sales reports - add patient zip code report	Mgt Reports	1.4
4940	Normal	Multi-type ahead control not sufficient for replacement of Race/Ethnic combo box.		1.41
4939	Normal	Type ahead for ICD codes on Medical History Grid does not handle decimal	Thick Client GUI	1.41
4934	Normal	Assign to Control can populates user list based on wrong practice	Radiology Reporting	1.41
4875	Normal	support row level caching for lookup tables	Web Services/DB	1.4
4862	Normal	null reference error in PatientGeneral constructor line 126	Thick Client GUI	1.41
4860	Normal	Ris hangs... For a long time in template editor.	Radiology Reporting	1.41
4850	Normal	TypeError: The prefix "mm" for attribute "mm:major" associated with an element type "ClinicalDocument" is not bound	HL7	1.41
4839	Normal	RRR - IVT - Managed Policies - billing code info goes blank		1.4
4828	Normal	Report fields control throws exception when in minimized mode	Radiology Reporting	1.41
4818	Normal	Reporting - reuse only - macros are not getting reset and old command are staying around on next workflow	Radiology Reporting	1.41

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4817	Normal	First chance exception when getting field description in report template editor.	Radiology Reporting	1.4
4813	Normal	First chance exception on SpeechMike Firmware check	Radiology Reporting	1.41
4812	Normal	First chance exception on PacsCacheServer	Thick Client GUI	1.41
4811	Normal	First chance exception when loading reporting autosave screen.	Radiology Reporting	1.41
4806	Normal	Reporting - spell check on the fly user preference not working	Radiology Reporting	1.41
4786	Normal	Management Report - User Group Permissions is missing access string name	Mgt Reports	1.41
4784	Normal	Patient merge - recent history list - pulls up the deleted patient	Thick Client GUI	1.4
4780	Normal	Known Limitation - Side by side registration broken from 40.016 - 40.017	Thick Client GUI	40.017
4778	Normal	duplicate "void" payment for the same payment	Thick Client GUI	1.4
4776	Normal	PACS Server override user preference requires log-out, then log-in to take effect	PACS Integration	1.41.001
4775	Normal	PACS Viewer 7.2.34 returns Success="1" with a view session id but empty openedaccessionnbs attribute. When RIS closes this view session PACS is unresponsive.	PACS Integration	1.41.001
4758	Normal	Invalid insurance policy saved to DB	Thick Client GUI	40.016
4752	Normal	Reporting - speech mics 3500 and 3600 showing incorrectly in Help>About	Radiology Reporting	1.41
4748	Normal	scan document archive "write check" fails when 2 or more processes run on the same server	Web Services/DB	1.4
4746	Normal	Reporting - performance - require two raddocks to support signing and dictating	Radiology Reporting	1.41
4741	Normal	Scan document archiving fails when the scan document page is null	Web Services/DB	1.4

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4739	Normal	Reporting - reuse enabled and open a screen for signing, skip next will not populate the tab text	Radiology Reporting	1.41
4725	Normal	IVT Worklist - new field "Last Contact entry"	Thick Client GUI	1.41
4723	Normal	Dark mode watermark (eRad RIS logo) too bright		1.41
4720	Normal	c_GetNameFromUserID still referencing c_format_name using format 1	Web Services/DB	1.4
4716	Normal	Reporting - reuse when skipping reports and there are change we don't get a prompt to save changes	Radiology Reporting	1.41
4714	Normal	RRR - unknown reconciliation - right click not available on HoldCodeCompleted	Thick Client GUI	40.17
4683	Normal	MU Ethnic HL7 codes	Web Services/DB	1.41
4682	Normal	MU - c_patient_medication is missing FK reference to l_medication.medicaiton_code	Thick Client GUI	40.17
4676	Normal	Reporting - reuse selected report tool window keeping previous data	Radiology Reporting	1.41
4673	Normal	Management Report - Appointment Schedule	Mgt Reports	1.4
4665	Normal	Numbered lists that aren't formatted as true ordered lists are wrapping up to the seciton line	Mgt Reports	1.41
4662	Normal	Reporting - SetAccountRules not called when opening an exam for the default template	Radiology Reporting	1.41
4660	Normal	Report fields control showing as a blank canvas	Radiology Reporting	1.41
4654	Normal	Dictating previous field moves two fields back instead of one.	Radiology Reporting	1.41
4639	Normal	Interactive fast forward light up play and fast forward	Radiology Reporting	1.41

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4638	Normal	Audio control allow rewinding and fastforwarding to show at the same time as active.	Radiology Reporting	1.41
4637	Normal	RCW error closing reporting window	Radiology Reporting	1.41
4636	Normal	Recording rewinding in interactive mode falls into a playback/rewind loop.	Radiology Reporting	1.41
4635	Normal	Recording interactive and rewinding	Radiology Reporting	1.41
4634	Normal	Audio starts playing when recording	Radiology Reporting	1.41
4633	Normal	Switching from record to play in batch mode	Radiology Reporting	1.41
4632	Normal	Interactive record + playback at same time	Radiology Reporting	1.41
4630	Normal	Reporting - Edit Templates and Macros from the menu option is showing templates not soley owned by the radiologist	Radiology Reporting	1.4
4628	Normal	MU Height and Smoking Status should pre-populate for walk-in	Thick Client GUI	1.41
4627	Normal	RectangleDrawer timer throws exception	Radiology Reporting	1.4
4624	Normal	Reporting - Automacros do not use scanner in scoring which available macro should load		1.4
4621	Normal	QA workflow, set to problem without rejecting	Radiology Reporting	1.41
4607	Normal	RadNet - Dark Theme - Within template/macro editor, forecolor is the same as backcolor	Thick Client GUI	1.41
4588	Normal	CD Import - Fails to import CDs from some hospitals that have "Screen Save" type images		1.4
4581	Normal	Ampersand in template / macro field name can corrupt report	Radiology Reporting	1.4

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4577	Normal	View Edit - open view edit window and save with no changes made logs entry to audit history	Thick Client GUI	1.41
4567	Normal	Reporting - notifications need to be placed above action buttons.		1.41
4566	Normal	Reporting Reuse - Next workflow loads cases that are pending saving.	Thick Client GUI	1.41
4562	Normal	Template editor, inserting a field into a section header throws an error.	Radiology Reporting	1.4
4560	Normal	Some message boxes don't close when hitting X	Thick Client GUI	1.41
4557	Normal	Read only mode hides recording button, but can still record using microphone	Radiology Reporting	1.41
4556	Normal	Read only mode not reflecting on minimized dictation controls	Radiology Reporting	1.41
4551	Normal	Modified GoggleSearchAction to support Multiple passed in params	Thick Client GUI	1.41
4549	Normal	person search results does not correctly show specialties	Thick Client GUI	1.4
4544	Normal	Send-to button blanks out the reporting screen	Radiology Reporting	1.41
4543	Normal	RXNorm is not captured from NewCrop	Thick Client GUI	1.41
4542	Normal	Worklist refresh exception		1.41
4541	Normal	autosave - button positions should be switched		1.41
4540	Normal	Autosave - close should prompt to delete		1.41
4539	Normal	Autosave - double click row does nothing		1.41
4536	Normal	Reporting - Reuse enabled status area messages not populating for action buttons	Radiology Reporting	1.41
4533	Normal	Reporting - edit template > make changes > x to close > no prompt presented about changes	Radiology Reporting	1.41
4532	Normal	Reporting - edit template > esc > cancel will close the form instead of cancelling	Radiology Reporting	1.41

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4528	Normal	WPR-000	Radiology Reporting	1.4
4527	Normal	Attachments - Verbal button causing error	Thick Client GUI	1.41
4522	Normal	intermittent error: transaction was deadlocked on lock resources with another process and has been chosen as the deadlock victim	Web Services/DB	1.41
4521	Normal	Scanning - Editing Document width and height causing error on blanks	Thick Client GUI	1.41
4516	Normal	Reporting - MT polling enabled open RIS initially will result in messed up reporting screen	Radiology Reporting	1.41
4514	Normal	Attachments - wide documents that a small height cause an out of memory exception		1.4
4510	Normal	Reporting - editing reports MT's have the microphone selection option available	Radiology Reporting	1.41
4508	Normal	Transcriptionist next workflow not properly skipping	Radiology Reporting	1.41
4490	Normal	Protect section headers does not protect against macro insertions	Radiology Reporting	1.40.017
4489	Normal	Inactive printers can still be selected in Send Report dialog	Document Distribution	1.4
4488	Normal	CD Import - add a button to access this feature from Patient Folder.		1.4
4487	Normal	CD Import - Some customers have CD media without a DICOMDIR		1.4
4486	Normal	dicom error while importing a CD	Thick Client GUI	1.40.16328
4483	Normal	Reporting - Add patient folder control to reporting window will not display history	Thick Client GUI	1.41
4481	Normal	LogTextBox - Permission for an admin to edit previous log details isn't always available.		1.41
4444	Normal	Scanning - Order/Patient/Exam Level can change when re-viewing the document		1.41

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4443	Normal	External Report Workflow - changing room/procedure resets external flag.		1.41
4434	Normal	Outside Reads do not fall into external workflow		1.41
4426	Normal	Reports that should have site filter	Mgt Reports	1.41
4392	Normal	alignments of MT screen buttons in user preferences are a little miss aligned	Thick Client GUI	1.41
4389	Normal	Reporting - Addendum request make notes required on request and reject.	Radiology Reporting	1.41
4386	Normal	Report History Error	Thick Client GUI	1.41
4383	Normal	External Report Workflow check box loses value on open of view edit		1.41
4341	Normal	QA workflow problem flag #2894	Radiology Reporting	1.41
4334	Normal	Report History Window	Thick Client GUI	1.4
4296	Normal	RRR Modality Closures and Restrictions - when you delete a row after pressing 'enter' at the end of the column 'End Time' RIS does not seem to recognize the row is gone, and prompts user for 'Description'	Thick Client GUI	40.15
4290	Normal	Reporting - next field navigating two fields when cursor immediately to the left of field	Radiology Reporting	1.4
4274	Normal	All Signed By Date WL missing context menu option for Patient Folder	Thick Client GUI	1.41
4267	Normal	Report context menu item does not have access string	Web Services/DB	1.41
4260	Normal	RRR - Appointment book is not showing all outside read locations, only one.	Admin Tools	40.15
4259	Normal	RRR - Order of preferred radiologists in the Personnel editor or image notes, is not the same order it appears in the workflow within RIS	Thick Client GUI	40.15
4227	Normal	eRAD PACS: Often not closing images	PACS Integration	1.40.012

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4199	Normal	Error thrown on refresh lock after just having closed reporting screen.	Thick Client GUI	40.15
4185	Normal	Login - After logging in as a Rad user the splash screen doesn't always repaint	Thick Client GUI	1.41
4153	Normal	Sort on audio length throws error on worklist refresh	Thick Client GUI	1.41
4135	Normal	Workstation locks do not reliably fire on workstations that have not been rebooted for 25+ days	Thick Client GUI	1.40.16328
4096	Normal	Send To button on Report History screen should be hidden	Radiology Reporting	1.40.14
4093	Normal	Assign to Radiologist from WL clears Chair when configured not to clear the chair.	Thick Client GUI	1.40.012
4087	Normal	Getting "Viewer is opening another view!" when trying to launch images in eRAD PACS	PACS Integration	40.12
4086	Normal	Scanning - HP Scanjet 3000 s2 does not work with Twain 2.0		1.4
4085	Normal	RRR reported 'painting' issue with scheduling window		40.18019
4068	Normal	Reporting - next workflow excluding reports locked by the current user	Thick Client GUI	1.4
4052	Normal	Suspended reports can still be previewed in dictate screen using patient folder		1.4
4018	Normal	Memory leak fixes discovered in B40		1.4
4006	Normal	Scan Documents from EMR	Thick Client GUI	1.4
3976	Normal	Reporting buttons, when disabled, has a wider separator.	Thick Client GUI	1.4
3975	Normal	Verify External - button is greyed out in Patient Folder, even if you have permission	Thick Client GUI	39.1
3971	Normal	RIS Administrator - permissions	Web Services/DB	39.1
3914	Normal	order lock not released in some cases, refreshes continue until user logs out	Thick Client GUI	1.4

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3901	Normal	Reporting - Chair assignment - Chair selection shows study assigned but work list doesn't have any studies assigned	Thick Client GUI	1.40.010
3873	Normal	Patient Merge - when you choose phone number details for a patient and suggest merge, then re-open, those details are not maintained.	Thick Client GUI	1.1.3.40.17435
3872	Normal	Signing contribution dates and userid missing in supervising dictation worklist	Thick Client GUI	1.40.010
3866	Normal	Installing Updates... - Two can run at the same time, which causes errors		1.4
3828	Normal	Toggle record not stopping when pressed again (Fisher site visit)	Thick Client GUI	40.006
3802	Normal	RadNet - ADV defect - Blanking out the chair	Thick Client GUI	1.40.006
3796	Normal	RadNet - ADV Call Centre - Order level scanning support	Thick Client GUI	1.40.006
3755	Normal	RadNet - Call Centre - Preferred site not always populating	Thick Client GUI	1.40.006
3753	Normal	RadNet - Call Centre - IVT Attachment - advanced scanning pop-up issue	Thick Client GUI	1.40.006
3732	Normal	MU2 (2014) Requires Gender to Change to Sex	Thick Client GUI	1.4
3708	Normal	Inactive but currently used procedures are not appearing as an option in the performed procedure list on view edit	Thick Client GUI	1.40.0007
3692	Normal	Can't reschedule - strange error -		1.4
3683	Normal	Rad Sign Level lookup exception	Admin Tools	1.40.007
3662	Normal	Schedule Group lookup table exception	Admin Tools	1.40.006
3621	Normal	RadNet - Resolve Audit log issues - resolve in b41 if time permits, else move to b42	Thick Client GUI	1.38
3587	Normal	Administration --> cross_x_reference tables and Active column	Admin Tools	1.1.3.40.17118
3586	Normal	Administration --> BIRAD + Recommendation mapping change Active = object reference ERR	Admin Tools	1.1.3.40.17118

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3562	Normal	L access string settings for Mammography worklists should default to "None"	Thick Client GUI	1.4
3464	Normal	Reporting - Increase the size of selected attachments data pane and the border doesn't repaint	Thick Client GUI	1.4
3455	Normal	Reporting - Indent / Outdent not working	Thick Client GUI	1.4
3403	Normal	IVT WL not showing the WL Row count as expected	Thick Client GUI	1.4
3397	Normal	RRR - scan doc types when marked inactive are still showing in the dropdown menus in the GUI	Thick Client GUI	40.16659
3394	Normal	problems with validation of "Visited at" for "unknown referring physicians" without an address	Thick Client GUI	1.40.16328
3391	Normal	User editor loading config values twice, causing errors	Thick Client GUI	1.38
3373	Normal	EMR order fails - sending in an unknown referring physician	Thick Client GUI	1.4
3035	Normal	Missing access string	Web Services/DB	1.4
3010	Normal	Multi-sign: When you have a preconfigured sign level overrides (RadSignLevel table), and you disable contribute a and contribute b, user cannot sign on the modality type in the override.		39.16026
2991	Normal	Patient Folder - don't duplicate attachment viewers	Thick Client GUI	1.39
2970	Normal	Reporting - Report history - Does not always load and may return object reference error	Radiology Reporting	1.39.001
2897	Normal	Report History - from patient folder tab name is not correct	Thick Client GUI	1.39
2823	Normal	audit history does not provide sufficient detail for study data	Thick Client GUI	1.39
2716	Normal	System Config Lookup Editor	Thick Client GUI	1.38

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2690	Normal	Show/Hide Titlebar issue	Thick Client GUI	1.39
2628	Normal	Reporting screen not drawing in, if user make worklists active	Thick Client GUI	1.39
2453	Normal	River Ranch - When you reschedule a study we set an internal flag on the study that was rescheduled, when we just cancel we are not clearing this flag if it was previously set.	Thick Client GUI	38
2418	Normal	River Ranch - When two users with similar names edit an order, there can be some confusion in who actually wrote notes that are stamped (ie: order notes)	Thick Client GUI	38.14486
2163	Normal	Studies in Edits Pending QA can be signed off	Thick Client GUI	1.2.38.14350
2113	Normal	error on patient search when formatted_first_name is null	Web Services/DB	1.37.12
2072	Normal	Reporting - Worklist refresh when worklist is not in focus.	Thick Client GUI	1.37
2057	Normal	Unknown Insurance reconsiliation - reload problem	Admin Tools	37.11
1943	Normal	No access string to prevent access to Unknown Carrier		1.37
1842	Normal	Reporting - CdsInterctive Text Color not consistant		1.38
1487	Normal	Worklist column does not refresh when exception thrown in Bulk Field Assignment	Thick Client GUI	1.2.37.12644
1177	Normal	Completing fields in report editor and using Back button < will return COM error.	Thick Client GUI	1.36
4368	Low	Ranjan - Date format	Radiology Reporting	1.41
4282	Low	Template / macro - Create using filter criteria	Radiology Reporting	1.41
3889	Low	Null reference exception in lookup	Admin Tools	1.1.3.40.16659
3750	Low	Reporting - Exam details pane layout	Thick Client GUI	1.40.008

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3680	Low	Font size - not saving	Thick Client GUI	1.4
3229	Low	Patient search - folder preview feature - does not clear with reset button		1.4
3228	Low	Patient Folder (Preview Mode) - docking\floating issue on Patient Search	Thick Client GUI	1.4
1977	Low	Birthdate search often defaults to dates in the future		1.37
1348	Low	Special Accommodations required fields	Thick Client GUI	1.37

9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.42. Bugs reported in previous versions are not captured as Known Limitation in this document.

#	Status	Priority	Subject
5783	New	High	Dark mode login box impossible to see
5120	QE Rejected	High	Template / macro - create template from... doesnt retain custom fields
5861	New	Normal	unhandled exception logging in as a rad but without permission to some WL.
5860	New	Normal	PACS Images not opening from Patient folder
5857	New	Normal	Critical Results worklist throws null exception
5854	New	Normal	PACS Caching - Sometimes possible to steal someone else's cache lock
5851	New	Normal	Reporting - Error on pending dictation work list
5847	New	Normal	Dark mode - BMI on MU tab is white on white and unreadable
5843	New	Normal	MU - When editing the date in Lab results get error.
5839	New	Normal	Edit Templates and Macros icons enabled toggle is backwards
5837	New	Normal	Reporting - Open study in dictate window and get C++ Exception
5836	New	Normal	Chair selector throws error after RIS locked due to inactivity
5835	New	Normal	interact with message boxes via voice commands - can dictate into the message itself
5832	New	Normal	Scheduling - Restriction displayed in advanced search on Schedule tab not always accurate
5829	New	Normal	Scheduling / Registration
5822	New	Normal	'Assign' functionality throws error on report addendum
5821	MModal support	Normal	Redo That command needs to be uttered twice to work/catch up with undo that

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5814	New	Normal	If lab test code matching systemconfig's CPOELabTestCode value doesn't exist for procedure who's CPOE Pathology flag is set, misleading exception occurs
5812	New	Normal	Orders to Schedule WL and IVT WL show last follow-up type code and the Mammo Worklists (0/4/5) show
5811	New	Normal	Suspended reports stops several voice commands from working
5808	New	Normal	Dark mode, very hard to read text in Recording and Playback settings
5800	New	Normal	parameter is not valid and/or out of memory error while viewing thumbnails
5784	New	Normal	Default attachment is order level, cant be changed to patient level
5777	New	Normal	Attachment Veiwew "Show More/Show Less" option is switching when pressing the Ok Button in the Attachment Viewer Preferences
5770	New	Normal	Button label on "Report on Accession Number" prompt is incorrect.
5768	New	Normal	DeleteLeftWord
5767	New	Normal	Cannot save IVT screen due to undetermined required field ("! Is Required")
5766	New	Normal	potential performance issues with c_ctrn_dictation
5762	New	Normal	Unplugging then replugging in speech mic causes Ris to crash, need to reboot
5754	New	Normal	Open quotes become duplicated
5745	New	Normal	Lookup bug "Non-static method requires a target"
5738	New	Normal	patient folder will not load when saved as a secondary tab on another tool window
5732	New	Normal	issues with sorting exam search results when max row count is reached

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5726	New	Normal	Management Reports - Many reports have new parameters, these fields should be returned on the report
5712	In Progress	Normal	C++ Exception when pressing the play button
5711	New	Normal	Using two procedures at scheduling, and patient is claustro - it is showing an option for a closed modality when it should not
5700	New	Normal	Template, cannot remove the dataset values
5697	New	Normal	RIS screen lock does not function properly when using minimize to tray mode
5685	New	Normal	Logout - after entering username and PWD error saying eRAD RIS is already running
5682	New	Normal	Inactivity message showing under ris error pop up
5678	New	Normal	View/Edit notes exam times tab marks as dirty
5672	New	Normal	Next Workflow on All _____ worklists, locked studies break work flow.
5664	New	Normal	When dictating, losing your lock, and save failed with screen recovered, you won't be able to save
5657	New	Normal	Cannot click 'OK' or 'Cancel' in PACSLoginDialog when running in 'Minimized' recording control mode
5654	In Progress	Normal	MU Lab Results Error
5637	New	Normal	Complete button on Report screen has misaligned formatting
5625	New	Normal	Reporting - cant exit minimized dictation screen with cancel button or close button
5620	New	Normal	Swap creditial user being used for user preference and lock screen
5619	New	Normal	Macro editor field "bleeds" into next line when field is at end of line and Enter pressed
5610	New	Normal	Clear Credentials is available from perform exam tab context menu
5603	New	Normal	recent activity message list shows Assign To as Dictated

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5597	New	Normal	Reporting - delete next field speech mike option leaves a space after deleting
5569	New	Normal	Lookup tables->ProcedureCode - Missing null checks on new l_procedure_code_x_billing_code rows throws exception
5563	In Progress	Normal	Reporting - Field markers allowing normal spelling errors to pass
5549	New	Normal	Edit Image Request's "Previous Requests" grid shows only 2-3 previous requests , can't be sorted or scrolled to see more
5526	In Progress	Normal	Reporting - Delete previous n words and undo that resulting in wrong cursor location
5519	New	Normal	Reporting - pending signature on login and pending signature worklist notifications can be shown at the same time
5515	In Progress	Normal	Reporting - Setting DictationEnabled = false still allows dictated text into the report.
5506	In Progress	Normal	Reporting - lowercase selection voice command inoperable
5469	New	Normal	Alerts may not fire properly if screens are re-used in RIS
5459	New	Normal	right click change status to cancel does not refresh worklist afterwards
5452	New	Normal	Reporting - Spine level 'T seven eight' rendering incorrectly.
5451	New	Normal	Reporting - enable rewind/fast foward playback rename
5446	New	Normal	Radnet only: Multi-install dashboard
5439	In Progress	Normal	new practices can cause null ref errors when signing
5420	New	Normal	some messageboxes improperly sized
5406	New	Normal	concurrency violation on save of UserPrefs can crash RIS

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5305	New	Normal	Report field control shows duplicate field if laterality check highlighted words exist in a field
5259	New	Normal	Multi-type ahead: down arrow does not open the dropdown
5258	New	Normal	Multi-type ahead: control is too tall
5257	New	Normal	Multi-type ahead: Dropdown button should have a ... in the icon
5256	New	Normal	Multi-type ahead: Dropdown button is doesn't have left and bottom border
4830	New	Normal	Carrier search error if carrier name is not found
4810	New	Normal	PACSCacheServer system config setting is no longer used and should go away
4792	New	Normal	Reporting - Open multiple autosaved reports at once can cause error
4787	New	Normal	Next field not going to next field when dictating paragraphs in field.
4771	New	Normal	insert multi paragraph macro into field ignores paragraphs
4718	In Progress	Normal	Reporting - AME 7.88.3 - extra paragraph when protect section headers is on
4593	New	Normal	WPR - Send To button causes error

Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.0.1

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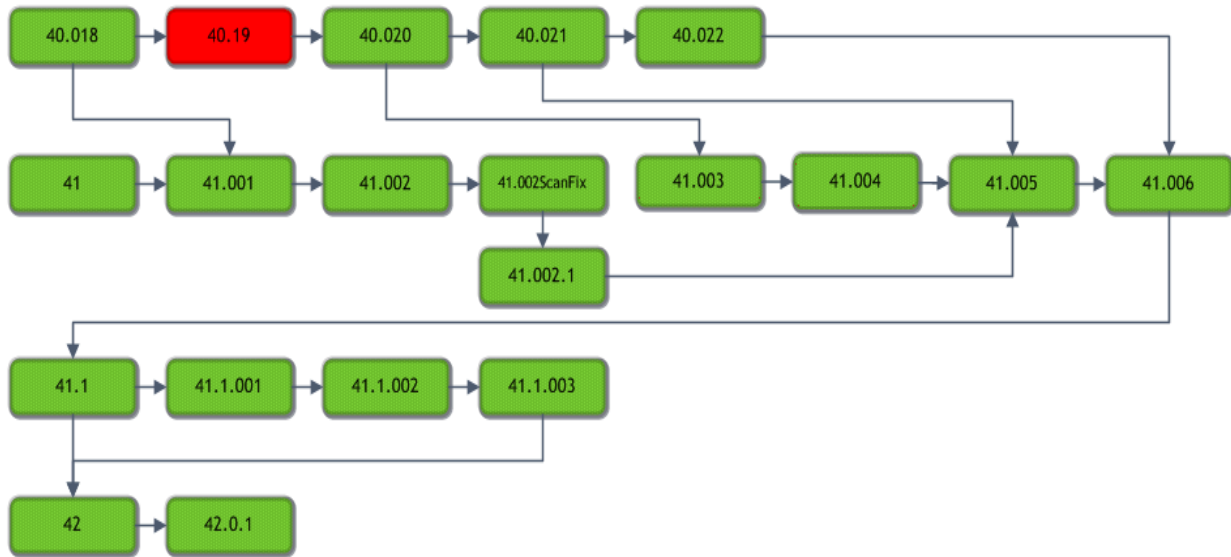
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1. Defects Resolved

Redmine #	Subject	Priority
5980	Faxes failing to submit to fax queue	Immediate
6054	Medications table displaying incorrectly	Urgent
6030	Problems and Allergies not populated on Reschedule	High
6029	Message when opening MU tab on Rescheduling: "open in another tab"	High
6042	Non-Insurance Verifiable Modalities (XR) are falling to worklist	Normal
6041	Mammo invitives can be rescheduled once but not a second time	Normal
6040	Reschedule-x obtaining locks and not releasing them	Normal

2. Code Stream

eRAD RIS - Source Code Evolution



Legend:

Green = Released software

Red = Will not be released

3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:

a) rRIS_42.0.1.21597.zip

2) RIS_Service_Updates contains:

- ABCpdf.dll
- ABCpdf9-32.dll
- ABCpdf9-64.dll
- CDSJobManager.dll
- CDSJobManager.pdb
- CdsLib.dll
- CdsLib.xml
- CdsLib.XmlSerializers.dll
- CommonLib.dll
- CommonLib.pdb
- contents.txt
- DDEngine.dll
- DDEngine.pdb
- Interop.ANYMODALCAPTURECTRLLib.dll
- Interop.FAXCOMEXLib.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.pdb
- Microsoft.Practices.EnterpriseLibrary.Common.dll
- Microsoft.Practices.EnterpriseLibrary.Common.pdb
- Microsoft.Practices.EnterpriseLibrary.Logging.dll
- Microsoft.Practices.EnterpriseLibrary.Logging.pdb
- Microsoft.Practices.ServiceLocation.dll
- Microsoft.Practices.ServiceLocation.pdb
- Microsoft.Practices.Unity.dll
- Microsoft.Practices.Unity.Interception.dll
- Microsoft.Practices.Unity.Interception.pdb
- Microsoft.Practices.Unity.pdb
- Microsoft.ReportViewer.Common.dll
- Microsoft.ReportViewer.WinForms.dll
- Microsoft.ReportViewer.WinForms.xml
- Newtonsoft.Json.dll
- Newtonsoft.Json.xml
- Ninject.dll
- Ninject.Web.Common.dll
- Ninject.Web.Common.xml
- Ninject.xml
- O2S.Components.PDFRender4NET.dll
- PDFToImages.exe
- rRISServices.exe
- rRISServices.pdb
- rRISServicesx64.exe
- ScheduledTaskManager.dll
- ScheduledTaskManager.pdb
- ServicesConfigWizard.exe
- ServicesConfigWizard.pdb
- SignatureApprovalService.exe
- SignatureApprovalService.pdb
- System.Net.Http.dll
- System.Net.Http.Formatting.dll
- System.Net.Http.Formatting.xml
- System.Net.Http.WebRequest.dll
- System.Net.Http.WebRequest.xml
- System.Net.Http.xml
- System.Web.dll
- System.Web.Helpers.dll

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- System.Web.Helpers.xml
- System.Web.Http.dll
- System.Web.Http.SelfHost.dll
- System.Web.Http.SelfHost.xml
- System.Web.Http.WebHost.dll
- System.Web.Http.WebHost.xml
- System.Web.Http.xml
- System.Web.Mvc.dll
- System.Web.Mvc.xml
- System.Web.Optimization.dll
- System.Web.Providers.dll
- System.Web.Razor.dll
- System.Web.Razor.xml
- System.Web.WebPages.Deployment.dll
- System.Web.WebPages.Deployment.xml
- System.Web.WebPages.dll
- System.Web.WebPages.Razor.dll
- System.Web.WebPages.Razor.xml
- System.Web.WebPages.xml
- Tourreau.Gilles.FaxDotNet.dll
- Tourreau.Gilles.FaxDotNet.pdb
- Tourreau.Gilles.FaxDotNet.xml
- WCFService.dll
- WCFService.pdb
- WCFServiceTests.dll
- WCFServiceTests.pdb
- WebApi.dll
- WebApi.pdb
- Wedge.exe
- Wedge.pdb

The rRIS_Service_Updates also contains to subfolders:

- A. Deploy folder contains
 - a. Applicationsettings
 - b. ReleaseVersion-connectionstrings
 - c. rRISServices.exe
 - d. services
- B. XSL subfolder contains:
 - a. Subfolder titled “Stylesheets”
 - i. CCDA Subfolder contains
 - a. sectionImmunizations.xsl
 - b. sectionInstructions.xsl
 - c. C-CDA.xsl
 - d. sectionMedications.xsl
 - e. sectionPlanOfCare.xsl
 - f. eRadStylesheet.xsl
 - g. sectionProblemList.xsl
 - h. generalTemplates.xsl
 - i. sectionProcedures.xsl
 - j. header.xsl
 - k. sectionReasonForVisit.xsl
 - l. sectionAdministeredMedications.xsl
 - m. sectionResults.xsl
 - n. sectionAllergies.xsl
 - o. sectionSocialHistory.xsl
 - p. sectionEncounters.xsl
 - q. sectionVitalSigns.xsl
 - r. sectionFuncCogStatus.xsl

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- ii. CDAToHTMLCompleteReport.xslt
- iii. CDAToHTMLImpressionSection.xslt
- iv. CDAToRIS.xslt
- v. CDAToTxt.xslt
- vi. DocumentModelReport.xslt
- vii. DocumentModelReportAsXml.xslt

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

Build 42 installs. Server updates are not cumulative. Any previous server updates must be applied before this one.

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6. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
40	17	1.3.40.18780 (3GB)	1.3.40.18756	1.3.40.18756	1.3.40.18646	Core install required for Radiologist User Group. GUI.zip, Core setup, and Web Service updates
40	18	1.3.40.19253(3GB)	1.3.40.18756	1.3.40.18756	1.3.40.19253	GUI.zip, Web Service and database updates
40	19	1.3.40.19909(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	GUI.zip, Web Service
40	20	1.3.40.20086(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip and Recognizer
40	21	1.3.40.20703(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip
40	22	1.3.40.20898(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip
41	-	1.3.41.19135(3GB)	1.3.41.19135	1.3.41.19135	1.3.41.19135	Full version release
41	1	1.3.41.19256(3GB)	1.3.41.19135	1.3.41.19256	1.3.41.19256	GUI.zip, Web Service and database updates
41	2	1.3.41.19620(3GB)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip and Web Service
41	2sf	1.3.41.19620SF(3G)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip
41	2.1	1.3.41.20622(3GB)	1.3.41.19135	1.3.41.20617	1.3.41.19346	GUI.zip and Web Service
41	3	1.3.41.20125(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip , Web Service and Recognizer
41	4	1.3.41.20285(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip
41	5	1.3.41.20809(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip, Core install, Web Service and database updates
41	6	1.3.41.20912(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip
41.1	-	1.3.41.20918(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip, Core install, Web Service and DB updates, Help files
41.1	1	1.3.41.20987(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip
41.1	2	1.3.41.21162(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip, Web Service and DB updates,
41.1	3	1.3.41.21264(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
42	1	42.0.1.21597	2.42.0.0.21261	42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates

RADNET, Inc. – eRAD RIS Server Update

7. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_42.0.1.21597.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

NOTE: If your upgrade is coming from 40.016.1 or less a core install will be required.

- 2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

8. Known Limitations

Known limitations listed in this document may not have been introduced in 42.0.1, but have been discovered during testing of 42.0.1.

Redmine #	Subject	Info
6043	Mammo follow up reschedule – schedule later creates order and short term follow-up	In this case the user can continue to use the Short Term Follow-Up study and cancel the order. Reason for this is if the order is used to schedule again and on reschedule again select Schedule Later it will not let the user save as a Follow Up Order already exists
6072	Document Distribution - Jobs for Print can be added to distribution with no default printer	Referrers may not have report delivery preferences (although they have address(s)). In this case the report will be sent to Document Distribution for print but without a default printer. A user will have to edit job and select printer

Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.0.2

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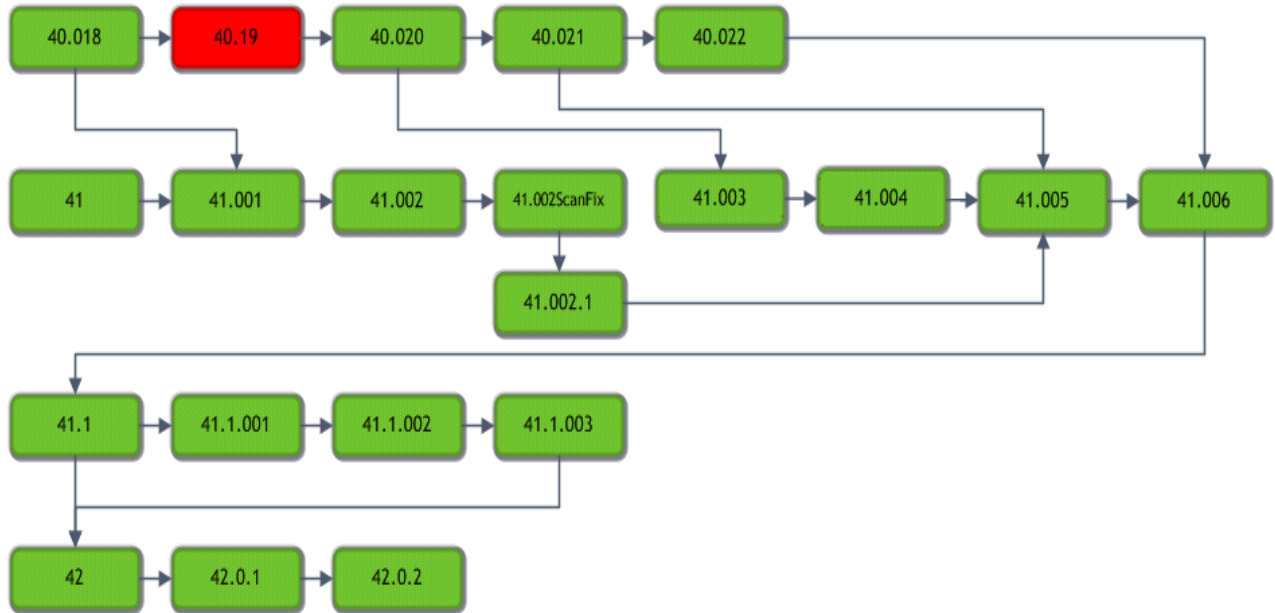
eRAD RIS Server Update

1. Defects Resolved

Redmine #	Subject	Priority
6096	Exception thrown on reschedule of study with illegal XML character in notes field	High
6085	Patient tab - tab order - Cannot tab to Patient Origin fields, stuck in Family History	High
6038	Wedge stopps processing messages (illegal XML)	High
6092	CD Import via patient folder can match with the wrong patient.	Normal
6076	RIS Wedge x64 (stopps processing + spikes CPU when error in c_action_queue)	Normal
6043	mammo follow up reschedule - rescheduling second time - select schedule later creates order and short term followup	Normal
6036	RadNet - error in Radiologist message box	Normal
5987	Scanning - Keep Scanner Connection Open (doesn't work on all scanner models)	Normal
5966	Scanning - Keep Scanner Connection Open is causing scans to fail	Normal

2. Code Stream

eRAD RIS - Source Code Evolution



Legend:

Green = Released software

Red = Will not be released

eRAD RIS Server Update

3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:

a) rRIS_1.3.42.0.2.21702.zip

2) RIS_Service_Updates contains:

- ABCpdf.dll
- ABCpdf9-32.dll
- ABCpdf9-64.dll
- CDSJobManager.dll
- CDSJobManager.pdb
- CdsLib.dll
- CdsLib.xml
- CdsLib.XmlSerializers.dll
- CommonLib.dll
- CommonLib.pdb
- content.txt
- DDEngine.dll
- DDEngine.pdb
- Interop.ANYMODALCAPTURECTRLLib.dll
- Interop.FAXCOMEXLib.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.pdb
- Microsoft.Practices.EnterpriseLibrary.Common.dll
- Microsoft.Practices.EnterpriseLibrary.Common.pdb
- Microsoft.Practices.EnterpriseLibrary.Logging.dll
- Microsoft.Practices.EnterpriseLibrary.Logging.pdb
- Microsoft.Practices.ServiceLocation.dll
- Microsoft.Practices.ServiceLocation.pdb
- Microsoft.Practices.Unity.dll
- Microsoft.Practices.Unity.Interception.dll
- Microsoft.Practices.Unity.Interception.pdb
- Microsoft.Practices.Unity.pdb
- Microsoft.ReportViewer.Common.dll
- Microsoft.ReportViewer.WinForms.dll
- Microsoft.ReportViewer.WinForms.xml
- Newtonsoft.Json.dll
- Newtonsoft.Json.xml
- Ninject.dll
- Ninject.Web.Common.dll
- Ninject.Web.Common.xml
- Ninject.xml
- O2S.Components.PDFRender4NET.dll
- PDFToImages.exe
- rRISServices.exe
- rRISServices.pdb
- rRISServicesx64.exe
- ScheduledTaskManager.dll
- ScheduledTaskManager.pdb
- ServicesConfigWizard.exe
- ServicesConfigWizard.pdb
- SignatureApprovalService.exe
- SignatureApprovalService.pdb
- System.Net.Http.dll
- System.Net.Http.Formatting.dll
- System.Net.Http.Formatting.xml
- System.Net.Http.WebRequest.dll
- System.Net.Http.WebRequest.xml
- System.Net.Http.xml
- System.Web.dll
- System.Web.Helpers.dll

eRAD RIS Server Update

- System.Web.Helpers.xml
- System.Web.Http.dll
- System.Web.Http.SelfHost.dll
- System.Web.Http.SelfHost.xml
- System.Web.Http.WebHost.dll
- System.Web.Http.WebHost.xml
- System.Web.Http.xml
- System.Web.Mvc.dll
- System.Web.Mvc.xml
- System.Web.Optimization.dll
- System.Web.Providers.dll
- System.Web.Razor.dll
- System.Web.Razor.xml
- System.Web.WebPages.Deployment.dll
- System.Web.WebPages.Deployment.xml
- System.Web.WebPages.dll
- System.Web.WebPages.Razor.dll
- System.Web.WebPages.Razor.xml
- System.Web.WebPages.xml
- Toureau.Gilles.FaxDotNet.dll
- Toureau.Gilles.FaxDotNet.pdb
- Toureau.Gilles.FaxDotNet.xml
- WCFService.dll
- WCFService.pdb
- WCFServiceTests.dll
- WCFServiceTests.pdb
- WebApi.dll
- WebApi.pdb
- Wedge.exe
- Wedge.pdb

The rRIS_Service_Updates also contains to subfolders:

- A. Deploy folder contains
 - a. Applicationsettings
 - b. ReleaseVersion-connectionstrings
 - c. rRISServices.exe
 - d. services
- B. XSL subfolder contains:
 - a. Subfolder titled “Stylesheets”
 - i. CCDA Subfolder contains
 - a. sectionImmunizations.xml
 - b. sectionInstructions.xml
 - c. C-CDA.xml
 - d. sectionMedications.xml
 - e. sectionPlanOfCare.xml
 - f. eRadStylesheet.xml
 - g. sectionProblemList.xml
 - h. generalTemplates.xml
 - i. sectionProcedures.xml
 - j. header.xml
 - k. sectionReasonForVisit.xml
 - l. sectionAdministeredMedications.xml
 - m. sectionResults.xml
 - n. sectionAllergies.xml
 - o. sectionSocialHistory.xml
 - p. sectionEncounters.xml
 - q. sectionVitalSigns.xml
 - r. sectionFuncCogStatus.xml
 - ii. CDAToHTMLCompleteReport.xslt
 - iii. CDAToHTMLImpressionSection.xslt
 - iv. CDAToRIS.xslt
 - v. CDAToTxt.xslt
 - vi. DocumentModelReport.xslt
 - vii. DocumentModelReportAsXml.xslt

eRAD RIS Server Update

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

Build 42 installs. Server updates are not cumulative. Any previous server updates must be applied before this one.

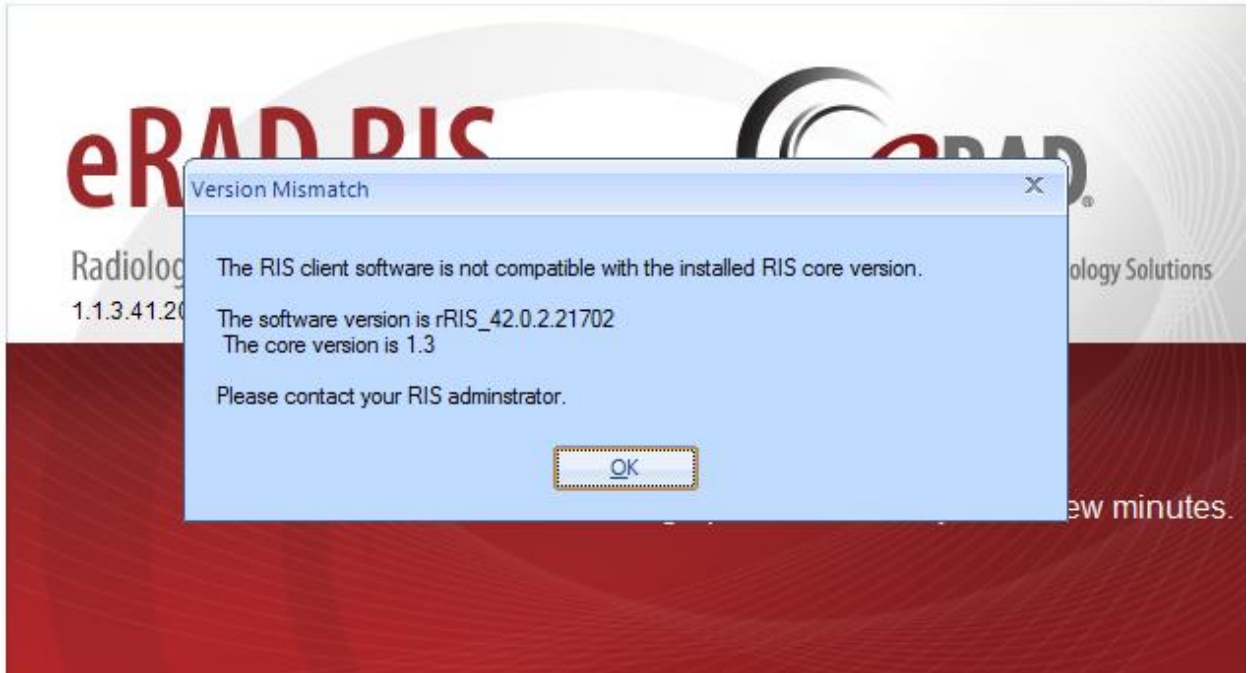
eRAD RIS Server Update

6. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
40	17	1.3.40.18780 (3GB)	1.3.40.18756	1.3.40.18756	1.3.40.18646	Core install required for Radiologist User Group. GUI.zip, Core setup, and Web Service updates
40	18	1.3.40.19253(3GB)	1.3.40.18756	1.3.40.18756	1.3.40.19253	GUI.zip, Web Service and database updates
40	19	1.3.40.19909(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	GUI.zip, Web Service
40	20	1.3.40.20086(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip and Recognizer
40	21	1.3.40.20703(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip
40	22	1.3.40.20898(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip
41	-	1.3.41.19135(3GB)	1.3.41.19135	1.3.41.19135	1.3.41.19135	Full version release
41	1	1.3.41.19256(3GB)	1.3.41.19135	1.3.41.19256	1.3.41.19256	GUI.zip, Web Service and database updates
41	2	1.3.41.19620(3GB)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip and Web Service
41	2sf	1.3.41.19620SF(3G)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip
41	2.1	1.3.41.20622(3GB)	1.3.41.19135	1.3.41.20617	1.3.41.19346	GUI.zip and Web Service
41	3	1.3.41.20125(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip , Web Service and Recognizer
41	4	1.3.41.20285(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip
41	5	1.3.41.20809(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip, Core install, Web Service and database updates
41	6	1.3.41.20912(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip
41.1	-	1.3.41.20918(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip, Core install, Web Service and DB updates, Help files
41.1	1	1.3.41.20987(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip
41.1	2	1.3.41.21162(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip, Web Service and DB updates,
41.1	3	1.3.41.21264(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
42	1	2.42.0.1.21597	2.42.0.0.21261	2.42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates
42	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates

7. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.42.0.2.21702.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_42.0.2.21702 → rRIS_1.3.42.0.2.21702. NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or less a core install will be required.

eRAD RIS Server Update

- 2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

8. Known Limitations

Known limitations listed in this document may not have been introduced in 42.0.2, but have been discovered during testing of 42.0.2.

Redmine #	Subject	Info
6105	Exception thrown from Family History grid	The issue occurs when a user tabs into the Family History grid and attempts to enter data into the first field. If the user presses the spacebar first, it will enable the list box in the Relationship column. They can also use the mouse to enable the list. The user can then select from the list or enter value

Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.0.3

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eRAD RIS Server Update

1. Defects Resolved

Redmine #	Subject	Priority
6133	Filter by schedule date (calendar control) in IVT WL does not work properly	Immediate
6132	Error opening IVT with CheckUnitEditFlag	Immediate
6142	Reporting - users may not get properly assigned default templates	Urgent
6146	insurances locked by the current user	High
6135	c_Calculate_BMI error when height or weight entered without the mask	High
6149	Mammo Biopsy cannot be saved in View/Edit window	Normal

Change to Configuration

A configuration change to the ris.exe.config file was introduced in build 2.42 this setting was designed to lessen the delays when retrieving lookup tables that are larger in size. This config setting, as mentioned, is located in the ris.exe.config file located in the <appSettings> section of the file

This setting is:

```
<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>
```

Where the value can be any lookup table, and a value="*", will retrieve all lookups.

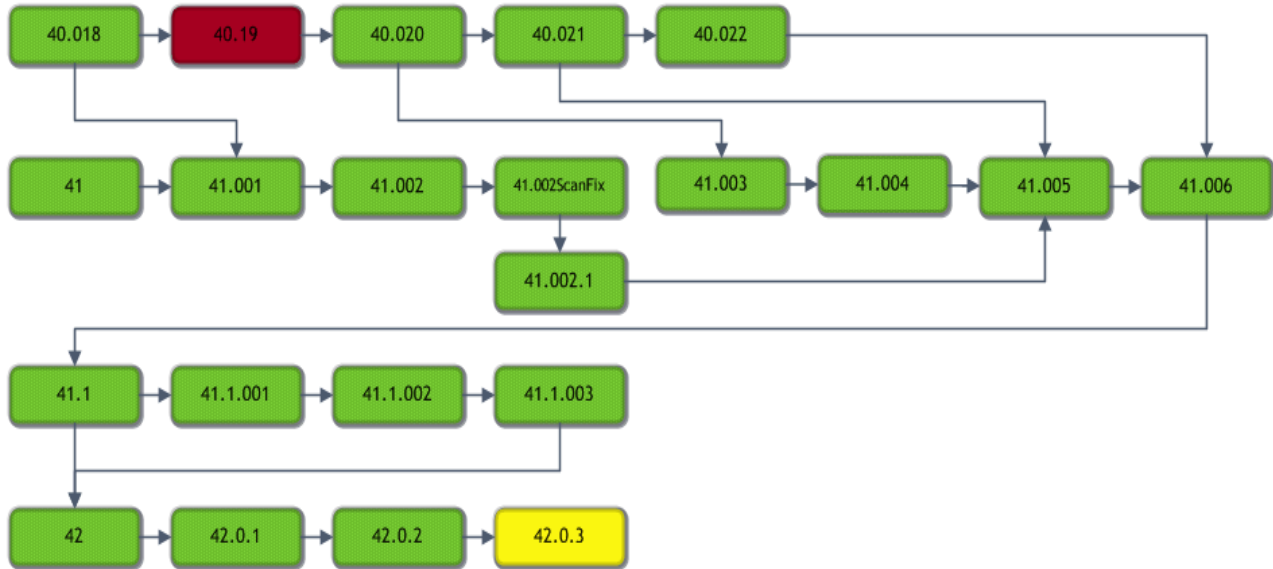
The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. The commented line will look like

```
<!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> -->
```

eRAD RIS Server Update

2. Code Stream

eRAD RIS - Source Code Evolution



Legend:

Green = Released software

Burgundy = Will not be released

Yellow = Current Release

eRAD RIS Server Update

3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:

a) rRIS_1.3.42.0.2.21806.zip

2) RIS_Service_Updates contains:

- ABCpdf.dll
- ABCpdf9-32.dll
- ABCpdf9-64.dll
- CDSJobManager.dll
- CDSJobManager.pdb
- CdsLib.dll
- CdsLib.xml
- CdsLib.XmlSerializers.dll
- CommonLib.dll
- CommonLib.pdb
- DDEngine.dll
- DDEngine.pdb
- Interop.ANYMODALCAPTURECTRLLib.dll
- Interop.FAXCOMEXLib.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.pdb
- Microsoft.Practices.EnterpriseLibrary.Common.dll
- Microsoft.Practices.EnterpriseLibrary.Common.pdb
- Microsoft.Practices.EnterpriseLibrary.Logging.dll
- Microsoft.Practices.EnterpriseLibrary.Logging.pdb
- Microsoft.Practices.ServiceLocation.dll
- Microsoft.Practices.ServiceLocation.pdb
- Microsoft.Practices.Unity.dll
- Microsoft.Practices.Unity.Interception.dll
- Microsoft.Practices.Unity.Interception.pdb
- Microsoft.Practices.Unity.pdb
- Microsoft.ReportViewer.Common.dll
- Microsoft.ReportViewer.WinForms.dll
- Microsoft.ReportViewer.WinForms.xml
- Newtonsoft.Json.dll
- Newtonsoft.Json.xml
- Ninject.dll
- Ninject.Web.Common.dll
- Ninject.Web.Common.xml
- Ninject.xml
- O2S.Components.PDFRender4NET.dll
- PDFToImages.exe
- rRISServices.exe
- rRISServices.pdb
- rRISServicesx64.exe
- ScheduledTaskManager.dll
- ScheduledTaskManager.pdb
- ServicesConfigWizard.exe
- ServicesConfigWizard.pdb
- SignatureApprovalService.exe
- SignatureApprovalService.pdb
- System.Net.Http.dll
- System.Net.Http.Formatting.dll
- System.Net.Http.Formatting.xml
- System.Net.Http.WebRequest.dll
- System.Net.Http.WebRequest.xml
- System.Net.Http.xml
- System.Web.dll
- System.Web.Helpers.dll

eRAD RIS Server Update

- System.Web.Helpers.xml
- System.Web.Http.dll
- System.Web.Http.SelfHost.dll
- System.Web.Http.SelfHost.xml
- System.Web.Http.WebHost.dll
- System.Web.Http.WebHost.xml
- System.Web.Http.xml
- System.Web.Mvc.dll
- System.Web.Mvc.xml
- System.Web.Optimization.dll
- System.Web.Providers.dll
- System.Web.Razor.dll
- System.Web.Razor.xml
- System.Web.WebPages.Deployment.dll
- System.Web.WebPages.Deployment.xml
- System.Web.WebPages.dll
- System.Web.WebPages.Razor.dll
- System.Web.WebPages.Razor.xml
- System.Web.WebPages.xml
- Tourreau.Gilles.FaxDotNet.dll
- Tourreau.Gilles.FaxDotNet.pdb
- Tourreau.Gilles.FaxDotNet.xml
- WCFService.dll
- WCFService.pdb
- WCFServiceTests.dll
- WCFServiceTests.pdb
- WebApi.dll
- WebApi.pdb
- Wedge.exe
- Wedge.pdb

The rRIS_Service_Updates also contains to subfolders:

- A. Deploy folder contains
 - a. Applicationsettings
 - b. ReleaseVersion-connectionstrings
 - c. rRISServices.exe
 - d. services
- B. XSL subfolder contains:
 - a. Subfolder titled “Stylesheets”
 - i. CCDA Subfolder contains
 - a. sectionImmunizations.xml
 - b. sectionInstructions.xml
 - c. C-CDA.xml
 - d. sectionMedications.xml
 - e. sectionPlanOfCare.xml
 - f. eRadStylesheet.xml
 - g. sectionProblemList.xml
 - h. generalTemplates.xml
 - i. sectionProcedures.xml
 - j. header.xml
 - k. sectionReasonForVisit.xml
 - l. sectionAdministeredMedications.xml
 - m. sectionResults.xml
 - n. sectionAllergies.xml
 - o. sectionSocialHistory.xml
 - p. sectionEncounters.xml
 - q. sectionVitalSigns.xml
 - r. sectionFuncCogStatus.xml
 - ii. CDAToHTMLCompleteReport.xslt
 - iii. CDAToHTMLImpressionSection.xslt
 - iv. CDAToRIS.xslt
 - v. CDAToTxt.xslt
 - vi. DocumentModelReport.xslt
 - vii. DocumentModelReportAsXml.xslt

eRAD RIS Server Update

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

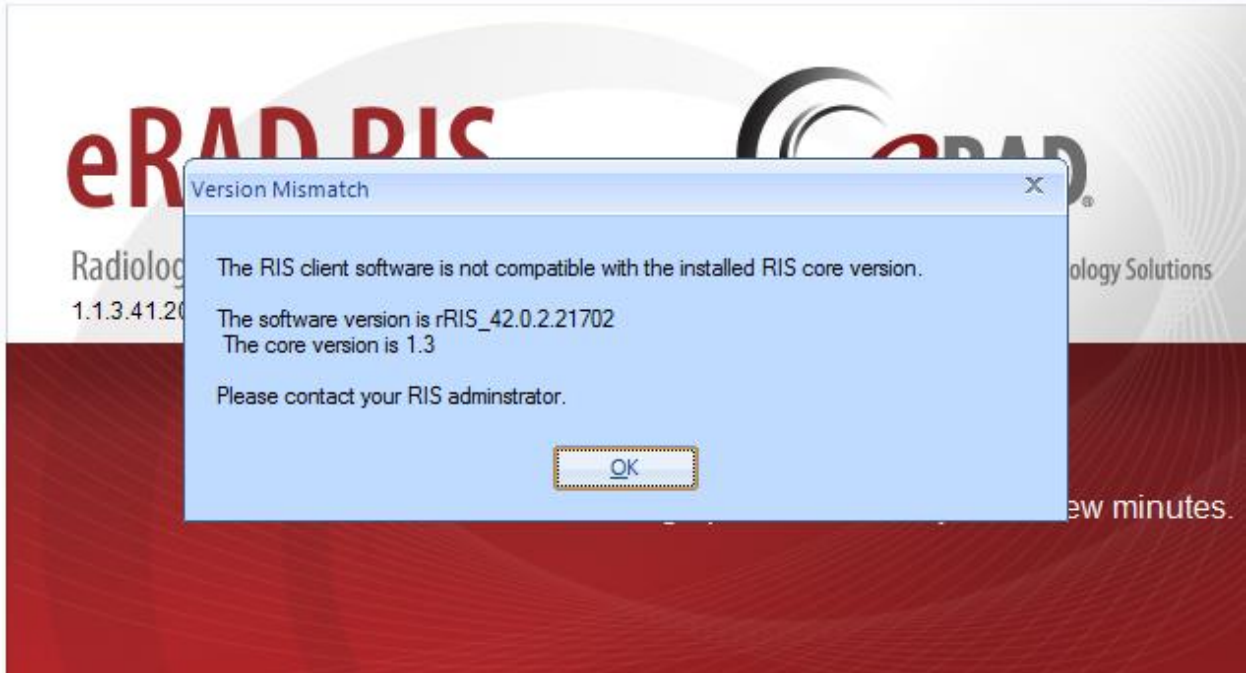
Build 42 installs. Server updates are not cumulative. Any previous server updates must be applied before this one.

6. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
40	17	1.3.40.18780 (3GB)	1.3.40.18756	1.3.40.18756	1.3.40.18646	Core install required for Radiologist User Group. GUI.zip, Core setup, and Web Service updates
40	18	1.3.40.19253(3GB)	1.3.40.18756	1.3.40.18756	1.3.40.19253	GUI.zip, Web Service and database updates
40	19	1.3.40.19909(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	GUI.zip, Web Service
40	20	1.3.40.20086(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip and Recognizer
40	21	1.3.40.20703(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip
40	22	1.3.40.20898(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip
41	-	1.3.41.19135(3GB)	1.3.41.19135	1.3.41.19135	1.3.41.19135	Full version release
41	1	1.3.41.19256(3GB)	1.3.41.19135	1.3.41.19256	1.3.41.19256	GUI.zip, Web Service and database updates
41	2	1.3.41.19620(3GB)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip and Web Service
41	2sf	1.3.41.19620SF(3G)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip
41	2.1	1.3.41.20622(3GB)	1.3.41.19135	1.3.41.20617	1.3.41.19346	GUI.zip and Web Service
41	3	1.3.41.20125(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip , Web Service and Recognizer
41	4	1.3.41.20285(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip
41	5	1.3.41.20809(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip, Core install, Web Service and database updates
41	6	1.3.41.20912(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip
41.1	-	1.3.41.20918(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip, Core install, Web Service and DB updates, Help files
41.1	1	1.3.41.20987(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip
41.1	2	1.3.41.21162(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip, Web Service and DB updates,
41.1	3	1.3.41.21264(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
42	1	2.42.0.1.21597	2.42.0.0.21261	2.42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates
42	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates
43	3	2.42.0.2.21806	2.42.0.0.21261	2.42.0.2.21806	2.42.0.0.21187	GUI and Web Service updates

7. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.42.0.2.21806.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_42.0.2.21806 → rRIS_1.3.42.0.2.21806. NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

- 2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.0.4

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eRAD RIS Server Update

1. Defects Resolved

Redmine #	Subject	Priority
6173	Reporting - Worklists not refreshing when reporting screen is open is causing worklist count problems	High
6172	Locking issue where next workflow might fetch a study that was already locked by another user	Normal
6141	Radiologist screen reuse causes default template error	Normal

Change to Configuration

A configuration change to the ris.exe.config file was introduced in build 2.42 this setting was designed to lessen the delays when retrieving lookup tables that are larger in size. This config setting, as mentioned, is located in the ris.exe.config file located in the <appSettings> section of the file

This setting is:

```
<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>
```

Where the value can be any lookup table, and a value="*", will retrieve all lookups.

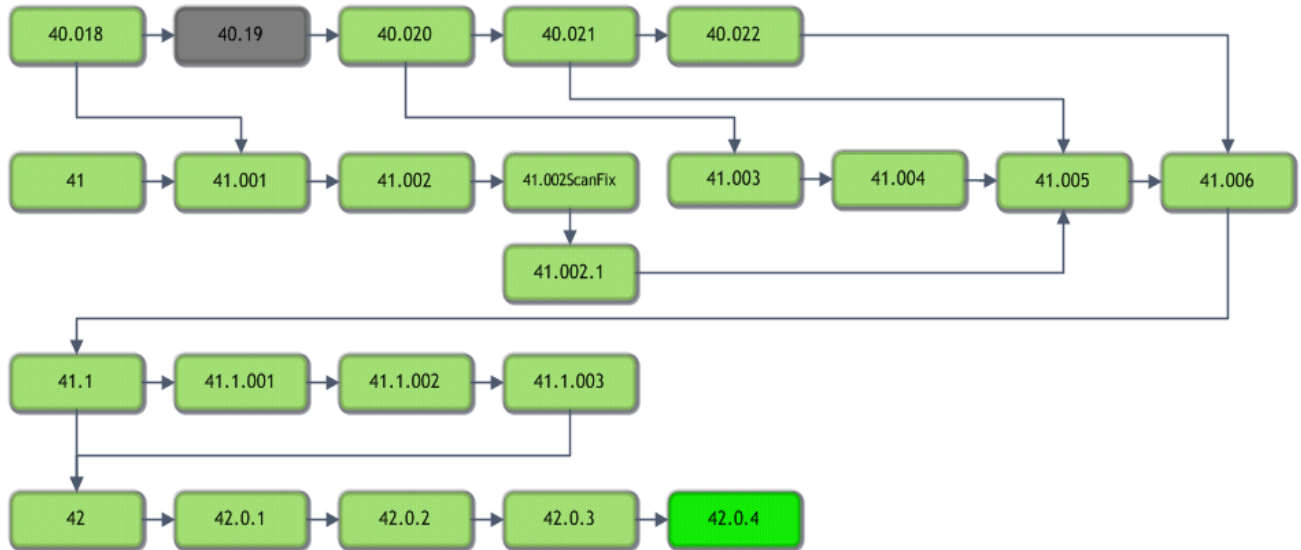
The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. The commented line will look like

```
<!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> -->
```

eRAD RIS Server Update

2. Code Stream

eRAD RIS - Source Code Evolution



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

3. Package Contents

Files included for this server update:

- 1) GUI ZIP Updates folder contains:
 - a) rRIS_1.3.42.0.4.21862.zip

- 2) SQL folder contains:
 - a) 42.0.4

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

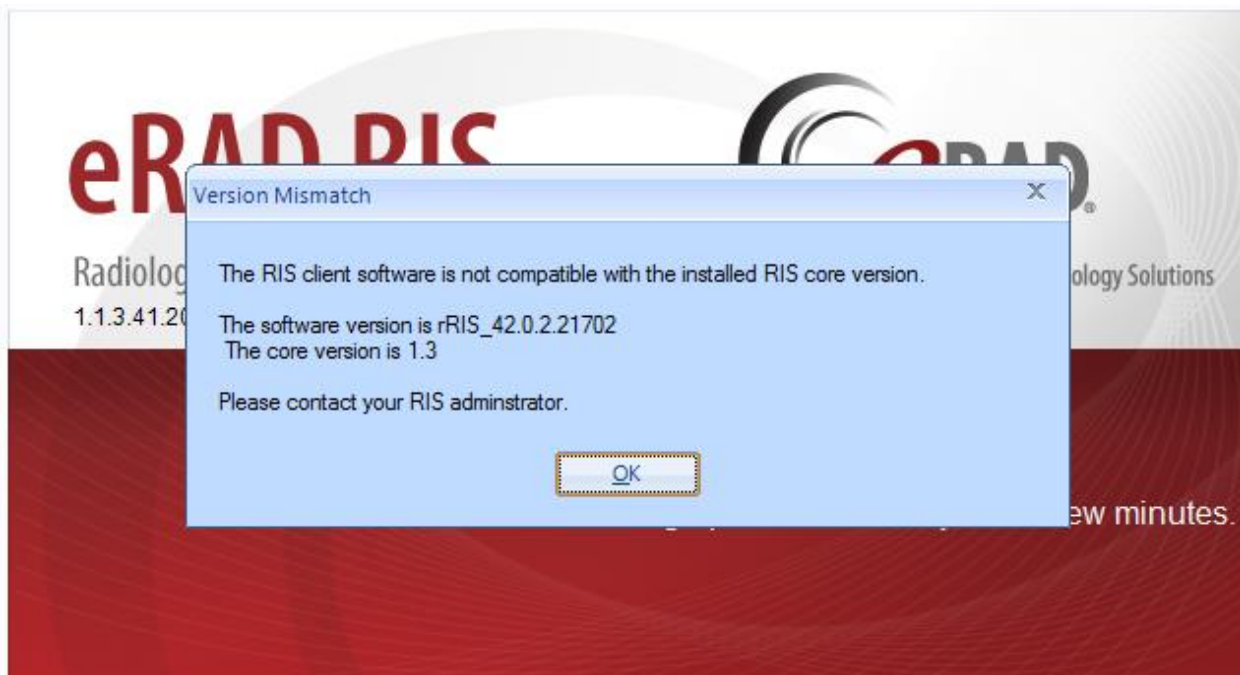
Build 42 installs. Server updates are not cumulative. Any previous server updates must be applied before this one.

6. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
40	17	1.3.40.18780 (3GB)	1.3.40.18756	1.3.40.18756	1.3.40.18646	Core install required for Radiologist User Group. GUI.zip, Core setup, and Web Service updates
40	18	1.3.40.19253(3GB)	1.3.40.18756	1.3.40.18756	1.3.40.19253	GUI.zip, Web Service and database updates
40	19	1.3.40.19909(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	GUI.zip, Web Service
40	20	1.3.40.20086(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip and Recognizer
40	21	1.3.40.20703(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip
40	22	1.3.40.20898(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip
41	-	1.3.41.19135(3GB)	1.3.41.19135	1.3.41.19135	1.3.41.19135	Full version release
41	1	1.3.41.19256(3GB)	1.3.41.19135	1.3.41.19256	1.3.41.19256	GUI.zip, Web Service and database updates
41	2	1.3.41.19620(3GB)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip and Web Service
41	2sf	1.3.41.19620SF(3G)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip
41	2.1	1.3.41.20622(3GB)	1.3.41.19135	1.3.41.20617	1.3.41.19346	GUI.zip and Web Service
41	3	1.3.41.20125(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip , Web Service and Recognizer
41	4	1.3.41.20285(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip
41	5	1.3.41.20809(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip, Core install, Web Service and database updates
41	6	1.3.41.20912(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip
41.1	-	1.3.41.20918(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip, Core install, Web Service and DB updates, Help files
41.1	1	1.3.41.20987(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip
41.1	2	1.3.41.21162(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip, Web Service and DB updates,
41.1	3	1.3.41.21264(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
42	1	2.42.0.1.21597	2.42.0.0.21261	2.42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates
42	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates
43	3	2.42.0.2.21806	2.42.0.0.21261	2.42.0.2.21806	2.42.0.0.21187	GUI and Web Service updates
43	4	2.42.0.2.21862	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI and Database updates

7. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.42.0.4.21862.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_42.0.4.21862 → rRIS_1.3.42.0.4.21862. NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

- 2) Run the B42.04.sql file against the eRAD RIS database instance.

8. Known Limitations

Known limitations listed in this document may not have been introduced in 42.0.4, but have been discovered during testing of 42.0.4.

Redmine #	Subject	Info
6186	RADNET - Reporting - My pending dictation - worklist counts display differently	This does not affect work list refreshing, study access or the count on the work list. When a refresh of the work list is completed it will show correctly. Example: the count on the work list tab may show 9 of 10, where 9 is the correct study count on the work list, but another user has the other study open in the dictate window (locked by that user).

Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.0.5

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eRAD RIS Server Update

1. Defects Resolved

Redmine #	Subject	Priority
6188	Hidden text in editor counts as text when validating fields and section	High

Change to Configuration

A configuration change to the ris.exe.config file was introduced in build 2.42 this setting was designed to lessen the delays when retrieving lookup tables that are larger in size. This config setting, as mentioned, is located in the ris.exe.config file located in the <appSettings> section of the file

This setting is:

```
<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>
```

Where the value can be any lookup table, and a value="*" will retrieve all lookups.

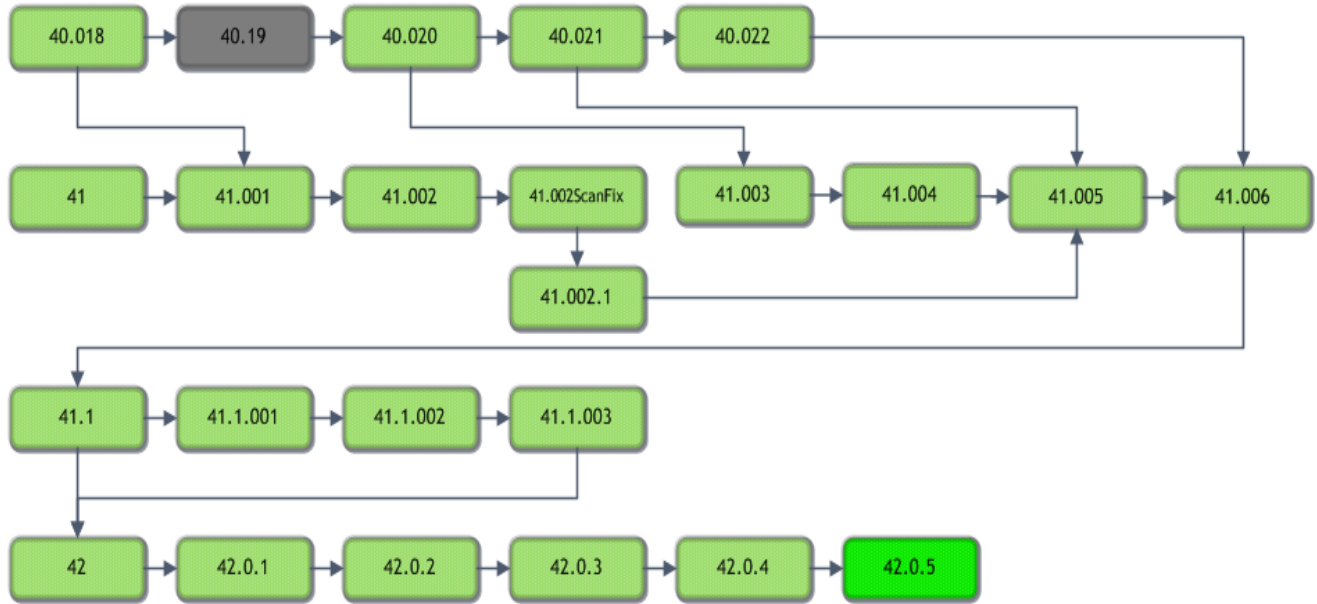
The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. The commented line will look like

```
<!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> -->
```

eRAD RIS Server Update

2. Code Stream

eRAD RIS - Source Code Evolution



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

3. Package Contents

Files included for this server update:

- 1) GUI ZIP Updates folder contains:
 - a) rRIS_1.3.42.0.5.21924.zip

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

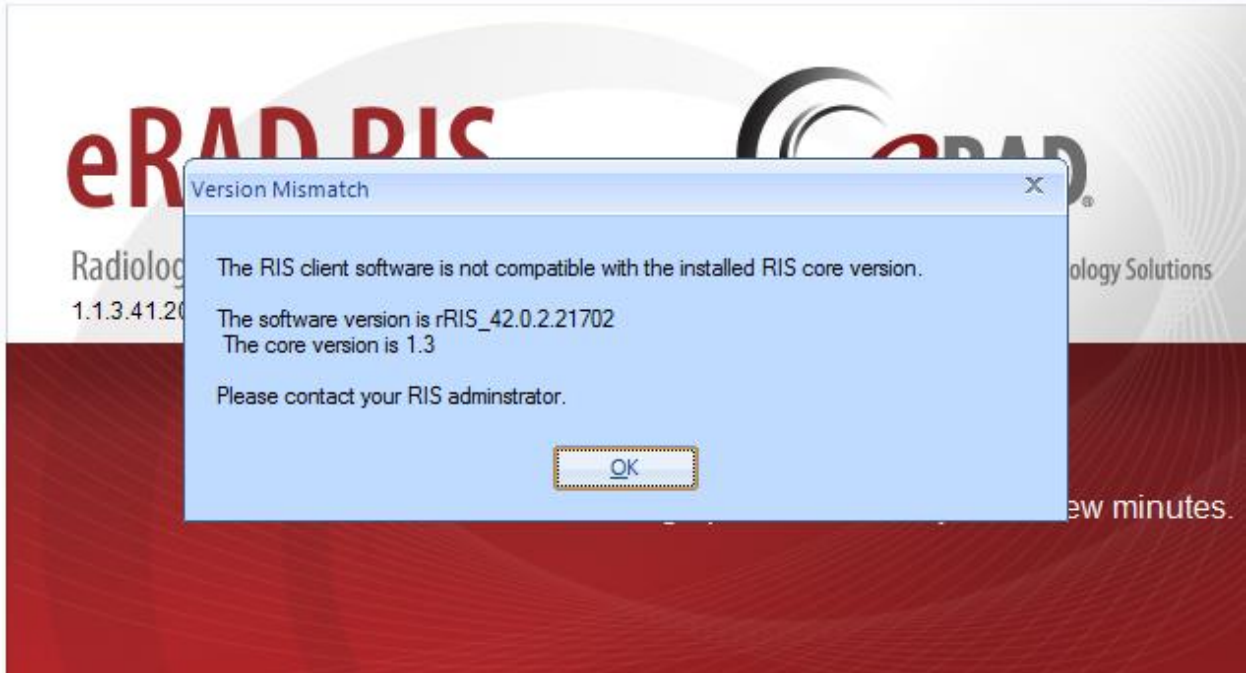
Build 42 installs. Server updates are not cumulative. Any previous server updates must be applied before this one.

6. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
40	17	1.3.40.18780 (3GB)	1.3.40.18756	1.3.40.18756	1.3.40.18646	Core install required for Radiologist User Group. GUI.zip, Core setup, and Web Service updates
40	18	1.3.40.19253(3GB)	1.3.40.18756	1.3.40.18756	1.3.40.19253	GUI.zip, Web Service and database updates
40	19	1.3.40.19909(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	GUI.zip, Web Service
40	20	1.3.40.20086(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip and Recognizer
40	21	1.3.40.20703(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip
40	22	1.3.40.20898(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip
41	-	1.3.41.19135(3GB)	1.3.41.19135	1.3.41.19135	1.3.41.19135	Full version release
41	1	1.3.41.19256(3GB)	1.3.41.19135	1.3.41.19256	1.3.41.19256	GUI.zip, Web Service and database updates
41	2	1.3.41.19620(3GB)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip and Web Service
41	2sf	1.3.41.19620SF(3G)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip
41	2.1	1.3.41.20622(3GB)	1.3.41.19135	1.3.41.20617	1.3.41.19346	GUI.zip and Web Service
41	3	1.3.41.20125(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip , Web Service and Recognizer
41	4	1.3.41.20285(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip
41	5	1.3.41.20809(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip, Core install, Web Service and database updates
41	6	1.3.41.20912(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip
41.1	-	1.3.41.20918(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip, Core install, Web Service and DB updates, Help files
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41.1	2	1.3.41.21162(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip, Web Service and DB updates,
41.1	3	1.3.41.21264(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
42	1	2.42.0.1.21597	2.42.0.0.21261	2.42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates
42	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates
43	3	2.42.0.2.21806	2.42.0.0.21261	2.42.0.2.21806	2.42.0.0.21187	GUI and Web Service updates
43	4	2.42.0.2.21862	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI and Database updates
43	5	2.42.0.5.21924	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI

7. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.42.0.5.21924.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_42.0. 5.21924→ rRIS_1.3.42.0. 5.21924. NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.0.6

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eRAD RIS Server Update

1. Defects Resolved

Redmine #	Subject	Priority
6215	Ability to include Procedure Code General Description in the wedge and include in HL7 mappings	High
6217	Cannot manually create new Document Distribution jobs for Outside Read studies in B42.	Normal
6048	RadNet - Race - tab to Race put focus on dropdown instead of textbox	Low

Quick note on 6048: this bug is partially resolved. The issue was a user couldn't tab out of the race field once on it. Now a user can tab out of this field, but must select tab twice. This will be fixed in later release.

Change to Configuration

A configuration change to the ris.exe.config file was introduced in build 2.42 this setting was designed to lessen the delays when retrieving lookup tables that are larger in size. This config setting, as mentioned, is located in the ris.exe.config file located in the <appSettings> section of the file

This setting is:

```
<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>
```

Where the value can be any lookup table, and a value="*", will retrieve all lookups.

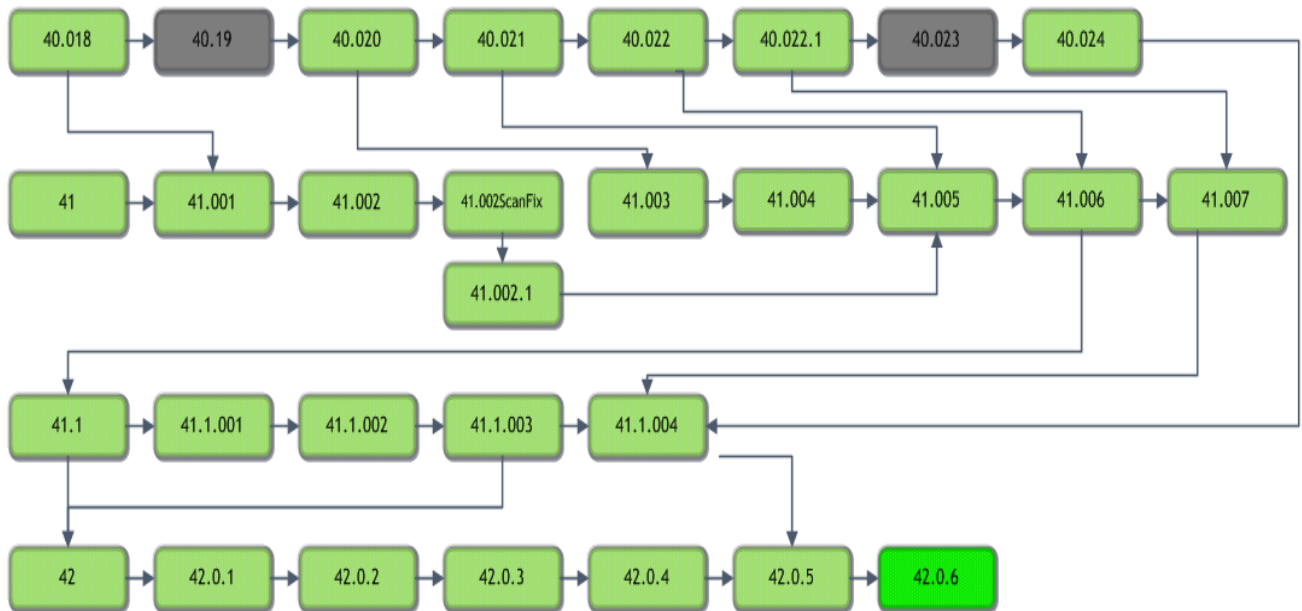
The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. The commented line will look like

```
<!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> -->
```

eRAD RIS Server Update

2. Code Stream

eRAD RIS - Source Code Evolution



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:

- rRIS_1.3.42.0.6.22009.zip

2) RIS_Service_Updates contains:

- ABCpdf.dll
- ABCpdf9-32.dll
- ABCpdf9-64.dll
- CDSJobManager.dll
- CDSJobManager.pdb
- CdsLib.dll
- CdsLib.xml
- CdsLib.XmlSerializers.dll
- CommonLib.dll
- CommonLib.pdb
- contents.txt
- DDEngine.dll
- DDEngine.pdb
- Interop.ANYMODALCAPTURECTRLLib.dll
- Interop.FAXCOMEXLib.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.pdb
- Microsoft.Practices.EnterpriseLibrary.Common.dll
- Microsoft.Practices.EnterpriseLibrary.Common.pdb
- Microsoft.Practices.EnterpriseLibrary.Logging.dll
- Microsoft.Practices.EnterpriseLibrary.Logging.pdb
- Microsoft.Practices.ServiceLocation.dll
- Microsoft.Practices.ServiceLocation.pdb
- Microsoft.Practices.Unity.dll
- Microsoft.Practices.Unity.Interception.dll
- Microsoft.Practices.Unity.Interception.pdb
- Microsoft.Practices.Unity.pdb
- Microsoft.ReportViewer.Common.dll
- Microsoft.ReportViewer.WinForms.dll
- Microsoft.ReportViewer.WinForms.xml
- Newtonsoft.Json.dll
- Newtonsoft.Json.xml
- Ninject.dll
- Ninject.Web.Common.dll
- Ninject.Web.Common.xml
- Ninject.xml
- O2S.Components.PDFRender4NET.dll
- PDFToImages.exe
- rRISServices.exe
- rRISServices.pdb
- rRISServicesx64.exe
- ScheduledTaskManager.dll
- ScheduledTaskManager.pdb
- ServicesConfigWizard.exe
- ServicesConfigWizard.pdb
- SignatureApprovalService.exe
- SignatureApprovalService.pdb
- System.Net.Http.dll
- System.Net.Http.Formatting.dll
- System.Net.Http.Formatting.xml
- System.Net.Http.WebRequest.dll
- System.Net.Http.WebRequest.xml
- System.Net.Http.xml
- System.Web.dll
- System.Web.Helpers.dll
- System.Web.Helpers.xml
- System.Web.Http.dll
- System.Web.Http.SelfHost.dll
- System.Web.Http.SelfHost.xml
- System.Web.Http.WebHost.dll
- System.Web.Http.WebHost.xml
- System.Web.Http.xml
- System.Web.Mvc.dll
- System.Web.Mvc.xml
- System.Web.Optimization.dll
- System.Web.Providers.dll
- System.Web.Razor.dll
- System.Web.Razor.xml
- System.Web.WebPages.Deployment.dll
- System.Web.WebPages.Deployment.xml
- System.Web.WebPages.dll
- System.Web.WebPages.Razor.dll
- System.Web.WebPages.Razor.xml
- System.Web.WebPages.xml
- Toureau.Gilles.FaxDotNet.dll
- Toureau.Gilles.FaxDotNet.pdb
- Toureau.Gilles.FaxDotNet.xml
- WCFServices.dll
- WCFServices.pdb
- WCFServicesTests.dll
- WCFServicesTests.pdb
- WebApi.dll
- WebApi.pdb
- Wedge.exe
- Wedge.pdb

eRAD RIS Server Update

The rRIS_Service_Updates also contains to subfolders:

- A. Deploy folder contains
 - a. Applicationsettings
 - b. ReleaseVersion-connectionstrings
 - c. rRISServices.exe
 - d. services

- B. XSL subfolder contains:
Subfolder titled “Stylesheets” which contains:
 - a. CDAToHTMLCompleteReport.xslt
 - b. CDAToHTMLImpressionSection.xslt
 - c. CDAToRIS.xslt
 - d. CDAToTxt.xslt
 - e. DocumentModelReport.xslt
 - f. DocumentModelReportAsXml.xslt

 - g. CCDA Subfolder contains
 - a. sectionImmunizations.xsl
 - b. sectionInstructions.xsl
 - c. C-CDA.xsl
 - d. sectionMedications.xsl
 - e. sectionPlanOfCare.xsl
 - f. eRadStylesheet.xsl
 - g. sectionProblemList.xsl
 - h. generalTemplates.xsl
 - i. sectionProcedures.xsl
 - j. header.xsl
 - k. sectionReasonForVisit.xsl
 - l. sectionAdministeredMedications.xsl
 - m. sectionResults.xsl
 - n. sectionAllergies.xsl
 - o. sectionSocialHistory.xsl
 - p. sectionEncounters.xsl
 - q. sectionVitalSigns.xsl
 - r. sectionFuncCogStatus.xsl

eRAD RIS Server Update

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

Build 42 installs. Server updates are not cumulative. This server update must be applied to 42.0.4

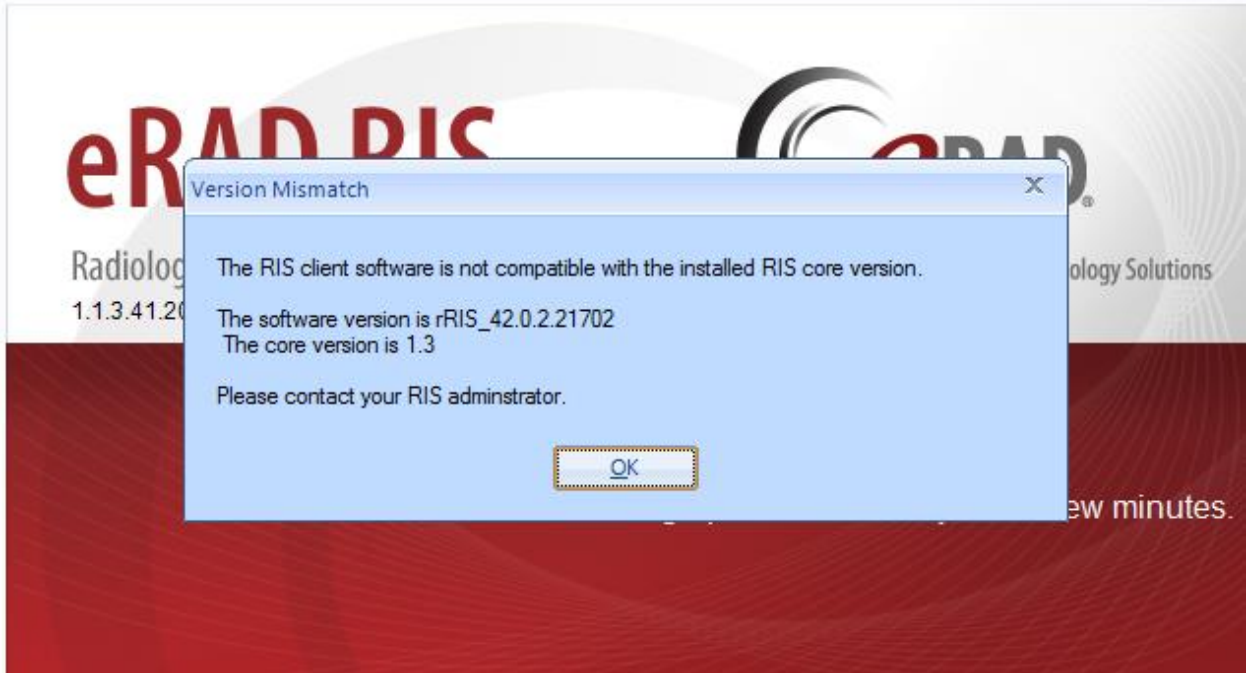
eRAD RIS Server Update

6. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
40	17	1.3.40.18780 (3GB)	1.3.40.18756	1.3.40.18756	1.3.40.18646	Core install required for Radiologist User Group. GUI.zip, Core setup, and Web Service updates
40	18	1.3.40.19253(3GB)	1.3.40.18756	1.3.40.18756	1.3.40.19253	GUI.zip, Web Service and database updates
40	19	1.3.40.19909(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	GUI.zip, Web Service
40	20	1.3.40.20086(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip and Recognizer
40	21	1.3.40.20703(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip
40	22	1.3.40.20898(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip
41	-	1.3.41.19135(3GB)	1.3.41.19135	1.3.41.19135	1.3.41.19135	Full version release
41	1	1.3.41.19256(3GB)	1.3.41.19135	1.3.41.19256	1.3.41.19256	GUI.zip, Web Service and database updates
41	2	1.3.41.19620(3GB)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip and Web Service
41	2sf	1.3.41.19620SF(3G)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip
41	2.1	1.3.41.20622(3GB)	1.3.41.19135	1.3.41.20617	1.3.41.19346	GUI.zip and Web Service
41	3	1.3.41.20125(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip , Web Service and Recognizer
41	4	1.3.41.20285(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip
41	5	1.3.41.20809(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip, Core install, Web Service and database updates
41	6	1.3.41.20912(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip
41.1	-	1.3.41.20918(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip, Core install, Web Service and DB updates, Help files
41.1	1	1.3.41.20987(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip
41.1	2	1.3.41.21162(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip, Web Service and DB updates,
41.1	3	1.3.41.21264(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
42	1	2.42.0.1.21597	2.42.0.0.21261	2.42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates
42	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates
42	3	2.42.0.2.21806	2.42.0.0.21261	2.42.0.2.21806	2.42.0.0.21187	GUI and Web Service updates
42	4	2.42.0.2.21862	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI and Database updates
42	5	2.42.0.5.21924	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI
42	6	2.42.0.5.22009	2.42.0.0.21261	2.42.0.5.22009	2.42.0.4.21870	GUI and Web Service updates

7. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.42.0.5.22209.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_42.0. 5.22009 → rRIS_1.3.42.0. 5.22009. NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

- 2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.0.7

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eRAD RIS Server Update

1. Defects Resolved

Redmine #	Subject	Priority
6241	Error on reschedule and schedule from orders when CC physician is used	Normal

Change to Configuration

A configuration change to the ris.exe.config file was introduced in build 2.42 this setting was designed to lessen the delays when retrieving lookup tables that are larger in size.

This config setting, as mentioned, is located in the ris.exe.config file located in the <appSettings> section of the file

This setting is:

```
<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>
```

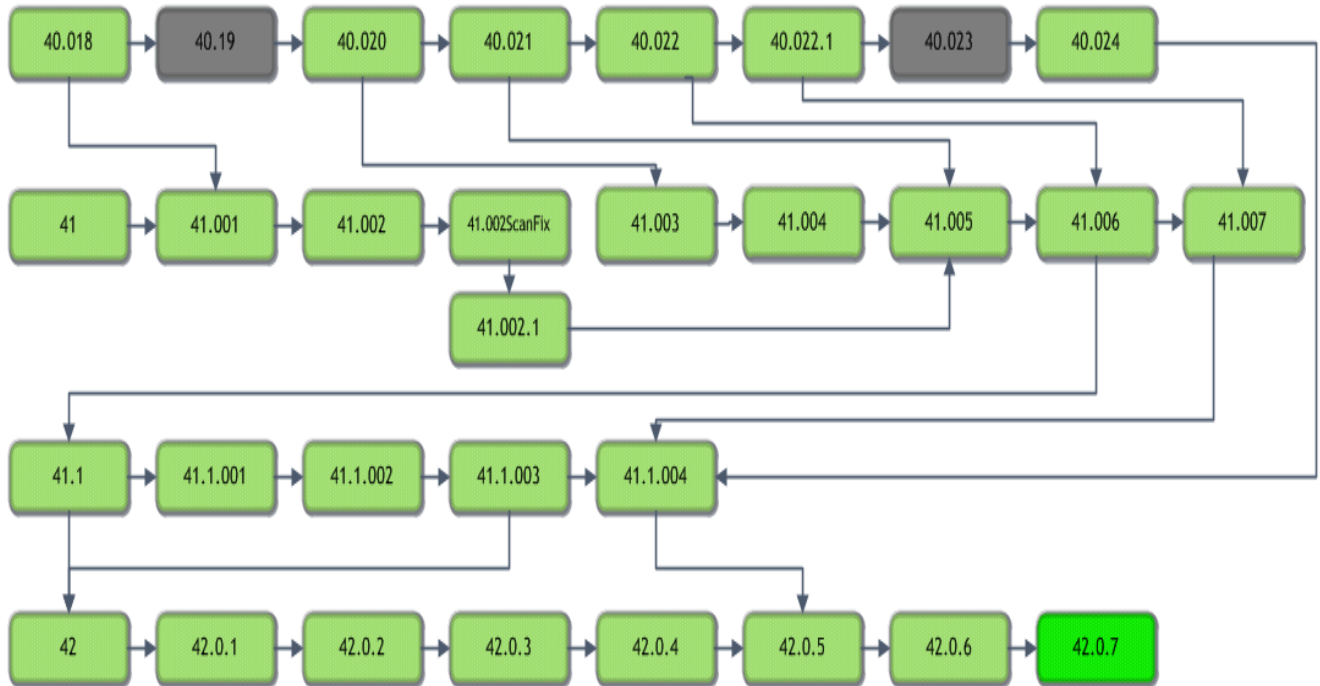
Where the value can be any lookup table, and a value="*" will retrieve all lookups.

The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. The commented line will look like

```
<!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> -->
```

2. Code Stream

eRAD RIS - Source Code Evolution



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

3. Package Contents

Files included for this server update:

- 1) GUI ZIP Updates folder contains:
 - rRIS_1.3.42.0.7.22090.zip

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

Build 42 installs. Server updates are not cumulative. This server update must be applied to 42.0.6

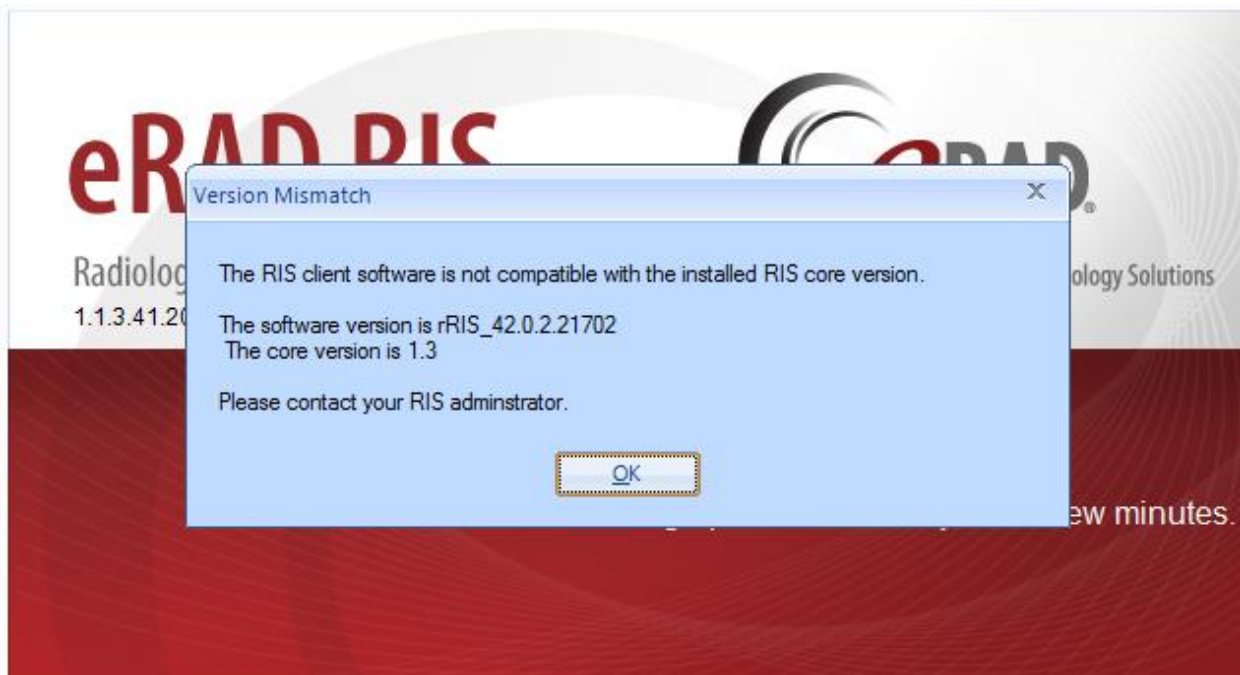
eRAD RIS Server Update

6. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
40	17	1.3.40.18780 (3GB)	1.3.40.18756	1.3.40.18756	1.3.40.18646	Core install required for Radiologist User Group. GUI.zip, Core setup, and Web Service updates
40	18	1.3.40.19253(3GB)	1.3.40.18756	1.3.40.18756	1.3.40.19253	GUI.zip, Web Service and database updates
40	19	1.3.40.19909(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	GUI.zip, Web Service
40	20	1.3.40.20086(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip and Recognizer
40	21	1.3.40.20703(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip
40	22	1.3.40.20898(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip
41	-	1.3.41.19135(3GB)	1.3.41.19135	1.3.41.19135	1.3.41.19135	Full version release
41	1	1.3.41.19256(3GB)	1.3.41.19135	1.3.41.19256	1.3.41.19256	GUI.zip, Web Service and database updates
41	2	1.3.41.19620(3GB)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip and Web Service
41	2sf	1.3.41.19620SF(3G)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip
41	2.1	1.3.41.20622(3GB)	1.3.41.19135	1.3.41.20617	1.3.41.19346	GUI.zip and Web Service
41	3	1.3.41.20125(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip , Web Service and Recognizer
41	4	1.3.41.20285(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip
41	5	1.3.41.20809(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip, Core install, Web Service and database updates
41	6	1.3.41.20912(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip
41.1	-	1.3.41.20918(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip, Core install, Web Service and DB updates, Help files
41.1	1	1.3.41.20987(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip
41.1	2	1.3.41.21162(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip, Web Service and DB updates,
41.1	3	1.3.41.21264(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
42	1	2.42.0.1.21597	2.42.0.0.21261	2.42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates
42	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates
42	3	2.42.0.2.21806	2.42.0.0.21261	2.42.0.2.21806	2.42.0.0.21187	GUI and Web Service updates
42	4	2.42.0.2.21862	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI and Database updates
42	5	2.42.0.5.21924	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI
42	6	2.42.0.6.22009	2.42.0.0.21261	2.42.0.6.22009	2.42.0.4.21870	GUI and Web Service updates
42	7	2.42.0.7.22090	2.42.0.0.21261	2.42.0.6.22009	2.42.0.4.21870	GUI.zip updates

7. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.42.0.7.22090.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive a Version Mismatch error similar to the one above, the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_42.0.7.22090 → rRIS_1.3.42.0.7.22090. NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.0.8

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eRAD RIS Server Update

1. Defects Resolved

Redmine #	Subject	Priority
6196	Tech Status Change is not applied if the front desk has the study open	High

Change to Configuration

A configuration change to the ris.exe.config file was introduced in build 2.42 this setting was designed to lessen the delays when retrieving lookup tables that are larger in size.

This config setting, as mentioned, is located in the ris.exe.config file located in the <appSettings> section of the file

This setting is:

```
<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>
```

Where the value can be any lookup table, and a value="*" will retrieve all lookups.

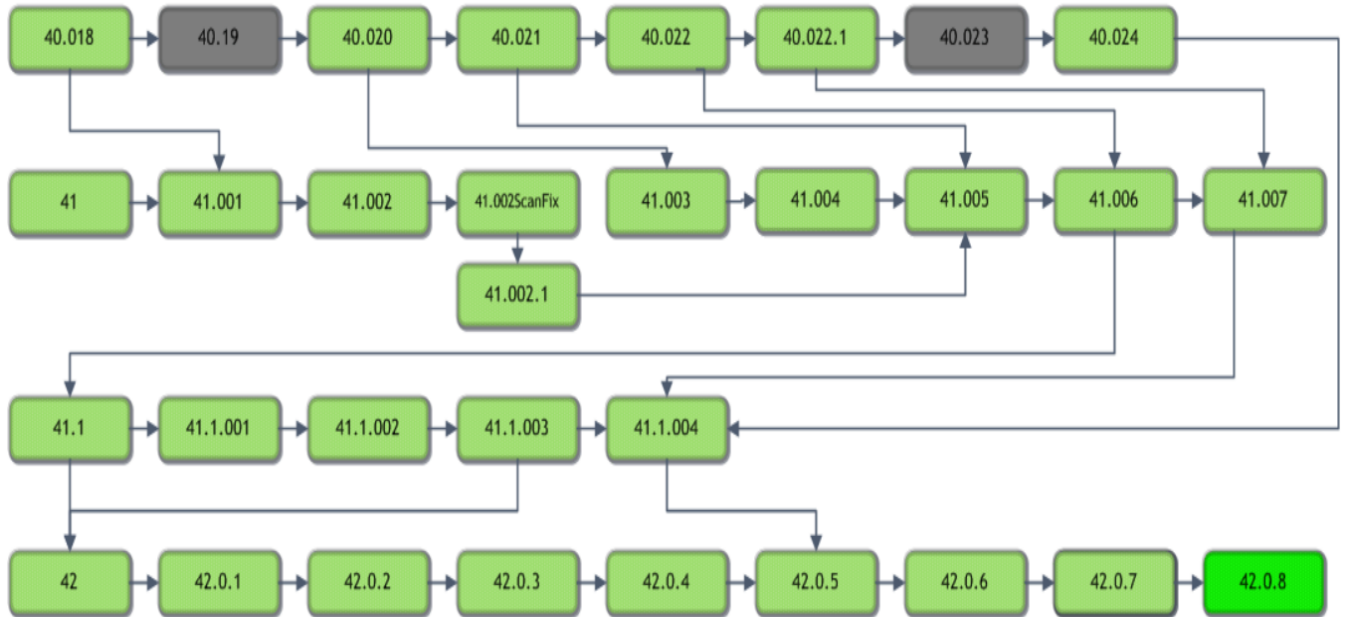
The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. The commented line will look like

```
<!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> -->
```

eRAD RIS Server Update

2. Code Stream

eRAD RIS - Source Code Evolution



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

3. Package Contents

Files included for this server update:

1) RIS_Service_Updates contains:

- ABCpdf.dll
- ABCpdf9-32.dll
- ABCpdf9-64.dll
- CDSJobManager.dll
- CDSJobManager.pdb
- CdsLib.dll
- CdsLib.xml
- CdsLib.XmlSerializers.dll
- CommonLib.dll
- CommonLib.pdb
- DDEngine.dll
- DDEngine.pdb
- Interop.ANYMODALCAPTURECTRLLib.dll
- Interop.FAXCOMEXLib.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.pdb
- Microsoft.Practices.EnterpriseLibrary.Common.dll
- Microsoft.Practices.EnterpriseLibrary.Common.pdb
- Microsoft.Practices.EnterpriseLibrary.Logging.dll
- Microsoft.Practices.EnterpriseLibrary.Logging.pdb
- Microsoft.Practices.ServiceLocation.dll
- Microsoft.Practices.ServiceLocation.pdb
- Microsoft.Practices.Unity.dll
- Microsoft.Practices.Unity.Interception.dll
- Microsoft.Practices.Unity.Interception.pdb
- Microsoft.Practices.Unity.pdb
- Microsoft.ReportViewer.Common.dll
- Microsoft.ReportViewer.WinForms.dll
- Microsoft.ReportViewer.WinForms.xml
- Newtonsoft.Json.dll
- Newtonsoft.Json.xml
- Ninject.dll
- Ninject.Web.Common.dll
- Ninject.Web.Common.xml
- Ninject.xml
- O2S.Components.PDFRender4NET.dll
- PDFToImages.exe
- rRISServices.exe
- rRISServices.pdb
- rRISServicesx64.exe
- ScheduledTaskManager.dll
- ScheduledTaskManager.pdb
- ServicesConfigWizard.exe
- ServicesConfigWizard.pdb
- SignatureApprovalService.exe
- SignatureApprovalService.pdb
- System.Net.Http.dll
- System.Net.Http.Formatting.dll
- System.Net.Http.Formatting.xml
- System.Net.Http.WebRequest.dll
- System.Net.Http.WebRequest.xml
- System.Net.Http.xml
- System.Web.dll
- System.Web.Helpers.dll
- System.Web.Helpers.xml
- System.Web.Http.dll
- System.Web.Http.SelfHost.dll
- System.Web.Http.SelfHost.xml
- System.Web.Http.WebHost.dll
- System.Web.Http.WebHost.xml
- System.Web.Http.xml
- System.Web.Mvc.dll
- System.Web.Mvc.xml
- System.Web.Optimization.dll
- System.Web.Providers.dll
- System.Web.Razor.dll
- System.Web.Razor.xml
- System.Web.WebPages.Deployment.dll
- System.Web.WebPages.Deployment.xml
- System.Web.WebPages.dll
- System.Web.WebPages.Razor.dll
- System.Web.WebPages.Razor.xml
- System.Web.WebPages.xml
- Toureau.Gilles.FaxDotNet.dll
- Toureau.Gilles.FaxDotNet.pdb
- Toureau.Gilles.FaxDotNet.xml
- WCFService.dll
- WCFService.pdb
- WCFServiceTests.dll
- WCFServiceTests.pdb
- WebApi.dll
- WebApi.pdb
- Wedge.exe
- Wedge.pdb

The rRIS_Service_Updates also contains to subfolders:

- A. Deploy folder contains
 - a. Applicationsettings
 - b. ReleaseVersion-connectionstrings
 - c. rRISServices.exe

eRAD RIS Server Update

- d. services
- e. rRISServicesx64.exe

B. XSL subfolder contains:

Subfolder titled "Stylesheets" which contains:

- a. CDAToHTMLCompleteReport.xslt
- b. CDAToHTMLImpressionSection.xslt
- c. CDAToRIS.xslt
- d. CDAToTxt.xslt
- e. DocumentModelReport.xslt
- f. DocumentModelReportAsXml.xslt

- g. CCDA Subfolder contains
 - a. sectionImmunizations.xsl
 - b. sectionInstructions.xsl
 - c. C-CDA.xsl
 - d. sectionMedications.xsl
 - e. sectionPlanOfCare.xsl
 - f. eRadStylesheet.xsl
 - g. sectionProblemList.xsl
 - h. generalTemplates.xsl
 - i. sectionProcedures.xsl
 - j. header.xsl
 - k. sectionReasonForVisit.xsl
 - l. sectionAdministeredMedications.xsl
 - m. sectionResults.xsl
 - n. sectionAllergies.xsl
 - o. sectionSocialHistory.xsl
 - p. sectionEncounters.xsl
 - q. sectionVitalSigns.xsl
 - r. sectionFuncCogStatus.xsl

eRAD RIS Server Update

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

Build 42 installs. Server updates are not cumulative. This server update must be applied to 42.0.7

6. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
40	17	1.3.40.18780 (3GB)	1.3.40.18756	1.3.40.18756	1.3.40.18646	Core install required for Radiologist User Group. GUI.zip, Core setup, and Web Service updates
40	18	1.3.40.19253(3GB)	1.3.40.18756	1.3.40.18756	1.3.40.19253	GUI.zip, Web Service and database updates
40	19	1.3.40.19909(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	GUI.zip, Web Service
40	20	1.3.40.20086(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip and Recognizer
40	21	1.3.40.20703(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip
40	22	1.3.40.20898(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip
41	-	1.3.41.19135(3GB)	1.3.41.19135	1.3.41.19135	1.3.41.19135	Full version release
41	1	1.3.41.19256(3GB)	1.3.41.19135	1.3.41.19256	1.3.41.19256	GUI.zip, Web Service and database updates
41	2	1.3.41.19620(3GB)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip and Web Service
41	2sf	1.3.41.19620SF(3G)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip
41	2.1	1.3.41.20622(3GB)	1.3.41.19135	1.3.41.20617	1.3.41.19346	GUI.zip and Web Service
41	3	1.3.41.20125(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip , Web Service and Recognizer
41	4	1.3.41.20285(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip
41	5	1.3.41.20809(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip, Core install, Web Service and database updates
41	6	1.3.41.20912(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip
41.1	-	1.3.41.20918(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip, Core install, Web Service and DB updates, Help files
41.1	1	1.3.41.20987(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip
41.1	2	1.3.41.21162(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip, Web Service and DB updates,
41.1	3	1.3.41.21264(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
42	1	2.42.0.1.21597	2.42.0.0.21261	2.42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates
42	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates
42	3	2.42.0.2.21806	2.42.0.0.21261	2.42.0.2.21806	2.42.0.0.21187	GUI and Web Service updates
42	4	2.42.0.2.21862	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI and Database updates
42	5	2.42.0.5.21924	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI
42	6	2.42.0.5.22009	2.42.0.0.21261	2.42.0.5.22009	2.42.0.4.21870	GUI and Web Service updates
42	7	2.42.0.7.22090	2.42.0.0.21261	2.42.0.6.22009	2.42.0.4.21870	GUI.zip updates
42	8	2.42.0.7.22090	2.42.0.7.22150	2.42.0.6.22009	2.42.0.4.21870	Web Service updates

7. Installing

- 1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.0.9

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eRAD RIS Server Update

1. Defects Resolved

Redmine #	Subject	Priority
6209	Reporting - cannot reopen suspended studies (user id case problem)	High
6179	Error when saving "Only the latest interpretation can be modified" after CDS service updates an interpretation	High
4446	Cancelling a locked order causes error	High
6212	Reporting - Next Section Or Field - if you have only one field in the template, it stops checking for sections after reaching field	Normal
3224	Billing constraint violation when open/saving the same order on Tech + Registration	Normal

Change to Configuration

A configuration change to the ris.exe.config file was introduced in build 2.42 this setting was designed to lessen the delays when retrieving lookup tables that are larger in size. This config setting, as mentioned, is located in the ris.exe.config file located in the <appSettings> section of the file

This setting is:

```
<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>
```

Where the value can be any lookup table, and a value="*", will retrieve all lookups.

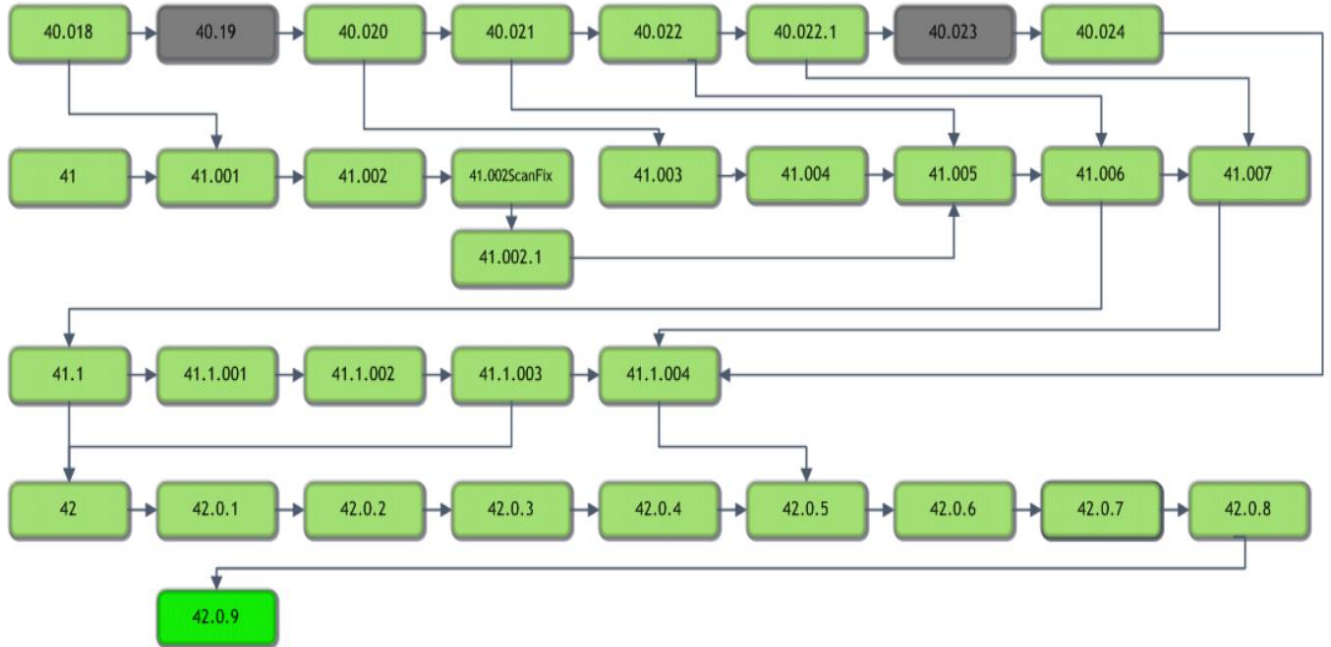
The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. The commented line will look like

```
<!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> -->
```

eRAD RIS Server Update

2. Code Stream

eRAD RIS - Source Code Evolution



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:

- rRIS_1.3.42.0.9.22203.zip

2) RIS_Service_Updates contains:

- ABCpdf.dll
- ABCpdf9-32.dll
- ABCpdf9-64.dll
- CDSJobManager.dll
- CDSJobManager.pdb
- CdsLib.dll
- CdsLib.xml
- CdsLib.XmlSerializers.dll
- CommonLib.dll
- CommonLib.pdb
- contents.txt
- DDEngine.dll
- DDEngine.pdb
- Interop.ANYMODALCAPTURECTRLLib.dll
- Interop.FAXCOMEXLib.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.pdb
- Microsoft.Practices.EnterpriseLibrary.Common.dll
- Microsoft.Practices.EnterpriseLibrary.Common.pdb
- Microsoft.Practices.EnterpriseLibrary.Logging.dll
- Microsoft.Practices.EnterpriseLibrary.Logging.pdb
- Microsoft.Practices.ServiceLocation.dll
- Microsoft.Practices.ServiceLocation.pdb
- Microsoft.Practices.Unity.dll
- Microsoft.Practices.Unity.Interception.dll
- Microsoft.Practices.Unity.Interception.pdb
- Microsoft.Practices.Unity.pdb
- Microsoft.ReportViewer.Common.dll
- Microsoft.ReportViewer.WinForms.dll
- Microsoft.ReportViewer.WinForms.xml
- Newtonsoft.Json.dll
- Newtonsoft.Json.xml
- Ninject.dll
- Ninject.Web.Common.dll
- Ninject.Web.Common.xml
- Ninject.xml
- O2S.Components.PDFRender4NET.dll
- PDFToImages.exe
- rRISServices.exe
- rRISServices.pdb
- rRISServicesx64.exe
- ScheduledTaskManager.dll
- ScheduledTaskManager.pdb
- ServicesConfigWizard.exe
- ServicesConfigWizard.pdb
- SignatureApprovalService.exe
- SignatureApprovalService.pdb
- System.Net.Http.dll
- System.Net.Http.Formatting.dll
- System.Net.Http.Formatting.xml
- System.Net.Http.WebRequest.dll
- System.Net.Http.WebRequest.xml
- System.Net.Http.xml
- System.Web.dll
- System.Web.Helpers.dll
- System.Web.Helpers.xml
- System.Web.Http.dll
- System.Web.Http.SelfHost.dll
- System.Web.Http.SelfHost.xml
- System.Web.Http.WebHost.dll
- System.Web.Http.WebHost.xml
- System.Web.Http.xml
- System.Web.Mvc.dll
- System.Web.Mvc.xml
- System.Web.Optimization.dll
- System.Web.Providers.dll
- System.Web.Razor.dll
- System.Web.Razor.xml
- System.Web.WebPages.Deployment.dll
- System.Web.WebPages.Deployment.xml
- System.Web.WebPages.dll
- System.Web.WebPages.Razor.dll
- System.Web.WebPages.Razor.xml
- System.Web.WebPages.xml
- Toureau.Gilles.FaxDotNet.dll
- Toureau.Gilles.FaxDotNet.pdb
- Toureau.Gilles.FaxDotNet.xml
- WCFServices.dll
- WCFServices.pdb
- WCFServicesTests.dll
- WCFServicesTests.pdb
- WebApi.dll
- WebApi.pdb
- Wedge.exe
- Wedge.pdb

eRAD RIS Server Update

The rRIS_Service_Updates also contains to subfolders:

- A. Deploy folder contains
 - a. Applicationsettings
 - b. ReleaseVersion-connectionstrings
 - c. rRISServices.exe
 - d. services

- B. XSL subfolder contains:
 - Subfolder titled “Stylesheets” which contains:
 - a. CDAToHTMLCompleteReport.xslt
 - b. CDAToHTMLImpressionSection.xslt
 - c. CDAToRIS.xslt
 - d. CDAToTxt.xslt
 - e. DocumentModelReport.xslt
 - f. DocumentModelReportAsXml.xslt

 - g. CCDA Subfolder contains
 - a. sectionImmunizations.xsl
 - b. sectionInstructions.xsl
 - c. C-CDA.xsl
 - d. sectionMedications.xsl
 - e. sectionPlanOfCare.xsl
 - f. eRadStylesheet.xsl
 - g. sectionProblemList.xsl
 - h. generalTemplates.xsl
 - i. sectionProcedures.xsl
 - j. header.xsl
 - k. sectionReasonForVisit.xsl
 - l. sectionAdministeredMedications.xsl
 - m. sectionResults.xsl
 - n. sectionAllergies.xsl
 - o. sectionSocialHistory.xsl
 - p. sectionEncounters.xsl
 - q. sectionVitalSigns.xsl
 - r. sectionFuncCogStatus.xsl

eRAD RIS Server Update

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

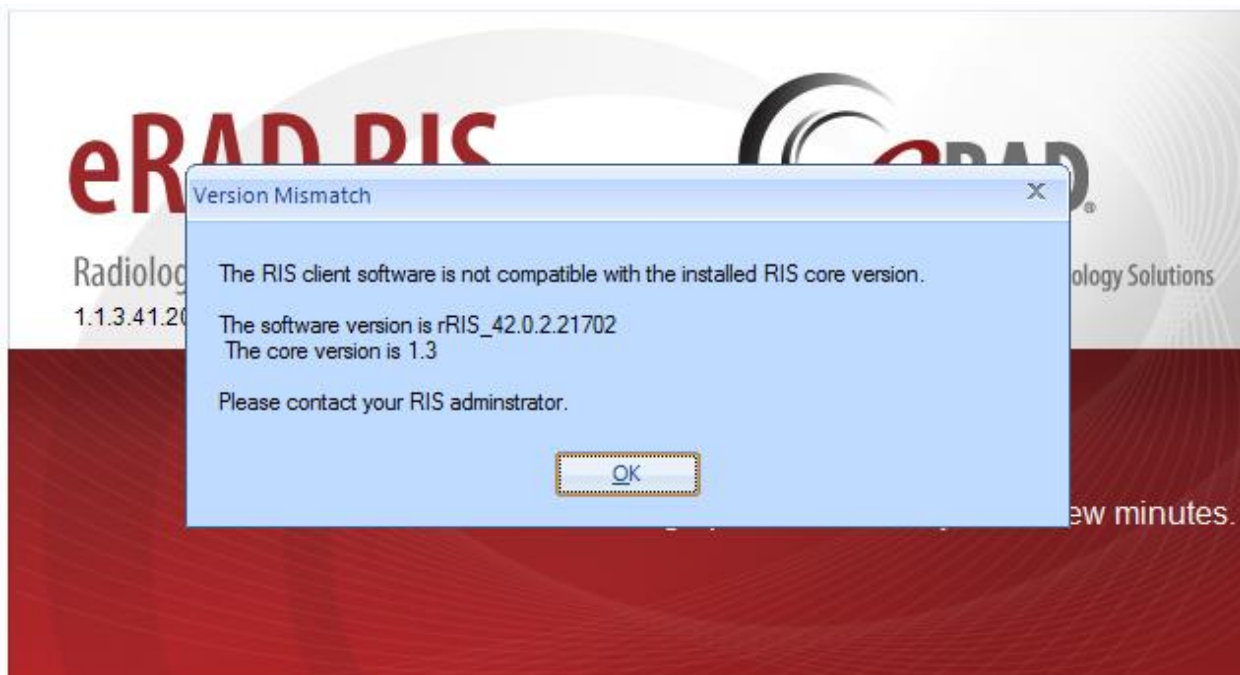
Build 42 installs. Server updates are not cumulative. This server update must be applied to 42.0.4

6. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
40	17	1.3.40.18780 (3GB)	1.3.40.18756	1.3.40.18756	1.3.40.18646	Core install required for Radiologist User Group. GUI.zip, Core setup, and Web Service updates
40	18	1.3.40.19253(3GB)	1.3.40.18756	1.3.40.18756	1.3.40.19253	GUI.zip, Web Service and database updates
40	19	1.3.40.19909(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	GUI.zip, Web Service
40	20	1.3.40.20086(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip and Recognizer
40	21	1.3.40.20703(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip
40	22	1.3.40.20898(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip
41	-	1.3.41.19135(3GB)	1.3.41.19135	1.3.41.19135	1.3.41.19135	Full version release
41	1	1.3.41.19256(3GB)	1.3.41.19135	1.3.41.19256	1.3.41.19256	GUI.zip, Web Service and database updates
41	2	1.3.41.19620(3GB)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip and Web Service
41	2sf	1.3.41.19620SF(3G)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip
41	2.1	1.3.41.20622(3GB)	1.3.41.19135	1.3.41.20617	1.3.41.19346	GUI.zip and Web Service
41	3	1.3.41.20125(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip , Web Service and Recognizer
41	4	1.3.41.20285(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip
41	5	1.3.41.20809(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip, Core install, Web Service and database updates
41	6	1.3.41.20912(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip
41.1	-	1.3.41.20918(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip, Core install, Web Service and DB updates, Help files
41.1	1	1.3.41.20987(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip
41.1	2	1.3.41.21162(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip, Web Service and DB updates,
41.1	3	1.3.41.21264(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
42	1	2.42.0.1.21597	2.42.0.0.21261	2.42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates
42	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates
42	3	2.42.0.2.21806	2.42.0.0.21261	2.42.0.2.21806	2.42.0.0.21187	GUI and Web Service updates
42	4	2.42.0.2.21862	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI and Database updates
42	5	2.42.0.5.21924	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI
42	6	2.42.0.5.22009	2.42.0.0.21261	2.42.0.5.22009	2.42.0.4.21870	GUI and Web Service updates
42	7	2.42.0.7.22090	2.42.0.0.21261	2.42.0.6.22009	2.42.0.4.21870	GUI.zip updates
42	8	2.42.0.7.22090	2.42.0.7.22150	2.42.0.6.22009	2.42.0.4.21870	Web Service updates
42	9	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI and Web Service updates

7. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.42.0.9.22203.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_42.0. 9.22203 → rRIS_1.3.42.0. 9.22203. NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

- 2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.0.9.1

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eRAD RIS Server Update

1. Defects Resolved

Redmine #	Subject	Priority
6288	Error starting CDS service	Urgent

The files produced for this software patch have the same build and version number of 42.0.9. To differentiate between the two you can look at the date created column in windows explorer.

In the screenshots below the image on the left are files that are released with this Server Update with the date of 4/1/2014. The image on the right displays the previous release of 42.0.9 has a Date Created date of 3/25/2014.

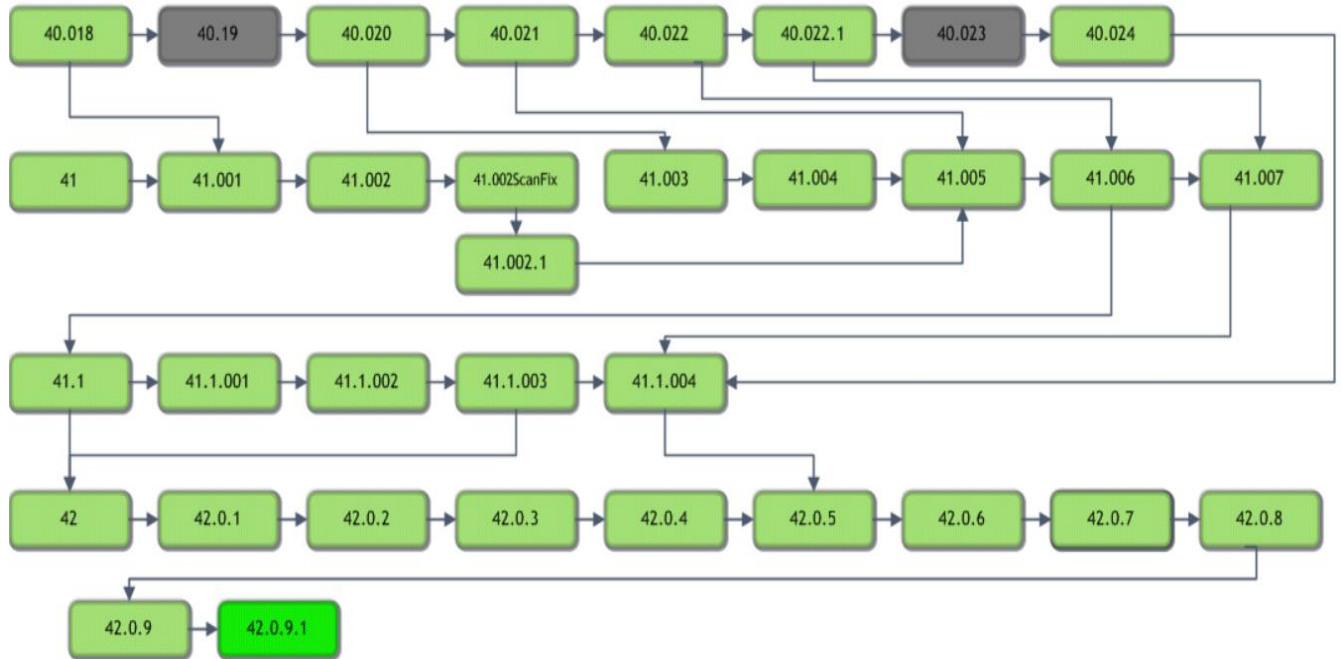
Name	Product version	Date created
rRISServices	1.0.0.0	4/1/2014 10:02 AM
rRISServices.pdb		4/1/2014 10:02 AM
rRISServicesx64	1.0.0.0	4/1/2014 10:02 AM
WCFServicesTests.dll	1.0.0.0	4/1/2014 10:02 AM
WCFServicesTests.pdb		4/1/2014 10:02 AM
Wedge	1.0.0.0	4/1/2014 10:02 AM
Wedge.pdb		4/1/2014 10:02 AM
DDEngine.dll	1.0.0.0	4/1/2014 10:02 AM
DDEngine.pdb		4/1/2014 10:02 AM
CDSJobManager.dll	2010.2.713.0	4/1/2014 10:02 AM
CDSJobManager.pdb		4/1/2014 10:02 AM
ScheduledTaskManager.dll	1.0.0.0	4/1/2014 10:02 AM
ScheduledTaskManager.pdb		4/1/2014 10:02 AM
SignatureApprovalService	1.0.0.0	4/1/2014 10:02 AM
SignatureApprovalService.pdb		4/1/2014 10:02 AM
WebApi.dll	1.0.0.0	4/1/2014 10:02 AM
WebApi.pdb		4/1/2014 10:02 AM
WCFServices.dll	42.0.9.22203	4/1/2014 10:02 AM
WCFServices.pdb		4/1/2014 10:02 AM
CommonLib.dll	42.0.9.22203	4/1/2014 10:02 AM
CommonLib.pdb		4/1/2014 10:02 AM
ServicesConfigWizard	1.0.0.0	4/1/2014 10:02 AM

Name	Product ve...	Date created
rRISServices	1.0.0.0	3/25/2014 1:13 PM
rRISServices.pdb		3/25/2014 1:13 PM
rRISServicesx64	1.0.0.0	3/25/2014 1:13 PM
Wedge	1.0.0.0	3/25/2014 1:13 PM
Wedge.pdb		3/25/2014 1:13 PM
ScheduledTaskManager.dll	1.0.0.0	3/25/2014 1:13 PM
ScheduledTaskManager.pdb		3/25/2014 1:13 PM
SignatureApprovalService	1.0.0.0	3/25/2014 1:13 PM
SignatureApprovalService.pdb		3/25/2014 1:13 PM
CDSJobManager.dll	2010.2.713.0	3/25/2014 1:12 PM
CDSJobManager.pdb		3/25/2014 1:12 PM
WCFServicesTests.dll	1.0.0.0	3/25/2014 1:13 PM
WCFServicesTests.pdb		3/25/2014 1:13 PM
WebApi.dll	1.0.0.0	3/25/2014 1:13 PM
WebApi.pdb		3/25/2014 1:13 PM
DDEngine.dll	1.0.0.0	3/25/2014 1:12 PM
DDEngine.pdb		3/25/2014 1:12 PM
ServicesConfigWizard	1.0.0.0	3/25/2014 1:13 PM
ServicesConfigWizard.pdb		3/25/2014 1:13 PM
WCFServices.dll	42.0.9.22203	3/25/2014 1:13 PM
WCFServices.pdb		3/25/2014 1:13 PM

eRAD RIS Server Update

2. Code Stream

eRAD RIS - Source Code Evolution



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

3. Package Contents

Files included for this server update:

1) RIS_Service_Updates contains:

- ABCpdf.dll
- ABCpdf9-32.dll
- ABCpdf9-64.dll
- CDSJobManager.dll
- CDSJobManager.pdb
- CdsLib.dll
- CdsLib.xml
- CdsLib.XmlSerializers.dll
- CommonLib.dll
- CommonLib.pdb
- contents.txt
- DDEngine.dll
- DDEngine.pdb
- Interop.ANYMODALCAPTURECTRLLib.dll
- Interop.FAXCOMEXLib.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.pdb
- Microsoft.Practices.EnterpriseLibrary.Common.dll
- Microsoft.Practices.EnterpriseLibrary.Common.pdb
- Microsoft.Practices.EnterpriseLibrary.Logging.dll
- Microsoft.Practices.EnterpriseLibrary.Logging.pdb
- Microsoft.Practices.ServiceLocation.dll
- Microsoft.Practices.ServiceLocation.pdb
- Microsoft.Practices.Unity.dll
- Microsoft.Practices.Unity.Interception.dll
- Microsoft.Practices.Unity.Interception.pdb
- Microsoft.Practices.Unity.pdb
- Microsoft.ReportViewer.Common.dll
- Microsoft.ReportViewer.WinForms.dll
- Microsoft.ReportViewer.WinForms.xml
- Newtonsoft.Json.dll
- Newtonsoft.Json.xml
- Ninject.dll
- Ninject.Web.Common.dll
- Ninject.Web.Common.xml
- Ninject.xml
- O2S.Components.PDFRender4NET.dll
- PDFToImages.exe
- rRISServices.exe
- rRISServices.pdb
- rRISServicesx64.exe
- ScheduledTaskManager.dll
- ScheduledTaskManager.pdb
- ServicesConfigWizard.exe
- ServicesConfigWizard.pdb
- SignatureApprovalService.exe
- SignatureApprovalService.pdb
- System.Net.Http.dll
- System.Net.Http.Formatting.dll
- System.Net.Http.Formatting.xml
- System.Net.Http.WebRequest.dll
- System.Net.Http.WebRequest.xml
- System.Net.Http.xml
- System.Web.dll
- System.Web.Helpers.dll
- System.Web.Helpers.xml
- System.Web.Http.dll
- System.Web.Http.SelfHost.dll
- System.Web.Http.SelfHost.xml
- System.Web.Http.WebHost.dll
- System.Web.Http.WebHost.xml
- System.Web.Http.xml
- System.Web.Mvc.dll
- System.Web.Mvc.xml
- System.Web.Optimization.dll
- System.Web.Providers.dll
- System.Web.Razor.dll
- System.Web.Razor.xml
- System.Web.WebPages.Deployment.dll
- System.Web.WebPages.Deployment.xml
- System.Web.WebPages.dll
- System.Web.WebPages.Razor.dll
- System.Web.WebPages.Razor.xml
- System.Web.WebPages.xml
- Toureau.Gilles.FaxDotNet.dll
- Toureau.Gilles.FaxDotNet.pdb
- Toureau.Gilles.FaxDotNet.xml
- WCFService.dll
- WCFService.pdb
- WCFServiceTests.dll
- WCFServiceTests.pdb
- WebApi.dll
- WebApi.pdb
- Wedge.exe
- Wedge.pdb

The rRIS_Service_Updates also contains to subfolders:

- A. Deploy folder contains
 - a. Applicationsettings
 - b. ReleaseVersion-connectionstrings
 - c. rRISServices.exe
 - d. services

eRAD RIS Server Update

B. XSL subfolder contains:

Subfolder titled “Stylesheets” which contains:

- a. CDAToHTMLCompleteReport.xslt
- b. CDAToHTMLImpressionSection.xslt
- c. CDAToRIS.xslt
- d. CDAToTxt.xslt
- e. DocumentModelReport.xslt
- f. DocumentModelReportAsXml.xslt

- g. CCDA Subfolder contains
 - a. sectionImmunizations.xsl
 - b. sectionInstructions.xsl
 - c. C-CDA.xsl
 - d. sectionMedications.xsl
 - e. sectionPlanOfCare.xsl
 - f. eRadStylesheet.xsl
 - g. sectionProblemList.xsl
 - h. generalTemplates.xsl
 - i. sectionProcedures.xsl
 - j. header.xsl
 - k. sectionReasonForVisit.xsl
 - l. sectionAdministeredMedications.xsl
 - m. sectionResults.xsl
 - n. sectionAllergies.xsl
 - o. sectionSocialHistory.xsl
 - p. sectionEncounters.xsl
 - q. sectionVitalSigns.xsl
 - r. sectionFuncCogStatus.xsl

eRAD RIS Server Update

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

Build 42 installs. Server updates are not cumulative. This server update must be applied to 42.0.9

6. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
40	17	1.3.40.18780 (3GB)	1.3.40.18756	1.3.40.18756	1.3.40.18646	Core install required for Radiologist User Group. GUI.zip, Core setup, and Web Service updates
40	18	1.3.40.19253(3GB)	1.3.40.18756	1.3.40.18756	1.3.40.19253	GUI.zip, Web Service and database updates
40	19	1.3.40.19909(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	GUI.zip, Web Service
40	20	1.3.40.20086(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip and Recognizer
40	21	1.3.40.20703(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip
40	22	1.3.40.20898(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip
41	-	1.3.41.19135(3GB)	1.3.41.19135	1.3.41.19135	1.3.41.19135	Full version release
41	1	1.3.41.19256(3GB)	1.3.41.19135	1.3.41.19256	1.3.41.19256	GUI.zip, Web Service and database updates
41	2	1.3.41.19620(3GB)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip and Web Service
41	2sf	1.3.41.19620SF(3G)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip
41	2.1	1.3.41.20622(3GB)	1.3.41.19135	1.3.41.20617	1.3.41.19346	GUI.zip and Web Service
41	3	1.3.41.20125(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip , Web Service and Recognizer
41	4	1.3.41.20285(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip
41	5	1.3.41.20809(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip, Core install, Web Service and database updates
41	6	1.3.41.20912(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip
41.1	-	1.3.41.20918(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip, Core install, Web Service and DB updates, Help files
41.1	1	1.3.41.20987(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip
41.1	2	1.3.41.21162(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip, Web Service and DB updates,
41.1	3	1.3.41.21264(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
42	1	2.42.0.1.21597	2.42.0.0.21261	2.42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates
42	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates
42	3	2.42.0.2.21806	2.42.0.0.21261	2.42.0.2.21806	2.42.0.0.21187	GUI and Web Service updates
42	4	2.42.0.2.21862	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI and Database updates
42	5	2.42.0.5.21924	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI
42	6	2.42.0.5.22009	2.42.0.0.21261	2.42.0.5.22009	2.42.0.4.21870	GUI and Web Service updates
42	7	2.42.0.7.22090	2.42.0.0.21261	2.42.0.6.22009	2.42.0.4.21870	GUI.zip updates
42	8	2.42.0.7.22090	2.42.0.7.22150	2.42.0.6.22009	2.42.0.4.21870	Web Service updates
42	9	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI and Web Service updates
42	9.1	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	Web Service updates

7. Installing

- 1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.0.10

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eRAD RIS Server Update

1. Defects Resolved

Redmine #	Subject	Priority
6275	excessive logging contributing to performance issues	High
6274	RIS does not make optimal use of connections to the server	High
4354	Long lookup time-to-live is causing problems	High
6161	RIS Hang after entering partial or invalid height	Normal

Change to Configuration

This server update includes 1 new entry and 1 edit for the ris.exe.config file. The new entry and the edit are located in the <appSettings> section .

The new setting added is:

```
<add key="EnableHighPriorityLookupStrategy" value="true"/>
```

The edit is on the appSetting key for LookupTableTimeToLiveInMinutes. The change only applies for systems that have a value of less than 60. For example if the current setting is:

```
<add key="LookupTableTimeToLiveInMinutes" value="5"/>
```

Change the value of 5 to 60. The key will now look like:

```
<add key="LookupTableTimeToLiveInMinutes" value="60"/>
```

=====

The following change to the <appSettings> section of the ris.exe.config file was introduced in Server Update 42.0.3.

A configuration change to the ris.exe.config file was introduced in build 2.42 this setting was designed to lessen the delays when retrieving lookup tables that are larger in size.

This config setting, as mentioned, is located in the ris.exe.config file located in the <appSettings> section of the file

This setting is:

```
<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>
```

Where the value can be any lookup table, and a value="*", will retrieve all lookups.

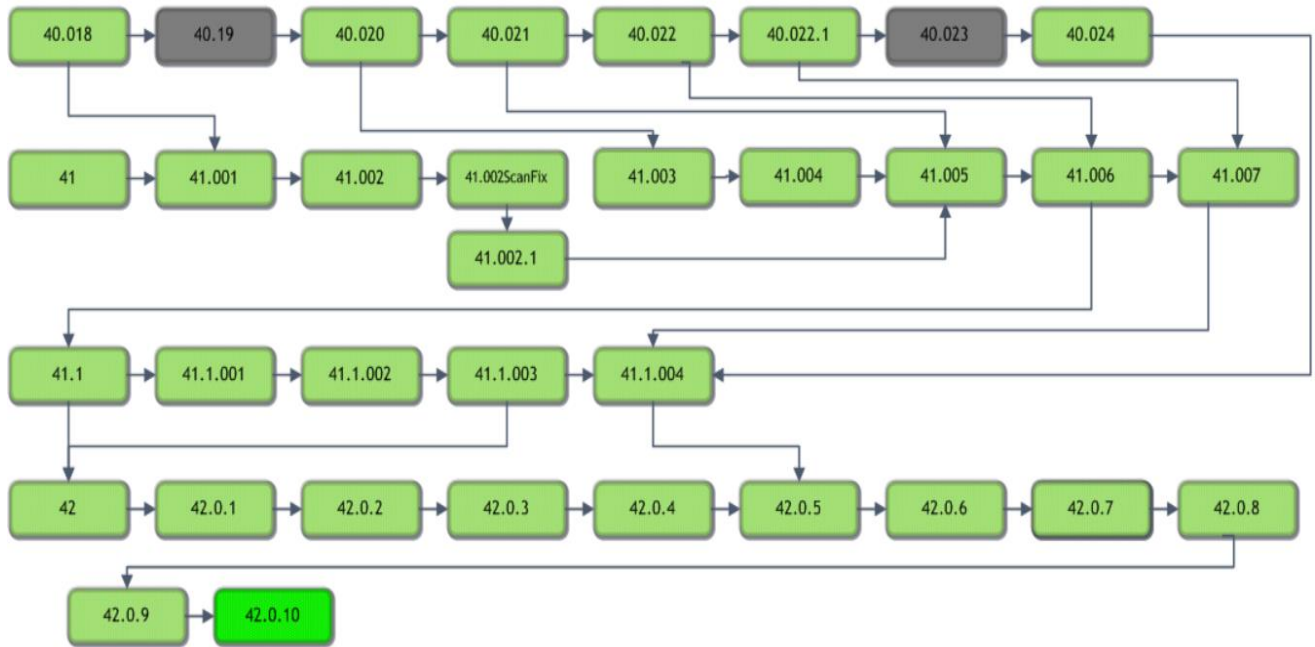
The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. The commented line will look like

```
<!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> -->
```

eRAD RIS Server Update

2. Code Stream

eRAD RIS - Source Code Evolution



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

3. Package Contents

Files included for this server update:

- 1) GUI ZIP Updates folder contains:
 - rRIS_1.3.42.0.10.22232.zip

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

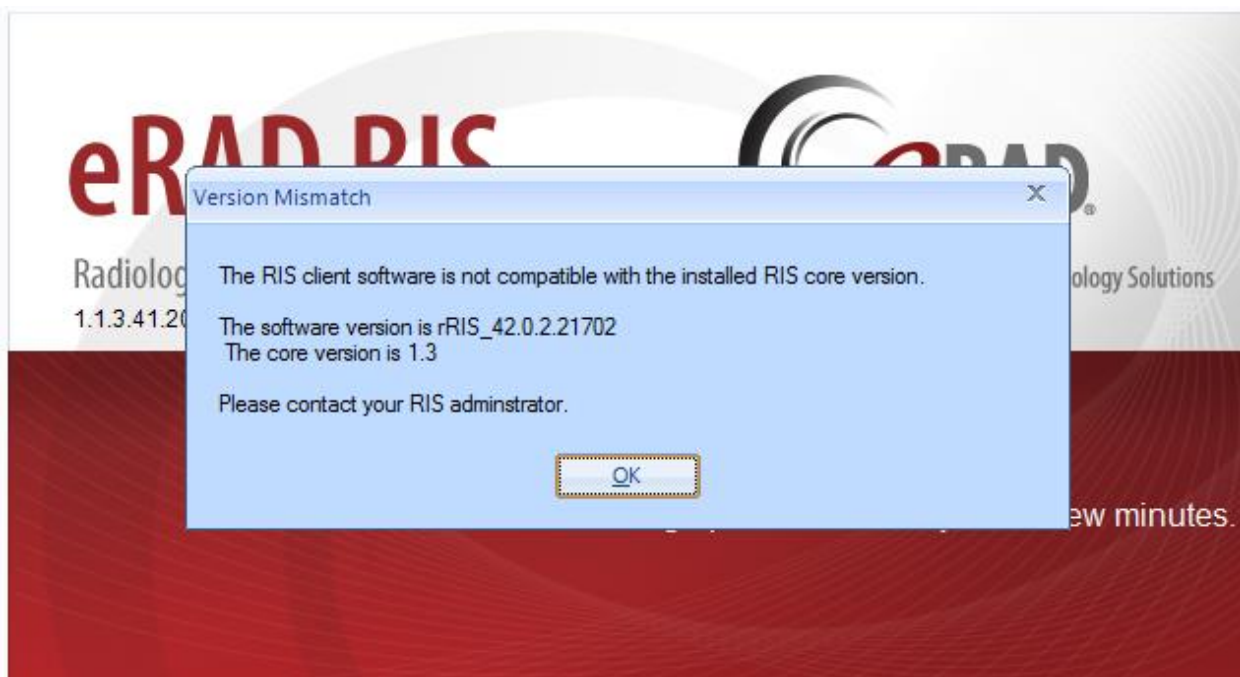
Build 42 installs. Server updates are not cumulative. This server update must be applied to 42.0.9

6. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
40	17	1.3.40.18780 (3GB)	1.3.40.18756	1.3.40.18756	1.3.40.18646	Core install required for Radiologist User Group. GUI.zip, Core setup, and Web Service updates
40	18	1.3.40.19253(3GB)	1.3.40.18756	1.3.40.18756	1.3.40.19253	GUI.zip, Web Service and database updates
40	19	1.3.40.19909(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	GUI.zip, Web Service
40	20	1.3.40.20086(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip and Recognizer
40	21	1.3.40.20703(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip
40	22	1.3.40.20898(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip
41	-	1.3.41.19135(3GB)	1.3.41.19135	1.3.41.19135	1.3.41.19135	Full version release
41	1	1.3.41.19256(3GB)	1.3.41.19135	1.3.41.19256	1.3.41.19256	GUI.zip, Web Service and database updates
41	2	1.3.41.19620(3GB)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip and Web Service
41	2sf	1.3.41.19620SF(3G)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip
41	2.1	1.3.41.20622(3GB)	1.3.41.19135	1.3.41.20617	1.3.41.19346	GUI.zip and Web Service
41	3	1.3.41.20125(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip , Web Service and Recognizer
41	4	1.3.41.20285(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip
41	5	1.3.41.20809(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip, Core install, Web Service and database updates
41	6	1.3.41.20912(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip
41.1	-	1.3.41.20918(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip, Core install, Web Service and DB updates, Help files
41.1	1	1.3.41.20987(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip
41.1	2	1.3.41.21162(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip, Web Service and DB updates,
41.1	3	1.3.41.21264(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
42	1	2.42.0.1.21597	2.42.0.0.21261	2.42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates
42	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates
42	3	2.42.0.2.21806	2.42.0.0.21261	2.42.0.2.21806	2.42.0.0.21187	GUI and Web Service updates
42	4	2.42.0.2.21862	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI and Database updates
42	5	2.42.0.5.21924	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI
42	6	2.42.0.5.22009	2.42.0.0.21261	2.42.0.5.22009	2.42.0.4.21870	GUI and Web Service updates
42	7	2.42.0.7.22090	2.42.0.0.21261	2.42.0.6.22009	2.42.0.4.21870	GUI.zip updates
42	8	2.42.0.7.22090	2.42.0.7.22150	2.42.0.6.22009	2.42.0.4.21870	Web Service updates
42	9	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI and Web Service updates
42	10	2.42.0.10.22232	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip updates

7. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.42.0.10.22232.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_42.0.10.22232 → rRIS_1.3.42.0.10.22232. NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

Server Update

For eRAD RIS

Version 2.0

Build 42

Update 42.0.10.1

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eRAD RIS Server Update

1. Defects Resolved

Redmine #	Subject	Priority
6275	Excessive logging contributing to performance issues	High
6274	RIS does not make optimal use of connections to the server	High
4354	Long lookup time-to-live is causing problems	High
6161	RIS Hang after entering partial or invalid height	Normal
6451	SearchResults Constructor slows screen load of New Appointment screen on older hardware	Normal
6450	Binding to billing codes can slow New Appointment screen load, particularly on older machines	Normal
6449	Slow building valid sites table on schedule order screen	Normal
6443	New Appointment Performance: Style code in LogTextBox	Normal
6442	New Appointment Performance: Extra NewCrop WS Calls	Normal

eRAD RIS Server Update

2. Change to Configuration

This server update includes 1 new entry and 1 edit for the ris.exe.config file. The new entry and the edit are located in the <appSettings> section .

The new setting added is:

```
<add key="EnableHighPriorityLookupStrategy" value="true"/>
```

The edit is on the appSetting key for LookupTableTimeToLiveInMinutes. **The change only applies for systems that have a value of less than 60.** For example if the current setting is:

```
<add key="LookupTableTimeToLiveInMinutes" value="5"/>
```

Change the value of 5 to 60. The key will now look like:

```
<add key="LookupTableTimeToLiveInMinutes" value="60"/>
```

Since the Time to Live will be increased to 60 minutes, the cache will be updated every 60 minutes if changes were made. With the High Priority lookups the client will still check every 5 minutes. When the lookup list is retrieved we will mark any updated lookups as Dirty, which will result in the lookup being served up stale initially while a back ground thread will go get a fresh copy.

The High Priority Lookup is different by role. If someone opens scheduling (or appointmentbook), we add Modality, ProcedureCode, AvailabilityTemplate, and ScheduleGroup to the High Priority List. If someone opens Reporting or Transcription, we add QualityReviewDistribution to the High Priority List.

eRAD RIS Server Update

From Server Update 42.0.3

The following change to the <appSettings> section of the ris.exe.config file was introduced in Server Update 42.0.3.

A configuration change to the ris.exe.config file was introduced in build 2.42 this setting was designed to lessen the delays when retrieving lookup tables that are larger in size.

This config setting, as mentioned, is located in the ris.exe.config file located in the <appSettings> section of the file

This setting is:

```
<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>
```

Where the value can be any lookup table, and a value="*", will retrieve all lookups.

The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. The commented line will look like

```
<!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> -->
```


eRAD RIS Server Update

4. Package Contents

Files included for this server update:

- 1) GUI ZIP Updates folder contains:
 - rRIS_1.3.42.0.10.22420.zip

5. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

6. Who is affected

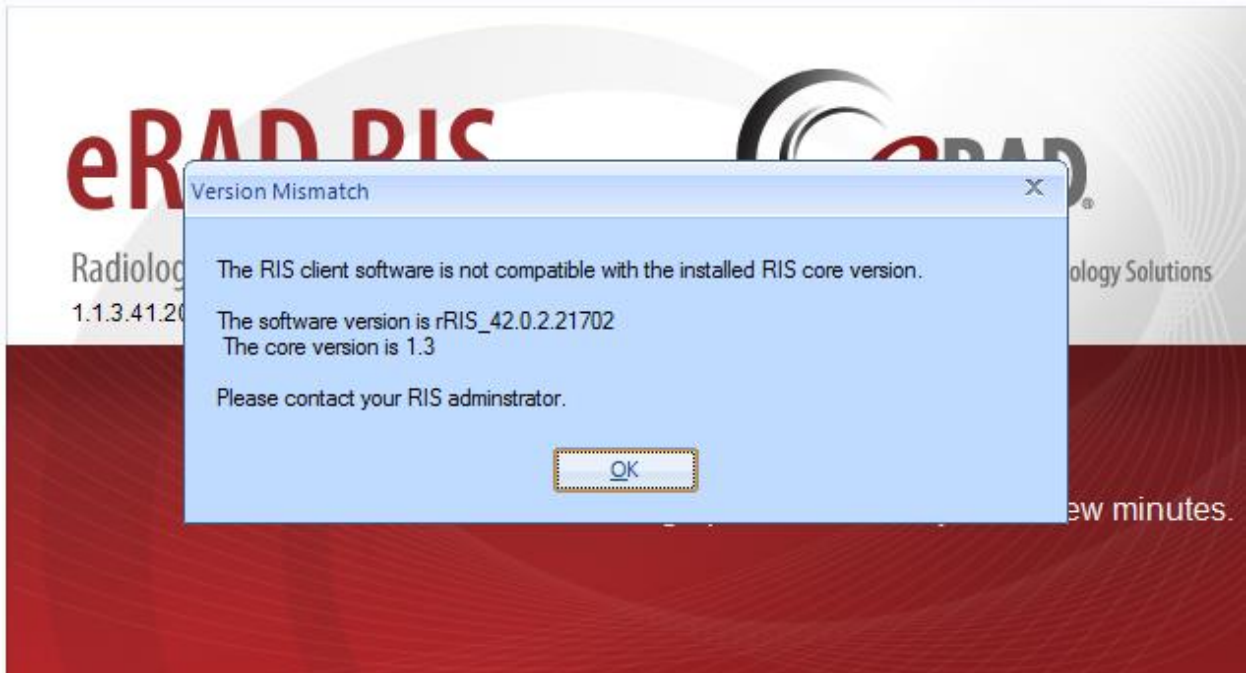
Build 42 installs. Server updates are not cumulative. This server update must be applied to 42.0.9.1

7. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
40	17	1.3.40.18780 (3GB)	1.3.40.18756	1.3.40.18756	1.3.40.18646	Core install required for Radiologist User Group. GUI.zip, Core setup, and Web Service updates
40	18	1.3.40.19253(3GB)	1.3.40.18756	1.3.40.18756	1.3.40.19253	GUI.zip, Web Service and database updates
40	19	1.3.40.19909(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	GUI.zip, Web Service
40	20	1.3.40.20086(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip and Recognizer
40	21	1.3.40.20703(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip
40	22	1.3.40.20898(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip
41	-	1.3.41.19135(3GB)	1.3.41.19135	1.3.41.19135	1.3.41.19135	Full version release
41	1	1.3.41.19256(3GB)	1.3.41.19135	1.3.41.19256	1.3.41.19256	GUI.zip, Web Service and database updates
41	2	1.3.41.19620(3GB)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip and Web Service
41	2sf	1.3.41.19620SF(3G)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip
41	2.1	1.3.41.20622(3GB)	1.3.41.19135	1.3.41.20617	1.3.41.19346	GUI.zip and Web Service
41	3	1.3.41.20125(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip , Web Service and Recognizer
41	4	1.3.41.20285(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip
41	5	1.3.41.20809(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip, Core install, Web Service and database updates
41	6	1.3.41.20912(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip
41.1	-	1.3.41.20918(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip, Core install, Web Service and DB updates, Help files
41.1	1	1.3.41.20987(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip
41.1	2	1.3.41.21162(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip, Web Service and DB updates,
41.1	3	1.3.41.21264(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
42	1	2.42.0.1.21597	2.42.0.0.21261	2.42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates
42	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates
42	3	2.42.0.2.21806	2.42.0.0.21261	2.42.0.2.21806	2.42.0.0.21187	GUI and Web Service updates
42	4	2.42.0.2.21862	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI and Database updates
42	5	2.42.0.5.21924	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI
42	6	2.42.0.5.22009	2.42.0.0.21261	2.42.0.5.22009	2.42.0.4.21870	GUI and Web Service updates
42	7	2.42.0.7.22090	2.42.0.0.21261	2.42.0.6.22009	2.42.0.4.21870	GUI.zip updates
42	8	2.42.0.7.22090	2.42.0.7.22150	2.42.0.6.22009	2.42.0.4.21870	Web Service updates
42	9	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI and Web Service updates
42	9.1	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	Web Service updates
42	10	2.42.0.10.22232	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip updates
42	10.1	2.42.0.10.22420	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip updates

8. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.42.0.10. 22420.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_42.0.10. 22420→ rRIS_1.3.42.0. 10. 22420. NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.0.11

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eRAD RIS Server Update

1. Defects Resolved

Redmine #	Subject	Priority
6370	Error starting CDS service	Urgent
6307	Potential for studies to be orphaned in a way as they won't appear on worklists	Urgent
6276	Reporting - Error thrown when suspend, dictate, then suspend or submit again	High
6238	EMR Orders with multiple procedures - in some cases the order does not appear in the Map EMR screen	High
6214	_max_interpretation_version does not update when an addendum is deleted	High
6131	Reschedule Order - Contact/Demographics Changes Not Saving	High
6130	Reschedule Order - Race Changes Not Saving	High
6129	Reschedule Order - Family History Changes Not Saving	High
6445	Person Merge improperly invalidates Quality Review Distribution dataset	Normal
6428	Payment Detail (Now OTC QA) pulling incorrect site if site gets changed	Normal
6424	Radiologist Dashboard - Activity by Radiologist counts off	Normal
6422	Typo in report name CTP Count - Performed Procedures	Normal
6411	RTAT Detail Mammo report	Normal
6402	Scanned Document version of EMR Orders has address line duplicated and is missing phone number and reason for visit	Normal
6372	MU - dgridLabResults failed with: System.NullReferenceException: Object reference not set to an instance of an object.	Normal
6337	Modality Logo Override Issue	Normal
6329	Mgmt Report issue - Edited Jobs By User Detail	Normal
6316	RTAT by Radiologist - returning incorrect results	Normal
6315	Radiologist Signing Activity Report - pulling in addended exams	Normal
6313	Radiologist Dictation Activity by Date - pulling incorrect site\practice for outside reads	Normal
6248	Billing exception screen no displaying Patient Race	Normal
6219	locking failure after changing status	Normal
6216	Value cannot be null error when using Release Form on Image Request	Normal

eRAD RIS Server Update

2. Changes to Configuration

New Access Strings and Configuration Settings

Setting Placeholder	Setting	Default	Purpose / Controls Access to
Access string / User Group Permission tables	Clinical.CreateTableInReport	Full	Grants access to creating tables in diagnostic reports

A configuration change to the ris.exe.config file was introduced in build 2.42 this setting was designed to lessen the delays when retrieving lookup tables that are larger in size.

This config setting, as mentioned, is located in the ris.exe.config file located in the <appSettings> section of the file

This setting is:

```
<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>
```

Where the value can be any lookup table, and a value="*", will retrieve all lookups.

The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. The commented line will look like

```
<!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> -->
```

3. New Features and Enhancements

Studies from Inactive Sites Included at Practice Level

The behavior of the org picker has changed when a user picks a practice. Now all sites, active and inactive are included in filter for the WL. Note that when a user attempts to pick a specific site within a practice on the org picker that only "active" sites are shown. The difference here is when a user picks an item at the practice level the WL will include all sites regardless if they are active/inactive status.

Note: this solution does not allow you to see items in WL where the scope of the WL is limited to a site, such as the reception and technologist WL.

Performed Date Added to Transcription WL's

Prior to this patch release the Performed Start Date and the Performed End Date columns were not available on Transcription WL's. With patch release 42.0.11 they are now included in all Transcription WL's with the exception of Pending Review WL and All Pending Review WL.

In addition, the columns Performed Start Date and Performed End Date have also been added to the Dictated By Date and All Dictated WL's under the Radiologists menu.

eRAD RIS Server Update

Table Creation for Diagnostic Reports Now Configurable

In patch release 42.0.11 we have added a new access string titled “**Clinical.CreateTableInReport**”. Default access is “Full”. When set to “None” in the User Group Permissions table, the user(s) that belong to this user group will no longer have the Toolbar option or Context Menu option to insert tables into diagnostic reports.

In this figure, the toolbar buttons outlined in red are for creating tables and inserting/removing rows and columns.

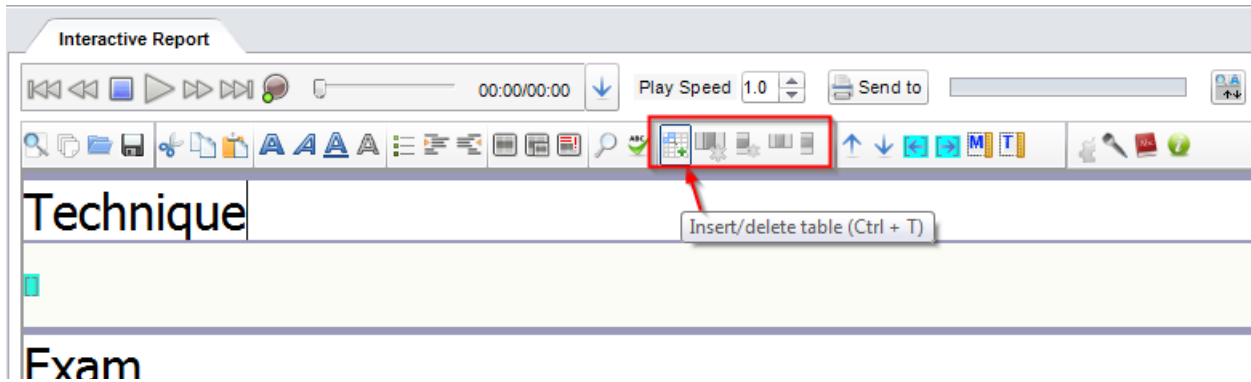


Figure 3.1 – Toolbar options for tables in reporting window

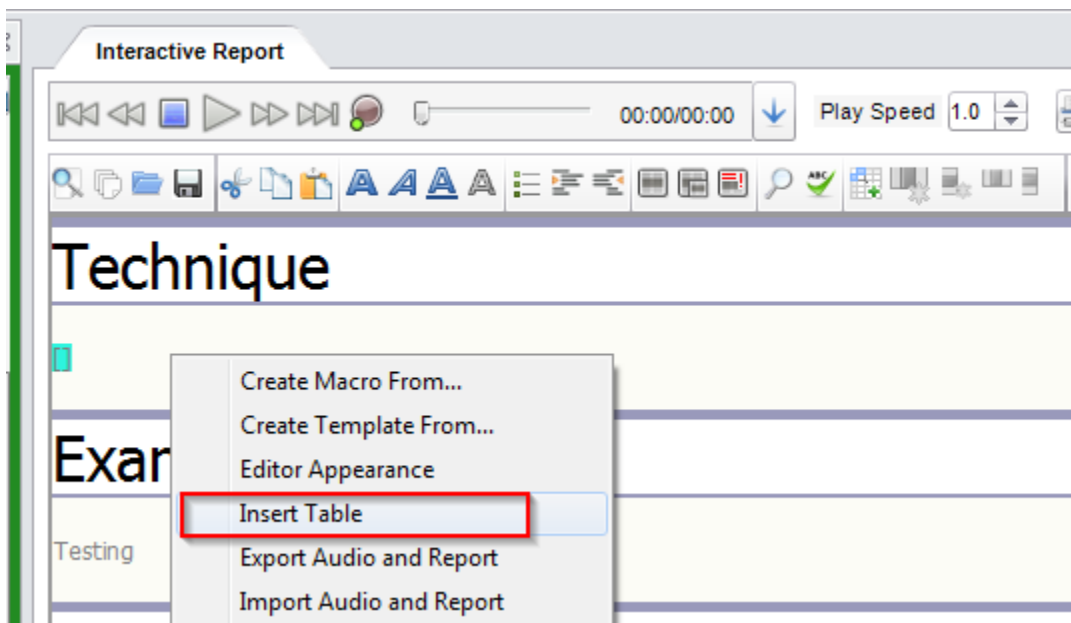
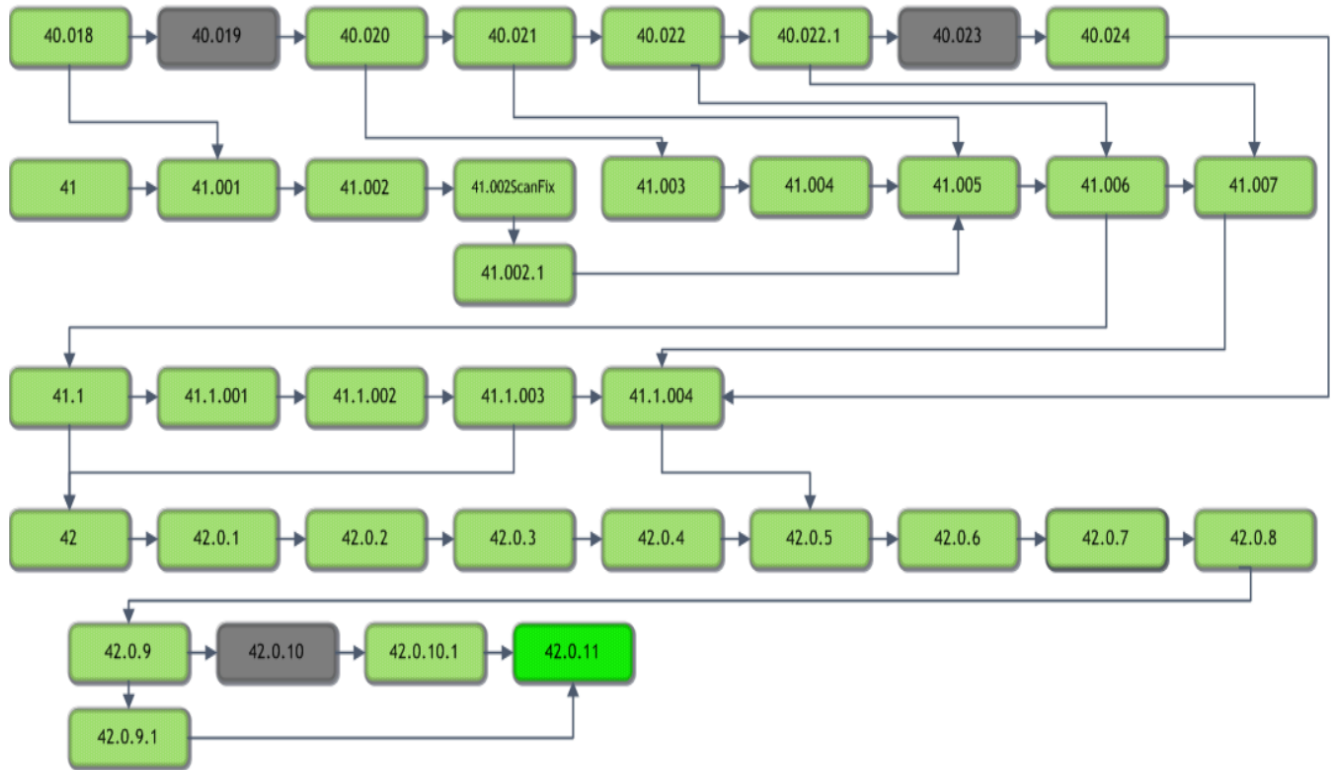


Figure 3.2 – Context menu option to Insert Table

4. Code Stream

eRAD RIS - Source Code Evolution



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

5. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:

- rRIS_1.3.42.0.11.22495a.zip

2) RIS_Service_Updates contains:

- ABCpdf.dll
- ABCpdf9-32.dll
- ABCpdf9-64.dll
- CDSJobManager.dll
- CDSJobManager.pdb
- CdsLib.dll
- CdsLib.xml
- CdsLib.XmlSerializers.dll
- CommonLib.dll
- CommonLib.pdb
- contents.txt
- DDEngine.dll
- DDEngine.pdb
- Interop.ANYMODALCAPTURECTRLLib.dll
- Interop.FAXCOMEXLib.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.pdb
- Microsoft.Practices.EnterpriseLibrary.Common.dll
- Microsoft.Practices.EnterpriseLibrary.Common.pdb
- Microsoft.Practices.EnterpriseLibrary.Logging.dll
- Microsoft.Practices.EnterpriseLibrary.Logging.pdb
- Microsoft.Practices.ServiceLocation.dll
- Microsoft.Practices.ServiceLocation.pdb
- Microsoft.Practices.Unity.dll
- Microsoft.Practices.Unity.Interception.dll
- Microsoft.Practices.Unity.Interception.pdb
- Microsoft.Practices.Unity.pdb
- Microsoft.ReportViewer.Common.dll
- Microsoft.ReportViewer.WinForms.dll
- Microsoft.ReportViewer.WinForms.xml
- Newtonsoft.Json.dll
- Newtonsoft.Json.xml
- Ninject.dll
- Ninject.Web.Common.dll
- Ninject.Web.Common.xml
- Ninject.xml
- O2S.Components.PDFRender4NET.dll
- PDFToImages.exe
- rRISServices.exe
- rRISServices.pdb
- rRISServicesx64.exe
- ScheduledTaskManager.dll
- ScheduledTaskManager.pdb
- ServicesConfigWizard.exe
- ServicesConfigWizard.pdb
- SignatureApprovalService.exe
- SignatureApprovalService.pdb
- System.Net.Http.dll
- System.Net.Http.Formatting.dll
- System.Net.Http.Formatting.xml
- System.Net.Http.WebRequest.dll
- System.Net.Http.WebRequest.xml
- System.Net.Http.xml
- System.Web.dll
- System.Web.Helpers.dll
- System.Web.Helpers.xml
- System.Web.Http.dll
- System.Web.Http.SelfHost.dll
- System.Web.Http.SelfHost.xml
- System.Web.Http.WebHost.dll
- System.Web.Http.WebHost.xml
- System.Web.Http.xml
- System.Web.Mvc.dll
- System.Web.Mvc.xml
- System.Web.Optimization.dll
- System.Web.Providers.dll
- System.Web.Razor.dll
- System.Web.Razor.xml
- System.Web.WebPages.Deployment.dll
- System.Web.WebPages.Deployment.xml
- System.Web.WebPages.dll
- System.Web.WebPages.Razor.dll
- System.Web.WebPages.Razor.xml
- System.Web.WebPages.xml
- Toureau.Gilles.FaxDotNet.dll
- Toureau.Gilles.FaxDotNet.pdb
- Toureau.Gilles.FaxDotNet.xml
- WCFServices.dll
- WCFServices.pdb
- WCFServicesTests.dll
- WCFServicesTests.pdb
- WebApi.dll
- WebApi.pdb
- Wedge.exe
- Wedge.pdb

eRAD RIS Server Update

The rRIS_Service_Updates also contains to subfolders:

- A. Deploy folder contains
 - a. Applicationsettings
 - b. ReleaseVersion-connectionstrings
 - c. rRISServices.exe
 - d. services

- B. XSL subfolder contains:
Subfolder titled “Stylesheets” which contains:
 - a. CDAToHTMLCompleteReport.xslt
 - b. CDAToHTMLImpressionSection.xslt
 - c. CDAToRIS.xslt
 - d. CDAToTxt.xslt
 - e. DocumentModelReport.xslt
 - f. DocumentModelReportAsXml.xslt

 - g. CCDA Subfolder contains
 - a. C-CDA.xsl
 - b. eRadStylesheet.xsl
 - c. generalTemplates.xsl
 - d. header.xsl
 - e. sectionAdministeredMedications.xsl
 - f. sectionAllergies.xsl
 - g. sectionEncounters.xsl
 - h. sectionFuncCogStatus.xsl
 - i. sectionImmunizations.xsl
 - j. sectionInstructions.xsl
 - k. sectionMedications.xsl
 - l. sectionPlanOfCare.xsl
 - m. sectionProblemList.xsl
 - n. sectionProcedures.xsl
 - o. sectionReasonForVisit.xsl
 - p. sectionResults.xsl
 - q. sectionSocialHistory.xsl
 - r. sectionVitalSigns.xsl

3) SQL folder contains:

- 42.0.11

4) SSRSDeployment folder contains the deployment tools and files/folders required to installing/updating the management reports.

eRAD RIS Server Update

6. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

7. Who is affected

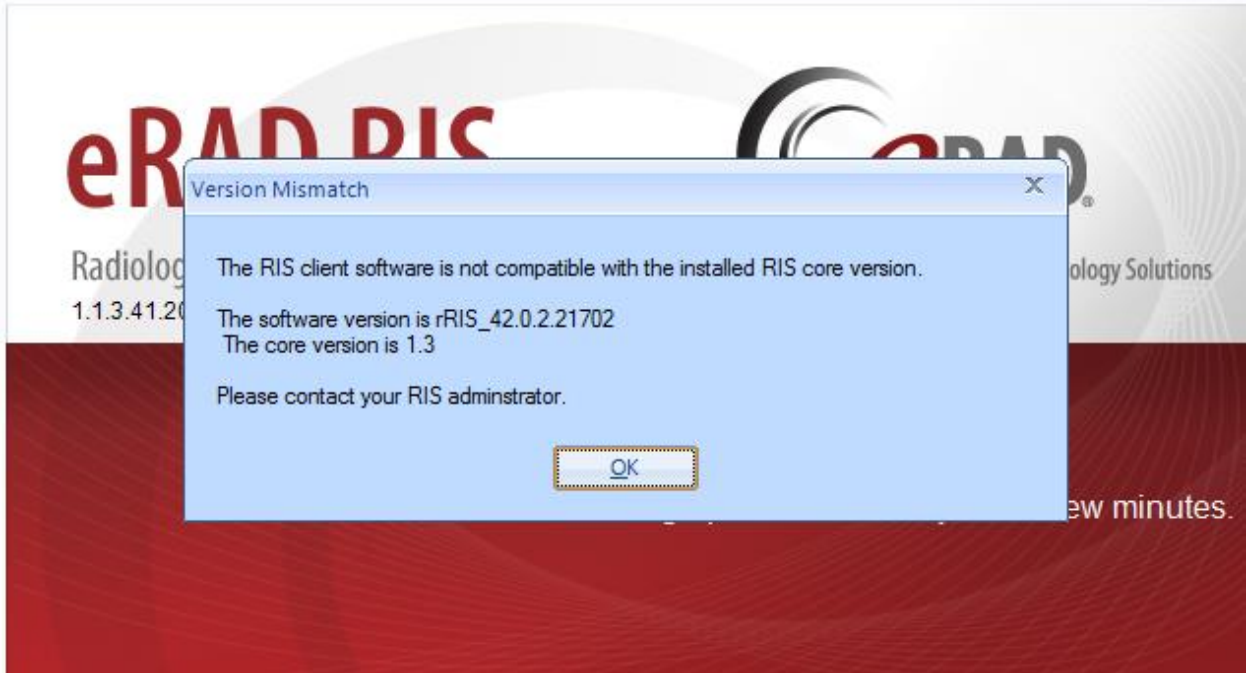
Build 42 installs. Server updates are not cumulative. This server update must be applied to 42.0.4

8. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
41	-	1.3.41.19135(3GB)	1.3.41.19135	1.3.41.19135	1.3.41.19135	Full version release
41	1	1.3.41.19256(3GB)	1.3.41.19135	1.3.41.19256	1.3.41.19256	GUI.zip, Web Service and database updates
41	2	1.3.41.19620(3GB)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip and Web Service
41	2sf	1.3.41.19620SF(3G)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip
41	2.1	1.3.41.20622(3GB)	1.3.41.19135	1.3.41.20617	1.3.41.19346	GUI.zip and Web Service
41	3	1.3.41.20125(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip , Web Service and Recognizer
41	4	1.3.41.20285(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip
41	5	1.3.41.20809(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip, Core install, Web Service and database updates
41	6	1.3.41.20912(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip
41.1	-	1.3.41.20918(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip, Core install, Web Service and DB updates, Help files
41.1	1	1.3.41.20987(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip
41.1	2	1.3.41.21162(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip, Web Service and DB updates,
41.1	3	1.3.41.21264(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
42	1	2.42.0.1.21597	2.42.0.0.21261	2.42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates
42	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates
42	3	2.42.0.2.21806	2.42.0.0.21261	2.42.0.2.21806	2.42.0.0.21187	GUI and Web Service updates
42	4	2.42.0.2.21862	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI and Database updates
42	5	2.42.0.5.21924	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI
42	6	2.42.0.5.22009	2.42.0.0.21261	2.42.0.5.22009	2.42.0.4.21870	GUI and Web Service updates
42	7	2.42.0.7.22090	2.42.0.0.21261	2.42.0.6.22009	2.42.0.4.21870	GUI.zip updates
42	8	2.42.0.7.22090	2.42.0.7.22150	2.42.0.6.22009	2.42.0.4.21870	Web Service updates
42	9	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI and Web Service updates
42	9.1	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	Web Service updates
42	10	2.42.0.10.22232	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip
42	10.1	2.42.0.10.22420	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip updates
42	11	2.42.0.11.22495a	2.42.0.0.21261	2.42.0.11.22471	2.42.0.11.22527	GUI.zip, Web Service, Database updates. Management Report Deployment

9. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.42.0.11.22495a.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_42.0. 11.22495a → rRIS_1.3.42.0. 11.22495a. NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

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- 2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.

rRISService directories include:

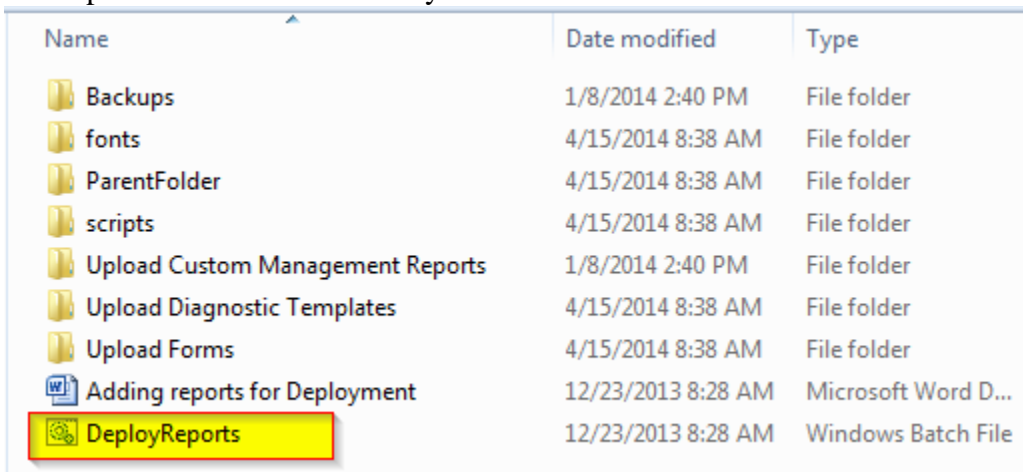
- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

- 3) Run the B42.0.11.sql file against the eRAD RIS database instance

- 4) SQL Reporting - Deploying eRAD RIS Reporting Services:

There is a utility called **DeployReports.bat** that will deploy the reports to a SQL Server Report Service. This utility is found in the **Build X\SSRSDeployment** folder. Below are the steps on how to use this utility.



Name	Date modified	Type
Backups	1/8/2014 2:40 PM	File folder
fonts	4/15/2014 8:38 AM	File folder
ParentFolder	4/15/2014 8:38 AM	File folder
scripts	4/15/2014 8:38 AM	File folder
Upload Custom Management Reports	1/8/2014 2:40 PM	File folder
Upload Diagnostic Templates	4/15/2014 8:38 AM	File folder
Upload Forms	4/15/2014 8:38 AM	File folder
Adding reports for Deployment	12/23/2013 8:28 AM	Microsoft Word D...
DeployReports	12/23/2013 8:28 AM	Windows Batch File

Figure 9.1 – DeployReports.bat file in the SSRSDeployment folder

1. Launch the DeployReports.bat file.
2. **Enter report server name [default:<computer_name>]:**
 - a. A script will run against the server and return a list of all the root folders on that report server
**By Default this will pull the computer_name environmental variable from the machine running the script. I suggest running this from the report server for performance anyway.
3. **Enter root folder to deploy reports [default: production]:**

eRAD RIS Server Update

- a. This will create a new root if the name you give doesn't exist, or it will simply publish below the root of the folder if it does already exist. We typically will use "production" for the installation folder. Note: The script forces the root name to be lowercase.
**Default is suggested to be production, but you may need to change it based on the environment you are deploying to. Ie: testserver might be called something else.
4. **Do you wish to create a backup of the existing reports?:**
 - a. This will create a file backup of the report directory specified in the same directory deploy.bat is being run from inside a folder called Backups where it will create a folder based on datetime of backup. Ie: 04172014_110605 (MMDDYYYY_HHMISS).
5. **Do you wish to deploy core management reports?**
 - a. If you enter "y", it will redeploy the core management reports
6. **Do you wish to upload Forms?**
 - a. If you enter "y", the script will deploy any .rdl files into the installations Forms folder that you have previously saved into the script folder called "Upload Forms" including the folder below it called SubReports.
7. **Do you wish to upload Diagnostic Templates?**
 - a. If you enter "y", the script will deploy any .rdl files into the installations Diagnostic Templates folder that you have previously saved into the script folder called "Upload Diagnostic Templates" including the folder below it called SubReports.
8. **Do you wish to upload Custom Management Reports?**
 - a. Entering "Y" will copy any .rdl files you've copied under the deployment folder called Upload Custom Management Reports onto the server under Management Reports\Custom\Uploads directory
9. **Do you wish to create a datasource?**
 - a. If you select "y" you will get prompted for more information about the datasource you wish to create. You only need to create a datasource, if this is a new installation. No need to do this if you are upgrading an existing installation. The datasource gets created in the root of the folder from step 3. The datasource will be called RISDataSource.

If you chose to create a datasource, the following steps will be requested to complete the connection string.

1. **Enter database server name:**
 - a. This is the name of the physical database server
ex. MYSERVER-1
 2. **Enter database name:**
-

eRAD RIS Server Update

- a. This is the name of the database on the database server
ex. rRIS_Site
3. **Enter report schema user name:** ex. The account that the datasource will use to connect to the database ie: SA. (For security reasons “sa” is not recommended)
4. **Enter report schema password:**

The results of deployment will be written to log.txt in the same folder as the DeployReports.bat file.

Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.0.12

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1. Defects Resolved

Redmine #	Subject	Priority	Found Version
6598	PAC IW Out of sync problem	Urgent	2.42.0.9
6311	Verbal order is hard-coded to associate to a known scan document type - this should be configurable	High	1.40
6594	referring physician "visited at" drop down list contains only numbers, not human readable addresses	High	2.42.0.11
6566	ReportTemplateEditor not being cleaned up when ReportingRadiologist closes	High	2.42.09
6548	bi-rads info not reset when using screen re-use on dictate screen.	High	2.42.11
6543	Reporting - screen reuse and pending save items may hang around on the worklist	Normal	2.42.0.11
6441	PACS images are loaded even if reporting window ultimately does not open.	Normal	2.42
6644	PACS Caching - The RIS is failing to clear out the cache field properly when it is to no longer be cached.	Normal	2.42.0
5401	Cannot re-dock patient folder window because of exception on title bar right-click	Normal	1.41.1

eRAD RIS Server Update

2. Changes to Configuration

New Access Strings and Configuration Settings

Setting Placeholder	Setting	Default	Purpose / Controls Access to
Access string / User Group Permission tables	Clinical.CreateTableInReport	Full	Grants access to creating tables in diagnostic reports
SystemConfig lookup	VerbalOrderScanDocumentType	Script	Default scan document type for a verbal order. Note if this scan document type doesn't exist, the first scan document type will be chosen.
SystemConfig lookup	ElectronicOrderScanDocumentType	Script	Default scan document type for a Electronic/HL7 order.

PLEASE NOTE IMPORTANT CHANGE

NOTE: During testing of these new PACS features, it was discovered that using ^ as a cache delimiter does not work with an "equals" style query. Recommended character is now \$. The delimiter is set in the PACSServer lookup table. In the figure below notice the caret ^ is replaced with a dollar sign \$ for the PEI eRAD PACS server.

Pacs Server Code	Description	Protocol	Url	Port	Display Order	Pacs Ae Title	Cache Query As Contains Flag	Cache Delimiter	Cache Field	Cache
helen	helen	http	helen.erad.com	80	1		N	^	UDF2	N
ts72wl	ts72wl Greenville	http	192.168.25.102	80	1		N	^	UDF2	N
PEI eRAD PACS	PEI eRAD PACS	http	192.168.16.10	80	1	PEIWL1	N	\$	UDF2	Y

Figure 2.1 – PACSServer lookup displaying new cache delimiter

+++++
 A configuration change to the ris.exe.config file was introduced in build 2.42 this setting was designed to lessen the delays when retrieving lookup tables that are larger in size. This config setting, as mentioned, is located in the ris.exe.config file located in the <appSettings> section of the file

This setting is:

```
<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>
```

Where the value can be any lookup table, and a value="*" will retrieve all lookups.

The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. The commented line will look like

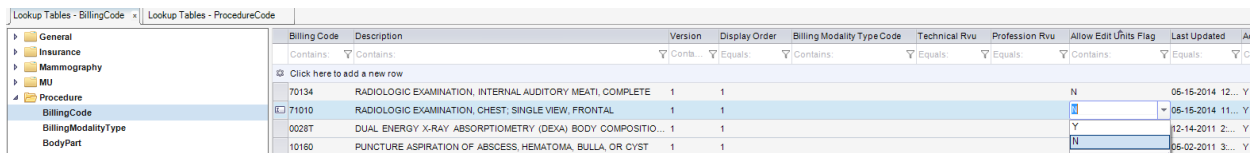
```
<!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> -->
```

3. New Features and Enhancements

Allow Billing Codes Edits Controlled from Billing Codes Lookup

This relates to a feature that was released in Build 42 titled “Allow Edit Billing Units”. Users were able to add additional billing codes to the study that were not associated with the procedure. While this in itself is not an issue, the fact that users could then increase/decrease the amount units for the billing code is.

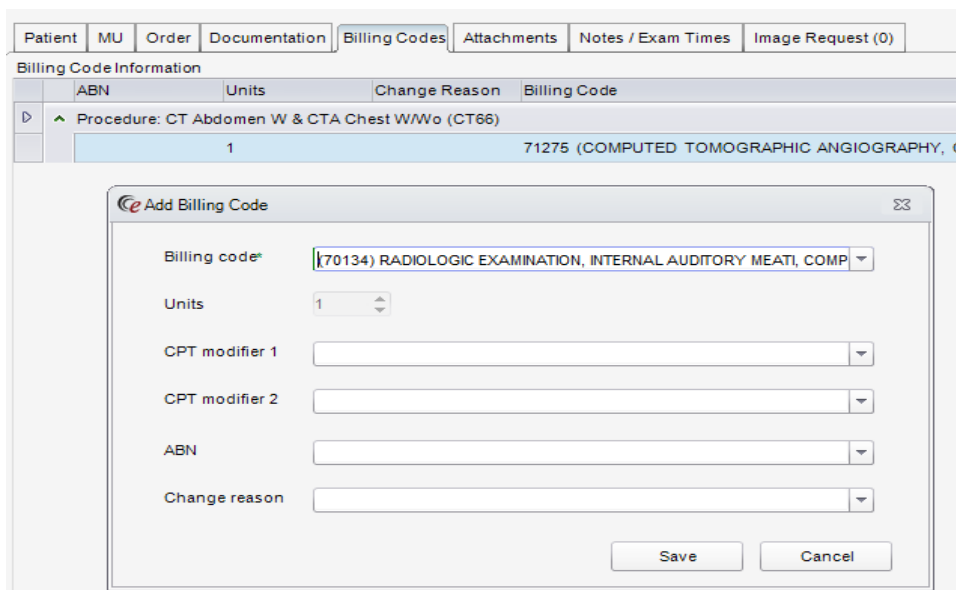
What we have done is added a new column to the BillingCode lookup table titled “Allow Edits Units Flag” that has possible values of Y or N.



Billing Code	Description	Version	Display Order	Billing Modality Type Code	Technical Rvu	Profession Rvu	Allow Edit Units Flag	Last Updated	Ac
70134	RADIOLOGIC EXAMINATION, INTERNAL AUDITORY MEATI, COMPLETE	1	1				N	05-15-2014 12...	Y
71010	RADIOLOGIC EXAMINATION, CHEST, SINGLE VIEW, FRONTAL	1	1				N	05-15-2014 11...	Y
0023T	DUAL ENERGY X-RAY ABSORPTIOMETRY (DEXA) BODY COMPOSITIO...	1	1				Y	12-14-2011 2...	Y
10160	PUNCTURE ASPIRATION OF ABSCESS, HEMATOMA, BULLA, OR CYST	1	1				N	06-02-2011 3...	Y

Figure 3.1 – BillingCode lookup displaying new column

If the value on the billing code for Allow Edit Units Flag = N, when a user adds this billing code to a study from the Technologist’s Perform Exam window, the View Edit window or the Billing Exception window, they will not be able to edit the unit value for that Billing Code.



The screenshot shows the 'Add Billing Code' dialog box. The 'Billing code' field is set to '70134 RADIOLOGIC EXAMINATION, INTERNAL AUDITORY MEATI, COMP'. The 'Units' field is set to '1' and is disabled (indicated by a grey background). The 'Change Reason' field is empty. The 'Save' and 'Cancel' buttons are visible at the bottom.

Figure 3.2 – Add billing code not associated with procedure that units cannot be edited

If the billing code doesn’t allow for the edit of Units, but when associated to a procedure code in the ProcedureCode lookup table and it is desired to allow the edit of units for this particular procedure, it can be overridden by using the method to add the billing code described in the original feature of 42.

eRAD RIS Server Update

The procedure code row can be expanded in the lookup table. Under the `l_procedure_code_x_billing_code` tab the user added the billing code and can select if the billing code should have the option to Allow Edit Units.

The screenshot shows a software interface with a left-hand navigation menu and a main data table. The navigation menu includes items like MU, Procedure, BillingCode, BillingModalityType, BodyPart, Indication, Laterality, MModalDocumentModel, PracticeSiteXProcedureOverride, PrepInstruction, ProcedureChangeReason, and ProcedureCode. The main table displays procedure codes and their associated billing codes. The table has columns for Procedure Code, Billing Code, Units, Cpt Modifiers, and Allow Edit Units. Two rows are visible: one for CT66 with billing code 70134 (RADIOLOGIC EXAMINATION, INTERNAL AUDITORY MEATI, COMPLETE) and another for CT66 with billing code 71275 (COMPUTED TOMOGRAPHIC ANGIOGRAPHY, CHEST (NONCORONARY), WITH CONTRAST MATERIAL(S), INCLUDING...). The 'Allow Edit Units' flag is set to 'Y' for both rows.

Procedure Code	Billing Code	Units	Cpt Modif...	Cpt Modif...	Allow Edit Units
CT66	70134 (RADIOLOGIC EXAMINATION, INTERNAL AUDITORY MEATI, COMPLETE)	1			Y
CT66	71275 (COMPUTED TOMOGRAPHIC ANGIOGRAPHY, CHEST (NONCORONARY), WITH CONTRAST MATERIAL(S), INCLUDING...)	1			Y

Figure 3.3 – Override for default Allow Edit Units flag at Procedure Code level

eRAD RIS Server Update

PACS Caching - Query to see what is being cached by a particular user is a contains query and is expensive

On every refresh of the Pending Dictation worklist the RIS initiates a URL call to the PACS to retrieve the list of studies being cached by the user. This call is done using * as a wildcard before and after the filter value. This is an expensive operation on the PACS database. Since changes in 42 prevent more than one user from caching a study anyway, these wildcards are no longer necessary.

We have introduced a new caching option for PACS calls of the images to be cached for a user.

A new column added to the PACSService lookup table titled “Cache Query As Contains Flag” has been added with possible values of Y or N.

Pacs Server Code	Description	Protocol	Url	Port	Display Order	Pacs Ae Title	Cache Query As Contains Flag	Cache Delimiter	Cache Field	Caching Enabled Flag
Click here to add a new row										
PEI eRAD PACS	PEI eRAD PACS	http	192.168.16.10	80	1	PEIWL1	N	\$	UDF2	Y
BaltSandboxChild	Baltimore Sandbox Child dicom		10.120.0.151	104	1	PBUILDER	N			N

Figure 3.4 – PACSServer lookup displaying new column of Cache Query As Contains Flag.

When set to Y, it works as before, using the wildcard to find the user to cache for. When set to N it will not use the wildcards before and after the username, thus doing an exact search on the username, instead of a “is like”.

The default value of this setting is off and is not recommended to be turned on.

PLEASE NOTE IMPORTANT CHANGE

NOTE: During testing of these new PACS features, it was discovered that using ^ as a cache delimiter does not work with an "equals" style query. Recommended character is now \$. The delimiter is set in the PACSServer lookup table. In the figure below notice the caret ^ is replaced with a dollar sign \$ for the PEI eRAD PACS server.

Pacs Server Code	Description	Protocol	Url	Port	Display Order	Pacs Ae Title	Cache Query As Contains Flag	Cache Delimiter	Cache Field	Cac
Click here to add a new row										
helen	helen	http	helen.erad.com	80	1		N	^	UDF2	N
ts72wi	ts72wi Greenville	http	192.168.25.102	80	1		N	^	UDF2	N
PEI eRAD PACS	PEI eRAD PACS	http	192.168.16.10	80	1	PEIWL1	N	\$	UDF2	Y

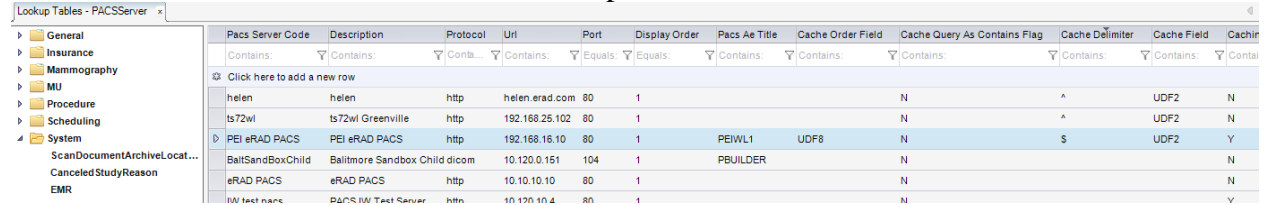
Figure 3.5 – PACSServer lookup displaying new cache delimiter

eRAD RIS Server Update

PACS Cache Improvement - New field to determine priority/order of studies for the PACS to cache

The current method by which the RIS controls the PACS caching mechanism has no way to provide a priority for the PACS. This means that if there are a large number of studies to cache the first ones that are needed by the user may not be the first ones that the PACS viewer retrieves.

Added new columns to the PACSServer lookup table called Cache Order Field.



The screenshot shows a web-based interface for a PACSServer lookup table. On the left is a tree view with categories like General, Insurance, Mammography, MU, Procedure, Scheduling, and System. The main area displays a table with the following columns: Pacs Server Code, Description, Protocol, Url, Port, Display Order, Pacs Ae Title, Cache Order Field, Cache Query As Contains Flag, Cache Delimiter, Cache Field, and Cachir. The 'Cache Order Field' column is highlighted in blue for the 'PEI eRAD PACS' row, which has a value of 'UDF8'. Other rows include 'helen', 'ts72wl', 'BaltSandBoxChild', 'eRAD PACS', and 'PACS RIS Test Server'.

Pacs Server Code	Description	Protocol	Url	Port	Display Order	Pacs Ae Title	Cache Order Field	Cache Query As Contains Flag	Cache Delimiter	Cache Field	Cachir
helen	helen	http	helen.erad.com	80	1			N	^	UDF2	N
ts72wl	ts72wl Greenville	http	192.168.25.102	80	1			N	^	UDF2	N
PEI eRAD PACS	PEI eRAD PACS	http	192.168.16.10	80	1	PEIWL1	UDF8	N	\$	UDF2	Y
BaltSandBoxChild	Baltimore Sandbox Child dicom		10.120.0.151	104	1	PBUILDER		N			N
eRAD PACS	eRAD PACS	http	10.10.10.10	80	1			N			N
PACS RIS Test Server	PACS RIS Test Server	http	10.120.10.2	80	1			N			Y

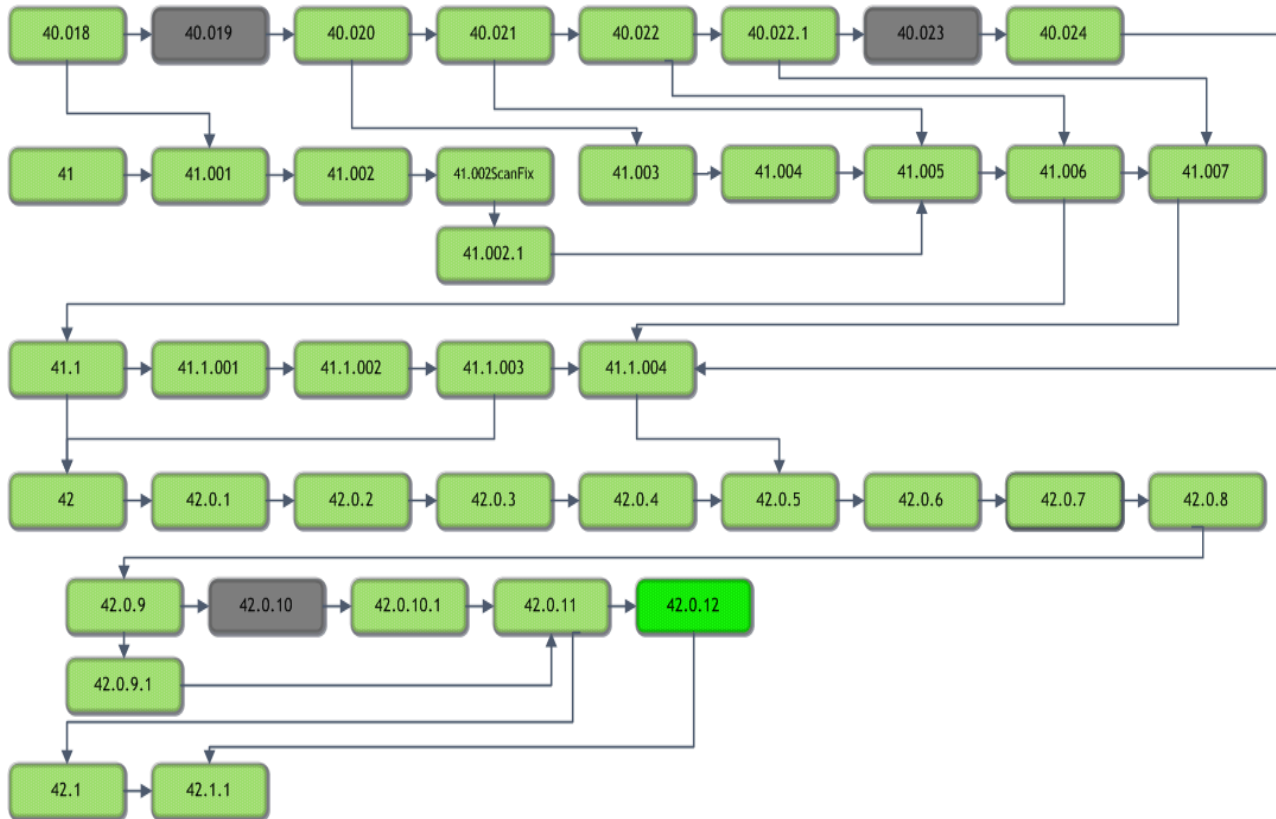
Figure 3.6 – PACSServer lookup displaying new column of Cache Order Field

The cache order field is used to determine the priority of the cache job and is filled with a datetime and a set id.

eRAD RIS Server Update

4. Code Stream

eRAD RIS - Source Code Evolution



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

5. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:

- rRIS_1.3.42.0.12.22982.zip

2) RIS_Service_Updates contains:

- ABCpdf.dll
- ABCpdf9-32.dll
- ABCpdf9-64.dll
- CDSJobManager.dll
- CDSJobManager.pdb
- CdsLib.dll
- CdsLib.xml
- CdsLib.XmlSerializers.dll
- CommonLib.dll
- CommonLib.pdb
- contents.txt
- DDEngine.dll
- DDEngine.pdb
- Interop.ANYMODALCAPTURECTRLlib.dll
- Interop.FAXCOMEXLib.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.pdb
- Microsoft.Practices.EnterpriseLibrary.Common.dll
- Microsoft.Practices.EnterpriseLibrary.Common.pdb
- Microsoft.Practices.EnterpriseLibrary.Logging.dll
- Microsoft.Practices.EnterpriseLibrary.Logging.pdb
- Microsoft.Practices.ServiceLocation.dll
- Microsoft.Practices.ServiceLocation.pdb
- Microsoft.Practices.Unity.dll
- Microsoft.Practices.Unity.Interception.dll
- Microsoft.Practices.Unity.Interception.pdb
- Microsoft.Practices.Unity.pdb
- Microsoft.ReportViewer.Common.dll
- Microsoft.ReportViewer.WinForms.dll
- Microsoft.ReportViewer.WinForms.xml
- Newtonsoft.Json.dll
- Newtonsoft.Json.xml
- Ninject.dll
- Ninject.Web.Common.dll
- Ninject.Web.Common.xml
- Ninject.xml
- O2S.Components.PDFRender4NET.dll
- PDFToImages.exe
- rRISServices.exe
- rRISServices.pdb
- rRISServicesx64.exe
- ScheduledTaskManager.dll
- ScheduledTaskManager.pdb
- ServicesConfigWizard.exe
- ServicesConfigWizard.pdb
- SignatureApprovalService.exe
- SignatureApprovalService.pdb
- System.Net.Http.dll
- System.Net.Http.Formatting.dll
- System.Net.Http.Formatting.xml
- System.Net.Http.WebRequest.dll
- System.Net.Http.WebRequest.xml
- System.Net.Http.xml
- System.Web.dll
- System.Web.Helpers.dll
- System.Web.Helpers.xml
- System.Web.Http.dll
- System.Web.Http.SelfHost.dll
- System.Web.Http.SelfHost.xml
- System.Web.Http.WebHost.dll
- System.Web.Http.WebHost.xml
- System.Web.Http.xml
- System.Web.Mvc.dll
- System.Web.Mvc.xml
- System.Web.Optimization.dll
- System.Web.Providers.dll
- System.Web.Razor.dll
- System.Web.Razor.xml
- System.Web.WebPages.Deployment.dll
- System.Web.WebPages.Deployment.xml
- System.Web.WebPages.dll
- System.Web.WebPages.Razor.dll
- System.Web.WebPages.Razor.xml
- System.Web.WebPages.xml
- Toureau.Gilles.FaxDotNet.dll
- Toureau.Gilles.FaxDotNet.pdb
- Toureau.Gilles.FaxDotNet.xml
- WCFSservice.dll
- WCFSservice.pdb
- WCFSserviceTests.dll
- WCFSserviceTests.pdb
- WebApi.dll
- WebApi.pdb
- Wedge.exe
- Wedge.pdb

eRAD RIS Server Update

The rRIS_Service_Updates also contains to subfolders:

- A. Deploy folder contains
 - a. Applicationsettings
 - b. ReleaseVersion-connectionstrings
 - c. rRISServices.exe
 - d. services

 - B. XSL subfolder contains:
Subfolder titled “Stylesheets” which contains:
 - a. CDAToHTMLCompleteReport.xslt
 - b. CDAToHTMLImpressionSection.xslt
 - c. CDAToRIS.xslt
 - d. CDAToTxt.xslt
 - e. DocumentModelReport.xslt
 - f. DocumentModelReportAsXml.xslt

 - g. CCDA Subfolder contains
 - a. C-CDA.xsl
 - b. eRadStylesheet.xsl
 - c. generalTemplates.xsl
 - d. header.xsl
 - e. sectionAdministeredMedications.xsl
 - f. sectionAllergies.xsl
 - g. sectionEncounters.xsl
 - h. sectionFuncCogStatus.xsl
 - i. sectionImmunizations.xsl
 - j. sectionInstructions.xsl
 - k. sectionMedications.xsl
 - l. sectionPlanOfCare.xsl
 - m. sectionProblemList.xsl
 - n. sectionProcedures.xsl
 - o. sectionReasonForVisit.xsl
 - p. sectionResults.xsl
 - q. sectionSocialHistory.xsl
 - r. sectionVitalSigns.xsl
-
- 3) SQL folder contains:
 - 42.0.12.sql

eRAD RIS Server Update

6. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

7. Who is affected

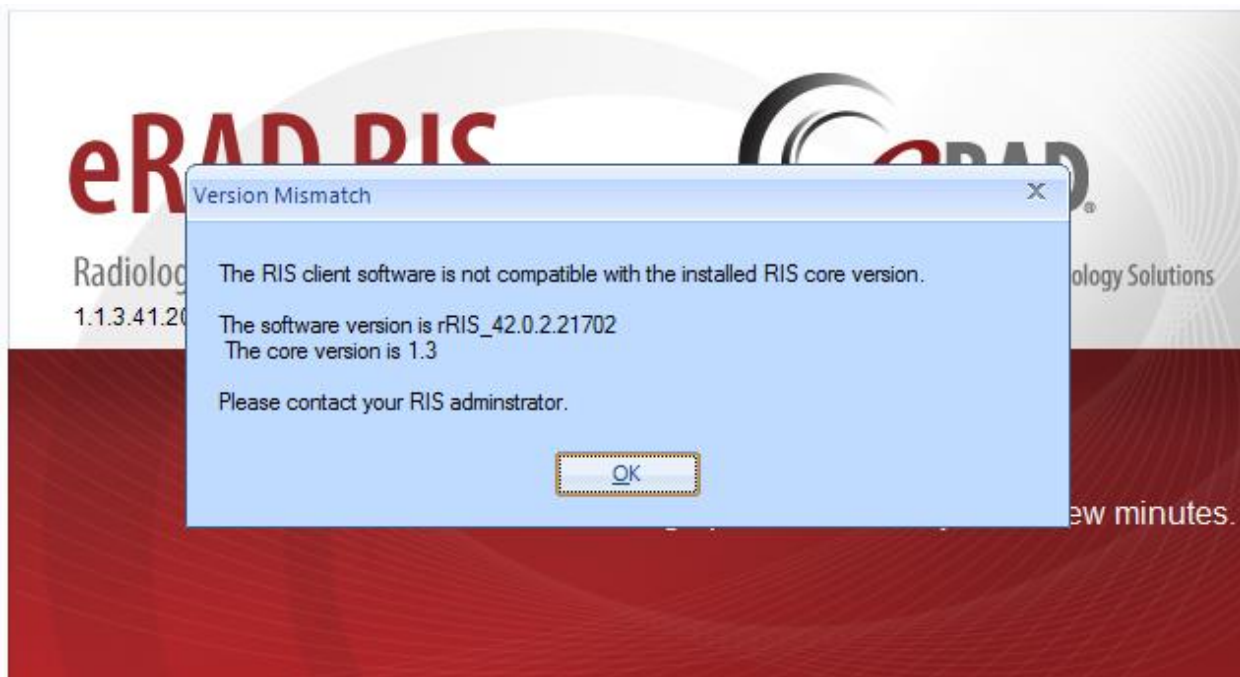
Build 42 installs. Server updates are not cumulative. This server update must be applied to 42.0.11

8. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
41	-	1.3.41.19135(3GB)	1.3.41.19135	1.3.41.19135	1.3.41.19135	Full version release
41	1	1.3.41.19256(3GB)	1.3.41.19135	1.3.41.19256	1.3.41.19256	GUI.zip, Web Service and database updates
41	2	1.3.41.19620(3GB)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip and Web Service
41	2sf	1.3.41.19620SF(3G)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip
41	2.1	1.3.41.20622(3GB)	1.3.41.19135	1.3.41.20617	1.3.41.19346	GUI.zip and Web Service
41	3	1.3.41.20125(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip , Web Service and Recognizer
41	4	1.3.41.20285(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip
41	5	1.3.41.20809(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip, Core install, Web Service and database updates
41	6	1.3.41.20912(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip
41.1	-	1.3.41.20918(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip, Core install, Web Service and DB updates, Help files
41.1	1	1.3.41.20987(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip
41.1	2	1.3.41.21162(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip, Web Service and DB updates,
41.1	3	1.3.41.21264(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
42	1	2.42.0.1.21597	2.42.0.0.21261	2.42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates
42	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates
42	3	2.42.0.2.21806	2.42.0.0.21261	2.42.0.2.21806	2.42.0.0.21187	GUI and Web Service updates
42	4	2.42.0.2.21862	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI and Database updates
42	5	2.42.0.5.21924	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI
42	6	2.42.0.5.22009	2.42.0.0.21261	2.42.0.5.22009	2.42.0.4.21870	GUI and Web Service updates
42	7	2.42.0.7.22090	2.42.0.0.21261	2.42.0.6.22009	2.42.0.4.21870	GUI.zip updates
42	8	2.42.0.7.22090	2.42.0.7.22161	2.42.0.6.22009	2.42.0.4.21870	Web Service updates
42	9	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI and Web Service updates
42	9.1	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	Web Service updates
42	10	2.42.0.10.22232	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip
42	10.1	2.42.0.10.22420	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip updates
42	11	2.42.0.11.22495a	2.42.0.0.21261	2.42.0.11.22471	2.42.0.11.22527	GUI.zip, Web Service, Database updates. Management Report Deployment
42	12	2.42.0.12.22982	2.42.0.0.21261	2.42.0.12.22982	2.42.0.12.22911	GUI.zip, Web Service, Database updates.
42.1	-	2.42.1.0.22744	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.22963	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates

9. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.42.0.12.22982.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_42.0.12.22982 → rRIS_1.3.42.0.12.22982. NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

- 2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

- 3) Run the B42.0.12.sql file against the eRAD RIS database instance

User Release Notes

for eRAD RIS
Version 2
Build 42.1

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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 42.1 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.42.1.

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 2.42.1 is considered a new core release of the application and will require a reinstallation of eRAD RIS. 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. New Access Strings and Configuration Settings 42.1

Setting Placeholder	Setting	Default	Purpose / Controls Access to
Access string / User Group Permission tables	Config.AllowMModalConfig	None	Allows users access to turning on M*Modal workflow for themselves or other users if the current user has admin access
Access string / User Group Permission tables	Config.AllowPowerScribeConfig	None	Allows users access to turning on PowerScribe workflow for themselves or other users if the current user has admin access
Access string / User Group Permission tables	PowerScribe360.AllowAutofeed	None	Allows users access to the PowerScribe autofeed next study functionality
Access string / User Group Permission tables	PowerScribe360.Enable	Full	Controls Access to the PowerScribe 360 menu item. Under this menu item are 2 options - enable and disable .When set to Disabled messages will not be sent to Powerscribe 360 via API integration
Access string / User Group Permission tables	Clinical.SetMarkAsReadFlag	None	Allows access to right click menu to Mark As Read or Unmark As Read
SystemConfig lookup	LimitOpenReportingWithPowerscribeCount	0	Determines the number of reporting windows that can be opened at one time by a given user with Powerscribe integration. 0 or negative values result in no defined limit.

New access strings from 42.0.3

Setting Placeholder	Setting	Default	Purpose / Controls Access to
Ris.exe.config	<pre><add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/></pre> <p>Changes to</p> <pre><!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> --></pre>		The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table.

New access strings from 42.0.10

Setting Placeholder	Setting	Default	Purpose / Controls Access to
Ris.exe.config	<pre><add key="EnableHighPriorityLookupStrategy" value="true"/></pre>		New setting added. The High Priority Lookup is different by role. If someone opens scheduling (or appointmentbook), we add Modality, ProcedureCode, AvailabilityTemplate, and ScheduleGroup to the High Priority List. If someone opens Reporting or Transcription, we add QualityReviewDistribution to the High Priority List
Ris.exe.config	<pre><add key="LookupTableTimeToLiveInMinutes" value="5"/></pre> <p>Changes to</p> <pre><add key="LookupTableTimeToLiveInMinutes" value="60"/></pre>		The change only applies for systems that have a value of less than 60 . For example: Change the value of 5 to 60. Since the Time to Live will be increased to 60 minutes, the cache will be updated every 60 minutes if changes were made.

5. New Features and Enhancements

Reporting – Reporting Mode User Preference option added.

There is an additional user preference accessible from the administrative personnel area and also in the User Preferences, to turn off embedded reporting and turn on PowerScribe reporting. The new Reporting Integration user preference is set up in the User Preference on the General tab under the Workflow Options section and is labeled as "Reporting mode". The preference is set with a drop down list.

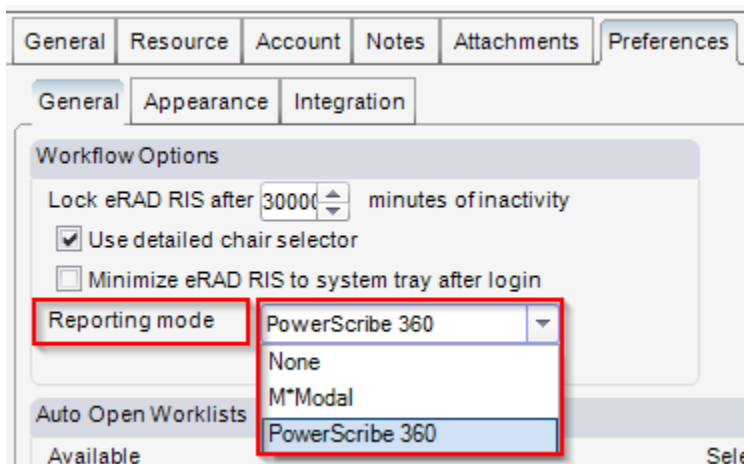


Figure 5.1 – Reporting mode selection dropdown list

The available reporting integration options available are described below:

None

This mode will disable the embedded or closely integrated reporting solutions. Radiologist worklists and screens do exist but do not include a report editor, dictation control or any other tool windows that would otherwise interact or depend on the report or the dictation existing within RIS.

If PACS integration is enabled, this will remain. It is possible in *None* mode to have PACS drive a third party reporting solution. However RIS will not communicate directly with such reporting solution.

*M*Modal*

The *M*Modal* mode will use the traditional eRad RIS embedded reporting solution with *M*Modal*.

A new access string named “**Config.AllowMModalConfig**” controls access to the *M*Modal* option in the Reporting Mode list box. The default value for this access string is None.

PowerScribe

The PowerScribe mode will enable system integration with PowerScribe 360s reporting solution. This option will allow for reporting to be done externally with PowerScribe 360 however will support direct application communication/interaction between eRad RIS and PowerScribe 360.

An access string named “**Config.AllowPowerScribeConfig**” has been added for this preference with a default value of ‘None’. This ensures only admins have access to enable/disable the preference, or users who have access via this could also enable/disable this preference for themselves.

Reporting – Non Essential View menu items removed from Reporting window when user is not in M*Modal mode.

While a user is working in the Reporting window and is in “PowerScribe” mode or “None” mode, the view menu options will only display relevant patient folder tool windows. “Templates”, “Macros”, and “Fields” are no longer available to the user. These options are still available for an M*Modal user.

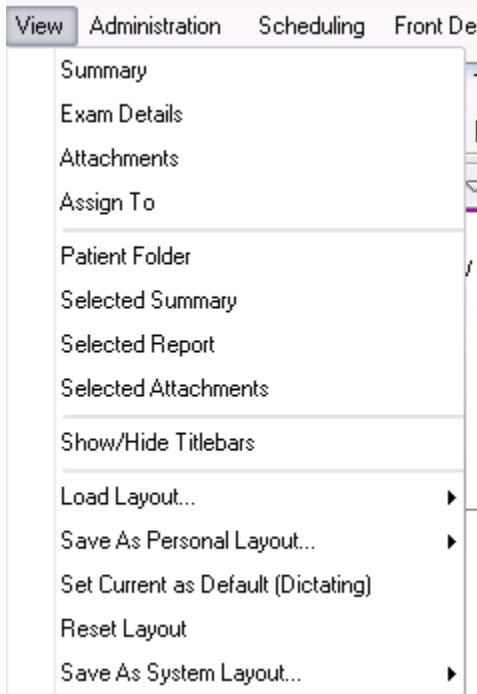


Figure 5.2 – Reporting View menu when PowerScribe or None mode is enabled

Reporting – Non-essential Tool windows removed from the PowerScribe Reporting window

While a user is working in the Reporting window and is in “PowerScribe” mode or “None” mode, the non-essential tool windows will not be displayed. The tool windows removed includes “Templates”, “Macros”, and “Fields”.

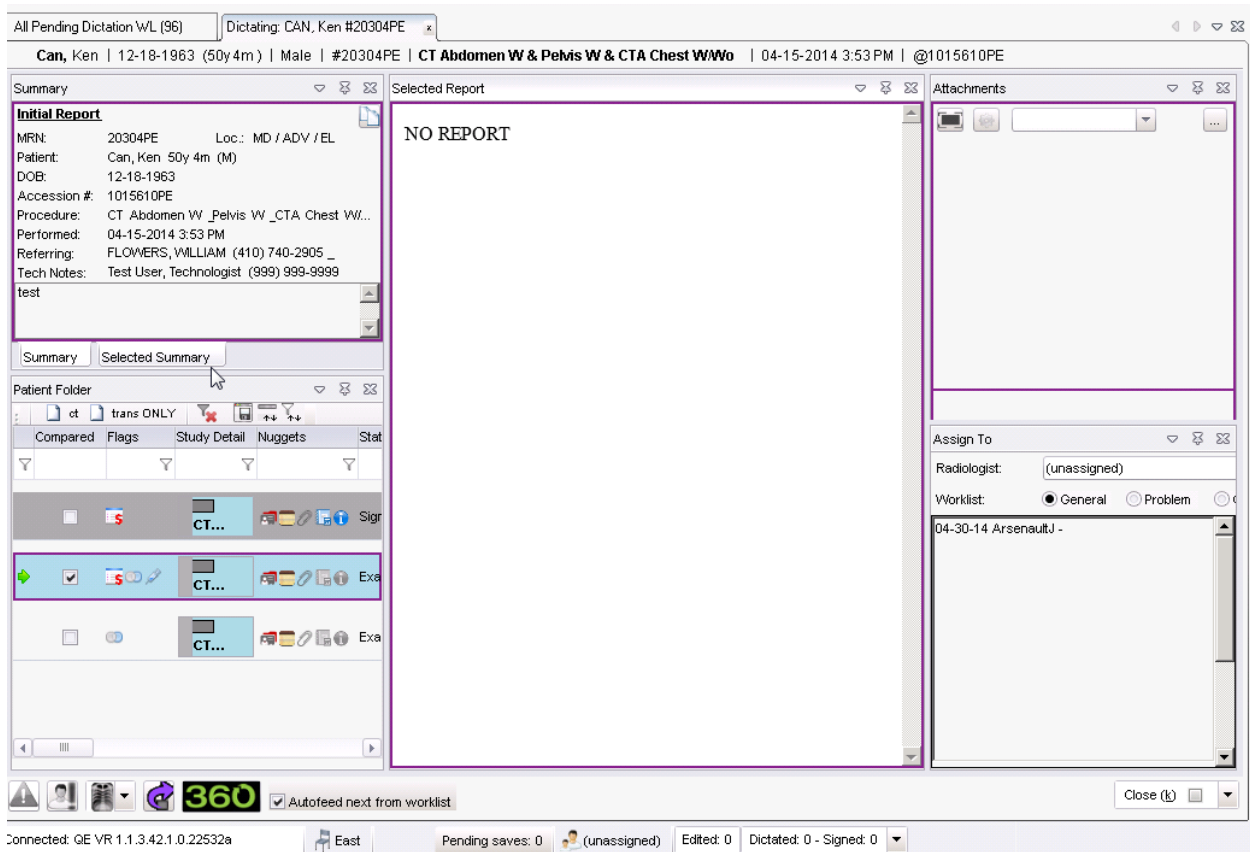


Figure 5.3 – Reporting window displaying only the essential tool windows.

Reporting – BI-RADS control disabled for Reporting Integration Type that is not M*Modal.

The BI-RADS control is no longer available for non M*Modal reporting integration types. The control now is hidden and disabled.

Reporting – SpeechMike - ability to bypass activation of the speech mike

If the user is not in M*Modal mode, the speech mike initialization routines will be bypassed, leaving the speech mike non-functional other than as an audio input/output device as configured in Windows.

Reporting – Report Recovery disabled for Reporting Integration Type that is not M*Modal.

For M*Modal ReportIntegrationType you can enable autosave on your user preference, and the feature will be available to you. Autosave/report recovery work flow does not run if you are not using M_MODAL as your ReportingIntegrationType. Now we have created a convenience method for the system to use which tells the system whether report recovery is enabled. It checks the ReportingInterpretationType first, if not M_MODAL then the recovery feature is disabled regardless of user preference for autosaving.

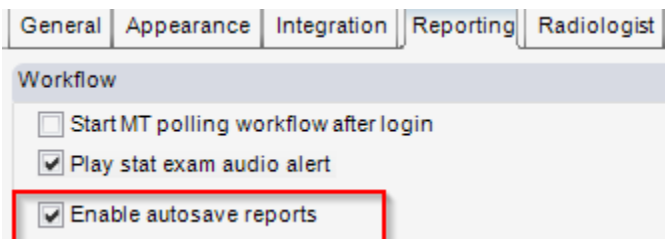


Figure 5.4 – Enable autosave reports from User Preferences

Reporting – “CDS Management Console” option removed when not in M*Modal mode.

The system currently relies on an MModal connection for radiologists. We need to be able to open the dictate screen cleanly without prompts or errors and without CDS configuration values present in the system config table.

The ability to launch the application and open dictate screen without CDS system configuration variables is now available. The “CDS Management Console” option in the “Administration” menu is now hidden when not in M*Modal mode.

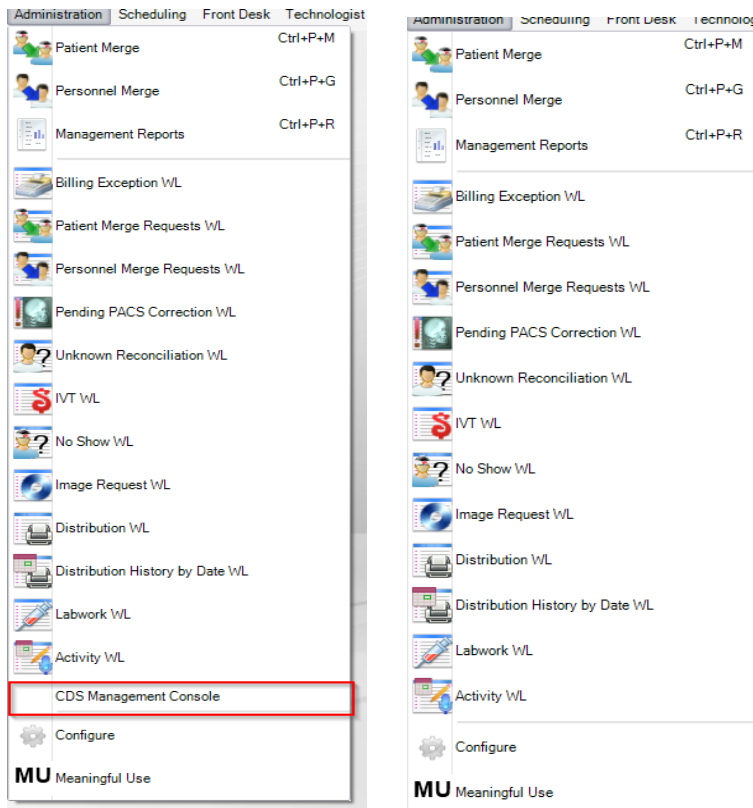


Figure 5.5 - Administration menu with and without M*Modal enabled

Reporting – Report History - ability to support non M*Modal reporting

If you are using reporting integration mode that is not M*Modal or you are using M*Modal but looking to preview a report that was not created via M*Modal integration, the report history window will load an HTML version of the report. This differs from M*Modal integration that loads the full editor and dictation control in read only modes.

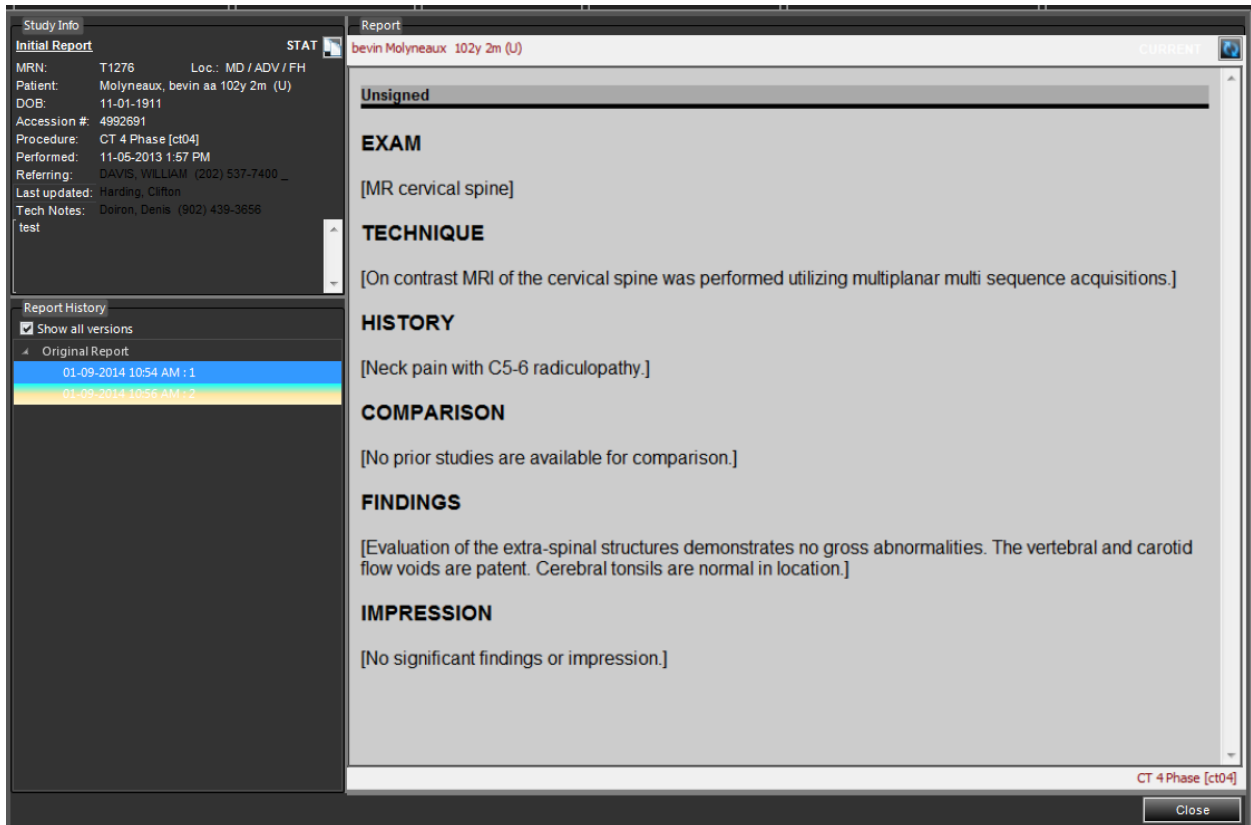


Figure 5.6 – HTML version of the report without the audio components.

Reporting – Added Powerscribe 360 to the available Interpretation Types.

Powerscribe360 was added to the available InterpretationTypes in the s_interpretation_type database table as well as the InterpretationTypes enumeration type within the client code.

What does this mean? Previous to Build 42.1 we had to Interpretation Types of Interactive and Batch. These interpretation types were assigned to studies that were dictated on in eRAD RIS using the M*Modal reporting solution. The interpretation type assigned depended on the users dictation type setting (if they had the user preference “Enable Interactive” selected or not)

With the introduction of PowerScribe 360 as a reporting solution to be used with eRAD RIS we created a new interpretation type of PowerScribe 360. If the user has a Reporting mode of PowerScribe 360 and they action a study in PowerScribe 360, the study will be given an interpretation type of PowerScribe 360.

During the transition period between the 2 reporting systems, users will have to complete all studies that currently have been reported on using M*Modal and is not in a status of Signed.

Reporting – User prevented from opening a study when interpretation type conflict with current Reporting Mode.

If a user is set up as using "NONE" as his reporting integration, then that user will not be able to open M*Modal or PowerScribe studies. User can only open studies of the same type as their reporting integration mode. If a user tries to open an unsupported study, a message prompt is displayed and the study will abort loading.

When using next workflow, items on the worklist that are not compatible, with the current reporting integration will be skipped.

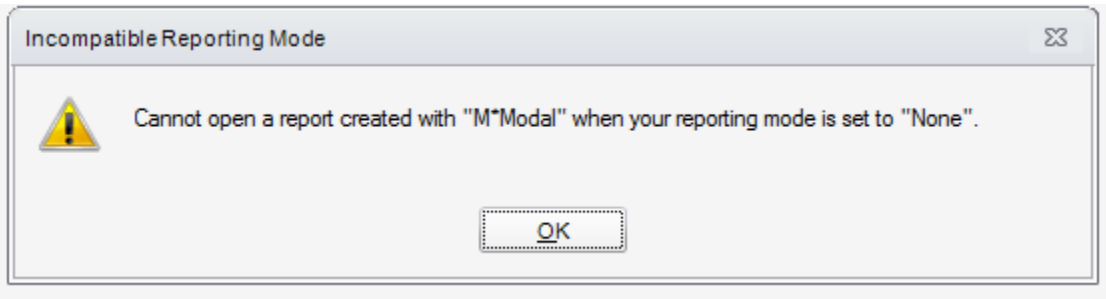


Figure 5.7 – Message prompt for user trying to open unsupported study.

Any study that has an interpretation type of Interactive or Batch cannot be opened in PowerScribe 360 until the study is in Signed status, in which at that point the user will be able to open for Addendum in PowerScribe 360.

If a PowerScribe 360 user attempts to open a study that is not signed and has interpretation type of Interactive or Batch they will receive a message.

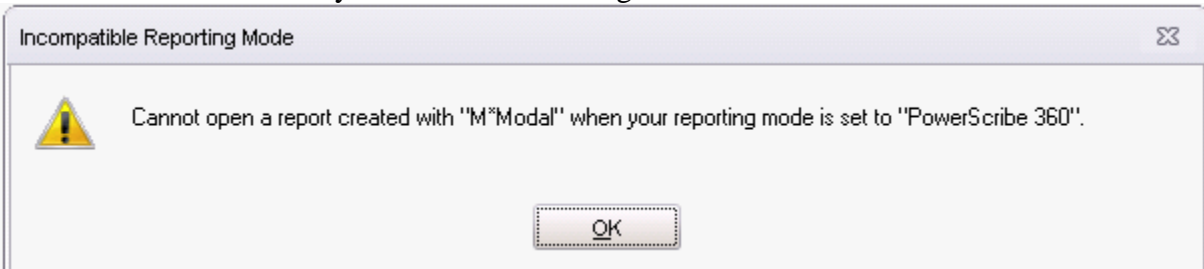


Figure 5.8 – Message to PowerScribe 360 users from mismatched interpretation type

For users that will continue to use M*Modal and also for previous studies that were actioned in eRAD RIS using the M*Modal reporting option they will assigned an interpretation type of Interactive or Batch, depending on the user's M*Modal dictation option.

As well, M*Modal users are prevented from opening studies in reporting window that have an interpretation type of PowerScribe 360.



Figure 5.9 – Message to M*Modal users from mismatched interpretation type

Reporting – WPR workflow button disabled for Reporting Integration Type that is not M*Modal.

When using non-M_MODAL ReportingIntegrationType, users no longer have the WPR-000 workflow button available to create new reports that do not have an accession number associated with it.

Users can still use report on accession to load valid exams.

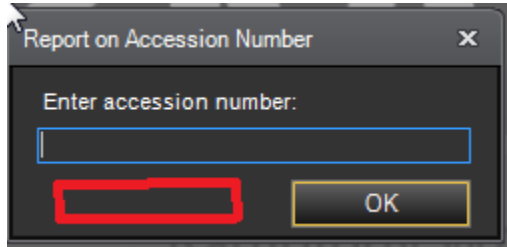


Figure 5.10 – Updated Report on Accession Number display.

Reporting – Added the ability to drop an XML file to open PowerScribe reports.

The ability to drop an XML file to open PowerScribe reports has been added as a User Preference. The ability to provide a path to write the XML file has also been added. These are available in the Outbound Reporting Section under the Integration tab. This new file will be dropped when we open or focus a reporting tab in RIS. When the file is dropped PowerScribe reads the file and attempts to open the study.

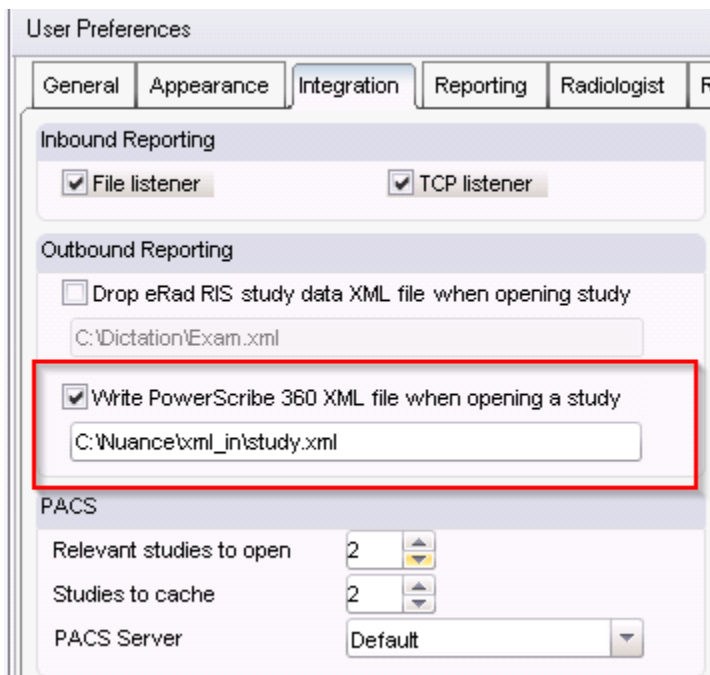


Figure 5.11 – New Integration User Preferences in Outbound Reporting

If these are enabled and configured, when opening exams to dictate, RIS will now save an xml file formatted to be read by PowerScribe to trigger opening a study.

If the study fails to load in PowerScribe there will be a trigger button on the rad screen. This can be pressed to re-drop the XML file and try to get PowerScribe to load the file.

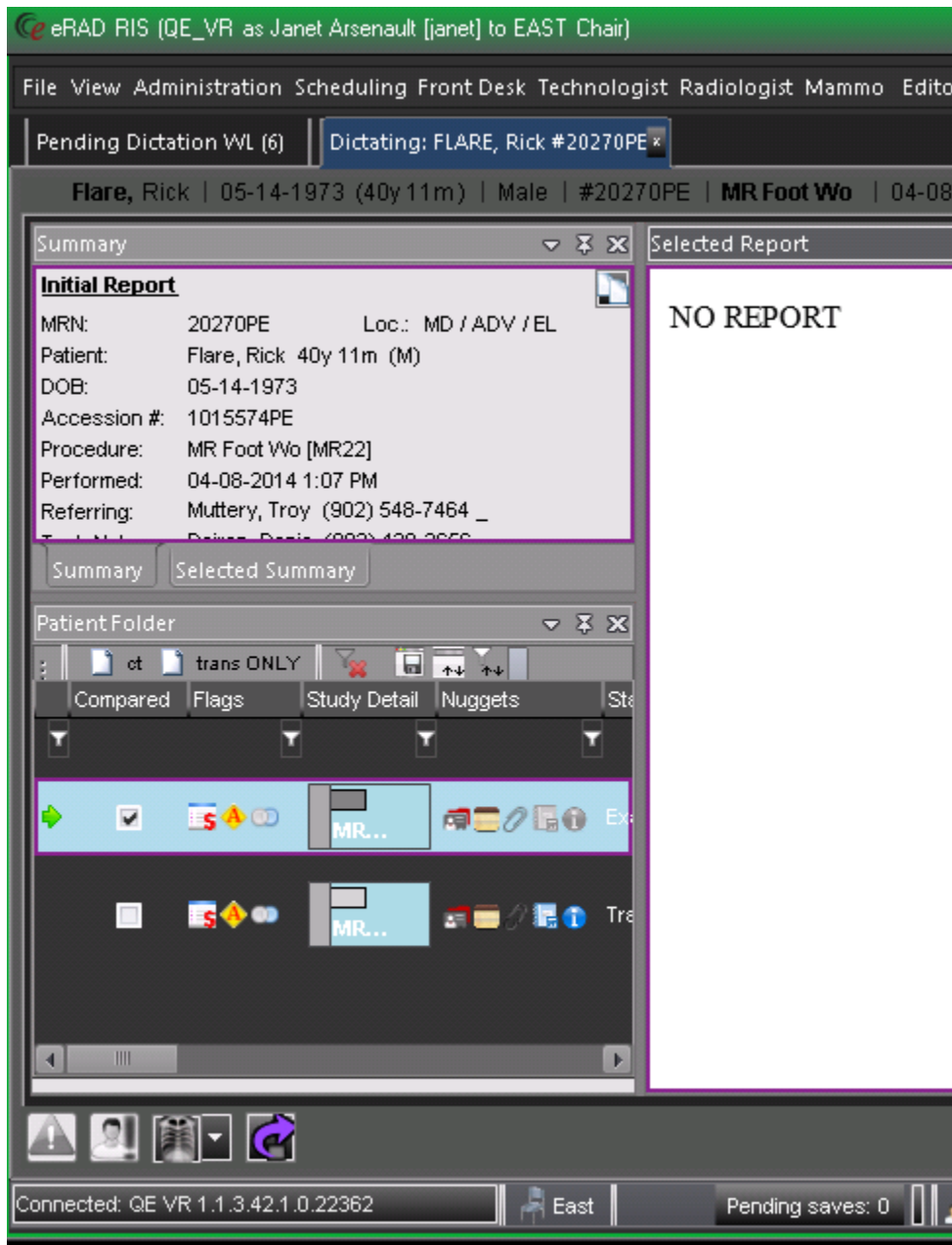



Figure 5.12 –Trigger button to re-drop XML file shown as purple arrow.

Reporting – Reporting Integration None – advance status flag.

The advanced status flag is called “Marked Read” and is indicated on the work list with a new flag  that will appear under the Flags column in all work lists that have the Flags column. There is also a new column added to the My Pending Dictation, All Pending Dictation, My Pending Signature and All Pending Signature work lists. The column name is “Marked Read” that will display a check mark if the study has the flag applied. This flag is only relevant for reporting integration mode being set to NONE.

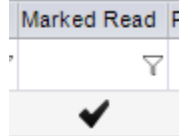


Figure 5.13 – Marked Read column

While using Reporting Mode of NONE (as opposed to MModal or PowerScribe 360), RIS does not advance the status of the exam until the outside reading system tells RIS to do so (such as HL7). This new flag is used to indicate that a study which has been on a pending work list has been actioned on. When set, the flag removes the study in question from the My Pending work lists, however leaves it on the All Pending work lists.

New context menu options have been added to add / remove the Marked As Read flag. These options from the context menu (right click menu) are available on the My Pending Dictation, All Pending Dictation, My Pending Signature, All Pending Signature work lists and the Patient Folder.

The menu option names are “Mark As Read” which is available when the study does not have the flag applied. Once it is applied the context menu option will be ‘Unmark As Read’. See figures below.

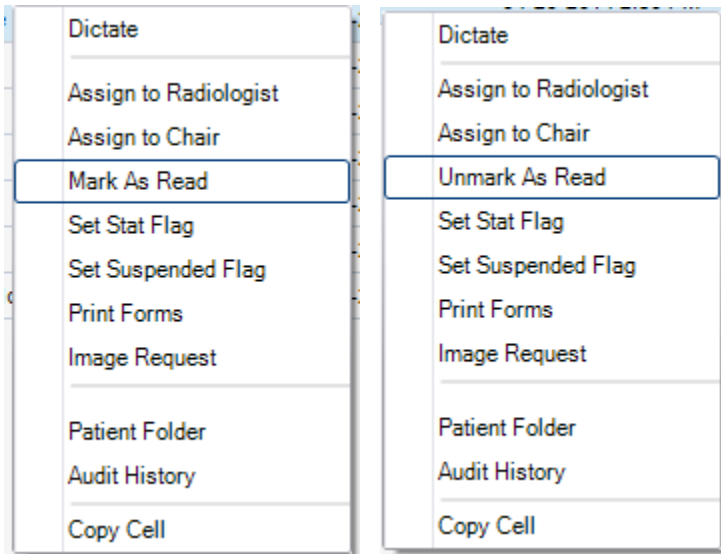
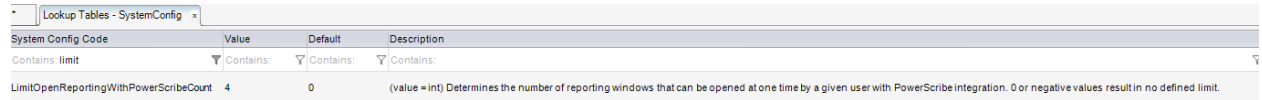


Figure 5.14 – Mark/Unmark As Read context menu options

Access to these new context menu options are controlled by a new access string titled “**Clinical.SetMarkAsReadFlag**” that has a default value of None. User groups will need to have this access string added to the user group permissions to gain access to the menu option.

Reporting – Added the ability to limit the number of reporting windows open.

We now can limit the number of reporting screens that a user can open while using ReportingIntegrationType of PowerScribe 360. There is a new system configuration variable named “**LimitOpenReportingWithPowerscribeCount**” which is to be used by the administrator to set how many reporting windows can be open. The default value for this setting is 0 (zero).



System Config Code	Value	Default	Description
LimitOpenReportingWithPowerscribeCount	4	0	(value = int) Determines the number of reporting windows that can be opened at one time by a given user with PowerScribe integration. 0 or negative values result in no defined limit.

Figure 5.15 – New system config table setting

While using PowerScribe 360 mode, if the user tries to open a new reporting window which would exceed the predefined count, they will be notified to close some tabs before opening a new one.

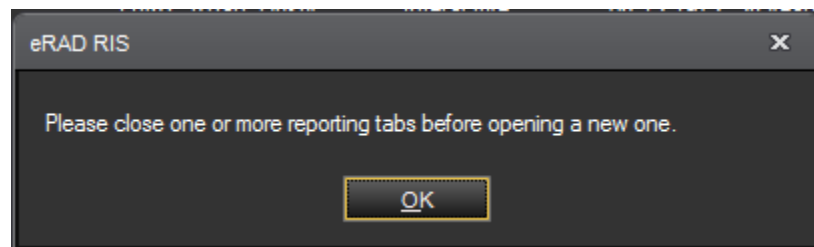
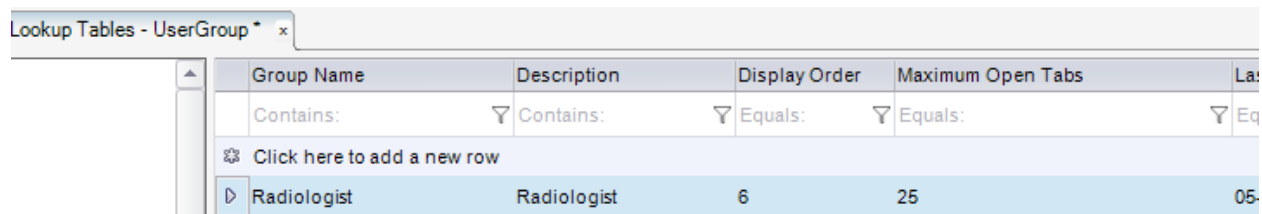


Figure 5.16 – Prompt to notify user they will have to close one or more tabs.

This new setting will override the User Group setting.

As a reminder, the User Group setting value is set in the UserGroup lookup table under the column Maximum Open Tabs.



Group Name	Description	Display Order	Maximum Open Tabs	La:
Contains:	Contains:	Equals:	Equals:	Eq
Click here to add a new row				
Radiologist	Radiologist	6	25	05-

Figure 5.17 – Usergroup lookup displaying Maximum Open Tabs column

Reporting – Added User Preference Autofeed studies for PowerScribe users.

The new user preference “Autofeed studies from worklist” was added to the Reporting tab under the PowerScribe section, which is only available in the PowerScribe 360 reporting integration mode. This determines if this user wishes to have the next study in their worklist auto-fed after completing a study in PowerScribe.

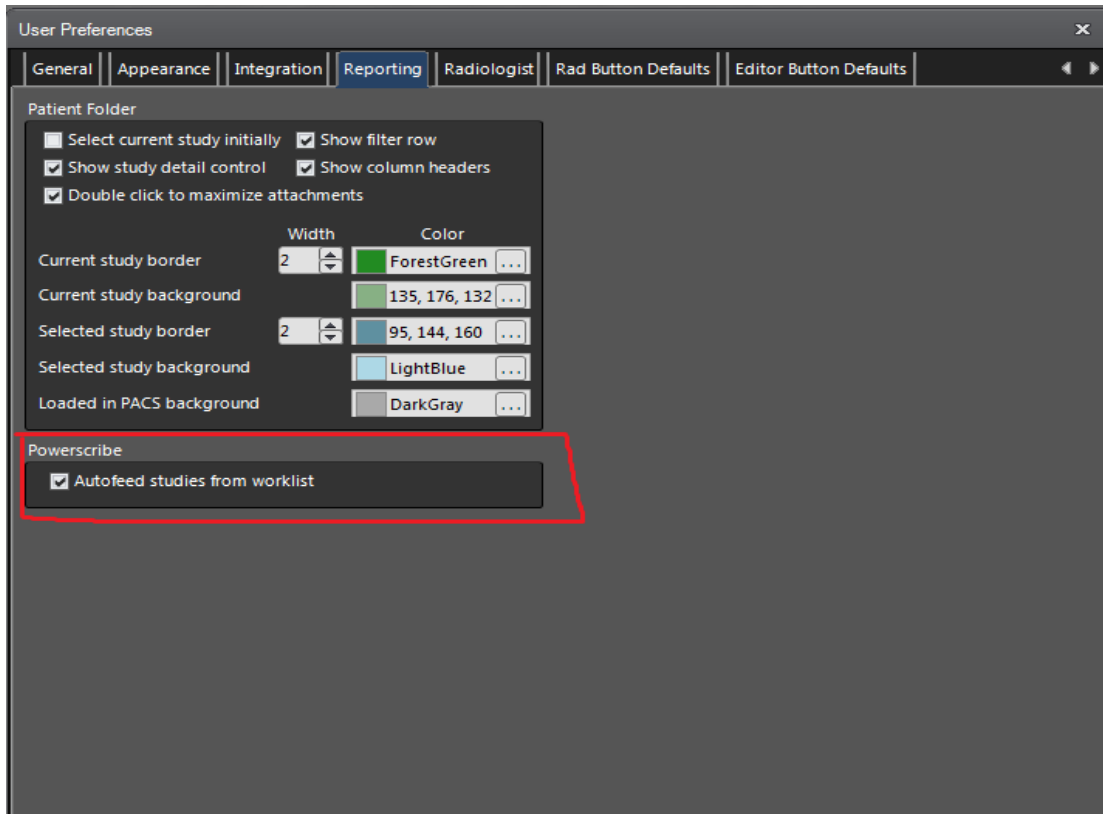


Figure 5.18 – PowerScribe users option to Autofeed studies from worklist.

The user preference also shows up as a check box in lower left corner of reporting screens. So a user can change it mid-way through workflow. The checkbox in the reporting windows is controlled by a new access string titled “**PowerScribe360.AllowAutofeed**”. Default for this setting is None. The User Preference is always available

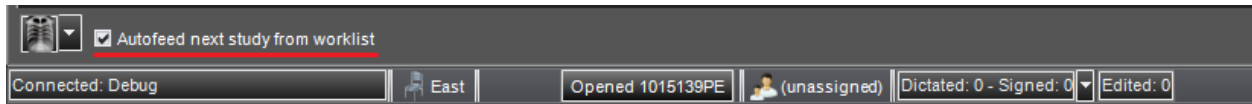


Figure 5.19 – Option to Autofeed studies from reporting screen.

Changing the setting “on the fly” via the check box on the reporting screen does not change the actual user preference. It just adjusts/overrides that setting for the current session. When checked, the preference tells RIS to open the next study in your work list after closing/completing the current study. This enables a “next” workflow of sorts.

Reporting – Added menu option to Enable or Disable PowerScribe 360.

A new main menu option for PowerScribe 360 has been added that is only displayed when the reporting integration mode is set to PowerScribe 360. The menu item is displayed when the user is logged in using PowerScribe 360. This new menu option will be used to house any PowerScribe 360 specific main menu options in the future. The PowerScribe 360 menu item also has a new access string titled “**PowerScribe360.Enable**” that will control access to the menu item. Default value is Full.



Figure 5.20 – New Menu option for PowerScribe 360 users.

For now it will simply have options for Enable and Disable, which will operate similar to the PACS menu options. By default, each session will begin with the menu item set to Enabled.

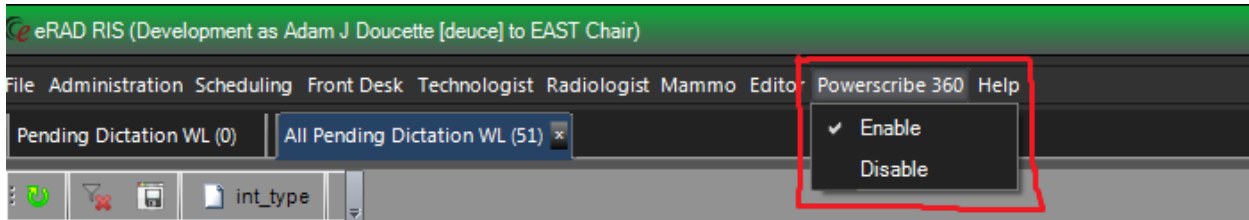


Figure 5.21 – Dropdown list options for PowerScribe 360 menu option.



Figure 5.22 –PowerScribe 360 menu option set to Disable.

When PowerScribe 360 is set to Disable, the reporting window will open with the same format and style as it usually does with reporting integration mode set to PowerScribe 360. See image below. However the study is not launched in PowerScribe.

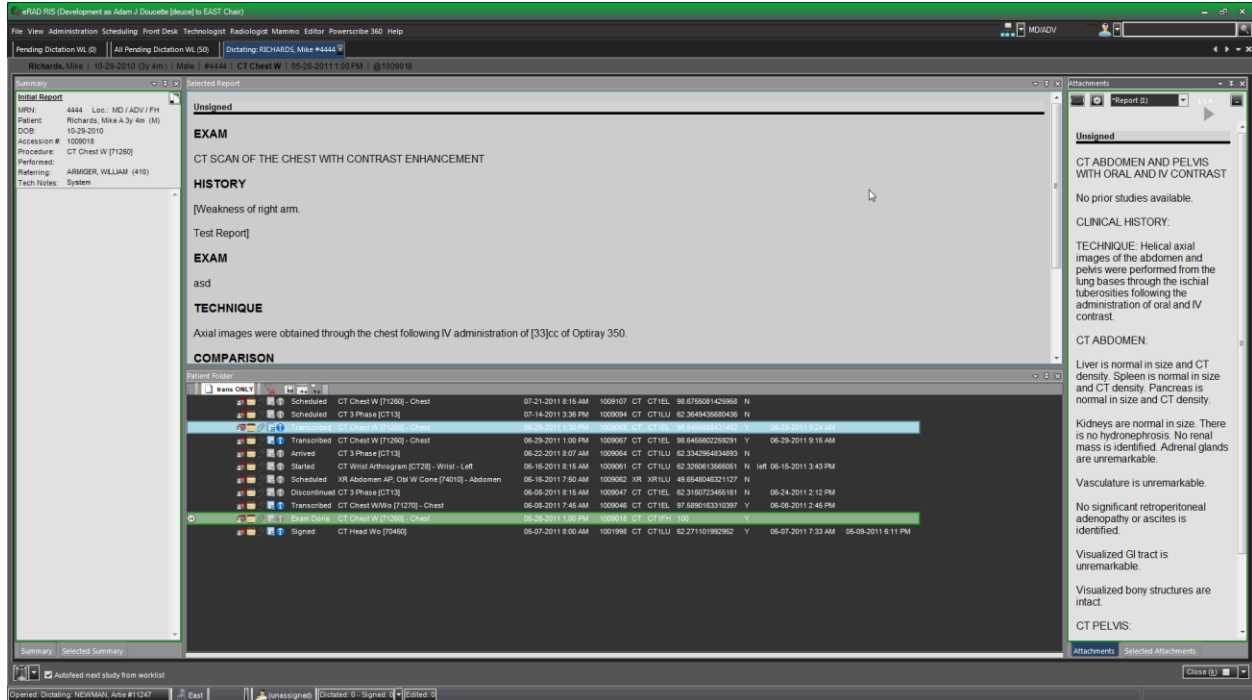


Figure 5.23 – The reporting window view with PowerScribe 360 disabled.

Reporting – Access string added for M*Modal reporting mode.

A new Access String "**Config.AllowMModalConfig**" has been added. This allows users access to turning on M*Modal workflow for themselves or other users if the current user has admin access.

If a user has access, then M*Modal will be a reporting mode available in their user preferences.

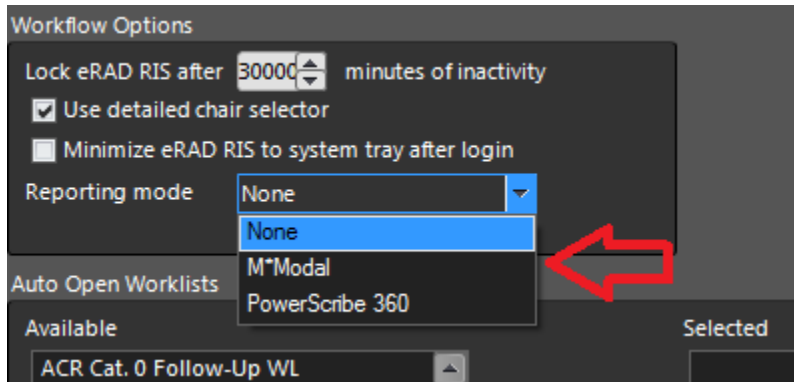
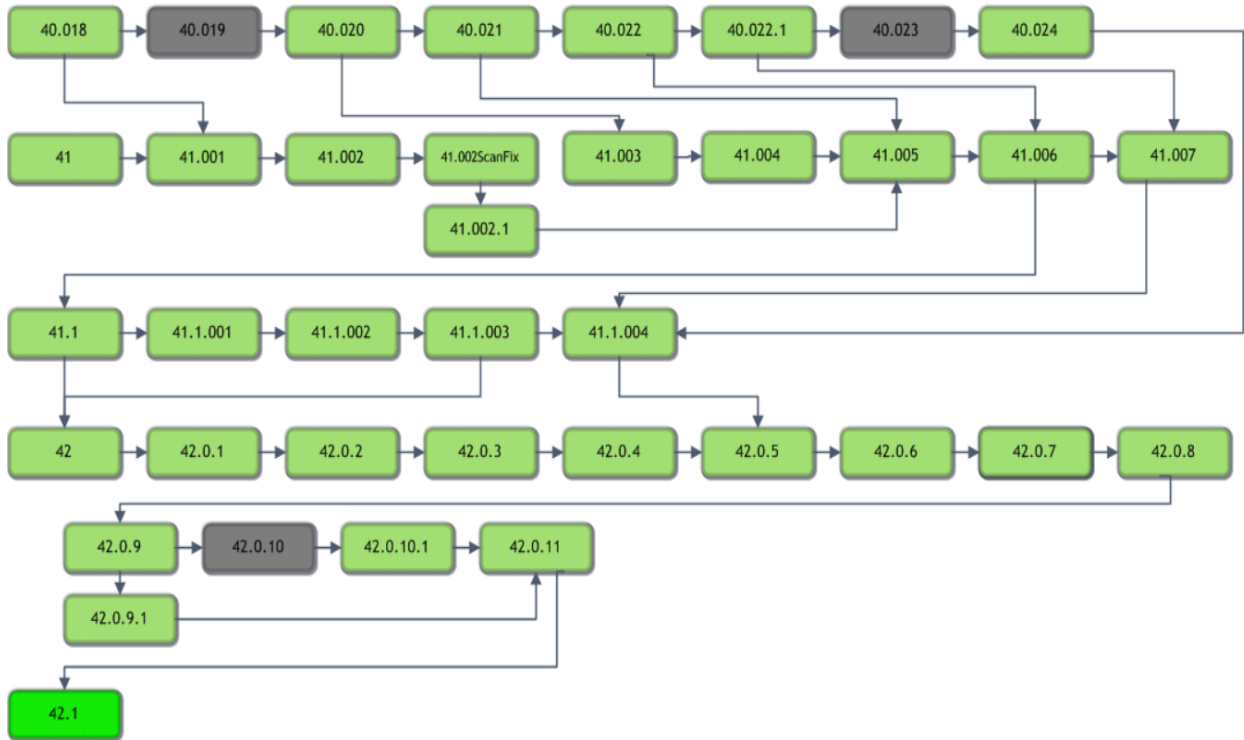


Figure 5.24 – Reporting mode list of options including M*Modal.

6. Code Stream

eRAD RIS - Source Code Evolution



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

7. RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
41	-	1.3.41.19135(3GB)	1.3.41.19135	1.3.41.19135	1.3.41.19135	Full version release
41	1	1.3.41.19256(3GB)	1.3.41.19135	1.3.41.19256	1.3.41.19256	GUI.zip, Web Service and database updates
41	2	1.3.41.19620(3GB)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip and Web Service
41	2sf	1.3.41.19620SF(3G)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip
41	2.1	1.3.41.20622(3GB)	1.3.41.19135	1.3.41.20617	1.3.41.19346	GUI.zip and Web Service
41	3	1.3.41.20125(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip , Web Service and Recognizer
41	4	1.3.41.20285(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip
41	5	1.3.41.20809(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip, Core install, Web Service and DB updates
41	6	1.3.41.20912(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip
41	7	1.3.41.21963(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip
41.1	-	1.3.41.20918(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip
41.1	1	1.3.41.20987(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip
41.1	2	1.3.41.21162(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip, WS and DB updates
41.1	3	1.3.41.21264(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip
41.1	4	1.3.41.21931(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
	1	2.42.0.1.21597	2.42.0.0.21261	2.42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates
	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates
	3	2.42.0.2.21806	2.42.0.0.21261	2.42.0.2.21806	2.42.0.0.21187	GUI and Web Service updates
	4	2.42.0.2.21862	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI and Database updates
	5	2.42.0.5.21924	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI
	6	2.42.0.5.22009	2.42.0.0.21261	2.42.0.5.22009	2.42.0.4.21870	GUI and Web Service updates
	7	2.42.0.7.22090	2.42.0.0.21261	2.42.0.6.22009	2.42.0.4.21870	GUI.zip updates
	8	2.42.0.7.22090	2.42.0.7.22150	2.42.0.6.22009	2.42.0.4.21870	Web Service updates
	9	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI and Web Service updates
	9.1	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	Web Service updates
	10	2.42.0.10.22232	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip updates
	10.1	2.42.0.10.22420	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip updates
	11	2.42.0.11.22495a	2.42.0.0.21261	2.42.0.11.22471	2.42.0.11.22527	GUI.zip, Web service and database updates
42.1	-	2.42.1.0.22744(3GB)	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment

8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.42.1. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.42.1.

Bug #	Priority	Subject	Category	Found Version
6426	Immediate	Faxes failing to submit to fax queue	Document Distribution	1.42
6427	Urgent	Medications table displaying incorrectly	Thick Client GUI	1.42
6148	Urgent	Reporting - users may not get properly assigned default templates	Radiology Reporting	2.42
6567	High	ReportTemplateEditor not being cleaned up with ReportingRadiologist closes	Radiology Reporting	2.42.0.9
6446	High	_max_interpretation_version does not update when an addendum is deleted	Radiology Reporting	2.42
6390	High	HL7 report signed not removing addendum flag	HL7	2.42.0.9
6213	High	Reporting - cannot reopen suspended studies (user id case problem)	Radiology Reporting	1.42
6114	High	Hidden text in editor counts as text when validating fields and section.	Radiology Reporting	1.4
6270	Normal	Reporting - images not loading automatically when user preference use dictating layout when signing supervised reports is set	Radiology Reporting	2.42
6210	Normal	Reporting - Next Section Or Field - if you have only one field in the template, it stops checking for sections after reaching field		1.41
6202	Normal	When showing message boxes we should be passing in the parent control.	Thick Client GUI	1.4
6184	Normal	Reporting - delete dictation and report doesn't remove suspended data	Web Services/DB	1.42
6027	Normal	PersonHyperlink for referring is not visible after hitting one with a null address row	Radiology Reporting	1.42
6020	Normal	view images/patient folder button should not be disabled in read only mode	Powerscribe Integration	1.42
6018	Normal	disable critical results in read only	Radiology Reporting	1.42

9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.42.1. Bugs reported in previous versions are not captured as Known Limitation in this document.

#	Status	Priority	Subject
6574	New	Normal	Worklist Notifications memory leak
6545	In Progress	Normal	Reporting - Access string PowerScribe360.AllowAutofeed doesn't control user preference
6544	New	Normal	Reporting - Access string required to control access to User Preference Reporting Mode.
6538	New	Normal	Reporting - PowerScribe - Limit the number of open dictation tabs - UserGroup - Maximum is not adhered
6537	New	Normal	Reporting - Select Supervising Radiologist window has Unassign button enabled when no-one has been assigned
6467	New	Normal	PACS - disable via menu item will become enabled after user preference or org change
6335	New	Normal	Interactive dictation in suspended status will open in dictate window at start of dictation should be the end
6235	New	Normal	multiple pop ups at the same time can result in wrongly labeled buttons
6530	New	Low	Modality lookup - Logo Override will not accept procedure code number
6524	New	Low	Reporting - None. Close reporting window receive error

Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.1.1

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1. Defects Resolved

The following defects were resolved in 42.1.1

Redmine #	Subject	Priority
6668	Problem workflow radiologists - ends up suspending studies	Normal
6645	Object reference error when opening transcription screens in read only mode	High
6631	Referring physician "visited at" drop down list contains only numbers, not human readable addresses	High
6630	Reporting mode default access string is None - should be full to not interrupt anyone upgrading.	High
6294	Scanner - users are having to re-scan documents	Normal

The following defects were resolved in 42.0.12 and merged to 42.1.1

Redmine #	Subject	Priority	Found Version
6598	PAC IW Out of sync problem	Urgent	2.42.0.9
6311	Verbal order is hard-coded to associate to a known scan document type - this should be configurable	High	1.40
6594	referring physician "visited at" drop down list contains only numbers, not human readable addresses	High	2.42.0.11
6566	ReportTemplateEditor not being cleaned up when ReportingRadiologist closes	High	2.42.09
6548	bi-rads info not reset when using screen re-use on dictate screen.	High	2.42.11
6543	Reporting - screen reuse and pending save items may hang around on the worklist	Normal	2.42.0.11
6441	PACS images are loaded even if reporting window ultimately does not open.	Normal	2.42
6644	PACS Caching - The RIS is failing to clear out the cache field properly when it is to no longer be cached.	Normal	2.42.0
5401	Cannot re-dock patient folder window because of exception on title bar right-click	Normal	1.41.1

eRAD RIS Server Update

2. Changes to Configuration

New Access Strings and Configuration Settings

Setting Placeholder	Setting	Default	Purpose / Controls Access to
Access string / User Group Permission tables	Clinical.CreateTableInReport	Full	Grants access to creating tables in diagnostic reports
SystemConfig lookup	VerbalOrderScanDocumentType	Script	Default scan document type for a verbal order. Note if this scan document type doesn't exist, the first scan document type will be chosen.
SystemConfig lookup	ElectronicOrderScanDocumentType	Script	Default scan document type for a Electronic/HL7 order.

PLEASE NOTE IMPORTANT CHANGE

NOTE: During testing of these new PACS features, it was discovered that using ^ as a cache delimiter does not work with an "equals" style query. Recommended character is now \$. The delimiter is set in the PACSServer lookup table. In the figure below notice the caret ^ is replaced with a dollar sign \$ for the PEI eRAD PACS server.

Pacs Server Code	Description	Protocol	Url	Port	Display Order	Pacs Ae Title	Cache Query As Contains Flag	Cache Delimiter	Cache Field	Cac
helen	helen	http	helen.erad.com	80	1		N	^	UDF2	N
ts72wl	ts72wl Greenville	http	192.168.25.102	80	1		N	^	UDF2	N
PEI eRAD PACS	PEI eRAD PACS	http	192.168.16.10	80	1	PEIWL1	N	\$	UDF2	Y

Figure 2.1 – PACSServer lookup displaying new cache delimiter

+++++

A configuration change to the ris.exe.config file was introduced in build 2.42 this setting was designed to lessen the delays when retrieving lookup tables that are larger in size. This config setting, as mentioned, is located in the ris.exe.config file located in the <appSettings> section of the file

This setting is:

```
<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>
```

Where the value can be any lookup table, and a value="*" will retrieve all lookups.

The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. The commented line will look like

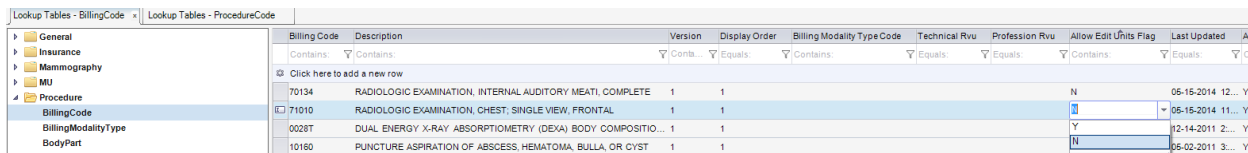
```
<!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>-->
```

3. New Features and Enhancements

Allow Billing Codes Edits Controlled from Billing Codes Lookup

This relates to a feature that was released in Build 42 titled “Allow Edit Billing Units”. Users were able to add additional billing codes to the study that were not associated with the procedure. While this in itself is not an issue, the fact that users could then increase/decrease the amount units for the billing code is.

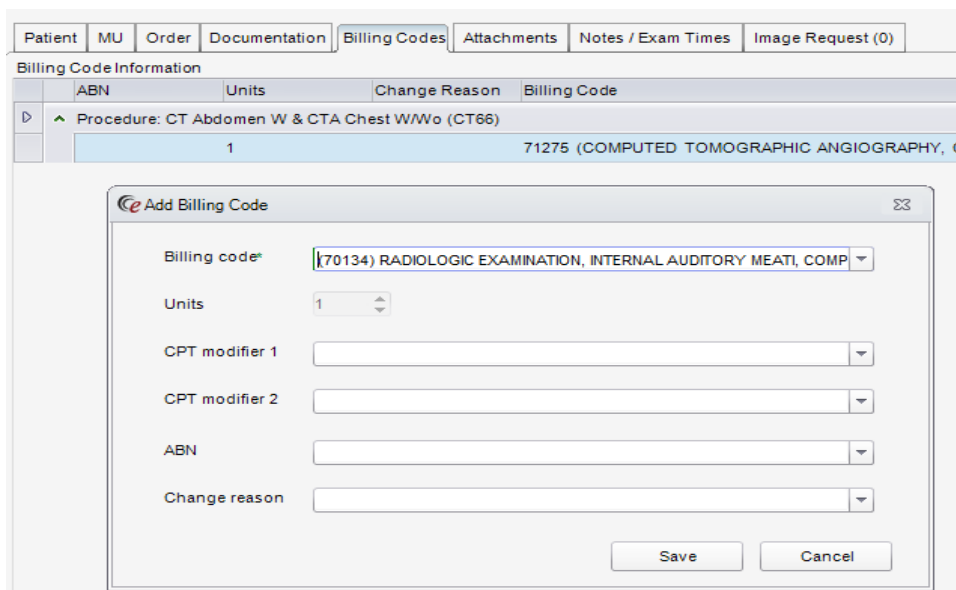
What we have done is added a new column to the BillingCode lookup table titled “Allow Edits Units Flag” that has possible values of Y or N.



Billing Code	Description	Version	Display Order	Billing Modality Type Code	Technical Rvu	Profession Rvu	Allow Edit Units Flag	Last Updated	Ac
70134	RADIOLOGIC EXAMINATION, INTERNAL AUDITORY MEATI, COMPLETE	1	1				N	05-15-2014 12...	Y
71010	RADIOLOGIC EXAMINATION, CHEST, SINGLE VIEW, FRONTAL	1	1				N	05-15-2014 11...	Y
0028T	DUAL ENERGY X-RAY ABSORPTIOMETRY (DEXA) BODY COMPOSITIO...	1	1				Y	12-14-2011 2...	Y
10160	PUNCTURE ASPIRATION OF ABSCESS, HEMATOMA, BULLA, OR CYST	1	1				N	06-02-2011 3...	Y

Figure 3.1 – BillingCode lookup displaying new column

If the value on the billing code for Allow Edit Units Flag = N, when a user adds this billing code to a study from the Technologist’s Perform Exam window, the View Edit window or the Billing Exception window, they will not be able to edit the unit value for that Billing Code.



The screenshot shows a patient record with tabs for Patient, MU, Order, Documentation, Billing Codes, Attachments, Notes / Exam Times, and Image Request (0). The 'Billing Code Information' section shows a procedure: CT Abdomen W & CTA Chest W/Wo (CT66) with one unit of billing code 71275 (COMPUTED TOMOGRAPHIC ANGIOGRAPHY, C). An 'Add Billing Code' dialog box is open, showing a dropdown for 'Billing code' with the selected value '(70134) RADIOLOGIC EXAMINATION, INTERNAL AUDITORY MEATI, COMP'. The 'Units' field is a spinner box set to 1, but it is disabled (greyed out). Other fields for CPT modifier 1, CPT modifier 2, ABN, and Change reason are also present but empty.

Figure 3.2 – Add billing code not associated with procedure that units cannot be edited

If the billing code doesn’t allow for the edit of Units, but when associated to a procedure code in the ProcedureCode lookup table and it is desired to allow the edit of units for this particular procedure, it can be overridden by using the method to add the billing code described in the original feature of 42.

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The procedure code row can be expanded in the lookup table. Under the `l_procedure_code_x_billing_code` tab the user added the billing code and can select if the billing code should have the option to Allow Edit Units.

The screenshot shows a software interface with a left-hand navigation menu and a main data table. The navigation menu includes items like MU, Procedure, BillingCode, BillingModalityType, BodyPart, Indication, Laterality, MModalDocumentModel, PracticeSiteXProcedureOverride, PrepInstruction, ProcedureChangeReason, and ProcedureCode. The main table displays procedure codes and their associated billing codes. The table has columns for Procedure Code, Billing Code, Units, Cpt Modifiers, and Allow Edit Units. Two rows are visible: one for CT66 with billing code 70134 (RADIOLOGIC EXAMINATION, INTERNAL AUDITORY MEATI, COMPLETE) and another for CT66 with billing code 71275 (COMPUTED TOMOGRAPHIC ANGIOGRAPHY, CHEST (NONCORONARY), WITH CONTRAST MATERIAL(S), INCLUDING...). The 'Allow Edit Units' flag is set to 'Y' for both rows.

Procedure Code	Billing Code	Units	Cpt Modif...	Cpt Modif...	Allow Edit Units
CT66	70134 (RADIOLOGIC EXAMINATION, INTERNAL AUDITORY MEATI, COMPLETE)	1			Y
CT66	71275 (COMPUTED TOMOGRAPHIC ANGIOGRAPHY, CHEST (NONCORONARY), WITH CONTRAST MATERIAL(S), INCLUDING...)	1			Y

Figure 3.3 – Override for default Allow Edit Units flag at Procedure Code level

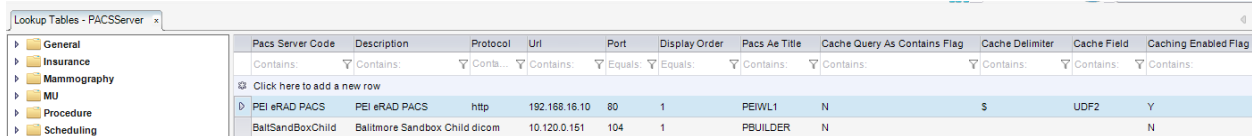
eRAD RIS Server Update

PACS Caching - Query to see what is being cached by a particular user is a contains query and is expensive

On every refresh of the Pending Dictation worklist the RIS initiates a URL call to the PACS to retrieve the list of studies being cached by the user. This call is done using * as a wildcard before and after the filter value. This is an expensive operation on the PACS database. Since changes in 42 prevent more than one user from caching a study anyway, these wildcards are no longer necessary.

We have introduced a new caching option for PACS calls of the images to be cached for a user.

A new column added to the PACSService lookup table titled “Cache Query As Contains Flag” has been added with possible values of Y or N.



Pacs Server Code	Description	Protocol	Url	Port	Display Order	Pacs Ae Title	Cache Query As Contains Flag	Cache Delimiter	Cache Field	Caching Enabled Flag
Click here to add a new row										
PEI eRAD PACS	PEI eRAD PACS	http	192.168.16.10	80	1	PEIWL1	N	\$	UDF2	Y
BaltSandboxChild	Baltimore Sandbox Child dicom		10.120.0.151	104	1	PBUILDER	N			N

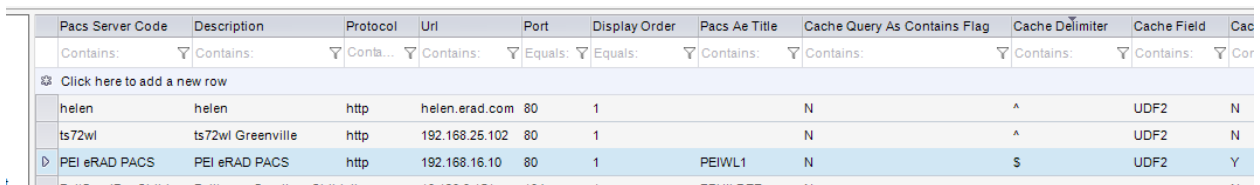
Figure 3.4 – PACSServer lookup displaying new column of Cache Query As Contains Flag.

When set to Y, it works as before, using the wildcard to find the user to cache for. When set to N it will not use the wildcards before and after the username, thus doing an exact search on the username, instead of a “is like”.

The default value of this setting is off and is not recommended to be turned on.

PLEASE NOTE IMPORTANT CHANGE

NOTE: During testing of these new PACS features, it was discovered that using ^ as a cache delimiter does not work with an "equals" style query. Recommended character is now \$. The delimiter is set in the PACSServer lookup table. In the figure below notice the caret ^ is replaced with a dollar sign \$ for the PEI eRAD PACS server.



Pacs Server Code	Description	Protocol	Url	Port	Display Order	Pacs Ae Title	Cache Query As Contains Flag	Cache Delimiter	Cache Field	Cac
Click here to add a new row										
helen	helen	http	helen.erad.com	80	1		N	^	UDF2	N
ts72wi	ts72wi Greenville	http	192.168.25.102	80	1		N	^	UDF2	N
PEI eRAD PACS	PEI eRAD PACS	http	192.168.16.10	80	1	PEIWL1	N	\$	UDF2	Y
BaltSandboxChild	Baltimore Sandbox Child dicom		10.120.0.151	104	1	PBUILDER	N			N

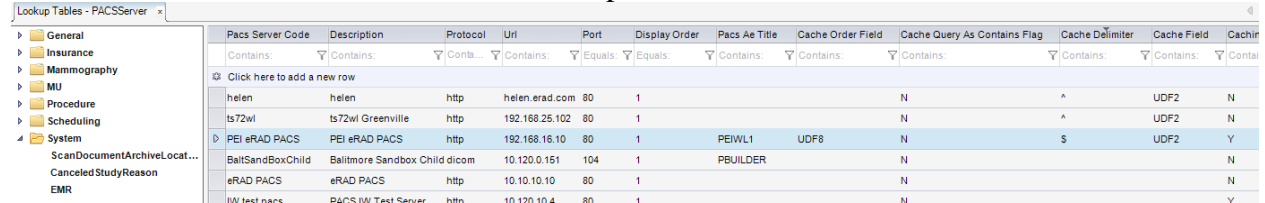
Figure 3.5 – PACSServer lookup displaying new cache delimiter

eRAD RIS Server Update

PACS Cache Improvement - New field to determine priority/order of studies for the PACS to cache

The current method by which the RIS controls the PACS caching mechanism has no way to provide a priority for the PACS. This means that if there are a large number of studies to cache the first ones that are needed by the user may not be the first ones that the PACS viewer retrieves.

Added new columns to the PACSServer lookup table called Cache Order Field.



The screenshot shows a web-based interface for managing PACS servers. On the left is a tree view with categories like General, Insurance, Mammography, MU, Procedure, Scheduling, and System. The main area displays a table with the following columns: Pacs Server Code, Description, Protocol, Url, Port, Display Order, Pacs Ae Title, Cache Order Field, Cache Query As Contains Flag, Cache Delimiter, Cache Field, and Cachir. The 'Cache Order Field' column is highlighted in blue for the 'PEI eRAD PACS' row, which has a value of 'UDF8'. Other rows include 'helen', 'ts72wl', 'BaltSandBoxChild', 'eRAD PACS', and 'PACS RIS Test Server'.

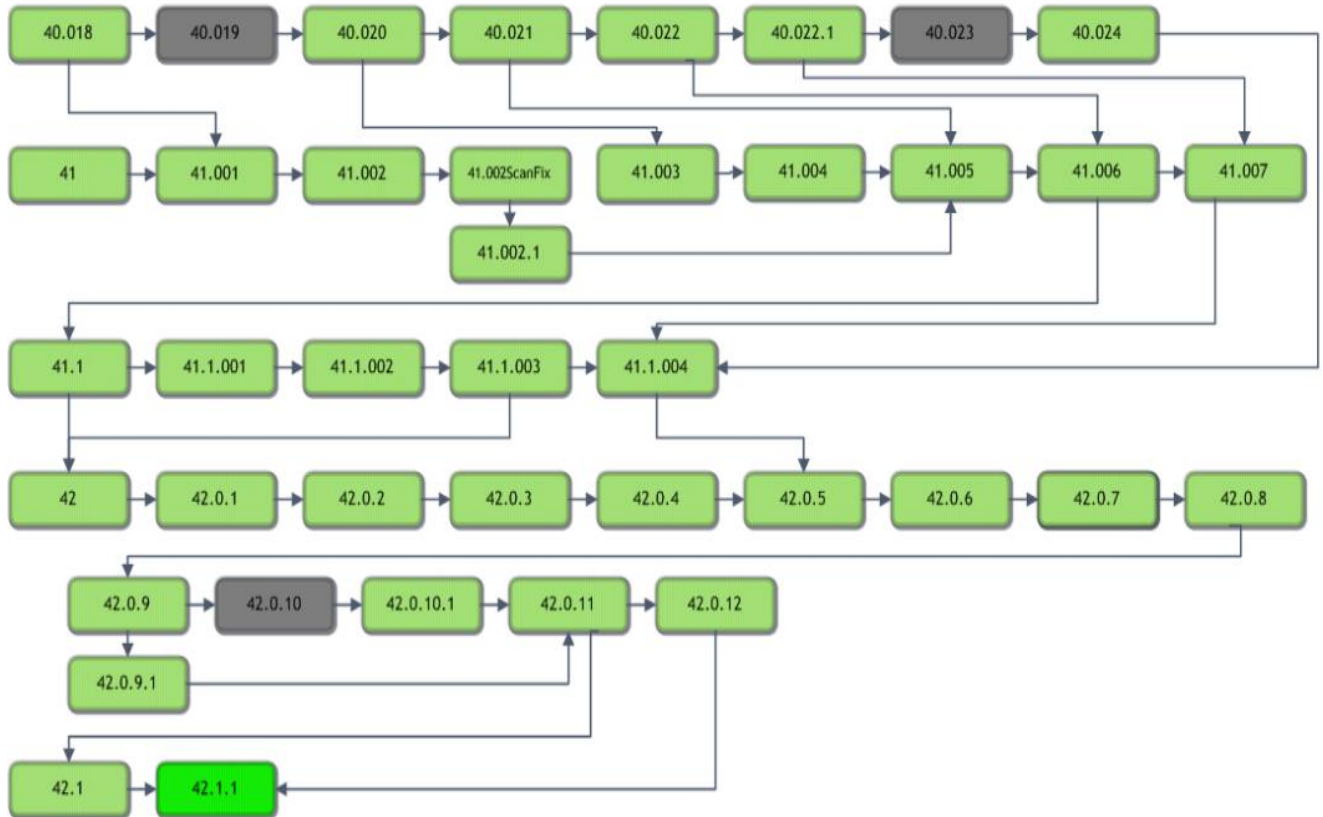
Pacs Server Code	Description	Protocol	Url	Port	Display Order	Pacs Ae Title	Cache Order Field	Cache Query As Contains Flag	Cache Delimiter	Cache Field	Cachir
helen	helen	http	helen.erad.com	80	1			N	^	UDF2	N
ts72wl	ts72wl Greenville	http	192.168.25.102	80	1			N	^	UDF2	N
PEI eRAD PACS	PEI eRAD PACS	http	192.168.16.10	80	1	PEIWL1	UDF8	N	\$	UDF2	Y
BaltSandBoxChild	Baltimore Sandbox Child dicom		10.120.0.151	104	1	PBUILDER		N			N
eRAD PACS	eRAD PACS	http	10.10.10.10	80	1			N			N
PACS RIS Test Server	PACS RIS Test Server	http	10.120.10.2	80	1			N			Y

Figure 3.6 – PACSServer lookup displaying new column of Cache Order Field

The cache order field is used to determine the priority of the cache job and is filled with a datetime and a set id.

4. Code Stream

eRAD RIS - Source Code Evolution



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

5. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:

- rRIS_1.3.42.1.1.22963.zip

2) RIS_Service_Updates contains:

- ABCpdf.dll
- ABCpdf9-32.dll
- ABCpdf9-64.dll
- CDSJobManager.dll
- CDSJobManager.pdb
- CdsLib.dll
- CdsLib.xml
- CdsLib.XmlSerializers.dll
- CommonLib.dll
- CommonLib.pdb
- contents.txt
- DDEngine.dll
- DDEngine.pdb
- Interop.ANYMODALCAPTURECTRLLib.dll
- Interop.FAXCOMEXLib.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.pdb
- Microsoft.Practices.EnterpriseLibrary.Common.dll
- Microsoft.Practices.EnterpriseLibrary.Common.pdb
- Microsoft.Practices.EnterpriseLibrary.Logging.dll
- Microsoft.Practices.EnterpriseLibrary.Logging.pdb
- Microsoft.Practices.ServiceLocation.dll
- Microsoft.Practices.ServiceLocation.pdb
- Microsoft.Practices.Unity.dll
- Microsoft.Practices.Unity.Interception.dll
- Microsoft.Practices.Unity.Interception.pdb
- Microsoft.Practices.Unity.pdb
- Microsoft.ReportViewer.Common.dll
- Microsoft.ReportViewer.WinForms.dll
- Microsoft.ReportViewer.WinForms.xml
- Newtonsoft.Json.dll
- Newtonsoft.Json.xml
- Ninject.dll
- Ninject.Web.Common.dll
- Ninject.Web.Common.xml
- Ninject.xml
- O2S.Components.PDFRender4NET.dll
- PDFToImages.exe
- rRISServices.exe
- rRISServices.pdb
- rRISServicesx64.exe
- ScheduledTaskManager.dll
- ScheduledTaskManager.pdb
- ServicesConfigWizard.exe
- ServicesConfigWizard.pdb
- SignatureApprovalService.exe
- SignatureApprovalService.pdb
- System.Net.Http.dll
- System.Net.Http.Formatting.dll
- System.Net.Http.Formatting.xml
- System.Net.Http.WebRequest.dll
- System.Net.Http.WebRequest.xml
- System.Net.Http.xml
- System.Web.dll
- System.Web.Helpers.dll
- System.Web.Helpers.xml
- System.Web.Http.dll
- System.Web.Http.SelfHost.dll
- System.Web.Http.SelfHost.xml
- System.Web.Http.WebHost.dll
- System.Web.Http.WebHost.xml
- System.Web.Http.xml
- System.Web.Mvc.dll
- System.Web.Mvc.xml
- System.Web.Optimization.dll
- System.Web.Providers.dll
- System.Web.Razor.dll
- System.Web.Razor.xml
- System.Web.WebPages.Deployment.dll
- System.Web.WebPages.Deployment.xml
- System.Web.WebPages.dll
- System.Web.WebPages.Razor.dll
- System.Web.WebPages.Razor.xml
- System.Web.WebPages.xml
- Toureau.Gilles.FaxDotNet.dll
- Toureau.Gilles.FaxDotNet.pdb
- Toureau.Gilles.FaxDotNet.xml
- WCFSservice.dll
- WCFSservice.pdb
- WCFSserviceTests.dll
- WCFSserviceTests.pdb
- WebApi.dll
- WebApi.pdb
- Wedge.exe
- Wedge.pdb

eRAD RIS Server Update

The rRIS_Service_Updates also contains to subfolders:

- A. Deploy folder contains
 - a. Applicationsettings
 - b. ReleaseVersion-connectionstrings
 - c. rRISServices.exe
 - d. services

 - B. XSL subfolder contains:
Subfolder titled “Stylesheets” which contains:
 - a. CDAToHTMLCompleteReport.xslt
 - b. CDAToHTMLImpressionSection.xslt
 - c. CDAToRIS.xslt
 - d. CDAToTxt.xslt
 - e. DocumentModelReport.xslt
 - f. DocumentModelReportAsXml.xslt

 - g. CCDA Subfolder contains
 - a. C-CDA.xsl
 - b. eRadStylesheet.xsl
 - c. generalTemplates.xsl
 - d. header.xsl
 - e. sectionAdministeredMedications.xsl
 - f. sectionAllergies.xsl
 - g. sectionEncounters.xsl
 - h. sectionFuncCogStatus.xsl
 - i. sectionImmunizations.xsl
 - j. sectionInstructions.xsl
 - k. sectionMedications.xsl
 - l. sectionPlanOfCare.xsl
 - m. sectionProblemList.xsl
 - n. sectionProcedures.xsl
 - o. sectionReasonForVisit.xsl
 - p. sectionResults.xsl
 - q. sectionSocialHistory.xsl
 - r. sectionVitalSigns.xsl
-
- 3) SQL folder contains:
 - B42.1.1.sql

eRAD RIS Server Update

6. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

7. Who is affected

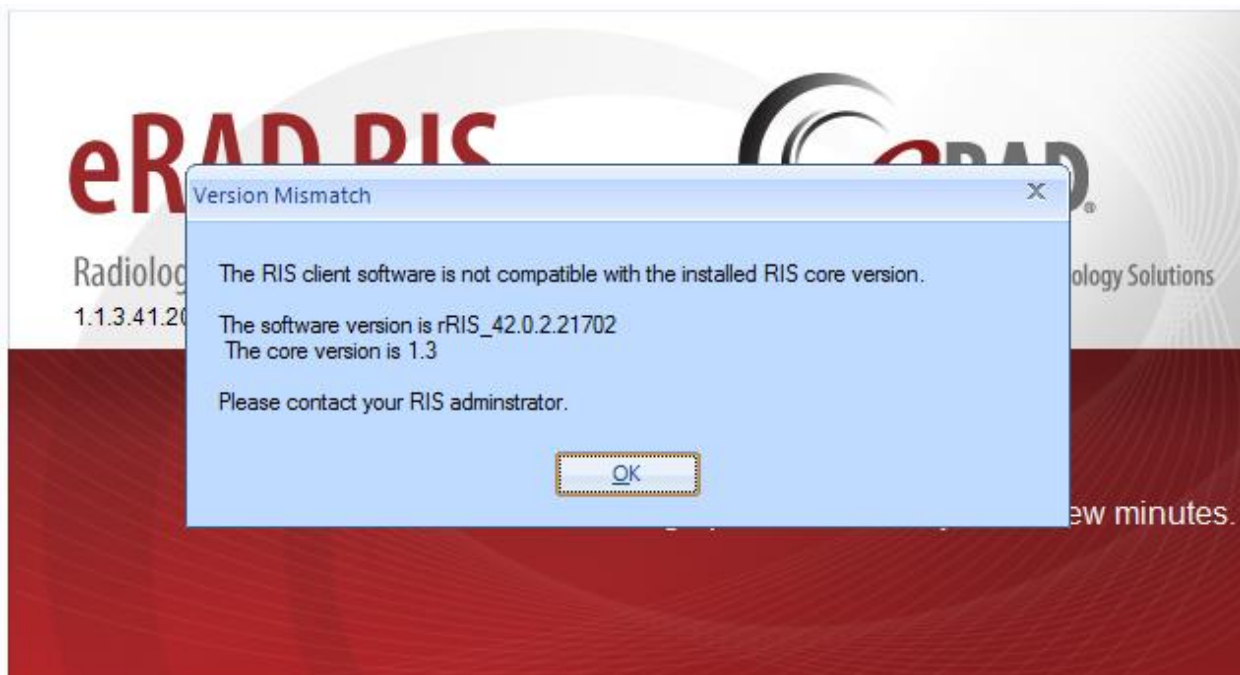
Build 42 installs. Server updates are not cumulative. This server update must be applied to 42.1

8. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
41	-	1.3.41.19135(3GB)	1.3.41.19135	1.3.41.19135	1.3.41.19135	Full version release
41	1	1.3.41.19256(3GB)	1.3.41.19135	1.3.41.19256	1.3.41.19256	GUI.zip, Web Service and database updates
41	2	1.3.41.19620(3GB)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip and Web Service
41	2sf	1.3.41.19620SF(3G)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip
41	2.1	1.3.41.20622(3GB)	1.3.41.19135	1.3.41.20617	1.3.41.19346	GUI.zip and Web Service
41	3	1.3.41.20125(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip , Web Service and Recognizer
41	4	1.3.41.20285(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip
41	5	1.3.41.20809(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip, Core install, Web Service and database updates
41	6	1.3.41.20912(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip
41.1	-	1.3.41.20918(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip, Core install, Web Service and DB updates, Help files
41.1	1	1.3.41.20987(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip
41.1	2	1.3.41.21162(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip, Web Service and DB updates,
41.1	3	1.3.41.21264(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
42	1	2.42.0.1.21597	2.42.0.0.21261	2.42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates
42	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates
42	3	2.42.0.2.21806	2.42.0.0.21261	2.42.0.2.21806	2.42.0.0.21187	GUI and Web Service updates
42	4	2.42.0.2.21862	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI and Database updates
42	5	2.42.0.5.21924	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI
42	6	2.42.0.5.22009	2.42.0.0.21261	2.42.0.5.22009	2.42.0.4.21870	GUI and Web Service updates
42	7	2.42.0.7.22090	2.42.0.0.21261	2.42.0.6.22009	2.42.0.4.21870	GUI.zip updates
42	8	2.42.0.7.22090	2.42.0.7.22150	2.42.0.6.22009	2.42.0.4.21870	Web Service updates
42	9	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI and Web Service updates
42	9.1	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	Web Service updates
42	10	2.42.0.10.22232	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip
42	10.1	2.42.0.10.22420	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip updates
42	11	2.42.0.11.22495a	2.42.0.0.21261	2.42.0.11.22471	2.42.0.11.22527	GUI.zip, Web Service, Database updates. Management Report Deployment
42	12	2.42.0.12.22982	2.42.0.0.21261	2.42.0.12.22982	2.42.0.12.22911	GUI.zip, Web Service, Database updates.
42.1	-	2.42.1.0.22744(3GB)	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.22963GB)	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates

9. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.42.1.1.22963.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_42.1.1.22963 → rRIS_1.3.42.1.1.22963. NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

- 2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

- 3) Run the B42.1.1.sql file against the eRAD RIS database instance

Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.1.2

Table of Contents

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eRAD RIS Server Update

1. Defects Resolved

Redmine #	Subject	Priority
6713	Once an external patient is matched to a new or existing internal patient, it cannot be found by searching for external MRN	Urgent
6721	Lock is not being released when the message "The study was updated moments ago. It is no longer on the worklist" is displayed.	Normal

eRAD RIS Server Update

2. Changes to Configuration

The following changes were introduced in 42.1.1. For more information on the access strings and system configuration lookup table changes, please refer to the eRAD RIS Build 42 Server Update 42.1.1 document.

Setting Placeholder	Setting	Default	Purpose / Controls Access to
Access string / User Group Permission tables	Clinical.CreateTableInReport	Full	Grants access to creating tables in diagnostic reports
SystemConfig lookup	VerbalOrderScanDocumentType	Script	Default scan document type for a verbal order. Note if this scan document type doesn't exist, the first scan document type will be chosen.
SystemConfig lookup	ElectronicOrderScanDocumentType	Script	Default scan document type for a Electronic/HL7 order.

PLEASE NOTE IMPORTANT CHANGE

NOTE: During testing of these new PACS features, it was discovered that using ^ as a cache delimiter does not work with an "equals" style query. Recommended character is now \$. The delimiter is set in the PACSServer lookup table. In the figure below notice the caret ^ is replaced with a dollar sign \$ for the PEI eRAD PACS server.

Pacs Server Code	Description	Protocol	Url	Port	Display Order	Pacs Ae Title	Cache Query As Contains Flag	Cache Delimiter	Cache Field	Cache
helen	helen	http	helen.erad.com	80	1		N	^	UDF2	N
ts72wl	ts72wl Greenville	http	192.168.25.102	80	1		N	^	UDF2	N
PEI eRAD PACS	PEI eRAD PACS	http	192.168.16.10	80	1	PEIWL1	N	\$	UDF2	Y

Figure 2.1 – PACSServer lookup displaying new cache delimiter

A configuration change to the ris.exe.config file was introduced in build 2.42 this setting was designed to lessen the delays when retrieving lookup tables that are larger in size. This config setting, as mentioned, is located in the ris.exe.config file located in the <appSettings> section of the file

This setting is:

```
<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>
```

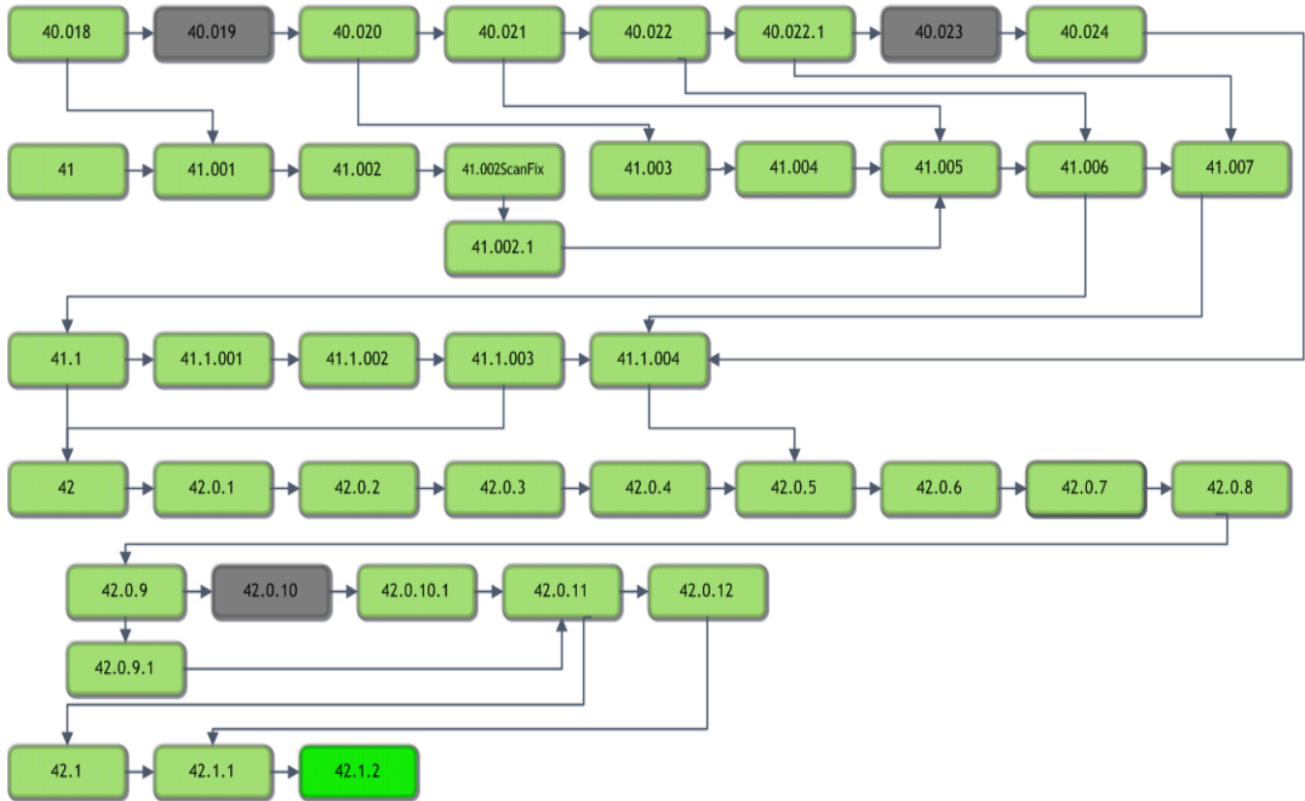
Where the value can be any lookup table, and a value="*", will retrieve all lookups.

The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. The commented line will look like

```
<!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> -->
```

3. Code Stream

eRAD RIS - Source Code Evolution



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

4. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:

- rRIS_1.3.42.1.2.23007.zip

2) RIS_Service_Updates contains:

- ABCpdf.dll
- ABCpdf9-32.dll
- ABCpdf9-64.dll
- CDSJobManager.dll
- CDSJobManager.pdb
- CdsLib.dll
- CdsLib.xml
- CdsLib.XmlSerializers.dll
- CommonLib.dll
- CommonLib.pdb
- contents.txt
- DDEngine.dll
- DDEngine.pdb
- Interop.ANYMODALCAPTURECTRLLib.dll
- Interop.FAXCOMEXLib.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.pdb
- Microsoft.Practices.EnterpriseLibrary.Common.dll
- Microsoft.Practices.EnterpriseLibrary.Common.pdb
- Microsoft.Practices.EnterpriseLibrary.Logging.dll
- Microsoft.Practices.EnterpriseLibrary.Logging.pdb
- Microsoft.Practices.ServiceLocation.dll
- Microsoft.Practices.ServiceLocation.pdb
- Microsoft.Practices.Unity.dll
- Microsoft.Practices.Unity.Interception.dll
- Microsoft.Practices.Unity.Interception.pdb
- Microsoft.Practices.Unity.pdb
- Microsoft.ReportViewer.Common.dll
- Microsoft.ReportViewer.WinForms.dll
- Microsoft.ReportViewer.WinForms.xml
- Newtonsoft.Json.dll
- Newtonsoft.Json.xml
- Ninject.dll
- Ninject.Web.Common.dll
- Ninject.Web.Common.xml
- Ninject.xml
- O2S.Components.PDFRender4NET.dll
- PDFToImages.exe
- rRISServices.exe
- rRISServices.pdb
- rRISServicesx64.exe
- ScheduledTaskManager.dll
- ScheduledTaskManager.pdb
- ServicesConfigWizard.exe
- ServicesConfigWizard.pdb
- SignatureApprovalService.exe
- SignatureApprovalService.pdb
- System.Net.Http.dll
- System.Net.Http.Formatting.dll
- System.Net.Http.Formatting.xml
- System.Net.Http.WebRequest.dll
- System.Net.Http.WebRequest.xml
- System.Net.Http.xml
- System.Web.dll
- System.Web.Helpers.dll
- System.Web.Helpers.xml
- System.Web.Http.dll
- System.Web.Http.SelfHost.dll
- System.Web.Http.SelfHost.xml
- System.Web.Http.WebHost.dll
- System.Web.Http.WebHost.xml
- System.Web.Http.xml
- System.Web.Mvc.dll
- System.Web.Mvc.xml
- System.Web.Optimization.dll
- System.Web.Providers.dll
- System.Web.Razor.dll
- System.Web.Razor.xml
- System.Web.WebPages.Deployment.dll
- System.Web.WebPages.Deployment.xml
- System.Web.WebPages.dll
- System.Web.WebPages.Razor.dll
- System.Web.WebPages.Razor.xml
- System.Web.WebPages.xml
- Toureau.Gilles.FaxDotNet.dll
- Toureau.Gilles.FaxDotNet.pdb
- Toureau.Gilles.FaxDotNet.xml
- WCFServices.dll
- WCFServices.pdb
- WCFServicesTests.dll
- WCFServicesTests.pdb
- WebApi.dll
- WebApi.pdb
- Wedge.exe
- Wedge.pdb

eRAD RIS Server Update

The rRIS_Service_Updates also contains to subfolders:

- A. Deploy folder contains
 - a. Applicationsettings
 - b. ReleaseVersion-connectionstrings
 - c. rRISServices.exe
 - d. services

 - B. XSL subfolder contains:
Subfolder titled “Stylesheets” which contains:
 - a. CDAToHTMLCompleteReport.xslt
 - b. CDAToHTMLImpressionSection.xslt
 - c. CDAToRIS.xslt
 - d. CDAToTxt.xslt
 - e. DocumentModelReport.xslt
 - f. DocumentModelReportAsXml.xslt

 - g. CCDA Subfolder contains
 - a. C-CDA.xsl
 - b. eRadStylesheet.xsl
 - c. generalTemplates.xsl
 - d. header.xsl
 - e. sectionAdministeredMedications.xsl
 - f. sectionAllergies.xsl
 - g. sectionEncounters.xsl
 - h. sectionFuncCogStatus.xsl
 - i. sectionImmunizations.xsl
 - j. sectionInstructions.xsl
 - k. sectionMedications.xsl
 - l. sectionPlanOfCare.xsl
 - m. sectionProblemList.xsl
 - n. sectionProcedures.xsl
 - o. sectionReasonForVisit.xsl
 - p. sectionResults.xsl
 - q. sectionSocialHistory.xsl
 - r. sectionVitalSigns.xsl
- 3) SQL folder contains:
- B42.1.2.sql

eRAD RIS Server Update

5. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

6. Who is affected

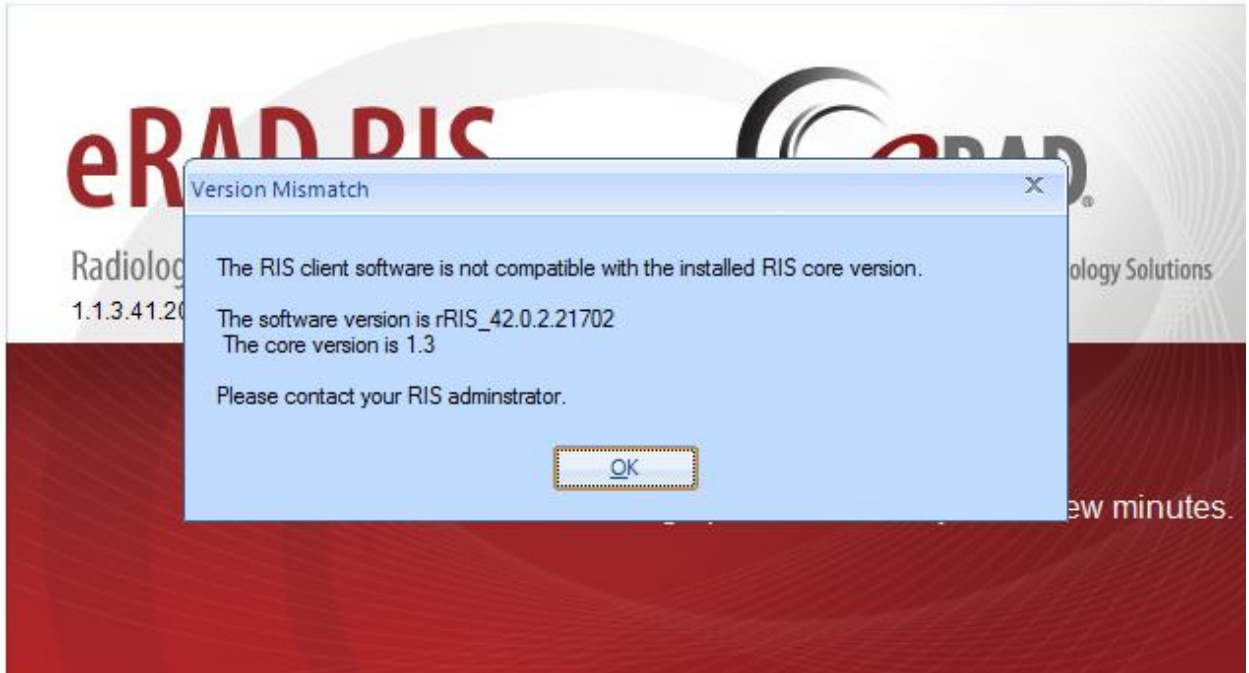
Build 42 installs. Server updates are not cumulative. This server update must be applied to 42.1.1

7. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
41	-	1.3.41.19135(3GB)	1.3.41.19135	1.3.41.19135	1.3.41.19135	Full version release
41	1	1.3.41.19256(3GB)	1.3.41.19135	1.3.41.19256	1.3.41.19256	GUI.zip, Web Service and database updates
41	2	1.3.41.19620(3GB)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip and Web Service
41	2sf	1.3.41.19620SF(3G)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip
41	2.1	1.3.41.20622(3GB)	1.3.41.19135	1.3.41.20617	1.3.41.19346	GUI.zip and Web Service
41	3	1.3.41.20125(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip , Web Service and Recognizer
41	4	1.3.41.20285(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip
41	5	1.3.41.20809(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip, Core install, Web Service and database updates
41	6	1.3.41.20912(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip
41.1	-	1.3.41.20918(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip, Core install, Web Service and DB updates, Help files
41.1	1	1.3.41.20987(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip
41.1	2	1.3.41.21162(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip, Web Service and DB updates,
41.1	3	1.3.41.21264(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
42	1	2.42.0.1.21597	2.42.0.0.21261	2.42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates
42	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates
42	3	2.42.0.2.21806	2.42.0.0.21261	2.42.0.2.21806	2.42.0.0.21187	GUI and Web Service updates
42	4	2.42.0.2.21862	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI and Database updates
42	5	2.42.0.5.21924	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI
42	6	2.42.0.5.22009	2.42.0.0.21261	2.42.0.5.22009	2.42.0.4.21870	GUI and Web Service updates
42	7	2.42.0.7.22090	2.42.0.0.21261	2.42.0.6.22009	2.42.0.4.21870	GUI.zip updates
42	8	2.42.0.7.22090	2.42.0.7.22150	2.42.0.6.22009	2.42.0.4.21870	Web Service updates
42	9	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI and Web Service updates
42	9.1	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	Web Service updates
42	10	2.42.0.10.22232	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip
42	10.1	2.42.0.10.22420	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip updates
42	11	2.42.0.11.22495a	2.42.0.0.21261	2.42.0.11.22471	2.42.0.11.22527	GUI.zip, Web Service, Database updates. Management Report Deployment
42	12	2.42.0.12.22982	2.42.0.0.21261	2.42.0.12.22982	2.42.0.12.22911	GUI.zip, Web Service, Database updates.
42.1	-	2.42.1.0.22744(3GB)	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.2296(3GB)	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates
42.1	2	2.42.1.2.23007(3GB)	2.42.0.0.21261	2.42.1.2.23007	2.42.1.1.23007	GUI.zip, Web Service, DB updates

8. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.42.1.1.23007.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_42.1.1.23007 → rRIS_1.3.42.1.1.23007. NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

- 2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

- 3) Run the B42.1.2.sql file against the eRAD RIS database instance

Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.1.3

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eRAD RIS Server Update

1. Defects Resolved

Redmine #	Subject	Priority
6631	Referring physician "visited at" drop down list contains only numbers, not human readable addresses	High
6182	Multiple scanned images do not get sent to PACS	High
6758	Discontinued Transaction does not include extended tables in CLOB	Normal

eRAD RIS Server Update

2. Changes to Configuration

A configuration change to the ris.exe.config file was introduced in build 2.42 this setting was designed to lessen the delays when retrieving lookup tables that are larger in size.

This config setting, as mentioned, is located in the ris.exe.config file located in the <appSettings> section of the file

This setting is:

```
<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>
```

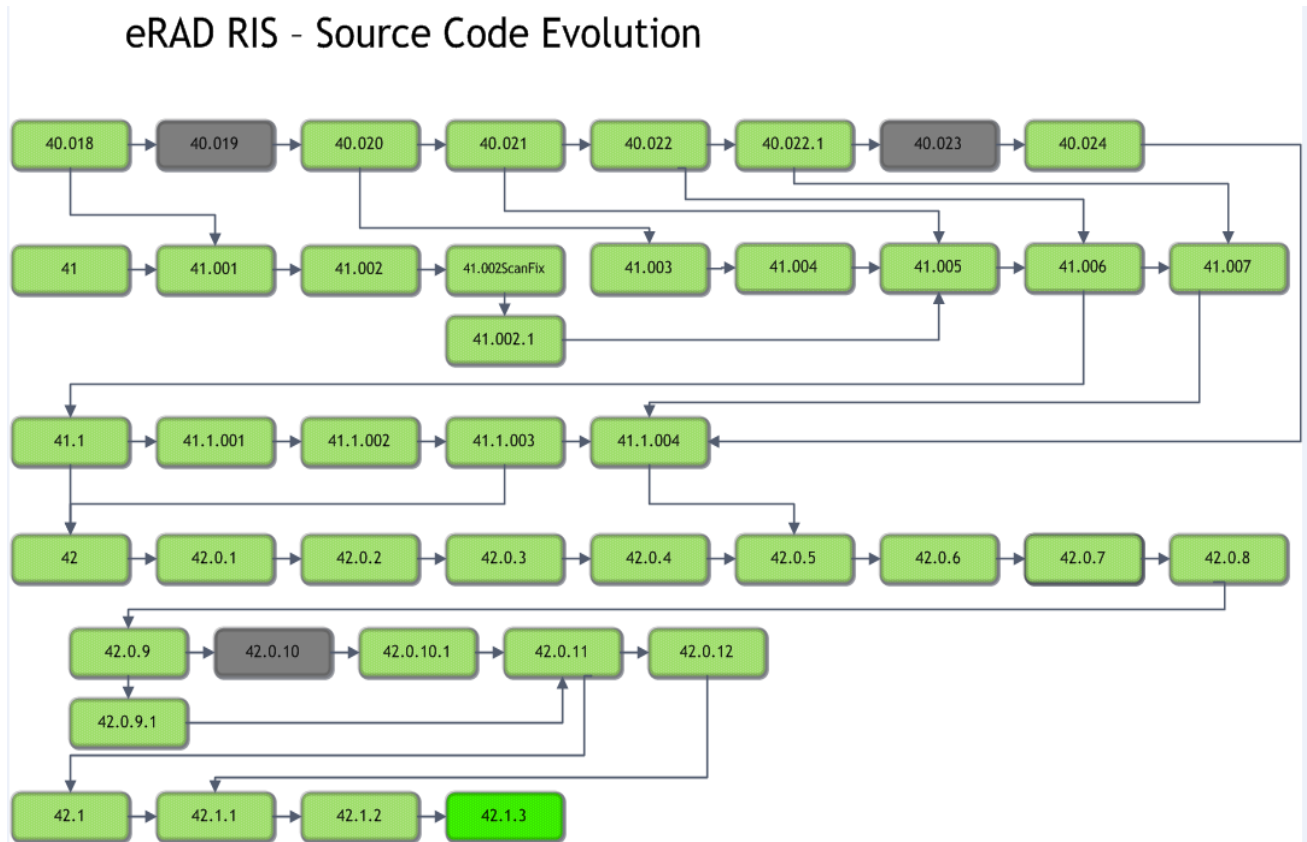
Where the value can be any lookup table, and a value="*" will retrieve all lookups.

The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. The commented line will look like

```
<!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> -->
```

eRAD RIS Server Update

3. Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

4. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:

- rRIS_1.3.42.1.2.23237.zip

2) RIS_Service_Updates contains:

- ABCpdf.dll
- ABCpdf9-32.dll
- ABCpdf9-64.dll
- CDSJobManager.dll
- CDSJobManager.pdb
- CdsLib.dll
- CdsLib.xml
- CdsLib.XmlSerializers.dll
- CommonLib.dll
- CommonLib.pdb
- DDEngine.dll
- DDEngine.pdb
- Interop.ANYMODALCAPTURECTRLLib.dll
- Interop.FAXCOMEXLib.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.pdb
- Microsoft.Practices.EnterpriseLibrary.Common.dll
- Microsoft.Practices.EnterpriseLibrary.Common.pdb
- Microsoft.Practices.EnterpriseLibrary.Logging.dll
- Microsoft.Practices.EnterpriseLibrary.Logging.pdb
- Microsoft.Practices.ServiceLocation.dll
- Microsoft.Practices.ServiceLocation.pdb
- Microsoft.Practices.Unity.dll
- Microsoft.Practices.Unity.Interception.dll
- Microsoft.Practices.Unity.Interception.pdb
- Microsoft.Practices.Unity.pdb
- Microsoft.ReportViewer.Common.dll
- Microsoft.ReportViewer.WinForms.dll
- Microsoft.ReportViewer.WinForms.xml
- Newtonsoft.Json.dll
- Newtonsoft.Json.xml
- Ninject.dll
- Ninject.Web.Common.dll
- Ninject.Web.Common.xml
- Ninject.xml
- O2S.Components.PDFRender4NET.dll
- PDFToImages.exe
- rRISServices.exe
- rRISServices.pdb
- rRISServicesx64.exe
- ScheduledTaskManager.dll
- ScheduledTaskManager.pdb
- ServicesConfigWizard.exe
- ServicesConfigWizard.pdb
- SignatureApprovalService.exe
- SignatureApprovalService.pdb
- System.Net.Http.dll
- System.Net.Http.Formatting.dll
- System.Net.Http.Formatting.xml
- System.Net.Http.WebRequest.dll
- System.Net.Http.WebRequest.xml
- System.Net.Http.xml
- System.Web.dll
- System.Web.Helpers.dll
- System.Web.Helpers.xml
- System.Web.Http.dll
- System.Web.Http.SelfHost.dll
- System.Web.Http.SelfHost.xml
- System.Web.Http.WebHost.dll
- System.Web.Http.WebHost.xml
- System.Web.Http.xml
- System.Web.Mvc.dll
- System.Web.Mvc.xml
- System.Web.Optimization.dll
- System.Web.Providers.dll
- System.Web.Razor.dll
- System.Web.Razor.xml
- System.Web.WebPages.Deployment.dll
- System.Web.WebPages.Deployment.xml
- System.Web.WebPages.dll
- System.Web.WebPages.Razor.dll
- System.Web.WebPages.Razor.xml
- System.Web.WebPages.xml
- Toureau.Gilles.FaxDotNet.dll
- Toureau.Gilles.FaxDotNet.pdb
- Toureau.Gilles.FaxDotNet.xml
- WCFService.dll
- WCFService.pdb
- WCFServiceTests.dll
- WCFServiceTests.pdb
- WebApi.dll
- WebApi.pdb
- Wedge.exe
- Wedge.pdb

eRAD RIS Server Update

The rRIS_Service_Updates also contains to subfolders:

- A. Deploy folder contains
 - a. Applicationsettings
 - b. ReleaseVersion-connectionstrings
 - c. rRISServices.exe
 - d. services

- B. XSL subfolder contains:
Subfolder titled “Stylesheets” which contains:
 - a. CDAToHTMLCompleteReport.xslt
 - b. CDAToHTMLImpressionSection.xslt
 - c. CDAToRIS.xslt
 - d. CDAToTxt.xslt
 - e. DocumentModelReport.xslt
 - f. DocumentModelReportAsXml.xslt

 - g. CCDA Subfolder contains
 - a. C-CDA.xsl
 - b. eRadStylesheet.xsl
 - c. generalTemplates.xsl
 - d. header.xsl
 - e. sectionAdministeredMedications.xsl
 - f. sectionAllergies.xsl
 - g. sectionEncounters.xsl
 - h. sectionFuncCogStatus.xsl
 - i. sectionImmunizations.xsl
 - j. sectionInstructions.xsl
 - k. sectionMedications.xsl
 - l. sectionPlanOfCare.xsl
 - m. sectionProblemList.xsl
 - n. sectionProcedures.xsl
 - o. sectionReasonForVisit.xsl
 - p. sectionResults.xsl
 - q. sectionSocialHistory.xsl
 - r. sectionVitalSigns.xsl

eRAD RIS Server Update

5. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

6. Who is affected

Build 42 installs. Server updates are not cumulative. This server update must be applied to 42.1.2

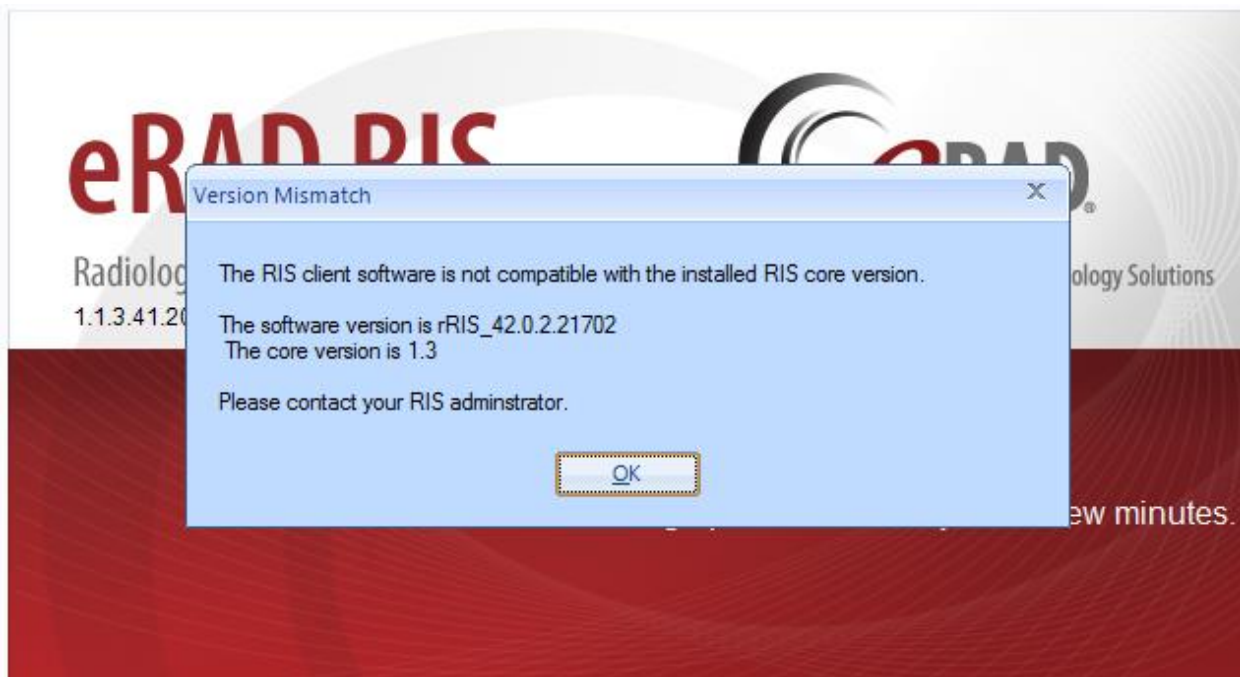
eRAD RIS Server Update

7. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
41.1	-	1.3.41.20918(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip, Core install, Web Service and DB updates, Help files
41.1	1	1.3.41.20987(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip
41.1	2	1.3.41.21162(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip, Web Service and DB updates,
41.1	3	1.3.41.21264(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
42	1	2.42.0.1.21597	2.42.0.0.21261	2.42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates
42	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates
42	3	2.42.0.2.21806	2.42.0.0.21261	2.42.0.2.21806	2.42.0.0.21187	GUI and Web Service updates
42	4	2.42.0.2.21862	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI and Database updates
42	5	2.42.0.5.21924	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI
42	6	2.42.0.5.22009	2.42.0.0.21261	2.42.0.5.22009	2.42.0.4.21870	GUI and Web Service updates
42	7	2.42.0.7.22090	2.42.0.0.21261	2.42.0.6.22009	2.42.0.4.21870	GUI.zip updates
42	8	2.42.0.7.22090	2.42.0.7.22150	2.42.0.6.22009	2.42.0.4.21870	Web Service updates
42	9	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI and Web Service updates
42	9.1	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	Web Service updates
42	10	2.42.0.10.22232	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip
42	10.1	2.42.0.10.22420	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip updates
42	11	2.42.0.11.22495a	2.42.0.0.21261	2.42.0.11.22471	2.42.0.11.22527	GUI.zip, Web Service, Database updates. Management Report Deployment
42	12	2.42.0.12.22982	2.42.0.0.21261	2.42.0.12.22982	2.42.0.12.22911	GUI.zip, Web Service, Database updates.
42.1	-	2.42.1.0.22744(3GB)	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.2296(3GB)	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates
42.1	2	2.42.1.2.23007(3GB)	2.42.0.0.21261	2.42.1.2.23007	2.42.1.1.23007	GUI.zip, Web Service, DB updates
42.1	3	2.42.1.2.23237(3GB)	2.42.0.0.21261	2.42.1.2.23237	2.42.1.1.23007	GUI.zip, Web Services

8. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.42.1.1.23237.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_42.1.1.23237 → rRIS_1.3.42.1.1.23237. NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

- 2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.1.4

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eRAD RIS Server Update

1. Defects Resolved

Redmine #	Subject	Priority
6873	Settings missing from ris.exe.config file	High
3376	Patient folder for previously unlinked external patient does not get re-associated when the patient is mapped.	High
6903	There is no way to register individual studies at different sites that are on one order.	Normal
6871	Appointment book cannot be accessed if user doesn't have scheduling group assigned.	Normal
6714	Scheduling using external MRN (does not consistently display alternate MRN in grid)	Normal

eRAD RIS Server Update

2. Changes to Configuration

We had noticed that there were some settings missing from the standard ris.exe.config file that is supplied with the GUI.zip file. The following settings had been introduced in previous builds, but now reside in the file. Settings starting with <!-- are commented out. These settings are located in the <appSettings> section of the ris.exe.config file. Please do a compare with your current one.

```
<add key="ShouldCloseViewSessionOnThread" value="true"/>
<add key="LookupTableTimeToLiveInMinutes" value="60"/>
<add key="EnableHighPriorityLookupStrategy" value="true"/>
<!--<add key="RowLevelCacheDataSetNamesCSV"
value="ProcedureCode,TemplateMacro,Indication"/> -->
<!-- <add key="MModalDataTransferValue" value="0"/> -->
```

A configuration change to the ris.exe.config file was introduced in build 2.42 this setting was designed to lessen the delays when retrieving lookup tables that are larger in size. This config setting, as mentioned, is located in the ris.exe.config file located in the <appSettings> section of the file

This setting is:

```
<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>
```

Where the value can be any lookup table, and a value="*" will retrieve all lookups.

The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. The commented line will look like

```
<!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> -->
```

3. Code Stream

eRAD RIS - Source Code Evolution



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

4. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:

- rRIS_1.3.42.1.4.23348.zip

2) RIS_Service_Updates contains:

- ABCpdf.dll
- ABCpdf9-32.dll
- ABCpdf9-64.dll
- CDSJobManager.dll
- CDSJobManager.pdb
- CdsLib.dll
- CdsLib.xml
- CdsLib.XmlSerializers.dll
- CommonLib.dll
- CommonLib.pdb
- DDEngine.dll
- DDEngine.pdb
- Interop.ANYMODALCAPTURECTRLLib.dll
- Interop.FAXCOMEXLib.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.pdb
- Microsoft.Practices.EnterpriseLibrary.Common.dll
- Microsoft.Practices.EnterpriseLibrary.Common.pdb
- Microsoft.Practices.EnterpriseLibrary.Logging.dll
- Microsoft.Practices.EnterpriseLibrary.Logging.pdb
- Microsoft.Practices.ServiceLocation.dll
- Microsoft.Practices.ServiceLocation.pdb
- Microsoft.Practices.Unity.dll
- Microsoft.Practices.Unity.Interception.dll
- Microsoft.Practices.Unity.Interception.pdb
- Microsoft.Practices.Unity.pdb
- Microsoft.ReportViewer.Common.dll
- Microsoft.ReportViewer.WinForms.dll
- Microsoft.ReportViewer.WinForms.xml
- Newtonsoft.Json.dll
- Newtonsoft.Json.xml
- Ninject.dll
- Ninject.Web.Common.dll
- Ninject.Web.Common.xml
- Ninject.xml
- O2S.Components.PDFRender4NET.dll
- PDFToImages.exe
- rRISServices.exe
- rRISServices.pdb
- rRISServicesx64.exe
- ScheduledTaskManager.dll
- ScheduledTaskManager.pdb
- ServicesConfigWizard.exe
- ServicesConfigWizard.pdb
- SignatureApprovalService.exe
- SignatureApprovalService.pdb
- System.Net.Http.dll
- System.Net.Http.Formatting.dll
- System.Net.Http.Formatting.xml
- System.Net.Http.WebRequest.dll
- System.Net.Http.WebRequest.xml
- System.Net.Http.xml
- System.Web.dll
- System.Web.Helpers.dll
- System.Web.Helpers.xml
- System.Web.Http.dll
- System.Web.Http.SelfHost.dll
- System.Web.Http.SelfHost.xml
- System.Web.Http.WebHost.dll
- System.Web.Http.WebHost.xml
- System.Web.Http.xml
- System.Web.Mvc.dll
- System.Web.Mvc.xml
- System.Web.Optimization.dll
- System.Web.Providers.dll
- System.Web.Razor.dll
- System.Web.Razor.xml
- System.Web.WebPages.Deployment.dll
- System.Web.WebPages.Deployment.xml
- System.Web.WebPages.dll
- System.Web.WebPages.Razor.dll
- System.Web.WebPages.Razor.xml
- System.Web.WebPages.xml
- Toureau.Gilles.FaxDotNet.dll
- Toureau.Gilles.FaxDotNet.pdb
- Toureau.Gilles.FaxDotNet.xml
- WCFService.dll
- WCFService.pdb
- WCFServiceTests.dll
- WCFServiceTests.pdb
- WebApi.dll
- WebApi.pdb
- Wedge.exe
- Wedge.pdb

eRAD RIS Server Update

The rRIS_Service_Updates also contains to subfolders:

- A. Deploy folder contains
 - a. Applicationsettings
 - b. ReleaseVersion-connectionstrings
 - c. rRISServices.exe
 - d. services

- B. XSL subfolder contains:
Subfolder titled “Stylesheets” which contains:
 - a. CDAToHTMLCompleteReport.xslt
 - b. CDAToHTMLImpressionSection.xslt
 - c. CDAToRIS.xslt
 - d. CDAToTxt.xslt
 - e. DocumentModelReport.xslt
 - f. DocumentModelReportAsXml.xslt

 - g. CCDA Subfolder contains
 - a. C-CDA.xsl
 - b. eRadStylesheet.xsl
 - c. generalTemplates.xsl
 - d. header.xsl
 - e. sectionAdministeredMedications.xsl
 - f. sectionAllergies.xsl
 - g. sectionEncounters.xsl
 - h. sectionFuncCogStatus.xsl
 - i. sectionImmunizations.xsl
 - j. sectionInstructions.xsl
 - k. sectionMedications.xsl
 - l. sectionPlanOfCare.xsl
 - m. sectionProblemList.xsl
 - n. sectionProcedures.xsl
 - o. sectionReasonForVisit.xsl
 - p. sectionResults.xsl
 - q. sectionSocialHistory.xsl
 - r. sectionVitalSigns.xsl

eRAD RIS Server Update

5. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

6. Who is affected

Build 42 installs. Server updates are not cumulative. This server update must be applied to 42.1.2

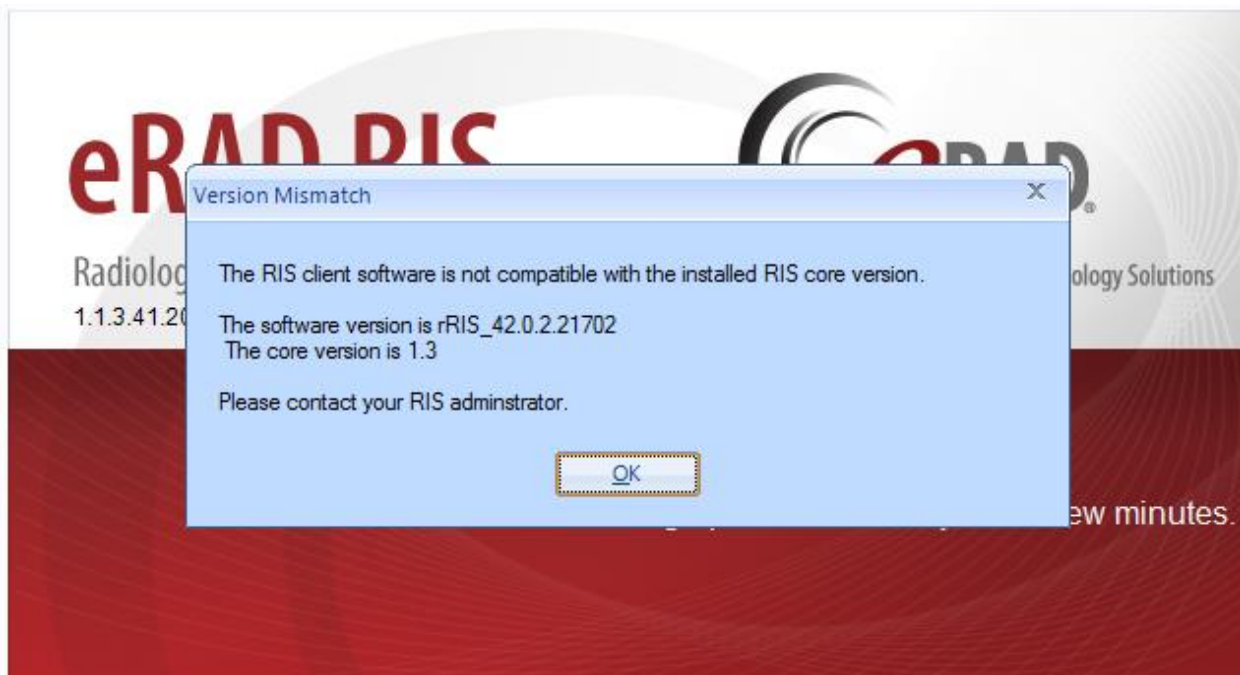
eRAD RIS Server Update

7. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
41.1	-	1.3.41.20918(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip, Core install, Web Service and DB updates, Help files
41.1	1	1.3.41.20987(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip
41.1	2	1.3.41.21162(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip, Web Service and DB updates,
41.1	3	1.3.41.21264(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
42	1	2.42.0.1.21597	2.42.0.0.21261	2.42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates
42	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates
42	3	2.42.0.2.21806	2.42.0.0.21261	2.42.0.2.21806	2.42.0.0.21187	GUI and Web Service updates
42	4	2.42.0.2.21862	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI and Database updates
42	5	2.42.0.5.21924	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI
42	6	2.42.0.5.22009	2.42.0.0.21261	2.42.0.5.22009	2.42.0.4.21870	GUI and Web Service updates
42	7	2.42.0.7.22090	2.42.0.0.21261	2.42.0.6.22009	2.42.0.4.21870	GUI.zip updates
42	8	2.42.0.7.22090	2.42.0.7.22150	2.42.0.6.22009	2.42.0.4.21870	Web Service updates
42	9	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI and Web Service updates
42	9.1	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	Web Service updates
42	10	2.42.0.10.22232	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip
42	10.1	2.42.0.10.22420	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip updates
42	11	2.42.0.11.22495a	2.42.0.0.21261	2.42.0.11.22471	2.42.0.11.22527	GUI.zip, Web Service, Database updates. Management Report Deployment
42	12	2.42.0.12.22982	2.42.0.0.21261	2.42.0.12.22982	2.42.0.12.22911	GUI.zip, Web Service, Database updates.
42.1	-	2.42.1.0.22744(3GB)	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.2296(3GB)	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates
42.1	2	2.42.1.2.23007(3GB)	2.42.0.0.21261	2.42.1.2.23007	2.42.1.2.23007	GUI.zip, Web Service, DB updates
42.1	3	2.42.1.2.23237(3GB)	2.42.0.0.21261	2.42.1.2.23237	2.42.1.2.23007	GUI.zip, Web Services
42.1	4	2.42.1.4.23348(3GB)	2.42.0.0.21261	2.42.1.4.23348	2.42.1.2.23007	GUI.zip, Web Services

8. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.42.1.4.23338.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_42.1.4.23348 → rRIS_1.3.42.1.4.23348. NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

- 2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

Server Update

For eRAD RIS
Version 2.0
Build 42
Update 42.1.5

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eRAD RIS Server Update

1. Defects Resolved

Redmine #	Subject	Priority
6956	CD Import - PACS Send fails due to compression	High
6921	Reporting - insert report template with automacros will remove the technique section	High
6950	User Preference - "Write Powerscribe 360 XML file when opening a study" and "Drop eRAD RIS study data XML file when opening study" - the xml files are not updated when skipping thru studies.	Normal
6936	Cross site prompt at registration is occurring when the studies as scheduled at different modalites	Normal
6925	Reporting - create template from when the current template has automacros will raise an exception	Normal
6928	Reporting - apply style formatting to automacro inserted text will break create template from	Low

eRAD RIS Server Update

2. Changes to Configuration

The following configuration changes were corrected\included in 42.1.4

We had noticed that there were some settings missing from the standard ris.exe.config file that is supplied with the GUI.zip file. The following settings had been introduced in previous builds, but now reside in the file. Settings starting with <! -- are commented out. These settings are located in the <appsettings> section of the ris.exe.config file. Please do a compare with your current one.

```
<add key="ShouldCloseViewSessionOnThread" value="true"/>
<add key="LookupTableTimeToLiveInMinutes" value="60"/>
<add key="EnableHighPriorityLookupStrategy" value="true"/>
<!--<add key="RowLevelCacheDataSetNamesCSV"
value="ProcedureCode,TemplateMacro,Indication"/> -->
<!-- <add key="MModalDataTransferValue" value="0"/> -->
```

A configuration change to the ris.exe.config file was introduced in build 2.42 this setting was designed to lessen the delays when retrieving lookup tables that are larger in size. This config setting, as mentioned, is located in the ris.exe.config file located in the <appSettings> section of the file

This setting is:

```
<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/>
```

Where the value can be any lookup table, and a value="*" will retrieve all lookups.

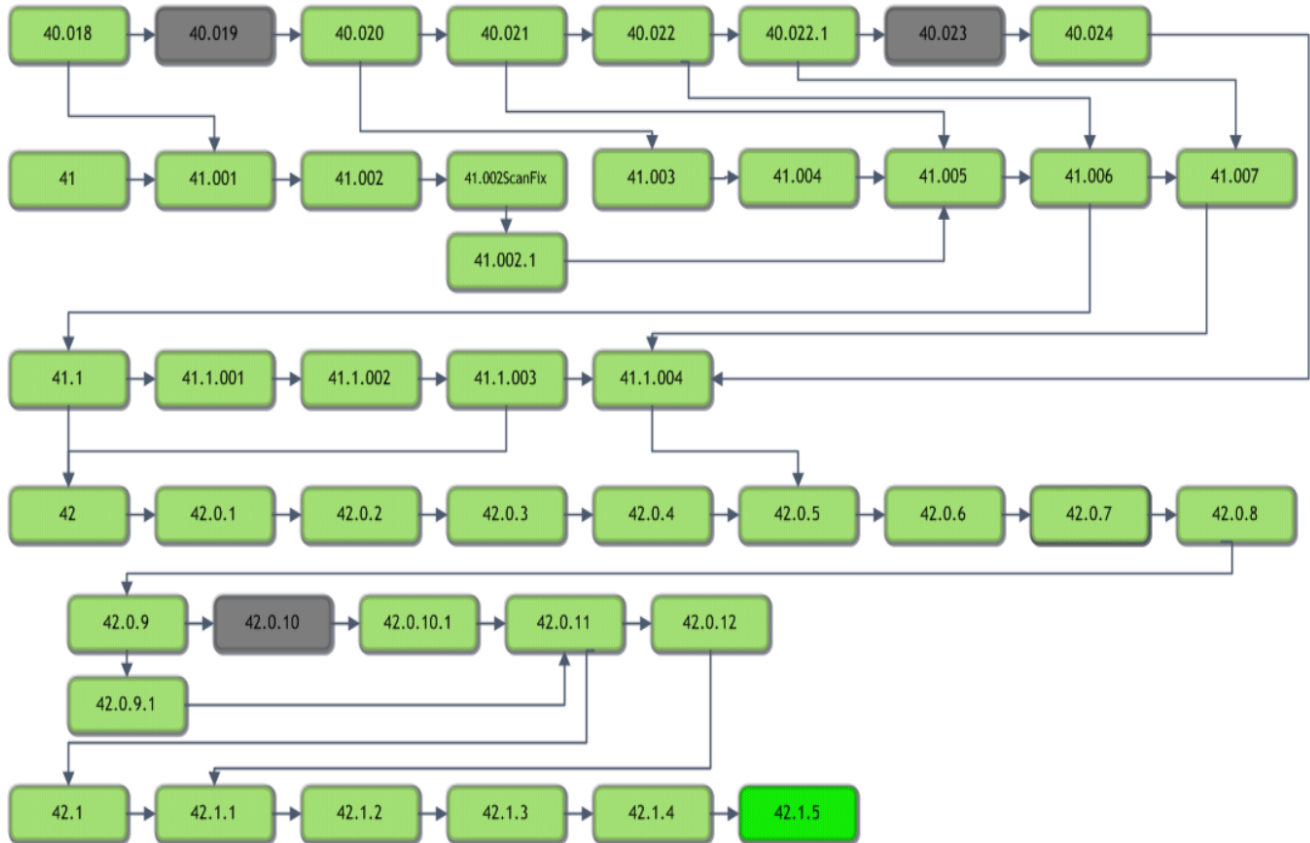
The setting has resulted in undesired results of possible slowness, depending on the lookup table, and possibly additional bugs. Because of this, we are requesting that all sites comment out this line in the ris.exe.config table. The commented line will look like

```
<!--<add key="RowLevelCacheDataSetNamesCSV" value="ProcedureCode,TemplateMacro,Indication"/> -->
```

eRAD RIS Server Update

3. Code Stream

eRAD RIS - Source Code Evolution



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

4. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:

- rRIS_1.3.42.1.5.23406.zip

2) RIS_Service_Updates contains:

- ABCpdf.dll
- ABCpdf9-32.dll
- ABCpdf9-64.dll
- CDSJobManager.dll
- CDSJobManager.pdb
- CdsLib.dll
- CdsLib.xml
- CdsLib.XmlSerializers.dll
- CommonLib.dll
- CommonLib.pdb
- DDEngine.dll
- DDEngine.pdb
- Interop.ANYMODALCAPTURECTRLLib.dll
- Interop.FAXCOMEXLib.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.pdb
- Microsoft.Practices.EnterpriseLibrary.Common.dll
- Microsoft.Practices.EnterpriseLibrary.Common.pdb
- Microsoft.Practices.EnterpriseLibrary.Logging.dll
- Microsoft.Practices.EnterpriseLibrary.Logging.pdb
- Microsoft.Practices.ServiceLocation.dll
- Microsoft.Practices.ServiceLocation.pdb
- Microsoft.Practices.Unity.dll
- Microsoft.Practices.Unity.Interception.dll
- Microsoft.Practices.Unity.Interception.pdb
- Microsoft.Practices.Unity.pdb
- Microsoft.ReportViewer.Common.dll
- Microsoft.ReportViewer.WinForms.dll
- Microsoft.ReportViewer.WinForms.xml
- Newtonsoft.Json.dll
- Newtonsoft.Json.xml
- Ninject.dll
- Ninject.Web.Common.dll
- Ninject.Web.Common.xml
- Ninject.xml
- O2S.Components.PDFRender4NET.dll
- PDFToImages.exe
- rRISServices.exe
- rRISServices.pdb
- rRISServicesx64.exe
- ScheduledTaskManager.dll
- ScheduledTaskManager.pdb
- ServicesConfigWizard.exe
- ServicesConfigWizard.pdb
- SignatureApprovalService.exe
- SignatureApprovalService.pdb
- System.Net.Http.dll
- System.Net.Http.Formatting.dll
- System.Net.Http.Formatting.xml
- System.Net.Http.WebRequest.dll
- System.Net.Http.WebRequest.xml
- System.Net.Http.xml
- System.Web.dll
- System.Web.Helpers.dll
- System.Web.Helpers.xml
- System.Web.Http.dll
- System.Web.Http.SelfHost.dll
- System.Web.Http.SelfHost.xml
- System.Web.Http.WebHost.dll
- System.Web.Http.WebHost.xml
- System.Web.Http.xml
- System.Web.Mvc.dll
- System.Web.Mvc.xml
- System.Web.Optimization.dll
- System.Web.Providers.dll
- System.Web.Razor.dll
- System.Web.Razor.xml
- System.Web.WebPages.Deployment.dll
- System.Web.WebPages.Deployment.xml
- System.Web.WebPages.dll
- System.Web.WebPages.Razor.dll
- System.Web.WebPages.Razor.xml
- System.Web.WebPages.xml
- Toureau.Gilles.FaxDotNet.dll
- Toureau.Gilles.FaxDotNet.pdb
- Toureau.Gilles.FaxDotNet.xml
- WCFService.dll
- WCFService.pdb
- WCFServiceTests.dll
- WCFServiceTests.pdb
- WebApi.dll
- WebApi.pdb
- Wedge.exe
- Wedge.pdb

eRAD RIS Server Update

The rRIS_Service_Updates also contains to subfolders:

- A. Deploy folder contains
 - a. Applicationsettings
 - b. ReleaseVersion-connectionstrings
 - c. rRISServices.exe
 - d. services

- B. XSL subfolder contains:
Subfolder titled “Stylesheets” which contains:
 - a. CDAToHTMLCompleteReport.xslt
 - b. CDAToHTMLImpressionSection.xslt
 - c. CDAToRIS.xslt
 - d. CDAToTxt.xslt
 - e. DocumentModelReport.xslt
 - f. DocumentModelReportAsXml.xslt

 - g. CCDA Subfolder contains
 - a. C-CDA.xsl
 - b. eRadStylesheet.xsl
 - c. generalTemplates.xsl
 - d. header.xsl
 - e. sectionAdministeredMedications.xsl
 - f. sectionAllergies.xsl
 - g. sectionEncounters.xsl
 - h. sectionFuncCogStatus.xsl
 - i. sectionImmunizations.xsl
 - j. sectionInstructions.xsl
 - k. sectionMedications.xsl
 - l. sectionPlanOfCare.xsl
 - m. sectionProblemList.xsl
 - n. sectionProcedures.xsl
 - o. sectionReasonForVisit.xsl
 - p. sectionResults.xsl
 - q. sectionSocialHistory.xsl
 - r. sectionVitalSigns.xsl

eRAD RIS Server Update

5. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

6. Who is affected

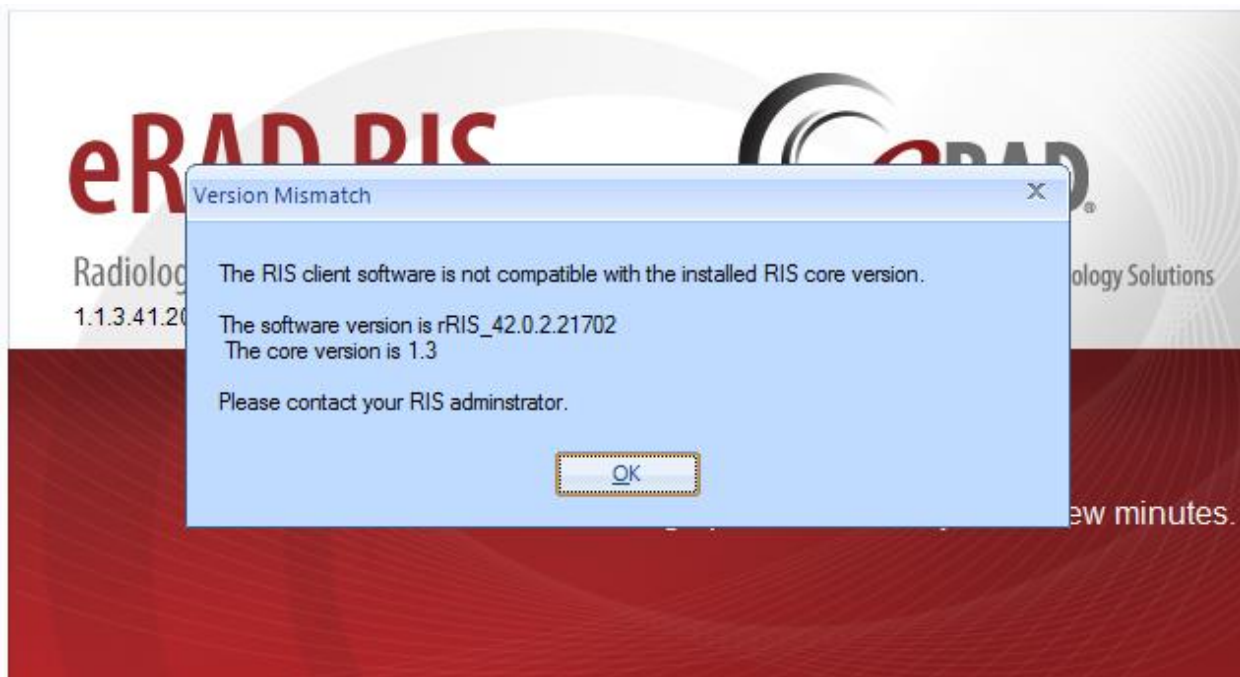
Build 42 installs. Server updates are not cumulative. This server update must be applied to 42.1.2

7. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
41.1	-	1.3.41.20918(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip, Core install, Web Service and DB updates, Help files
41.1	1	1.3.41.20987(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip
41.1	2	1.3.41.21162(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip, Web Service and DB updates,
41.1	3	1.3.41.21264(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
42	1	2.42.0.1.21597	2.42.0.0.21261	2.42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates
42	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates
42	3	2.42.0.2.21806	2.42.0.0.21261	2.42.0.2.21806	2.42.0.0.21187	GUI and Web Service updates
42	4	2.42.0.2.21862	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI and Database updates
42	5	2.42.0.5.21924	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI
42	6	2.42.0.5.22009	2.42.0.0.21261	2.42.0.5.22009	2.42.0.4.21870	GUI and Web Service updates
42	7	2.42.0.7.22090	2.42.0.0.21261	2.42.0.6.22009	2.42.0.4.21870	GUI.zip updates
42	8	2.42.0.7.22090	2.42.0.7.22150	2.42.0.6.22009	2.42.0.4.21870	Web Service updates
42	9	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI and Web Service updates
42	9.1	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	Web Service updates
42	10	2.42.0.10.22232	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip
42	10.1	2.42.0.10.22420	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip updates
42	11	2.42.0.11.22495a	2.42.0.0.21261	2.42.0.11.22471	2.42.0.11.22527	GUI.zip, Web Service, Database updates. Management Report Deployment
42	12	2.42.0.12.22982	2.42.0.0.21261	2.42.0.12.22982	2.42.0.12.22911	GUI.zip, Web Service, Database updates.
42.1	-	2.42.1.0.22744(3GB)	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.2296(3GB)	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates
42.1	2	2.42.1.2.23007(3GB)	2.42.0.0.21261	2.42.1.2.23007	2.42.1.2.23007	GUI.zip, Web Service, DB updates
42.1	3	2.42.1.2.23237(3GB)	2.42.0.0.21261	2.42.1.2.23237	2.42.1.2.23007	GUI.zip, Web Services
42.1	4	2.42.1.4.23348(3GB)	2.42.0.0.21261	2.42.1.4.23348	2.42.1.2.23007	GUI.zip, Web Services
42.1	5	2.42.1.5.23406(3GB)	2.42.0.0.21261	2.42.1.5.23406	2.42.1.2.23007	GUI.zip, Web Services

8. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.42.1.5.23406.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_42.1.5.23406 → rRIS_1.3.42.1.5.23406. NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

- 2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

User Release Notes

for eRAD RIS
Version 2
Build 42

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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 42 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.42.

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 2.42 is considered a new core release of the application and will require a reinstallation of eRAD RIS. 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. New Access Strings and Configuration Settings

Setting Placeholder	Setting	Default	Purpose / Controls Access to
Access string / User Group Permission tables	Clinical.PreviewPreliminaryReport	None	Controls access to preview, print and faxing of unsigned (preliminary) reports
Access string / User Group Permission tables	Clinical.ResolveRadProblem	Full	Controls access to the Resolve Problem window for Transcription users from the All Problem WL
Access string / User Group Permission tables	Clinical.UserPreferences.PACSServerOverride	Disabled	Controls access to the User Preference PACS Server on the Integration tab.
Access string / User Group Permission tables	Clinical.ShowRVUs	None	Controls Access to see the RVUs on the chair selector report
SystemConfig lookup	MRNPrefix		Value entered will be prefixed new MRN's created
SystemConfig lookup	MRNSuffix		Value entered will be appended to new MRN's created
SystemConfig lookup	AccessionPrefix		Value entered will be prefixed to new accession numbers
SystemConfig lookup	AccessionSuffix		Value entered will be appended to new accession numbers
SystemConfig lookup	PrivacyMessageText		Value entered will be displayed on a locked eRAD RIS login window
SystemConfig lookup	CPOELabTestCode	Pathology	Value of the Lab Test code that will be created when a procedure with the CPOE Pathology Flag = Y is signed

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SystemConfig lookup	MUMedlinePlusConnectDebug	N	(value = Y/N) Adds prompt to UI for reviewing MedlinePlusConnect xml messages.
SystemConfig lookup	MUMedlinePlusConnectEnabled	N	(value = Y/N) Enable MedlinePlus Connect MU feature.
SystemConfig lookup	MUMedlinePlusConnectBaseUr1	http://apps.nlm.nih.gov/medlineplus/services/mpconnect_service.cfm	(value = string) MedlinePlus Connect Base URL.
SystemConfig lookup	MUMedlinePlusConnectDrugSearch	mainSearchCriteria.v.cs=2.16.840.1.113883.6.88	(value = string) MedlinePlus Connect Drug RXCUI search specification.
SystemConfig lookup	MUMedlinePlusConnectLabSearch	mainSearchCriteria.v.cs=2.16.840.1.113883.6.1	(value = string) MedlinePlus Connect Lab LOINC search specification.
SystemConfig lookup	MUMedlinePlusConnectProblemSearch	mainSearchCriteria.v.cs=2.16.840.1.113883.6.103	(value = string) MedlinePlus Connect Problem ICD-9-CM search specification.
Ris.exe.config Added in 41.1	MModalDataTransferValue	None	Override the user preference for M*Modal's Data Transfer. See feature Reporting – Ability to Configure MModal Transfer Task in this document for more details

5. New Features and Enhancements

Reporting – Laterality Check when Transcribing Reports

Previous to build 42 the laterality check was performed when signing and verifying reports. Now this option is available in the transcription workflow as well.

As with the radiologist role, the user preference of “Laterality Check” must be selected to enable the feature for transcription users.

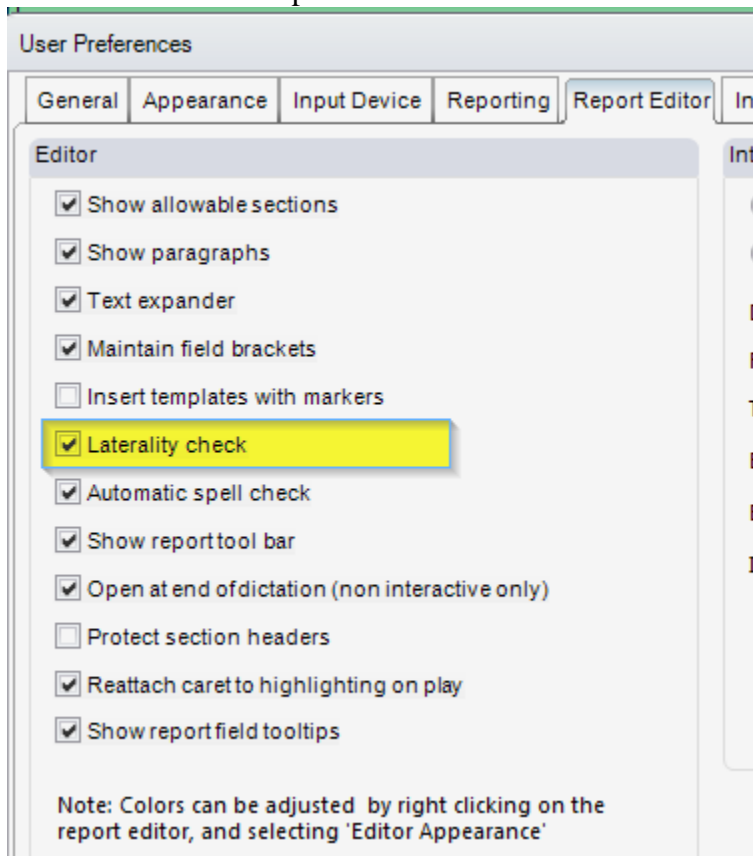


Figure 5.1 – Laterality check user preference for transcription now as well!

If the procedure being reported on has laterality and the report has conflicting left or right the transcriptionist will be presented with a pop up message and the literalities in the report will be highlighted.

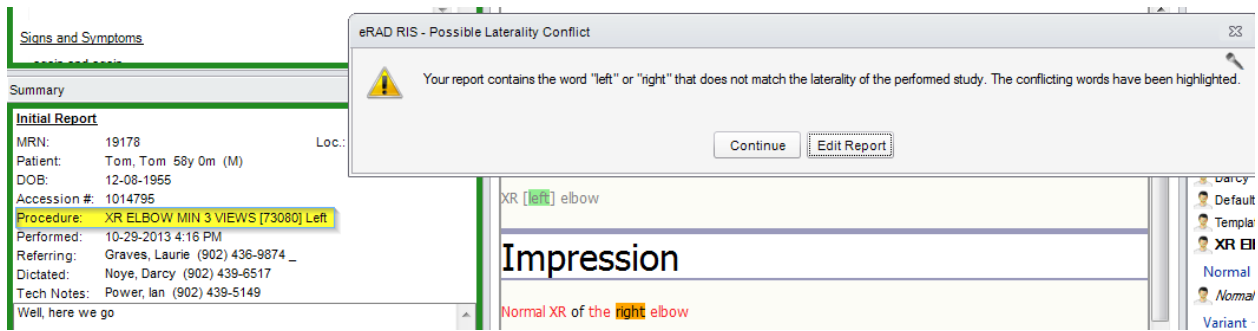


Figure 5.2 – Message presented when conflicting laterality is detected.

The user has the option to “Continue” if they believe the conflict is not valid, example the words left or right are detected in the report but are used in different context not related to the procedures laterality. The other option is “Edit Report”, selecting this button with return the user to the editor window allowing them to make needed corrections if the conflict is related to the procedure laterality.

Reporting – Laterality added to Patient Folder

The patient folder data pane that is available in the reporting windows now has the Laterality column added to its list of columns. In the screenshot below the procedure column may also have the laterality listed, but it was requested that a column specific to laterality also be added due to the fact that the entire procedure name may not be completely in view.

Anchor icon | Anchikowski, Kelly | 04-25-1969 (44y 7m) | Female | #12296 | XR Ankle 2 Views, Bilat | 12-13-2013 12:00 AM | @1015122PE

Patient Folder							
pared	Flags	Nuggets	Status	Procedures	Scheduled Date	Laterality	Accession #
			Exam Done...	US Breast Uni Or Bil [76645] - Breast	06-23-2009 10:53 AM		1014993
			Cancelled	US Breast Uni Or Bil [76645] - Breast - Bilateral	05-19-2014 7:45 AM	bilateral	1014947
			Scheduled	US Breast Uni Or Bil [76645] - Breast - Bilateral	05-19-2014 7:45 AM	bilateral	1014949
			Signed	US Breast Uni Or Bil [76645] - Breast - Bilateral	11-20-2013 1:00 PM	bilateral	1014946
			Signed	US Breast Uni Or Bil [76645] - Breast - Bilateral	11-20-2013 7:45 AM	bilateral	1014948
			Signed	US Breast Uni Or Bil [76645] - Breast - Bilateral	11-15-2013 1:20 PM	bilateral	1014931
			Exam Done	US Breast Uni Or Bil [76645] - Breast - Left	11-26-2013 11:30 AM	left	1014979
			Exam Done...	US zBREAST & MA DIGITAL MAMMO CB DIAG BI [...]	03-13-2012 9:54 AM	bilateral	1010534
			Exam Done	XR Ankle 2 Views, Bilat [RD37] - Ankle joint - Bilateral	12-13-2013 10:43 AM	bilateral	1015122PE
			Scheduled	XR ANKLE MIN 3 VIEWS [73610] - Ankle joint - Left	03-23-2012 10:16 AM	left	1010538
			External Re...	XR Elbow 2 Views [73070] - Elbow - Bilateral	11-26-2013 2:00 PM	bilateral	1014980
			Cancelled	XR Elbow 2 Views [73070] - Elbow - Bilateral	12-11-2012 5:30 PM	bilateral	1012414

Figure 5.3 – Laterality column added to the patient folder of the reporting windows.

It should be noted that it is the Laterality description text that is being used from the Laterality lookup table and not the Laterality Code.

Reporting – MT Edit Text Color

Previous to build 42, Interactive Dictation users had the option to set color preference for edits made from the All Signed Pending QA worklist by setting the QA Edit Text color option. If the job was submitted (not signed) to transcription, any edits performed could not be colored in the same way as when edited via QA workflow.

We have added another option to the Editor Appearance window for possible edits made in transcription.

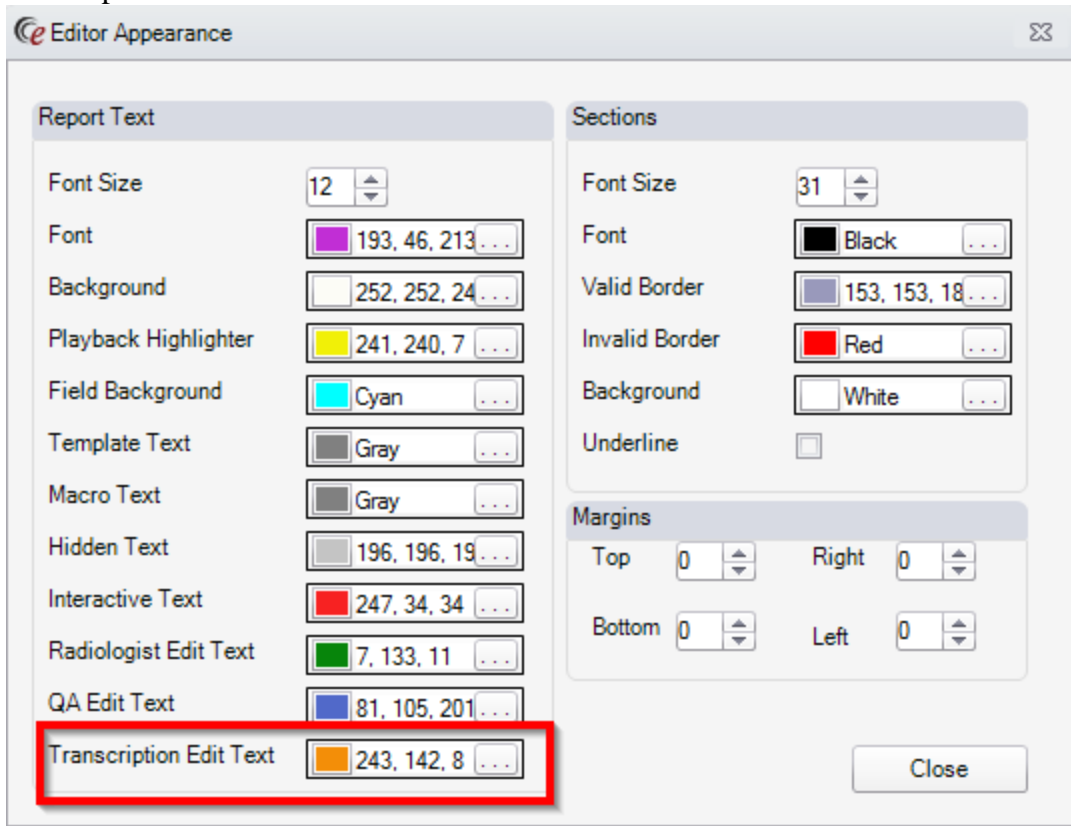


Figure 5.4 – Transcription Edit Text color option in Editor Appearance window.

This text color option is titled Transcription Edit Text and has a default value of black.

Reporting – Available Speechmike Buttons for Mapped Commands and Input Device Redesigned and New Button Options

The Speechmike now has additional buttons that can be mapped to use commands within the reporting windows. The buttons for “Play, Record, and INS/OVR” have been added. In addition the layout of the Input Device tab has been changed to be more intuitive with the layout of the Speechmike.

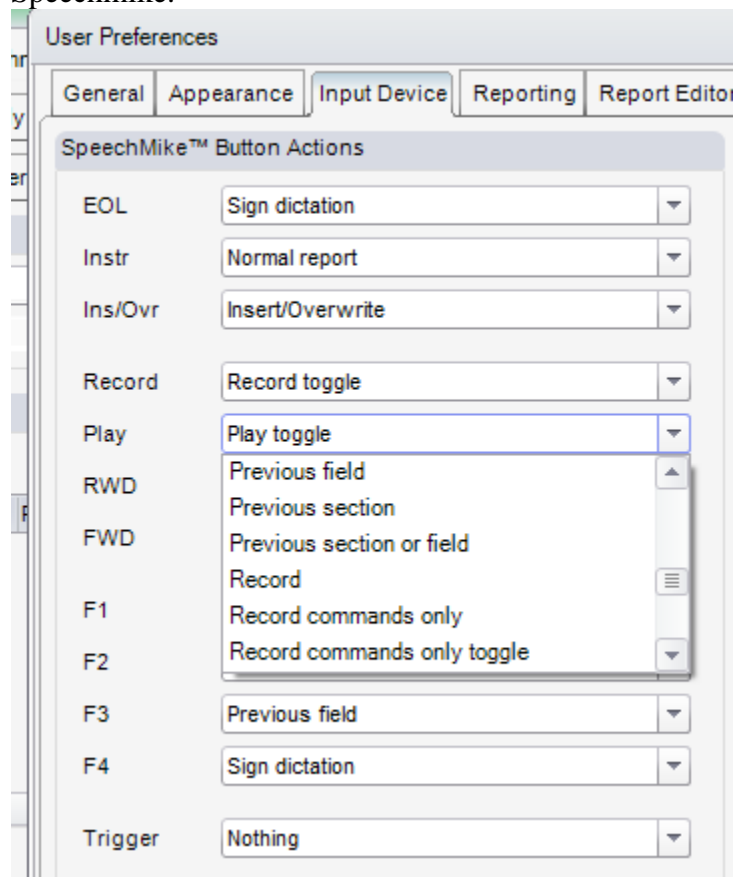


Figure 5.5 – Input tab additions and redesign

To accommodate the potential re-mapping of the play, record and Insert/Overwrite buttons their actions have also been added for use with other buttons.

Additional new commands added are:

Play – Enables play function to the assigned button

Play toggle – Start and stops play function with press/release of assigned button. This replaces the User Preference “Stop playback with button is released”

Record – Enable record function to the assigned button

Record toggle – Starts and stops record function with press/release of assigned button. This replaces the User Preference “Stop recording when button is released”

Record commands only – allow the user to issue commands without dictating in the report. This can make editing reports easier and increases voice command recognition.

Record commands only toggle – Same function as Record commands only with this command the function starts and stops with the button press/release

Insert/Overwrite – Enables insert/overwrite function to assigned button

Cap that - The first letter of each word in the selected range of text is capitalized.

Example:  results in 

Reporting – New Voice Commands for Reporting Windows

Newly added voice commands added in build 42 are:

Submit report – voice command will perform submit button click

Suspend report – voice command will perform suspend button click

Close report / Skip report – voice command will perform the skip/close button click. Invokes the button click and will use the current assigned button click

Cap that – voice command that will capitalize the first letter of each word in the selected range of text.

New line - Now when dictating “new line” you get a new line and “new paragraph” will result in a new paragraph.

Redo that – If text is removed from report while dictating using undo that voice command or select a range of text and delete/overwrite selection, or by way of Speechmike button such as undo or delete word left of cursor, issuing the redo that command will reverse the change.

Reporting – Voice Enabled Message Boxes

We added, to our base message box class, the ability to interact with the buttons on a given message box. Now when a message box is presented we load into our voice command options the following for each button.

Value - This is the value in code for the button. Most often it may equal the text but some instances it may not. For example a button that says “Close without saving” may have a value of “OK” or “Yes”. Overtime a user will get accustomed to which command is more fluid for them.

Text - This is the visible text seen on the button. So a button that shows “Close without saving” will have a voice command of “Close without saving”

Button # - This position the button shows on the message box starting with the number one. So a message box with “YES” and “NO” would have voice commands of “button one” and “button two”.

Option # - This position the button shows on the message box starting with the number one. So a message box with “YES” and “NO” would have voice commands of “option one” and “option two”.

We also added a new icon to the message boxes to indicate they are voice enabled. This icon should show only for radiologists. Even batch users can interact with message boxes via voice command. This new icon has a tooltip that displays the voice command options to invoke each button.

There are some dialog boxes that are not voice enabled. The whole application is not at that state yet.

Spell check, mic wizard, dictionary and user preferences to name a few. Goal of this item was to get most common message boxes.

The image below shows the new icon and tooltip options.

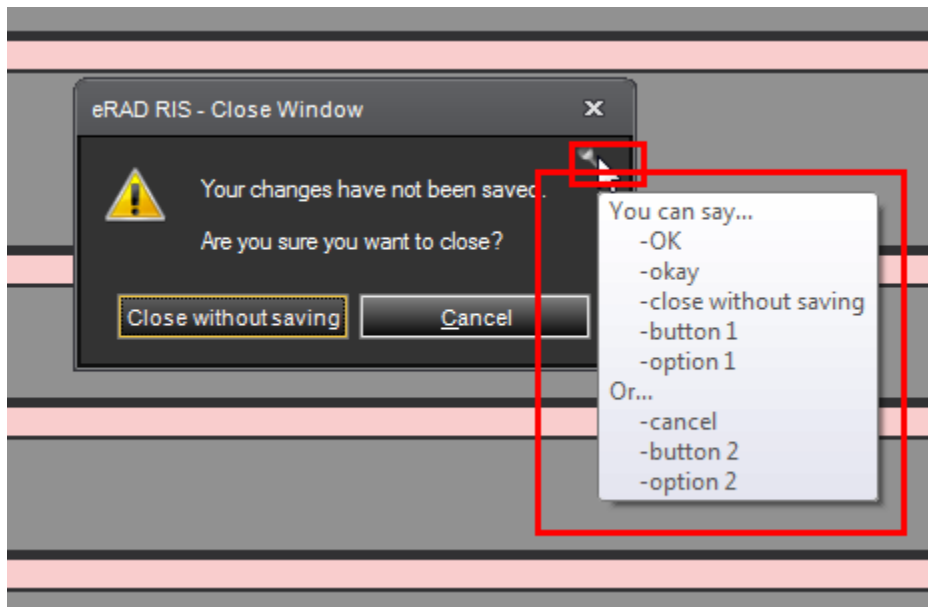


Figure 5.6 – Voice enabled message boxes displaying available command options

Reporting – Support Tracking of Magnet Strength

To start the magnet strength column has been added to the Modality lookup table. The column has a max character length of 10.

Modalities:							
Modality Code	Description	AE title	Digital	Site Code	Magnet Strength	Modality Type Co	
Contai... mr	Contains:	Contains:	Contains:	Contains:	Contains:	contains:	
MR1FH	MR1FH	MR1FH	N	FH (Fisher)	1.5	IR (MRI)	
MR1EL	MR1EL	MR1EL	N	EL (Eldersburg)	3.0	IR (MRI)	

Figure 5.7 – Magnet Strength column added to Modality lookup table.

To have this value added to the template or macro a new custom field is now available in the Template/Macro editor.

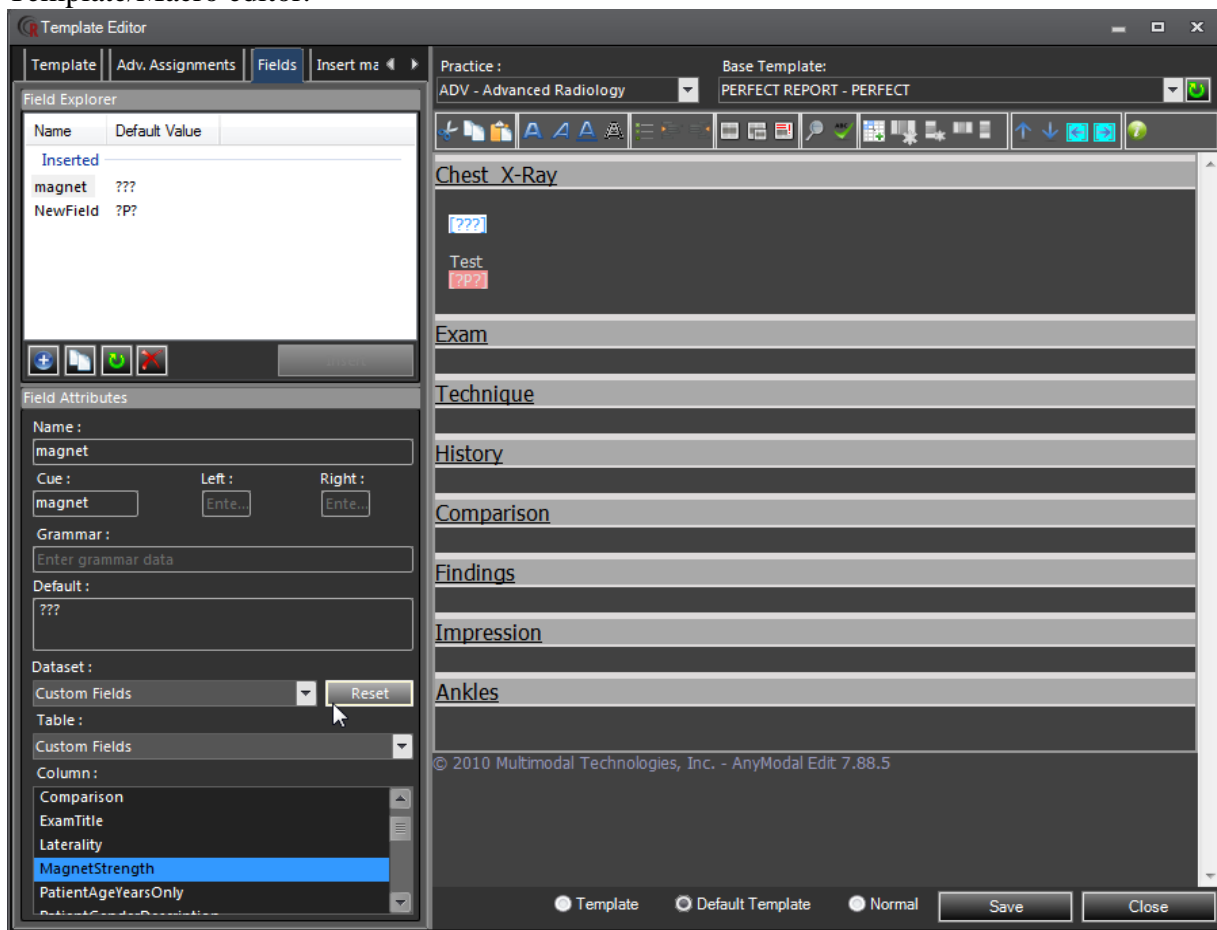


Figure 5.8 – MagnetStrength added as a custom field

Reporting – Talked to Doctor Macro

Additional custom fields have been added to aid users in creating a “Talked to Doctor Macro”. Below are the custom fields and examples of values for each field

TimeStamp12 – 6:30pm

TimeStamp24 – 18:30

Today – 08-13-2013

ReferringShort – Dr. Last

ReferringLong – Dr. First Last

In the Macro editor these custom fields can be used to create a the “Talked to Doctor Macro”.

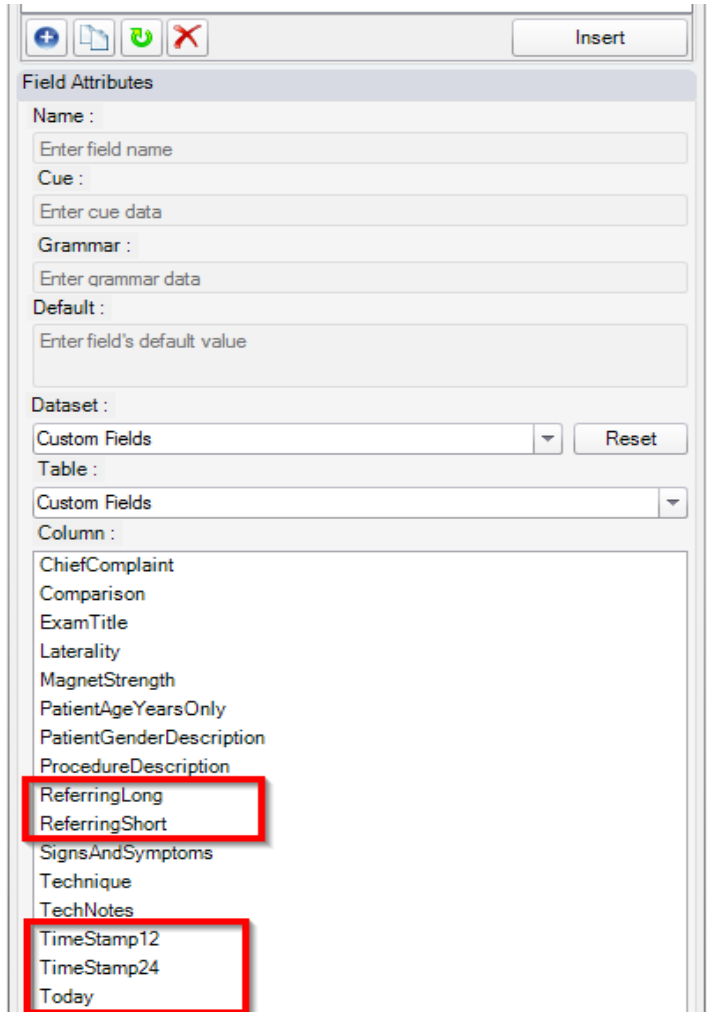


Figure 5.9 – New custom fields to support talked to doctor macro

The results will look something like this



Spoke with referring doctor [Dr. Laurie Graves] on [12-18-2013] at [3:57 PM]

Figure 5.10 – Talked to Doctor macro used in template

Reporting – No Wait Insert Macro

We have altered how we handle our ‘insert macro’ commands. You can now dictate and insert a macro without pausing. Once the macro is inserted a ‘beep’ (existing) will sound indicating dictation can progress. Users **MUST** wait for the macro to insert because there may be fields within the macro that direct report creation.

Reporting – No Wait Undo/Redo that Voice Commands

Currently there is no option for “redo that” voice command. Also when using the “undo that” command it rarely is recognized on the initial attempt. It will render things like “underline” or “undo that” as text. We need “undo that” and “redo that” to work well without pausing or rendering the text into the editor.

Added in build 42 is the “Redo that” voice command. Also, we now have a concept of adding word to the recognizer and lowering the cost of these words. Think of it as increasing the possibility that these words will be spoken – resulting in better recognition of these particular words.

We now have “undo that” and “undo last” added in this category. These commands existed previously but are not low cost.

We added a completely new voice command(s) “redo that” and “redo last” which will undo the undo command.

Reporting – Load Audio when Signing Reports

Using a user preference to enable and disable automatic loading of audio when signing. The user preference is “**Load audio in sign mode**”. This can be accessed in the workflow section of the reporting tab in the user preferences window.

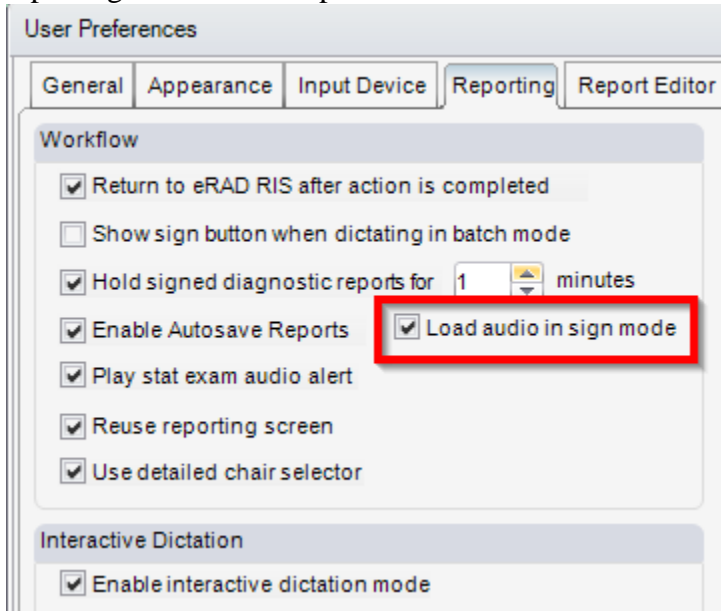


Figure 5.11 – User preference Load audio in sign mode

Reporting – Make STAT Audible Alert Configurable

A new user preference has been added to the Reporting tab / Workflow section titled “**Play stat exam audio alert**”. When selected it will work like it has in the past by informing the user when opening the study in reporting window that it is a STAT exam. When unselected the user will not be presenting with the audible message.

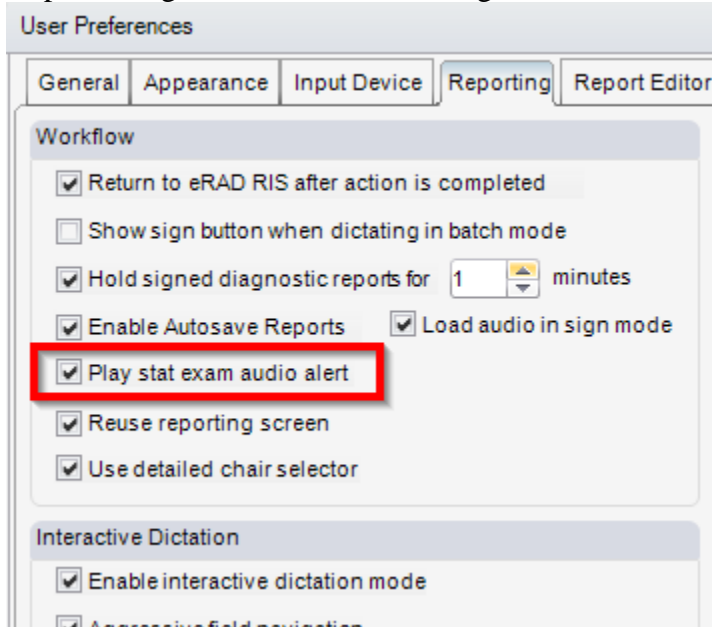


Figure 5.12 – Play stat exam audio alert User Preference

Reporting – Displaying Report Field Tooltips Configurable

Yet another user preference has been added to enable/disable the field tooltips from displaying in the reporting editor. The user preference titled “**Show report field tooltips**” has been added the Report Editor tabs Editor Section.

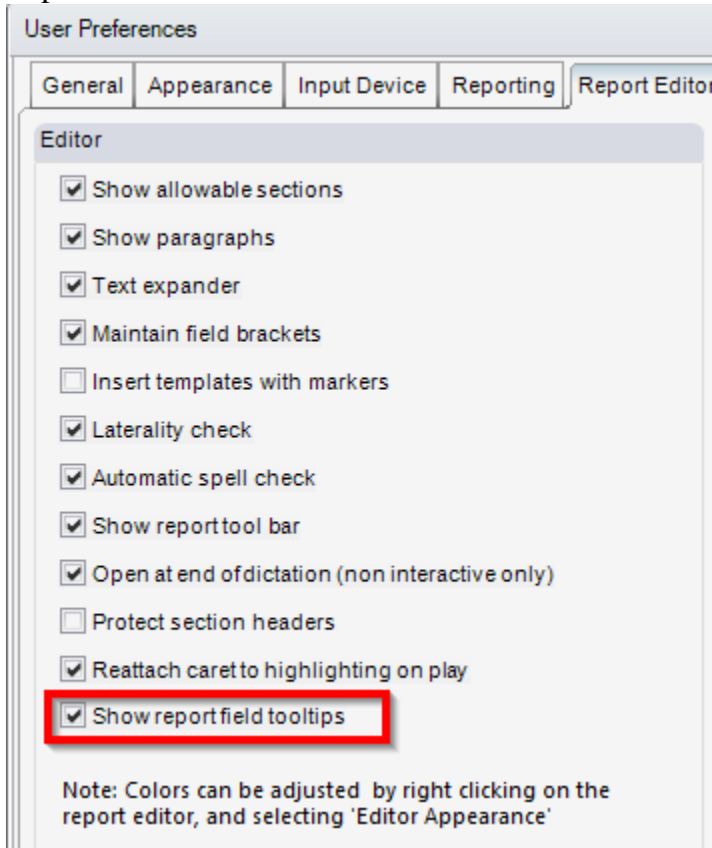


Figure 5.13 – User preference Show report field tooltips

Reporting – Load Dictation Layout in Supervised Radiologist Workflow

In addition to new option in the Sign Report window to load images and patient folder (next feature in this document) we have also added a new user preference that will automatically load the Dictation layout when performing final signature during Supervising Radiologist workflow. The new user preference titled **“Use dictation layout when final signing supervised reports”** will automatically load the users Dictation layout instead of the

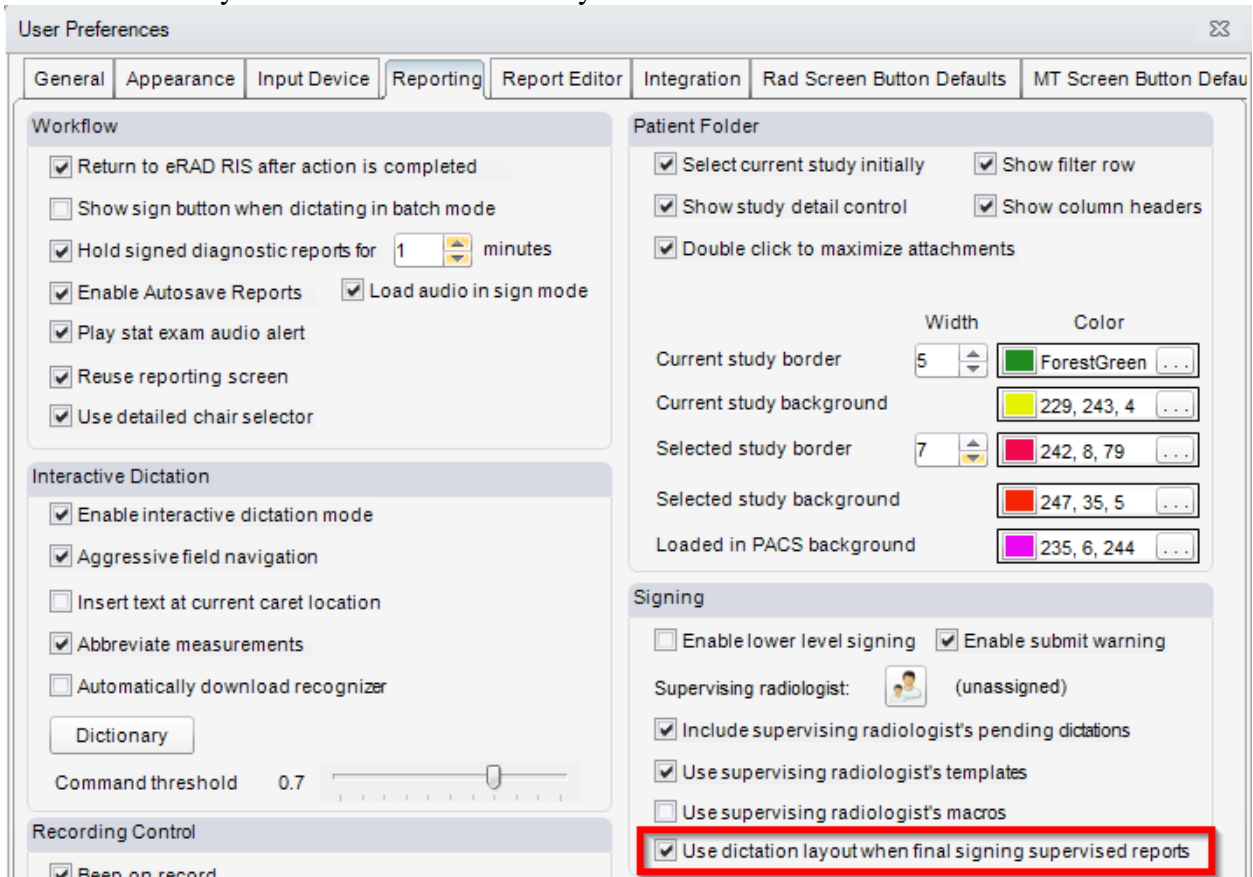


Figure 5.14 – User preference Use dictation layout when final signing supervised reports

Reporting – Open Patient Folder/Images when Signing

Users currently have two main layouts. Either they are signing or dictating. Reason for this is that most signing tasks don't require the full patient folder detail, pacs images or dictation. So the signing layout is typically much smaller or less detailed than the dictation layout.

Users on occasion do want to display the Patient Folder and other detail similar to dictation when signing reports.

We now provide the user ability to load the dictation layout (patient folder) when signing reports. This is a manual click to load the dictating (patient folder) layout.

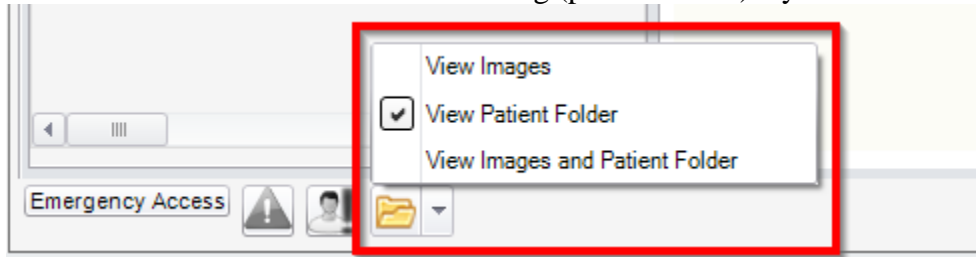


Figure 5.15 – Signing mode layout options

In the example above you can see that the Load Images button has been converted to be a split button with the additional options for “View Patient Folder” and “View Images and Patient Folder” with the “View Patient Folder” currently set as the default. This new dropdown button acts like other dropdown buttons for the reporting screen. Click the arrow to open other options and select option as desired. Holding the CTRL+<option> will render it the default and save in your user preferences.

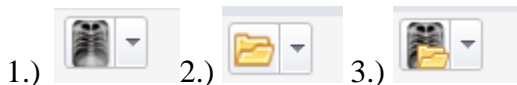


Figure 5.16 – Options available as default

The three images above show the icon when set as default action for 1.) View Images 2.) View Patient Folder 3.) View Images and Patient Folder

When the Sign Report window is reloaded with the next study either from the work list or from the Submit/Sign/Suspend/Skip and Continue option the users Signing Layout will be used. What this means is that it will load the dictation layout when clicking Load Patient Folder but it won't be sticky.

Reporting – Lock Access to Preliminary Reports

Unsigned reports can be previewed, printed and sent to distribution for faxing. To restrict users from distributing preliminary reports we have added a new access string titled

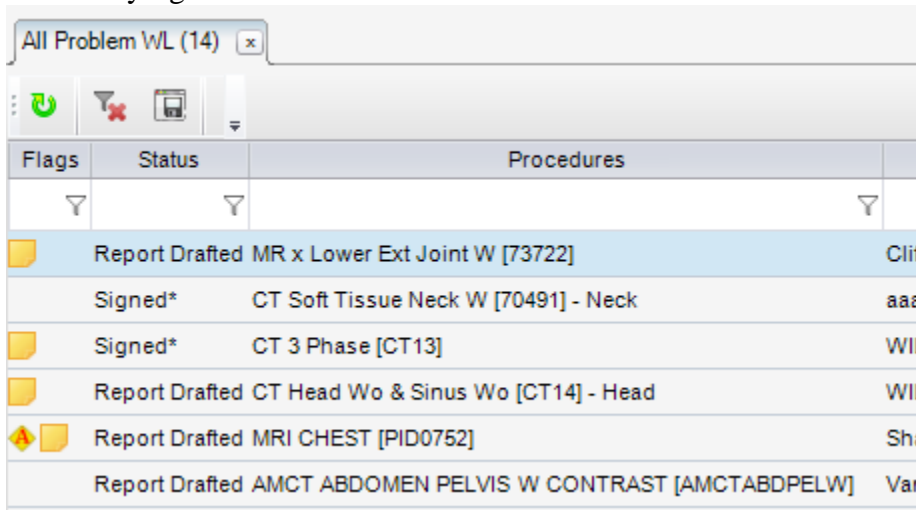
"Clinical.PreviewPreliminaryReport"

If the user does not have this access string set to full, they will not be able to preview, print or fax preliminary reports from context menu within the RIS.

Reporting – Set Problem Flag without Rejecting Report

In previous versions of eRAD RIS users would have to select the Reject/Edit button to enable the Assign to radio buttons. New in build 42 is the ability set the Problem flag without rejecting the report. Along with the Problem radio button, the Transcription list box and Notes fields are also enabled during QA verify report workflow.

Now the All Problem Worklist for MTs will show exams with problem flags set that are in TentativelySigned1 status.



Flags	Status	Procedures	

Figure 5.17 – All Problem WL showing studies in Tentatively Signed status

The Resolve problem window is now accessible in the MTs All Problem Worklist via the context menu. Please note this is dependent on the access string “**Clinical.ResolveRadProblem**”.

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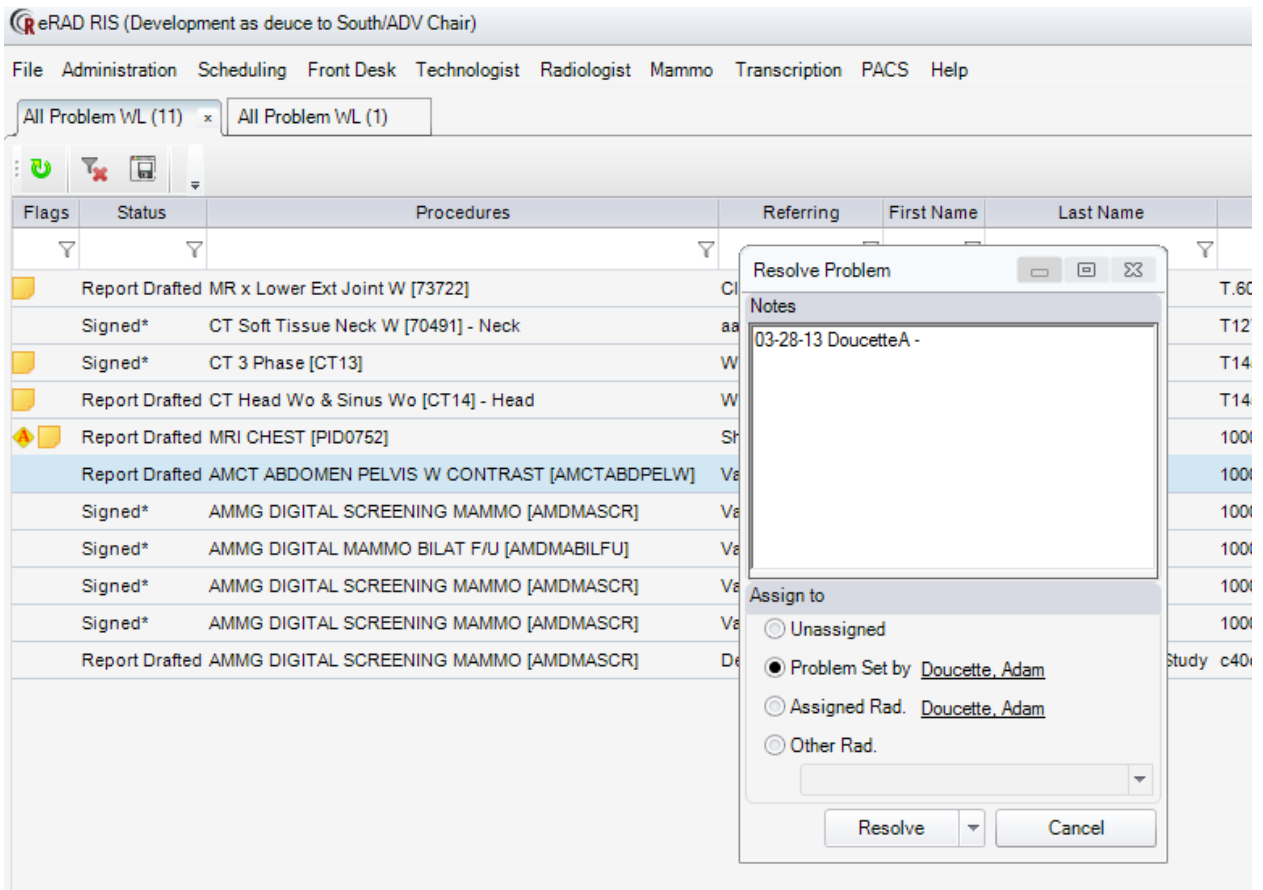


Figure 5.18 – Resolve Problem window accessible from All Problem WL

Reporting – Remove Content Tags from CDA when Creating Macros/Templates

eRAD RIS offers the ability for a user to copy an existing report as a template for future reports. This functionality is inhibited by the fact that the new template they create contains mm:status and mm:part that should be stripped out.

As a result of the mm:status and mm:part still contained in the template, some of the jumping problems we have encountered on play back were related to time stamps being saved in templates and macros at the time of save. To correct this we found we could manually remove the time stamps from the underlying document.

We are now using the convertCdsToCda method to remove the time stamps and unneeded tags.

Reporting – Ability to Configure MModal Transfer Task

The ris.exe.config now has an app setting to override the user preference for M*Modal's Data Transfer Config: **MModalDataTransferValue**

Acceptable values are any sum of the following options:

SUBMIT_TRAINING_INFO: Upload log of user interaction (including recorded audio) to server for profile building. Applicability: only for local recognition; ignored for remote recognition. constant value = **1**

SUBMIT_ERROR_LOGS: Whether to automatically submit an error report for debugging after an uncontrolled shutdown, or when encountering another non fatal error. Applicability: all modes; requires storage manager for crash log uploads (non-fatal error reports can be submitted without). constant value = **2**

STORE_USER_SETTINGS: If set, store user preferences (including audio gain etc) on CDS server, and retrieve on next startup. Applicability: all modes. constant value = **4**

UPDATE_PROFILES: If set, checks at session creation whether an updated user profile is available on the server. If yes it is downloaded in a background thread and used as soon as it becomes available. Until then the recognizer would use either a speaker independent profile, or an older locally cached profile version (only if an IStorageManager is configured). Applicability: local recognition; ignored for remote. constant value = **8**

UPDATE_RECOGNIZER: If set, check in regular intervals whether an updated compatible recognizer version is available on the server. If yes, the recognizer mode is downloaded in a background thread and used when the local recognizer is next instantiated (i.e. not switched out in a running session). Applicability: local recognition; ignored for remote. Requires an IStorageManager, ignored if none is configured. constant value = **16**

WRITE_DEBUG_LOG: Like SUBMIT_TRAINING_INFO, but leaves information in a local IStorageManager for debug purposes instead of (or in addition to) uploading it to a server. Applicability: local recognition; ignored for remote recognition constant value = **32**

If the value is not present or invalid, we resort to existing logic. This would be to check the user config for auto download, if present use 29 else 13

13 = SUBMIT_TRAINING_INFO, STORE_USER_SETTINGS, UPDATE_PROFILES
29 = SUBMIT_TRAINING_INFO, STORE_USER_SETTINGS, UPDATE_PROFILES,
UPDATE_RECOGNIZER

0 (zero) is a valid option. Zero will disable the calls.

Reporting – Make Patient Name Stand Out in Reporting Windows

The reporting windows now have additional optional patient and study information that can be displayed on the top of the main reporting window and also can display on the top of any floating data panes. If a multiple floating panes are grouped together, it will only appear on the title bar of the floating group.

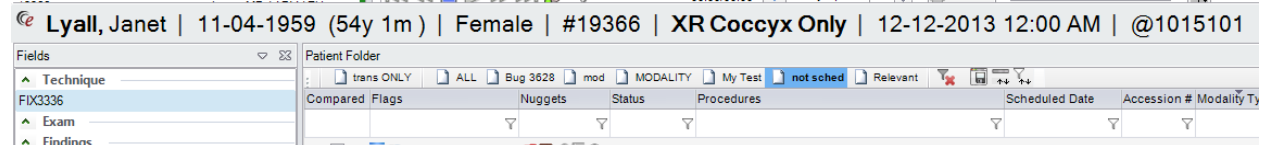


Figure 5.19 – Patient and Study information in title bar

Looking at the figure above I have the font size set to 16. The font size options are from 8-20. The context menu displayed above is accessed via a right click on the title bar. Under the Window Caption option the sub menu allows for font size change and option to display the Patient Information, Study information, both or neither.

Patient Information includes the patients name, DOB/age, gender, and MRN.

Study information includes the procedure, performed start date/time and the accession number

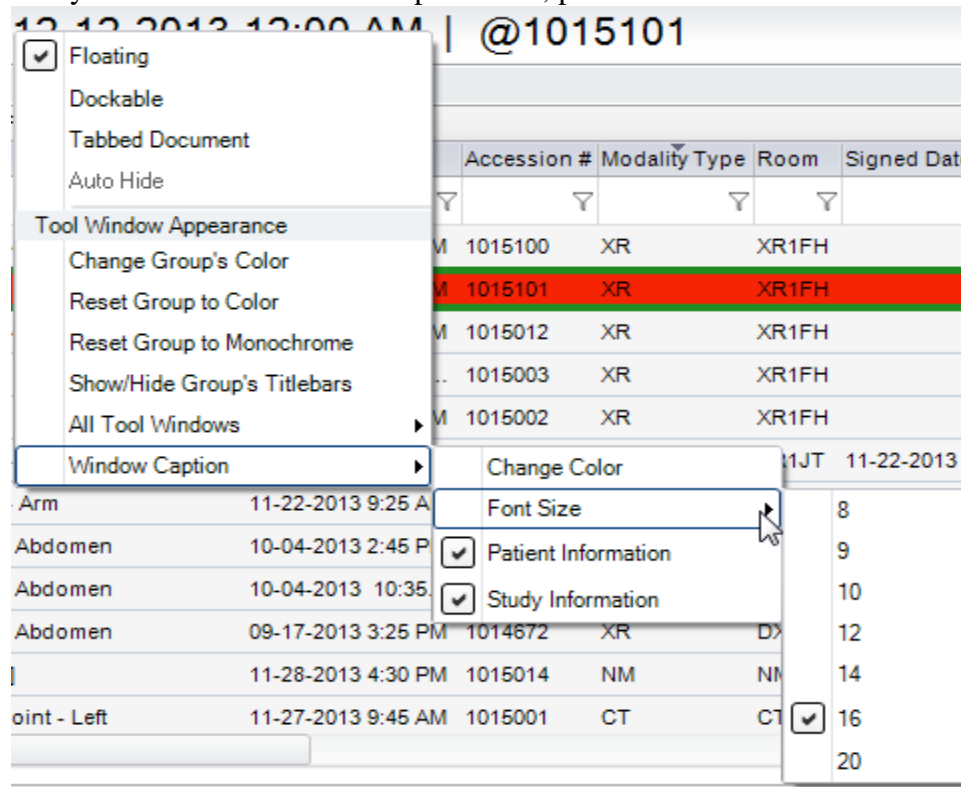


Figure 5.20 – Context menu from title bar showing Window Caption options

Reporting – Create Backup of Capture Log

We now back up old capture logs.

On startup of Interactive, we check for existing capturelog file in \$APP_PATH\captureLog.txt

If exists, we copy a backup to \$APP_PATH\Reporting\CaptureLogs\%USER%\captureLog-yyyy-MM-dd HH.mm.ss.log where yyyy-MM-dd HH.mm.ss is the LAST WRITTEN time on the current existing file.

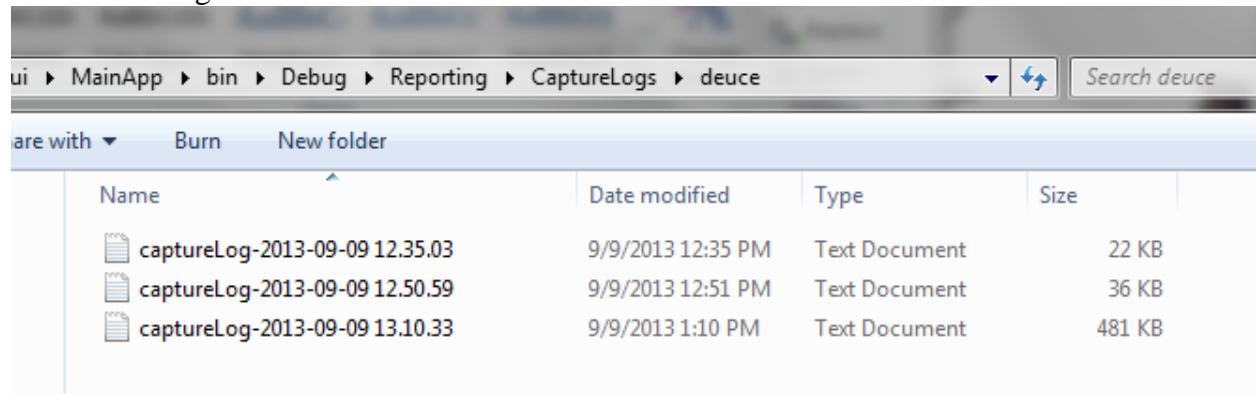


Figure 5.21 – Showing CaptureLogs backup path

Then we start up the new capture log which overwrites the old file location, as we always did.

So the current active capture log file name and location is unchanged. This will make for easy transition for support. Only the backed up logs are in a new location and file name.

Similar to the verbose logs, we check for outdated capture logs on login and delete ones that are older than two weeks and have not been accessed within the last day.

Relevancy Calculation Adjustable via Configuration

In production we have procedure codes that because of legacy data have very different names even on different modality types, but those procedures are actually exactly the same and should match exactly when assigned a relevancy score. Previous to B42 this was not possible because the relevance calculation was based entirely on word matching. A score was assigned based on the number of matching words and words that are modality type, body part or laterality are given great weight in the matching. Furthermore the administrator can setup the site so that only studies done on the same modality are considered relevant.

A new window titled Relevance Override has been added and is accessed from the “Override...” button on the Relevance lookup table.

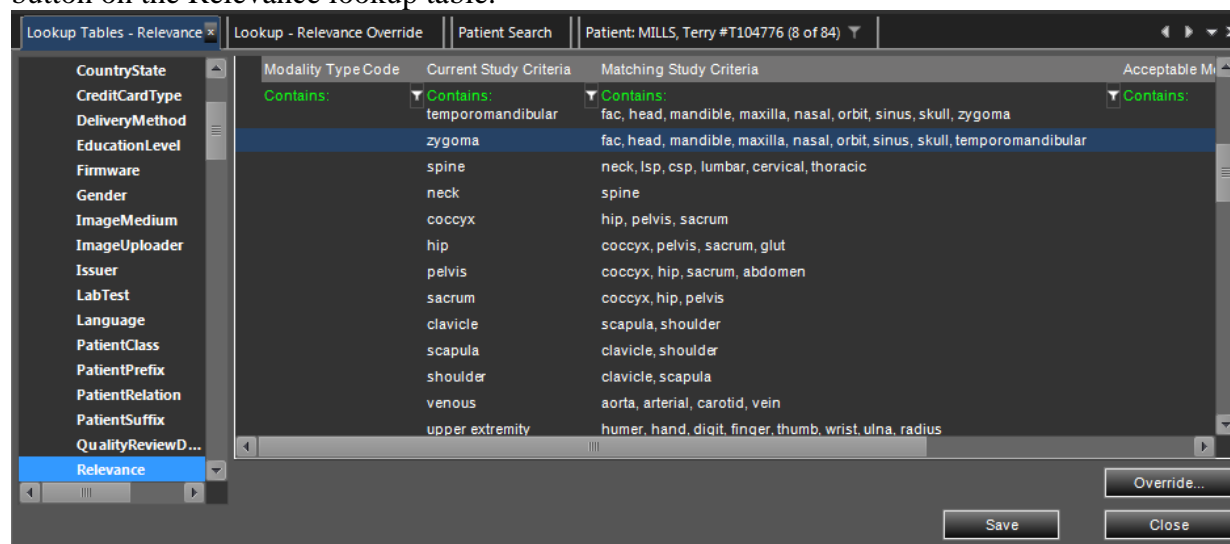


Figure 5.22 – Accessing the Relevancy Override window

When procedures in the patient’s history have a matching relevancy override the configuration defines how much weight will be assigned as part of the procedure matching score (value between 0 and 100) and if the outcome will produce a Matching or Non-Matching Relevance Flag.

This solution also allows laterality to be an option part of the matching criteria. If the laterality is blank then it isn’t considered as part of the matching criteria; however, if laterality is selected as “Same” then the rule only applies if the laterality of both procedures is identical. If the laterality is selected as “Different” then the rule only applies when the laterality differs and can be used to lower the score or make it Not Relevant, which could be useful when you want to give a high score when the laterality matches but a significantly lower score when the laterality is different.

Procedure Code X	Procedure Code Y	Laterality	Adjusted Score	Override Relevancy	Last Updated
76645MA1 US zBREAST & MA DIGITAL MAMMO CB DIAG BI	G0206CB/US MA DIGITAL MAMMO CB DIAG UNI & US BREA...		100	Relevant	08-19-2013 2:...
sample1 XR Chest 2 Views PA and Lateral	sample2 AMDX CHEST 2 VIEWS		100	Relevant	08-19-2013 2:...
71275 CTA Chest W/Wo	71270 CT Chest W/Wo		100	Relevant	08-19-2013 2:...
71275 CTA Chest W/Wo	71250 CT Chest Wo		90	Relevant	08-19-2013 2:...
71275 CTA Chest W/Wo	71260 CT Chest W		90	Relevant	08-19-2013 2:...
71275 CTA Chest W/Wo	CT1 CT Chest Wo & Abdomen Wo		90	Relevant	08-19-2013 2:...
MA511 MA Digital Needle Loc 3 Sites Unilateral W Clip	MA510 MA Digital Needle Loc 2 Sites Unilateral W Clip		0	NotRelevant	08-19-2013 2:...

Figure 5.23 – Relevance Override

When the user clicks on the “Override...” button a tab opens up for the “Relevance Override” table, which allows you to specify two procedures (X and Y). When calculating relevancy if the studies match based on X and Y then the adjusted score will be applied and the relevancy flag will be set based on the selected value in the “Override Relevancy” column.

Note: The “Adjusted Score” and “Override Relevancy” columns are optional. If the “Adjusted Score” is blank then the score will remain as it was calculated without the override but the relevancy flag override would apply. Also, if the “Override Relevancy” column is blank only the score will be adjusted.

In the above Relevance Override configuration the procedures 76645MA1 and G0206CB/US are interesting. One is a US Breast & MA MAMMO CB and the other is a MA Mammo CB and US Breast. The default word matching produces a relevance score that is very close but not exact therefore some installations of RIS will want to correct for this. The following screen shots shows the relevancy results for a test patient’s history – the first screen is with the override rule inactive and in the second screen shot the rule has been activated.

Relevance	Relev...	Flags	Nuggets	Status	Procedures	Scheduled Date
Y	100			Signed	MA DIGITAL MAMMO CB DIAG UNI & US BREAST [G0206CB/US] - Breast - Left	12-13-2012 2:52 PM
Y	72			Signed	MA DIGITAL MAMMO CB DIAG UNI & US BREAST [G0206CB/US]	07-19-2011 10:15 AM
Y	65			Signed	MA Digital Mammo Diag Uni [G0206] - Breast	11-16-2012 8:43 AM
Y	64			Signed	MA DIGITAL MAMMO SCREEN BIL [G0202] - Breast	08-19-2012 1:37 PM
Y	64			Signed	MA DIGITAL MAMMO SCREEN BIL [G0202] - Breast	08-18-2012 12:54 PM
Y	64			Signed	MA DIGITAL MAMMO SCREEN BIL [G0202] - Breast	08-18-2012 12:54 PM
Y	64			Signed	MA DIGITAL MAMMO SCREEN BIL [G0202] - Breast	08-17-2012 1:36 PM
N	68			Signed	US zBREAST & MA DIGITAL MAMMO CB DIAG BI [76645MA1] - Breast - Bilateral	08-18-2012 9:05 AM

Relevance	Relev...	Flags	Nuggets	Status	Procedures	Scheduled Date
Y	100			Signed	MA DIGITAL MAMMO CB DIAG UNI & US BREAST [G0206CB/US] - Breast - Left	12-13-2012 2:52 PM
Y	99			Signed	US zBREAST & MA DIGITAL MAMMO CB DIAG BI [76645MA1] - Breast - Bilateral	08-18-2012 9:05 AM
Y	72			Signed	MA DIGITAL MAMMO CB DIAG UNI & US BREAST [G0206CB/US]	07-19-2011 10:15 AM
Y	65			Signed	MA Digital Mammo Diag Uni [G0206] - Breast	11-16-2012 8:43 AM

Figure(s) 5.24 – Before and After Override applied

Note: that in the first screen shot without the Relevance Override, the 76645MA1 doesn't even show up as relevant because in the base relevancy rules there is a rule that says only MA modality type studies are relevant to MA studies. In the second screen shot the rule for 76645MA1 and G0206CB/US says the procedure matching will get a score of 100% but since the procedure matching only accounts for half of the total score (the other half is used to sort by date), therefore we see the score increase from 68 to 72 and 76645MA1 actually gets placed before the older G0206CB/US study because it's a recent prior.

Reporting – Cached by Name Column

Cached By Name column has been added to the Pending Dictation Worklist. It shows the formatted name of the user who is caching the study. The logic behind which studies are cached follows the same criteria as the ‘Next’ logic of the Dictation window. That means it starts at the top of the sorted worklist. This is re-evaluated every time the worklist is refreshed. If you are the one that is marked for caching the study it will simply have “me” as the Cached by Name value.

Locked By Name	Cached By Name	Flags	Status	Procedure
	me		Exam Done	XR CHEST
	me		Exam Done	XR ABDOM
	me		Exam Done	XR ABDOM
	me		Exam Done	XR CHEST
			Exam Done	XR ABDOM

Figure 5.25 – Cached by name column on Pending Dictation work list.

Right-clicking on a study on the pending dictation worklist and selecting Add To Cache will cause that study to be cached regardless of its position in the worklist. This uses up one of the available cache slots as dictated by the Max Number to Cache user preference. Multi-selecting studies will cache studies up to this max number. Manually cached studies will be un-cached when either a different study (or set of studies) is selected to be manually cached or when they drop off the worklist due to a worklist sorting change or a change in the status of the study.

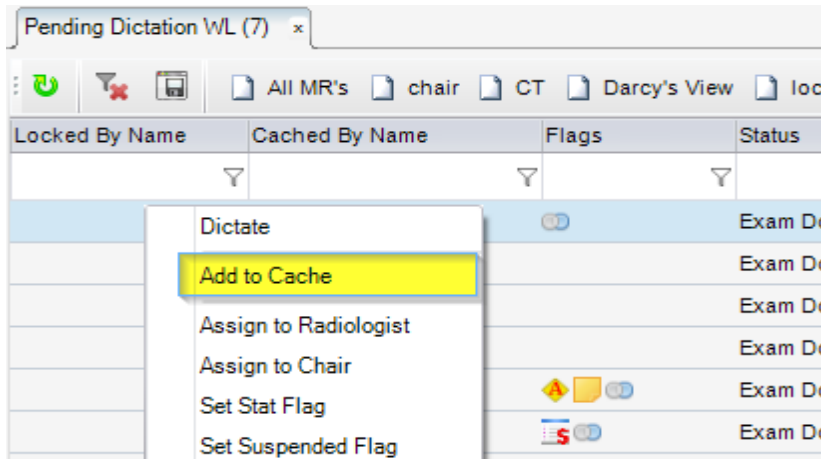


Figure 5.25a – Add to Cache context menu option from Pending Dictation WL

IW PACS “Caching” was attempted by actually opening the study. This has issues where studies that are “caching” sometimes pop up over top of images actually in use. This is probably suitable to be tested by a radiologist with warning they should be cautious and ensure that the images they are sync’d with the study they are reading.

Reporting – PACS Server Override

It has been requested that radiologists be able to access images on eRAD PACS and PACS IW from the same work list without changing the practice selected in the Org picker. This is now possible with the selection of a new user preference.

On the Integration tab there is a new option titled PACS Server and associated list box. This list box will contain the available PACS systems configured in the PACSServer lookup table that are in Active status. An access string named “**Clinical.UserPreferences.PACSServerOverride**” has been added for this preference with a default value of Disabled.

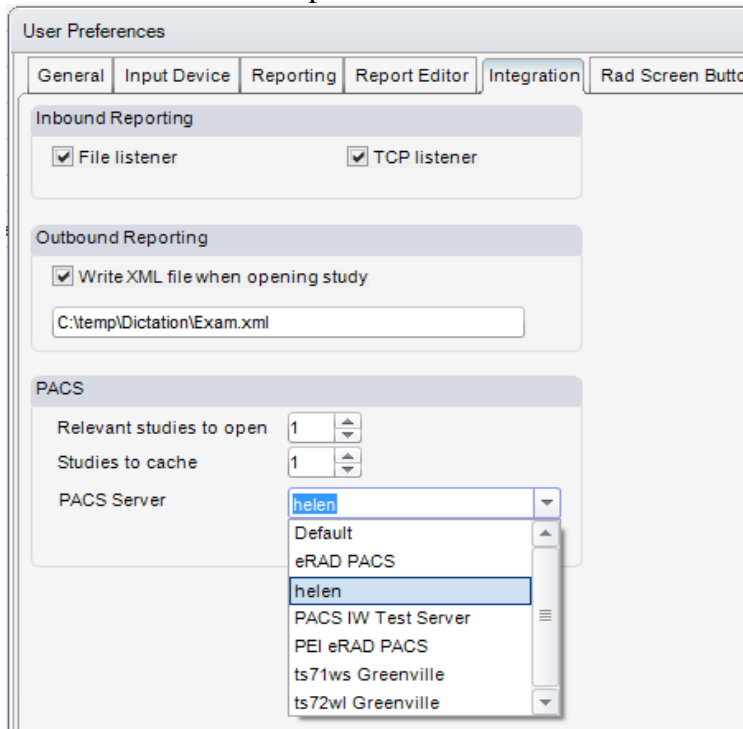


Figure 5.26 – PACS Server user preference

One of the PACS Server options is Default. If this is selected, the default PACS Server associated with your current practice selected in the Org picker will be used (same as before). If a specific server is selected, this will be the PACS that the images are displayed. For instance, if patient A has images on eRAD PACS and also PACS IW Test Server, when that server is selected the call for PACS will be made to that server and not the default for the practice.

NOTE: If the PACS Server user preference selection is changed, the user will need to log out and back in again to pick up the changes. The user may encounter an error if they don't logout after changing the user preference.

Reporting – Noticeable Sign Button in Reporting Windows

To make the Sign button in the reporting windows easier to identify a new user preference was added add color to the background of the button and the option to change the font color. The “**Visually enhance sign button**” user preference is located on the Appearance tab under the Radiologist Reporting Buttons section.

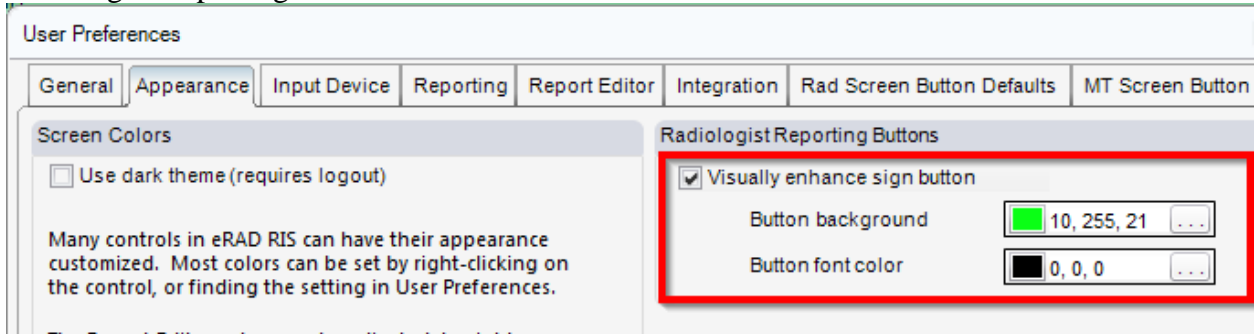


Figure 5.27a – New user preference Visually enhance sign button

With the preference selected and the above colors set the Sign button will look this in the reporting widow.

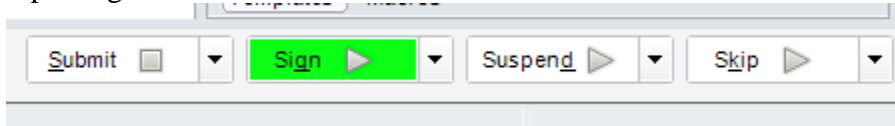


Figure 5.27b – Noticeable Sign Button in Reporting window

Reporting – Chair Workflow Enhancements

You will first notice the Chair workflow enhancements upon login of eRAD RIS in build 42. Users can be presented with the new chair selector.

Chair	Primary Occupant	Directly Assigned	Guests	Exam Units						RVUs					
				To Be Read		Read		Total		To Be Read		Read		Total	
				Left Over	Today	Left Over	Today	Left Over	Today	Left Over	Today	Left Over	Today	Left Over	Today
East	Anchikoski, Randy, Radiologist, janet_r	0	0	0	1	7	0	7	1	0.00	1.00	15.00	0.00	15.00	1.00
West	Martin, Jesse Lee	1	1	0	0	3	0	3	0	0.00	0.00	7.00	0.00	7.00	0.00

Figure 5.27 – New Chair selector

The original chair selector provided a simple drop down list of chairs and an OK and Cancel button. We have augmented this screen to show which radiologists are currently assigned to each chair, and we now describe the amount of work assigned to the chair for today and previous days. The old chair selector is still available and the user can choose “the old” or “the new” chair selector with a new User Preference “**Use detailed chair selector**”. This is found under Reporting>Workflow.

The radiologist can select a chair either by clicking the blue hyperlink for the chair, or they can use a dropdown list if they prefer to make a selection with the keyboard. Once the radiologist selects a chair, the chair selector will disappear, and a chair filter will be applied to the My Pending Dictation WL.

The calendar control in the top left of the chair selector is used to determine the effective date for the statistics shown for each chair e.g. the stats for each chair break down the number of exams into “Today” and “Left Over”. The calendar control defaults to “Today” when the chair selector is initially opened, so the “Today” column represents exams that were assigned to the chair today, while the “Left Over” column covers exams that were assigned in the previous 7 days. If the radiologist changes the date to reflect “Yesterday”, the numbers in the “Today” column will instead reflect the exams assigned “Yesterday”, while the “Left Over” column will again reflect the 7 days prior to “Yesterday”. The calendar control also affects the numbers shown in the “Directly Assigned” column, we calculate the total number of exams assigned to the primary occupants of the chair based on the specified “chair assigned date.”

For practices with a large number of chairs, we may find that there are too many choices to fit onto a single page. The tool strip has “next page / previous page” style controls that will allow the user to browse all of the chairs if desired. The “Find” control on the same tool strip can also be used to help jump to other pages.

Primary Chair vs “View Other Chairs”

The chair selector serves the dual purpose of allowing the radiologist to set their Primary Chair that they will be working for the day, while still allowing them to browse the worklist for other chairs. When the radiologist first logs in, they will be presented with the chair selector with the title “Primary Chair Selection”

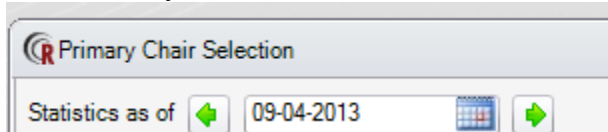


Figure 5.28 – Primary Chair Selection window

The primary chair selection will be used to ensure a particular chair is credited for the work done by the radiologist. We will assign an exam to the radiologist’s primary chair once it is dictated or signed, provided it has not already been set.

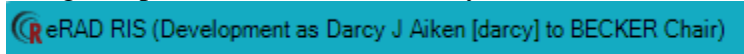


Figure 5.29 – Primary chair displayed in the title bar

After the radiologist selects a primary chair, they can bring up the chair selector by pressing the chair icon on the status bar at the bottom of RIS. The chair selector now has the title “View Other Chairs” and will be used for filtering worklists only, credit will not be assigned to this chair when the radiologist is dictating or signing exams.

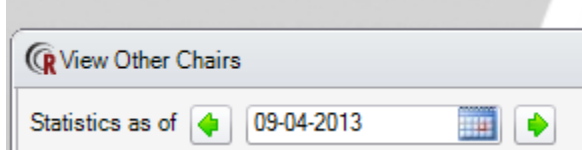


Figure 5.30 – View other chair selector

The figure below indicates that the “South” chair is occupied by Janet i.e. Janet’s Primary Chair is “South” and that “Darcy” is currently filtering his worklist for the “South” chair via the “View Other Chairs” selection. In this case the 2 “Directly Assigned” refers only to the occupant of the chair (i.e. Janet).

Chair: South Occupant: Arsenault, Janet Guests: Aiken, Darcy J	Directly Assigned 2
---	-------------------------------

Figure 5.31 – Occupants and Guests displayed in chair selector

If a user tries to choose a chair that is already occupied by another user, they are presented with a prompt to confirm their choice:

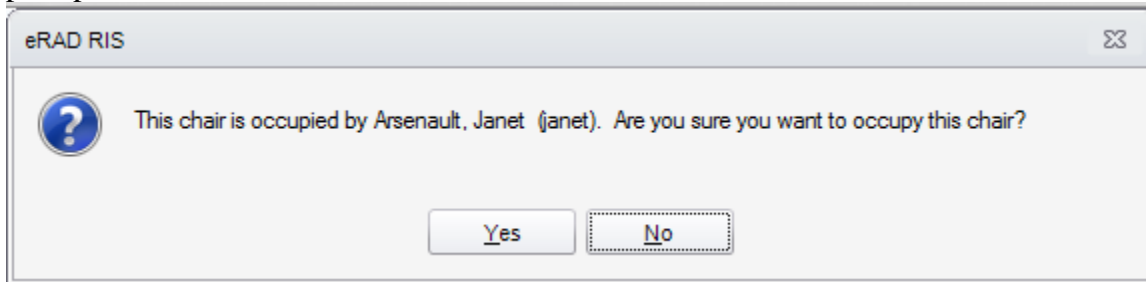


Figure 5.32 – Prompt to confirm when the user selects a chair that is occupied by another user

Previously the RIS back end services were agnostic of the user’s Primary Chair selection, this was a detail managed solely by the client. We were required to save the user’s choices to the database in order to be able to show occupants and guests on the new chair selector. We clear out these choices when the user logs out. In the event of an abnormal application termination (e.g. a power outage or crash), we do not have the opportunity to clear out the chairs. In this case, the chair occupants will remain in their chairs until they log back in and make a new selection, or their chair selection expires. RIS is presently set to occupy a chair for 2 hours or until the user logs out or makes a different selection, these 2 hour chair selections are renewed every hour.

Descriptive Statistics for Chairs

Chair: Becker					Directly Assigned	
Occupant: Powell, Stick Gordon MD; Harding, Clifton L; Waite, Andrew R Jr; Doucette, Adam; Aiken, Darcy J					1	
Guests:						
	To Be Read		Read		Total	
	Left Over	Today	Left Over	Today	Left Over	Today
#	0	0	1	0	1	0
RVU	0.0	0.0	1.0	0.0	1.0	0.0

Figure 5.33 – Close-up of the statistics for a single chair

The following logic was used to calculate the numbers in the chart above:

Label	Definition
Directly Assigned	The total number of exams assigned to all primary occupants of the chair with a chair assigned date that matches the selection in the calendar control on the chair selector
To Be Read	Exams with a status of ExamDone or Signed with an addendum

	requested
Read	Exams with a status of Dictated, Transcribed, Report Drafted, Tentatively Signed, or Signed (excluding Signed Exams with an addendum requested)
Today	Exams with a chair assigned date that matches the selection in the calendar control on the chair selector
Left Over	Exams with a chair assigned date that is within the 7 days prior to the selection in the calendar control on the chair selector
#	The number of exams
RVU	The sum of the weighted value for the exams. These weighted values can be configured by procedure code and practice, the configuration for these weights is discussed later in this document.

Table 5.1 – Detailed explanation on stats in chair selector

Chair Selection Management Report

The tables shown in the chair selector thus far have all been built within a management report. There is a new system configuration setting called “**ChairSelectionReport**”. RIS will fall back to the previous chair selector if this entry is blank. A valid entry for this setting will describe the path to a management report on the report server (e.g. /dev/Management Reports/Custom/ChairSelection). The use of a configuration setting will help with the introduction of different versions of Chair Selection Reports – if the new version has issues, the configuration setting can be set to point back to another version of the report.

The hyperlinks in the chair selection report must be crafted in a particular way in order to be handled by RIS. This approach will initially be managed and refined by eRAD R&D and documented later for use in the field.

Work Unit Configuration (aka RVUs or weights)

Procedures can now be assigned a relative weight to make it easier to ensure radiologists are given the appropriate credit for their work. Some procedures are significantly more involved than others, (e.g. Chest X-Ray vs PET/CT) so comparing just the number of exams is not meaningful. Access to see the RVUs option in the chair selector is configurable based on the new access string “**Clinical.ShowRVUs**”

There is now a new configuration option under Administration -> Configure -> Procedure -> WorkUnit that allows an administrator to assign weights to different procedures.

Procedure	Practice	Work Units	Display Order	Effective Date	Dollar Value	Last Updated	Active
Contains:	Contains:	Equals:	Equals:	Equals:	Equals:	Equals:	Contains:
Click here to add a new row							
CT 3 Phase (CT13)	Advanced Radiology	2.000	1	07-01-2013		08-26-2013 2:08 PM	Y
CT 3 Phase (CT13)	Advanced Radiology	1.100	1			08-26-2013 1:16 PM	Y
CT 3 Phase (CT13)	Advanced Radiology	3.000	1	08-01-2013		08-26-2013 1:13 PM	Y

Figure 5.34 – WorkUnit configuration lookup from Administration -> Configure

Work units are designed to allow different practices to assign their own weights to the same procedure. Rather than require the administrators to map out rules for each procedure and practice, we have a default weight of 1.00 that will be used for any procedure that does not have a weight configured (for a given practice).

Because weights may be subjective, we have built in a date based versioning scheme. If an administrator decides that a Chest X-Ray should have a weight of 0.10 units, they can set the effective date to July 1, 2013 to make the new weight apply to all studies with a date of service greater than July 1, 2013. In the event that their opinion changes as to the relative weight of a Chest X-Ray, they have the option of changing the 0.10 to another value (e.g. 0.20) either by modifying the existing row, or creating a new row with a different effective date. If the new effective date is August 1st, 2013, it will apply only to exams performed after August 1st, while those performed in July will still use the original weight of 0.10. Modifying an existing weight and leaving the previous “effective date” intact will retroactively assign the new weight to exams performed after the effective date.

It is important to note that the default of 1.00 will apply to any exam performed before the earliest effective date for a given procedure and practice. If there is no rule for Chest X-Rays with an effective date earlier than July 1, 2013, then any Chest X-Rays performed in June would be the default 1.00 units. There is also a Dollar Value column that behaves the same as the weights themselves, but this may be removed if it does not add value.

Chair Assigned Date

There is now a new attribute that is set when assigning an exam to a chair: chair assigned date. Whenever a user in the RIS client assigns an exam to a chair, we now set the chair assigned date to the current date and time. Although the “chair assigned date” has not been added to any worklists, the chair assigned date is factored into the statistics on the chair selector’s statistics - “Left Over” vs “Today” is determined using the chair assigned date.

Administration - Display Locked Items in Different Color on the Work List

This requirement was almost achievable without code by using the existing “Conditional Formatting” telerik feature, except for one limitation. The user could have created a conditional format filter with a ‘Contains’ condition looking for their userID. However, this means the filter would have to be created by each radiologist independently and could not be shared since it is unique to each person’s userid. Also, the conditional formatting tool is not a simple and intuitive feature for a novice user, therefore the effort of creating and maintaining these features would have fallen to implementation people to create and maintain for each radiologist. We deemed this too much work, and a feature could be built to support it instead.

The column/cell that will be colored is the locked_by_name column and the cached_by_name column.. Therefore, implicitly this column must be in the worklist you wish to add this feature to.

The user will be able to select the foreground and background colors simply and easily. The user will be able to select either “Colour my rows” or “color other people rows” or both. The system will have default colors that will be compatible with both light and dark mode. The color filters will be part of the worklist views feature; therefore saving a worklist view implicitly saves the color filters.

To implement this, a new control was added to the right-click menu on the worklist.

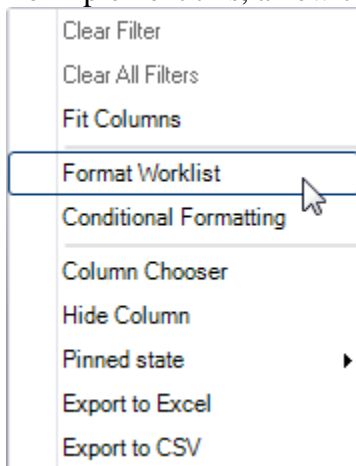


Figure 5.35 – Context menu option to create colored columns for Locked By and Cached By

Selecting Format Worklist from the context menu as displayed above will open the Formal Worklist window.

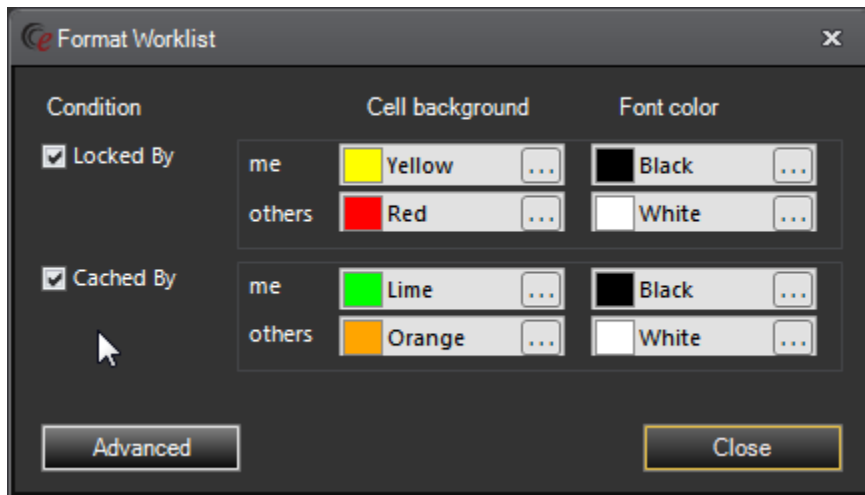


Figure 5.36 – Format Worklist window

This screen allows the user to configure their color filters.

The 'Advanced' button is provided as another way to access the Telerik Conditional Formatting feature. The Close button implicitly stores and invokes the color filters.

NOTE: Once color filters are set, they must be saved into a worklist view if the user would like to keep the selection.

As well, it was mentioned that the user might like a filter condition which would show them only the worklist rows that they currently have locked.

While the user could just create a typical worklist filter condition, it was slightly complicated by the fact that the expected filter condition (ie, starts with 'me') would not work. In fact, it would have to be written as (contains me). To simplify this for the user, a new filter context menu option was added.

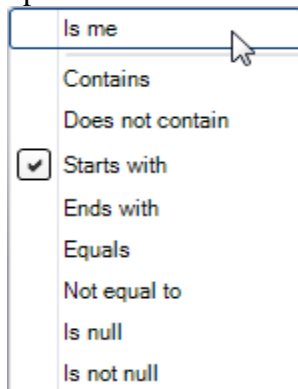



Figure 5.37 – Filter option added

Attachments - “Show Me Everything” Option

The attachment types dropdown can be configured to display only those attachments they want to see appear in the Attachments data pane or data nugget. We have added an option to enable the users to have access to the remaining attachments that may be associated with the patient.

Two new options will appear in the attachment types dropdown

- + Show More
- Show Less

By default the attachment data nugget opens with only the scan document types the user wants to see, which is configurable via the '  button'. By choosing "+ Show More" the attachment data nugget will reopen and display all attachment types regardless of user preference.

These options will not display if there are no additional attachments.

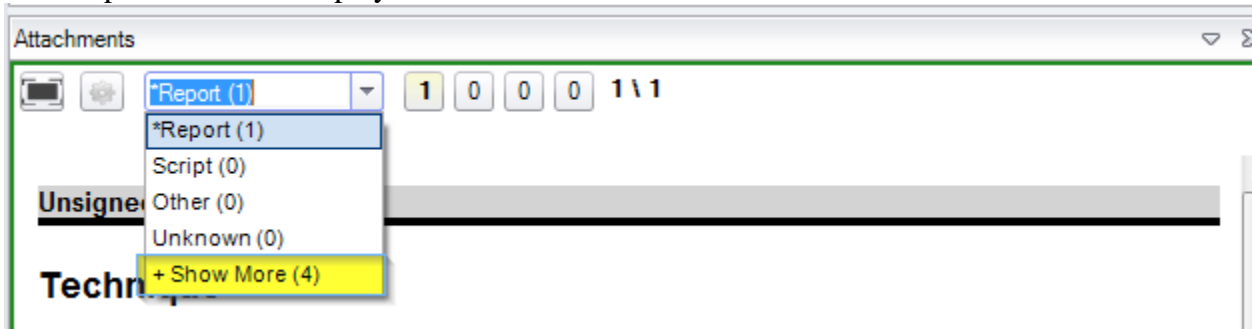


Figure 5.38 – Show more attachments

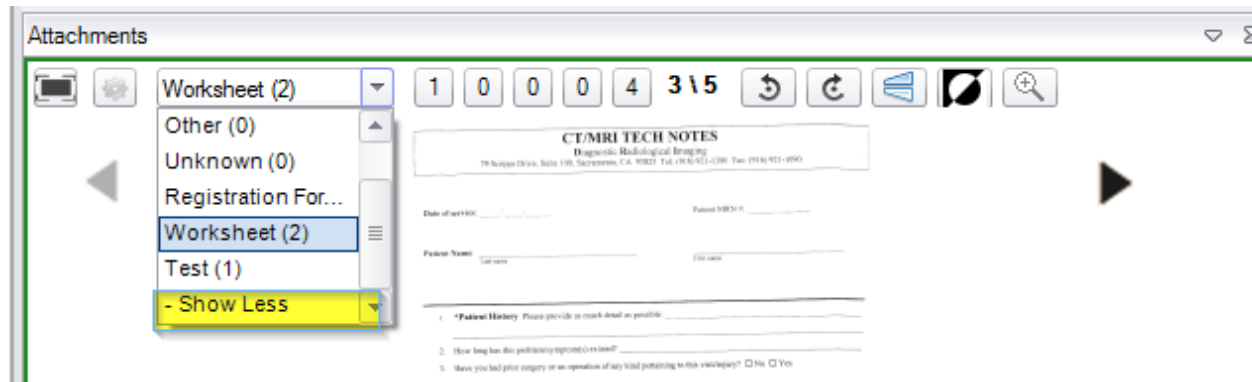


Figure 5.39 – Show less attachment options

Attachments - Ability to Add Attachments from Worklist Context Menu

The ability to add attachments from wordlist’s context menus has been added in build 42. Wordlist’s that allow for “Edit Patient” will now have the context menu option of “Attachments”

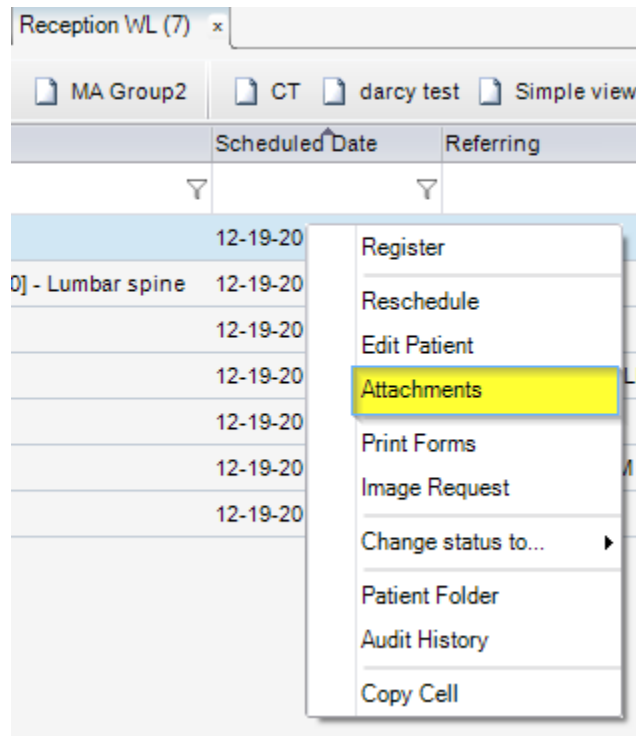


Figure 5.40 – Attachments context menu option

Also added were study details above the attachment list so we know exactly what the current study is.

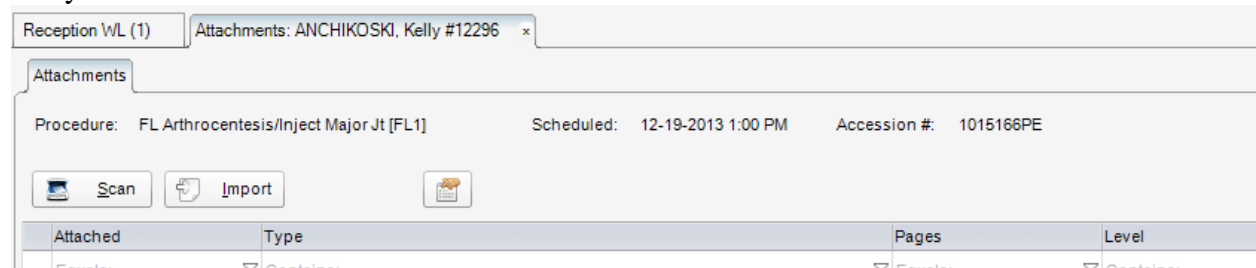


Figure 5.41 – New Attachments window opened from context menu on work list

IVT - Next Follow up Date

Both IVT and Schedulers rely upon the contact log to show the follow-up activity (e.g. phone calls, letters, etc) for a particular patient/exam. The worklist for IVT and scheduling were modified to show the last follow-up type and the date of the last follow-up, but short of opening up the IVT screen or Scheduling screen to read notes, it can be difficult to know which patient/exam to “work” next. Ideally the schedulers and IVT team would have a means to record the “Next Follow Up Date” and/or “Next Follow Up Type” and have it show on the worklist for sorting/filtering purposes in order to reduce the need to open each row on the worklist.

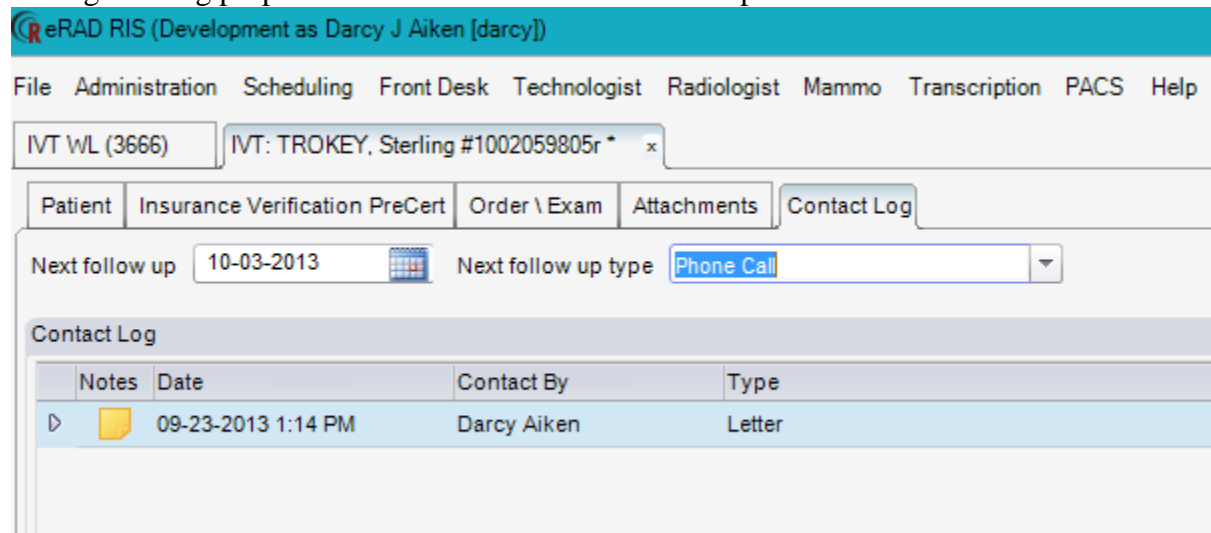


Figure 5.42 – Contact Log on IVT window now includes a Next Follow Up Date

In the above example the “Next Follow Up Date” is stored in a database field specific to IVT.

MRN	Site	Practice	Patient Type	Last Contact	Last Contact Type	Next Follow Up	Next Follow Up Type
	▽	▽	▽	▽	▽	▽	▽
11504608	EL	ADV	Outpatient	05-13-2013 10:57 AM	PhoneCall	09-27-2013	PhoneCall
1000845835r	LU	ADV	Unknown				
1001338084r	FH	ADV	Unknown				

Figure 5.43 – IVT Worklist now includes Next Follow Up / Next Follow Up Type that can be sorted/filtered

The figures above are for IVT, but the Contact Log tab is the same in the Schedule Order window and columns on the Orders To Schedule work list also includes the Next Follow Up and Next Follow Up Type.

The values for the “Next follow up type drop down list are taken from the FollowUpType lookup table under Administration -> Configure -> Mammography -> FollowUpType.

Support Non Order Level Locking

Previous to build 42, RIS used Order Level application locks to reduce the risk of multiple users editing the same data at one time. If one user opens a particular exam, RIS will prevent other users from opening that exam (or any other exam that belongs to the same Order). This causes problems for our users by requiring the user to wait for the lock holder to close out before they can make their changes.

To refine the locking strategy such that we lock single studies instead of the entire order, (where appropriate) taking into consideration the action the user is attempting (e.g. Perform Exam). i.e. Two techs should not be allowed to perform an exam at the same time, but perhaps we should allow a Tech and a Rad to simultaneously have the same exam open. On the other hand, a Radiologist and a Transcriptionist should not be allowed to open the same exam at one time.

In build 42, this has become a reality. Changes to the lock tag generation will allow users to simultaneously make changes to the same study based on the following:

One of the keys to managing locks is that we generate a tag based on what we intend to lock, and if another user requests the same lock tag, we will return a lock failure message. As of build 41, we were generating these lock tags in the form of 123Order where 123 uniquely identifies the order that is locked.

The new approach is to build a 3 part lock: the identifier for the Order or Study being locked (either order_key or study_key), a lock suffix that indicates the type of action being performed e.g. IVT, PerformExam, and finally the word “Order” or “Study”.

Because some screens need to conflict with others (e.g. ReportingRadiologist and the Transcriptionist screens), we map different screens into buckets. In many cases a screen will have its own bucket e.g. IVT and PerformExam. There are a few screens that are report related that are given the same bucket “Report” in order to reduce the likelihood of conflicting changes.

A system table in the database (i.e. one that is not editable through Administration->Configuration in the RIS) assists with the mapping of screens to buckets, and helps determine if the screen will lock on the Order or on the Study.

	lock_hint	study_level_flag	lock_suffix
1	BillingConfirmation	Y	Billing
2	FollowUp	N	FollowUp
3	IVT	N	IVT
4	PerformExam	Y	Tech
5	ReportingRadiologist	Y	Report
6	ReportingTranscription	Y	Report
7	VerifyExternalReport	Y	Report
8	ViewEdit	Y	ViewEdit

Figure 5.44 – Mapping class names in RIS to lock

Any screens or other functionality that is not included in the list above will continue to lock the Order. E.g. Scheduling and Register will lock the Order with a lock tag in the form of “123Order”. Because of the lock tag design, Scheduling and Reception will not block anyone from opening any of the other screens above, but they will conflict with each other.

Server Side Checks for Locks Prior to Saving

Immediately before we save an order or study on the server, a check is performed to see if the user holds a valid lock for the data in question. In the past we simply needed to check for the existence of a valid lock in the database with a lock tag that corresponded to the order being modified. If no valid lock were found, we would throw an error back to the client and not allow the user to save their changes. Under normal circumstances, the only way this would occur would be in the event that an authorized user used the Break Lock functionality.

The new approach is to check for a valid order level lock, if found we allow the save to continue. If there is no valid order level lock, we check for a valid study level lock for each study that is being passed in. If there are enough valid locks we throw an error back to the user, otherwise we allow the save to succeed.

Note that orders and studies that are being created do not require locks, so we exclude them from the lock checks above.

Changes to Lock Management

Each screen that requires locking functionality makes use of a class called GUILockManager that is responsible for refreshing and releasing locks. Previously this class could manage only one lock at a time. We now generate a unique lock identifier that helps to uniquely identify the instance of the lock and can refresh or release multiple locks in a single service call.

In some cases the user may attempt to acquire or refresh multiple locks and the call will be only partially successful – e.g. only two of three locks will be granted. In these cases the client will behave as though the entire lock request has failed.

Changes to Worklists

The worklists that are designed for Radiologists and Transcriptionists include a column that identifies the user that holds a lock on that data. Because the lock tag is calculated differently, the worklist views were updated to filter for the type of locks that are used by Rads. If a Tech has an exam open, previously we would show the tech’s name/userID in the “Locked By” column. Now that we are only interested in specific kinds of locks, we will only populate “Locked By” if it is a “Report” level lock (i.e. opened by another Rad, Transcriptionist, or someone using VerifyReport). Previously the worklists were parsing the lock_item_code in order to join to order, we now have a foreign key to Order and Study to assist with the join.

There are worklists that are not specific to Rads and Transcriptionists that have a locked by column e.g. the BI-RADS 0 and BI-RADS 4/5 worklists. Because the users working this list are not focused on the report, their worklist will only display the type of locks that pertain to them.

Changes to Perform Exam

The Perform Exam screen generates a lock for each study within an Order. When the Perform Exam screen is initially opened, a single lock tag is generated. If the user clicks the include button, we attempt to acquire additional locks to prevent other techs from working on those studies simultaneously. In the event that there is a locking failure when the tech clicks the include button, we display a locking failure message to the tech, uncheck the “Include” box, and reselect the previous exam on the patient history grid. No “break-lock” functionality is planned for this case.

Alerts for Similar Locks

A new alert was created (verbiage to be determined) to warn a user on Perform Exam or View Edit if a Rad or Transcriptionist has the same exam open.

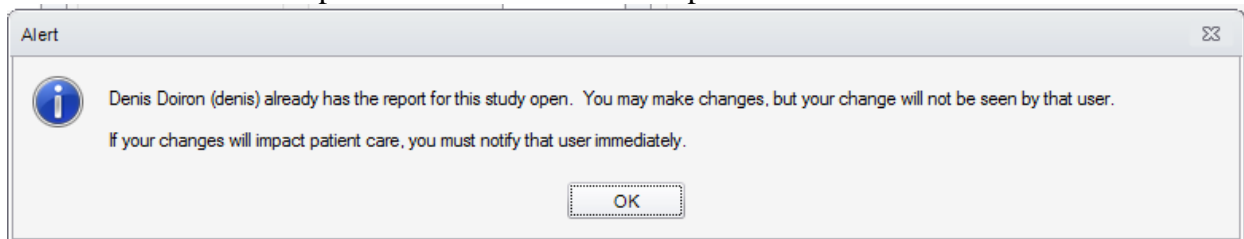


Figure 5.45 – Alert on View Edit and Perform Exam when a Rad or Transcriptionist has the same exam open

We need to determine if these types of warnings will be sufficient, or if we need to have a locking mechanism that can acquire a fine grained lock that can prevent other users from making specific types of changes.

Special Handling for Notes

Our original implementation of “Notes” requires special handling. As users add new notes, we concatenate the new notes to the existing notes. In the case where two users update patient notes at the same time, the second saver wins and the first saver’s notes are lost.

We have updated the concurrency handling to help reduce the risk of issues surrounding simultaneous updates to notes. If two users save changes at the same time, we detect the conflict on the server side and then extract the new notes from the second saver’s update and then concatenate that with the existing notes in the database.

This was tested and works well for updates (i.e. adding new notes), but there is an outstanding issue with deletions. A typical user is not authorized to delete previously saved notes, but there is a permission that can allow an authorized user to edit existing notes. We did not build any handling for deleted notes – if two users update a row at the same time and the second saver deleted some notes, we simply allow the first saver to win.

A future sprint should address the current implementation of notes, possibly considering a design change so that each note is stored in its own row.

Special Handling for Manage Policies

When the user presses Manage Policies on a screen such as Registration, IVT, or ViewEdit, we now attempt to acquire a special insurance related lock. If the attempt to acquire the lock succeeds, the manage policies dialog will appear as before. If the lock acquisition is unsuccessful, the user will be presented with a lock failure message which identifies the lock holder and presents a “Read-Only”, “Cancel”, or “Break-Lock” option (the latter requires a lock override permission).

If a user’s insurance lock is stolen, the GUILockManager will release all other related locks for that screen. E.g. if the user has ViewEdit open, they will lose the study level lock that they were granted when they opened the screen. Break lock for insurances should be used sparingly. Note that there is no enforcement of the insurance lock on the server, i.e. the user requires a lock to open the screen in the GUI, but the server will not reject an insurance update from a user that doesn’t have a lock.

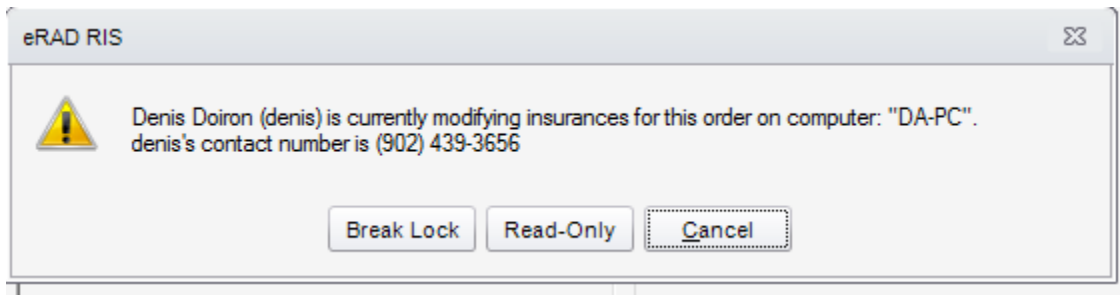


Figure 5.46 – Break lock message

Special Handling for Patient Merge

When a Patient Merge is performed, there is a Source Patient and a Destination Patient. The Source Patient's visits, orders, studies, etc. are moved to the Destination Patient and the Source Patient is marked as Deleted. We have had cases where one user was actively working on the Source Patient during the merge process, and some studies were re-associated with the Source (i.e. deleted) Patient.

The Patient Merge screen has been updated to help reduce the chance of this happening in the future. When the user presses the Merge button on the Patient Merge screen, we now check for any locks on the source patient. If any locks are held for any of that patient's orders or studies, we identify the lock holders (userID and full name) and tell the user that the merge cannot be performed until those users' locks are released.

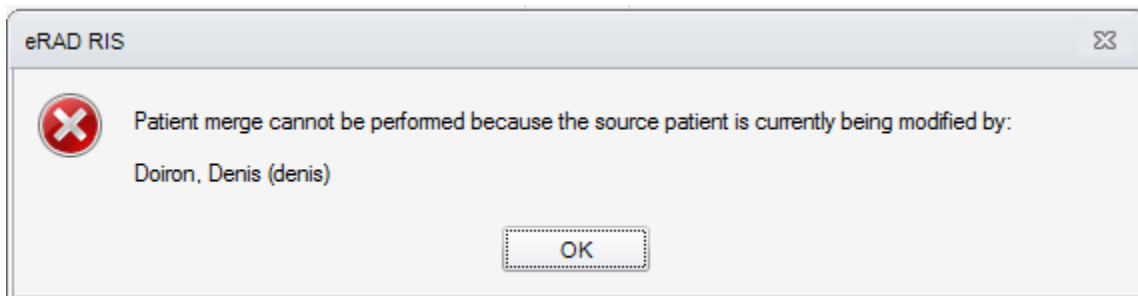


Figure 5.47 – Message prompt on Patient Merge when Source patient is locked

Change Status / Cancel Study / Manual Status Change

Change Status, Cancel Study, and Manual Status Change have been updated to include a check for locks on the same study. We first attempt to acquire a traditional order level lock, if that succeeds we do a secondary check for any locks on the given study. If either of those fail we show a message similar to the following:

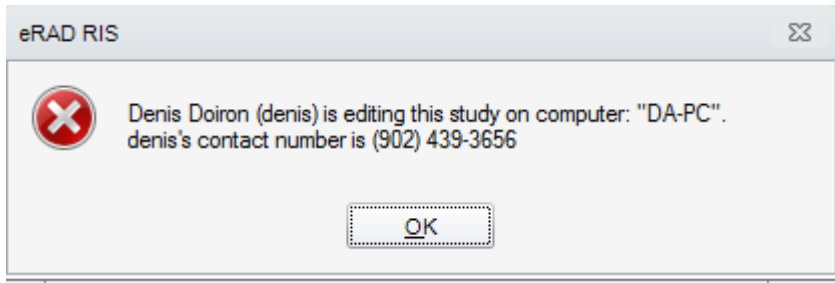


Figure 5.48 – Message prompt from change status, cancel study, manual status change on locked study

Administration - Multiple Person Ids

A grid has been added to the Account tab of the personnel editor. Users can add, edit, and delete alternate ids for the person as well as make them active/inactive. The idea is that a user can have multiple ids from a particular issuer, but only one of them **should** be active, but this is not enforced.

The screenshot shows the 'Account' tab of the personnel editor. It includes fields for 'Active account', 'User ID *' (darcyn), 'Password *' (masked), 'Schedule groups', 'Message groups', 'User groups', and 'Practices'. Below these is a 'System Generated (read-only)' section with 'ID *' (1125) and 'Issuer of ID *' (system). A table titled 'Alternate IDs' is highlighted with a red border, containing one entry with ID 5211, issuer 'test', and active status 'Y'.

Alternate IDs	ID	Issuer of ID	Active	Last Updated
	5211	test	Y	12-19-2013

Figure 5.49 – Alternate IDs can be added in Personnel Editor

On inbound HL7 messages, the person will be resolved based on id/issuer of all primary and alternate ids and associated to the correct person.

On outbound messages, the wedge will expand the person_key and user_id nodes to include l_child_person nodes which contain the alternate ids. The mappings can then be made on a per-interface basis to select the correct alternate id to use based on the issuer. If multiple ids from that issuer exist, and they are both listed as active, then the mapping must pick one based on some other criteria ie. first one in the list or most recently updated.

Administration - Allow Editing of Billing Units

A new flag column has been added that will allow editing on the Billing Code / Procedure Code combination. In the Administration → Procedure Code lookup table → expand procedure code to view a new setting that allows the Billing Code / Procedure Code combination to be locked to users as far as ability to edit number of Units.

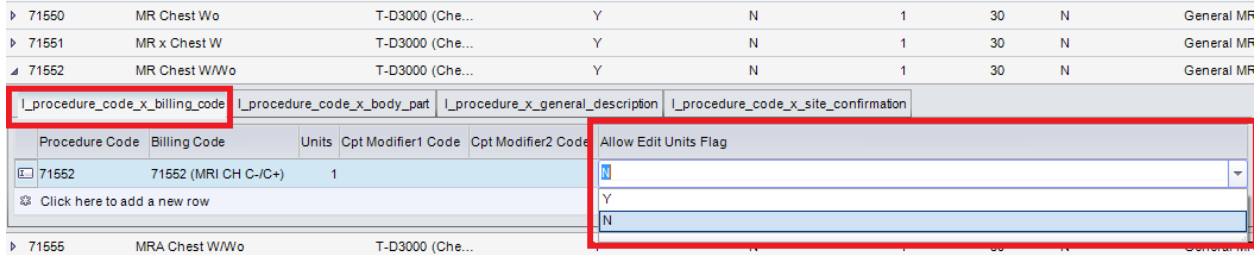


Figure 5.50 – Allow Edit Units Flag

By default editing is enabled to preserve pre-upgrade functionality. If setting is set to “N” users will not be able to edit # of Units.

If set to N, in the billing code grid the user will not be able edit the number of units from the drop down for that particular procedure/cpt code.

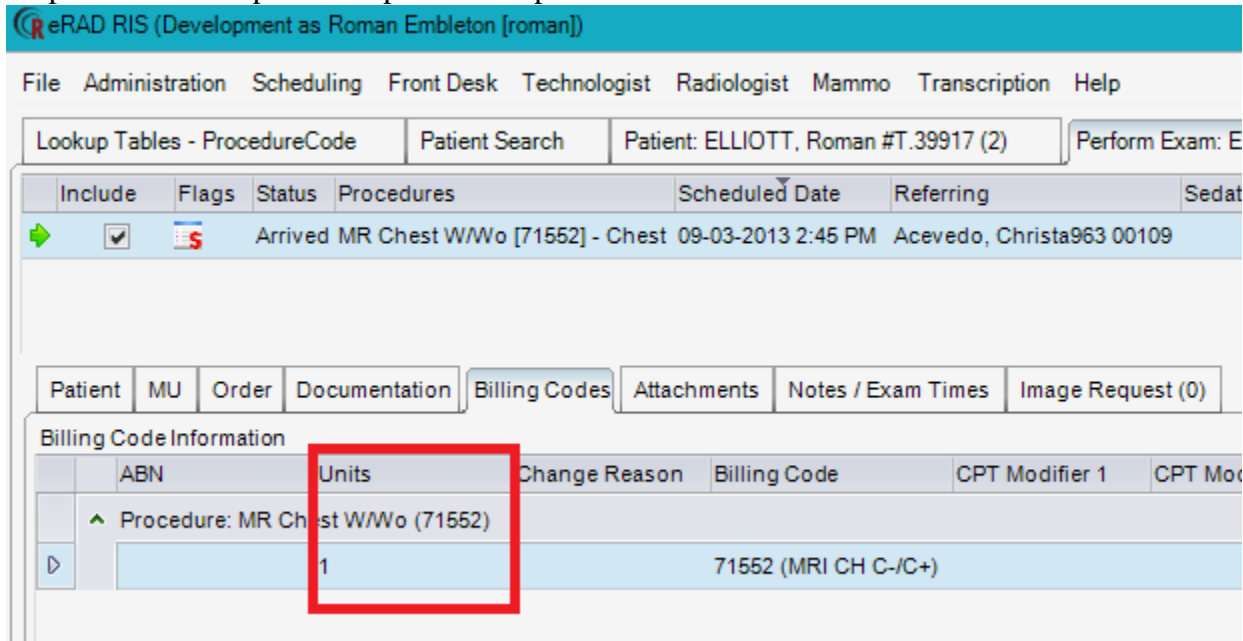


Figure 5.51 – Units on billing code tab cannot be edited when set to N

The user will still be able to add other billing codes that may (or may not) be edited.

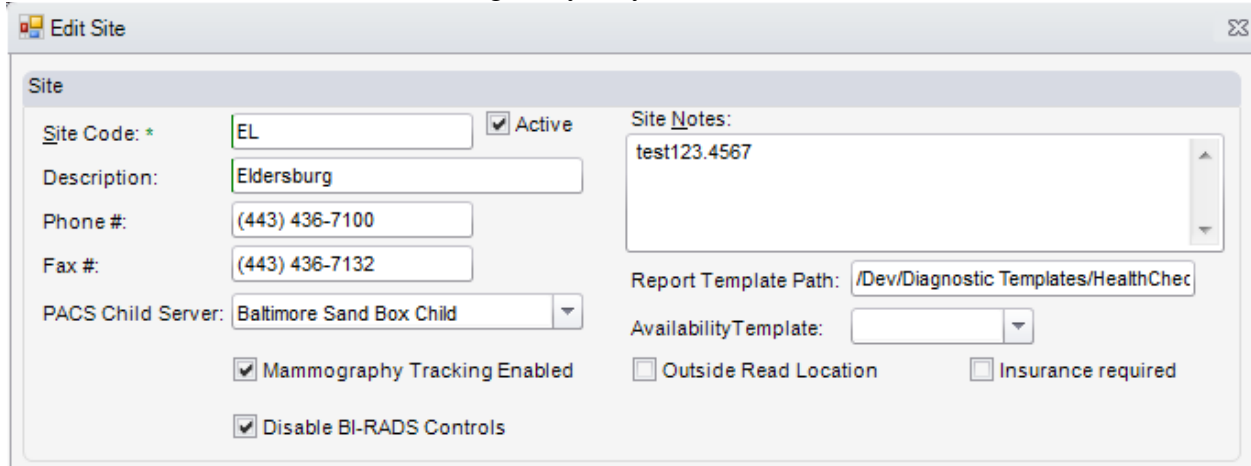
If the user attempts to add a billing code to the performed procedure and the value of “Allow Edit Units Flag” is set to N for that procedure, the Add Billing Code window will have the Units field disabled.

The screenshot shows a window titled "Add Billing Code". It contains several input fields: "Billing code" (with a red warning icon and the text "(71552) MRI CH C-/C+"), "Units" (a spinner box with the value "1" highlighted by a red rectangle), "CPT modifier 1", "CPT modifier 2", "ABN", and "Change reason" (all with dropdown arrows). At the bottom right are "Save" and "Cancel" buttons.

Figure 5.51a – Add Billing Code window on billing code that the units cannot be edited

Administration - Disable BI-RADS ® Per Site

In build 42 the ability to disable BI-RADS ® tracking can be turned off per site. The Organization Editor in Administration -> Configure has been updated to include a new checkbox to Disable BI-RADS Controls (verbiage may vary at time of release).



The screenshot shows a web-based configuration window titled "Edit Site". The window contains the following fields and controls:

- Site Code: ***: Text input field containing "EL".
- Active**: A checked checkbox.
- Description**: Text input field containing "Eldersburg".
- Phone #**: Text input field containing "(443) 436-7100".
- Fax #**: Text input field containing "(443) 436-7132".
- PACS Child Server**: A dropdown menu with "Baltimore Sand Box Child" selected.
- Site Notes**: A text area containing "test123.4567".
- Report Template Path**: Text input field containing "/Dev/Diagnostic Templates/HealthChec".
- AvailabilityTemplate**: A dropdown menu.
- Mammography Tracking Enabled**: A checked checkbox.
- Disable BI-RADS Controls**: A checked checkbox.
- Outside Read Location**: An unchecked checkbox.
- Insurance required**: An unchecked checkbox.

Figure 5.52 – Ability to disable BI-RADS Controls per site.

By default, “Disable BI-RADS Controls” will be unchecked when creating a new site. Mammography Tracking Enabled means that the site will generate follow-up orders, reminder letters, lay letters, etc. for any BI-RADS enabled mammo procedures.

Disable BI-RADS Controls means that the site will opt out of BI-RADS tracking altogether (in effect the setting for Mammography Tracking Enabled will be ignored if BI-RADS are disabled)

Administration - Ability to Add MRN and Accession Prefix and Suffix

The ability to add and prefix and or suffix to the patients MRN and also to the Accession number has been added. This is controlled by two new system configuration settings.

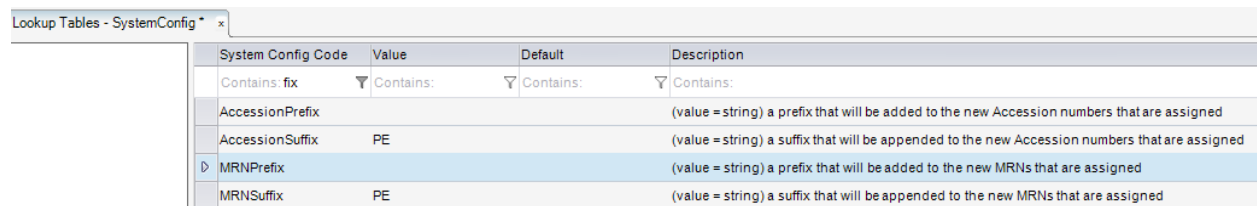
For MRN they are:

“**MRNPrefix**” – Prefix that will be added to new MRN’s

“**MRNSuffix**” – Suffix that will be appended to new MRN’s

“**AccessionPrefix**” – Prefix that will be added to new accession numbers

“**AccessionSuffix**” – Suffix that will be added to new accession numbers



System Config Code	Value	Default	Description
Contains: fix	Contains:	Contains:	Contains:
AccessionPrefix			(value = string) a prefix that will be added to the new Accession numbers that are assigned
AccessionSuffix	PE		(value = string) a suffix that will be appended to the new Accession numbers that are assigned
MRNPrefix			(value = string) a prefix that will be added to the new MRNs that are assigned
MRNSuffix	PE		(value = string) a suffix that will be appended to the new MRNs that are assigned

Figure 5.53 – New systemconfig values

Administration - Privacy Message on Locked eRAD RIS

A new system configuration setting “**PrivacyMessageText**” has been added to the system config lookup table. When this field has a string value, the string is displayed on the lock screen.

System Config Code	Value	Default	Description
Contains: priva	Contains:	Contains:	Contains:
PrivacyReminderText	REMINDER: Do not snoop in patient records!		(value = string) Defines the privacy string that will be displayed on the lock workstation screen.

Figure 5.54 – New system config setting PrivacyMessageText



Figure 5.55 – PrivacyMessageText value displayed on locked eRAD RIS

Billing – Audit Log Capturing Billing Failure \ Reason

The audit table will now capture the success and failure of billing actions. If the billing action was successful the audit log will display “Posted to Billing”

Date	Action	Description	User	Accession #	Order #	Status	Procedure
12-12-2013 10:39 AM	UI_ReportSigned	Study updated	Aiken, Darcy (darcy)	5131280	7405261	Signed	Randy Test 02
12-12-2013 10:39 AM	UI_ReportSigned	Patient updated	Aiken, Darcy (darcy)				
12-12-2013 10:39 AM	Posted to billing		Aiken, Darcy (darcy)	5131280	7405261	Exam Done	Randy Test 02

Figure 5.56 – Successful billing action entry in audit log

An unsuccessful attempt to bill will display “Failed billing validation”. In the event of a billing failure, the reasons for the failure are recorded with the audit log entry.

12-12-2013 10:45 AM	Failed billing validation					System	
12-12-2013 10:40 AM	UI_ReportTentativelySigned	Study updated	Aiken, Darcy (darcy)				
12-12-2013 10:12 AM	UI_AssignRadiologist	Assigned to darcy.	Aiken, Darcy (darcy)				
12-06-2013 3:21 PM	UI_InterpretationSuspended	Study updated	Doiron, Denis (denis)				
12-06-2013 3:18 PM	UI_InterpretationSuspended	Study updated	Doiron, Denis (denis)				
12-06-2013 3:18 PM	UI_InterpretationSuspended	Study updated	Doiron, Denis (denis)				
12-06-2013 3:18 PM	UI_InterpretationSuspended	Study updated	Doiron, Denis (denis)				

Event Time: 12-12-2013 10:45:41.793 AM Client IP Address:

- Patient's address is required
- Insurance is required
- Responsible party's address is required

Figure 5.57 – Failed billing action reasons for failure

External – View Legacy Report PDF's as HTML

The web interfaces are unable to get an html version of the legacy reports, which were imported in the the RIS as PDFs. To solve this we are planning to integrate a PDF to html converter so that when we call the WebAPI interface we get the legacy PDF as html. The following is an example in the dev database of an accession number, which has a legacy PDF report.

<http://localhost:9002/api/DiagnosticReport/1014129?format=HTML4.0>

We decided to use a third party product to convert the legacy PDF documents to HTML so when you call the WebAPI url as described in the description of this issue, that the report will be returned as HTML.

The 3rd party API we are using is called AbcPDF.dll and must exist in the deployment directory for this to work.

Management Report – Dictations by User

Management report was created for displaying the dictation statistics for Radiologists broken down by

- number of reads
- number of edits
- % of their workload identified as a self-edit.
- % of the the total workload.

Dictated By User	Dictated Date	# Reads	# Edits	% Self Edits	%
		3	2	66.67%	9.38 %
	09-03-2013	1	1	100.00%	
	09-11-2013	1	1	100.00%	
	09-16-2013	1	0	0.00%	
		18	14	77.78%	56.25 %
	09-04-2013	3	3	100.00%	
	09-05-2013	4	4	100.00%	
	09-06-2013	5	4	80.00%	
	09-12-2013	6	3	50.00%	
		3	1	33.33%	9.38 %
	09-03-2013	1	1	100.00%	
	09-16-2013	2	0	0.00%	
		6	5	83.33%	18.75 %
	09-05-2013	1	0	0.00%	
	09-12-2013	5	5	100.00%	
		2	2	100.00%	6.25 %
	09-05-2013	2	2	100.00%	
Total		32	24		

Figure 5.58 – Dictation by User management report

Management Report – Direct Referrals

Management report was created to identify all orders and studies identified as a Direct Referral on the order tab. Parameters used are:

- Practice(s)
- Site(s)
- From and to dates
- Modality(s)
- Procedures
- Referring Practice(s)
- Referring Physician(s)
- Primary Carrier(s)

Direct referrals

Practice: [Redacted]
 Site(s): [Redacted]

Modality(s): MRI

Date Range: 10/1/2013 - 10/18/2013

Description: This report looks at orders with the direct referral flag set. It excludes cancelled orders, and studies that are cancelled or discontinued.

Acc#	CPT	CPT Description	PreCert Status
Modesto Advanced Imaging Center			
10-01-2013			
MR			
Physician [Redacted]			
Referring practice: None			
Accession: not scheduled		Status: OrderSigned	
Primary Insurance: [Redacted]			
	70553	MRI BRAIN BRAIN STEM W/O &W/CONTRAST MATERIAL	Approved
	A9579	INJECTION, GADOLINIUM-BASED MAGNETIC RESONANCE CONTRAST AGENT, NOT OTHERWISE SPECIFIED (NOS), PER ML	N

Figure 5.59 – Direct Referral management report

Management Report – User List

Management report was created to see the user and which practices and schedule groups the user is associated with.

Active\Inactive:

1 of 6 100% Find | Next

User List

Description: This report lists the users based on active or inactive parameter as well as the practices those users have been assigned.

User Id	Last name	First name	Practices		Schedule Groups								
			X				X						X
			X				X						X
			X				X						X
			X				X						
			X				X						

Figure 5.60 – User List management report

Management Report – Double Count CPT’s

We modified all sales management reports in the Marketing folder to double count cpt codes (74176, 74177, 74178).

Marketing

Report Builder | Folder Settings | Upload File

- Monthly Counts by CPT
- Monthly Variance Raw Data
- Quarterly Counts by CPT
- Referring Practice Annual Volume Potential
- Referring Top N Negative Variance
- Referring Top N Positive Variance
- Sales Referring Practice Data
- Sales Referring Practice Data by Affiliation
- Sales Referring Practice Data by Modality
- Sales Referring Practice Data by Specialty
- Sales Referring Practice Monthly Volume...
- Sales Referring Practice Raw Data
- Sales Referring Practice Raw Quarter Data

Figure 5.61 – Double Count CPT’s

MU – Management Report for Patient List Creation – MU Phase 2

Report Parameters are:

1. From age
2. To age
3. From date (nullable)
4. To date (nullable)
5. Primary language (*multi-select populated from lookup table*)
6. Sex (*multi-select populated from lookup table*)
7. Race (*multi-select populated from lookup table*)
8. Ethnicity (*multi-select populated from lookup table*)
9. Problems (ICD) (*multi-valued, free text expected the ICD code itself*)
10. Medications (*multi-valued, free text using the like syntax where you just need to enter the start of a medication name. ie: pen would look return all results where the medication name starts with pen. Wild cards are added behind the scene*)
11. Medication allergies (*multi-select populated from lookup table*)
12. Lab Test (*multi-select populated from lookup table*)
13. Lab Results (*single valued free text field expecting >, <, = or combination of those comparison operators and a value. Ie: >100*) (nullable)
14. Preferred Communication
15. Max Results (*defaulting to 5000 rows, this helps control the number of results returned in a search, but can be manually increased or decreased if desired*)

From age: 20 To age: 50
 From date: [] To date: []
 Primary language: English Sex: Female
 Race: No Filter Ethnicity: No Filter
 Problem (ICD-9): No Filter Medication: No Filter
 Medication allergy: No Filter Exclude Deceased?: Y
 Lab Test: No Filter Lab results (ie. >=100, between 1 and 20): []
 Preferred Communication: No Filter Max Results: 5000

1 of 2 ? Find | Next

Patient Lists MU2

Parameters													
From Age	To Age	From Date	To Date	Language	Sex	Race	Ethnicity	Problem(ICD-9)	Medication	Allergy	Lab	Lab Value	Max Rows
20	50			EN	F	No Filter	No Filter	No Filter	No Filter	No Filter	No Filter		5000

MRN	Last Name	First Name	Age	Sex	Primary Language	Race	Ethnicity	Preferred Communication
10085	Gruff	Hillary	21	F	English	No race assigned		Not assigned
10091	Kettleon	Holly	41	F	English	American Indian or Alaska Native	Hispanic	Not assigned

Figure 5.62 – Patient Lists MU2 management report

All parameters require a value to execute the report. The “No Filter” value in the parameters is just a placeholder that the stored procedure treats as a null. The No filter will be disregarded if you add values into the parameter, meaning there is no need to delete it out, or uncheck it.

MU – Auto Request Pathology and Follow Up with Lab Worklist

For MU requirement 170.314.b.5, we needed to create a lab test for Pathology when a report is signed for procedures that are configured to require CPOE_Pathology . We then need to track those Pathology requests in the Lab WL.

To start the CpoE Pathology Flag column was added to the Procedure Code lookup table

Procedure Code	Description	CpoE Pathology Flag	External Report Wo
Contains: ▼	Contains: ▼	Contains: ▼	Contains: ▼
Click here to add a new row			
70450	CT Head Wo	Y	N
70460	CT Head W	Y	N
71250	CT Chest Wo	Y	N

Figure 5.63 – CPOE Pathology Flag added to the Procedure Code lookup table

The Practice window from the Organization lookup table had the Track CPOE pathology results in Lab WL for <#> days

Practice Code: Active

Description:

Phone #:

Fax #: MU Required

Time Zone:

PACS Server: Chair workflow enabled

Practice Notes:

CDS Object ID:

Title Color: Gradient

Dashboard Primary Color:

Track CPOE pathology requests in Lab WL for * days

Figure 5.64 – Practice displaying new field in days to be captured to Track CPOE pathology

A new System Configuration setting “**CPOELabTestCode**” was added the system config lookup table with a default value of Pathology

System Config Code	Value	Default	Description
Contains: CPOEL	Contains: ▼	Contains: ▼	Contains: ▼
CPOELabTestCode	Pathology	Pathology	(value = string) lab test code for the lab test that will be created when an CPOE_Pathology_flag procedure is signed.

Figure 5.65 – System configuration setting CPOELabTestCode

When report is signed, if its procedure has CPOE pathology flag = 'Y', and there are no active Lab Test Requests for CPOE pathology, then a lab test result row will be created. The lab test code will have a lab_requested_by_user_id of the dictating rad and will have a requested date equal to the studies performed end date. The c_study.cpoe_request_expiry_date, will get assigned to today + l_practice.days_to_track_cpoe_requests.

The item will then appear in the Lab WL until:

1. User opens the study in View Edit and checks "Skip Lab WL"
2. User Opens the study in View Edit and records a value for the test
3. The current datetime is past cpoe_request_expiry_date
4. Or the lab test is set to the lab_order_status of "Discontinued" or "Active", meaning we've made the call to the patient and have been notified that the pathology test has either been requested or is not going to be addressed.

Note: outside read studies will not show in the Lab WL, even if they are for a procedure that is configured with cpoe_pathology_flag='Y'.

MU - Race Field Allow for Multi Select

Meaningful Use requirement 170.314.a.3.

Previous to build 42 the Race field on the Patient tab would only allow for one value to be selected. Now a user can select multiple values and save with the patient record.

The list box is not a multi select tool (expand the list and select multiple at once) the user will need to select a value one at a time or use the type ahead options

The race type can only be added once for the patient.

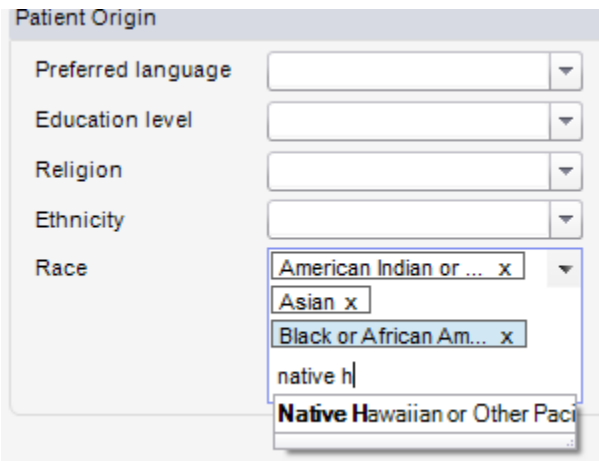


Figure 5.66 – Race field is now multi select/type ahead field

MU – Improvement to How We Record Height

Meaningful Use requirement 170.314.a.4

For this requirement we needed to store the patients height as a single numeric value instead of a character string such as 5ft 7in.

A new column (height_value) was added to the visit table, which will store the height in inches. The height was previously stored in the old column (height) in the visit table.

The pervious character field (height) will continue to be populated for backwards compatibility with existing reports.

Also, the upgrade was created to backfill the new field in the visit table (height_value).

MU – Retain Patients Smoking Status and Height

For existing patients that have previously had the smoking status and height captured in the previous visit, when scheduling a new procedure, these 2 values will be carried forward to the new visit. This is not a meaningful use requirement, but rather a request to try and speed up the scheduling process when capturing MU data.

MU – Problem List for MU Phase 2

Meaningful Use requirement 170.314.a.5

Record - evaluates the capability to enter patient health problems into the EHR to create the patient problem list. The Tester enters the ONC-supplied patient problem test data. The Inspection Test Guide describes several methods by which the EHR can demonstrate conformance with the vocabulary requirement.

Change – evaluates the capability to change patient problem list data which have been previously entered into the EHR. The Tester displays the patient problem list data entered during the Record Patient Problems test

- o The Tester changes the previously entered patient problems data using ONC-supplied patient problem list data.

Access – evaluates the capability to display the patient problem list data that have been previously entered into the EHR, including the capability to display the patient problem list as recorded during multiple ambulatory encounters with the same provider or during a single inpatient hospitalization.

MU – Medication List for MU Phase 2

Meaningful Use requirement 170.314.a.6

Record - evaluates the capability to enter patient active medication data into the EHR to create the patient active medication list

Change – evaluates the capability to change patient medication data that have been previously entered into the EHR. The Tester displays the patient active medication list data entered during the Record Patient Active Medications test . The Tester changes the previously entered active medication data using ONC-supplied medication data, for example, changing a medication dose or frequency and discontinuing a medication

Access – evaluates the capability to display the patient medication list data that have been previously entered into the EHR, including the capability to display the patient medication list as recorded during multiple ambulatory encounters with the same provider or during the duration of an entire inpatient hospitalization

MU – Image Results for MU Phase 2

Meaningful Use requirement 170.314.a.12

This requirement is for eRAD RIS to prove that the images and report can be viewed in the RIS when in the appropriate status. Below is a list of the test cases to validate that fact.

- Create 2 patients IM-Patient-1 and IM-Patient-2 schedule an exam.
- Go to patient folder for IM-Patient-1
- Show in rRIS where imaging information will be for Patient #1(Right click on patient folder there is no option to view images).
- Update Record for IM-Patient-1 bring exam to (Exam Done status)
- Show in rRIS where imaging information will be for Patient #1(Right click on patient folder there is an option to View Images).
- Open IM-Patient-1 and dictate exam and bring to signed1 status.
- In patient folder right click on the patient. There is an option to view narrative interpretation (report>>preview/print report) and View Images.
- Go to patient folder for IM-Patient-2
- Show in rRIS where imaging information will be for Patient #2(no images)...Right click on patient folder there is no option to view images
- Update Record for IM-Patient-2 bring exam to (Exam Done status)
- In patient folder right click on the patient. There is no option to view narrative interpretation (report>>preview/print report) however, the user can View Images.

MU – Audit Reports – MU Phase 2

Meaningful Use requirement 170.314.d.3

Enable a user to create an audit report for a specific time period and to sort entries in the audit log according to each of the data specified in the standards at § 170.210(e).

Create Audit Report – evaluates the capability of the EHR technology to enable a user to generate an audit report for a specific time period

- The Vendor provides the Tester with audit log information containing ten or more entries that was generated by the EHR technology
- Using the Vendor-provided audit log information and reporting functions, the Tester generates an audit report for a time period that includes the time at which the entries in the audit log information were recorded and verifies that the audit report is successfully created

Sort Audit Log Entries – evaluates the capability of the EHR technology to enable a user to sort entries in the audit log or in an audit report

- The Vendor provides the Tester with audit log information containing ten or more entries that was generated by the EHR technology. This could be provided through access to the audit log itself or audit reporting functions.
 - The audit report used in the previous test procedure step can be used for this test procedure step as long as the audit report entries contain the following data elements:
 - Date and time of event
 - Patient identification
 - User identification
 - Type of action (additions, deletions, changes, queries, print, copy)
 - Identification of the patient data that is accessed
- The Vendor identifies the EHR function(s) that are available to sort the audit log information by the previously described data elements

The Tester uses the Vendor-provided audit log information, sorts the audit log entries by each of the data elements listed above, and verifies that the entries were correctly sorted

MU – Goals and Condition

The Goals and Condition fields have been added to the Meaningful User Information window (hidden tab)

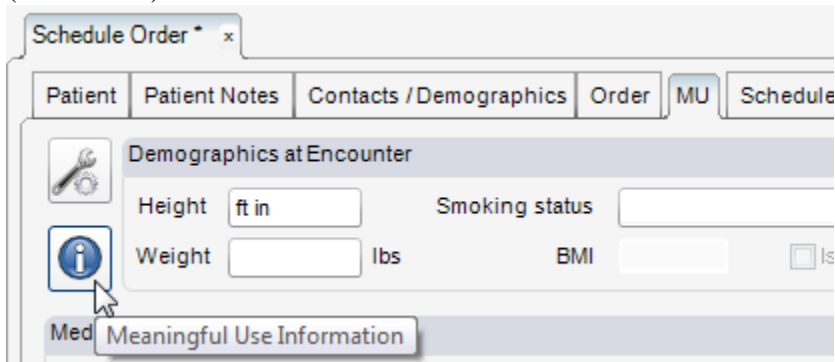


Figure 5.67– Meaningful Use Information window access

The Condition field is a type ahead/multi select field. The Goals option is a grid with 2 columns. The Goal column is list box and the Instructions column is a text field

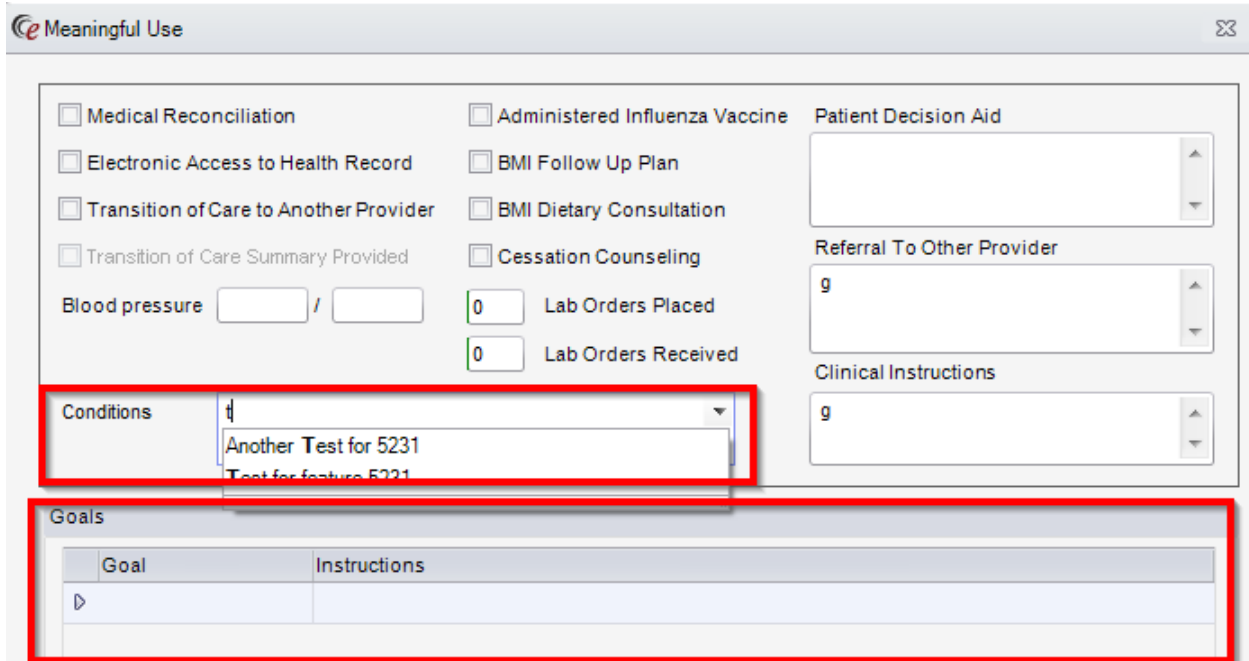
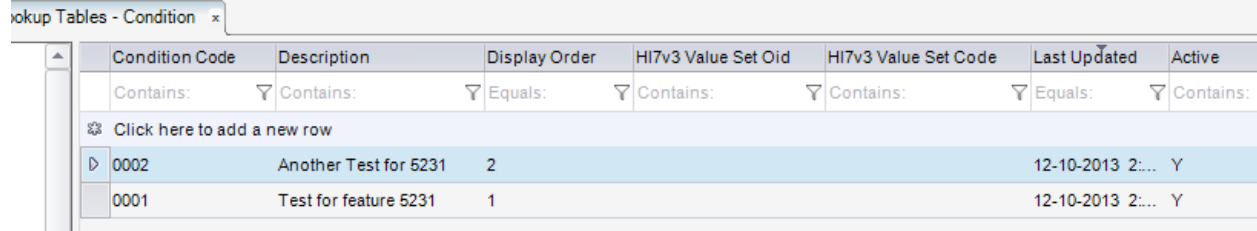


Figure 5.68 – Displaying Conditions and Goals field in Meaningful Use Information window

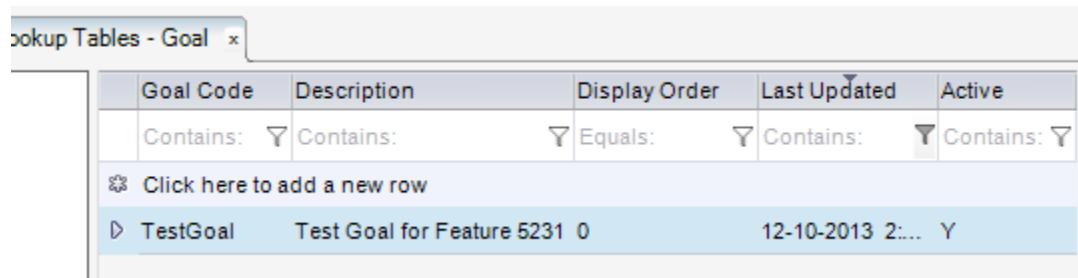
The values for the Conditions field are from a new lookup table Administration>Configure>MU>Condition table. The Description is displayed in the eRAD RIS and the HL7 values are to be mapped to valid SNOMED CT codes used for structured data for generating CCDA.



Condition Code	Description	Display Order	HI7v3 Value Set Oid	HI7v3 Value Set Code	Last Updated	Active
Contains: ▼	Contains: ▼	Equals: ▼	Contains: ▼	Contains: ▼	Equals: ▼	Contains: ▼
✳ Click here to add a new row						
▶ 0002	Another Test for 5231	2			12-10-2013 2:...	Y
0001	Test for feature 5231	1			12-10-2013 2:...	Y

Figure 5.69 – Condition lookup table.

The values for Goals is from another new lookup table Administration>Configure>MU>Goals table. The Description is the value what will appear in the Goal field of the Meaningful Use Information window.



Goal Code	Description	Display Order	Last Updated	Active
Contains: ▼	Contains: ▼	Equals: ▼	Contains: ▼	Contains: ▼
✳ Click here to add a new row				
▶ TestGoal	Test Goal for Feature 5231	0	12-10-2013 2:...	Y

Figure 5.70 – Goal lookup table

MU – Patient Specific Education Resources

For patient education resources we will be using Medline Plus. The Medline Plus info can be accessed from the context menu on the 3 grids of Medication, Medical History and Lab Results on the MU tab and select View Medline Plus Info.

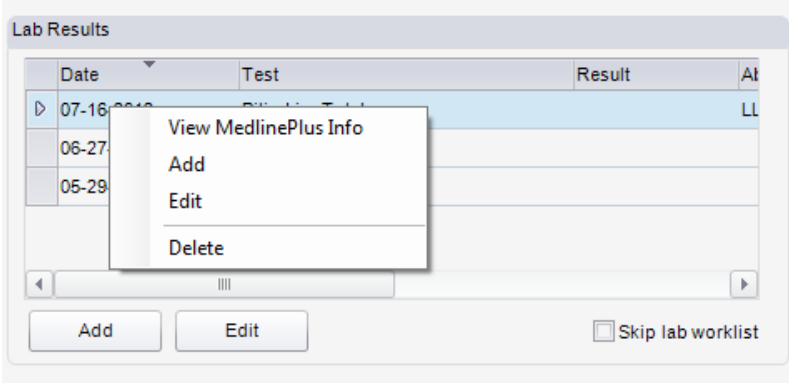


Figure 5.71 – Accessing MedlinePlus Info

Selecting the context menu option will open a modal browser window providing information on the topic selected in the grid you opened the context menu on.



Figure 5.72 – Web browser opens with search on MedlinePlus

You can right click the window and print the information for the patient.

If no results are returned from Medline a message like the following is presented to the user.

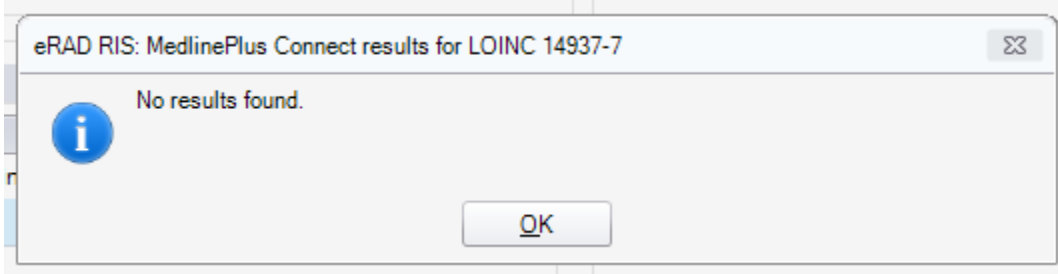


Figure 5.73 – When search doesn't find topic

When you close the browser control, you get prompted with this window to help capture the MU statistic.

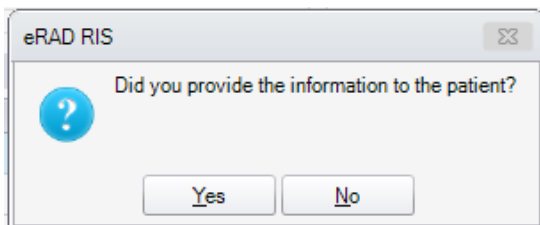


Figure 5.74 – Prompt asking if information was provided to patient

Clicking Yes is the same as checking the “Provided Education Resources” checkbox on the Documentation tab.

For this feature the following new system configuration settings have been added. The table below has the code and its default value.

Code	Default value	Actions
MUMedlinePlusConnectDebug	N	Enables debug mode
MUMedlinePlusConnectEnabled	N	Enables if Medline Plus is on or off
MUMedlinePlusConnectBaseUrl	http://apps.nlm.nih.gov/medlineplus/services/mpconnect_service.cfm	URL path for browser
MUMedlinePlusConnectDrugSearch	mainSearchCriteria.v.cs=2.16.840.1.113883.6.88	Search from Medications grid on MU tab
MUMedlinePlusConnectLabSearch	mainSearchCriteria.v.cs=2.16.840.1.113883.6.1	Search from Lab Results grid on MU tab

MUMedlinePlusConnectProblemSe arch	mainSearchCriteria. v.cs=2.16.840.1.11 3883.6.103	Search from Medical History grid on MU tab
---------------------------------------	---	--

Table 5.2 – MedlinePlus system config settings

Additionally there is a new system configuration value called **“MUMedlinePlusConnectDebug”** which when set to Y puts it into debug mode and will prompt to save the XML returned from the web service when you perform a search.

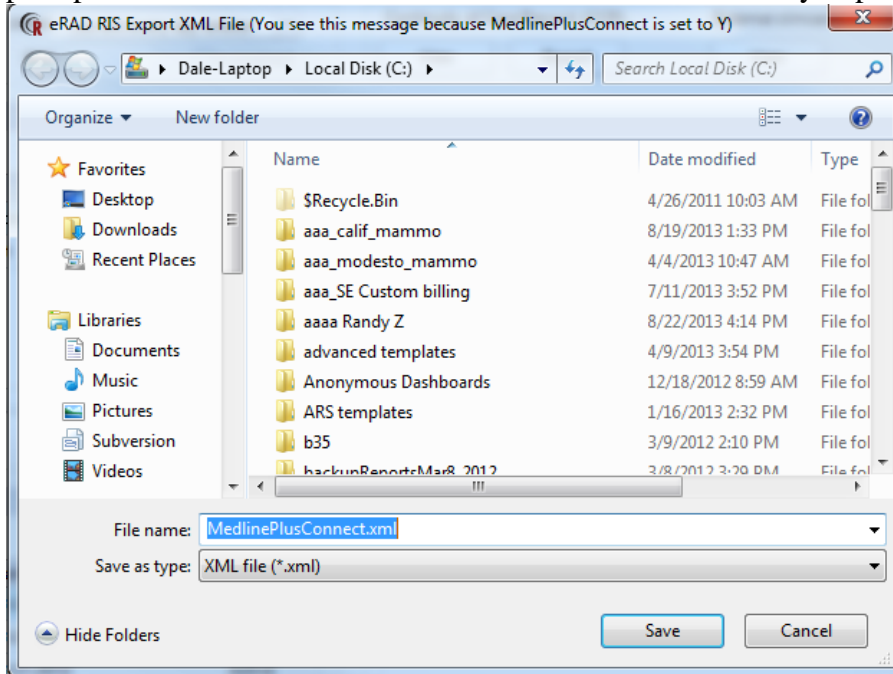


Figure 5.75 – Generating Medline Plus xml

The contents of which looks something like this...

```

<?xml version="1.0" encoding="UTF-8" ?>
- <feed xml:base="http://apps.nlm.nih.gov/medlineplus/services/" xml:lang="en" xmlns="http://www.w3.org/2005/Atom" xmlns:v3="urn:hl7-org:v3" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <title type="text">MedlinePlus Connect</title>
  <subtitle type="text">MedlinePlus Connect results for LOINC 1975-2</subtitle>
  <author>
    <name>U.S. National Library of Medicine</name>
    <uri>http://www.nlm.nih.gov</uri>
  </author>
  <updated type="text">2013-09-12T06:09:33Z</updated>
  <category scheme="REDS_MTO10001UV" term="MATCHED">
    <v3:mainSearchCriteria classCode="OBS" moodCode="DEF" xmlns:v3="urn:hl7-org:v3">
      <v3:code code="KSUBJ" codeSystem="2.16.840.1.113883.5.4" xmlns:v3="urn:hl7-org:v3" />
      <v3:value code="1975-2" codeSystem="2.16.840.1.113883.6.1" displayName="" xmlns:v3="urn:hl7-org:v3" />
    </v3:mainSearchCriteria>
    <v3:informationRecipient typeCode="IRCP" xmlns:v3="urn:hl7-org:v3">
      <v3:patient classCode="PAT" xmlns:v3="urn:hl7-org:v3" />
    </v3:informationRecipient>
  </category>
  <id />
  <entry>
    <title>Billrubin - blood</title>
    <link href="http://www.nlm.nih.gov/medlineplus/ency/article/003479.htm" rel="alternate" />
    <id:tag:.nlm.nih.gov, 2013-12-09:/medlineplus/ency/article/003479.htm</id>
    <updated>2013-09-12T06:09:33Z</updated>
    <summary />
  </entry>
</feed>

```

Figure 5.76 – xml file for Medline Plus when MUMedlinePlusConnectDebug = Y

MU – New Alert Rules – MU Phase 2

Here are the alerts that we have created

1. **NM Stress Test** – you can configure as many of these as you like. Typically one for each procedure_code you want the high blood pressure check on. It also allows you to configure the 200/100 to any value you like. Alert Generator name is **“ProcedureXAndHighBP”**
2. **Empty Lab Test** –This just looks over all lab tests for the patient and if any are blank will prompt with the alert. Note: the administrator isn’t allowed to provide a custom description since the description of the alert is generated dynamically and will include the text of the lab tests that are missing. Alert Generator name is **“LabOrderWithEmptyValue”**
3. **CT Contrast Allergy** & 4. **MR Contrast Allergy** – Fire when the indication specified exists and the patient has the specified contrast allergy code. This alert is highly configurable so that the alert implementation isn’t dependent on specific allergy, indication or modality type codes, which may differ depending on the customer implementation. Alert Generator name is **“IndicationAndSevereContrastAllergy”**

The following screen shot shows the above three generators configured for the 4 rules NM Stress, Empty Lab Test, CT Contrast and MR Contrast Allergies.

Alert Configur...	Description	Alert Generator	Alert Parameters	Internal Comment
Contains	Contains	Contains	Contains	Contains
NMStress1An...	High blood pressure, check if this p...	ProcedureXAndHighBP	AMNJJHEART_200/100	NM Stress Heart Test and High BP
EmptyLabTest		LabOrderWithEmptyValue		Lab test that has an empty result value.
CT Contrast AI...		IndicationAndSevereContrastAllergy	V15.08, 359866008, CT	CT Patient with Previous CT Contrast Reaction & severe allergy to contrast
MR Contrast A...		IndicationAndSevereContrastAllergy	R004,359866008,MR	MR Patient with Previous MR Contrast Reaction & severe allergy to contrast

Figure 5.77 – Alert Configuration table displaying new alerts

In addition to the configuration column “Alert Parameters”, the column “Internal Comments” has also been added, which can be used by the implementer to document the reasons they created or possibly disabled an alert.

The following lookup table validation error displays, if the alert parameters is blank for ProcedureXandHighBP:

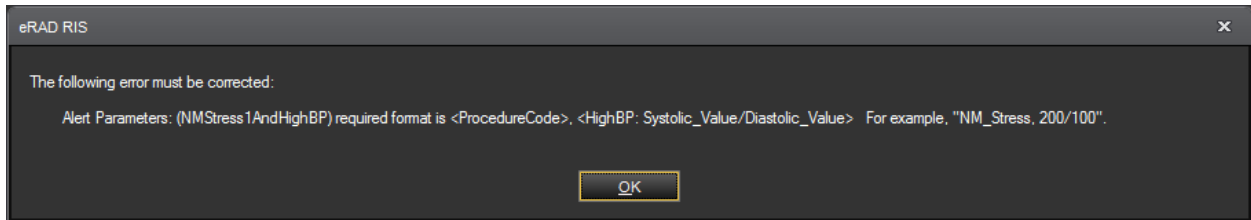


Figure 5.78– Error message presented if ProcedureXandHighBP is blank

The following lookup table validation error displays, if the alert parameters is blank for IndicationAndSevereContrastAlergy:

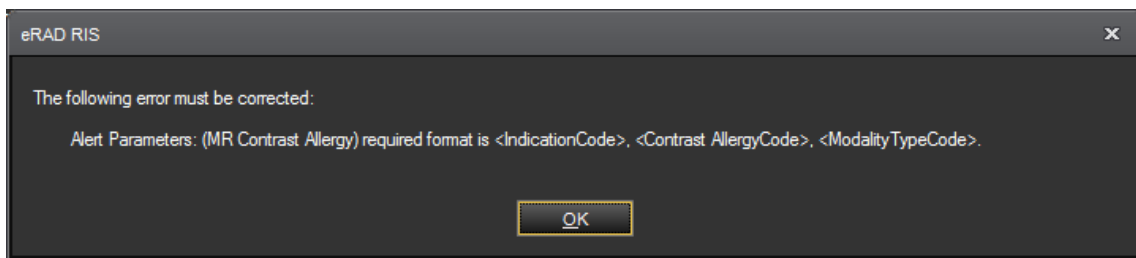


Figure 5.79 – error message presented if alert IndicationAndSevereContrastAlergy is blank

The following lookup table validation error displays, If a code is incorrect such as the Contrast AllergyCode:

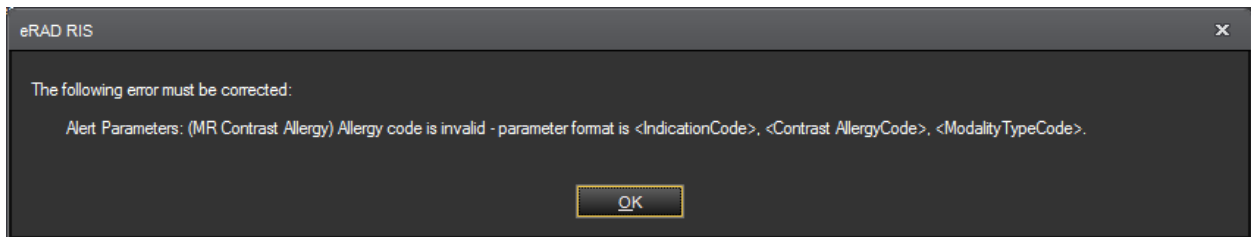


Figure 5.80 – error message presented if Contrast Allergy code is incorrect

MU – CCDA

CCDA information is a lengthy document that can be reviewed from the following URL

http://www.hl7.org/implement/standards/product_brief.cfm?product_id=7

The CDA® Release 2 document can be downloaded from this site as well.

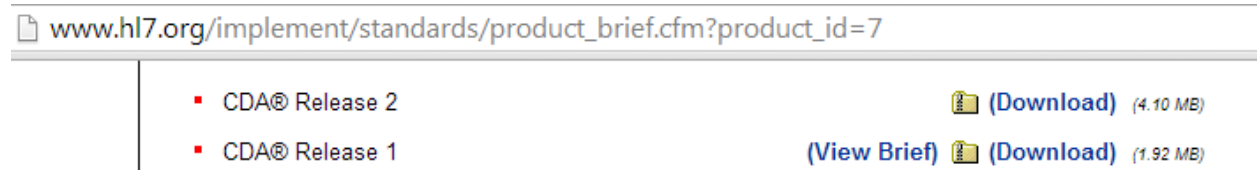


Figure 5.81 – Download CDA Release 2

MU – CCDA Generation

To access the CCDA the user can select the View button under the Clinical Document (C-CDA) section on the MU tab. Selecting this button opens the View Clinical Document (C-CDA) window.

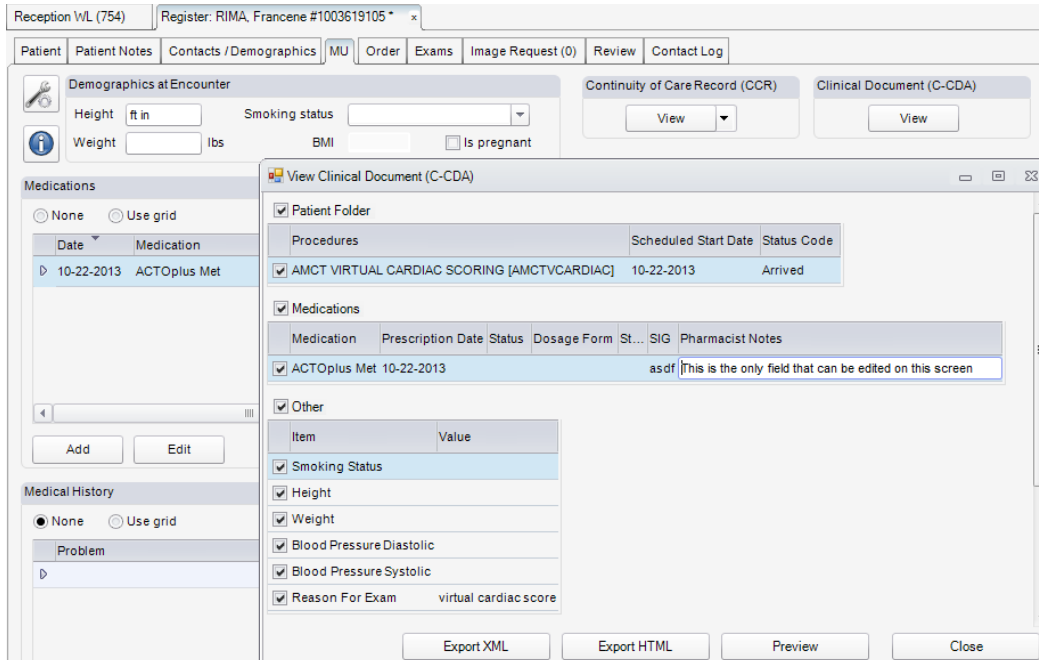


Figure 5.82 – Accessing CCDA

From the View Clinical Document (C-CDA) window the user can select the data elements that will be displayed in the C-CDA.

Options to Export XML, Export HTML, Preview the document and close.

MU – SNOMED CT

Meaningful Use Stage 2 Problems must be recorded in SNOMED CT codes. However, these codes do not necessarily have to be displayed in the user entry but can be stored or mapped elsewhere in the EHR product such as a dictionary map or a database. The specific vocabulary standard is **US Extension to SNOMED CT**. Today, we are recording Problems using ICD9 codes and eventually moving to ICD10 codes by October 1, 2014. We will need to find a mapping table for ICD9 and eventually ICD10 codes to SNOMED CT codes. In order to use SNOMED CT codes in the application we will need a **License Agreement** with IHTSDO (International Health Terminology Standards Development Organisation).

The International Release is updated each year in January and July. The download contains SNOMED CT files in both Release Format 1 (RF1) and the **new Release Format 2 (RF2) versions which eRAD / Radnet will use**. Updates to the US Edition will be available approximately one month after publication of the International Release of SNOMED CT. eRAD / Radnet will use the US Edition of SNOMED CT codes to certify for Meaningful Use Stage 2 (2014). The US Edition of SNOMED CT is the official source of SNOMED CT for use in US healthcare systems. **Note: The March 2013 Release of the US Extension will mark the last time that NLM will make the standalone US Extension files available for download. For future releases, users must download the US Edition to obtain US Extension content.**

For Meaningful Use (2014) we will download Snomed ct codes into two new lookups (l_snomed_concept and l_snomed_description). These get populated with the Snapshot release of the US edition of SNOMED CT codes. We will have to come up with a strategy of populating these in a future release as the codes are released every six months. We also need to download the ICD9 and SNOMED CT mapping file to a new lookup (l_snomed_icd9_map). We will also have to come up with a strategy of populating this mapping table with future releases.

NOTE: these are hidden lookups and cannot be accessed via the GUI

HL7 Payments

In eRAD RIS we are currently able to attach payments manually, no problem.

If there is HL7 integration with a patient kiosk, where a patient can check-in and also make a payment.

Payment is sent to eRAD RIS via HL7 (FT1 - financial segment).

Currently there is a logic gap in Wedge that restricts us from being able to accept payments via HL7.

Current logic --> Delete all current records from c_payment table for visit.

Add new rows provided with Study update.

The issue is the "Delete" --> This would cause an issue if a payment was already entered in RIS, then a new transaction comes through.

Existing payment in RIS would be deleted, new payment added.

Created a new column in Visit.c_payment called external_payment_id as a varchar(50).

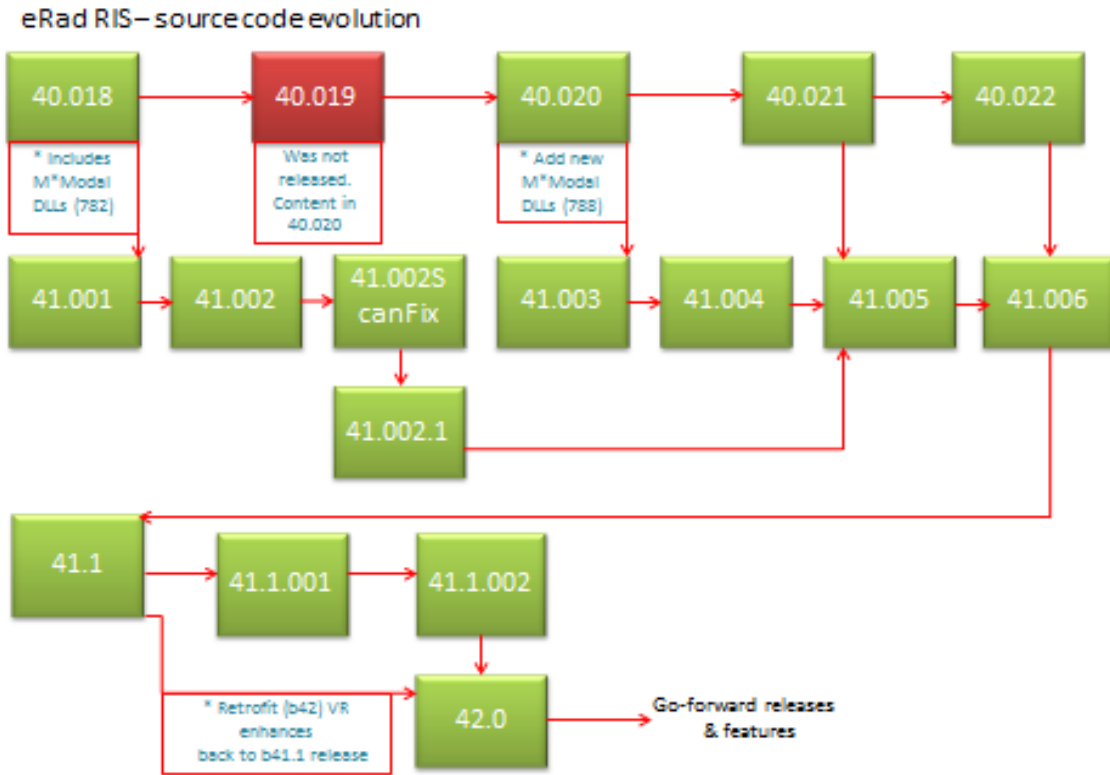
If a message comes in that contains a c_payment row with an empty external_payment_id the wedge will throw an exception and reject the message.

The receipt_number field needs to be populated with a value in the format "site_code-?", so in the example below I used "SS-?". The RIS core services handles generating a receipt number value based on this. This site_code value does not need to be a value from the l_site table, but it might be a good idea.

For testing purposes, I created a Mirth channel which simply reads an xml file from disk and sends it to the wedge. The export of the Mirth channel is attached to this bug in Redmine.

The file contained a very empty StudyContainer with only a c_payment row with the needed test data and a c_study row with an existing accession number.

6. Code Stream



Legend:

Green = Released software

Red = Will not be released

Blue = Future release

7. RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
37	-	1.2.37.12843	1.2.37.12782	1.2.37.12843	1.2.37.12843	Full version release. Core install required.
37	1	1.2.37.13040	1.2.37.13040	1.2.37.13039	1.2.37.13003	Core install required. GUI.zip, web service and database updates
37	2	1.2.37.13069	1.2.37.13040	1.2.37.13069	1.2.37.13003	GUI.zip and Web service updates
37	3	1.2.37.13069	1.2.37.13040	1.2.37.13069	1.2.37.13003	Just WebAPI updated, no version changes. . Web service updates
37	4	1.2.37.13171	1.2.37.13040	1.2.37.13165	1.2.37.13171	GUI.zip, web service, and database updates
37	5	1.2.37.13347	1.2.37.13040	1.2.37.12979	1.2.37.12979	Bug was discovered with version numbers, this is why it appears we went backwards in the version number but we really did not.
37	6	1.2.37.13665	1.2.37.13040	1.2.37.13580	1.2.37.12979	GUI.zip and Web service updates
37	7	1.2.37.13807	1.2.37.13040	1.2.37.13799	1.2.37.13807	GUI.zip and Web service updates. Also MIRTH mapping changes
37	8	1.2.37.13807	1.2.37.13040	1.2.37.13827	1.2.37.13807	Web service update
37	9	1.2.37.13807	1.2.37.13040	1.2.37.13839	1.2.37.13807	Web service update

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37	10	1.2.37.13895	1.2.37.13040	1.2.37.13895	1.2.37.13895	GUI.zip, Web service and database updates
37	11	1.2.37.14161	1.2.37.13040	1.2.37.14161	1.2.37.14161	GUI.zip, Web service, database updates and SQL Management reporting
37	12	1.2.37.14267	1.2.37.13040	1.2.37.14161	1.2.37.14267	GUI.zip, Web service and database updates
37	13	1.2.37.14326	1.2.37.13040	1.2.37.14326	1.2.37.14326	GUI.zip, Web service and database updates
38	-	1.2.38.14486	1.2.38.14486	1.2.38.14486	1.2.38.14486	Full version release. Core install required.
38	1	1.2.38.14748	1.2.38.14748	1.2.38.14748	1.2.38.14748	Core install required
38	2	1.2.38.15182	1.2.38.14748	1.2.38.14748	1.2.38.14748	GUI.zip update only
38	3	1.2.38.15251	1.2.38.14748	1.2.38.14748	1.2.38.14748	GUI.zip update only
38	4	1.2.38.15327	1.2.38.14748	1.2.38.15290	1.2.38.14748	GUI.zip and Web service updates
38	5	1.2.38.15513	1.2.38.15513	1.2.38.15513	1.2.38.15451	Core install required. GUI.zip, Web service and database updates.
38	6	1.2.38.15618	1.2.38.15513	1.2.38.15513	1.2.38.15618	GUI.zip and database updates
38	7	1.2.38.15768	1.2.38.15513	1.2.38.15768	1.2.38.15618	GUI.zip and Web Service updates
39	-	1.3.39.15389	1.3.39.15389	1.3.39.15377	1.3.39.15355	Full version release. Core install required.

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39	1	1.3.39.16026	1.3.39.15943	1.3.39.15943	1.3.39.15957	Core install required. GUI.zip, Web service and database updates
40	-	1.3.40.16659	1.3.40.16659	1.3.40.16659	1.3.40.16659	Core install required. Full version release
40	1	1.3.40.16849	1.3.40.16659	1.3.40.16744	1.3.40.16727	GUI.zip, Web service, database updates and SQL Management reporting
40	2	1.3.40.16868	1.3.40.16659	1.3.40.16868	1.3.40.16727	GUI.zip and Web Service
40	3	1.3.40.16868	1.3.40.16659	1.3.40.16868	1.3.40.16727	DB updated only
40	4	1.3.40.16967	1.3.40.16659	1.3.40.16932	1.3.40.16961	GUI.zip, Web service, database updates
40	5	1.3.40.17087	1.3.40.16659	1.3.40.17069	1.3.40.17087	GUI.zip, Web service, database updates
40	6	1.3.40.17146	1.3.40.16659	1.3.40.17146	1.3.40.17146	GUI.zip, Web service, database updates
40	7	1.3.40.17268	1.3.40.16659	1.3.40.17268	1.3.40.17259	GUI.zip, Web service, database updates
40	8	1.3.40.17364	1.3.40.16659	1.3.40.17362	1.3.40.17343	GUI.zip, Web service, database updates
40	9	1.3.40.17370	1.3.40.16659	1.3.40.17370	1.3.40.17370	GUI.zip, Web service, database updates
40	10	1.3.40.17435	1.3.40.16659	1.3.40.17435	1.3.40.17370	64 BIT web service. GUI.zip, Webservice.
40	11	1.3.40.17435	1.3.40.16659	1.3.40.17525	1.3.40.17370	Web service update

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40	12	1.3.40.17685	1.3.40.16659	1.3.40.17685	1.3.40.17648	GUI.zip, Web service, database updates
40	13	1.3.40.17776	1.3.40.16659	1.3.40.17776	1.3.40.17648	GUI.zip, Web service
40	14	1.3.40.18063(3GB)	1.3.40.16659	1.3.40.18063	1.3.40.18063	GUI.zip, Web service, database updates
40	14.1	1.3.40.18063(3GB)	1.3.40.16659	1.3.40.18107	1.3.40.18063	Web service
40	15	1.3.40.18127(3GB)	1.3.40.16659	1.3.40.18127	1.3.40.18127	GUI.zip, Web service, database updates
40	16	1.1.3.40.18585 (3GB)	1.3.40.16659	1.3.40.18585	1.3.40.18646	GUI.zip, Web service, database updates
40	16.1	1.3.40.18705 (3GB)	1.3.40.16659	1.3.40.18585	1.3.40.18646	GUI.zip
40	17	1.3.40.18780 (3GB)	1.3.40.18756	1.3.40.18756	1.3.40.18646	Core install required for Radiologist User Group. GUI.zip, Core setup, and Web Service updates
40	18	1.3.40.19253(3GB)	1.3.40.18756	1.3.40.18756	1.3.40.19253	GUI.zip, Web Service and database updates
40	19	1.3.40.19909(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	GUI.zip, Web Service
40	20	1.3.40.20086(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip and Recognizer
40	21	1.3.40.20703(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip
40	22	1.3.40.20898(3GB)	1.3.40.18756	1.3.40.19878	1.3.40.19253	Gui.zip
41	-	1.3.41.19135(3GB)	1.3.41.19135	1.3.41.19135	1.3.41.19135	Full version release
41	1	1.3.41.19256(3GB)	1.3.41.19135	1.3.41.19256	1.3.41.19256	GUI.zip,

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						Web Service and database updates
41	2	1.3.41.19620(3GB)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip and Web Service
41	2sf	1.3.41.19620SF(3G)	1.3.41.19135	1.3.41.19620	1.3.41.19346	GUI.zip
41	2.1	1.3.41.20622(3GB)	1.3.41.19135	1.3.41.20617	1.3.41.19346	GUI.zip and Web Service
41	3	1.3.41.20125(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip , Web Service and Recognizer
41	4	1.3.41.20285(3GB)	1.3.41.19135	1.3.41.20171	1.3.41.19346	GUI.zip
41	5	1.3.41.20809(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip, Core install, Web Service and database updates
41	6	1.3.41.20912(3GB)	1.3.41.20708	1.3.41.20792	1.3.41.20738	GUI.zip
41.1	-	1.3.41.20918(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip
41.1	1	1.3.41.20987(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip
41.1	2	1.3.41.21162(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip, Web Service and DB updates
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release

8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.42. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.42.

Bug #	Priority	Subject	Category	Found Version
5785	Immediate	Automacros containing fields lose their field attributes	Radiology Reporting	1.41.1
5165	Immediate	Losing default value for fields when saving template/macro	Radiology Reporting	40.019
2972	Immediate	multi sign - personnel search from administration will not populate the sign level saved with the user	Thick Client GUI	1.39.001
5827	Urgent	InsertTextAtPastCaretPositions is causing undesired behavior for rads when editing.	Radiology Reporting	1.40.022
5758	Urgent	Mammo follow-up orders no longer included in the list of outstanding orders when scheduling	Thick Client GUI	1.41.006
5338	Urgent	Reporting - Dictionary Add / Train changes	Radiology Reporting	1.40.20
4972	Urgent	RadNet - Sales Reports - Adjust all reports to CPT based	Mgt Reports	1.4
4710	Urgent	Reporting - inserting a template or macro with interactive timestamps will cause playback corruption and confusion	Radiology Reporting	1.41
4641	Urgent	RRR- support issue. Outside Read Bug	Thick Client GUI	40.17
5604	High	Error after login: nullable object must have a value (see alternative steps to reproduce)	Thick Client GUI	1.41.002.1
5576	High	Saving system layout saved signing layout as editing and vice versa.	Radiology Reporting	1.40.21
5438	High	Reporting - possible wrong document model loading if more than one practice	Radiology Reporting	1.40.20
5348	High	Reporting - ability to navigate cued fields without pausing	Radiology Reporting	1.4
5298	High	Next fields wraps document but previous field does not	Radiology Reporting	1.40.020

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5210	High	Not able to arrive a patient (MSK)	Thick Client GUI	41.002
5196	High	Date filter not working correctly on - Last Followup Date column (RRR)	Thick Client GUI	41.002
5171	High	Cancelled by Reason Core management report fails to run (RRR)	DB	41.002
5152	High	Correction dialog can cause word duplication	Radiology Reporting	1.40.018
5141	High	Editing fields in template editor sometimes throws an exception	Radiology Reporting	40.019
5137	High	Management Reports - Modifications to reports in Operations Folder	Mgt Reports	1.4
4987	High	Tentatively signed studies that are suspended should be better protected	Radiology Reporting	1.40.017
4984	High	HL7 --> placer order number contains literal		41.001
4856	High	Wedge fails to insert order and returns Patient and OrderPlacerNumber reference check failure The transaction ended in the trigger. The batch has been aborted. to Mirth	DB	1.41
4823	High	Reporting Screens fail to load if unable to find a good description for the current procedure code	Thick Client GUI	1.4
4803	High	Template/macro add ability to assign to Modality Type	Radiology Reporting	1.4
4751	High	Next workflow broken when using multiple tabs of different types	Radiology Reporting	1.41
4681	High	Able to sign a report when the field(s) in a template do not not have a value.	Thick Client GUI	1.41
4671	High	Unknown CC physician --> not displayed properly on Unknown reconsiliation WL (RRR)	Thick Client GUI	40.17
4649	High	Error adding a procedure plan for new appointment	Thick Client GUI	1.41
4626	High	Protect Section Headers - Two new cases to handle	Radiology Reporting	1.41

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4625	High	Reporting - ability to open multiple dictations in batch mode	Radiology Reporting	1.4
4597	High	RRR - HTML Codes are breaking prep instructions	Thick Client GUI	40.18127
4580	High	Special Accommodations Flag does not get turned off if Special Accommodations is the only flag that is turned on and the user switches the Yes to a No	Web Services/DB	1.4
4546	High	Patient Merge event while another user has that patient open on a screen.	Thick Client GUI	1.4
4545	High	Referrings with No delivery preference in any address do not get their reports.	Document Distribution	1.40.16
4479	High	Reporting - using re-use causing confusion when getting a message box like "Addendum Requested"	Radiology Reporting	1.41
4379	High	All signed by date column sorts	Radiology Reporting	1.41
4378	High	Canceling Unscheduled orders not appearing on Patient Folder	Thick Client GUI	1.41.18633
4375	High	Patient Merge - Suggest button causes Index error when trying to add to the Patient Merge WL	Thick Client GUI	1.41
4366	High	Transcribe next workflow (beeps)	Radiology Reporting	1.41
4281	High	Template / macro user assignment screen slow to load.	Radiology Reporting	1.4
4198	High	patient folder doesn't load unless part of the initial layout on open of rad screen	Thick Client GUI	1.41
4005	High	Memory leak - Reporting - Resizing floating panes	Thick Client GUI	1.40.013
3909	High	Show / Hide titlebars from view menu throws exception	Thick Client GUI	1.40.010
3845	High	Lookup editor drop down won't must show existing values	Thick Client GUI	40.006
3575	High	RadNet - West Coast - Add Age as an Pre-Cert rule option	Thick Client GUI	1.39

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3570	High	Reporting - Playback then record does not work with Interactive Dictation.	Thick Client GUI	1.40.005
3528	High	Magview reports come in via HL7 containing 	HL7	1.4
3036	High	Reporting - Pending Signature worklist not obtaining lock for patients with multiple studies from same order	Thick Client GUI	1.39.001
2941	High	Request Addendum	Thick Client GUI	1.37
2532	High	access to changing the access strings needs to read only.	Thick Client GUI	1.39
5788	Normal	xkeys - insert template is not working		1.41
5779	Normal	c_selectreporttable throwing error on report server when there is no table for the dx report	Web Services/DB	1.41
5729	Normal	Exam Search with Scheduled Date Range includes one extra day	Thick Client GUI	1.41.006
5641	Normal	Parameter is not valid error while loading thumbnail images in document viewer	Thick Client GUI	1.41.005
5631	Normal	Special Accommodations flag does not display properly	Thick Client GUI	1.4
5623	Normal	null reference error when opening administration / management reports	Thick Client GUI	1.41.005
5612	Normal	null reference error from CDImportManager	Thick Client GUI	1.41.005
5600	Normal	ICM Dashboard - outside read site code issue	Web Services/DB	1.4
5599	Normal	wrong data in c_study._site_code for outside read	Web Services/DB	1.41
5583	Normal	Spell check on the fly no longer turned on. Squigly lines are not shown under misspelled words	Radiology Reporting	1.40.21
5577	Normal	Report Fields do not update when you load a new layout	Radiology Reporting	1.41
5561	Normal	foreign key error when adding follow-up / contact log entries	Thick Client GUI	1.41.005

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5525	Normal	Scanning - Performs scan but returns no pages.		1.41
5516	Normal	Error when reprinting Receipts	Thick Client GUI	1.41.002.1
5507	Normal	Patient Folder - Null Scheduled Dates should show at top as most recent.		1.41
5487	Normal	Procedure code assignment screen in template editor keeps button disabled	Radiology Reporting	1.41.002
5478	Normal	MERGE - Birad picker either shows on non Birads studies or doesn't show on birad studies.	Radiology Reporting	41.002
5460	Normal	When deleting, activating or deactivating items in the template/macro editor, all rows are updated	Radiology Reporting	1.41
5443	Normal	Reporting - rad edit text default color is yellow - should be "#810000"	Radiology Reporting	1.40.20
5408	Normal	Object Reference Error entering an OutsideRead 41.004	Thick Client GUI	41.004
5394	Normal	missing index on c_summary_mu_history	DB	1.41
5379	Normal	right click Print Report should record an audit log entry	Thick Client GUI	1.40.003
5377	Normal	Stored procedure for Radar confirmations in core install is out of date in relation to SE	Web Services/DB	1.4
5351	Normal	Reporting - Laterality check causing duplicate words	Radiology Reporting	1.40.020
5346	Normal	Reporting - report history requires a lock and offers a read only mode that will not allow you to view anything		1.40.020
5345	Normal	Playback with bouncing ball, preventing word selection with double click.	Radiology Reporting	40.016
5332	Normal	Reporting - no wait navigate fails when dictating and then clicking next field > 1 time without pausing	Radiology Reporting	1.40.019
5327	Normal	Problem with AME Spellcheck CP-14969		1.40.020
5308	Normal	Reporting - dictating negative 5 percent will render the word percent not the symbol	Radiology Reporting	1.40.20

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5273	Normal	CD Import: import fails, if images don't have an accession number		1.41
5272	Normal	Reporting - Automatic spell check "on the fly" marks words as misspelled that are at the beginning of a field	Radiology Reporting	1.40.020
5271	Normal	Field navigation popup not showing for FFF	Radiology Reporting	40.02
5244	Normal	Copy and pasting words into a report should add leading and trailing space as in MS Word	Radiology Reporting	1.4
5242	Normal	Input device invokable events need proper display text	Radiology Reporting	9
5221	Normal	Reporting - User preference for Redo needs to be selected twice to work	Radiology Reporting	1.40.020
5219	Normal	Reporting - Function key action DeleteWordLeftOfCursor will delete fields and section titles	Radiology Reporting	1.40.020
5217	Normal	Solution name is wrong in installer - and possibly icon for shortcuts.		1.38
5211	Normal	Prompt when creating templates if the word colon is in a cue		1.40.019
5203	Normal	Unable to dictate a new line (shift+enter). Always renders as a paragraph	Radiology Reporting	1.40.019
5202	Normal	Next/Previous section unusable due to inconsistent results		1.40.019
5201	Normal	Rendering of spine levels have changed in 7.88		1.40.019
5200	Normal	First word in field persisting and will not overwrite	Radiology Reporting	1.41
5179	Normal	DEA blank vs Null	Thick Client GUI	1.41
5178	Normal	Template - cannot remove a value in either the Grammar or Default value fields	Thick Client GUI	41.003
5170	Normal	Reporting - template/macro editor cue text box too small	Radiology Reporting	1.41
5169	Normal	Aggressive field cue navigation fails after editing a cue on a template.	Radiology Reporting	1.40.019

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5160	Normal	Prompt when creating templates if the word colon is in a cue		1.40.019
5145	Normal	Next field voice command, showing field popup for one field too far.	Radiology Reporting	40.18
5136	Normal	Management Report updates - removals	Mgt Reports	1.4
4979	Normal	Advanced needs created date to appear on the dx template next to each addendum	Web Services/DB	1.4
4977	Normal	forms will not print for exams scheduled in closed rooms	Thick Client GUI	1.4
4976	Normal	Application icon is rris icon instead of eRAD icon - and is grainy / blocky in task bar		1.4
4974	Normal	RadNet - Sales reports - add patient zip code report	Mgt Reports	1.4
4940	Normal	Multi-type ahead control not sufficient for replacement of Race/Ethnic combo box.		1.41
4939	Normal	Type ahead for ICD codes on Medical History Grid does not handle decimal	Thick Client GUI	1.41
4934	Normal	Assign to Control can populates user list based on wrong practice	Radiology Reporting	1.41
4875	Normal	support row level caching for lookup tables	Web Services/DB	1.4
4862	Normal	null reference error in PatientGeneral constructor line 126	Thick Client GUI	1.41
4860	Normal	Ris hangs... For a long time in template editor.	Radiology Reporting	1.41
4850	Normal	TypeError: The prefix "mm" for attribute "mm:major" associated with an element type "ClinicalDocument" is not bound	HL7	1.41
4839	Normal	RRR - IVT - Managed Policies - billing code info goes blank		1.4
4828	Normal	Report fields control throws exception when in minimized mode	Radiology Reporting	1.41
4818	Normal	Reporting - reuse only - macros are not getting reset and old command are staying around on next workflow	Radiology Reporting	1.41

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4817	Normal	First chance exception when getting field description in report template editor.	Radiology Reporting	1.4
4813	Normal	First chance exception on SpeechMike Firmware check	Radiology Reporting	1.41
4812	Normal	First chance exception on PacsCacheServer	Thick Client GUI	1.41
4811	Normal	First chance exception when loading reporting autosave screen.	Radiology Reporting	1.41
4806	Normal	Reporting - spell check on the fly user preference not working	Radiology Reporting	1.41
4786	Normal	Management Report - User Group Permissions is missing access string name	Mgt Reports	1.41
4784	Normal	Patient merge - recent history list - pulls up the deleted patient	Thick Client GUI	1.4
4780	Normal	Known Limitation - Side by side registration broken from 40.016 - 40.017	Thick Client GUI	40.017
4778	Normal	duplicate "void" payment for the same payment	Thick Client GUI	1.4
4776	Normal	PACS Server override user preference requires log-out, then log-in to take effect	PACS Integration	1.41.001
4775	Normal	PACS Viewer 7.2.34 returns Success="1" with a view session id but empty openedaccessionnbs attribute. When RIS closes this view session PACS is unresponsive.	PACS Integration	1.41.001
4758	Normal	Invalid insurance policy saved to DB	Thick Client GUI	40.016
4752	Normal	Reporting - speech mics 3500 and 3600 showing incorrectly in Help>About	Radiology Reporting	1.41
4748	Normal	scan document archive "write check" fails when 2 or more processes run on the same server	Web Services/DB	1.4
4746	Normal	Reporting - performance - require two raddocks to support signing and dictating	Radiology Reporting	1.41
4741	Normal	Scan document archiving fails when the scan document page is null	Web Services/DB	1.4

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4739	Normal	Reporting - reuse enabled and open a screen for signing, skip next will not populate the tab text	Radiology Reporting	1.41
4725	Normal	IVT Worklist - new field "Last Contact entry"	Thick Client GUI	1.41
4723	Normal	Dark mode watermark (eRad RIS logo) too bright		1.41
4720	Normal	c_GetNameFromUserID still referencing c_format_name using format 1	Web Services/DB	1.4
4716	Normal	Reporting - reuse when skipping reports and there are change we don't get a prompt to save changes	Radiology Reporting	1.41
4714	Normal	RRR - unknown reconciliation - right click not available on HoldCodeCompleted	Thick Client GUI	40.17
4683	Normal	MU Ethnic HL7 codes	Web Services/DB	1.41
4682	Normal	MU - c_patient_medication is missing FK reference to l_medication.medicaiton_code	Thick Client GUI	40.17
4676	Normal	Reporting - reuse selected report tool window keeping previous data	Radiology Reporting	1.41
4673	Normal	Management Report - Appointment Schedule	Mgt Reports	1.4
4665	Normal	Numbered lists that aren't formatted as true ordered lists are wrapping up to the seciton line	Mgt Reports	1.41
4662	Normal	Reporting - SetAccountRules not called when opening an exam for the default template	Radiology Reporting	1.41
4660	Normal	Report fields control showing as a blank canvas	Radiology Reporting	1.41
4654	Normal	Dictating previous field moves two fields back instead of one.	Radiology Reporting	1.41
4639	Normal	Interactive fast forward light up play and fast forward	Radiology Reporting	1.41

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4638	Normal	Audio control allow rewinding and fastforwarding to show at the same time as active.	Radiology Reporting	1.41
4637	Normal	RCW error closing reporting window	Radiology Reporting	1.41
4636	Normal	Recording rewinding in interactive mode falls into a playback/rewind loop.	Radiology Reporting	1.41
4635	Normal	Recording interactive and rewinding	Radiology Reporting	1.41
4634	Normal	Audio starts playing when recording	Radiology Reporting	1.41
4633	Normal	Switching from record to play in batch mode	Radiology Reporting	1.41
4632	Normal	Interactive record + playback at same time	Radiology Reporting	1.41
4630	Normal	Reporting - Edit Templates and Macros from the menu option is showing templates not soley owned by the radiologist	Radiology Reporting	1.4
4628	Normal	MU Height and Smoking Status should pre-populate for walk-in	Thick Client GUI	1.41
4627	Normal	RectangleDrawer timer throws exception	Radiology Reporting	1.4
4624	Normal	Reporting - Automacros do not use scanner in scoring which available macro should load		1.4
4621	Normal	QA workflow, set to problem without rejecting	Radiology Reporting	1.41
4607	Normal	RadNet - Dark Theme - Within template/macro editor, forecolor is the same as backcolor	Thick Client GUI	1.41
4588	Normal	CD Import - Fails to import CDs from some hospitals that have "Screen Save" type images		1.4
4581	Normal	Ampersand in template / macro field name can corrupt report	Radiology Reporting	1.4

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4577	Normal	View Edit - open view edit window and save with no changes made logs entry to audit history	Thick Client GUI	1.41
4567	Normal	Reporting - notifications need to be placed above action buttons.		1.41
4566	Normal	Reporting Reuse - Next workflow loads cases that are pending saving.	Thick Client GUI	1.41
4562	Normal	Template editor, inserting a field into a section header throws an error.	Radiology Reporting	1.4
4560	Normal	Some message boxes don't close when hitting X	Thick Client GUI	1.41
4557	Normal	Read only mode hides recording button, but can still record using microphone	Radiology Reporting	1.41
4556	Normal	Read only mode not reflecting on minimized dictation controls	Radiology Reporting	1.41
4551	Normal	Modified GoggleSearchAction to support Multiple passed in params	Thick Client GUI	1.41
4549	Normal	person search results does not correctly show specialties	Thick Client GUI	1.4
4544	Normal	Send-to button blanks out the reporting screen	Radiology Reporting	1.41
4543	Normal	RXNorm is not captured from NewCrop	Thick Client GUI	1.41
4542	Normal	Worklist refresh exception		1.41
4541	Normal	autosave - button positions should be switched		1.41
4540	Normal	Autosave - close should prompt to delete		1.41
4539	Normal	Autosave - double click row does nothing		1.41
4536	Normal	Reporting - Reuse enabled status area messages not populating for action buttons	Radiology Reporting	1.41
4533	Normal	Reporting - edit template > make changes > x to close > no prompt presented about changes	Radiology Reporting	1.41
4532	Normal	Reporting - edit template > esc > cancel will close the form instead of cancelling	Radiology Reporting	1.41

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4528	Normal	WPR-000	Radiology Reporting	1.4
4527	Normal	Attachments - Verbal button causing error	Thick Client GUI	1.41
4522	Normal	intermittent error: transaction was deadlocked on lock resources with another process and has been chosen as the deadlock victim	Web Services/DB	1.41
4521	Normal	Scanning - Editing Document width and height causing error on blanks	Thick Client GUI	1.41
4516	Normal	Reporting - MT polling enabled open RIS initially will result in messed up reporting screen	Radiology Reporting	1.41
4514	Normal	Attachments - wide documents that a small height cause an out of memory exception		1.4
4510	Normal	Reporting - editing reports MT's have the microphone selection option available	Radiology Reporting	1.41
4508	Normal	Transcriptionist next workflow not properly skipping	Radiology Reporting	1.41
4490	Normal	Protect section headers does not protect against macro insertions	Radiology Reporting	1.40.017
4489	Normal	Inactive printers can still be selected in Send Report dialog	Document Distribution	1.4
4488	Normal	CD Import - add a button to access this feature from Patient Folder.		1.4
4487	Normal	CD Import - Some customers have CD media without a DICOMDIR		1.4
4486	Normal	dicom error while importing a CD	Thick Client GUI	1.40.16328
4483	Normal	Reporting - Add patient folder control to reporting window will not display history	Thick Client GUI	1.41
4481	Normal	LogTextBox - Permission for an admin to edit previous log details isn't always available.		1.41
4444	Normal	Scanning - Order/Patient/Exam Level can change when re-viewing the document		1.41

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4443	Normal	External Report Workflow - changing room/procedure resets external flag.		1.41
4434	Normal	Outside Reads do not fall into external workflow		1.41
4426	Normal	Reports that should have site filter	Mgt Reports	1.41
4392	Normal	alignments of MT screen buttons in user preferences are a little miss aligned	Thick Client GUI	1.41
4389	Normal	Reporting - Addendum request make notes required on request and reject.	Radiology Reporting	1.41
4386	Normal	Report History Error	Thick Client GUI	1.41
4383	Normal	External Report Workflow check box loses value on open of view edit		1.41
4341	Normal	QA workflow problem flag #2894	Radiology Reporting	1.41
4334	Normal	Report History Window	Thick Client GUI	1.4
4296	Normal	RRR Modality Closures and Restrictions - when you delete a row after pressing 'enter' at the end of the column 'End Time' RIS does not seem to recognize the row is gone, and prompts user for 'Description'	Thick Client GUI	40.15
4290	Normal	Reporting - next field navigating two fields when cursor immediately to the left of field	Radiology Reporting	1.4
4274	Normal	All Signed By Date WL missing context menu option for Patient Folder	Thick Client GUI	1.41
4267	Normal	Report context menu item does not have access string	Web Services/DB	1.41
4260	Normal	RRR - Appointment book is not showing all outside read locations, only one.	Admin Tools	40.15
4259	Normal	RRR - Order of preferred radiologists in the Personnel editor or image notes, is not the same order it appears in the workflow within RIS	Thick Client GUI	40.15
4227	Normal	eRAD PACS: Often not closing images	PACS Integration	1.40.012

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4199	Normal	Error thrown on refresh lock after just having closed reporting screen.	Thick Client GUI	40.15
4185	Normal	Login - After logging in as a Rad user the splash screen doesn't always repaint	Thick Client GUI	1.41
4153	Normal	Sort on audio length throws error on worklist refresh	Thick Client GUI	1.41
4135	Normal	Workstation locks do not reliably fire on workstations that have not been rebooted for 25+ days	Thick Client GUI	1.40.16328
4096	Normal	Send To button on Report History screen should be hidden	Radiology Reporting	1.40.14
4093	Normal	Assign to Radiologist from WL clears Chair when configured not to clear the chair.	Thick Client GUI	1.40.012
4087	Normal	Getting "Viewer is opening another view!" when trying to launch images in eRAD PACS	PACS Integration	40.12
4086	Normal	Scanning - HP Scanjet 3000 s2 does not work with Twain 2.0		1.4
4085	Normal	RRR reported 'painting' issue with scheduling window		40.18019
4068	Normal	Reporting - next workflow excluding reports locked by the current user	Thick Client GUI	1.4
4052	Normal	Suspended reports can still be previewed in dictate screen using patient folder		1.4
4018	Normal	Memory leak fixes discovered in B40		1.4
4006	Normal	Scan Documents from EMR	Thick Client GUI	1.4
3976	Normal	Reporting buttons, when disabled, has a wider separator.	Thick Client GUI	1.4
3975	Normal	Verify External - button is greyed out in Patient Folder, even if you have permission	Thick Client GUI	39.1
3971	Normal	RIS Administrator - permissions	Web Services/DB	39.1
3914	Normal	order lock not released in some cases, refreshes continue until user logs out	Thick Client GUI	1.4

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3901	Normal	Reporting - Chair assignment - Chair selection shows study assigned but work list doesn't have any studies assigned	Thick Client GUI	1.40.010
3873	Normal	Patient Merge - when you choose phone number details for a patient and suggest merge, then re-open, those details are not maintained.	Thick Client GUI	1.1.3.40.17435
3872	Normal	Signing contribution dates and userid missing in supervising dictation worklist	Thick Client GUI	1.40.010
3866	Normal	Installing Updates... - Two can run at the same time, which causes errors		1.4
3828	Normal	Toggle record not stopping when pressed again (Fisher site visit)	Thick Client GUI	40.006
3802	Normal	RadNet - ADV defect - Blanking out the chair	Thick Client GUI	1.40.006
3796	Normal	RadNet - ADV Call Centre - Order level scanning support	Thick Client GUI	1.40.006
3755	Normal	RadNet - Call Centre - Preferred site not always populating	Thick Client GUI	1.40.006
3753	Normal	RadNet - Call Centre - IVT Attachment - advanced scanning pop-up issue	Thick Client GUI	1.40.006
3732	Normal	MU2 (2014) Requires Gender to Change to Sex	Thick Client GUI	1.4
3708	Normal	Inactive but currently used procedures are not appearing as an option in the performed procedure list on view edit	Thick Client GUI	1.40.0007
3692	Normal	Can't reschedule - strange error -		1.4
3683	Normal	Rad Sign Level lookup exception	Admin Tools	1.40.007
3662	Normal	Schedule Group lookup table exception	Admin Tools	1.40.006
3621	Normal	RadNet - Resolve Audit log issues - resolve in b41 if time permits, else move to b42	Thick Client GUI	1.38
3587	Normal	Administration --> cross_x_reference tables and Active column	Admin Tools	1.1.3.40.17118
3586	Normal	Administration --> BIRAD + Recommendation mapping change Active = object reference ERR	Admin Tools	1.1.3.40.17118

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3562	Normal	L access string settings for Mammography worklists should default to "None"	Thick Client GUI	1.4
3464	Normal	Reporting - Increase the size of selected attachments data pane and the border doesn't repaint	Thick Client GUI	1.4
3455	Normal	Reporting - Indent / Outdent not working	Thick Client GUI	1.4
3403	Normal	IVT WL not showing the WL Row count as expected	Thick Client GUI	1.4
3397	Normal	RRR - scan doc types when marked inactive are still showing in the dropdown menus in the GUI	Thick Client GUI	40.16659
3394	Normal	problems with validation of "Visited at" for "unknown referring physicians" without an address	Thick Client GUI	1.40.16328
3391	Normal	User editor loading config values twice, causing errors	Thick Client GUI	1.38
3373	Normal	EMR order fails - sending in an unknown referring physician	Thick Client GUI	1.4
3035	Normal	Missing access string	Web Services/DB	1.4
3010	Normal	Multi-sign: When you have a preconfigured sign level overrides (RadSignLevel table), and you disable contribute a and contribute b, user cannot sign on the modality type in the override.		39.16026
2991	Normal	Patient Folder - don't duplicate attachment viewers	Thick Client GUI	1.39
2970	Normal	Reporting - Report history - Does not always load and may return object reference error	Radiology Reporting	1.39.001
2897	Normal	Report History - from patient folder tab name is not correct	Thick Client GUI	1.39
2823	Normal	audit history does not provide sufficient detail for study data	Thick Client GUI	1.39
2716	Normal	System Config Lookup Editor	Thick Client GUI	1.38

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2690	Normal	Show/Hide Titlebar issue	Thick Client GUI	1.39
2628	Normal	Reporting screen not drawing in, if user make worklists active	Thick Client GUI	1.39
2453	Normal	River Ranch - When you reschedule a study we set an internal flag on the study that was rescheduled, when we just cancel we are not clearing this flag if it was previously set.	Thick Client GUI	38
2418	Normal	River Ranch - When two users with similar names edit an order, there can be some confusion in who actually wrote notes that are stamped (ie: order notes)	Thick Client GUI	38.14486
2163	Normal	Studies in Edits Pending QA can be signed off	Thick Client GUI	1.2.38.14350
2113	Normal	error on patient search when formatted_first_name is null	Web Services/DB	1.37.12
2072	Normal	Reporting - Worklist refresh when worklist is not in focus.	Thick Client GUI	1.37
2057	Normal	Unknown Insurance reconsiliation - reload problem	Admin Tools	37.11
1943	Normal	No access string to prevent access to Unknown Carrier		1.37
1842	Normal	Reporting - CdsInterctive Text Color not consistnt		1.38
1487	Normal	Worklist column does not refresh when exception thrown in Bulk Field Assignment	Thick Client GUI	1.2.37.12644
1177	Normal	Completing fields in report editor and using Back button < will return COM error.	Thick Client GUI	1.36
4368	Low	Ranjan - Date format	Radiology Reporting	1.41
4282	Low	Template / macro - Create using filter criteria	Radiology Reporting	1.41
3889	Low	Null reference exception in lookup	Admin Tools	1.1.3.40.16659
3750	Low	Reporting - Exam details pane layout	Thick Client GUI	1.40.008

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3680	Low	Font size - not saving	Thick Client GUI	1.4
3229	Low	Patient search - folder preview feature - does not clear with reset button		1.4
3228	Low	Patient Folder (Preview Mode) - docking\floating issue on Patient Search	Thick Client GUI	1.4
1977	Low	Birthdate search often defaults to dates in the future		1.37
1348	Low	Special Accommodations required fields	Thick Client GUI	1.37

9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.42. Bugs reported in previous versions are not captured as Known Limitation in this document.

#	Status	Priority	Subject
5783	New	High	Dark mode login box impossible to see
5120	QE Rejected	High	Template / macro - create template from... doesnt retain custom fields
5861	New	Normal	unhandled exception logging in as a rad but without permission to some WL.
5860	New	Normal	PACS Images not opening from Patient folder
5857	New	Normal	Critical Results worklist throws null exception
5854	New	Normal	PACS Caching - Sometimes possible to steal someone else's cache lock
5851	New	Normal	Reporting - Error on pending dictation work list
5847	New	Normal	Dark mode - BMI on MU tab is white on white and unreadable
5843	New	Normal	MU - When editing the date in Lab results get error.
5839	New	Normal	Edit Templates and Macros icons enabled toggle is backwards
5837	New	Normal	Reporting - Open study in dictate window and get C++ Exception
5836	New	Normal	Chair selector throws error after RIS locked due to inactivity
5835	New	Normal	interact with message boxes via voice commands - can dictate into the message itself
5832	New	Normal	Scheduling - Restriction displayed in advanced search on Schedule tab not always accurate
5829	New	Normal	Scheduling / Registration
5822	New	Normal	'Assign' functionality throws error on report addendum
5821	MModal support	Normal	Redo That command needs to be uttered twice to work/catch up with undo that

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5814	New	Normal	If lab test code matching systemconfig's CPOELabTestCode value doesn't exist for procedure who's CPOE Pathology flag is set, misleading exception occurs
5812	New	Normal	Orders to Schedule WL and IVT WL show last follow-up type code and the Mammo Worklists (0/4/5) show
5811	New	Normal	Suspended reports stops several voice commands from working
5808	New	Normal	Dark mode, very hard to read text in Recording and Playback settings
5800	New	Normal	parameter is not valid and/or out of memory error while viewing thumbnails
5784	New	Normal	Default attachment is order level, cant be changed to patient level
5777	New	Normal	Attachment Veiwew "Show More/Show Less" option is switching when pressing the Ok Button in the Attachment Viewer Preferences
5770	New	Normal	Button label on "Report on Accession Number" prompt is incorrect.
5768	New	Normal	DeleteLeftWord
5767	New	Normal	Cannot save IVT screen due to undetermined required field ("! Is Required")
5766	New	Normal	potential performance issues with c_ctrn_dictation
5762	New	Normal	Unplugging then replugging in speech mic causes Ris to crash, need to reboot
5754	New	Normal	Open quotes become duplicated
5745	New	Normal	Lookup bug "Non-static method requires a target"
5738	New	Normal	patient folder will not load when saved as a secondary tab on another tool window
5732	New	Normal	issues with sorting exam search results when max row count is reached

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5726	New	Normal	Management Reports - Many reports have new parameters, these fields should be returned on the report
5712	In Progress	Normal	C++ Exception when pressing the play button
5711	New	Normal	Using two procedures at scheduling, and patient is claustro - it is showing an option for a closed modality when it should not
5700	New	Normal	Template, cannot remove the dataset values
5697	New	Normal	RIS screen lock does not function properly when using minimize to tray mode
5685	New	Normal	Logout - after entering username and PWD error saying eRAD RIS is already running
5682	New	Normal	Inactivity message showing under ris error pop up
5678	New	Normal	View/Edit notes exam times tab marks as dirty
5672	New	Normal	Next Workflow on All _____ worklists, locked studies break work flow.
5664	New	Normal	When dictating, losing your lock, and save failed with screen recovered, you won't be able to save
5657	New	Normal	Cannot click 'OK' or 'Cancel' in PACSLoginDialog when running in 'Minimized' recording control mode
5654	In Progress	Normal	MU Lab Results Error
5637	New	Normal	Complete button on Report screen has misaligned formatting
5625	New	Normal	Reporting - cant exit minimized dictation screen with cancel button or close button
5620	New	Normal	Swap creditial user being used for user preference and lock screen
5619	New	Normal	Macro editor field "bleeds" into next line when field is at end of line and Enter pressed
5610	New	Normal	Clear Credentials is available from perform exam tab context menu
5603	New	Normal	recent activity message list shows Assign To as Dictated

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5597	New	Normal	Reporting - delete next field speech mike option leaves a space after deleting
5569	New	Normal	Lookup tables->ProcedureCode - Missing null checks on new l_procedure_code_x_billing_code rows throws exception
5563	In Progress	Normal	Reporting - Field markers allowing normal spelling errors to pass
5549	New	Normal	Edit Image Request's "Previous Requests" grid shows only 2-3 previous requests , can't be sorted or scrolled to see more
5526	In Progress	Normal	Reporting - Delete previous n words and undo that resulting in wrong cursor location
5519	New	Normal	Reporting - pending signature on login and pending signature worklist notifications can be shown at the same time
5515	In Progress	Normal	Reporting - Setting DictationEnabled = false still allows dictated text into the report.
5506	In Progress	Normal	Reporting - lowercase selection voice command inoperable
5469	New	Normal	Alerts may not fire properly if screens are re-used in RIS
5459	New	Normal	right click change status to cancel does not refresh worklist afterwards
5452	New	Normal	Reporting - Spine level 'T seven eight' rendering incorrectly.
5451	New	Normal	Reporting - enable rewind/fast foward playback rename
5446	New	Normal	Radnet only: Multi-install dashboard
5439	In Progress	Normal	new practices can cause null ref errors when signing
5420	New	Normal	some messageboxes improperly sized
5406	New	Normal	concurrency violation on save of UserPrefs can crash RIS

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5305	New	Normal	Report field control shows duplicate field if laterality check highlighted words exist in a field
5259	New	Normal	Multi-type ahead: down arrow does not open the dropdown
5258	New	Normal	Multi-type ahead: control is too tall
5257	New	Normal	Multi-type ahead: Dropdown button should have a ... in the icon
5256	New	Normal	Multi-type ahead: Dropdown button is doesn't have left and bottom border
4830	New	Normal	Carrier search error if carrier name is not found
4810	New	Normal	PACSCacheServer system config setting is no longer used and should go away
4792	New	Normal	Reporting - Open multiple autosaved reports at once can cause error
4787	New	Normal	Next field not going to next field when dictating paragraphs in field.
4771	New	Normal	insert multi paragraph macro into field ignores paragraphs
4718	In Progress	Normal	Reporting - AME 7.88.3 - extra paragraph when protect section headers is on
4593	New	Normal	WPR - Send To button causes error

User Release Notes

for eRAD RIS
Version 2
Build 43

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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 43 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.43.

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 2.43 is considered a new core release of the application and will require a reinstallation of eRAD RIS. 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. New Access Strings and Configuration Settings 43

Setting Placeholder	Setting	Default	Purpose / Controls Access to
Access string / User Group Permission tables	Alert.AgeGreaterThan	Full	full access to this enables users to see the alert of the "AgeGreaterThan" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.CDS_01_HighBP	Full	full access to this enables users to see the alert
Access string / User Group Permission tables	Alert.CDS_02_HighCholesterol	Full	full access to this enables users to see the alert
Access string / User Group Permission tables	Alert.CDS_03_PossibleReaction	Full	full access to this enables users to see the alert
Access string / User Group Permission tables	Alert.CDS_04_TobaccoUser	Full	full access to this enables users to see the alert
Access string / User Group Permission tables	Alert.CDS_05_PneumoniaBooster	Full	full access to this enables users to see the alert
Access string / User Group Permission tables	Alert.ExpiredInsurance	Full	full access to this enables users to see the alert of the "ExpiredInsurance" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.HasAllergy	Full	full access to this enables users to see the alert of the "HasAllergy" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.HasProblem	Full	full access to this enables users to see the alert of the "HasProblem" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.InactiveCarrierAppliedToVisit	Full	full access to this enables users to see the alert of the "InactiveCarrierAppliedToVisit" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.IndicationAndMedication	Full	full access to this enables users to see the alert of the "IndicationAndMedication" type when it is evaluated

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			to be true
Access string / User Group Permission tables	Alert.IndicationAndSevereContrastAllergy	Full	full access to this enables users to see the alert of the "IndicationAndSevereContrastAllergy" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.LabOrderWithEmptyValue	Full	full access to this enables users to see the alert of the "LabOrderWithEmptyValue" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.MRI65PlusHeartDiseaseLipitorAndLDL100Plus	Full	full access to this enables users to see the alert of the "MRI65PlusHeartDiseaseLipitorAndLDL100Plus" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.OnMedication	Full	full access to this enables users to see the alert of the "OnMedication" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.PatientBirthChanged	Full	full access to this enables users to see the alert of the "PatientBirthChanged" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.PatientDeceased	Full	full access to this enables users to see the alert of the "PatientDeceased" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.PatientDrugAllergyWhenArrivedOrStarted	Full	full access to this enables users to see the alert of the "PatientDrugAllergyWhenArrivedOrStarted" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.PatientFirstNameChanged	Full	full access to this enables users to see the alert of the "PatientFirstNameChanged" type when it is evaluated

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			to be true
Access string / User Group Permission tables	Alert.PatientLastNameChanged	Full	full access to this enables users to see the alert of the "PatientLastNameChanged" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.PatientMissingPhoneInfo	Full	full access to this enables users to see the alert of the "PatientMissingPhoneInfo" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.ProcedureXAndHighBP	Full	full access to this enables users to see the alert of the "ProcedureXAndHighBP" type when it is evaluated to be true
	Clinical.AlertFramework	Full	Allows the user to see alerts, which by default should be set to full access. Added this to pass an MU test case which requires us to show we can configure alerts not to fire for a specific user group.
Access string / User Group Permission tables	Config.LookupEditor.AllergySeverity	Full	allows the user to see alerts, which by default should be enabled full for all users. Added this to pass an MU test case which requires us to show we can configure alerts not to fire for a specific user group.
Access string / User Group Permission tables	Clinical.Attachments	Full	Controls access to the standalown Attachments screen accessible in a worklist via Right Click / Attachments
Access string / User Group Permission tables	Clinical.BurnCD	None	Controls access to the "Burn CD" Image Request context menu, the "Burn CD" from the tech's Perform Exam screen and

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			the patient folder's Burn CD menu items
Access string / User Group Permission tables	Clinical.DataField.Patient.Notes	None	Controls if the user has access to change previous patient notes
Access string / User Group Permission tables	Clinical.DeleteDictationAndResetStatus.ExternalReportVerified	None	When a external report is verified, this permission will allow the verified report to be reverted back to exam done so it can be either re-verified or changed to a non-external report.
Access string / User Group Permission tables	Clinical.DiagnosisCodes	None	Controls access for users to enter ICD Codes in the MU Tab's MU Extra Info Screen.
Access string / User Group Permission tables	Clinical.InfoButton	Full	allows user access to the MU Info button feature accessabel in the MU tab's grids for Medications, Medical History or Lab Results via a Right Click / View Medline Plus Info.
Access string / User Group Permission tables	Clinical.Insurace.Override	None	controls access to override Eligibility/Eligible API results
Access string / User Group Permission tables	Clinical.Insurace.Reverify	None	Controls access to the Reverify button in the Manage Insurance groupbox
Access string / User Group Permission tables	Clinical.Labwork.AddEdit	None	limits users ability to add or edit labwork
Access string / User Group Permission tables	Clinical.Labwork.Request	None	limits users ability to request labwork
Access string / User Group Permission tables	Clinical.PeerReview	None	Access to Peer Review context menu item and buttons
Access string / User Group Permission tables	Clinical.Schedule.AssignIcdCode	None	Controls whether ICD codes can be assigned during scheduling, ordering, registering
Access string / User	Clinical.Schedule.Calendar	None	Schedule Calendar control

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Group Permission tables	This is not a new access string but the default value has changed from full to none		
Access string / User Group Permission tables	Clinical.ViewEditCanChangeDiagIndications	None	In View/Edit, the indications defined by the radiologist can be edited
Access string / User Group Permission tables	Clinical.ViewEditCanChangeTechIndications	None	In View/Edit, the indications defined up to the technologist workflow can be edited
Access string / User Group Permission tables	Config.AllowMModalConfig This is not a new access string but the default value has changed from none to full	Full	Allows users access to turning on M*Modal workflow for themselves or other users if the current user has admin access
Access string / User Group Permission tables	Config.CreateMessage	None	Gives ability to create a new secure message for communication between Patient Portal and RIS
Access string / User Group Permission tables	Config.LookupEditor.AllergySeverity	None	lookup table access for Allergy Severity
Access string / User Group Permission tables	Config.LookupEditor.EligibleConfig	None	controls access in the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.HL7v3Vocabulary	None	controls access in the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.InsuranceServiceType	None	Controls access to the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.LabObservation	None	Controls access to the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.LabProvider	None	Controls access to the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.LegalAuthenticator	None	controls access in the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.LegalDocument	None	Controls access to lookup table legal document
Access string / User Group Permission tables	Config.LookupEditor.MedicalGroup	None	lookup table access for Medical Group
Access string / User Group Permission tables	Config.LookupEditor.MedicalGroupContactType	None	lookup table access for Medical Group Contact Type.
Access string / User	Config.LookupEditor.MessageGrou	None	Controls access to the

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Group Permission tables	p		Message Group lookup table
Access string / User Group Permission tables	Config.LookupEditor.ObservationResult	None	Controls access to the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.ReferringAddresses	None	limits users ability to view or edit the Lookup editor for Referring Addresses. To have access users will also need to have access to the Config.LookupEditor.Personnel item.
Access string / User Group Permission tables	Config.LookupEditor.SpecimenAction	None	Controls access to the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.SpecimenCondition	None	Controls access to the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.SpecimenQuality	None	Controls access to the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.SpecimenType	None	Controls access to the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.UMCommonLanguage	None	lookup table access for UM Common Language
Access string / User Group Permission tables	Config.LookupEditor.UMCoverage	None	lookup table access for UM Coverage
Access string / User Group Permission tables	Config.LookupEditor.UMResolution	None	lookup table access for UM Resolution
Access string / User Group Permission tables	Config.LookupEditor.UMStatus	None	lookup table access for UM Status
Access string / User Group Permission tables	Config.MessageInbox	None	Gives ability to access the Secure message inbox
Access string / User Group Permission tables	ContentEnum.Reschedule	None	Reschedule Studies
Access string / User Group Permission tables	Flag.EligibilityApproved	Full	Access to see the flag
Access string / User Group Permission tables	Flag.EligibilityDenied	Full	Access to see the flag
Access string / User Group Permission tables	Flag.EligibilityError	Full	Access to see the flag
Access string / User Group Permission tables	Flag.EligibilityInProgress	Full	Access to see the flag
Access string / User Group Permission tables	Flag.EligibilityWarnings	Full	Access to see the flag
Access string / User	Flag.Problem	Full	Access to see the Problem

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Group Permission tables			flag
Access string / User Group Permission tables	Flag.QA	Full	Access to see the QA flag
Access string / User Group Permission tables	MU.ExportAll	None	controls access for administrators to export all CCDA Data to the system config location MU_ExportALL_Path
Access string / User Group Permission tables	WL.DirectMessage	None	Gives ability to access the Direct message inbox
Access string / User Group Permission tables	WL.LabworkAdvisedWL	None	WL access for the LabworkAdvice context menu item.
Access string / User Group Permission tables	WL.LabworkRequestedWL	None	WL access for the Labwork Requested context menu item.
Access string / User Group Permission tables	WL.MT.PeerReviewPendingAction All	None	WL access to All Peer Reviews Pending QA under the Editor menu
Access string / User Group Permission tables	WL.Rad.PeerReviewPendingAction All	None	WL access to All Peer Reviews Pending QA under the Radiologist menu
Access string / User Group Permission tables	PowerScribe360.AllowAutofeed This access string has been removed	removed	This access string has been removed.
SystemConfig lookup	APIServerUrl		the URL for Webservice API services (ie: http://<your rRisService server><API Port>/API)
SystemConfig lookup	AuthorizationPrefix		A prefix that will be added to the new Authorization numbers that are assigned
SystemConfig lookup	CallbackDeclinedValue		The key in Follow Up Type system config table to be considered as 'Declined Callback Letter'
SystemConfig lookup	DDRemoveErroredFaxJobs	True	Determines if the Document Distribution Engine removes failed fax jobs after recording their status

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SystemConfig lookup	DefaultAgeofMinor	18	The maximum number that would define a patient as being a minor
SystemConfig lookup	EnableContrastBillingRelation	True	Enables billing and contrast code syncing in the tech window
SystemConfig lookup	EnforceCountySelection	False	To force user to select a county for signing
SystemConfig lookup	HeightRequiredOnSchedule	False	Height is required when scheduling the patient
SystemConfig lookup	Icd10EffectiveDate	07-16-2014	(value = DateTime mm-dd-yyyy) The date on which ICD10 is effective. ICD9 will be used prior to this date.
SystemConfig lookup	InsuranceEligibleAPIString		Verification account for billing.
SystemConfig lookup	InsuranceReVerifyInterval	10	(value = int in days) Determines how often we will reverify a patients insurance, before the study is preformed. Note: we will also re-verify on the day of service
SystemConfig lookup	InsuranceVerificationGroupNPI		NPI for server initiated insurance eligiblity requests
SystemConfig lookup	MUExportAllPath		Path where the MU feature to export all patient CCDA will be stored (Ex: c:\temp\muexport)
SystemConfig lookup	PeerReviewScoreToStartRequiring Notes	2b	Determines the score at which we will start to require they enter notes. Possible values are - 1, 2a, 2b, 3a, 3b, 4a or 4b.
SystemConfig lookup	PeerReviewScoreToStartSendingToQa	2b	Determines the score at which we will start to mark them as pending Qa. Possible values are - 1, 2a, 2b, 3a, 3b, 4a or 4b

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SystemConfig lookup	RadarAPIURL	https://api.myradarcconnect.com/v1/	(value = URL) Determines the start of day to jump the calendar too.
SystemConfig lookup	RadMustProvideIcdCode	False	To force radiologist to provide diagnosis ICD code prior to signing.
SystemConfig lookup	TechMustProvideIcdCode	False	To force technologist to provide diagnosis ICD code prior to exam done.
SystemConfig lookup	UMRoutineReview	30	The maximum number of UM hours for a routine exam.
SystemConfig lookup	UMStatReview	4	The maximum number of UM hours for a STAT exam.
SystemConfig lookup	UMUrgentReview	10	The maximum number of UM hours for an urgent exam.
SystemConfig lookup	WeightRequiredOnSchedule	False	weight is required when scheduling the patient (value = True/False)
SystemConfig lookup	WeightUnitsAbbreviation	lbs	An abbreviation of the system's weight measurement unit (i.e. kg or lbs) Default is lbs.
SystemConfig lookup	WorklistDateRangeDays	10	Maximum number of days to filter date enabled worklists by.
rRISService.exe.config and rRISService64.exe.config	Setting <serviceThrottling> has been increased. Before: <serviceThrottling maxConcurrentCalls="2000" maxConcurrentSessions="4000" maxConcurrentInstances="4000" > After: <serviceThrottling maxConcurrentCalls="3000" maxConcurrentSessions="5000" maxConcurrentInstances="5000" >		This increase was added for larger implementations. The changes can be found in the deploy folder > rRISService.exe.config file. Compare with your current file in your rRISService folder. This applies to the rRISService.exe.config and the rRISService64.exe.config files Manual edit required.

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<p>rRISService.exe.config and rRISService64.exe.config</p>	<p>Change to the <system.serviceModel> section of the rRISServices.exe.config and rRISServicesx64.exe.config file</p> <p>Before: <binding name="netTCPBinding" maxReceivedMessageSize="5000000" maxBufferSize="5000000" maxBufferPoolSize="5000000"></p> <p>After: <binding name="netTCPBinding" maxReceivedMessageSize="5000000" maxBufferSize="5000000" maxBufferPoolSize="5000000" maxConnections="3000" listenBacklog="3000"></p>		<p>Changes are made under the <system.serviceModel> section of the file. Changes to be made in 2 places in the file</p> <p>The changes can be found in the deploy folder > rRISService.exe.config file. Compare with your current file in your rRISService folder. This applies to the rRISService.exe.config and the rRISService64.exe.config files</p> <p>Manual edit required.</p>
<p>rRISService.exe.config and rRISService64.exe.config</p>	<p>Change to the <system.serviceModel> section of the rRISServices.exe.config and rRISServicesx64.exe.config file</p> <p>Before: <readerQuotas maxStringContentLength="1024000" maxArrayLength="1024000" /></p> <p>After: <readerQuotas maxStringContentLength="1024000" maxArrayLength="1024000" maxNameTableCharCount="32768" /></p>		<p>Changes are made under the <system.serviceModel> section of the file. Changes to be made in 2 places in the file</p> <p>The changes can be found in the deploy folder > rRISService.exe.config file. Compare with your current file in your rRISService folder. This applies to the rRISService.exe.config and the rRISService64.exe.config files</p> <p>Manual edit required.</p>
<p>rRISService.exe.config and rRISService64.exe.config</p>	<p><runtime> <gcServer enabled="true"/> </runtime></p>	<p>true</p>	<p>Added to the base rriservices.config file. Possible values are true and false.</p> <p>Manual edit required.</p>
<p>rRISService.exe.config and rRISService64.exe.config</p>	<p>Before: <serviceThrottling maxConcurrentCalls="2000" maxConcurrentSessions="4000" maxConcurrentInstances="4000" /></p> <p>After:</p>		<p>Changes are made under the <behaviors> section of the file.</p> <p>The changes can be found in the deploy folder > rRISService.exe.config file.</p>

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	<pre><serviceThrottling maxConcurrentCalls="3000" maxConcurrentSessions="5000" maxConcurrentInstances="5000" /></pre>		<p>Compare with your current file in your rRISService folder. This applies to the rRISService.exe.config and the rRISService64.exe.config files</p> <p>Manual edit required.</p>
Applicationsettings.config	UsePerCallInstanceContextMode	False	<p>Will use PerSession mode by default but if UsePerCallInstanceContextMode is True we use PerCall instead.</p> <p>PerCall = the service creates resources, processes the client call, and then destroys the resources. This provides greater scalability as the resources are released sooner, but each call may experience more latency</p> <p>PerSession = the service creates resources for a session which are then kept alive and re-used from one user call to the next. May provide less latency.</p>
Applicationsettings.config	StartInsuranceEligibilityService	False	<p>This is not completely implemented in this build and should remain as false.</p>

5. New Features and Enhancements

Reporting – Peer Review (Phase 1)

In build 43 peer review options have been added to the Patient Folder and also from the Reporting windows Patient History data pane.

From the Patient Folder the study can be peer reviewed by selecting the Peer Review option from the context menu. The option will display for studies not signed by “you” and are in signed status.

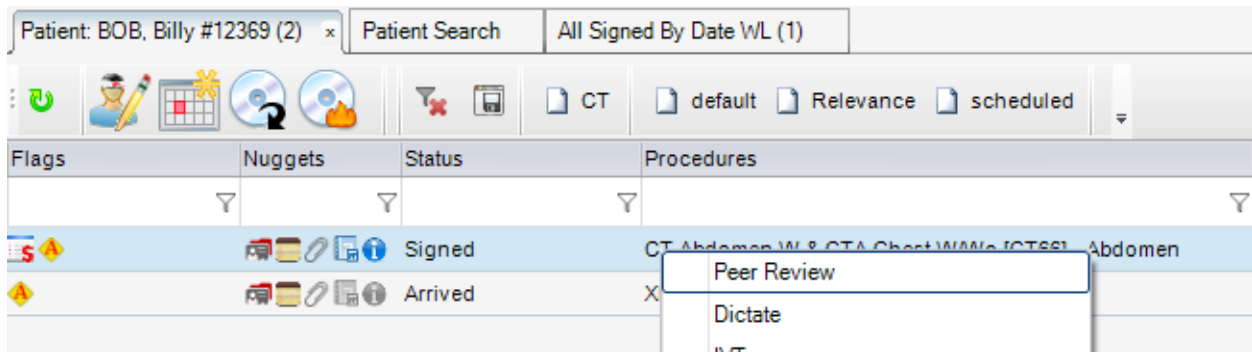


Figure 5.1 – Peer Review context menu option from Patient Folder

From the Reporting windows Patient History control the Peer Review button will be displayed in the “My Views” column.

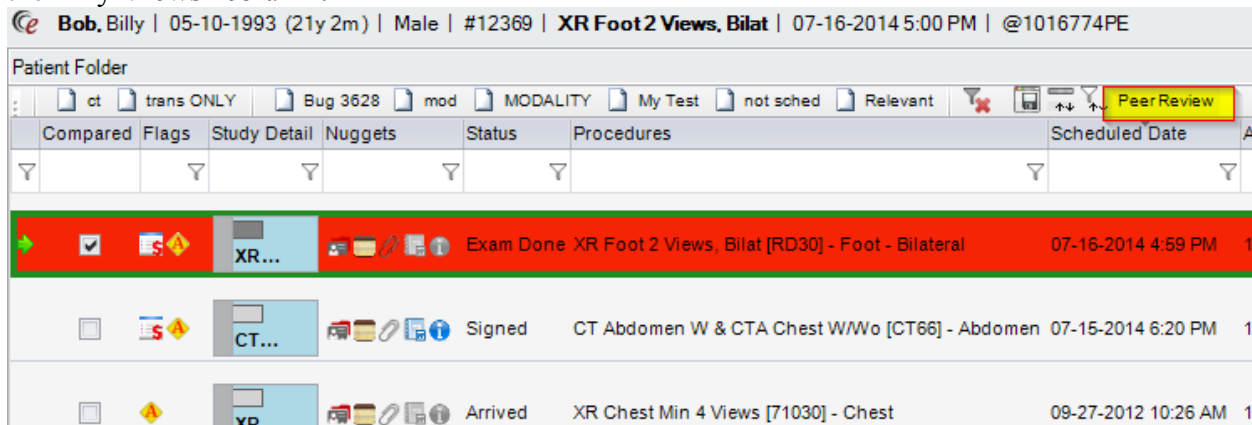


Figure 5.2 – Peer Review button on Patient History control of reporting window.

Again, only the studies in signed status that were not signed by you can be reviewed. Selecting a study in a status other than signed will inform the user that the current study status cannot be peer reviewed.

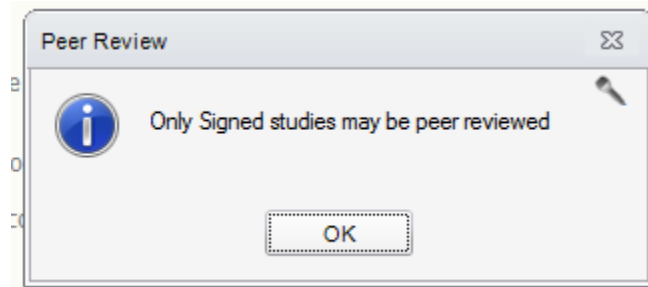


Figure 5.3 – Attempt to peer review a study in status other than signed

The options for peer review are controlled by an access string titled **“Clinical.PeerReview”** with a default level of None.

Upon selecting one of the options for peer review the Peer Review window will open. From this window the user can see the performed data, accession number, procedure performed, patients name, MRN and date of birth.

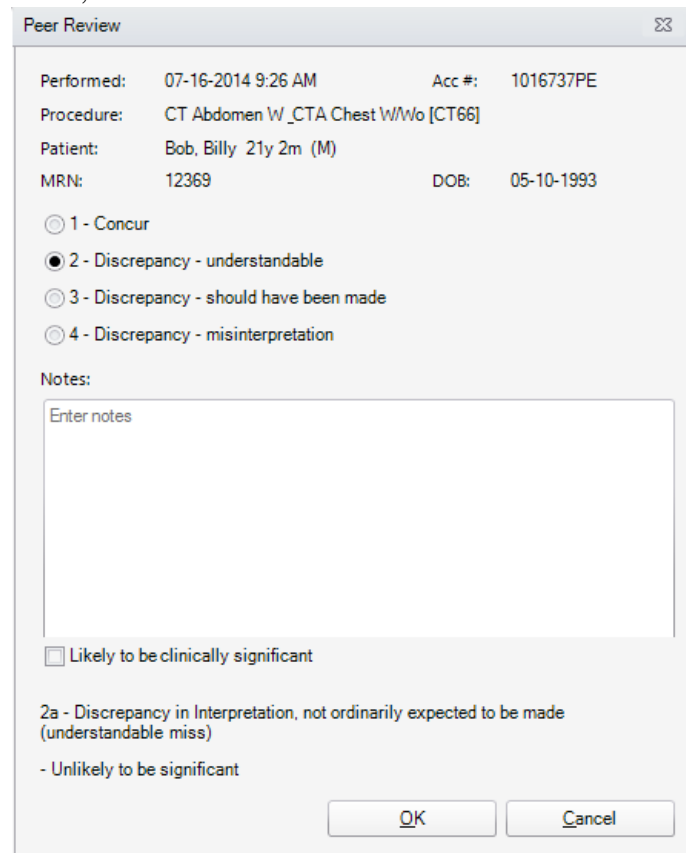


Figure 5.3 – Peer Review window

The Peer Reviewer will have 7 scoring options. The values are 1-4 with the option to select the check box “Likely to be clinically significant”. Selecting this check box if the difference of the study to be Unlikely significant and Likely significant, changing the score from 2a to 2b for example.

The scoring would look like this:

Peer review score code	Description
1	Concur with interpretation
2a	Discrepancy in Interpretation/not ordinarily expected to be made (understandable miss) - Unlikely to be significant
2b	Discrepancy in Interpretation/not ordinarily expected to be made (understandable miss) - Likely to be significant
3a	Discrepancy in Interpretation/should be made most of time - Unlikely to be significant
3b	Discrepancy in Interpretation/should be made most of time - Likely to be significant
4a	Discrepancy in Interpretation/should be made almost every time (misinterpretation of findings) - Unlikely to be significant
4b	Discrepancy in Interpretation/should be made almost every time (misinterpretation of findings) - Likely to be significant

Table 5.1 – Peer review scores

There is also a notes field for the user to add any notes pertaining to the studies peer review. Notes are required when the score passes a certain threshold, that threshold is configurable at the system and the practice level. The practice level overrides the system configuration setting if it is configured. This threshold identifies the score at which notes will start to be required. When notes are required, the OK button will be disabled until notes are entered. This is also set at the system and practice level. The system configuration setting it titled **“PeerReviewScoreToStartRequiringNotes”** with a default value of 2b.

The Add/Edit Practice window has been redesigned. To access the optional settings for Peer Review, select the appropriate tab as shown in the screenshot below.

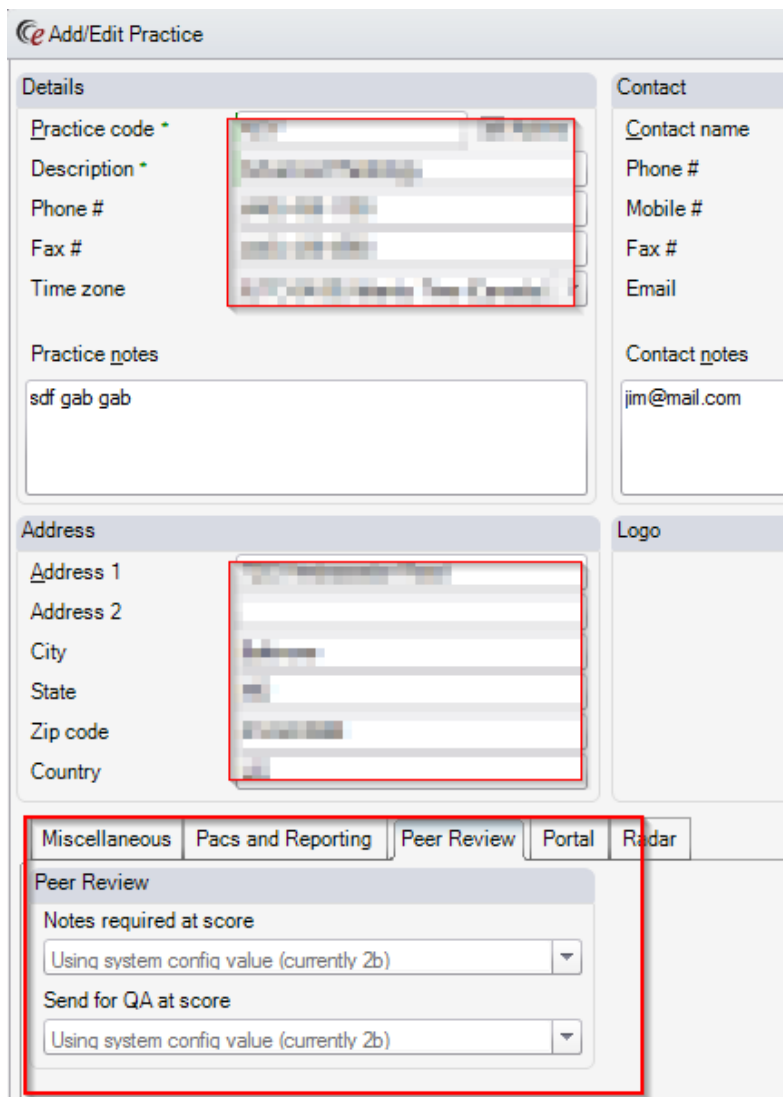


Figure 5.4 – Peer Review tab of the Add/Edit Practice window

Similar to the system configuration setting for notes, we have another setting titled **“PeerReviewScoreToStartSendinfToQA”** with a default value of 2b that determines if a peer review will then go to a “post peer review work list” where it can then be reviewed, or entered in an external system and marked as completed. This is also set at the system and practice level with the practice level overriding the system configuration setting.

Once a study is peer reviewed, if it meets the **“PeerReviewScoreToStartSendinfToQA”** settings, the peer review will be went to the “All Peer Review Pending Action WL”. This worklist can be accessed from the Radiologist and Editor menus and each is controlled by its

own new access string. The All Peer Review Pending Action WL under the Radiologist menu is controlled by access string **“WL.Rad.PeerReviewPendingActionAll”** with a default of none. Access to the work list option under the Editor menu is controlled by access string **“WL.MT.PeerReviewPendingActionAll”** which also has a default of none.

This work list will show the score and score description along with some details attached to the peer review and the study itself. From this worklist, the user will have the option to “Mark as Completed” which will remove the item from the worklist, or “Open”.

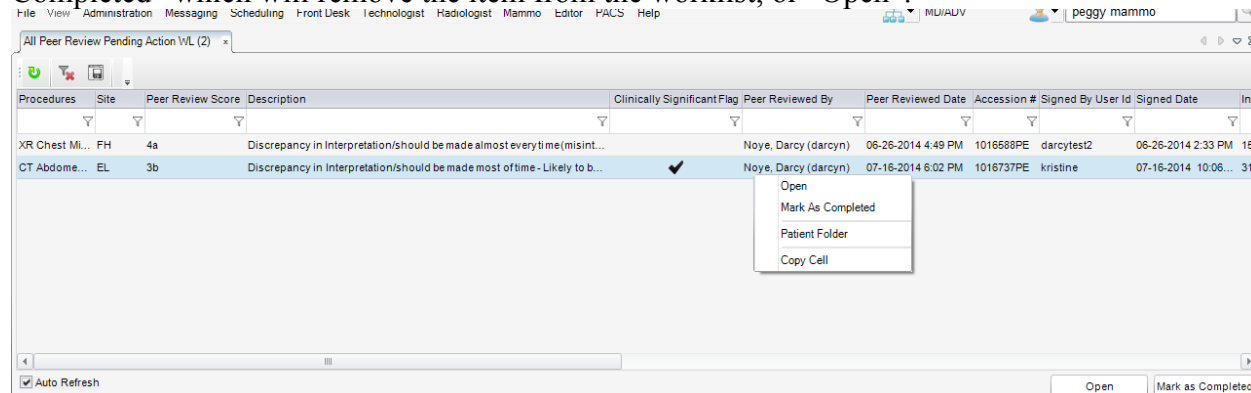


Figure 5.5 – All Peer Review Pending Action WL

Selecting Open will present the user with a read only version of the Peer Review window. The user can see the notes and score given by the peer reviewer. Options in this window are to Mark As Completed and Cancel. There is also an ICON in the upper right corner that will allow the user to copy and paste the details of the peer review. Data can also be copied from each row in the peer review window via a right click on the snippet of information.

Example of the text:

Reviewed by: Noye, Darcy (darcyn)
Date: 07-16-2014 6:02 PM

Performed: 07-16-2014 9:26 AM
Acc #: 1016737PE
Procedure: CT Abdomen W & CTA Chest W/Wo [CT66]
Patient: Bob, Billy 21y 2m (M)
MRN: 12369
DOB: 05-10-1993

Notes:
I have entered my notes

Score:
3b - Discrepancy in Interpretation, should be made most of time
- Likely to be significant

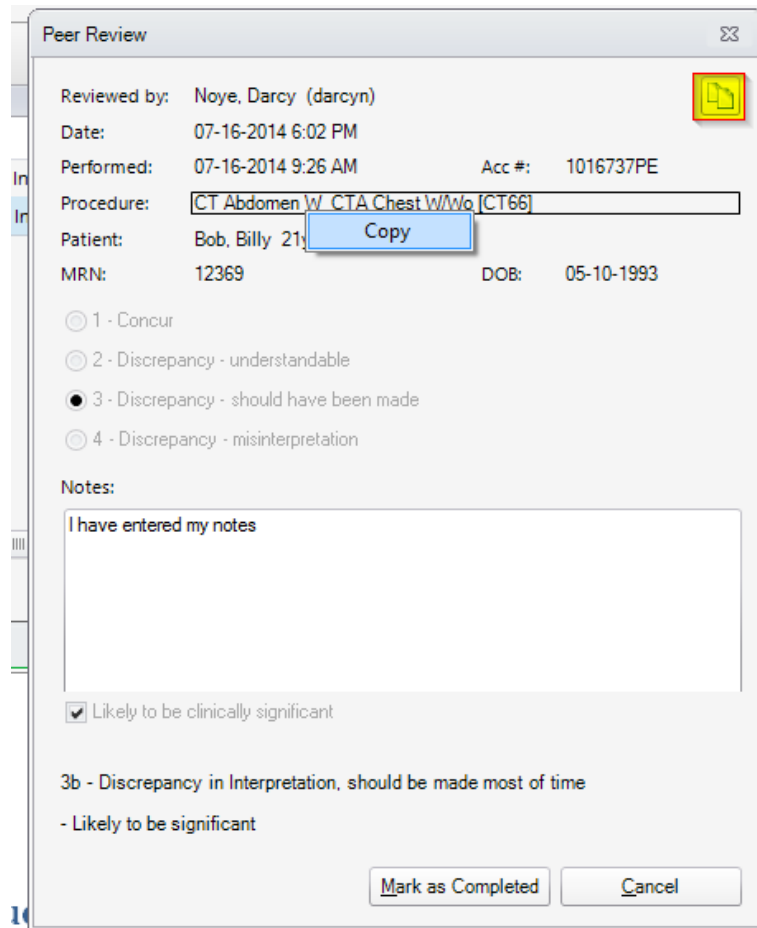


Figure 5.6 – Peer Review window displaying score from peer reviewer and copy options.

Export Images (Burn CD)

Burn CD option in eRAD RIS will be available from 3 locations in the application, the Image Request work list, the Patient Folder work list and the Technologists Perform Exam window. Access to Burn CD from all 3 locations is controlled by the access string titled **“Clinical.BurnCD”** with a default value of Full.

Access from Image Request work list:

Image request work list now has the option to group requests. Default grouping is: Site, Media Type and Deliver To. This grouping makes it easier to multi select the items and completes the “Burn CD” in one step as shown in the following “Burn CD” context menu selection. Multiple studies can be selected from the Image request work list to be burned. From the Burn CD window the user can choose to include or not the studies for the CD. The Deliver To information in the Burn CD window will automatically be populated from the data entered on the Image Request. If there are different deliver to addresses, the user will be required to select one or can cancel and reselect the studies from the work list.

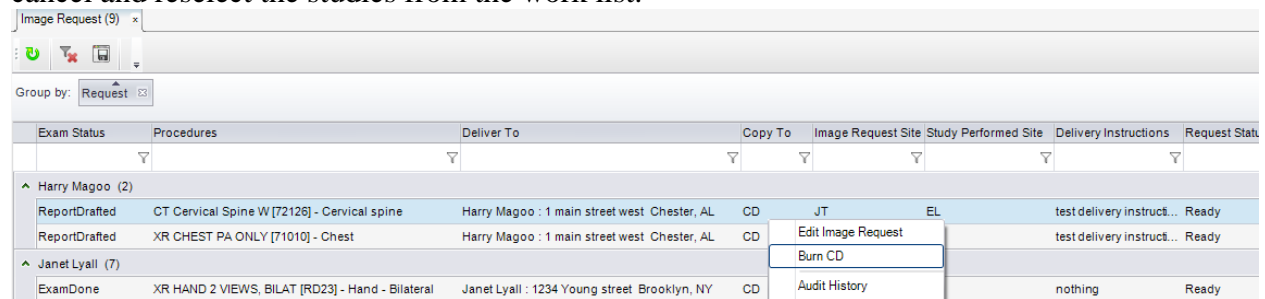


Figure 5.7 – Image Request work list

Access from Patient Folder work list:

From the Patient Folder work list the user can select a single or multiple studies. The Burn CD option is also in the context menu. When the Burn CD window opens the Deliver To information will be blank. These fields are not required to be completed. Again the user can decide in the Burn CD window if they want to include all of the studies that were selected.

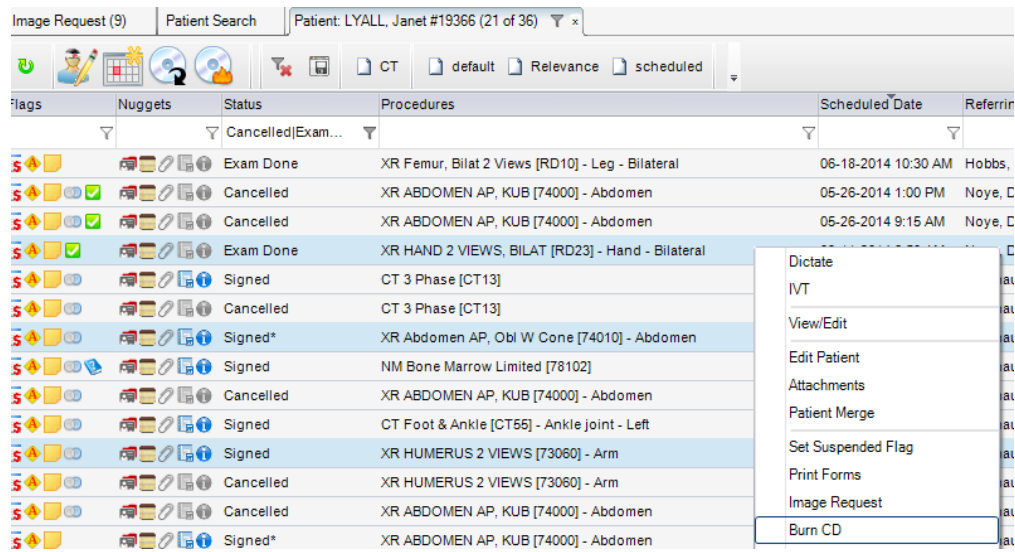


Figure 5.8 – Patient Folder work list

Access from Technologist’s Perform Exam window:

The Perform Exam window will have access to the Burn CD window via the button of the same name in the lower left corner of the data window.

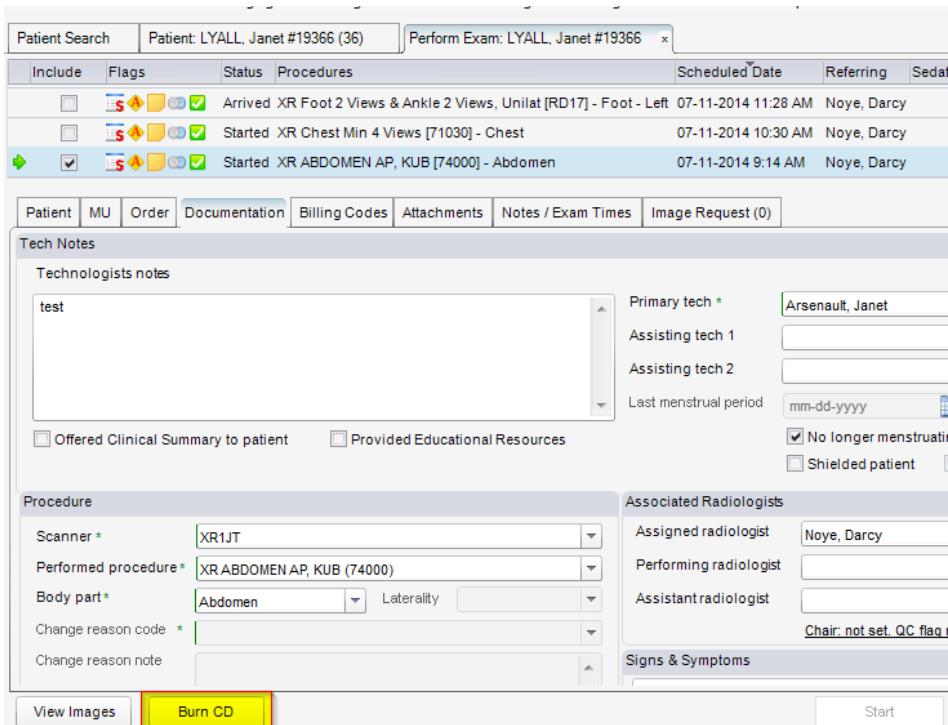


Figure 5.9 – Perform Exam window

As a precaution the user will be prompted with a message from the Perform Exam window to ensure all of the images have been uploaded to PACS.

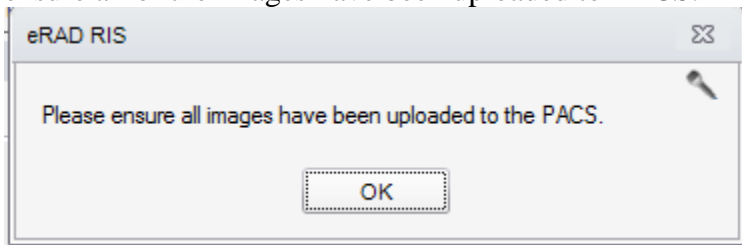


Figure 5.10 – Message displayed from Perform Exam window when Burn CD is selected

When the Burn CD window opens the Deliver To information will be blank. The user will have the option to select additional studies to burn that have been completed for that day.

Burn CD window:

The Burn CD window is the main dialog for this feature. It shows all the studies that were selected in the Image Request WL or Patient Folder WL (the exception is the Burn CD from Perform Exam) and allows you to uncheck items to exclude them from the CD. The checked items are included in an Image Request level lock so that if another user tries to export the same Image Requests they will be notified that another user is processing that request.

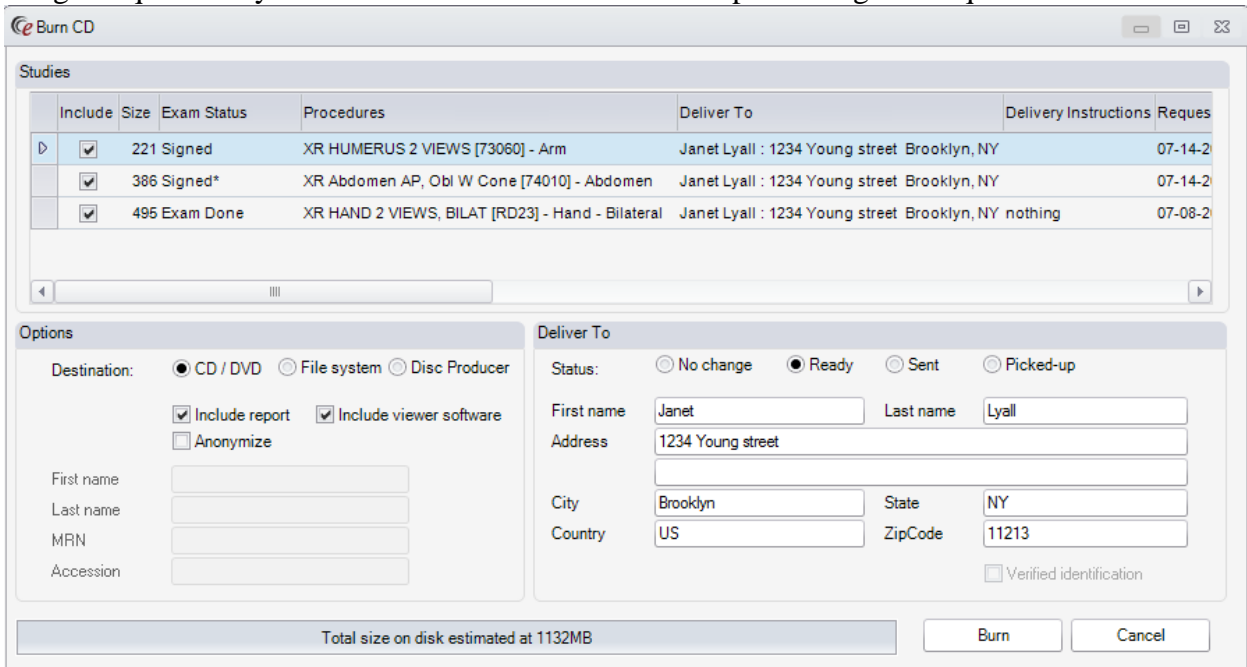


Figure 5.11 – Burn CD window

If actioned from the Image Request WL, successful burns will remove the selected studies requests from the WL.

Images for the selected studies are requested from PACS and the contents are written to the specified media type. If the media type is “CD/DVD”, the contents will be written to the local burner. If the media type is Filesystem or Disc Producer, the contents will be written to the directory chosen. For disc producer the file format written is specific to the Epson JDF file format. After the JDF file is created, the progress can be monitored via the Epson TD Bridge software. The RIS will do an estimated size of the images to be burned.

When the Burn CD window opens, it queries each of the Requesting Site’s local child PACS servers. If it does not have the study, it then queries the Practice’s PACS WL server. The goal of this query is:

1. To obtain an approximate size of the study data
2. To identify which server has the images

The figure above of the Burn CD window shows the approximate sizes and in the progress bar area a total estimate of the size on disc.

If it exceeds 680MB it will present the user will message informing that the estimated size may not fit on one CD.

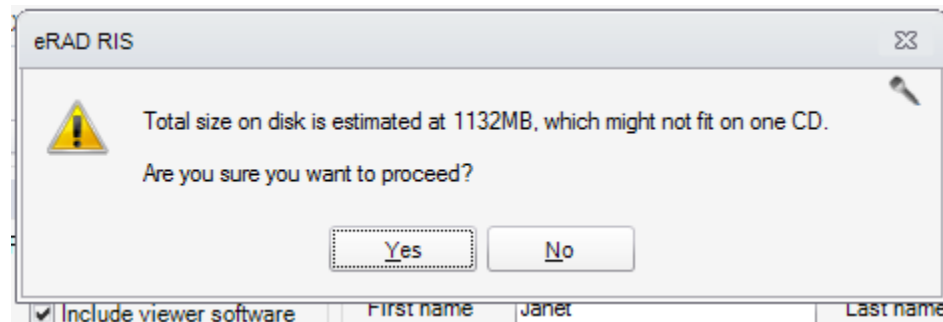


Figure 5.12 – Are you sure?

If they are actually burning to a DVD media, they should ignore this message and click “Yes” but if they only have CD’s then they will need to click “NO” and include fewer studies.

If all of the selected studies are on the local child PACS server then the request for the CD contents will be made local. But if one or more of the studies are not local the request will be made to the practices PACS WL server.

When the media is successfully burned, the status and deliver to information for the “included” image requests will be updated. And before and after audit messages are written to the Audit log. The description in the audit entry is basically the entire contents of the CD’s Readme file, which includes unique identifiers and even the CD’s checksum.

Date	Action	Description	User
07-14-2014 12:17 PM	CD/DVD export started	Delivered to : Lyall, Janet 1234 Young street NY, Brooklyn MediaUID="1.2.826.0.1.3680043.2.93.1.4.2831167776.22896.1405351020.1" MediaID="WL1_HXLXPM93_TPZ" Server="unknownSite/peipacswl1" Creator="remote:192.168.16.99" Time="Mon Jul 14 11:17:00 EDT 2014" CheckSum="86b5f5dd89b17f508b4ebaa080809af6"	Noye, Darcy (darcy)

Figure 5.13 – Audit history

Change to Image Request:

With B43, when creating an image request there is a new required field “Requesting site”.

Figure 5.14 – Image request has new required field of Requesting site

The “Requesting Site” value is the site used when showing the Image Request WL. So when looking at the JTEST/JT WL as shown in the following screen shot, you see all the image requests that need to be completed at JT. Previous to B43, the JT WL would only show the image request’s needed at a site such as JT if they were performed at JT.

We also changed the work list so (by default) it groups Requests by Patient, Meida Format and Deliver To. In the following screen you can see the default “Request” grouping. If the user clicks on the “Group by.” button the sorting changes between Ascending and Descending (by image request date).

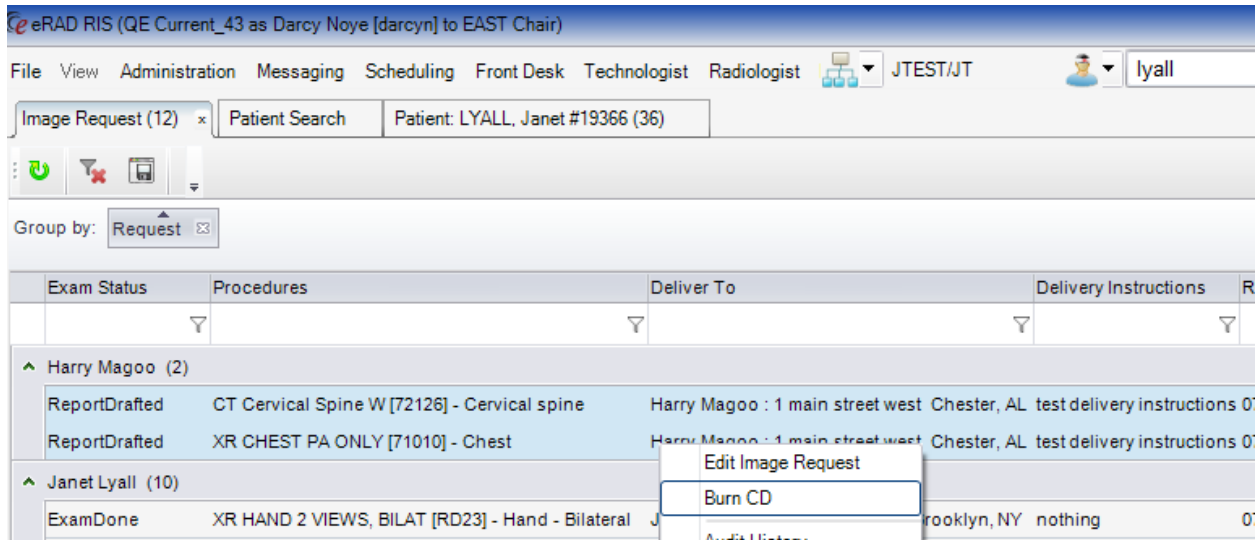


Figure 5.15 – Image request work list group by Request

The remaining will explain how to set up the Disc Producers Epson TD Bridge Server

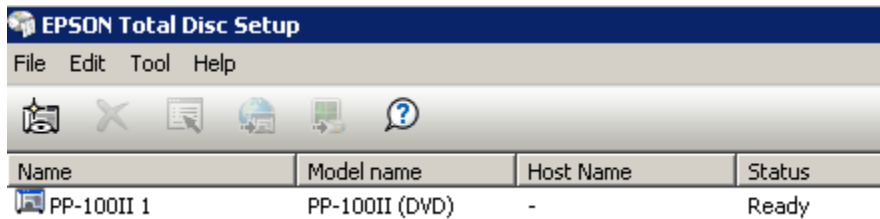
When using an Epson Disc Producer you will need to dedicate a PC to host the hardware. On that PC you will need to install the EPSON TD Bridge software. The TD Bridge software and documentation is available at:

<https://www.epsonexpert.com/login>

<https://www.epsonexpert.com/ee/techRes/index.htm?ProductId=598>

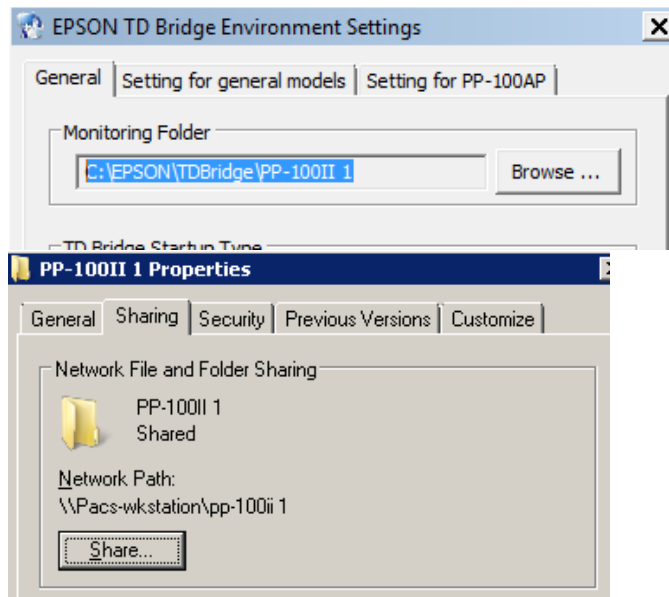
In addition to the typical install you will need to:

1. Install the Epson Total Disc Maker Software, either download the latest from Epson or use the install disc that came with the burner.
2. Launch the “Epson Total Disc Setup” utility, which is in your “start/program” menu after the install. Add the local “PP-100” burner as shown in the following:



3. Install the TD Bridge software.
4. Launch the program “EPSON TD Bridge Environment Settings”

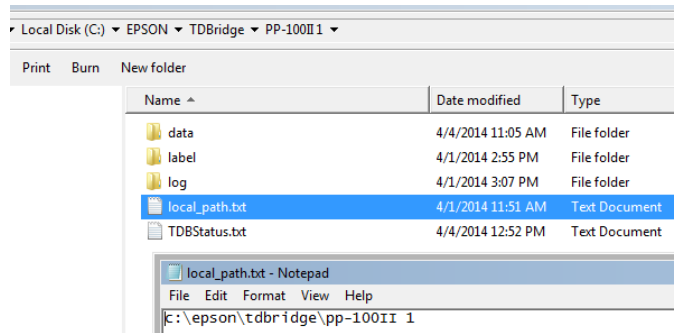
5. Setup the TD Bridge monitoring folder to use a network share, which users will have write access for submitting JDF files and data. Unfortunately, the monitoring folder must be on the host system's hard drive; therefore, will need to share the folder on the Epson Disc Publisher host.
6. **Make sure the subfolder name for that share location is the name of the EPSON Disc Publisher Instance.** For example, in my installation the hardware's name is "PP-100II 1" so:



7. Next, create a text file in the share called "**local_path.txt**", which contains the file path to the monitoring folder as seen by the TD Bridge.

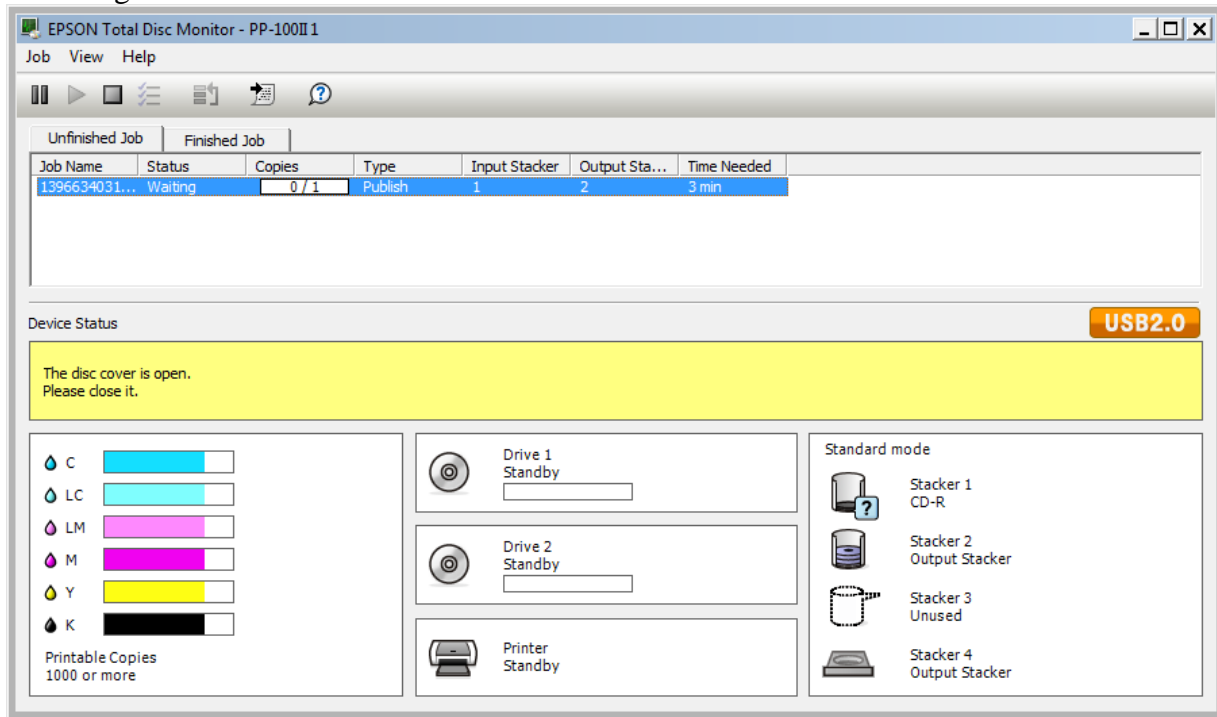
The reason for this is that users might access the share via `g:\Public\PP-100II 1\` but on the server it is actually `c:\EPSON\TDBridge\PP-100II 1\` and when the RIS creates the JDF file it needs the actual path as registered in the TD Bridge software

The following screen shot illustrates what you need to do for this step:



Finally, as an administrator of the TD Bridge host machine, you may want to consider a batch job that cleans up completed jobs and deletes their data.

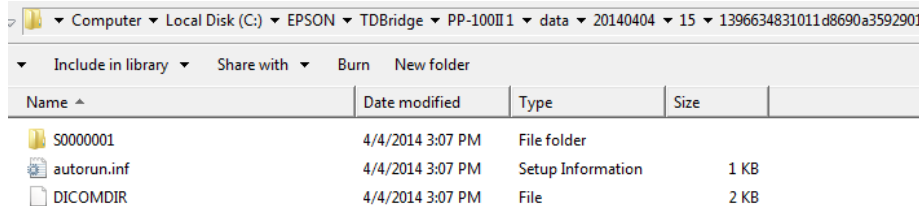
When a user creates a Disc Producer Job by submitting a CD Burn request via the RIS, a JDF (Epson Job Definition File) will be created at the monitoring location. As the TD Bridge processes that file its file extension will change JDF → RJD → IMP → STF → DON and if there is an error it will be renamed to ERR. In the case of an error you can re-submit the job by changing the extension back to “JDF” and lookup the error code in the TDBStatus.txt file. You can also monitor the JOB status in the Epson Total Disc Monitor application, which will tell you when you need to put more discs in the stacker or close the door to the device as shown in the following.



IMPORTANT: After the CDs are burned the data for the CD will remain on the TD Bridge share. Over time this will take up lots of drive space and it will be in your best interest to delete/clean out the old data on a daily bases. You just want to make sure the data you are deleting isn't for a job that is in the “.ERR” status.

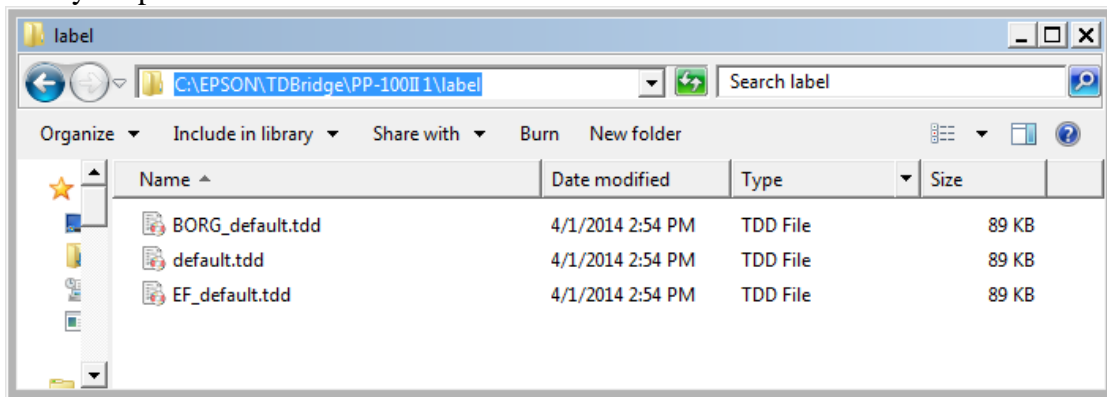
The data directory is organized by date then by hour, then by JDF file name. The following example shows the job 1396634831011d8690a3592901, which was submitted on April 4th at the 15h and if you look closely at the job id a3592901 represents the accession number of the first study on the CD. The audit log for that study can be used to track down more information about the job.

>> C:\EPSON\TDBridge\PP-100II 1\data\20140404\15\1396634831011d8690a3592901



Name	Date modified	Type	Size
S0000001	4/4/2014 3:07 PM	File folder	
autorun.inf	4/4/2014 3:07 PM	Setup Information	1 KB
DICOMDIR	4/4/2014 3:07 PM	File	2 KB

You can also create a label sub-directory and create default *.TDD files, which will get printed to your CDs. If the label directory and default tdd files don't exist, they will be created the first time RIS submits a job to the disc producer share. You can then edit the default.tdd file to meet the needs of your practice or site.



Name	Date modified	Type	Size
BORG_default.tdd	4/1/2014 2:54 PM	TDD File	89 KB
default.tdd	4/1/2014 2:54 PM	TDD File	89 KB
EF_default.tdd	4/1/2014 2:54 PM	TDD File	89 KB

The fields available for the labels are:

name, patient_id, site_code, site_description, deliver_to_first_name,
deliver_to_last_name, deliver_to_address_lines, deliver_to_city, deliver_to_country,
deliver_to_state, deliver_to_zip

For reference, the following is a sample JDF file:

```
#
# JOB_ID === <PacsMediaRequestID>a<RISAccessionNumber>
# you can use the accession number to look at the RIS audit log and see more information about the job
#
JOB_ID=1396634831011d8690a3592901
#
# PUBLISHER === the name of the folder where this job file was written
#
PUBLISHER=PP-100II 1
#
# Only writing CDs, if you need to write a DVD you will need to use an attached burner or
# change this to DVD and change the job extension back to JDF
#
DISC_TYPE=CD
COPIES=1
FORMAT=ISO9660L2
#
# Note: location of data/label is relative to the share/UNC path that was used by the RIS user.
#   If you would like to use another path specific to the local TD Bridge software,
#   create a file named local_path.txt in the DiscPublisher share.
#   It should contain the full path to the share location as accessible by the TD Bridge software
#
DATA=c:\epson\tdbridge\pp-100II 1\data\20140404\15\1396634831011d8690a3592901\
#
# Fields available for the labels are:
#   name,patient_id,site_code,site_description,
#   deliver_to_first_name,deliver_to_last_name,deliver_to_address_lines,
#   deliver_to_city,deliver_to_country,deliver_to_state,deliver_to_zip
#
LABEL=c:\epson\tdbridge\pp-100II 1\data\20140404\15\1396634831011d8690a3592901_label.tdd
```


County Option for Radiologist Signing Location

Option to select the County for the Radiologist is controlled by a new system configuration setting titled **“EnforceCountySelection”** with a default of False.

If set to False, the application will behave as before and the user will not be required to select a county before dictation. If the site is Chair enabled at the practice level they will still be required to select a Chair, but the County and Zip Code options will not be presented.

If the site is not Chair enabled but requires County based on the above system configuration setting, they will be presented with a window that will allow them to select a County. They can also enter a Zip Code to shorten the list or select the County automatically. The following window is presented on login. The value entered is remembered on a workstation bases.

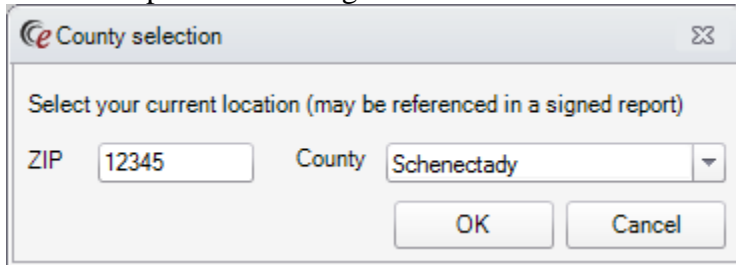


Figure 5.16 – County selection window prompt

If **“EnforceCountySelection”** is true and the chair workflow is enabled for the practice, then the chair selection dialogs with the additional county fields will be displayed

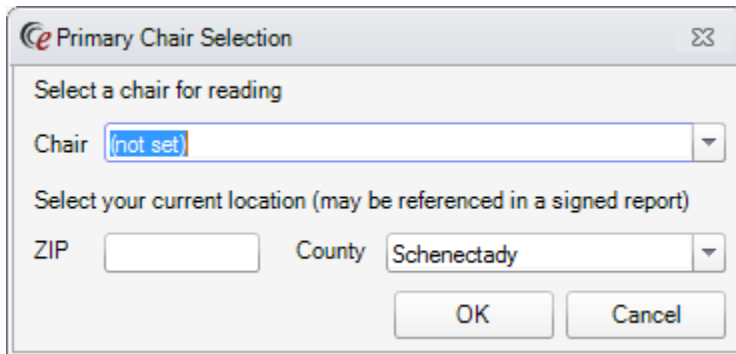


Figure 5.17 – Chair selector with Zip and County fields

If the user preference **“Use detailed chair selector”** is on the user will be prompted with the detailed chair selector window

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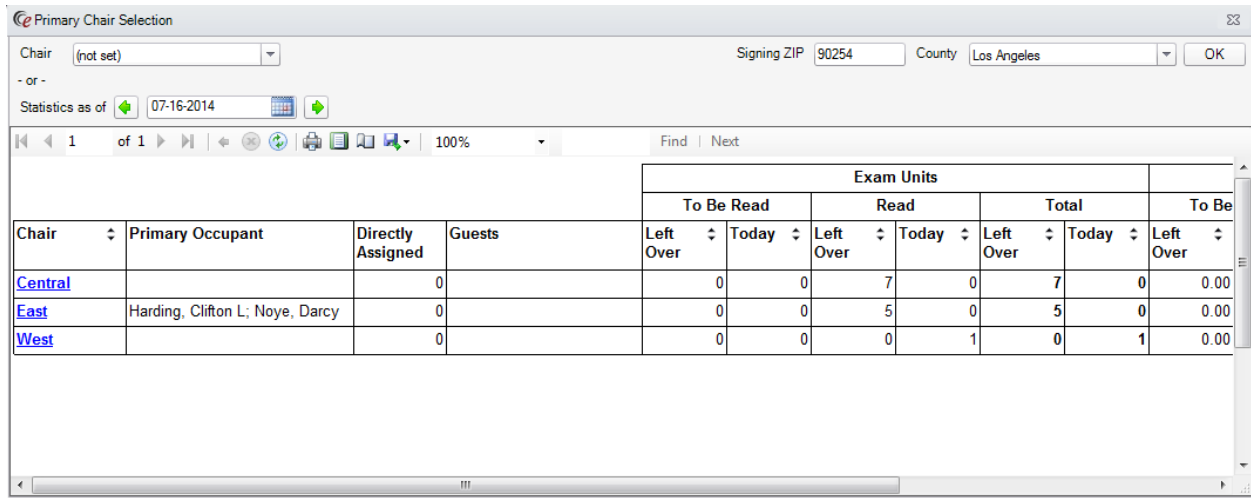


Figure 5.18 – Detailed chair selector

If the county selection is enforced, the county that is set at the time of signing is saved to the interpretation table’s “signed_county” column.

If Chair is not enabled for the current user but county is enabled, a new status bar icon will be displayed allowing the user to open the County selector.

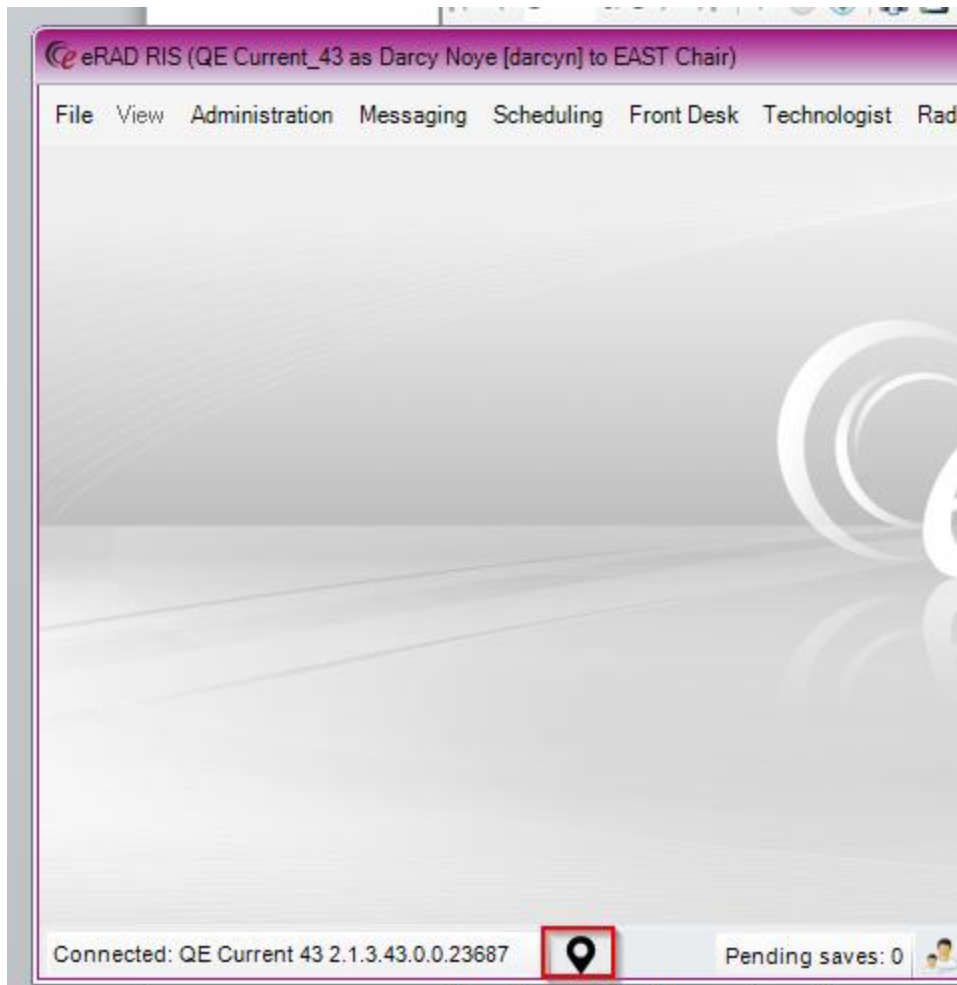


Figure 5.19 – County selector

IVT – Ability to Edit Patient Information

Previous to Build 43, users had to access the Patient Folder – View Edit to alter patient information on the Patient tab. Now the patient tab is editable from the IVT window.

The screenshot shows the IVT window for patient Peggy Mammo. The window has a title bar with 'IVT WL (4828)' and 'IVT: MAMMO, Peggy #23195PE'. Below the title bar are tabs for 'Patient', 'Insurance Verification PreCert', 'Order \ Exam', 'Attachments', and 'Contact Log'. The 'Patient' tab is active, showing a form with three sections: 'General Information', 'Contact Information', and 'Patient Notes'. The 'General Information' section includes fields for Prefix, First name (Peggy), Last name (Mammo), Middle, MRN (23195PE), Sex (Female), Birth date (10-02-1955), and Place of birth. The 'Contact Information' section includes fields for Address 1 (4 Green Tree Ave.), Address 2 (Suite 4), City (Nantucket), State (Massachusetts), Zip (02584), Country (US), Email (darcy.noye@radnet.com), Home phone ((902) 555-8471), Work phone (() -), and Cell phone (() -). There is also a checkbox for 'No Alternate Phone' and a 'Preferred contact method' dropdown. The 'Patient Notes' section contains a text area with the note '07-16-14 Test UserS -'.

Figure 5.20 – Patient tab fields editable from IVT window

ICD10 Support

To support ICD-10, the RIS code table that current contains ICD9 must be upgraded to support ICD-10 and other coding schemes as necessary. A new table called `l_indication` that is similar to the current `l_indication_code` has been created. The new table employs a composite key consisting of coding scheme, release date, and code. Rather than the code itself being the primary key, a numeric primary key exists instead. This approach requires that any place in code/XSLT etc. that refers to the indication code explicitly must be updated to perform a reverse lookup to find the code/coding scheme based on the numeric key.

ICD10 codes can be downloaded from

<http://www.cdc.gov/nchs/icd/icd10cm.htm#icd2014>

Choose the ICD-10-CM XML Format Option

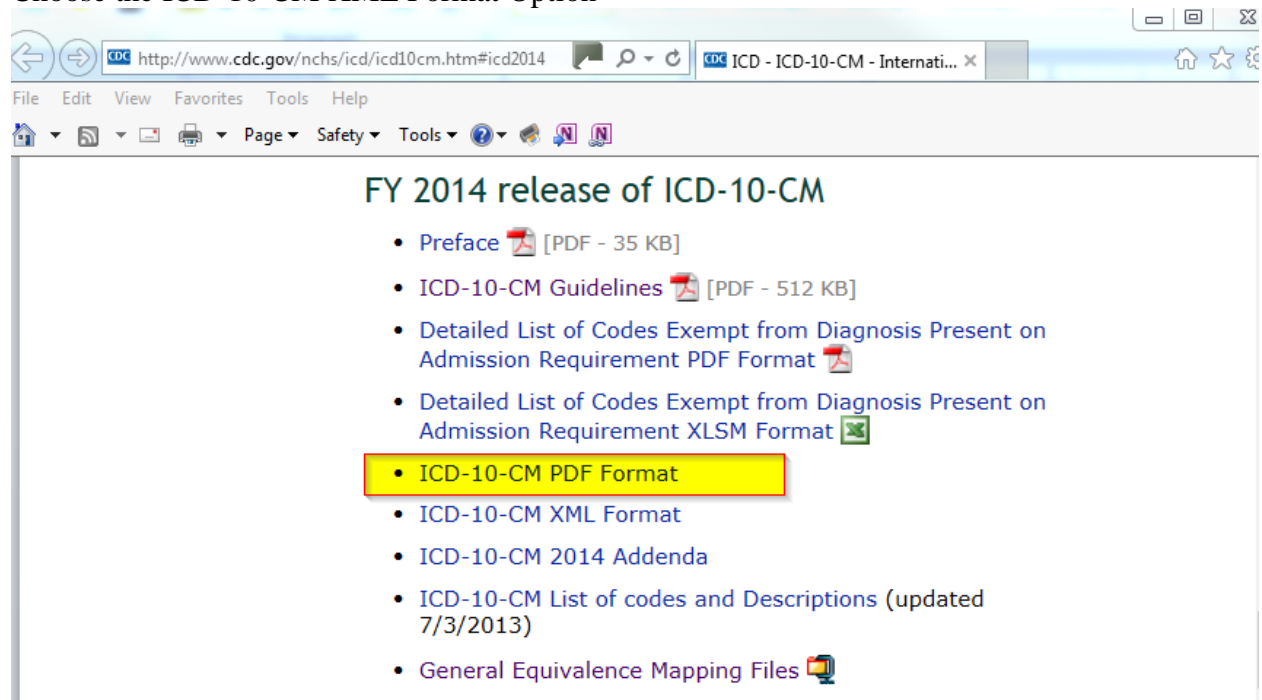


Figure 5.21 – ICD-10 download

This XML import file contained roughly 45,000 rows of ICD-10 Clinical Modification (CM) data. Procedure Coding System (PCS) that is also available seems to be for other purposes and not necessary for ICD-10 support. To manage importing of new versions of ICD-10, the indication code lookup has been enhanced with an “Import” button and associated screen for importing only rows in the import XML that do not already exist in the `l_indication` table. The placement of the “Import” button on the Indications lookup is shown below.

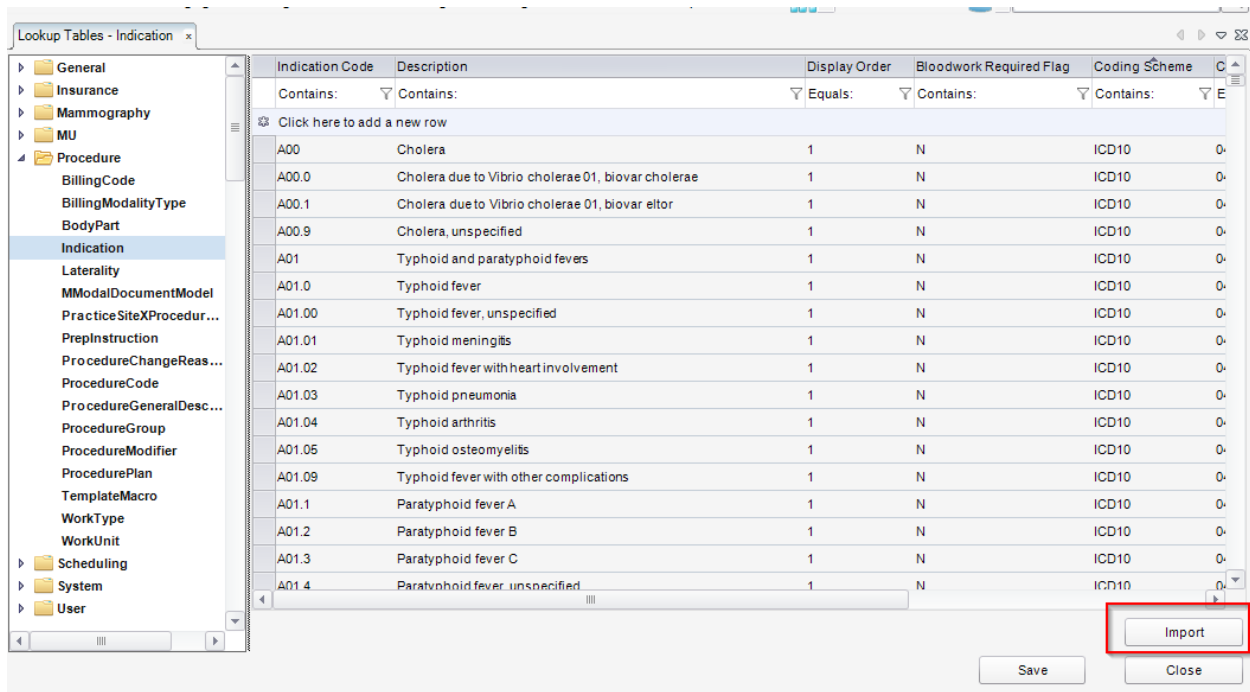



Figure 5.22 – Indication table with option to Import codes

To Import new codes select the “Import” button and this will present the Import ICD10 window.

Select the ellipsis button  next to the File field. Locate the directory where the XML file was saved. With this folder select the ICD10CM_FY_Full_XML_Tabular.xml file (NOTE: this file will change as new versions are released. It will be the responsibility of the site to continually update with newest codes).

The File path will not be populated. Select the Load XML button. At this point, the user can enter keywords as required. Only the codes that are missing from your current indication list will be imported. In my example I was only missing ICD10 code A22.9, so this is the only one available for download. The “include” column is checked by default. Once editing is complete and all rows that are needed are checked, the “Import” button can be selected. Before selecting the Import button you can also change the effective date.

After import of new rows, RIS must be closed and re-opened for the newly-imported rows to be available in the lookup editor.

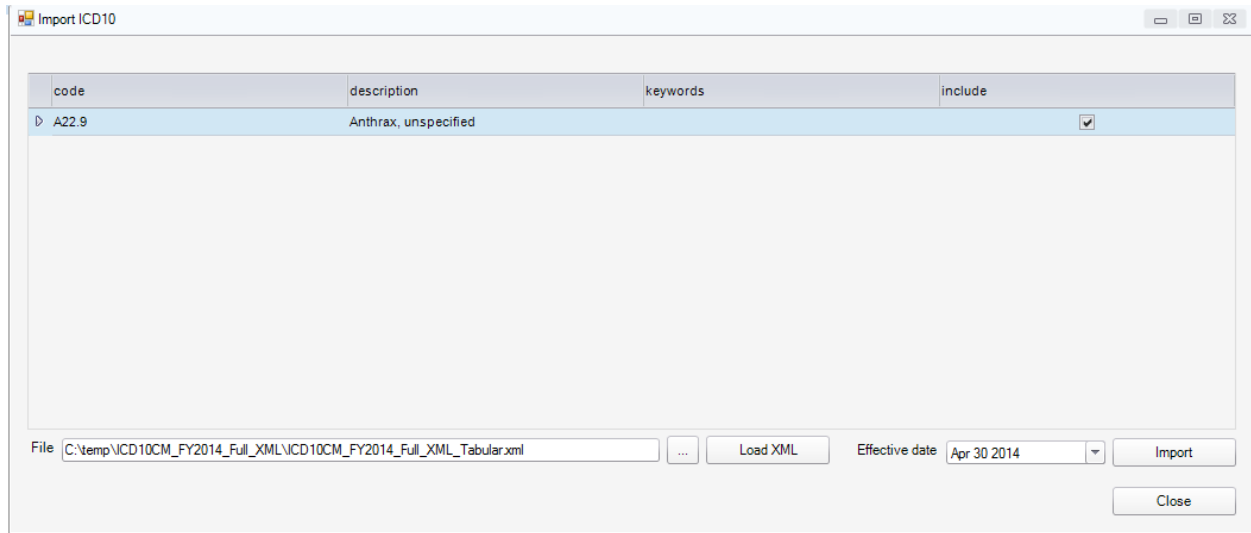


Figure 5.23 – Import ICD10 window

Searching for ICD Codes:

The ICD Codes dialog facilitates searching and filtering of ICD codes in the Indication table. The form contains a textbox for the reason for the exam (from the Order tab) and then the search/results section.

ICD search can be performed from many areas of the application. A general search of a code can be performed from the ‘Quick Search’ field in the upper right corner of eRAD RIS.

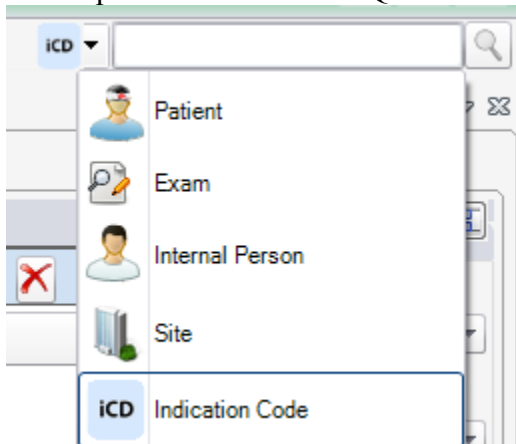


Figure 5.24 – ICD Quick Search

Enter the code or description in the field or leave it empty and select the search button to open the ICD Codes window. From this window you can select the Type of code being search for, this

can be a combination of ICD9 and ICD10. There is an option for SNOWMED codes, but by default there are no SNOWMED codes included. The box can be checked, but no data will be returned. By default, ICD9 will be checked until the date value in the System Config’s **“ICD10EffectiveDate”** whereby ICD10 will be checked by default when the window opens.

Entering a partial or full code number or description will return the results. The search results will display the Code, the Type of code and the Description.

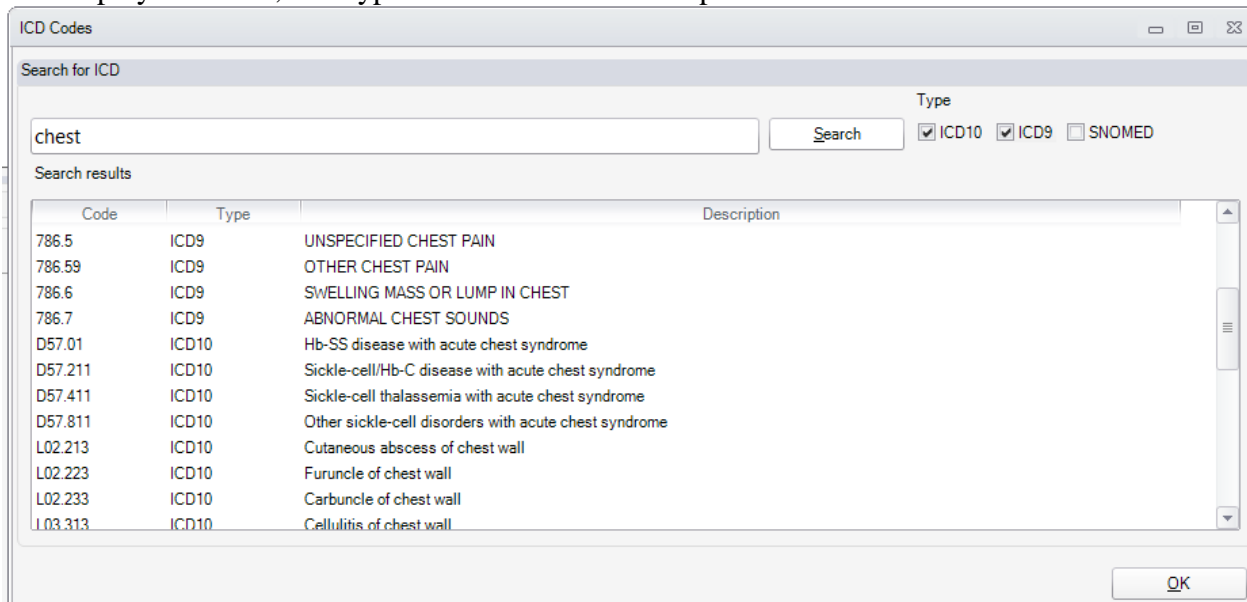


Figure 5.25 – ICD Codes search window.

From the Scheduling\Registration\Walk-In windows the user can add Indication codes. The window is accessed on the Schedule\Exam tab, with a new button labeled ICD on the procedure picker row. The button is enabled after the Study is entered. This button is controlled by new access string **“Clinical.Schedule.AssignIcdCode”** with a default of none.

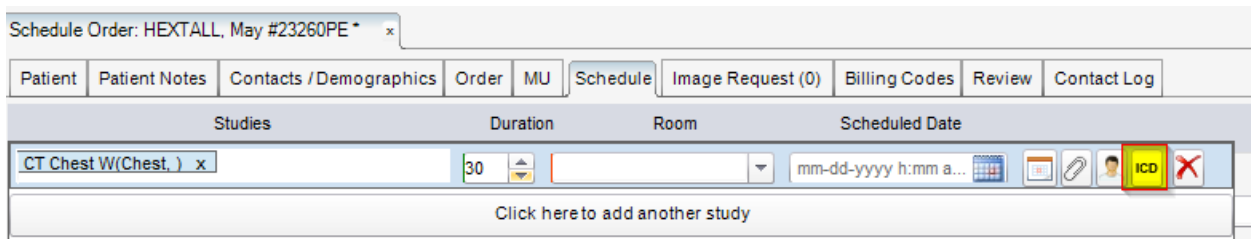


Figure 5.26 – Add Indication code in Scheduling

When the ICD Codes window opens, the Reason for exam will be pre-populated from Order tab. Perform search and from the Search results you can double click a row to insert in the selected codes section of the window. Multiple codes can be entered. When finished, select OK.

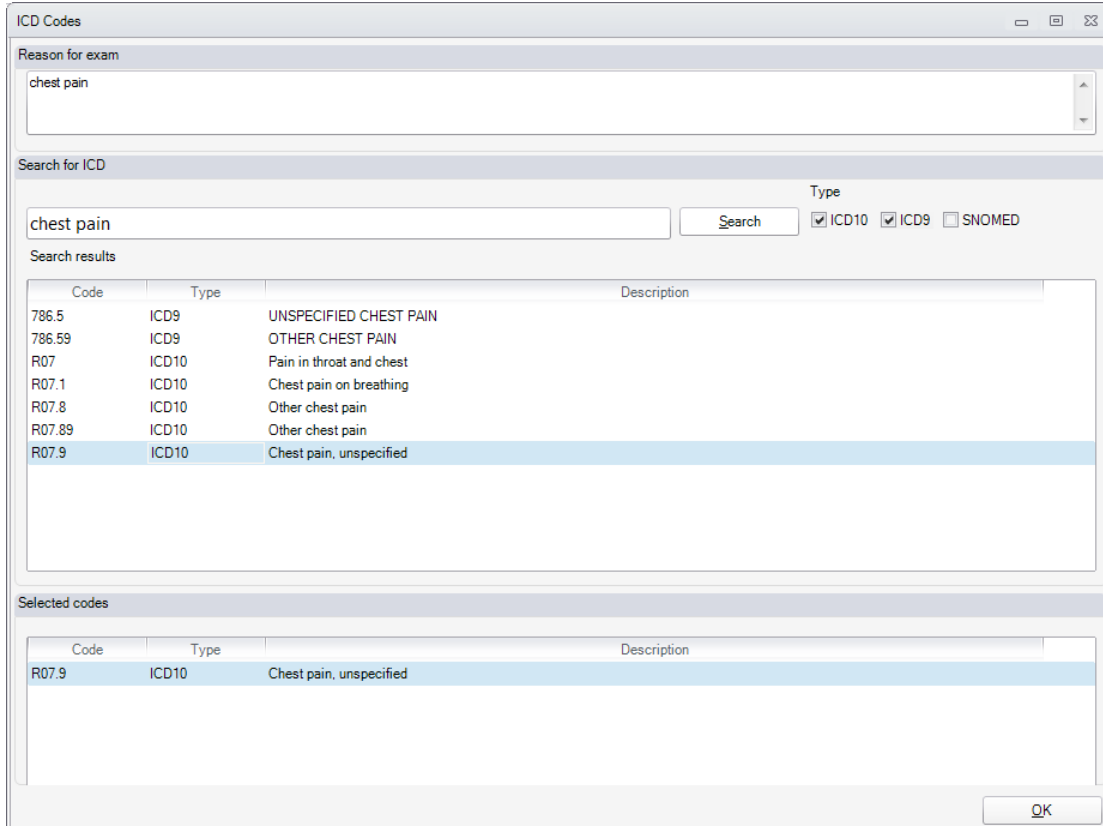


Figure 5.27 – ICD Codes window accessed from Scheduling\Registration\Walk-in windows.

In the Technologist workflow, and in View/Edit, The Documentation tab contains two grids that display the ICDs captured up to exam done, and those captured by the radiologist. The buttons to the right of each grid are enabled based on whether the current context should allow editing. If the new access string titled **“Clinical.ViewEditCanChangeTechIndications”** is set to full then the Indications button is enabled allowing changing of indications set up to Exam Done. It can be enforced that a code must be entered by the Tech is the system configuration setting of **“TechMustProvideIcdCode”** is set to True. The default is False. If the new access string titled **“Clinical.ViewEditCanChangeDiagIndications”** is set to full, then the Diagnostic Indications button is enabled, allowing changing of indications set by the radiologist. The default for both of the above mentioned access strings is none.

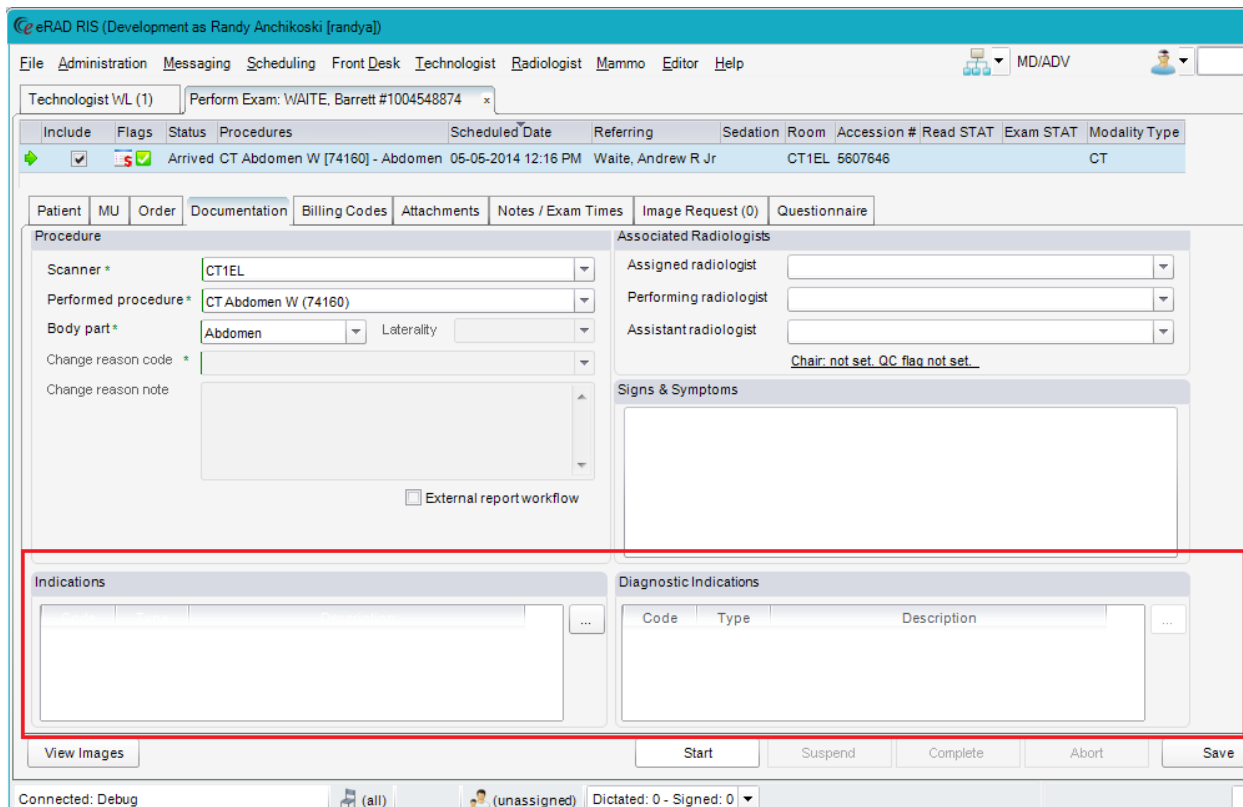


Figure 5.28 – Indication grids. Left for Technicians and right for Radiologist

IMPORTANT: Radiologist ICD Support Uncomplete

The Radiologist portion of this feature is not complete. It is recommended that the system configuration setting “RadMustProvideIcdCode” be left to the default of “False” and the access string of “Clinical.ViewEditCanChangeDiagIndications” be left to the default of None.

The Reporting window also has a new ICD button. The button is enabled with the system configuration setting of **“RadMustProvideIcdCode”** that has a default of False. This button will open the same ICD Codes search window. The data for the indications defined here are saved to c_interpretation_indication.

For the Radiologist to view the Tech workflow defined ICDs, viewing the Exam Details from the View menu will display indications defined in that workflow.

On the MU tabs Medical History pane the problem codes added are ICD codes and the same search window is provided allowing the user of both ICD9 and ICD10 codes. The user can select the search icon in the problem field of the Medical History grid to open the ICD Codes window, or can enter partial or full value in the problem field and search.

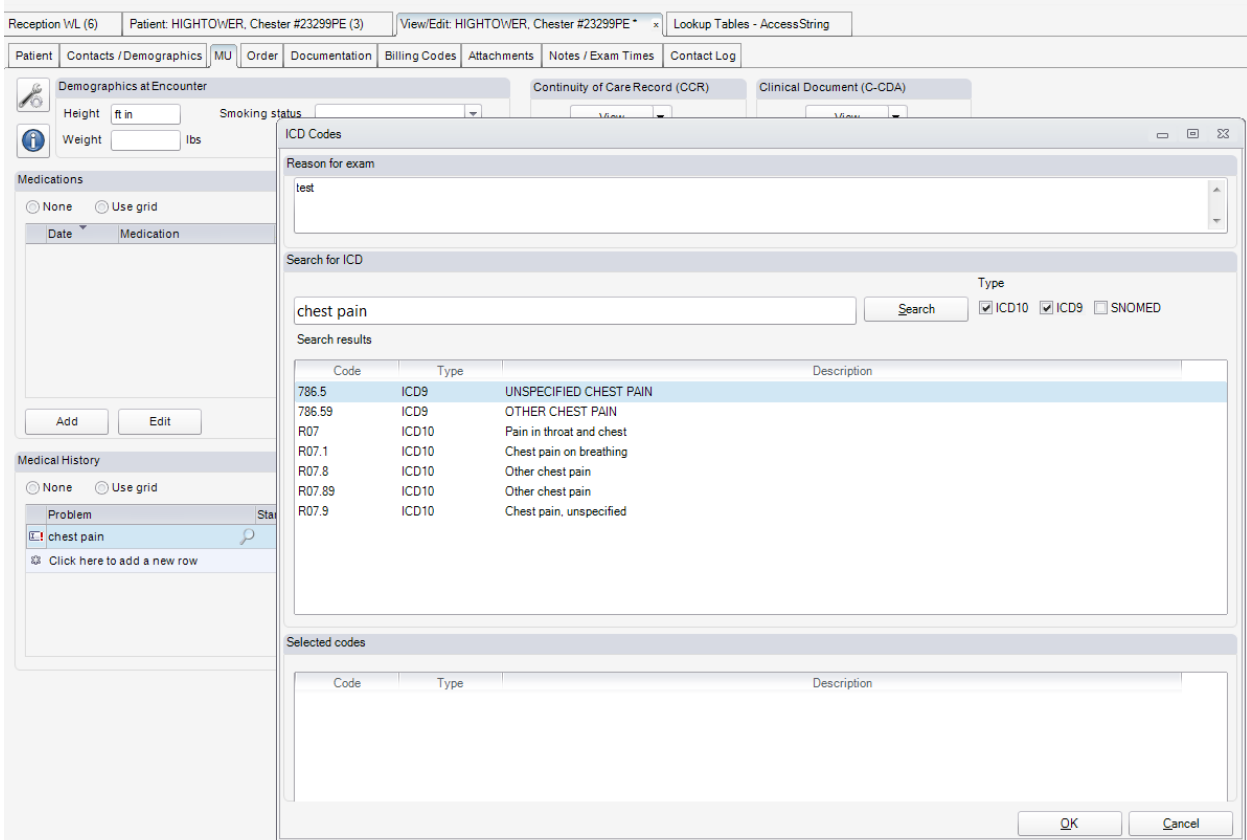
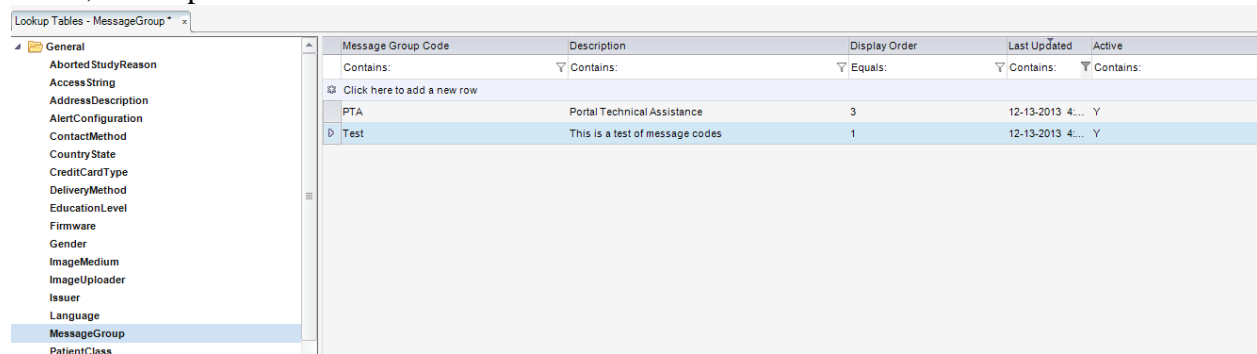


Figure 5.29 – MU ICD Code search

Secure Messaging

Secure Messaging has been added in Build 43. This allows RIS users to send secure encrypted messages to other users in the RIS and also to patient that can access the message via the Patient Portal.

To start a new Lookup table titled MessageGroup was created and located under the General list of lookup tables. Columns of the table include the Message Group Code, Description, Display Order, Last Updated and Active column.



Message Group Code	Description	Display Order	Last Updated	Active
Contains:	Contains:	Equals:	Contains:	Contains:
Click here to add a new row				
PTA	Portal Technical Assistance	3	12-13-2013 4:...	Y
D Test	This is a test of message codes	1	12-13-2013 4:...	Y

Figure 5.30 – Message Group lookup

Values entered in this table will appear in a new field in the Personnel editors Account tab. This field is similar to the other fields on this tab. It is a type ahead field that can contain multiple values.

Having the messaging groups would allow a patient to send a message to a group if they don't know an individual to send it to. The RIS users who have access to this group would then get the messages.

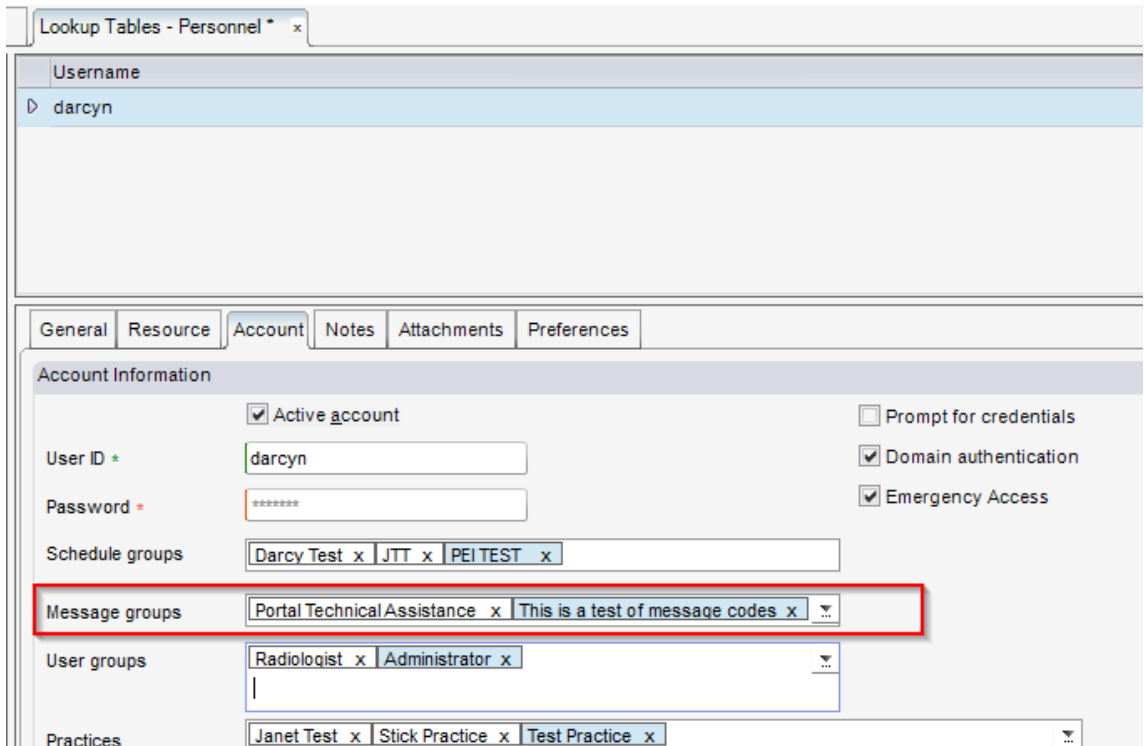


Figure 5.31 – Assigning message groups to users

From within the RIS messages are sent/received from under a new Menu option titled Messaging. The Messaging work list access is controlled by access string **“Config.MessageInbox”**. This access string also controls access to the Menu option of Secure Message Inbox that is under this Messaging menu. Default is none.

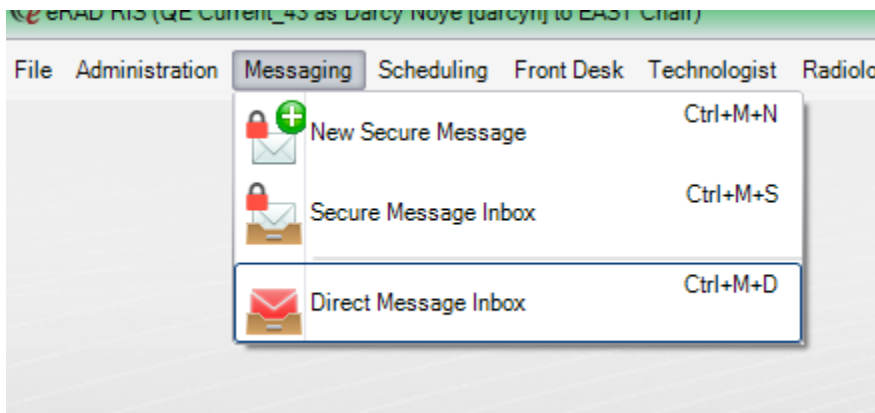


Figure 5.31a – Message menu and menu options

To create a new message select the menu option of New Secure Message that is controlled by the new access string of **“Config.CreateMessage”** that has a default of none. In this window the user can select to send to one of the messaging groups created, or they can send to a patient or another RIS user. The other RIS user would also need access to the Secure Messaging in order to receive the message in their inbox.

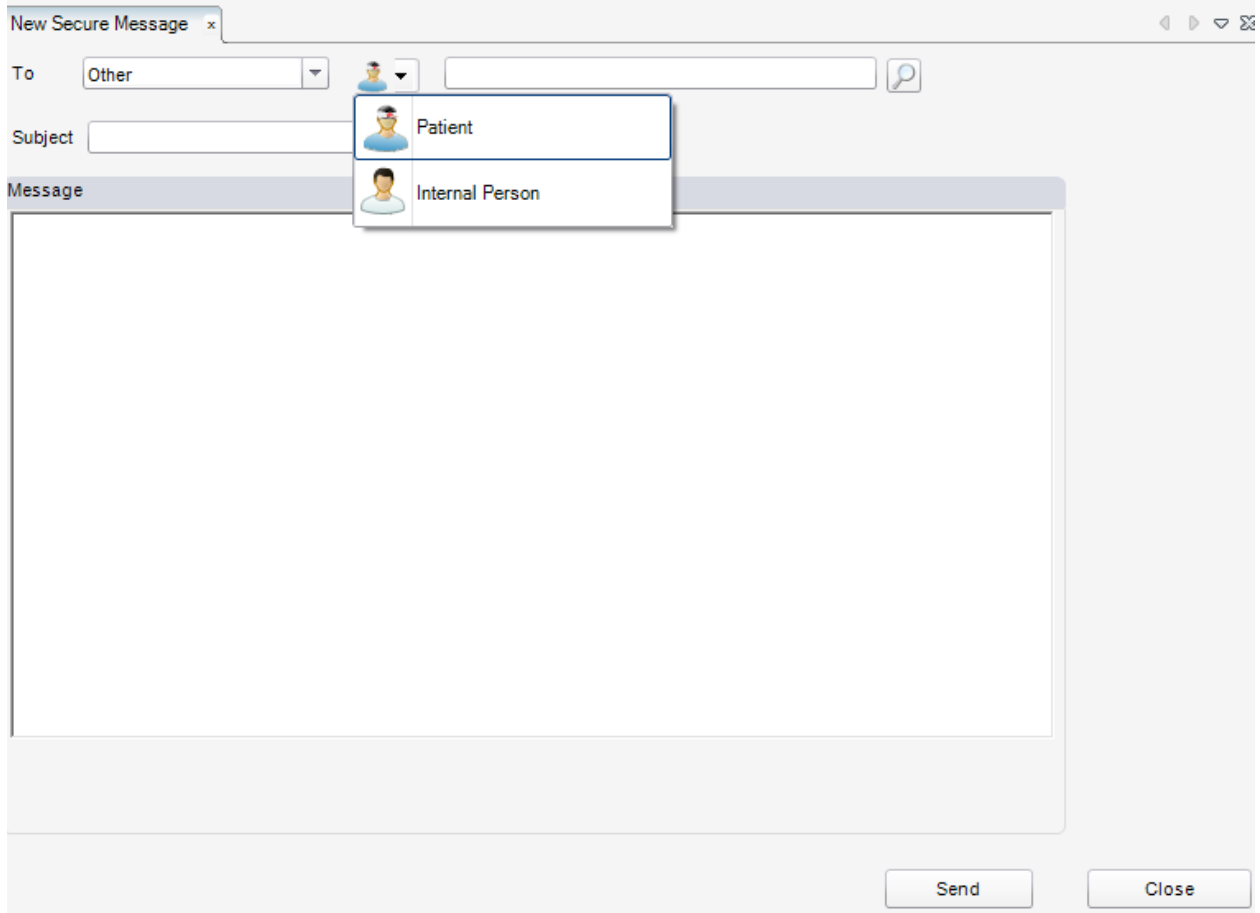
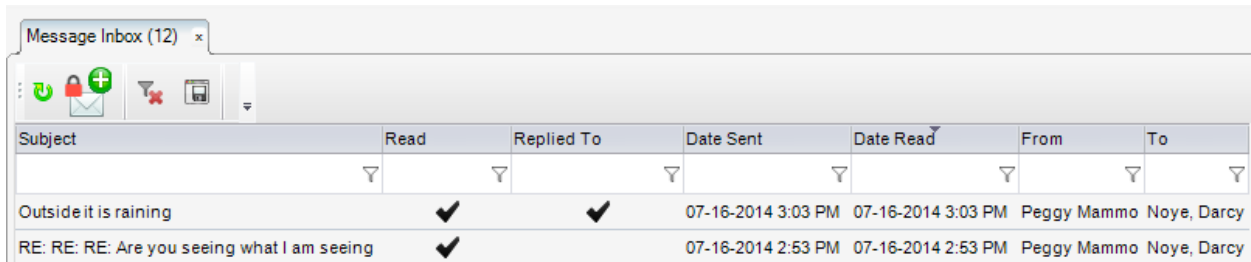


Figure 5.32 – New Secure Message

The RIS user can search for a patient or internal person, enter a message and send.

Messages sent to the user can be viewed / reviewed in the Message Inbox. This is accessed from the menu option Secure Message Inbox. Columns of Subject of the message, if the message has been Read, if the message has been replied, Date Sent, Date Read and From and To columns.



The screenshot shows a web-based interface for a secure message inbox. At the top, there is a tab labeled "Message Inbox (12)" with a close button. Below the tab is a toolbar containing icons for refresh, lock, add, delete, and print. The main area is a table with the following columns: Subject, Read, Replied To, Date Sent, Date Read, From, and To. The table contains two rows of message data.

Subject	Read	Replied To	Date Sent	Date Read	From	To
Outside it is raining	✓	✓	07-16-2014 3:03 PM	07-16-2014 3:03 PM	Peggy Mammo	Noye, Darcy
RE: RE: RE: Are you seeing what I am seeing	✓		07-16-2014 2:53 PM	07-16-2014 2:53 PM	Peggy Mammo	Noye, Darcy

Figure 5.33 – Secure message inbox

The Direct Message aspect of this menu will be covered later in this document with the Meaningful Use updates.

Patient Portal Legal Documents

Legal documents were required for the Patient Portal. A new lookup table was created titled LegalDocument that resides under the System folder of the Administration>Configure menu.

Document types that can be created include:

- Terms and Conditions
- Privacy Statement
- Notice of Privacy Practices
- Patient Portal Terms and Conditions
- Patient Privacy Notes
- Patient Service Agreement
- Patient Consent Agreement

The user can define the Document Title and the Description of the Document to be displayed in the Patient Portal.

Document Title	Description	Document Type	Default Flag	Version	Last Updated	Active
Contains:	Contains:	Contains:	Contains:	Contains:	Equals:	Contains:
Click here to add a new row						
MyTermsAndConditions	Patient Terms and conditions go here hello world v2 and then some Why aren't we seeing this? L...	Patient Portal Terms and Conditions	Y	1	07-15-2014 3...	Y
TermsAndConditions	Terms and Conditions23 These are the Terms and Conditions that you must agree too a couple of ch...	Terms and Conditions	Y	4	07-15-2014 3...	Y
PatientPrivacyADV	We respect your privacy at ADVI if you are reading this you are reading the Patient Privacy Statement...	Patient Privacy Notes	N	1	07-15-2014 1...	Y
PatientPrivacyElseWhere	We respect your privacy at this unnamed practice Patient privacy elsewhere . as in St. Elsewhere	Patient Privacy Notes	Y	1	07-15-2014 1...	Y
PatientTermsAndConditionsARS	Here are the Patient Terms and conditions for ARS. Hello !!!world is there anyone in heropenT...	Patient Portal Terms and Conditions	N	1	07-15-2014 1...	N

Figure 5.34 – LegalDocument look up

Each type is allowed to have one default of that type, which would be used in the case when a practice cannot be determined or the practice does not have the desired legal document.

The Add/Edit Practice window accessed from the Organization lookup can have Legal Documents defined for a specific practice. Select the Portal tab and use the type ahead feature to add the legal documents.

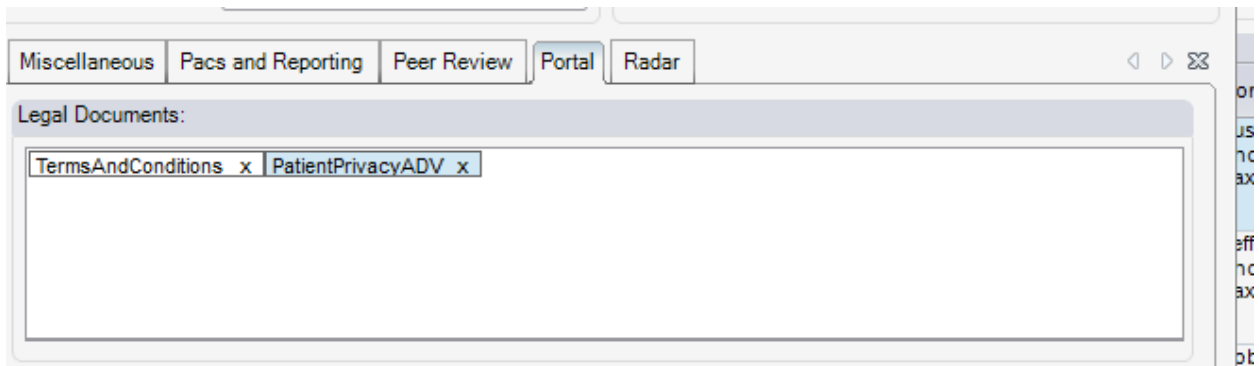


Figure 5.35 – Legal document specified for a practice

When logging into the Portal the system will check to see if the document has changed based on the last updated date, and display to the user before they will be able to access the site, if they have already approved that version then the site will load as normal.

Mammography – Suggest Manual Review

Manual review has been addressed by adding a new column to the Mammo Letters WL. The column titled “Suggest Manual Review Reason” will display reasons for a manual review. If the patient has multiple follow up orders that have not been scheduled the column will inform the user.

Status	Procedures	Suggest Manual Review Reason	Order Date	Referring	Target Date	Next Letter	First Name	Last Name	Patie
Short Term Follow Up	MA Digital Mammo Diag Bil [G0204] - Breast	Multiple active follow-up orders	07-15-2014 12:15 PM	Muttery, Troy	07-25-2014 12:00 AM	Short Term Followup2	Peggy	Mammo	Mam

Figure 5.36 – Mammo Letters work list displaying new column for patient with multiple follow up orders.

If the patient has a follow up letter on the Mammo Letters WL and the patient has another mammo exam scheduled within 30 days of the target date of the follow up, this column will also inform the user with a reason of another breast exam.

Status	Procedures	Suggest Manual Review Reason	Order Date	Referring	Target Date	Next Letter	First Name	Last Name	Patie
Short Term Follow Up	MA Digital Mammo Diag Bil [G0204] - Breast	Other breast exam 2014-07-15	07-15-2014 12:15 PM	Muttery, Troy	07-25-2014 12:00 AM	Short Term Followup2	Peggy	Mammo	Mam
Short Term Follow Up	Breast Imaging to be Determined [BID]		06-04-2014 11:44 AM	Muttery, Troy	06-04-2014 11:43 AM	Short Term Followup2	Tanya	Mammo	Mam

Figure 5.37 – Mammo Letters work list displaying new column for patient with a breast exam scheduled.

Also from this work list the user can access the Patient Folder and Cancel Order from the context menu.

Status	Procedures	Suggest Manual Review Reason	Order Date	Referring	Target Date	Next Letter	First Name	Last Name	Patie
Short Term Follow Up	MA Digital Mammo Diag Bil [G0204] - Breast	Other breast exam	07-15-2014 12:15 PM	Muttery, Troy	07-25-2014 12:00 AM	Short Term Followup2	Peggy	Mammo	Mam
Short Term Follow Up	Breast Imaging to be Determined [BID]		06-04-2014 11:44 AM	Muttery, Troy	06-04-2014 11:43 AM	Short Term Followup2	Tanya	Mammo	Mam
Short Term Follow Up	Breast Imaging to be Determined [BID]								
Call Back	US Breast Uni Or Bil [76645]								
Call Back	US Breast Uni Or Bil [76645]								

Figure 5.38 – Context menu options from Mammo Letters WL

Option to Not Allow Editing of Billing Codes by Technicians

Currently in the RIS we have an option on the procedure code that will allow\disallow the editing of the amount of units for a billing code. This works great for billing codes that are associated to the procedure, but doesn't prevent the tech user from adding a different code and change the units.

For this we have added a new column on the Billing Code table titled Allow Edit Units Flag. If the value of this column is set to Y the user will be able to edit the value on the Billing Code tab of the Perform Exam window. Alternately, if it is N, the user will be prevented from changing the unit value.

Billing Code	Description	Allow Edit Units Flag	Version	Display Order	Billing Mod
Click here to add a new row					
185349003	Encounter for "check-up"	Y	1	1	
90920	Dialysis Services	Y	1	1	OTHER (N
70134	RADIOLOGIC EXAMINATION, INTERNAL AUDITORY MEATI, COMPLETE	Y	1	1	DIA (X-ray)
70480	COMPUTED TOMOGRAPHY, HEAD OR BRAIN; WITH CONTRAST MATERIAL(S)	N	1	1	CT (CAT SI
70450	COMPUTED TOMOGRAPHY, HEAD OR BRAIN; WITHOUT CONTRAST MATER...	N	1	1	CT (CAT SI

Figure 5.39 – Billing code lookup showing new column Allow Edit Units Flag

Add Billing Code

Billing code* (72125) COMPUTED TOMOGRAPHY, CERVICAL SPINE; WITHOUT CONTR

Units 1

CPT modifier 1

Figure 5.40 – Unit that cannot be edited

Patient “Not Yet Menstruating” Flag

In the Perform Exam window there was a flag of No longer menstruating that would disable the LMP and Pregnant fields. For cases of patients that have not starting menstruating but were over the age in which we active the LMP and Pregnant fields, there was no mechanism to disable.

We have added another flag of “Not yet menstruating”.

The screenshot displays the 'Tech Notes' section of the eRAD RIS interface. It includes a 'Technologists notes' text area, a 'Primary tech' dropdown with a red exclamation mark, and 'Assisting tech 1' and 'Assisting tech 2' dropdowns. The 'Last menstrual period' field is set to 'mm-dd-yyyy' with a calendar icon and radio buttons for 'Pregnant' and 'Not pregnant'. Below this, there are checkboxes for 'No longer menstruating', 'Not yet menstruating' (highlighted with a red box), 'Shielded patient', 'Pregnancy test', and 'Blood test'. The 'Procedure' section shows 'Scanner *' as 'CT1EL', 'Performed procedure *' as 'CT Chest W & Abdomen W/Wo (CT42)', and 'Body part *' as 'Chest'. The 'Associated Radiologists' section shows 'Assigned radiologist' as 'Preferred: Strife, Barney a'.

Figure 5.41 – Not yet menstruating flag

Exam Search Filter of BI-RADS

The exam search window now has the BI-RADS option filter that can be added for search criteria

The screenshot shows the 'Exam Search' window with several search criteria fields. The 'Birads:' field is open, displaying a dropdown menu with the following options: BI-RADS 0, BI-RADS 1, BI-RADS 2, BI-RADS 3, BI-RADS 4, and BI-RADS 4a. Other search criteria include Site, Ref. Last Name, Modality Type, Gender, Status, Procedure, and External Re. Below the search criteria is a table with columns: Flags, Status, Pro, MRN, Birth Date, Accession #, Referring, Room, Site, Modality Typ.

Figure 5.42 – Exam search capability of searching on BI-RAD levels

Patient Search – New Patient Split Button Added

The New Patient button has been updated with a new split button. Options within the split button are New patient / New appointment, New appointment and New patient.

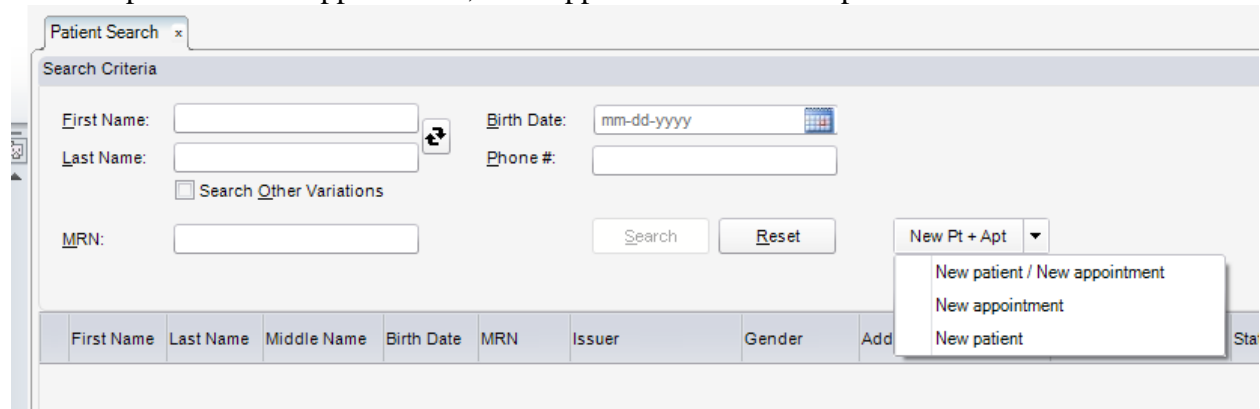


Figure 5.43 – Patient search

If the user wishes to create a new appointment and performs a search and no results are found the New patient / New appointment option can be selected. This will open the Schedule Order window with for a new patient. If they wish to just create a new patient in the system the New patient option can be used

If the user performs a search and the results list does have a match or multiple results returned, they can select a patient from the list and select the New appointment option. This will open the Schedule Order window with the patient details pre-populated.

In the case of orders from external systems that have to matched with an eRAD RIS MRN, the patient search window will open with only the option of New patient.

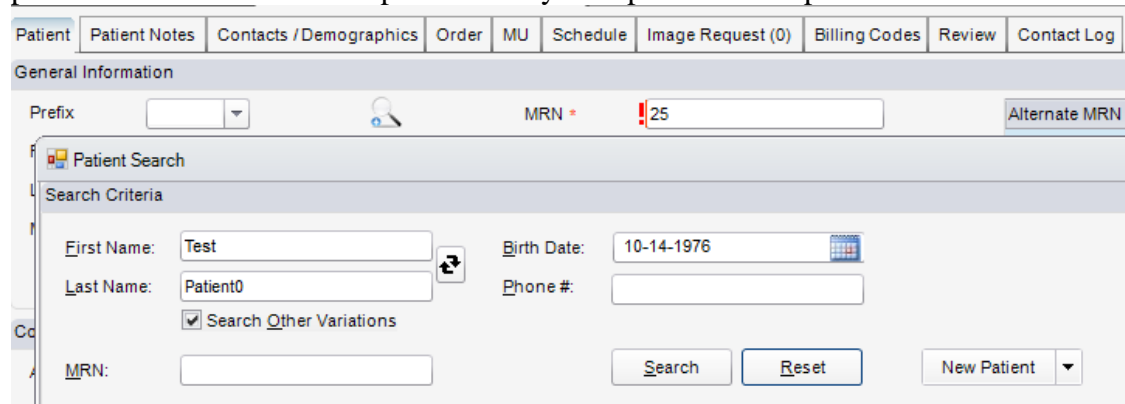


Figure 5.44 – Patient search for external order

Responsible Party MRN

Two new fields have been added to the Responsible Party’s information on the Contacts / Demographics tab. The fields are not required to be completed. The fields are Relation’s ID and ID Issuer.

The screenshot shows a web application interface with a tabbed menu at the top: Patient, Patient Notes, Contacts / Demographics (selected), Order, MU, Schedule, and Image Request (C). Below the tabs is a form titled 'Responsible Party'. The form contains the following fields:

- Relation: Spouse (dropdown menu)
- First name: Mary (text input)
- Last name: Hextall (text input)
- Same as patient (checkbox)
- Address 1: 1 (text input)
- State: MA (text input)
- Address 2: (text input)
- Zip: 02584 (text input)
- City: Nantucket (text input)
- Phone: () - (text input)
- Relation's ID: 12358 (text input) - highlighted with a red border
- ID Issuer: QE Test (dropdown menu) - highlighted with a red border

Below the form is a section titled 'Approved Medical Record Access'.

Figure 5.45 – Responsible Party fields added

Scheduling – Patients Height and Weight Required at Time of Scheduling

In previous versions we had the ability to turn on/off if the patient’s height and weight were required at the time of “arriving” the patient. We have added to the ability to turn on/off is the patient’s height and / or weight is required at the time of scheduling.

Two new system configuration settings have been created. For patient’s height required at scheduling the setting is **“HeightRequiredOnSchedule”**

For the patient’s weight required at the time of scheduling the new setting is **“WeightRequiredOnSchedule”**

Both have a default value of none.

System Config Code	Value	Default	Description
Contains: onsche	Contains:	Contains:	Contains:
HeightRequiredOnSchedule	False	False	(value = True/False) height is required when scheduling the patient
WeightRequiredOnSchedule	False	False	(value = True/False) weight is required when scheduling the patient

Figure 5.46 – new system configuration settings for height/weight required at scheduling.

Patients Weight and Room Added to Weight Limit Message

The message box that is presented to the user informing them that the current selected scanner has a weight limit that the patient exceeds has had the weight of the patient and the room name added to the message.

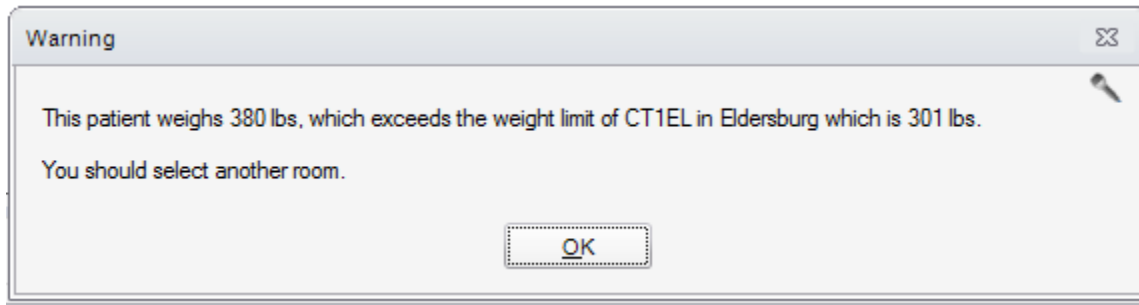


Figure 5.47 – Message includes patients weight and room

Ability to Add Longer Room Names

Currently in the scheduling window the names of the rooms come from the Modality Code of the Modality table. A new column was added to the Modality lookup titled Short Description that has a character length of 50. If this field has a value it will be displayed.

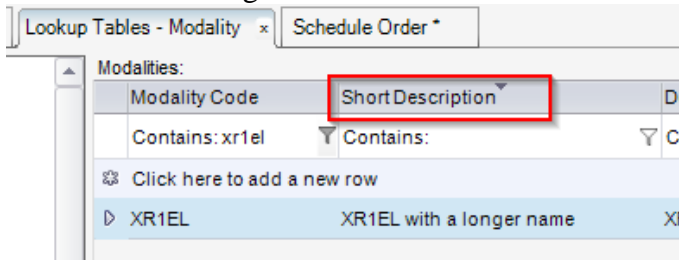


Figure 5.48 – Short description column added to the modality lookup

Admins can enter in a longer description name of the room and have it display in the scheduling windows details section.

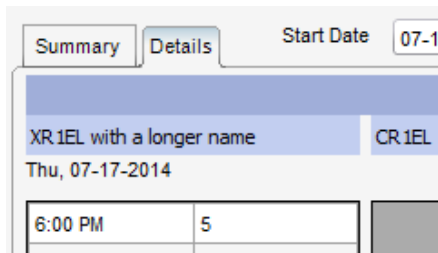


Figure 5.49 – Details showing short description

Also displayed in the Calendar of the Scheduling window

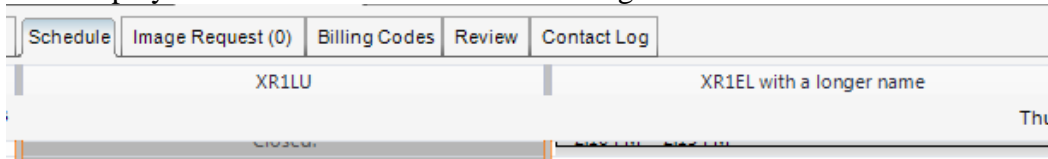


Figure 5.50 – Calendar control of the new appointment window

Lastly in the procedure picker rows Room list box

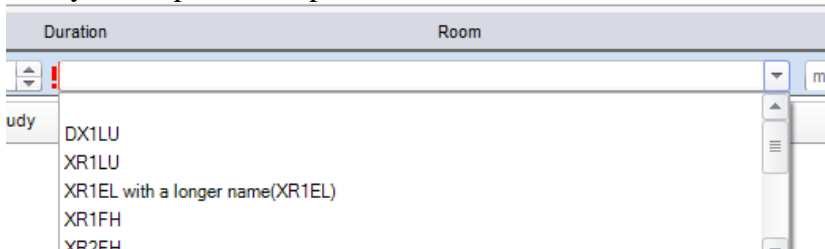


Figure 5.51 – Room list box on the procedure picker row

Ability to Use a Closed Room from Registration Window

Registration screen will now allow the use of a closed room/holiday, but on checking-in and arriving they will be prompted to ensure they would like to still use the selected modality.

For checking in a patient, the user will be presented with the following message

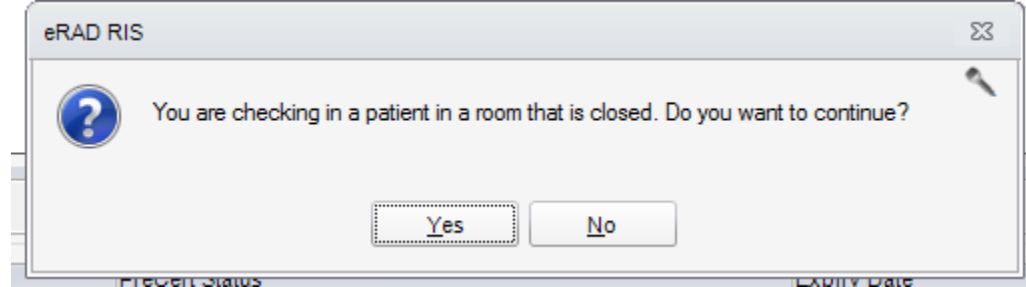


Figure 5.52 – Message on closed room for checking in a patient

When arriving the patient in a closed the room the message is:

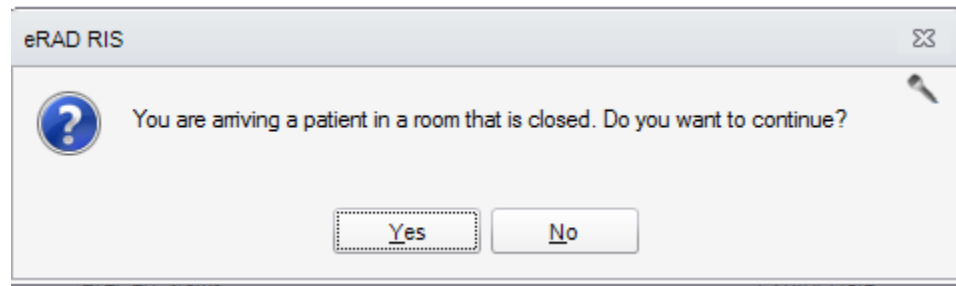


Figure 5.53 – Arriving a patient in a closed room

The message will be presented when completing a walk in to a closed room as well.

Scheduling – Repeating Modality Closures

The modality lookup table has an additional option added to the modality closures grid. The Repeat column has a list of values that include days of the week, weekday, weekend, all week and full range.

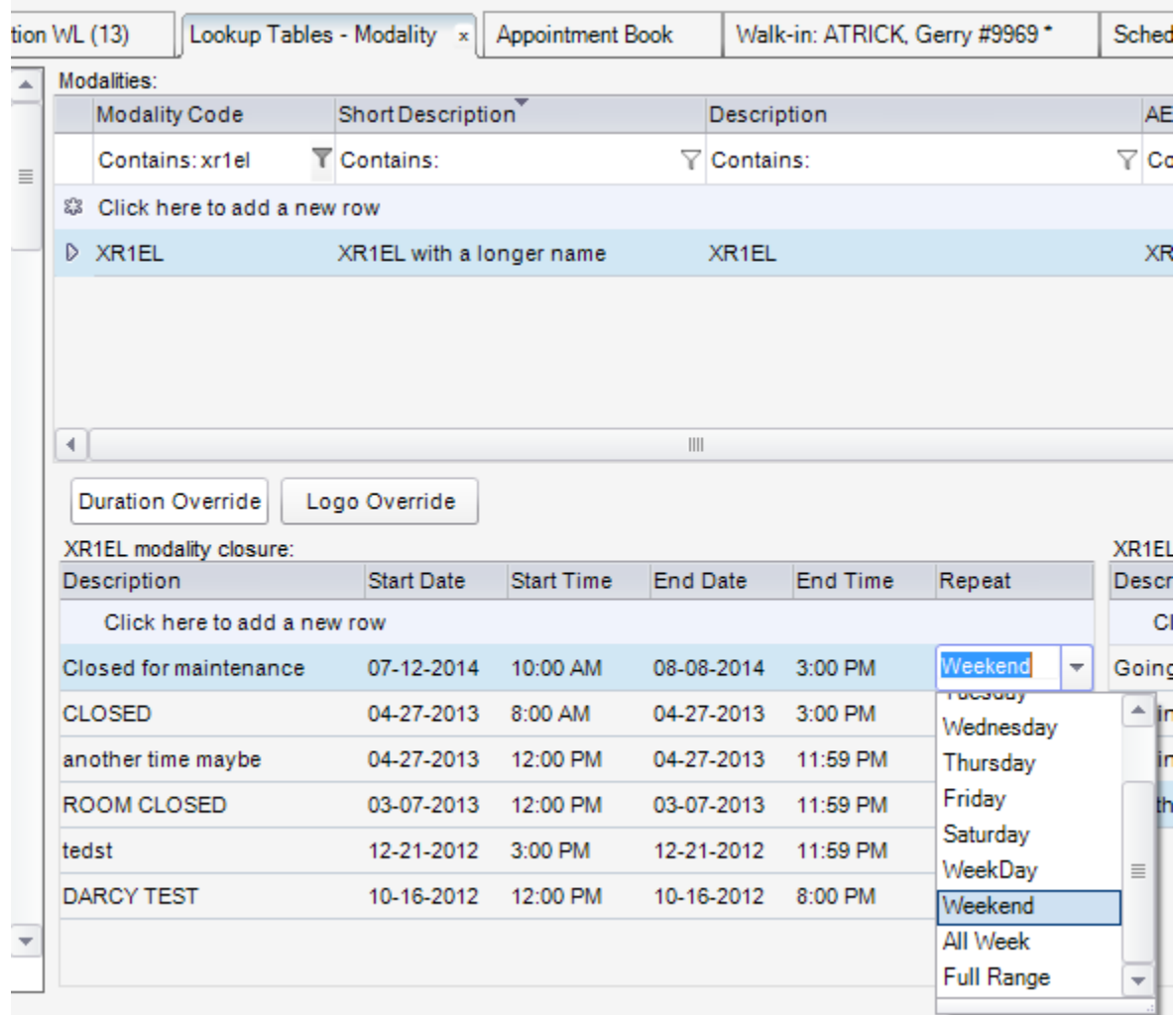


Figure 5.54 – Repeating room closures

An example of this would be closure on the weekend between 7am – 5pm, selecting the Weekend option would apply the closure to Saturdays and Sundays in your specified date range.

Last Contact and Last Contacted Type Added to Work Lists

The columns of Last Contact and Last Contacted Type have been added to the following work lists.

- Confirmation
- Reception
- Technologist
- No Show
- Closed Room

Example of the columns from the Reception work list:

Room	Accession #	Exam STAT	Last Contact	Last Contact Type	Carrier
E CT1EL	1016815PE		07-17-2014 2:43 PM	Phone Call	
E CT1EL	1016814PE		07-17-2014 2:43 PM	Phone Call	
E CT1EL	1016813PE		07-17-2014 2:43 PM	Phone Call	
E CT1EL	1016761PE				AETNA
E XR1EL	1016760PE				AETNA
E CT1EL	1016804PE				TRAVEL

Figure 5.55 – Last contact and last contact type added to work lists

Additional Columns Added to the Confirmation WL

The IV Status and PreCert Required columns have been added to the Confirmation WL.

IV Status	PreCert Required	Last Contact	Last Contact Type	Sched
Verified				07-17-
Required				07-17-
N				07-17-

Figure 5.56 – Columns added to the Confirmation WL

Additional Columns added to the Orders to Schedule WL

The columns Birth Date, Abort Reason and Carrier Type have been added to the Orders to Schedule WL

Flags	Status	Birth Date	Abort Reason	Carrier Type
	Ordered	01-13-1969	Unable to finance	
	Ordered	01-13-1969	Unable to finance	
	Ordered	09-17-1993	Unable to finance	Other
	Ordered	03-07-2012	Unable to finance	Other

Figure 5.57 – Columns added to the Orders to Schedule WL

Columns added to the Image Request WL

The columns of Date of Service and Site columns of Study Performed Site and Image Request site are included on the Image Request WL.

Exam Status	Procedures	Date Of Service	Study Performed Site	Image Request Site
Roman724 Boone (66)				
Signed1	CT Sinus Wo & Temporal Bone Wo [CT62] - Head	03-06-2012 11:17 AM	LU	LU
Signed1	MR Ankle Wo [MR25] - Ankle joint	03-14-2012 10:33 AM	LU	LU
Transcribed	CT 3 Phase [CT13]	03-16-2012 10:57 AM	EL	EL

Figure 5.58 – Columns added to the Image Request WL

Locked By Column Added to the CTRM WL

The locked by column has been added to the Critical Results WL and the All Critical Results WL

Flags	Status	Procedures	Referring	Locked By	Si
	ReportDrafted	XR IVP [74400]	Power, Ian		O
	ReportDrafted	CT Abdomen W/Wo & Pelvis W [CT23] - Abdomen	ROBERTS, WENDY		LU
	Signed1	XR Spine 1 View [72020] - Lumbar spine	Graves, Laurie		EL
	Signed1	XR Coccyx Only [RD42]	Arsenault, Janet		FI

Figure 5.59 – Locked by column added to Critical Results WL

Ability to Select Date Range for Confirmation WL

There Confirmation WL is a daily work list in which the user must select each day to see the studies for a specific day. In build 43 we have added to the ability to select a date range from the calendar control to a maximum of 10 days.

This is accomplished by opening the calendar. Focus will be on the current date. Holding down the shift key on the keyboard and select the day in which you would like to end the range. To change back to a single day, double click the day from the calendar.

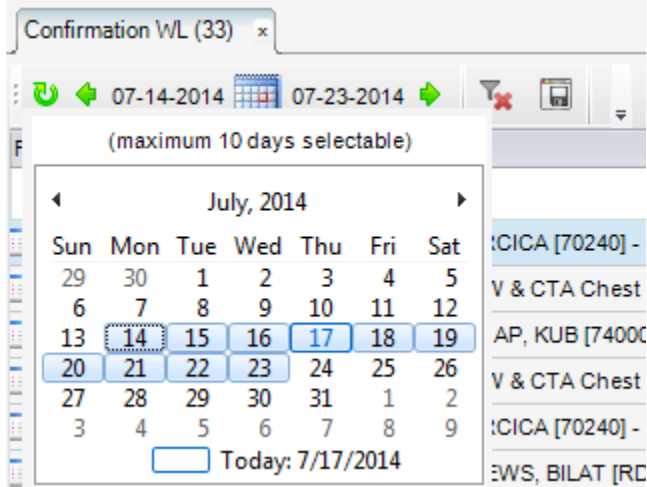




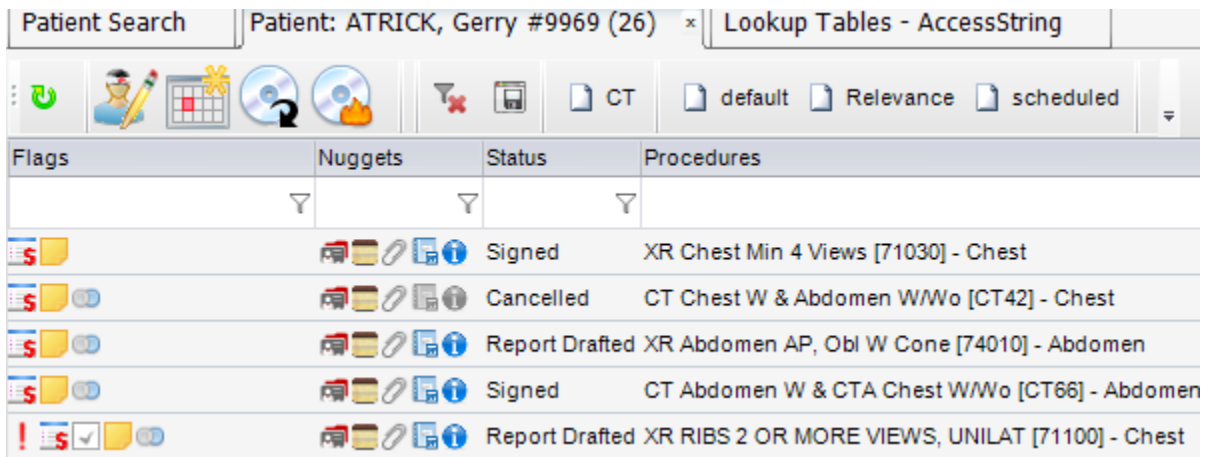
Figure 5.60 – Selecting a date range on Confirmation WL

The previous/next arrows cause dates to slide by one day but maintain the selected number of days in the range.

Problem and QA Flags Added to Patient Folder WL

Two new flags have been created for display on the Patient Folder WL. The flag for Problem, with an ICON of a red exclamation point  and the flag for QA with an ICON of a check mark  have been added. The Problem flag is controlled by a new access string titled **“Flag.Problem”** with a default access of full.

The QA flag is controlled by a new access string titled **“Flag.QA”** and it also have a default access of full














Flags	Nuggets	Status	Procedures
		Signed	XR Chest Min 4 Views [71030] - Chest
		Cancelled	CT Chest W & Abdomen W/Wo [CT42] - Chest
		Report Drafted	XR Abdomen AP, Obl W Cone [74010] - Abdomen
		Signed	CT Abdomen W & CTA Chest W/Wo [CT66] - Abdomen
 		Report Drafted	XR RIBS 2 OR MORE VIEWS, UNILAT [71100] - Chest

Figure 5.61 – Problem and QA flags added to Patient Folder

Personnel Editor – Have City Populated by Zip Code

The common zip code lookup to both the Address section and Deliver To section has been added. The functionality is the same as other areas where this feature exists: when tabbing away from the zip code textbox, if the zip code exists then the city/state will be automatically populated. If more than one entry exists, then the popup shown below will be displayed.

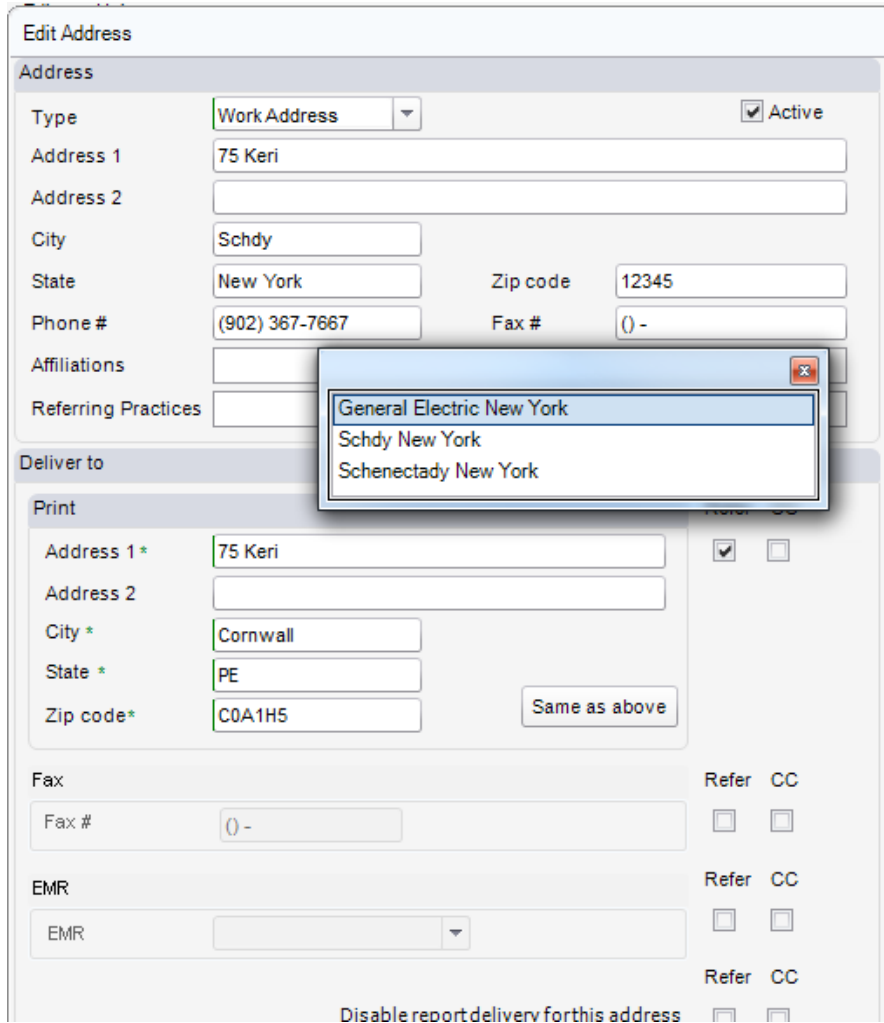


Figure 5.62 – Personnel editor with zip code lookup

Ability to Define Primary Specialty for Referring Physician

To set a specialty to ‘primary’, right click on the item in the multi-select Specialties box and select ‘Set as primary’. Only the specialties multi-select should allow this right-click functionality. Only one primary should be allowed.

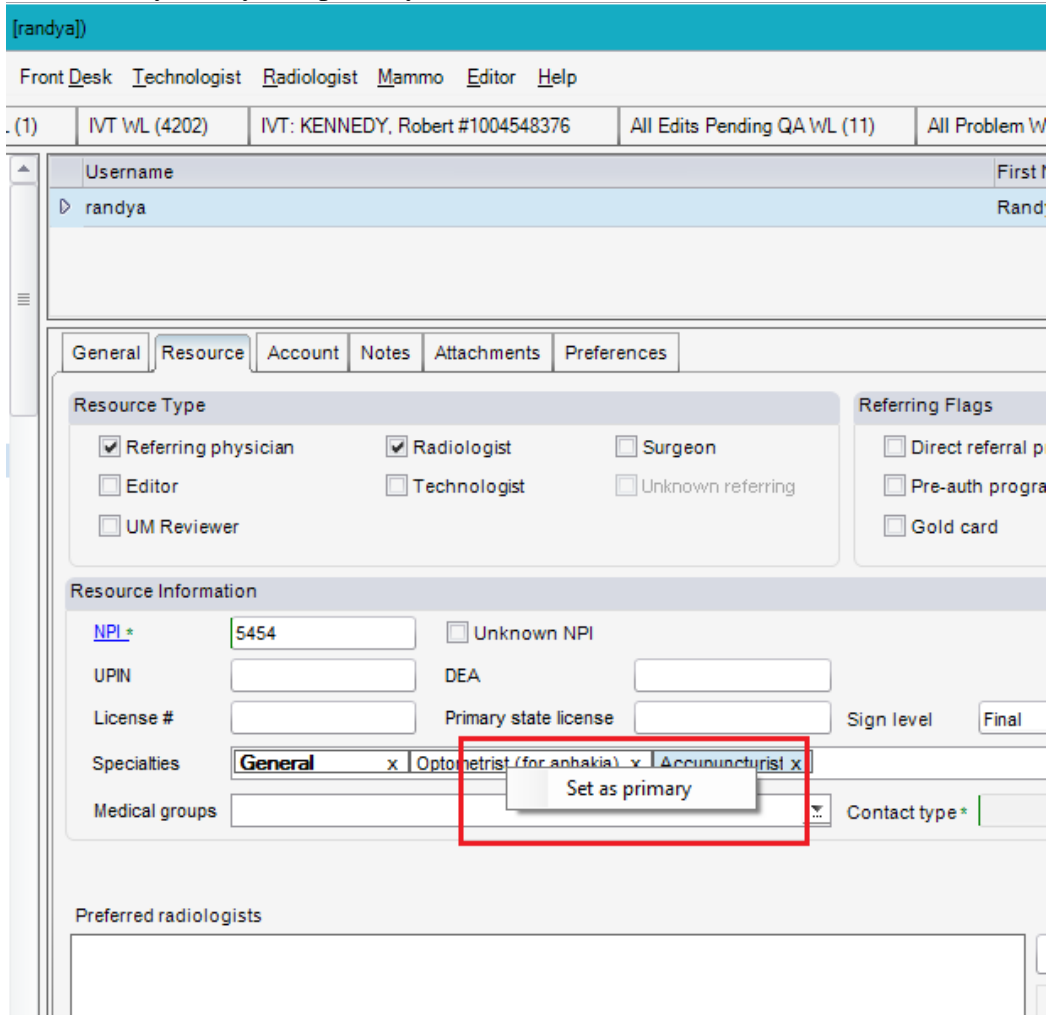


Figure 5.63 – Set specialty as primary in personnel editor

Referring Practice Address Changes

Instead of adding a referring practice at the Personnel Level we now have the ability to add 1 or more referring practices when adding or editing addresses as shown in the following:

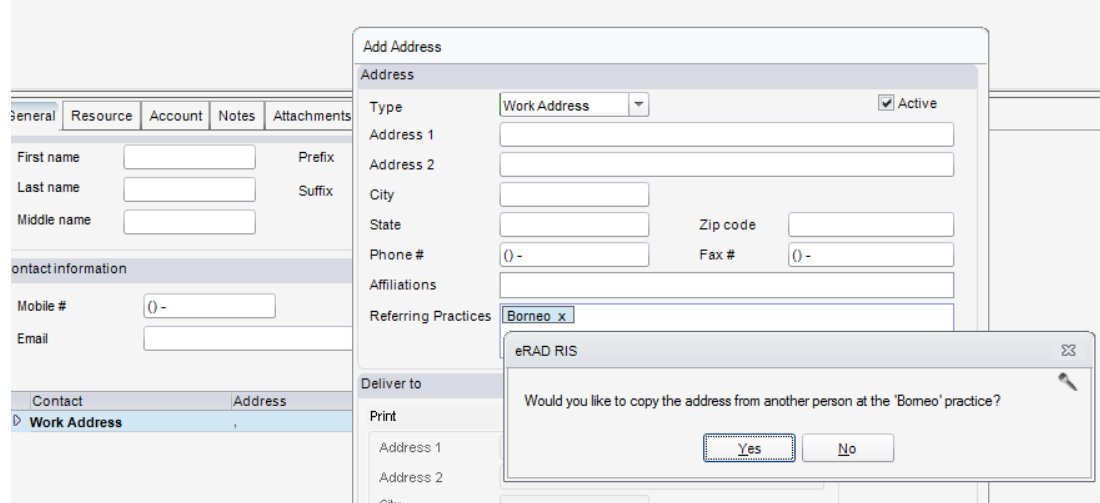


Figure 5.64 – Add address in Personnel editor

When a referring practice is added, the user is prompted, “to copy the address from another person at the selected practice”. If they choose “Yes” to that question they get a list of person’s addresses to use as the address/delivery information, as shown in the following screen capture:

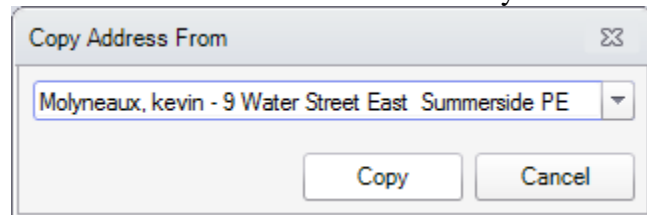


Figure 5.65 – Copy Address From prompt

The Personnel editor allows the user to add addresses and edit them individually. To make managing referring addresses easier, we have introduced the following “- Referring Address” editor:

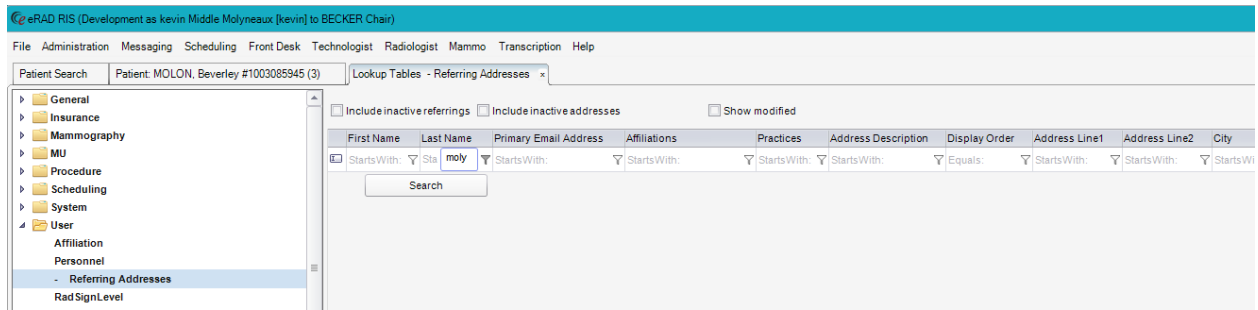


Figure 5.66 – Referring Addresses lookup

When you open this screen the first thing you must do is to specify at least one filter value and then click the “Search” button. In this example, I’ve search for all users with the last name ‘moly’.

Using the context menu option ‘Copy/Paste Referring Address’ the user can copy an entire address row and paste it to another person/address row.

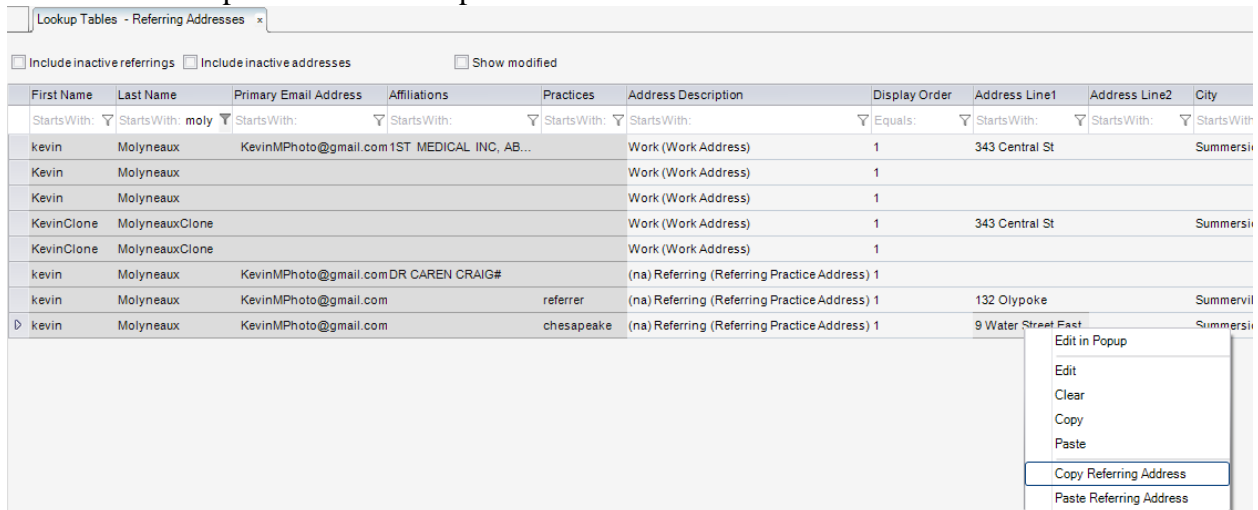


Figure 5.67 – Referring Addresses context menu options

Note, the columns shown in the darker shading are non-address fields, which are not included in the “Paste Referring Address” operation and are not editable directly in the grid. Consider these darker columns as read-only, except for the Practice and Affiliations columns which can be edited via the “Add/Remove Practice” context menu as shown in the following screen capture:

RADNET Inc. – eRAD RIS Release Notes

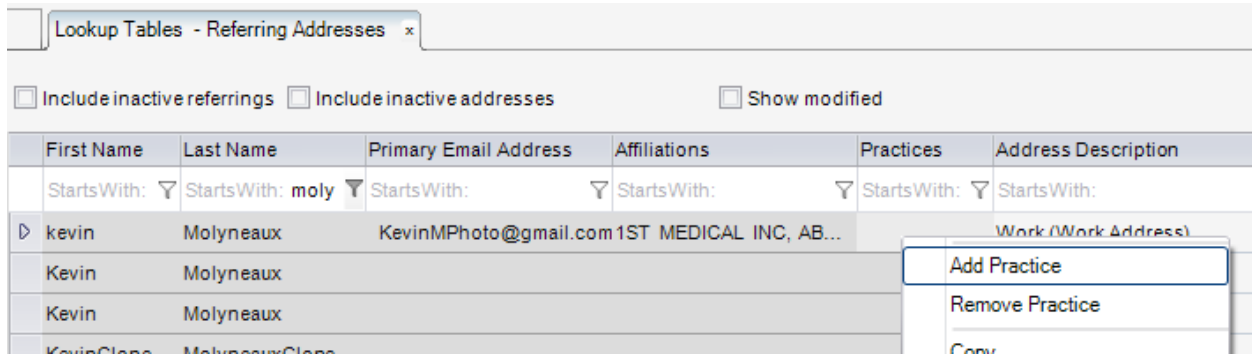


Figure 5.68 – Add or remove practice

The grid also support multi cell selection so you could add a practice to more than one address in the same operation as shown in the following screen capture, where I used the keyboard or mouse plus the <CTRL> key to selected multiple Practice cells:

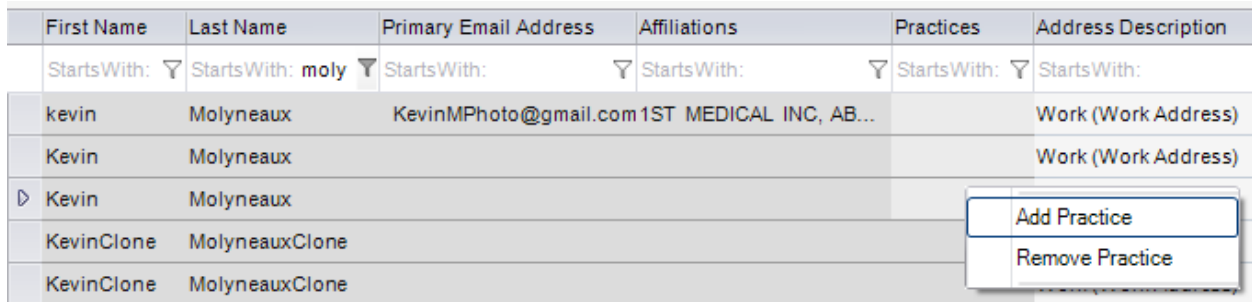


Figure 5.69 – Multi select cells

The user can also select multiple cells and paste the same value to all of them as shown in the following example where I am pasting the ‘343 central st’ to all of the selected cells:

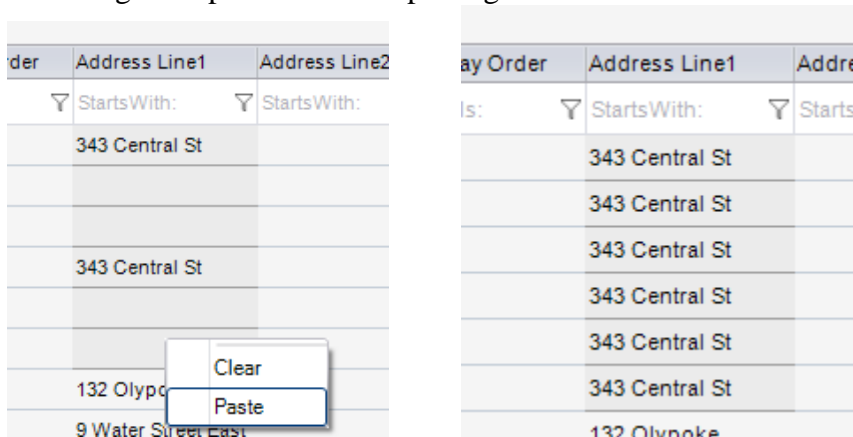


Figure 5.70 – Before and after copy / paste

Checking the “Show Modified” checkbox will remove all filters and show all the rows that have been modified and not yet been saved:

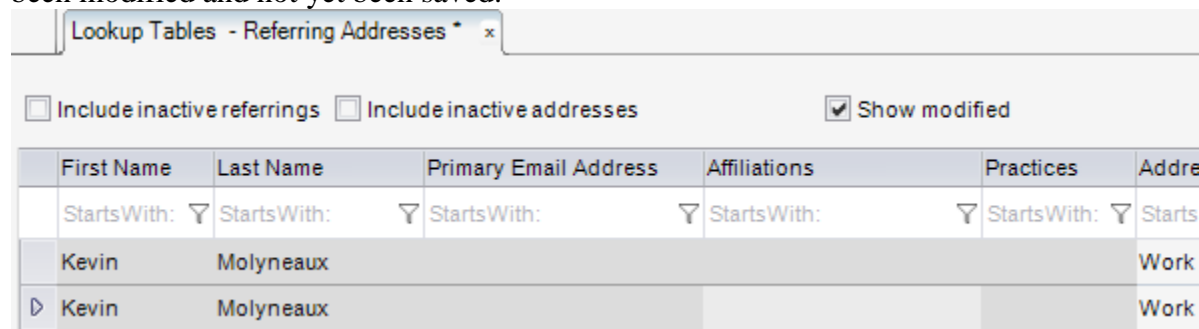


Figure 5.71 – Show modified

Then after unchecking the “Show Modified” the filters you had before checking it will be re-applied. If your search returns too many rows (~1000), then the amount returned will be limited and you will see a message explaining that partial results are being displayed. You will also notice that at all times the row count is displayed in the bottom right corner of the RIS screen as shown in the following:

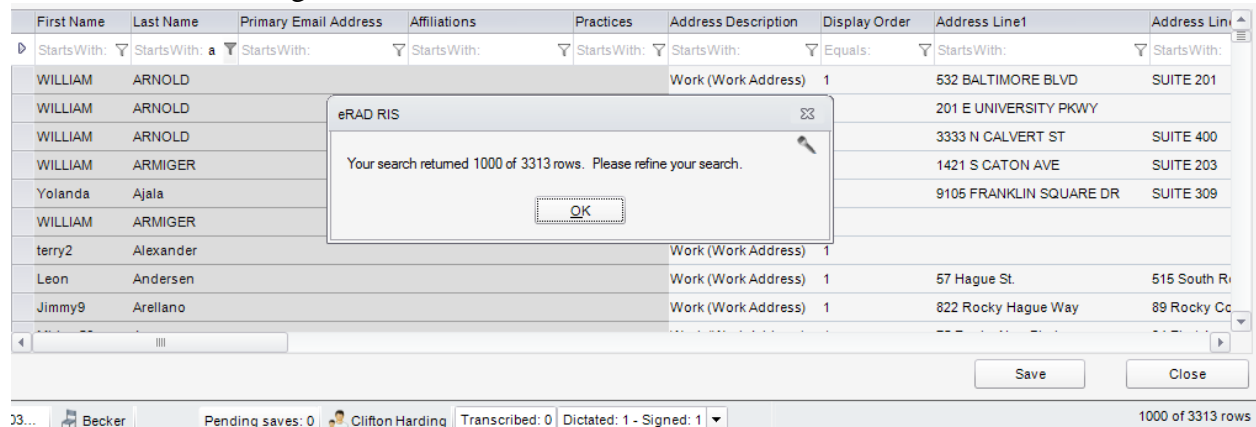


Figure 5.72 – Unselecting Show Modified results

Management Report – Appointment Schedule by Procedure Group

The Appointment Schedule by Procedure Group management report will display the details for exams scheduled on the specified date for practice, site(s) and procedure groups selected.

Appointment Schedule by Procedure Group

Practice: [REDACTED]

Site(s): [REDACTED]

Date: 4/24/2014

Procedure Group(s): PET

Description: This report displays the details for exams scheduled on the specified date for the practice, site(s) and procedure groups selected.

Scanner	Time Sched	Patient Name	MRN#	DOB	Exam(s)
MODCT1	8:30 AM	[REDACTED]	[REDACTED]	[REDACTED]	PETCT Tumor Imaging Skull-Thigh [78815] - Body Body Part\Lat:Body/
		Home Phone: [REDACTED]	ALT#: [REDACTED]	Age: [REDACTED] years	Referring: [REDACTED]
		Cell Phone:			Copay:
		Current Exam Status: Scheduled		Enc #:	Acc #: [REDACTED]
		Insurance: [REDACTED]		Insurance:	

Figure 5.73 – Appointment Schedule by Procedure Group management report

Management Report – Users in Usergroups

This report displays the list of users assigned to the selected user group(s). You can choose to see both active (by default) as well as inactive user accounts.

User group(s) Active user flag:

1 of 1 100% Find | Next

Users in Usergroups

User Group(s): Add Referring (Add Referring)

Description: This report displays the list of users assigned to the selected user group(s).

User id	Name	Active User
Group: Add Referring (Add Referring)		
User ID Hidden	User Name Hidden	Y
		Y
		Y
		Y
		Y
		Y
		Y
		Y
		Y
		Y
		Y
		Y
		Y
Total Count		14

Figure 5.74 – Users in Usergroups management report

Management Reports – Radiologist Productivity by User – Mammo

This report is to display the selected mammography exams read by the radiologists for the period specified based on signed off exams.

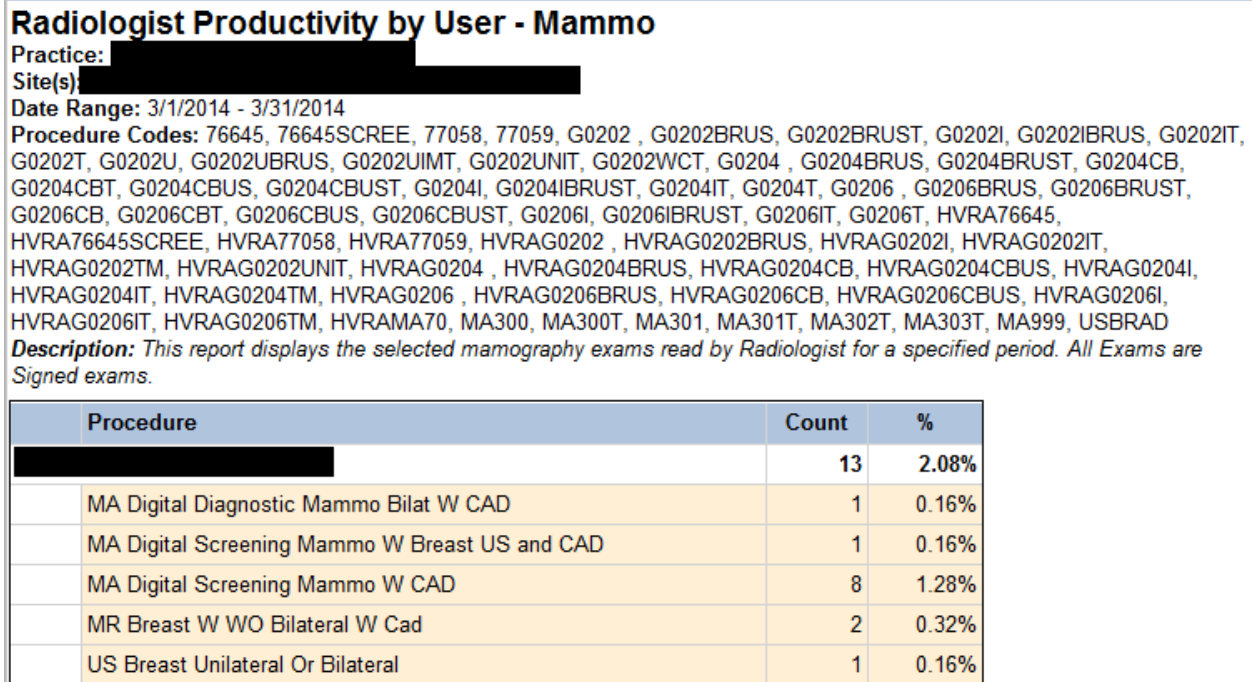


Figure 5.74a – Radiologist Productivity by User – Mammo Management report

Utilization Management – Addition of Medical Group Lookup Table

A lookup has been added called Medical Group has been added under the Insurance directory of the Administration>Configure menu. This contains the name and demographics of the medical group. The table includes the column for UM Routine Review, UM Stat Review and UM Urgent Review

Medical Group Code	Description	Phone	Fax	Address1	Address2	City	Zipcode	State	Notes	Um Routine Review	Um Stat Review	Um Urgent Review	Last Updated	Active
Click here to add a new row														
D	Summerside	Summerside Group	902-123-4567	902-111-2222	251 Water Street Suite 301	Summerside	92140	PE		30	5	15	06-27-2014...	Y
	Vantage	Vantage Medical Group	951-280-8200	951-280-8203	2115 Compton Suite 301	Corona	92881	CA		0	0	0	02-19-2014...	Y
	SeaView	SeaView IPA	805-988-5188	805-988-5183	1901 N. Solar Drive Suite 266	Oxnard	93036	CA		20	0	0	01-15-2014...	Y
	RPN	Riverside Physician Network	951-788-9800		1650 Iowa Ave Ste 220	Riverside	92507	CA		0	0	0	01-15-2014...	Y

Figure 5.75 – Medical Group lookup table

Access to this new lookup table is controlled by the access string **“Config.LookupEditor.MedicalGroup”** with a default of none.

From the Personnel editor the user can be mapped to one or multiple Medical Groups. The option is found on the Resource tab.

The screenshot shows the 'Resource' tab of a personnel editor. It features several sections:

- Resource Type:** Checkboxes for 'Referring physician', 'Editor', 'UM Reviewer' (highlighted with a red box), 'Radiologist', 'Technologist', 'Surgeon', and 'Unknown referring'.
- Referring Flags:** Checkboxes for 'Direct referral program', 'Pre-auth program', and 'Gold card' (highlighted with a red box).
- Resource Information:** Fields for NPI (9876541231), UPIN, License #, DEA (AA1234567), Primary state license, Sign level (Final), and Specialties (Radiology x, Diagnostic X-Ray x, Occupational Therapy x).
- Medical groups:** A dropdown menu (highlighted with a red box) showing 'Riverside Physician Network x' as the selected option. A list of other groups is visible below: 'Riverside Physician Network', 'SeaView IPA', 'Summerside Group', and 'Vantage Medical Group'.
- Contact type:** A dropdown menu (highlighted with a red box) set to 'Medical Director'.
- Preferred radiologist:** A field containing 'Power, Ian G'.
- Add Radiologist:** A button at the bottom right.

Figure 5.76 – Map person to medical group

Also in the Personnel Editor on the Resource tab is the Referring Flag of Gold Card. The gold card flag is only available if the resource type is referring physician. If the gold card flag is checked, then the utilization management notes field, located on the Notes tab, becomes required.

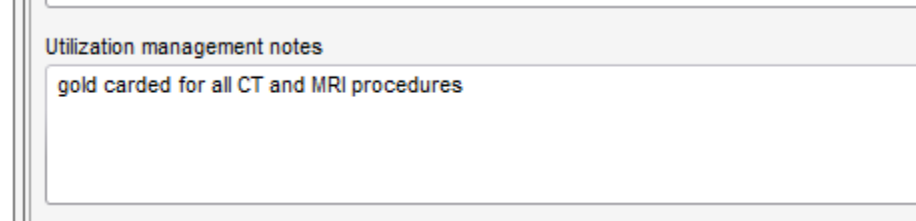


Figure 5.77 – Utilization management notes

The end user will need to know why the requesting physician is marked as gold carded. If the utilization notes field is not completed, the user will be prompted with an error message.

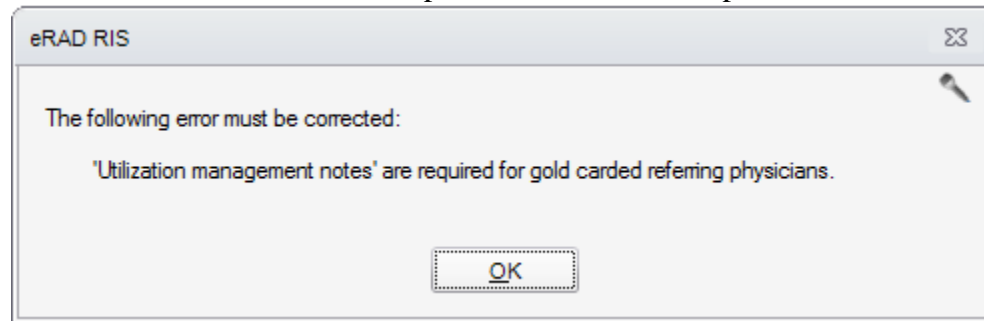


Figure 5.78 – Prompt is Utilization management notes are not completed

Again on the Resource tab, the Resource Type of UM Receiver has been added. The Internal Person Search has been modified to include “UM Reviewer” as a Type filter.

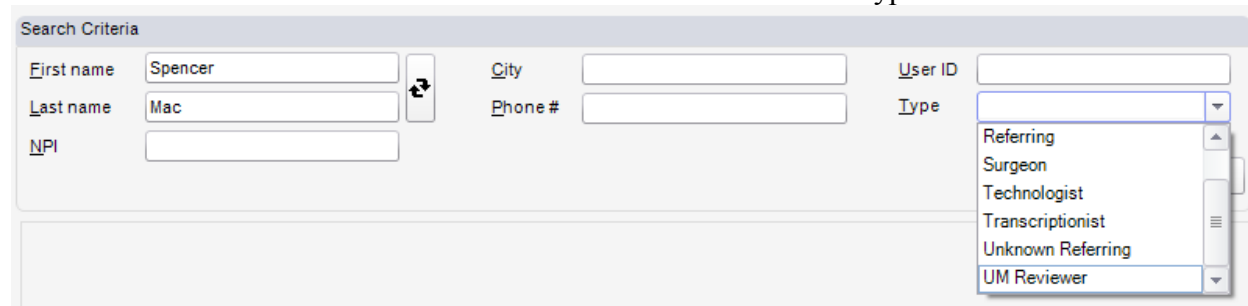


Figure 5.79 – Internal person search with type of UM Reviewer added

Utilization Management – Support Medical Group Contact Types

The lookup table Medical Group Contact Type has been added under the Insurance directory of the Administration>Configure menu. This new lookup table is controlled by access string

“Config.LookupEditor.MedicalGroupContactType”

Medical Group Contact Type Code	Description	Display Order	Last Updated	Active
Contains:	Contains:	Equals:	Contains:	Contain
Click here to add a new row				
Administration	Administration	1	01-15-2014 1:...	Y
Contract	Contract	1	01-15-2014 1:...	Y
Group	Group	1	01-15-2014 1:...	Y
Marketing	Marketing	1	01-15-2014 1:...	Y
MedicalDirector	Medical Director	1	01-15-2014 1:...	Y
Regional	Regional	1	01-15-2014 1:...	Y
Billing	Billing	1	01-15-2014 1:...	Y

Figure 5.80 – Medical Group Contact Type lookup table

The values from this table are used in the Resource tab on the Personnel editor, which has been enhanced to contain a multi type-ahead control for medical groups as well as a corresponding drop-down for medical group contact type. If a medical group is selected, the contact type is a required field.

Resource Information

NPI: 20144 Unknown NPI

UPIN: 334 DEA:

License #: Primary state license: MD Sign level: Final

Specialties:

Medical groups:

Contact type: (dropdown menu open showing: Administration, Medical Director, Billing, Contract, Group, Marketing, Regional)

Preferred radiologists:

Figure 5.81 – Adding Contact Type to a user account in Personnel editor

Utilization Management – Support UM Coverage Type

A lookup called UMCoverage will hold the coverage types that will eventually be applied to a CPT Code level. These coverage types are displayed on the matrix for each medical group so staff can determine which CPT Codes require authorization. The Authorization Flag column will specify which coverage types require review.

<u>Matrix Name</u>	<u>Effective Date</u>	<u>Revision Date</u>
ADP - 2013 Matrix - Alliance Desert Physicians	1/1/2013	2/18/2013

Disposition Legend

- A - Capitated service, authorization required
- EX - Exclude
- FFS - Fee for service, authorization required
- IN - Include
- TBD - To be determined
- X - Capitated service, direct referral (no authorization required)

EXAM	Body Part	General Comments	CPT	Group Comments	ADP
Computed Tomography					
CT HEAD W/O CONTRAST	Head		70450		A
CT HEAD WITH CONTRAST	Head		70460		A
CT HEAD W/O AND W/CONTRAST	Head		70470		A
CT ORBIT W/O CONTRAST	Head		70480		A
CT ORBIT WITH CONTRAST	Head		70481		A
CT ORBIT WITH&WITHOUT CON	Head		70482		A
CT FACIAL BONES W/O CONTRAST	Head		70486		A

Figure 5.82 – Matrix showing coverage type legend

The lookup table access is controlled by a new access string titled **“Config.LookupEditor.UMCoverage”** with a default of none.

Utilization Management – Support UM Common Language

A lookup called UMCommonLanguage will hold the list of common language items which will be accessed by the utilization management staff when performing reviews. Each common language item stores the content which will appear in the external comments which will be distributed to the requesting physician and/or medical group.

Um Common Language Code	Description	Language Content
Click here to add a new row		
QE Test	QE Test	This is a test that QE can add, edit and delete an entry.
Insufficient Clinical	Insufficient: Specific Clinical	To facilitate your request, we ask that you limit your response to the following specific information:

Figure 5.83 – UM Common Language lookup

Access to this lookup table is controlled by access string

“Config.LookupEditor.UMCommonLanguage” with a default of none.

Utilization Management – Support Default Review Times

A key component of Utilization Management workflow is review time. This is the amount of time (in hours) that it took the UM team to review and finalize the request. Although times can differ based on the contract with the Medical Group, the system is required to have default times for STAT, Urgent, and Routine requests.

UMRoutineReview	30	30	(value = int) The maximum number of UM hours for a routine exam.
UMStatReview	4	4	(value = int) The maximum number of UM hours for a STAT exam.
UMUrgentReview	10	10	(value = int) The maximum number of UM hours for an urgent exam.

Figure 5.84 – system configuration settings

Three new system configuration settings have been added. These values will be used when calculating review time in future releases. Based on a 10 hour workday

- **“UMRoutineReview”** that has a default of 30 hours
- **“UMStatReview”** that has a default of 4 hours
- **“UMUrgentReview”** that has a default of 10 hours

The Medical Group lookup table has 3 columns that will allow for an override to the above system configuration settings to allow for contracts or arrangement differences with the groups.

Utilization Management – Support UM Status

Two lookup tables called UMStatus and UMRResolution have been added that are under the Insurance grouping in the lookup table editor. UMStatus contains a list of UM Statuses. This lookup table’s access is controlled by the access string “Config.LookupEditor.UMStatus” with a default of none.

Um Status Code	Description	Form Content	Final Flag	Display Order
Contains: ▾	Contains: ▾	Contains: ▾	Contains: ▾	Equals: ▾
✎ Click here to add a new row				
QE_Test	QE Test	We're sorry your claim cannot be viewed, processed, approved, declined or rejected at this time. We are doing the...	N	1
Approved	Approved		Y	11

Figure 5.85 – UMStatus lookup table

The UMRResolution look up is controlled by the access string “Config.LookupEditor.UMResolution”

Um Resolution Code	Description	Form Content	Um Status Code	Display C
Contains: ▾	Contains: ▾	Contains: ▾	Contains: ▾	Equals: ▾
✎ Click here to add a new row				
QE_Approved	QE Approved	Please contact QE Test Department for approval process.	QE_Test (QE Test)	1
QE_Declined	QE Declined	We're sorry your claim cannot be declined at this time. Please try agai...	QE_Test (QE Test)	1
DirectReferral	Direct Referral	No prior review necessary for the requested exam procedure. Please schedule directly with the RadNet site.	ReturnedNotInitiat...	1

Figure 5.86 – UMRResolution lookup table

Each UMRResolution is mapped to one UMStatus. A field called Form Content contains the text that will be displayed on the authorization letter when that status and resolution is selected.

Utilization Management – Authorization Rules for Medical Groups

From medical group lookup table the user can create the authorization rules. Each medical group has a set of authorization rules which is available on the right-click context menu. Typically authorization rules will be created by CPT Code and not procedure code or modality type. The rules are access from the context menu.

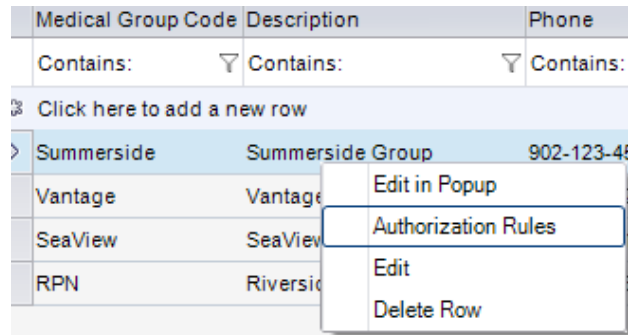


Figure 5.87 – Accessing Authorization Rules

The user must select one or more CPT Codes. The user must then specify if this rule is for all practices or a specific one (Matrices will usually apply to all practices however; there are some medical groups where the authorization rules can vary across geographical areas). A coverage type must be specified. These are based on the UM Coverage lookup values.

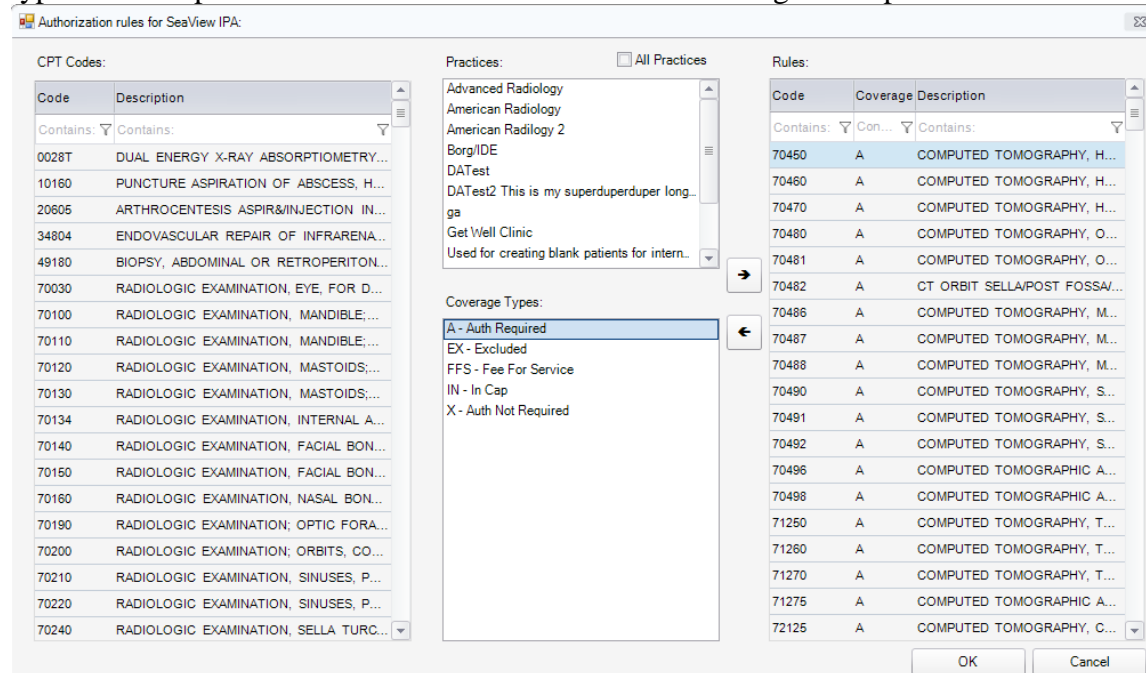


Figure 5.88 – Authorization rules form

Utilization Management – Support Capitated Carriers

A new column has been added to the Carrier lookup table titled UM Required Flag. All current rows in this the Carrier lookup will have a default of N.

Carrier Code	Description	Um Required Flag	Medical Group Code
Contains: ▾	Contains: RPN ▾	Contains: ▾	Contains: ▾
✳ Click here to add a new row			
RPNAET	RPN Aetna	Y	RPN (Riverside Physician Network)

Figure 5.89 – Carrier showing UM required flag

In addition, the Carrier Type lookup table has a new Carrier Type of CAP has been added to further categorise the carriers requiring utilization review.

Carrier Type Code	Description	Display Order	HI7v3 Value Set Oid	HI7v3 Value Set Code	Last Up
Contains: ▾	Contains: ▾	Equals: ▾	Contains: ▾	Contains: ▾	Equals ▾
✳ Click here to add a new row					
▶ CAP	Capitated Contract	1			09-13-2

Figure 5.90 – New carrier type code

Utilization Management – Mapping Carriers to Medical Groups

From within the Carrier lookup table there is a new column titled Medical Group Code. If the “UM Required Flag” is enabled, then the Medical Group Code field is required. The user will be prompted with "medical group is required for utilization management" if the Medical Group Code is not specified and the UM Required Flag is enabled.

Carrier Type Code	Policy Number Mask	Self Pay Flag	Eligibility Payer Id	Um Required Flag	Medical Group Code	Collect Deductible Flag
Contains: ▾	Contains: ▾	Contains: ▾	Contains: ▾	Contains: ▾	Contains: ▾	Contains: ▾
CAP (Captiated Cont...		N		Y	<input type="text"/>	Y
CAP (Captiated Cont...		N		Y	RPN (Riverside Ph...	Y
CAP (Captiated Cont...		N		Y	SeaView (SeaView...	Y
CAP (Captiated Cont...		N		Y	Vantage (Vantage...	Y
MC (Medi - Cal)		N	00431	N		Y

Figure 5.91 – Specifying Medical Group Code for Carrier

Utilization Management – Addition of Utilization Management User Group

This can be done via configuration. A new user group called “Utilization Management” was added to the UserGroup lookup. All utilization review access strings will be mapped to this group.

Group Name	Description	Display Order	Maximum Open Tabs	Last Updated	Active
Contains: ▾	Contains: ▾	Equals: ▾	Equals: ▾	Equals: ▾	Contains: ▾
Click here to add a new row					
UtilizationManagement	Utilization Management	1	40	01-14-2014 1:...	Y

Figure 5.92 – User Group with new group of UtilizationManagement

Meaningful Use – Site Level MU Override

Currently the MU Required flag is set at the Practice level the sites that fall under that practice will also be MU Required. It has been requested that we allow for a site to disengage from collecting MU data. For this we have added an MU Required check box at the site level so an Administrator can remove the site. This however doesn't work the opposite way. You can't have a site that MU Required when the practice is not.

The screenshot shows a software window titled "Edit Site" with a tab labeled "Baltimore, MU". The window is divided into three main sections: "Site", "Contact", and "Address".

- Site Section:** Includes fields for "Site code *" (PEI_TEST1), "Description*" (PEI TEST 1), "Phone #", "Fax #", and "PACS Child Server". There are also "Site notes" and "Report template path" fields. A "MU Required" checkbox is present and is currently unchecked. Other checkboxes include "Mammography Tracking Enabled" (checked), "Disable BI-RADS Controls", "Outside Read Location", and "Insurance required".
- Contact Section:** Includes fields for "Contact name", "Phone #", "Mobile #", "Fax #", and "Email". There are also "Contact notes" and "Contact notes" fields.
- Address Section:** Includes fields for "Address 1", "Address 2", "City", "State", "Zip code", and "Country". There are also "Address 1" and "Address 2" fields.

At the bottom right of the window are "Save" and "Close" buttons.

Figure 5.93 – Site with MU Required flag

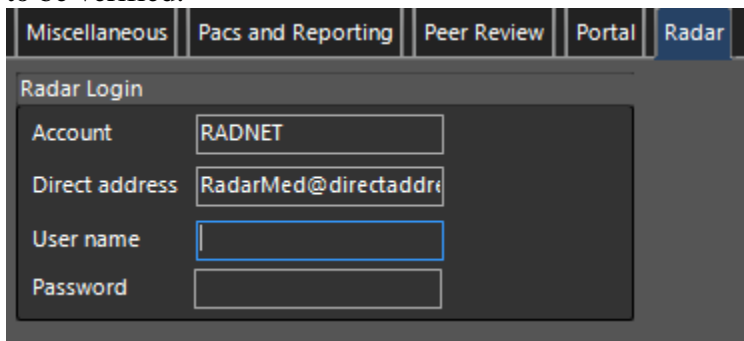
Meaningful Use – Direct Messaging

Worked with RADAR, to create an API call to secure exchange (Direct Message) email provider.

During the configuration of each practice a radar login information will need to be provided, it is intended currently for each box to have a RADAR account, with the same info on every practice, but will allow for a practice to have their own RADAR account and direct message address.

The RADAR account is the same account that would be used for Appointment Reminder and CTRM.

Direct Email Address can be requested through RADAR and Secure exchange, which will have to be verified.



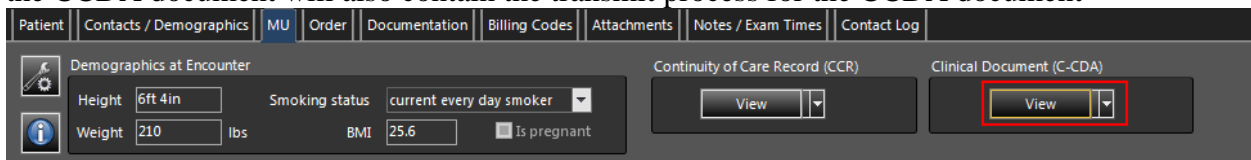
The screenshot shows a web interface with a navigation bar containing tabs: Miscellaneous, Pacs and Reporting, Peer Review, Portal, and Radar. The Radar tab is selected. Below the navigation bar is a section titled "Radar Login" with four input fields: "Account" (containing "RADNET"), "Direct address" (containing "RadarMed@directaddre"), "User name" (empty), and "Password" (empty).

Figure 5.94 – Practice Radar tab

This Direct message address and RADAR login is used for sending messages from the Patient Portal as well as sending and receiving Direct message from RIS. When sending a Message the system will first check for a provided value in the practice specific “Direct address” (which does need to be a qualified direct message address), if there is no value specified then we will look at the configuration variable "DirectMessageFromAddress".

Sending RIS Direct Messages

From within the RIS you are able to send a direct message that will contain the CCDA document by means of opening a patients study through View/Edit, under the MU tab, the process to view the CCDA document will also contain the transmit process for the CCDA document



The screenshot shows a web interface with a navigation bar containing tabs: Patient, Contacts / Demographics, MU, Order, Documentation, Billing Codes, Attachments, Notes / Exam Times, and Contact Log. The MU tab is selected. Below the navigation bar is a section titled "Demographics at Encounter" with fields for Height (6ft 4in), Weight (210 lbs), Smoking status (current every day smoker), BMI (25.6), and Is pregnant. To the right are two sections: "Continuity of Care Record (CCR)" and "Clinical Document (C-CDA)". Both sections have a "View" button with a dropdown arrow. The "View" button in the "Clinical Document (C-CDA)" section is highlighted with a red box.

Figure 5.95 – MU tab Clinical Document access

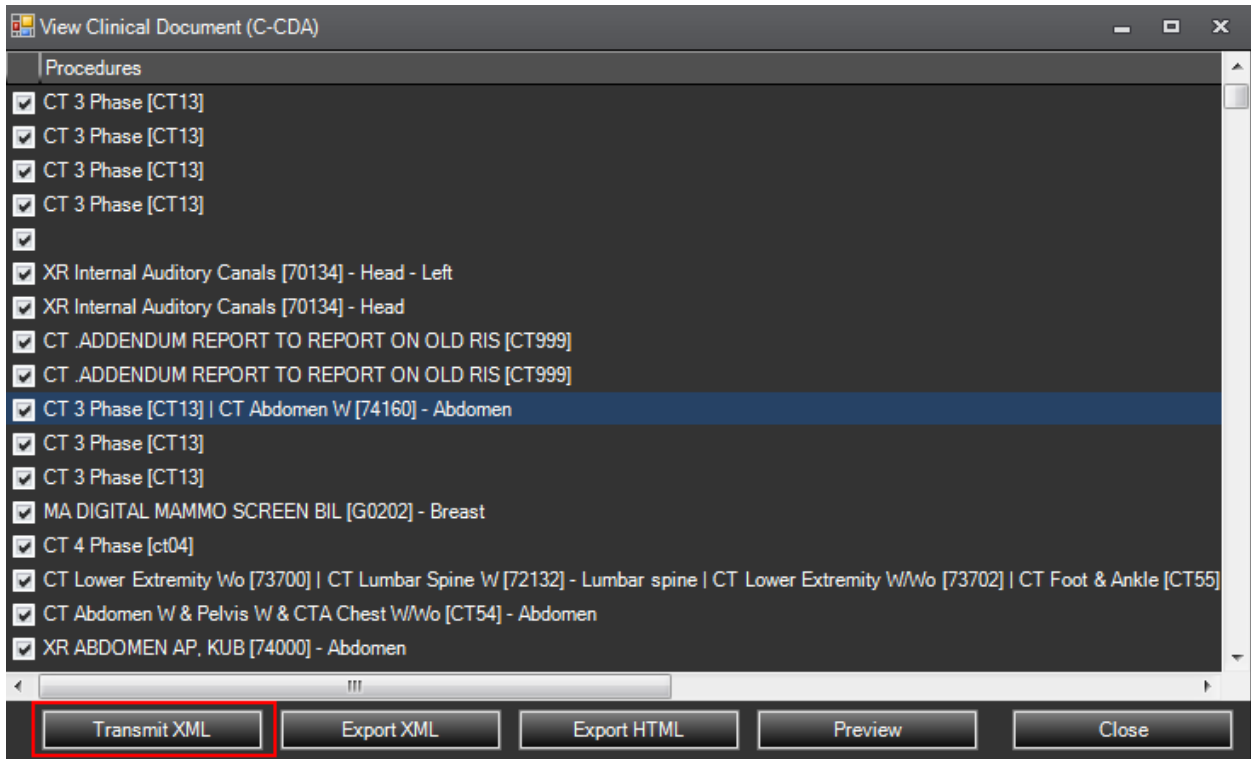


Figure 5.96 – View Clinical Document

Transmitting (sending) the CCDA document will allow two version of the document HTML and system(xml) format, where the user will be required to provide a valid Direct message address.

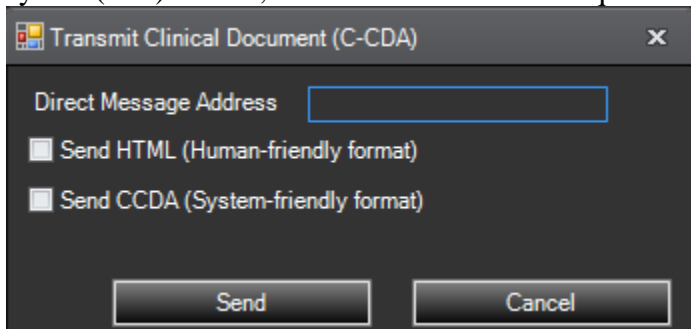


Figure 5.97 – Transmit Clinical Document

Sending Portal Direct Messages

From within the Patient portal, the patient has the ability to send there CCDA document through Direct Message to any desired Direct Message address. When the user has successfully logged

into the portal, when there CCDA document is available, the tab will be visible, opening this tab will enable the send button.

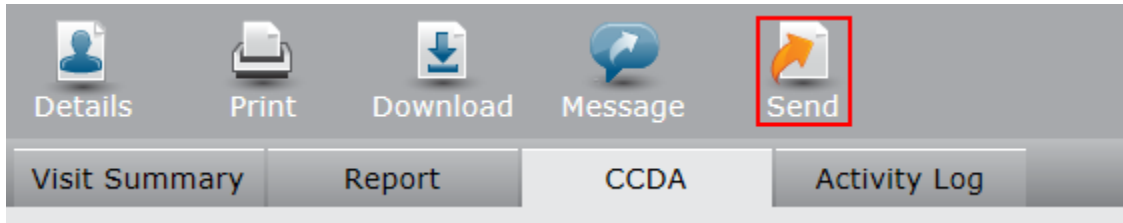


Figure 5.99 – Sending via Patient Portal

Click on this will allow for a similar process to the RIS transmit process, where the patient will be prompted for a direct message address, the patient will be required to confirm the address, and then be able to choose what version of the document they would like to send.

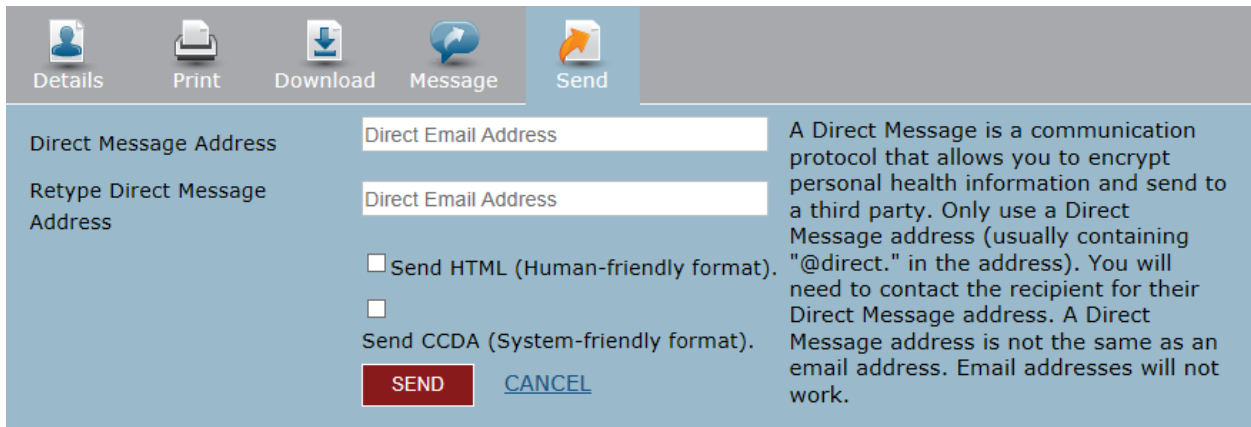


Figure 5.100 – Entering sender information

Receiving Direct Messages

RIS is the only location that is able to receive messages (outside the Direct message provider controlled tools).

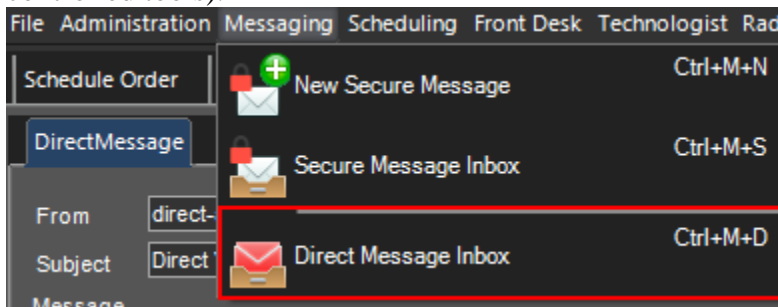
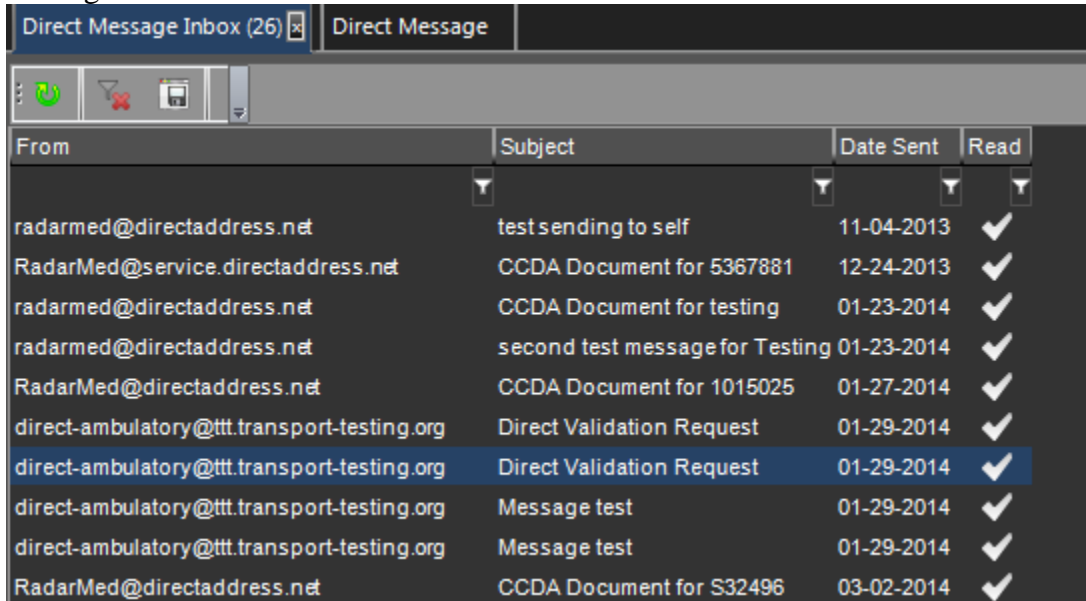


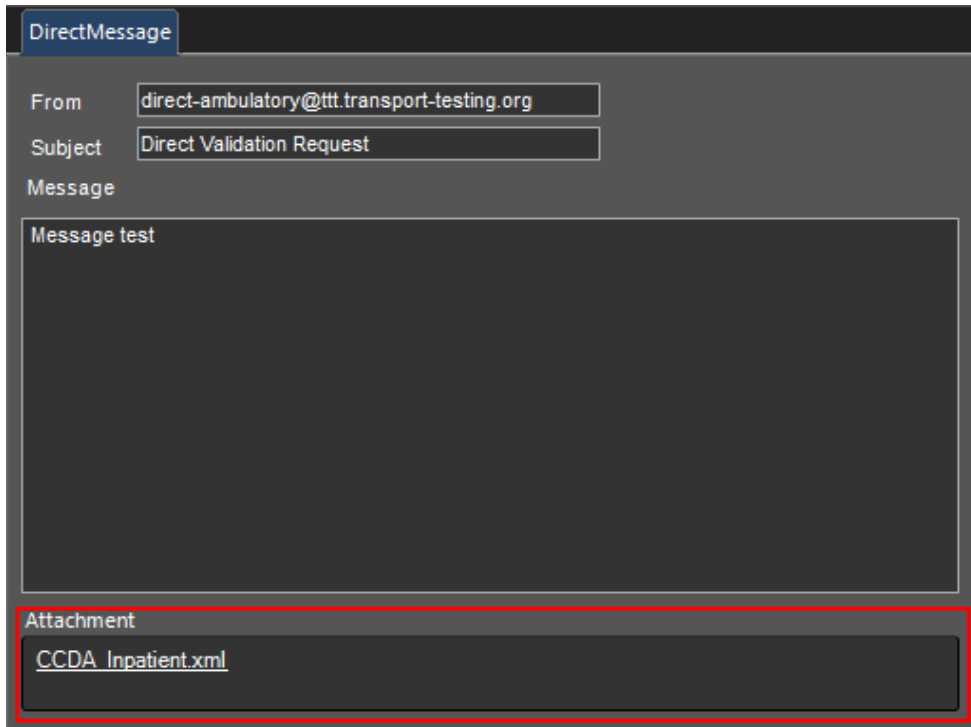
Figure 5.101 – Access direct messages work list in eRAD RIS

From the direct message inbox will list all non-archived messages that for the practices Direct message address.



From	Subject	Date Sent	Read
radarmed@directaddress.net	test sending to self	11-04-2013	✓
RadarMed@service.directaddress.net	CCDA Document for 5367881	12-24-2013	✓
radarmed@directaddress.net	CCDA Document for testing	01-23-2014	✓
radarmed@directaddress.net	second test message for Testing	01-23-2014	✓
RadarMed@directaddress.net	CCDA Document for 1015025	01-27-2014	✓
direct-ambulatory@ttt.transport-testing.org	Direct Validation Request	01-29-2014	✓
direct-ambulatory@ttt.transport-testing.org	Direct Validation Request	01-29-2014	✓
direct-ambulatory@ttt.transport-testing.org	Message test	01-29-2014	✓
direct-ambulatory@ttt.transport-testing.org	Message test	01-29-2014	✓
RadarMed@directaddress.net	CCDA Document for S32496	03-02-2014	✓

Figure 5.102 – Direct Message inbox



DirectMessage

From:

Subject:

Message

Message test

Attachment

[CCDA_Inpatient.xml](#)

Figure 5.103 – Accessing direct message

Depending of the file type will dictate on how the attachment will handled, if the file is an xml or html we will try to display the attachment, otherwise we will just prompt the user to download the file.

When display the attachment, if it is an xml document type, and we detect that it is a CCDA document we will also provide the user with the ability to link the information from the CCFA document to a desired patient;

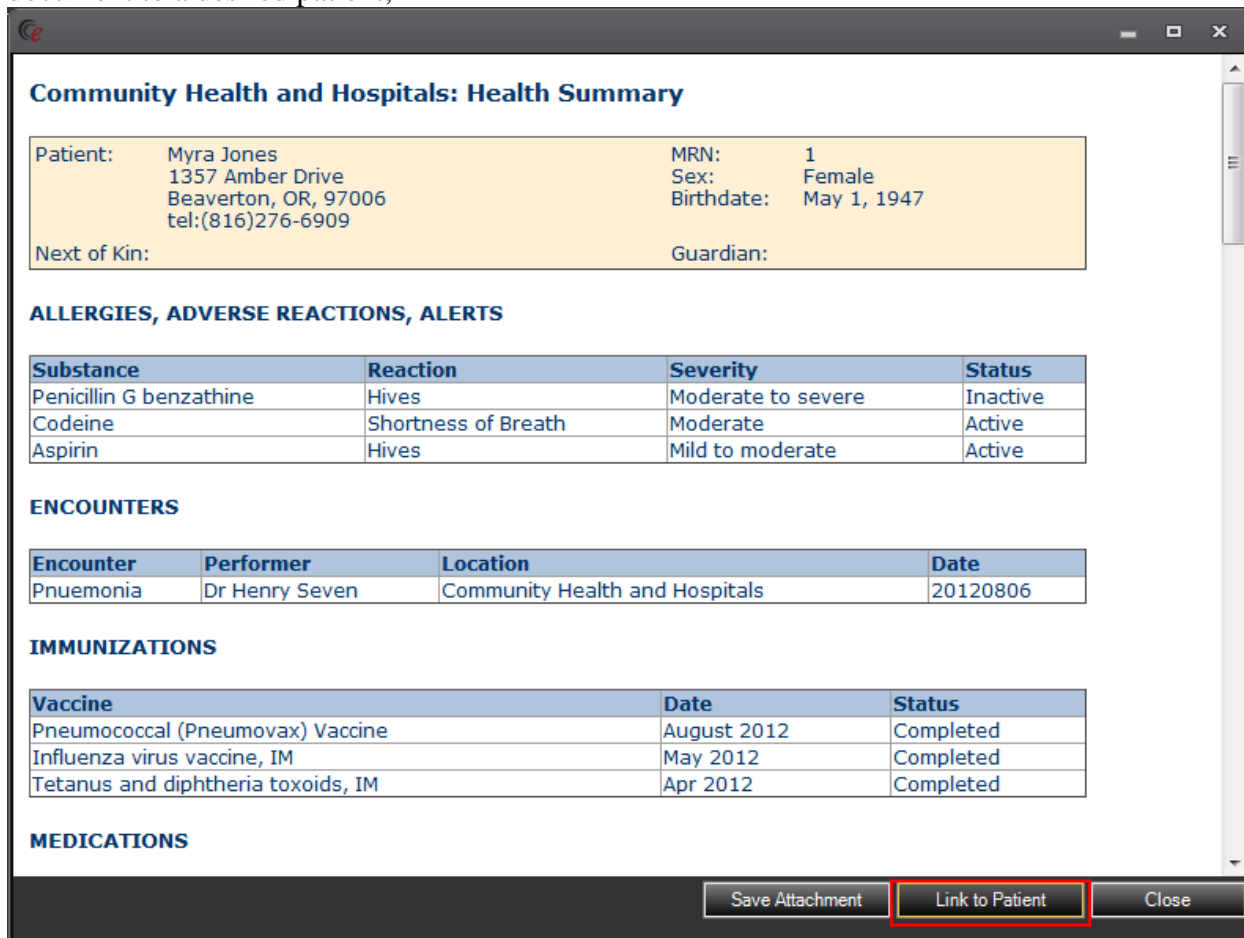


Figure 5.104 – Viewing CCDA document from link in direct message

Clicking the link to patient, we will do an initial patient search based on the information we are able to extract from the document, the user is able to modify the search criteria if need be.

Upon selecting a patient, all information from the CCDA document will be merged into the desired patient, and a new patient tab will be added.

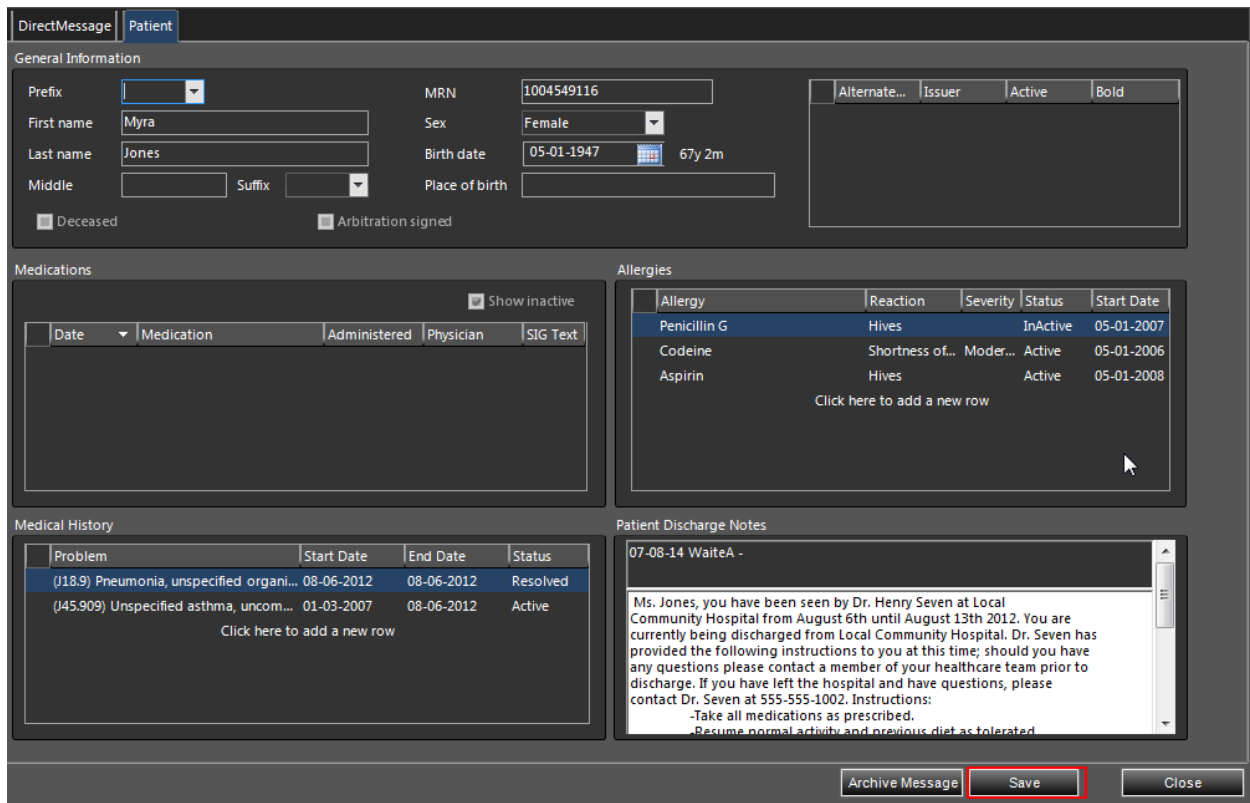


Figure 5.105 – Patient tab created

Once all information is imported and confirmed saving will save all imported data. Clicking the archive message is used for once a messages has been completed with, it will remove the message from the direct message inbox WL.

Meaningful Use – Additional Options for MU Fields

On the patient tab the field for Race type, Ethnic origin and Language now have a value of “Declined to Specify”.

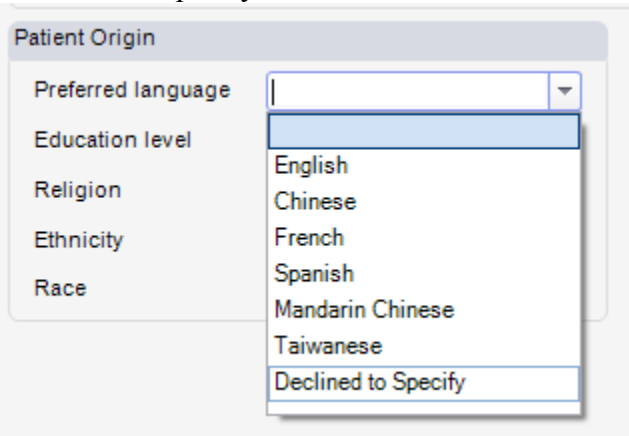


Figure 5.106 – Declined to specify option

The Smoking status field on the MU tab also has 2 additional options of Heavy tobacco smoker and Light tobacco smoker.

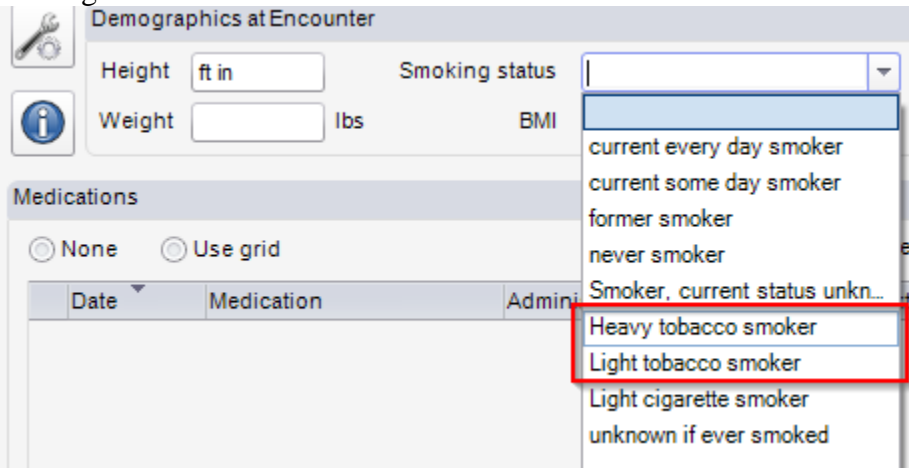


Figure 5.107 – New smoking status options

Meaningful Use – Additional Medications for Quick Add Edit Window

On the MU quick Add/Edit form we modified the code to add the two requested medications (Glycomet and Kombiglzexr).

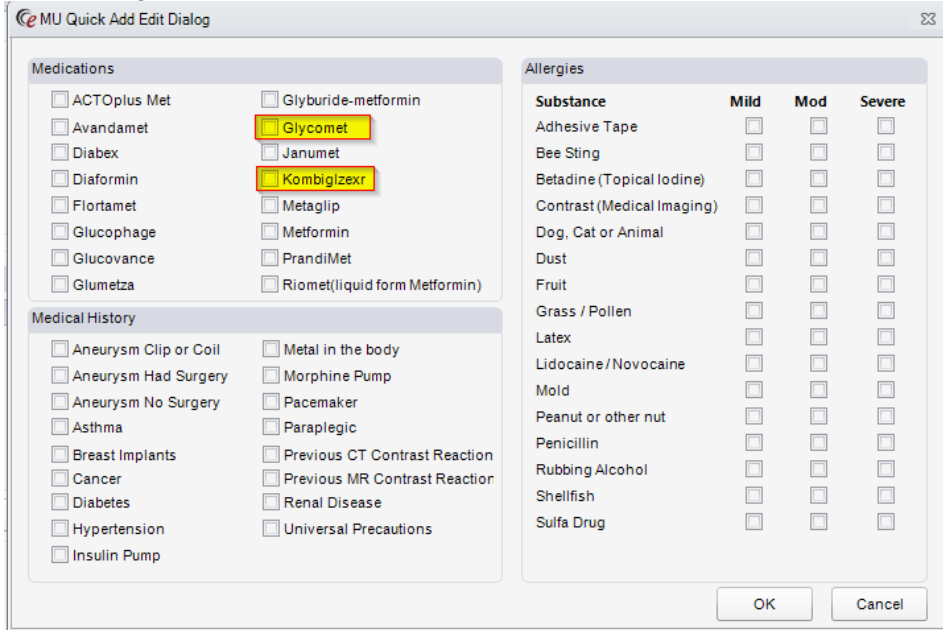


Figure 5.108 – MU Quick Add Edit window

Note, in order for these to show enabled on the mu quick add/edit form these two codes will have to be added to the Medication lookup table.

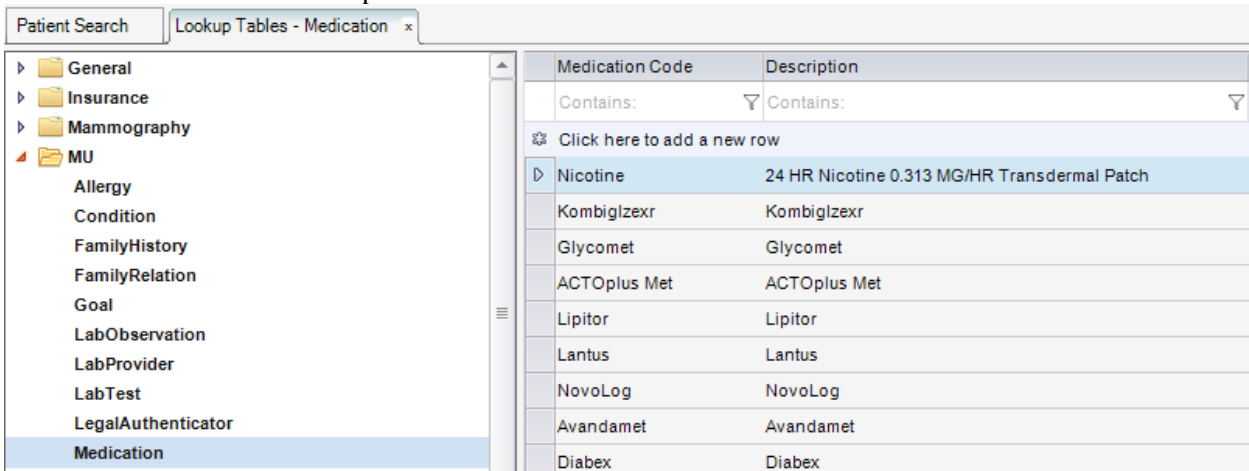


Figure 5.109 – Medication lookup with new additions

Meaningful Use – Laboratory Tests and Values / Results

In order to incorporate MU2 laboratory test results we needed to modify the lab value framework and separated the lab order from the lab results. The screen shot below shows the newly designed form. The User has the ability to add lab order information in the top part of the form and the results will be completed in the results grid. A new button was added that allows the user the ability to add child labs to the lab entry.

The screenshot shows a 'Lab Results' window with the following components:

- Form Fields:**
 - Order status *: Completed (dropdown)
 - Requested by: (text field)
 - Test name: (text field)
 - Lab name / address: (text field)
 - Clinical information: (text area)
 - Notes: (text area)
 - Specimen type: (dropdown)
 - Specimen condition: (dropdown)
 - Specimen action: (dropdown)
 - Draw date: 05-08-2014 (calendar icon)
 - Specimen quality: (dropdown)
- Results Grid:**

Observation	Value	Units	Reference Range	Date	Abnormal...	note
- Buttons:** Delete, Child Labs (dropdown), OK, Cancel

Figure 5.110 – Lab results window from MU tab

We created a script (Lab_value_changes.sql) to the build process to migrate over MU values into the new lab framework.

Meaningful Use – Office Visit

The Billing Code table has a new column titled MU Office Visit Flag. It will be used by the automated measures management report when applicable to determine if the mu measure is an office visit and calculate the numerator and denominator based on the performed procedure being an office visit. By default the value is set to N.

Billing Code	Description	Version	Display Order	Billing Modality Type Code	Technical Rvu	Profession Rvu	Mu Office Visit Flag
Co... 99201	Contains:	Contains:	Equals:	Contains:	Equals:	Equals:	Contains:
99201	OFFICE OR OTHER OUTPATIENT VISIT FOR THE EVALUATION AND MANA...	1	1	EM (Evaluation and Manage...			Y

Figure 5.111 – Billing code table

Meaningful Use – Clinical Summaries

Added to the MU tab is a new section called Clinical Documentation (C-CDA). The button contains 2 new options of “View” which will view all exams for the patient and “View Current Exam” which will only view the current exam. Normally for Clinical Summary we will select “View Current Exam” to generate the CCDA/human readable format since we are mainly concerned about the current visit.

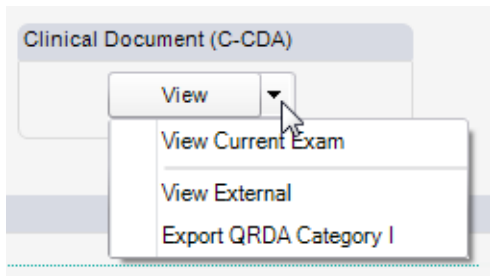


Figure 5.112 – New options for C-CDA button

Clicking the View Current Exam will launch a new dialog which will allow the user the ability to customize data. The user will have the option to removed sections for example uncheck Medications will remove medications from both the CCDA and human readable. The user also will have the ability to uncheck specific items they wish not to appear in either the CCDA or human readable format. To generate the CCDA the file format the user will click the Export XML, while the human readable is generated by clicking the Export HTML.

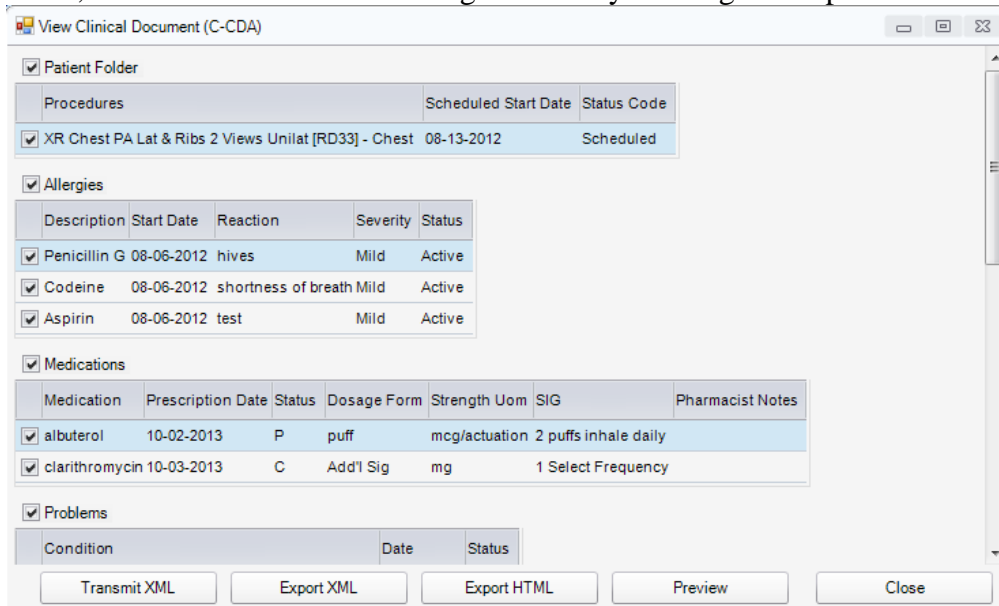


Figure 5.113 – View Clinical Document (C-CDA)

Meaningful Use – Data Portability

The data portability feature is really the ability to export all CCDA patient records and therefore this story will be referred to as the MUEXportAll feature.

When exported the results will be written to the location specified by the system configuration setting **“MUEXportAllPath”**. This setting doesn’t have a default value. When complete the file will be updated with the date it was completed. If an error occurs the error details are captured.

The UI’s Meaningful use form under “Administration / Meaningful Use” shows the progress of the current or previous export operation. It shows how many records have been exported and how many in total are to be processed. It also allows the user to start a new export and gives them the option to suspend or resume the latest export.

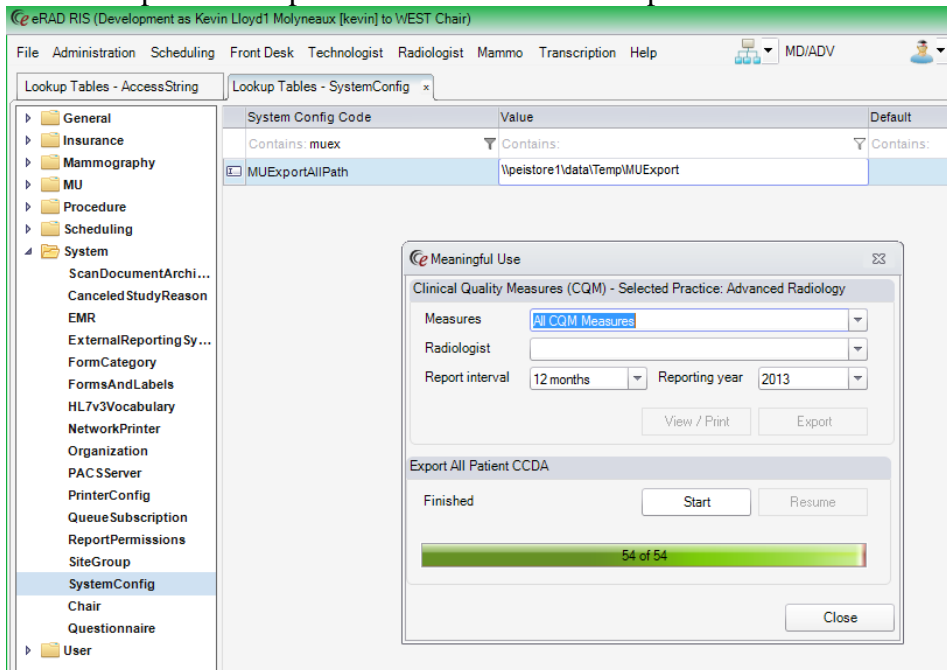


Figure 5.114 – System config setting and Meaningful Use window display progress

When clicking the start button the user is asked to confirm the export operations.

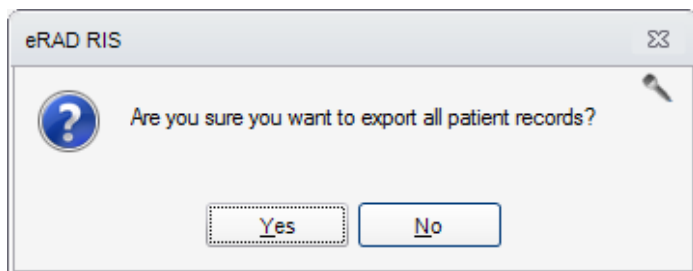


Figure 5.115 – Confirmatory message

Choosing Yes will export **all patient** records to the MUExportPath and will overwrite any pre-existing exports at that location. The files are written to the MUExportPath in the format

Birthyear\birthmonth\birthday\<patient_id>_<issuer_of_id>_<first_name>_<last_name>.xml

If there is less than 1 GB available at the MUExportPath the status of the export will change to “InsufficientSpace” and after space is made available the user can restart the process by clicking the “Resume” button.

The export progress is completely asynchronous and is executed on the server. There is only one export processing thread per server instances, which on our test instance was exporting about 1 million patients in a week. If you need to process 2 million in a week all you have to do is scale the solution by adding additional WS instances.

Access to this feature is control via the access string **“MU.ExportAll”** with a default of none.

When an export is started, the Start button then becomes the Stop button. If the Stop button is selected the current job will be put in a status of stopped, which in turn will change the stop button to start again. Stopping or suspended the job will terminate the existing export thread (which will take a few seconds to terminate). The count will be refreshed when you decide to Start the export process again which is only available when in stopped state.

Meaningful Use – Alerts and Clinical Decision Support

The MU alerts we have provided to meet these MU requirements are as follows:

- MRI65PlusHeartDiseaseLipitorAndLDL100Plus
- LabOrderWithEmptyValue
- HasAllergy (*allergy_code, contrast_procedure_flag)
- HasProblem (*indication_code, contrast_procedure_flag)
- OnMedication (*drug_name, contrast_procedure_flag)
- ProcedureXAndHighBP (procedure_code, BP) // we will allow * from procedure_code
- AgeGreaterThan (age, contrast_procedure_flag)

Alert Configuration Code	Description	Alert Generator	Al Int Display Order	Audit Flag	Cds Resource Source	Cds Funding Source	Cds Au
CDS_01	Discuss follow up with physician regarding blood pressure. (CDS_01)	CDS_01_HighBP	0	Y	National Committee for Quality Assurance		Erin W
CDS_02	Discuss follow up with physician regarding cholesterol. (CDS_02)	CDS_02_HighCholesterol	1	Y	The American College of Physicians	ACP operating budget	Amir Q
CDS_03	Patient has possible allergic reaction to contrast because they have asthma and a prior reaction to asthma. (CDS_03)	CDS_03_PossibleReaction	2	Y	American Family Physician		THOM
CDS_04	Discuss preventative care and screening tobacco use. (CDS_04)	CDS_04_TobaccoUser	3	Y	American Heart Association		Joseph
CDS_05	Remind patient about pneumonia booster (CDS_05)	CDS_05_PneumoniaBooster	4	Y	National Committee for quality Assurance		Akin I, I

Figure 5.116 – Alert configuration table

contrast_procedure_flag is either a Y or N value. if Y, then the alert only fires if the procedure requires contrast. * are parameters that can be more than one separated by a comma.

To deal with **Clinical Decision Support** the alert text for several of these entries is customizable via the AlertConfiguration lookup table and supports links to external web sites via the a href syntax such as:

Heart Disease

With the above, when the user clicks on the “Heart Disease” link, the web page www.med.unc.edu will be displayed in a web browser form. The form will be model and when they close the form they will return to the RIS.

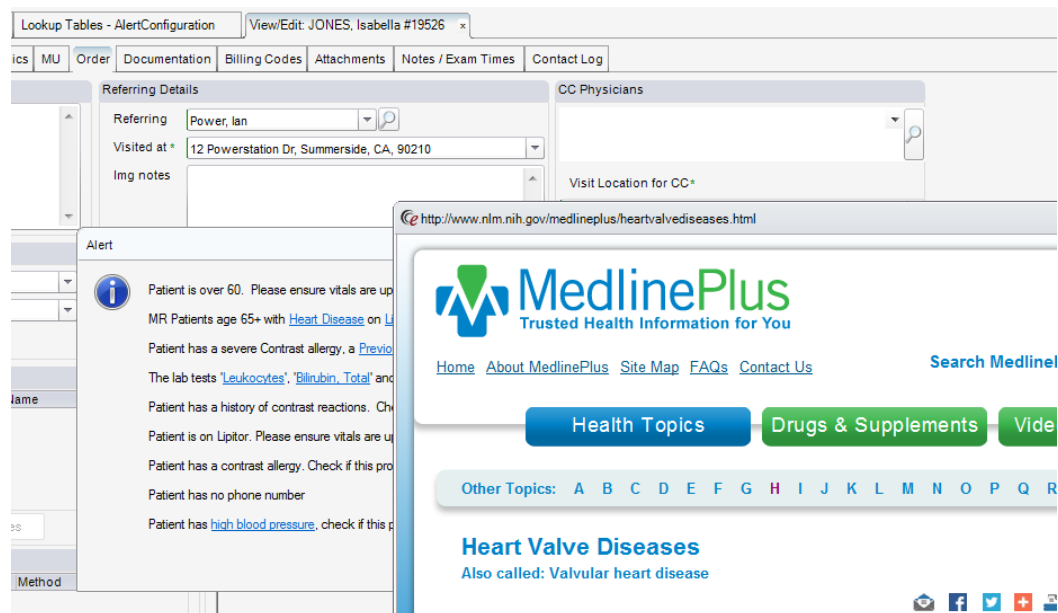


Figure 5.117 – Clinical decision support

If the LINK is prefixed with #MUProvidedEducation# and the patient hasn't been provided with CDS information for the current visit, the user will get prompted when they close the web info window with a dialog such as:

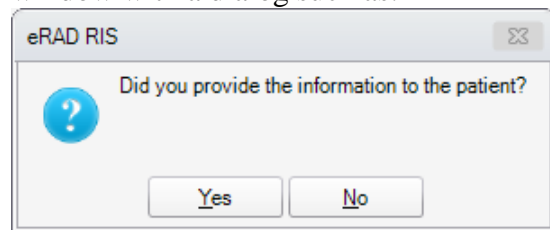


Figure 5.118 – Confirmatory message for CDS

If they choose Yes, it will be marked as “provided educational resources” for the visit.

Here is another example of an alert description, which is set to provide CDS information and record if we provided education resources to the patient:

Patient has [high blood pressure](#), check if this procedure should be done in an imaging center.

Then in our first round of MU certification testing we realized we needed Clinical Resource Sourced rules for CDS such as the American Family Physician backed rules for our MU alerts. Based on this we produced the following MU rules:

#1 Alert patient to follow up with physician regarding BP

- 1) Condition that triggers the alert
 - High BP age 18-85
 - Noted hypertension
 - BP is over 140/90
- 2) The Clinical resource source
 - National Committee for Quality Assurance
- 3) The funding source
- 4) The author of the CDS
 - **Erin Weireter**, Released January 17,2012
- 5) The link to the clinical resource
 - http://www.qualityforum.org/News_And_Resources/Press_Releases/2012/NQF_Endorses_Cardiovascular_Measures.aspx

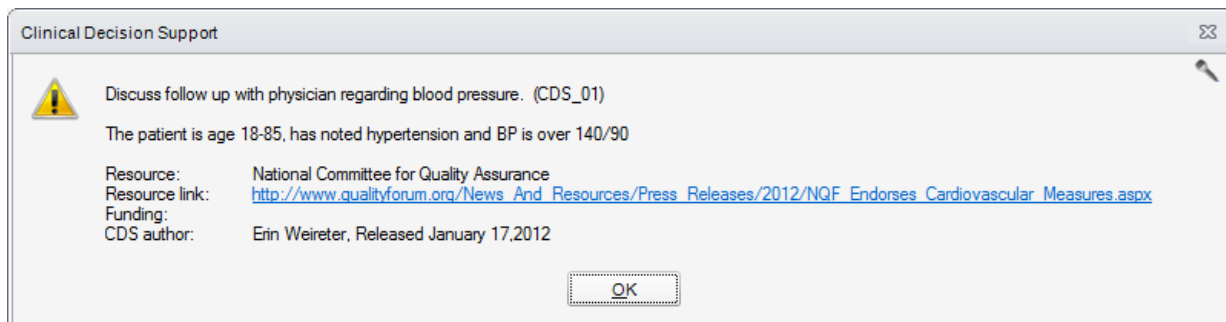


Figure 5.119 – Alert 1

#2 Alert patient to follow up with physician regarding cholesterol

- 1) Conditions that triggers the alert
 - Patient over 65
 - On Lipitor
 - Cholesterol reading over 100
- 2) The Clinical resource source
 - The American College of Physicians
- 3) The funding source

- Financial support for the Performance Measurement Committee comes exclusively from the ACP operating budget
- 4) The author of the CDS
 - Amir Qaseem, MD, Robert Centor, MD and Andrew Dunn, MD
- 5) The link to the clinical resource:

http://www.acponline.org/clinical_information/performance_measurement/ckd.htm

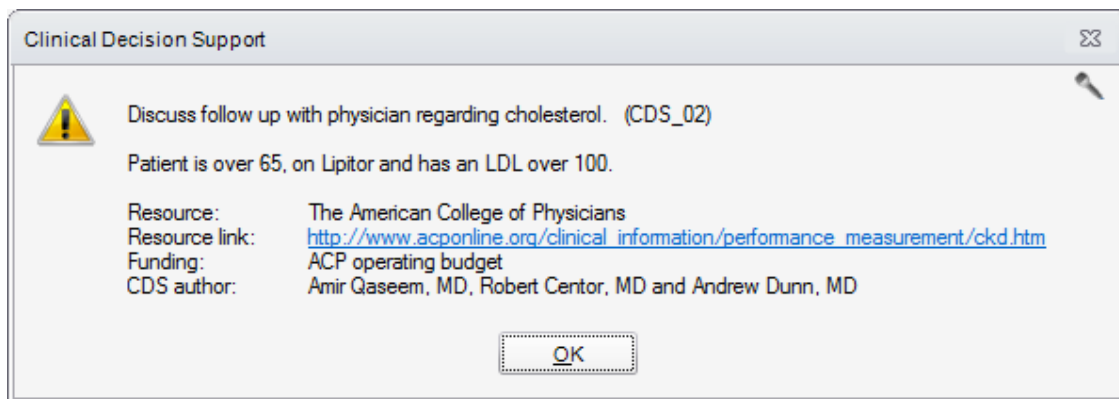


Figure 5.120 – Alert 2

- #3 Alert patient as to possible allergic reaction to contrast
- 1) Conditions that triggers the alert
 - a. Patient has asthma
 - b. Prior reaction to contrast
 - 2) The clinical Resource Source
 - a. American Family Physician
 - 3) Financial Source
 - a. n/a
 - 4) The author of the CDS
 - a. THOMAS G. MADDOX, M.D.,
 - 5) The link to the clinical resource:
 - a. <http://www.aafp.org/afp/2002/1001/p1229.html>

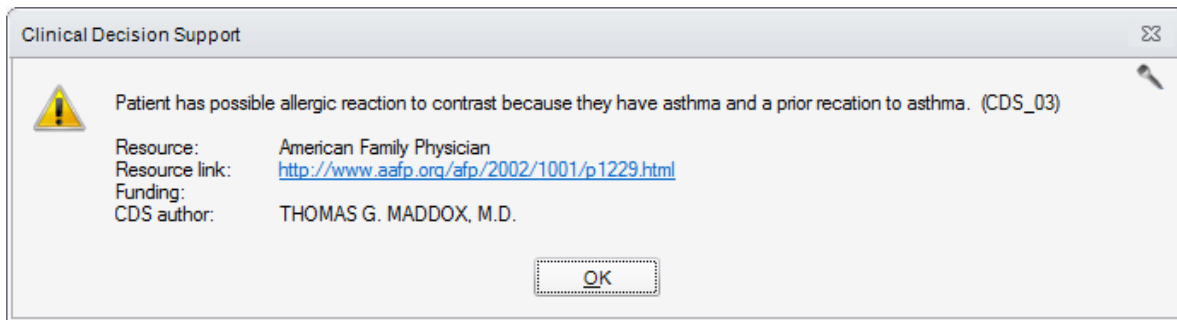


Figure 5.121 – Alert 3

- #4 Discuss Preventative Care and Screening Tobacco Use
 - 1) Conditions that triggers the alert
 - a. Aneurysm /no surgery/smoker
 - b. Men over 50 years old higher risk of infection
 - 2) The Clinical Resource Source
 - a. American Heart Association
 - 3) Financial Source
 - a. n/a
 - 4) The Author of the CDS
 - a. Joseph P. Broderick, M.D.,
 - 5) The link to the clinical resource

www.sciencedaily.com/releases/2010/02/100226093207.htm

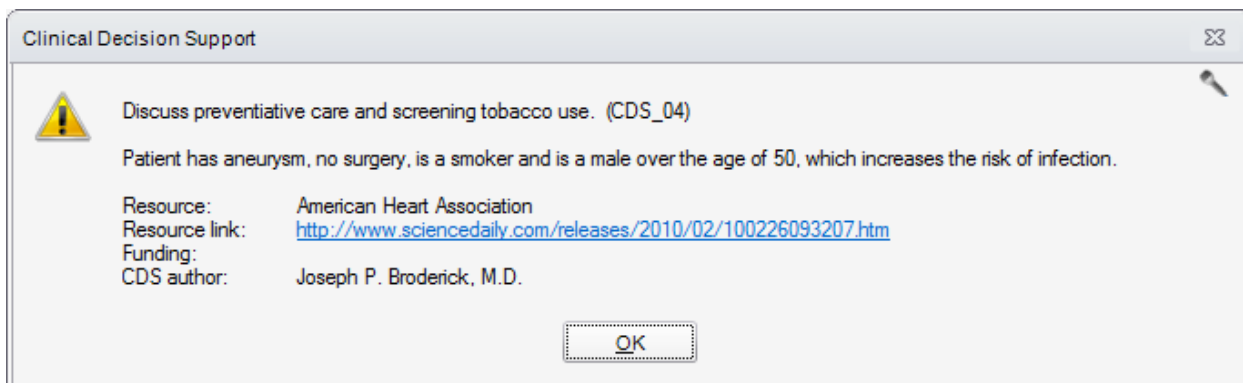


Figure 5.122 – Alert 4

- #5 Patient Reminder for Pneumonia Booster if Criteria is met
 - 1) Conditions that trigger alert:
 - a. Pneumonia Vaccination (PPV23)
 - b. Adults 65 and older
 - c. Smoke, asthma, heart disease

- 2) The Clinical Resource Source
 - a. National Committee for quality Assurance
- 3) Financial Resource
 - a. n/a
- 4) The author of the CDS
 - a. Akin I, Kaya M. Altinel S. & Durand L.
- 5) The link to the clinical resource
 - a. www.qualityforum.org/WorkArea/linkit.aspx?LinkIdentifier=id...

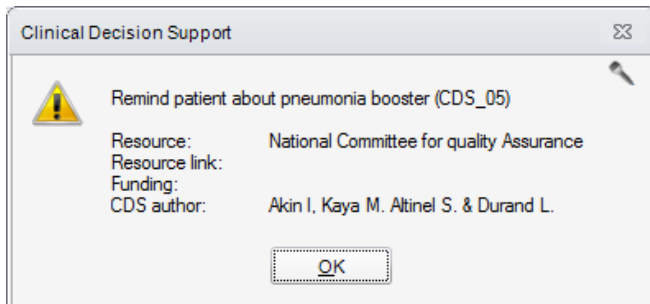


Figure 5.123 – Alert 5

Configuration for new Alerts:

Alert access strings have been created in the application and can be configured so users whose clinical role allows or does not allow them to see clinical decision support interventions rules. By default the alerts in the system will be set to **Full** access so they will fire for all users. In order to not fire the CDS rule an admin user that has the rights to configure user’s rights would have to set the user group to NONE.

Alert #1 is controlled by the access string **“Alert.CDS_01_HighBP”**

Alert #2 is controlled by the access string **“Alert.CDS_02_HighCholesterol”**

Alert #3 is controlled by the access string **“Alert.CDS_03_PossibleReaction”**

Alert #4 is controlled by the access string **“Alert.CDS_04_TobaccoUser”**

Alert #5 is controlled by the access string **“Alert.CDS_05_PneumoniaBooster”**

Meaningful Use – Clinical Quality Measures

To resolve this feature we need to use the cypress tool [v2.4.1]. Radnet has selected the following CQMs measures for Meaningful Use stage 2. Documentation to generate QRDA Category I and III use **CDAR2_QRDA_DSTUR2_2012JUL.docx** which can be downloaded from HL7 Implementation website.

Radnet 9 CQMs measures

- CMS50** - Closing the referral loop: receipt of specialist report
- CMS65** - Hypertension: Improvement in blood pressure
- CMS69** - Preventive Care and Screening: Body Mass Index Screening and Follow-Up
- CMS117**- Childhood Immunization Status
- CMS125**- Breast Cancer Screening
- CMS138**- Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention
- CMS147**- Preventive Care and Screening: Influenza Immunization
- CMS155**- Weight Assessment and Counseling for Nutrition and Physical Activity for Children and Adolescents
- CMS165**- Controlling High Blood Pressure

- 1) Clinical Quality Measures – capture and export.
 - Retrieve the patient data from Cypress based on the chosen CQMs
HTML FILE - G:\Documents\RADNet\rRis Product Requirements\Meaningful Use\2014\CQM\QRDA\Samples\NewFolks
 - Create the QRDA Category I output data for evaluation.

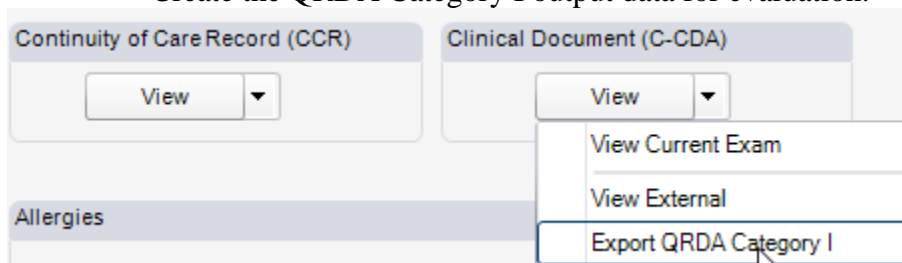


Figure 5.124 – Capture and export

User must select the legal authenticator which is used in the QRDA file. (These values are populated from a lookup legal authenticator).

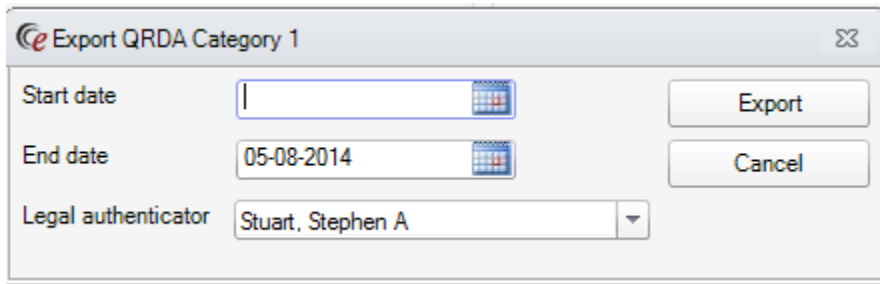


Figure 5.125 – Export QRDA Category 1

- 2) Clinical Quality Measures – Import and calculate
 - Create the patient test deck from Cypress using the specific CQMs selected.
 - Proctor will instruct the Vendor to use the EHR functions to perform the CQM calculations and evaluate them against the expected results.

- 3) Clinical Quality Measures – electronic submission
 - The CQM calculation results in both QRDA Category I and III format.
 - In order to upload the QRDA Category III results into Cypress for evaluation we added the Quality Reporting Document (QRDA) to the Meaningful Use form for users to generate QRDA Category III results.

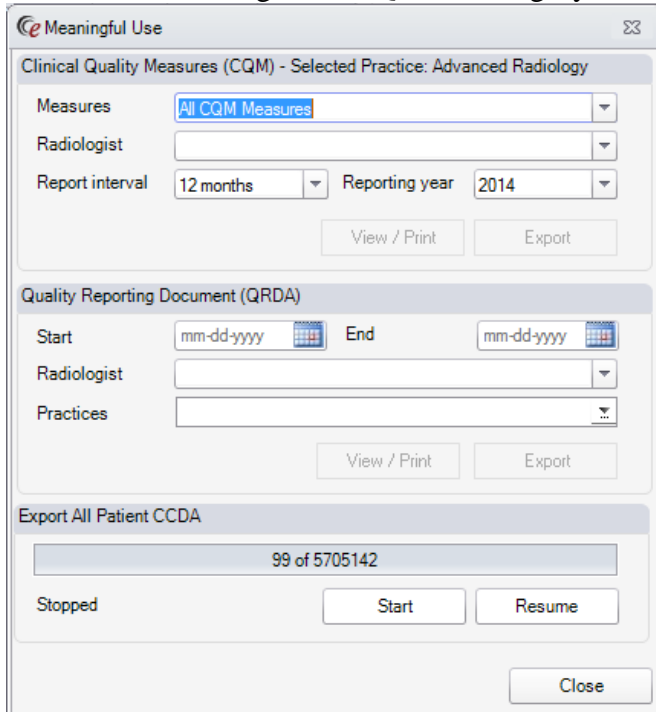


Figure 5.126 – Meaningful use window

Meaningful Use – Preventative Care

A new option has been added to the Contact Method of “Declined” has been added to the ContactMethod lookup table.

Contact Method Type Code	Display Order	Description	HI7v3 Value Set OID	HI7v3 Value Set Code	Last Updated
Contains: ▾	Equals: ▾	Contains: ▾	Contains: ▾	Contains: ▾	Equals: ▾
Click here to add a new row					
Declined	99	Declined			07-03-2014 11.
Pony Express	5	Pony Express			04-09-2013 4..

Figure 5.127 – Declined added to the ContactMethod lookup

This value will appear in the Preferred Contact Method list box of the Patient tab.

The screenshot shows a patient record for 'Walk-in: HOUGH, Charlie #20261PE *'. The 'Patient' tab is active. Under 'General Information', the patient's name is Charlie Hough. Under 'Contact Information', the address is 8 Tenth Ave, Hermosa Beach, California. The 'Preferred contact method' dropdown menu is open, showing options: Phone, Mail, EMail, SMS, and Declined. The 'Declined' option is highlighted in yellow.

Figure 5.128 – New preferred contact method

Also a new system configuration setting of “**CallbackDeclinedValue**” has been added. This value references the item in the ContactMethod lookup that is used to trigger whether the order’s last_letter field should be flagged as ‘Declined Callback’ in the web services. **There is no default value set for this config setting.**

If contact method is set to decline value, we will set the order’s last letter to ‘*Declined Callback*’ and set the order’s last letter date to now when a follow-up order is about to be created.

When configuring this setting, users must take a precaution when selecting the value of Declined as the Preferred Contact Method when the System Configuration setting of “CallbackDeclinedValue” is set to Declined or any other value from the ContactMethod lookup.

For example, a patient that has the Preferred Contact Method of Declined and the System Configuration setting has a value of Declined. If this study is a Mammo study in which a follow up letter will be sent, the letter would not appear on the Mammo Letters WL as the contact method of Declined will be filtered out of the work list.

Meaningful Use – Automated Measures Management Report

Automated Measures – A management report that can accurately adjust the reporting period for all the required types and that the numerator and denominator information are accurate and complete for each reporting period and meaningful use stage for a specific Radiologist.

Automated Measures - Stage 1

Radiologist: Power MD, Ian

Date Range: 1/1/2014 - 12/31/2014

Practice(s): Get Well Clinic

Description: This report displays the percentage of patients where the mu requirement was recorded.

*Click [here](#) to get the details.

Description	Numerator	Denominator	MU measure	Percentage
Demographics	5	8	50	62.50 %
Patient reminders	5	14	20	35.71 %
Medication reconciliation	4	8	50	50.00 %
Problem list	6	8	80	75.00 %
Medication list	7	8	80	87.50 %
Allergy list	6	8	80	75.00 %
Vitals and BMI	4	7	50	57.14 %
Vitals and BMI (alt)	5	8	50	62.50 %
Vitals - BP Out of Scope	6	8	50	75.00 %
Vitals - Ht/Wt Out of Scope	4	7	50	57.14 %
Smoking status	5	7	50	71.43 %
CPOE med	6	7	30	85.71 %
CPOE med (alt)	9	19	30	47.37 %
eHealth	0	0	50	0.00 %
eRx	0	10	40	0.00 %
Lab results	10	17	40	58.82 %
Patient education	6	8	10	75.00 %
Clinical summary	6	9	50	66.67 %
Summary of care	5	8	50	62.50 %
VDT (timely access)	7	8	10	87.50 %
VDT (patient use)	6	8	5	75.00 %



Confidential and Proprietary

Page 1 of 1

Date Run: 5/8/2014 2:15 PM

RMIS\FormsGuestUser

Figure 5.129 – Automated measures management report stage 1

Automated Measures Details - we created to help troubleshoot MU measure problems in the field a new report that will be used to display summary details which make up the numerators and denominators found in the Automated Measures Report. This report can be found in the “SubReport” folder.

patient name	patient id	accession#	practice code	scheduled date	signed date	office visit	status code	demographics	birth date	sex
Abraham, Abe	MU20366	5607330	GWC	01-15-2014	04-02-2014	Y	Signed1	Y	08-27-1930	M
		5607483	GWC	01-20-2014	04-17-2014	Y	Signed1	Y	08-27-1930	M
Beats, Betty	MU20367	5607368	GWC	01-15-2014	04-11-2014	Y	Signed1	Y	09-08-1939	F
Cobb, Christy	MU20368	5607379	GWC	01-15-2014	04-14-2014	Y	Signed1	Y	07-21-1940	F
Downs, Danielle	MU20369	5607383	GWC	01-15-2014	04-17-2014	Y	Signed1	Y	11-15-1943	F
English, Eric	MU20370	5607478	GWC	01-15-2014	04-17-2014	Y	Signed1	N	08-19-2012	M
French, Frank	MU20371	5607486	GWC	01-15-2014	04-17-2014	Y	Signed1	Y	06-14-1930	M
Gaither, Greg	MU20372	5607492	GWC	01-15-2014	04-24-2014	Y	ExtReportVerified	N	12-13-1945	M
Irving, Iv	MU20374	5607490	GWC	01-15-2014	04-17-2014	Y	ExtReportVerified	N	08-19-1998	M

Figure 5.130 – Automated measures details

Automated Measures Raw Data - A management report that can accurately adjust the reporting period for all the required types and that the numerator and denominator information are accurate and complete for each reporting period and meaningful use stage for multiple Radiologist. The main purpose of this report will be used to export results to csv or excel so administrators can monitor the progress of individual Radiologist with regards to MU measures.

Automated Measures Raw Data - Stage 2
 Date Range: 1/1/2014 - 12/31/2014
 Practice(s): Get Well Clinic
 Description: This report displays the percentage of rads where the mu measures were recorded.

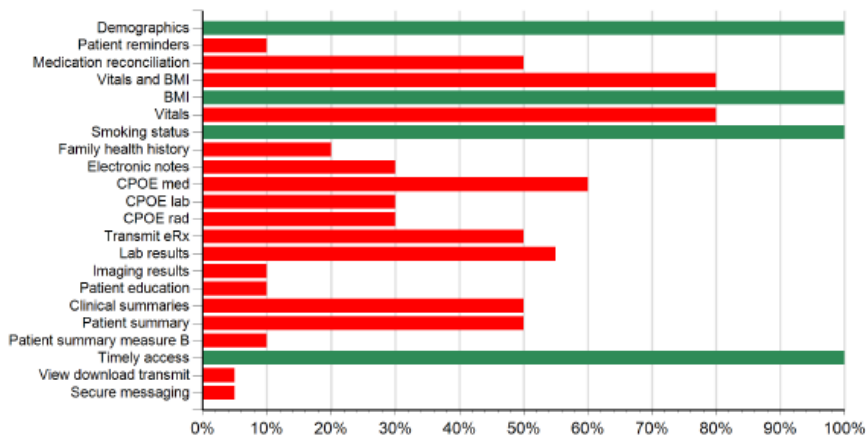
Description	Numerator	Denominator	%	MU measure	Signed by user id	User Name
Demographics	5	8	62.50%	80%	ian	Power MD, lan
Patient reminders	1	6	16.67%	10%	ian	Power MD, lan
Medication reconciliation	4	8	50.00%	50%	ian	Power MD, lan
Vitals and BMI	5	8	62.50%	80%	ian	Power MD, lan
Vitals - BP Out of Scope	6	8	75.00%	80%	ian	Power MD, lan
Vitals - Ht/Wt Out of Scope	4	7	57.14%	80%	ian	Power MD, lan
Smoking status	5	7	71.43%	80%	ian	Power MD, lan
Family health history	6	8	75.00%	20%	ian	Power MD, lan
Electronic notes	6	8	75.00%	30%	ian	Power MD, lan
CPOE med	9	19	47.37%	60%	ian	Power MD, lan
CPOE lab	10	17	58.82%	30%	ian	Power MD, lan
CPOE rad	11	11	100.00%	30%	ian	Power MD, lan
eRx	0	10	0.00%	50%	ian	Power MD, lan
Lab results	10	17	58.82%	55%	ian	Power MD, lan
Imaging	8	17	47.06%	10%	ian	Power MD, lan
Patient education	6	8	75.00%	10%	ian	Power MD, lan
Clinical summary	5	9	55.56%	50%	ian	Power MD, lan
Summary of care A	5	8	62.50%	50%	ian	Power MD, lan
Summary of care B	4	8	50.00%	10%	ian	Power MD, lan
VDT (timely access)	7	8	87.50%	50%	ian	Power MD, lan
VDT (patient use)	6	8	75.00%	5%	ian	Power MD, lan
Secure messaging	5	8	62.50%	5%	ian	Power MD, lan

Figure 5.131 – Automated measures rad data stage 2

Meaningful Use – Reports by Radiologist Management Report

Created a new management report that will allow the user to select a specific reporting period as well will allow the user the ability to select either stage 1 or stage 2 MU stats to show for a practice or multiple practices.

1dd88bbf-d70b-4593-8d11-e6241defb297 Stage 2
 Radiologist: County, Mister
 Reporting Period: Jan-01-2014 - Dec-31-2014



Meaningful Use Measure	Numerator	Denominator	%	Goal	Pass/Fail
Demographics	2	2	100.00%	80%	Pass
Patient reminders	0	0	0.00%	10%	Fail
Medication reconciliation	0	0	0.00%	50%	Fail
Vitals and BMI	0	2	0.00%	80%	Fail
BMI	2	2	100.00%	80%	Pass
Vitals	0	2	0.00%	80%	Fail
Smoking status	2	2	100.00%	80%	Pass
Family health history	0	2	0.00%	20%	Fail
Electronic notes	0	2	0.00%	30%	Fail
CPOE med	0	0	0.00%	60%	Fail
CPOE lab	0	0	0.00%	30%	Fail
CPOE rad	0	0	0.00%	30%	Fail
Transmit eRx	0	0	0.00%	50%	Fail
Lab results	0	0	0.00%	55%	Fail
Imaging results	0	0	0.00%	10%	Fail
Patient education	0	0	0.00%	10%	Fail
Clinical summaries	0	0	0.00%	50%	Fail
Patient summary	0	0	0.00%	50%	Fail
Patient summary measure B	0	0	0.00%	10%	Fail
Timely access	2	2	100.00%	50%	Pass
View download transmit	0	2	0.00%	5%	Fail
Secure messaging	0	2	0.00%	5%	Fail

Figure 5.132 – Reports by Radiologist management report

Meaningful Use – Stage 2 Management Reports

MU 2014 requires that the automated measures report be capable of selecting either stage 1(2011) or stage 2(2014) MU statistics; and be able to select date ranges for 90 continuous days within a calendar year, including 90 day periods that span across more than 3 months (e.g. Beginning May 12th); or be able to select a specific calendar year quarter (first, second, third, fourth); and finally be able to select the entire calendar year.

MU 2014 requires a management report(Patient Lists) that will generate a list of patients that can be selected by date and time and based on each data element including: Problems, Medications, Medication Allergy, Demographics, Lab tests and values/results, and Patient communication preference.

To resolve we archived the following MU 2011 management reports.

- Automated Measures.rdl
- CQM Measures.rdl
- MU Automated Measures Details.rdl
- MU Scorecard.rdl
- Patient Lists.rdl
- Patient Reminder List.rdl

We moved all of these reports to a newly created folder “Archive” under Meaningful use on the reporting server. These reports will be used for auditing purposes for previously submitted attestation reports. To ensure these reports are deployed correctly we modified the script for deploying management reports to include the Archive folder structure and reports.

For MU 2014 we created three new management reports and a new SubReport.

- 1) **Automated Measures** – A management report that can accurately adjust the reporting period for all the required types and that the numerator and denominator information are accurate and complete for each reporting period and meaningful use stage for a specific Radiologist.
 - Automated Measures Details - we created to help troubleshoot MU measure problems in the field a new report that will be used to display summary details which make up the numerators and denominators found in the Automated Measures Report. This report can be found in the “SubReport” folder.

- 2) **Automated Measures Raw Data** - A management report that can accurately adjust the reporting period for all the required types and that the numerator and denominator information are accurate and complete for each reporting period and meaningful use stage for multiple Radiologist. The main purpose of this report will be used to export results to csv or excel so administrators can monitor the progress of individual Radiologist with regards to MU measures.

- 3) **Patient Lists** - Lists of patients are selected by date and time and based on each data element including: Problems, Medications, Medication Allergy, Demographics, Lab tests and values/results, and Patient communication preference

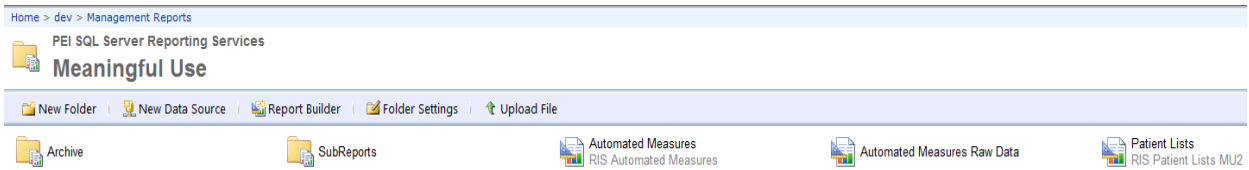
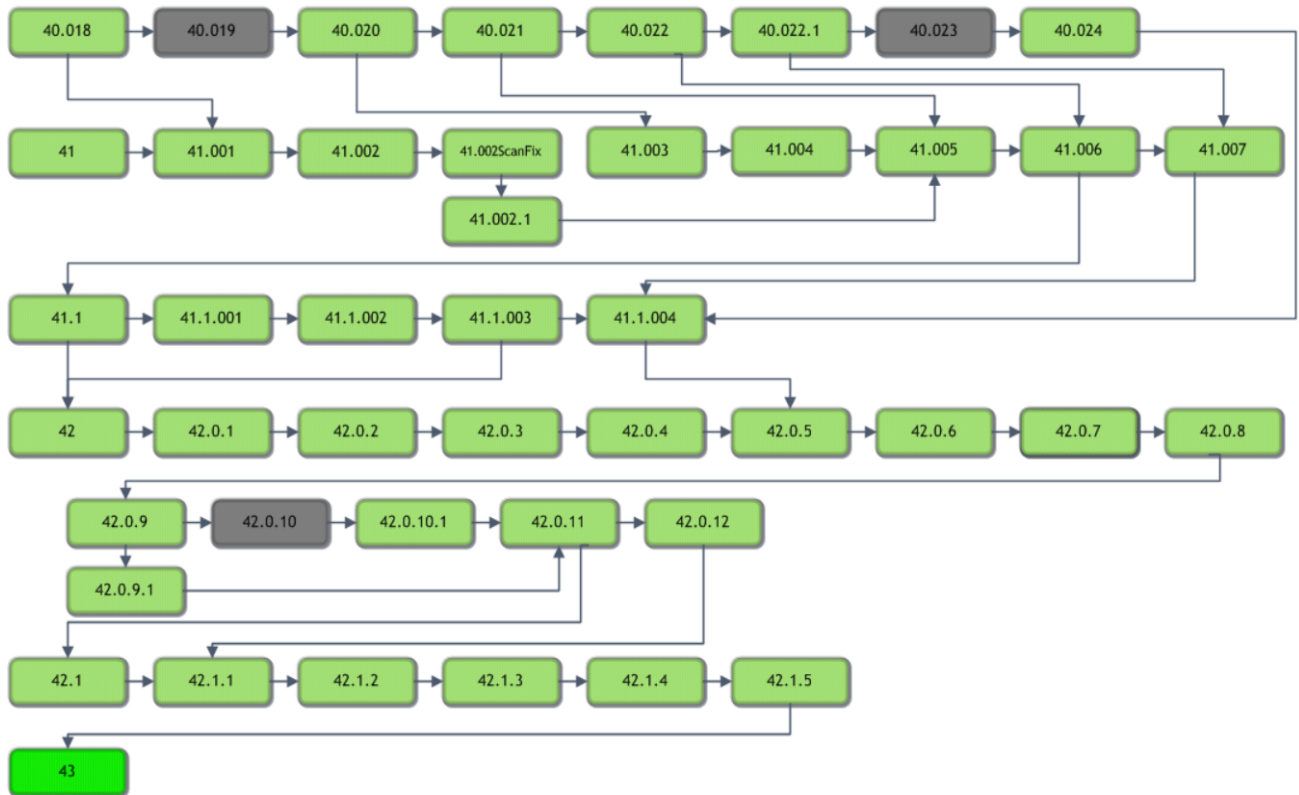


Figure 5.133 – Meaning Use Stage management reports

6. Code Stream

eRAD RIS - Source Code Evolution



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

7. RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
41.1	-	1.3.41.20918(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip, Core install, Web Service and DB updates, Help files
41.1	1	1.3.41.20987(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip
41.1	2	1.3.41.21162(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip, Web Service and DB updates,
41.1	3	1.3.41.21264(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
42	1	2.42.0.1.21597	2.42.0.0.21261	2.42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates
42	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates
42	3	2.42.0.2.21806	2.42.0.0.21261	2.42.0.2.21806	2.42.0.0.21187	GUI and Web Service updates
42	4	2.42.0.2.21862	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI and Database updates
42	5	2.42.0.5.21924	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI
42	6	2.42.0.5.22009	2.42.0.0.21261	2.42.0.5.22009	2.42.0.4.21870	GUI and Web Service updates
42	7	2.42.0.7.22090	2.42.0.0.21261	2.42.0.6.22009	2.42.0.4.21870	GUI.zip updates
42	8	2.42.0.7.22090	2.42.0.7.22150	2.42.0.6.22009	2.42.0.4.21870	Web Service updates
42	9	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI and Web Service updates
42	9.1	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	Web Service updates
42	10	2.42.0.10.22232	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip
42	10.1	2.42.0.10.22420	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip updates
42	11	2.42.0.11.22495a	2.42.0.0.21261	2.42.0.11.22471	2.42.0.11.22527	GUI.zip, Web Service, Database updates. Management Report Deployment
42	12	2.42.0.12.22982	2.42.0.0.21261	2.42.0.12.22982	2.42.0.12.22911	GUI.zip, Web Service, Database updates.
42.1	-	2.42.1.0.22744(3GB)	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.2296(3GB)	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates
42.1	2	2.42.1.2.23007(3GB)	2.42.0.0.21261	2.42.1.2.23007	2.42.1.2.23007	GUI.zip, Web Service, DB updates
42.1	3	2.42.1.2.23237(3GB)	2.42.0.0.21261	2.42.1.2.23237	2.42.1.2.23007	GUI.zip, Web Services
42.1	4	2.42.1.4.23348(3GB)	2.42.0.0.21261	2.42.1.4.23348	2.42.1.2.23007	GUI.zip, Web Services
42.1	5	2.42.1.5.23406(3GB)	2.42.0.0.21261	2.42.1.5.23406	2.42.1.2.23007	GUI.zip, Web Services
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

8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.43. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.43.

Bug #	Priority	Subject	Category	Found Version
6701	Urgent	When a popup window is open in RIS and user actions a report in PS360, Ris crashes.	Powerscribe Integration	2.42.1
6678	Urgent	PAC IW Out of sync problem	PACS Integration	2.42.0.9
6534	Urgent	original_interpretation_version should be stamped on dictated (currently just on signed reports)	Web Services/DB	2.42.0.11
6436	Urgent	Potential for studies to be orphaned in a way as they won't appear on worklists	Thick Client GUI	2.42.0
6255	Urgent	Slow Mammo Letters WL is impacting DB query times	Worklists	1.42
7061	High	MQSA Outcome Report + and - title values should be reversed	Mgt Reports	42
6993	High	RRR - Orders to Schedule Worklist and Procedure Plans	Thick Client GUI	42.0.9
6938	High	Reporting - insert report template with automacros will remove the technique section	Embedded Reporting	2.42.1
6926	High	painet folder for previously unlinked external patient does not get reassociated when the patient is mapped.	EMR	1.4
6823	High	Multiple scanned images do not get sent to PACS	Thick Client GUI	42.02
6774	High	Callback reminder letters print as diagnostic reports instead of using the proper reminder letter	Document Distribution	2.42.2
6700	High	PS360 integration is opening when it doesn't need to causing unnecessary delays and flicker.	Powerscribe Integration	2.42.1
6685	High	Object reference error when opening transcription screens in read only mode	Radiology Reporting	2.42.1
6683	High	Verbal order is hard-coded to associate to a known scan document type - this should be	Thick Client GUI	1.4

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		configurable		
6681	High	bi-rads info not reset when using screen re-use on dictate screen.	Mammography	2.42.11
6680	High	ReportTemplateEditor not being cleaned up when ReportingRadiologist closes	Radiology Reporting	2.42.09
6679	High	referring physician "visited at" drop down list contains only numbers, not human readable addresses	Thick Client GUI	2.42.0.11
6517	High	excessive network traffic generated by transfer of dictations and other data	Web Services/DB	2.42
6479	High	BI-RADS 0 and BI-RADS 4/5 stored procedure causes issues with an implicit conversion of birad_code to an integer	DB	2.42
6463	High	Reschedule - Can reschedule studies in exam done status and outside reads	Scheduling	2.42.0.11
6462	High	Order level IVT - billing codes inactive on reschedule save as order	IVT / Precert	1.41.1
6447	High	_max_interpretation_version does not update when an addendum is deleted	Radiology Reporting	2.42
6432	High	Tech screen - procedures list is not alphabetical	Technologist	1.42
6189	High	Hidden text in editor counts as text when validating fields and section.	Radiology Reporting	1.4
6106	High	error opening merge suggestions due to patient search results	Web Services/DB	1.41
5963	High	MU - Medical History grid, cannot delete a row	Thick Client GUI	1.42
5950	High	MU - CCDA preview - the Allergies (Medications) section is messed up.	Thick Client GUI	1.42
5847	High	Dark mode - BMI on MU tab is white on white and unreadable	Thick Client GUI	1.42
5800	High	parameter is not valid and/or out of memory error while viewing thumbnails	Thick Client GUI	1.42
5787	High	RadNet - Western Operations - Breast Density dropdown order not consistent with the config table settings	Thick Client GUI	41.1

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5783	High	Dark mode login box impossible to see	PACS Integration	1.42
5732	High	issues with sorting exam search results when max row count is reached	Thick Client GUI	1.42
5720	High	referring practice address patern has many issues when migrating referring legacy data.	Thick Client GUI	1.4
5711	High	Using two procedures at scheduling, and patient is claustro - it is showing an option for a closed modality when it should not		1.42
5664	High	When dictating, losing your lock, and save failed with screen recovered, you won't be able to save	Radiology Reporting	1.42
5513	High	index outside the bounds of the array when saving scan documents	Thick Client GUI	1.41.002.1
5496	High	Scanning - Document Viewer Quick Key Issue		1.41
5459	High	right click change status to cancel does not refresh worklist afterwards	Thick Client GUI	1.42
5447	High	Reporting - RIS allows the addendum workflow on Legacy PDF reports.		1.41
5420	High	some messageboxes improperly sized	Thick Client GUI	1.42
5406	High	concurrency violation on save of UserPrefs can crash RIS	Thick Client GUI	1.42
5393	High	confirmation screen does not save scan documents	Thick Client GUI	1.42
5335	High	If a study is in a closed room, it should not appear on the confirmation WL	Thick Client GUI	1.41
5291	High	Operational Management Report - Payments Details	Mgt Reports	1.4
5289	High	Operational Management Report - Performed Procedures Count	Mgt Reports	1.4
5287	High	Operational Management Report - Front Desk Activity	Mgt Reports	1.4
5258	High	Multi-type ahead: control is too tall		1.42

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5257	High	Multi-type ahead: Dropdown button should have a ... in the icon		1.42
5234	High	Outside Read screen will not open		1.4
5232	High	For Truxtun DataMigration only, we need a tool to extract diagnostic report from the Intergy DB	DB	1.41
5230	High	Need to enhance our ImportLegacy utility to include diagnostic reports formatted as MS-Word and WordPerfect	DB	1.41
5192	High	Outside Read - requires "Reason for Exam" field to be completed in view edit window`	Thick Client GUI	1.41.003
4980	High	Unknown CC flag never re-set if CC referring is removed from the order. (RRR)		40.17
4936	High	Default lock workstation value should be 60 minutes.	Thick Client GUI	1.41
4928	High	Darkmode misses		1.41
4843	High	RRR - Scheduling/Front Desk - Verbal Offer - child row has multiple parents	Thick Client GUI	1.4
4840	High	IVT - PreCert Status Update - PreCert Field Changing	Thick Client GUI	1.4
4838	High	RIS Admin - HL7	HL7	1.4
4836	High	IVT - IVT Worklist - Error retrieving the IVT worklist	Thick Client GUI	1.4
4830	High	Carrier search error if carrier name is not found	Thick Client GUI	1.42
4755	High	HL7 ReportSigned could produce duplicate addendum	HL7	1.41.001
4742	High	scan document documents are saved in the db as null	Thick Client GUI	1.4
4658	High	Scheduling --> modality restriction = no warning	Thick Client GUI	40.17
4620	High	Referring without a first name, erroring when multiple orders are available for patient in reception worklist.	Thick Client GUI	1.1.3.41.19052

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4598	High	RRR - Prep Instructions - when prep instructions exceed maximum visible space, scroll bars do not appear as they should, and user cannot read the bottom of the page of instructions.	Thick Client GUI	40.18127
4593	High	WPR - Send To button causes error	Thick Client GUI	1.42
4576	High	Personnel - Internal person notes	Admin Tools	1.41
4548	High	CTRM - Notes field isn't read only	Thick Client GUI	1.41
4464	High	RRR - IVT - when user adds "-01" to the end of the policy number for a patient, upon saving the change to the policy, the billing code exam information disappears.	Thick Client GUI	40.18127
4450	High	Auto-open worklist won't open if you cancel the chair selection prompt		1.41
4412	High	WL Filter filtering out all rows when no filter value is specified	Thick Client GUI	1.4
4356	High	Critical Result - CTRN - Unknown referrers added in critical result window display as invalid	Thick Client GUI	1.41
4349	High	Worklist filters ending with a pipe " " symbol causes error	Thick Client GUI	1.40.015
4284	High	Mammo - generated followup order not setting default patient type	Thick Client GUI	40.15
4278	High	RRR - Responsible party - "Same As Patient" flag not recognized, and orders are hitting the BEWL that should not be there.	Thick Client GUI	40.16
4241	High	Printer Config - Display Order should have a default	Thick Client GUI	1.4
4095	High	Selected report pane showing "Legacy Report" that doesn't work	Thick Client GUI	40.14
4035	High	RIS Client --> Login Failed	Thick Client GUI	40.12
3904	High	removing alternate MRN does not remove all references	Web Services/DB	1.4
3877	High	Walk In - Object Reference Error	Thick Client GUI	40.1

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3852	High	IVT : ?The ?IV required? flag on the worklist said IV was not required, but when I opened it, it says Verification is required? (it was correctly on the worklist as pre-cert was required however)	Thick Client GUI	1.40.008
3847	High	ConfigFile upload everytime a screen is closed.	Thick Client GUI	1.4
3798	High	Worklist refreshes at different scroll positions (Fisher site visit)	Thick Client GUI	40.006
3749	High	RadNet - ADV Call Centre - can not type in order notes field.	Thick Client GUI	1.40.006
3738	High	Perform exam - perform exam completed time is not be saved if Exam Times tab is accessed	Thick Client GUI	1.40.008
3688	High	wsnocertificate Endpoint does not require authentication	Web Services/DB	1.4
3661	High	Availability template lookup table usability	Admin Tools	1.4
3644	High	Removing procedure then procedure row at arriving throws exception	Thick Client GUI	1.40.006
3431	High	RRR - When you choose 'Self' from responsible party dropdown, then update the patient's address information, you have to uncheck then recheck the 'Same as Patient' check box to get the information to update		39.1
3375	High	RRR Image Request WL - When status is 'Hold Code Completed' and user presses 'Edit' RIS is throwing an error		39.1
2999	High	When report is viewed from the Billing Exceptions Work List, via Edit Billing it is showing an Addendum line, even though no addendum exists for the exam	Thick Client GUI	38
2982	High	inactive CPT codes are showing up when you check 'Show Previous Pre-cert CPT codes' option.		38
2230	High	Cannot create Alternate MRN when creating new patient	Thick Client GUI	1.2.38.14486
2142	High	Reschedule permission does not make 'reschedule' appear in context menu		1.38

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1225	High	Scheduling - Image Request WL --> Edit Image request (new patient icon)	Thick Client GUI	1.36
6986	Normal	Reporting - going from a non BIRADS enabled study to a BIRADS enabled study will throw an exception	Radiology Reporting	2.42.1
6939	Normal	Reporting - create template from when the current template has automacros will raise an exception	Embedded Reporting	2.42.1
6924	Normal	scheduling using external MRN (does not consistently display alternate MRN in grid)	EMR	42.1
6923	Normal	Appointment book cannot be accessed if user doesn't have scheduling group assigned.	Appointment book	2.42.1
6922	Normal	There is no way to register individual studies at different sites that are on one order.		2.42.2
6846	Normal	When tentative sign is disabled through access string, user preference is half visible	Radiology Reporting	2.42.0.9
6839	Normal	Mgmt Report - IVT Canceled (deprecated report)	Mgt Reports	2.42
6806	Normal	A user/person can be cloned even if they have an address with no cc delivery preference.	Administration	2.42.0
6773	Normal	Using PS360: An exam is assigned to a resident and that resident assign a supervising rad, once the exam in in transcribed status, it is not in the supervising rad's Pending Signature WL	Powerscribe Integration	2.42.1.2
6751	Normal	Error on multi procedure schedule after one study is removed	Scheduling	2.42.1.2
6735	Normal	Management Report Deployment - Radnet specific reports deploying to eRAD	Mgt Reports	2.42
6711	Normal	Clicking the close or skip button on the eRAD RIS window doesn't save the values in Assigned to window	Powerscribe Integration	42.1.1
6689	Normal	RadNet - Monthly Variance Raw Data reports needs to be modified to use cpt_Radnet_counts as well add referring practice functionality	Mgt Reports	2.42
6688	Normal	Error: "Deleted row information cannot be accessed through the row" when updating	Thick Client GUI	2.42.09

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		insurances		
6686	Normal	Scanner - users are having to re-scan documents		1.42
6682	Normal	Reporting - screen reuse and pending save items may hang around on the worklist	Radiology Reporting	2.42.0.11
6675	Normal	PACS Caching - The RIS is failing to clear out the cache field properly when it is to no longer be cached.	PACS Integration	2.42.0
6611	Normal	Mgmt Report - Marketing numbers skewed when c_study_item_certification.units is null	Mgt Reports	2.42.0.11
6582	Normal	Unable to create unknown referring	Scheduling	42.1
6547	Normal	Document distribution does not recover InProgress jobs that do not have a job id when it starts up	Document Distribution	0
6546	Normal	Fax Console Outbox grows too large over time and slows faxing down significantly	Document Distribution	0
6545	Normal	Reporting - Access string PowerScribe360.AllowAutofeed doesn't control user preference	Powerscribe Integration	2.42.1
6531	Normal	PACS images are loaded even if reporting window ultimately does not open.	PACS Integration	2.42
6526	Normal	CD Import - Duplicate MRNs resulting in missing images after the import	Patient Search	1.42
6525	Normal	CD Import - null exception opening a CD, which has a empty patient record	PACS Integration	1.42
6516	Normal	c_frm_core_view - cleanup the view	Web Services/DB	2.42
6473	Normal	Print Forms dialog does not appear when checking-in/arriving patients after removing insurance policy	Thick Client GUI	2.42.09
6464	Normal	MU Clinical Summary Form Needs modified to look at the new c_patient_problem_list2 and the new l_indication tables for handling MU problems(medical history).	Meaningful Use	42
6452	Normal	service throttling is not sufficient for large implementations	Web Services/DB	2.42

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6331	Normal	detailed chair selector does not display - print an error message indicating dataset is incorrect.	DB	2.42
6330	Normal	Re-deployment of reports loses folder specific permission	Mgt Reports	2.42
6296	Normal	CD Import - Everything is sent but study can't be found in PACS.	PACS Integration	1.42
6268	Normal	PACS Server lookup the URL can have new line characters which will cause CD Imports to fail	PACS Integration	1.42
6251	Normal	RIS service "Server" garbage collection	Web Services/DB	1.42
6242	Normal	RIS Service Installation document is out of date	Documentation	42.0.6
6239	Normal	RADNET - MU - Problem list - problem with no start date can be added again via Meaningful Use Quick Add Edit window	Thick Client GUI	2.42.0.6
6233	Normal	RADNET - Reporting - Pregnant field displayed in Exam Details for all patients	Radiology Reporting	2.42.0.6
6194	Normal	Report history and dark mode have some visual issues	Radiology Reporting	1.42
6187	Normal	CDS Service does not start in x64 mode	Documentation	42.003
6185	Normal	RRR - Error when creating outside reads	Thick Client GUI	42.02
6126	Normal	Scheduling - Calendar view does not display business hours or device availability template	Thick Client GUI	2.42
6115	Normal	Vague descriptions on Referral reports	Mgt Reports	1.41
6113	Normal	Referring Physician Volumes - missing description	Mgt Reports	1.41
6109	Normal	Language, Race and Ethnicity not in the core view for forms	Mgt Reports	1.42
6107	Normal	MU changed Provided Clinical Summaries to Offered Clinical Summary to patient	Meaningful Use	2.42
6091	Normal	Management reports - IVT Turnaround - Total turnaround time is incorrect	Mgt Reports	2.42

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6087	Normal	Management reports - IVT management reports looking for Approved, but status is now Verified	Mgt Reports	42.0.1
6080	Normal	CD Import via patient folder can match with the wrong patient.	Thick Client GUI	1.42
6077	Normal	Relevance Override does not allow assignment of inactive procedures		1.42
6064	Normal	Scheduling - Procedure Plans Error	Thick Client GUI	42.0.0.21577
6052	Normal	RadNet - Patient Folder - column missing	Thick Client GUI	1.42
6051	Normal	RadNet - Schedule Existing Order - uncheck not working	Thick Client GUI	1.42
6015	Normal	create a function to coalesce site and practice logo	Web Services/DB	1.42
6003	Normal	Management Reports - Automatic Measures - Missing Parameter	Mgt Reports	2.42.0.0.21410
5988	Normal	re-selecting and blanking out the Referring combo box		42
5984	Normal	Deleted row error saving attachments		1.42
5982	Normal	Negative values in Dictated to Drafted on the RTAT portion of the Transcription Dashboards.	Mgt Reports	1.41
5944	Normal	Cloning a person "may" impact original person being cloned	Thick Client GUI	1.41
5861	Normal	unhandled exception logging in as a rad but without permission to some WL.	Thick Client GUI	1.42
5843	Normal	MU - When editing the date in Lab results get error.	Thick Client GUI	1.42
5837	Normal	Reporting - Open study in dictate window and get C++ Exception	Radiology Reporting	2.42
5814	Normal	If lab test code matching systemconfig's CPOELabTestCode value doesn't exist for procedure who's CPOE Pathology flag is set, misleading exception occurs	Thin Client GUI	1.42
5735	Normal	The query to get radiologist and transcriptionist statistics in taking over 5	DB	1.4

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		second on SE		
5603	Normal	recent activity message list shows Assign To as Dictated	Radiology Reporting	1.42
5495	Normal	Scanning - "Scanner is not responding" can lock up RIS for about 1 minute		1.41
5450	Normal	RRR - Confirmed Appointments Report Customization	Mgt Reports	2.41
5422	Normal	Scheduling - Assign to Rad is first name, last name	Thick Client GUI	1.41.002
5252	Normal	Reporting - Verify edits context menu option from All Edits Pending QA opens Create Edit report window	Radiology Reporting	1.41
5156	Normal	can't update performed modality (RRR)	Thin Client GUI	40.17
4950	Normal	Race type code	DB	1.41.002
4555	Normal	When opening a study in read only, user should get a prompt	Radiology Reporting	1.41
4326	Normal	Reporting - Multiple Pending Signature notifications raised	Radiology Reporting	1.41
4308	Normal	Patient Folder - Selected Summary not resizing properly when dragging the pane	Radiology Reporting	1.41
4116	Normal	Error on Sign Next or Submit Next in the field	Thick Client GUI	1.3.40.18063
3878	Normal	GUI - procedure code lookup (laterality dropdown display)	Thick Client GUI	40.1
3814	Normal	Already Transcribed prompt when in signing workflow (Fisher site visit)	Thick Client GUI	40.006
3639	Normal	Reporting - Index out of range		1.4
3521	Normal	MU - Calculating MU statistics of Void Exams	Meaningful Use	1.4
3273	Normal	Patient Folder Worklist - Default filter applied results in side scrolled WL on open	Radiology Reporting	1.4
3099	Normal	Documentation window - futuristic menstrual periods....	Thick Client GUI	1.4

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2759	Normal	Distribution WL - Message box should display in the center of the screen	Thick Client GUI	1.39
2635	Normal	Unchecking No Longer Menstruating doesnt enable pregnancy fields	Thick Client GUI	1.39
665	Normal	fk error when adding new order	Thick Client GUI	1.25
357	Normal	Lookup table filters with dropdown datatype don't work		1.13
6940	Low	Reporting - apply style formatting to automacro inserted text will break create template from	Embedded Reporting	2.42.1
4733	Low	Spelling mistake in details message (Cannot "adden" an interpretation when previous interpretation is not signed off.)	Thick Client GUI	1.41
3991	Low	Reporting - Exam Details and Summary panes - Text can be entered in notes' fields, but does not save.	Thick Client GUI	1.40.013

9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.43. Bugs reported in previous versions are not captured as Known Limitation in this document.

#	Status	Priority	Subject
7065	New	High	ICD button is overlaid by the stat button in minimized dictation mode
7195	New	High	System config setting RadMustProvideIcdCode doesn't force rad to enter ICD code
7196	New	Normal	When registering a patient with multiple procedures, and then deselecting the procedure checkbox, an error is produced
7186	New	Normal	Transportation req'd validation issue
7160	New	Normal	IVT - Issue with "Parent Procedure" on billing code grid
7153	New	Normal	ICD Codes - Issue removing codes
7086	New	Normal	Internal Person search doesn't have default field
7029	New	Normal	AccessionXMLDrop button showing up all the time if configured, regardless of reporting mode
6991	New	Normal	Reporting - Exam details data pane can open with scroll bar hidden and window can be resized to have scroll bar hidden
6989	New	Normal	Secure Messaging - Able to send an empty message
6863	New	Normal	Inconsistent grid behaviour with new ICD functionality.
6840	New	Normal	Holiday Lookup missing practice code required field check
6807	In Progress	Normal	Create template causes Object Reference Not set error
6793	New	Normal	distribution wl - Activity log column is crowded
6790	New	Normal	Personel Merge - reject takes user to a blank page
6785	New	Normal	Administration - Patient search window on patient merge, 'New Pt +Apt' button does nothing
6784	New	Normal	tech screen - able to complete an exam on a body part different than defined by procedure
6726	New	Normal	View menu not disabled after Report on Accession #
6592	New	Normal	Required Notes Fields accept whitespace as input
6908	In Progress	Normal	MU Quick Add Edit Dialog makes 30 consecutive service calls each time it is opened

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7182	New	Normal	Menu item Messaging doesn't have an access string
7172	New	Normal	Reconcile Form - Issue with layout of Order and Scheduling Notes
7164	New	Normal	Cannot delete indication codes from the Indication lookup table via GUI
7023	New	Normal	Selected attachments navigating when user selects text.
6972	New	Normal	BI-RADS picker set tissue density to inactive value
6834	New	Normal	QA workflow, error when saving opens the wrong screen.
6821	New	Normal	Reschedule can show incorrect procedure if procedure was changed in Register window
6750	New	Normal	MU - CCDA Error when generating XML when Allergy is NULL
6671	New	Normal	Right-click "Confirmation" in Patient Folder for Follow up order throws multiple exceptions
7127	New	Normal	MT polling when waiting for jobs and none exist, can't close tab or visit another tab.
6987	New	Normal	Fields in scheduling screen not showing as required until you try to save, or tab out of the control.
6792	New	Normal	Filtering work lists
6081	New	Normal	If patient has multiple orders on same day (procedure changed) --> registration confirmation does not reflect it
7188	New	Normal	County selection screen requires user to click or tab to county field.
7181	New	Normal	County/ZIP - county getting saved with data but dialog doesn't show one selected
7179	New	Normal	County/ZIP - possible wrong county selecting automatically. County drop down changing when nulling out ZIP textbox
7165	New	Normal	Special characters in custom fields for templates can cause the report to not be openable.
7159	New	Normal	Reporting - PACS integration
7138	New	Normal	Mammo letter config save button doesn't save changes
7015	New	Low	MU - A requested lab order can be entered with a blank observation and return an error
6865	New	Low	Personnel - Referring addresses - Address open double clicking on scroll bar arrows

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7178	New	Low	County/ZIP allows typing in County but doesn't changes value when clicking ok
7177	New	Low	County/ZIP textbox persists invalid data

Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.1

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eRAD RIS Server Update

1. New Features

Ability to Add Site Code in Drop Down Lists

Currently eRAD RIS supports practice and site names of 500 characters. The drop down fields that display these values typically only allow for 20-30 characters. Issues with the practice or site name may be very similar in the first 20 characters. To help the users differentiate between the practices/sites we have added a new system configuration setting of **“LocationLayoutFormatString”** with a default value of {description}. This default value means that it will display the Practice/Site description in the drop down list box. The user will have the option to have both the description and code displayed.

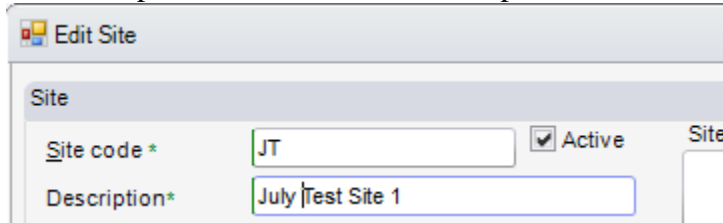


Figure 1.1 – Displaying site example

In the systemconfig table I add values for both the site code and the description. The value looks like ({{code}}) {description}.

System Config Code	Value	Default
Contains: locatio	Contains:	Contains:
LocationLayoutFormatString	{{code}} {description}	{description}

Figure 1.2 – New configuration setting

The supporting fields will display these values as displayed in the following screenshot.

Example of the site displayed

(JT) July Test Site 1

eRAD RIS Server Update

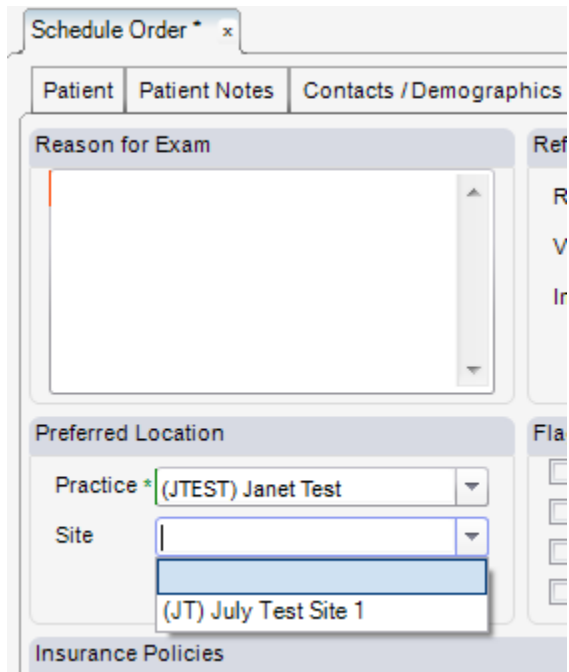


Figure 1.3 – Displaying values configured for `LocationLayoutFormatString`

The configuration setting will allow for the display of the code, description or a combination of both.

- `{code}`
- (description) – this is the default value
- `{code}` (description)
- (description) `{code}`

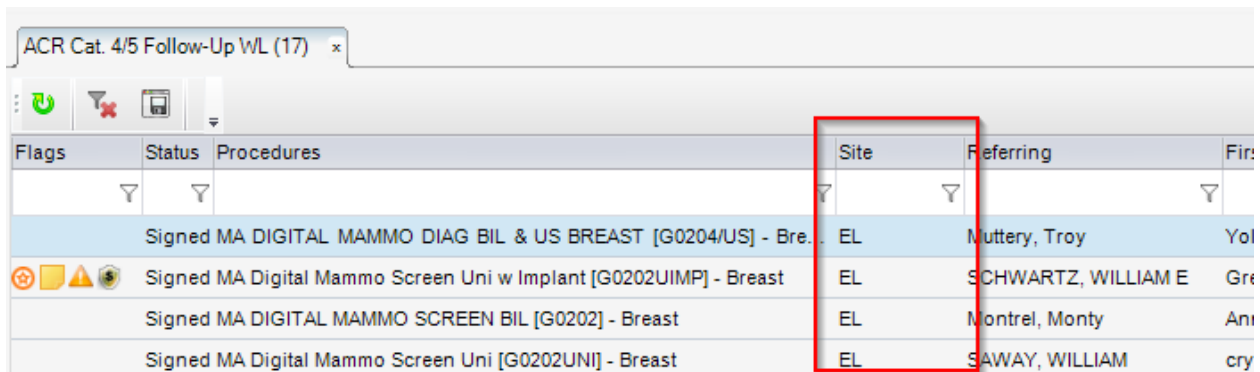
If any extra characters or spelling mistakes are included in the value the system will return an error when accessing a window that has the practice and/or site field

eRAD RIS Server Update

Site Column Added to Work Lists

The site column has been requested to be added to various work lists in which it didn't currently exist. The following is a list of work lists in which it was added.

- Billing Exception WL
- Confirmation WL
- Closed Rooms Reschedule WL
- No Show WL
- Distribution WL
- Distribution History by Date WL
- Mammo Follow Up Orders WL
- Mammo Letters WL
- ACR Category 0 Follow Up WL
- ACR Category 4/5 Follow Up WL



The screenshot shows a software window titled "ACR Cat. 4/5 Follow-Up WL (17)". Below the title bar is a toolbar with icons for refresh, delete, and print. The main area contains a table with the following columns: Flags, Status, Procedures, Site, Referring, and First Name. The 'Site' column is highlighted with a red box. The table contains four rows of data:

Flags	Status	Procedures	Site	Referring	First Name
		Signed MA DIGITAL MAMMO DIAG BIL & US BREAST [G0204/US] - Bre...	EL	Muttery, Troy	Yol
⊕	⚠	Signed MA Digital Mammo Screen Uni w Implant [G0202UIMP] - Breast	EL	SCHWARTZ, WILLIAM E	Gre
		Signed MA DIGITAL MAMMO SCREEN BIL [G0202] - Breast	EL	Montrel, Monty	Ani
		Signed MA Digital Mammo Screen Uni [G0202UNI] - Breast	EL	SAWAY, WILLIAM	cry

Figure 1.4 – Site column added to various work lists

eRAD RIS Server Update

Support International Phone Numbers

In previous builds the phone number fields automatically supply the phone number mask for North America. The mask was input the number as (902) 555-5555. This works great for North American customers/patients.

We will now allow for a leading + or 0 in the phone number field. When a leading + or 0 is added the mask will not be used allowing the user to input the number unformatted.

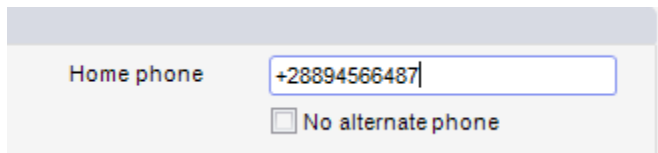
A screenshot of a web form. The label "Home phone" is on the left. To its right is a text input field containing the number "+28894566487". Below the input field is a checkbox labeled "No alternate phone", which is currently unchecked.

Figure 1.5 – Phone number with leading plus symbol

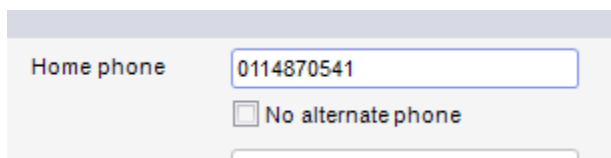
A screenshot of a web form. The label "Home phone" is on the left. To its right is a text input field containing the number "0114870541". Below the input field is a checkbox labeled "No alternate phone", which is currently unchecked.

Figure 1.6 – Phone number with leading 0 (zero)

This is applied to all phone number fields.

eRAD RIS Server Update

2. Defects Resolved

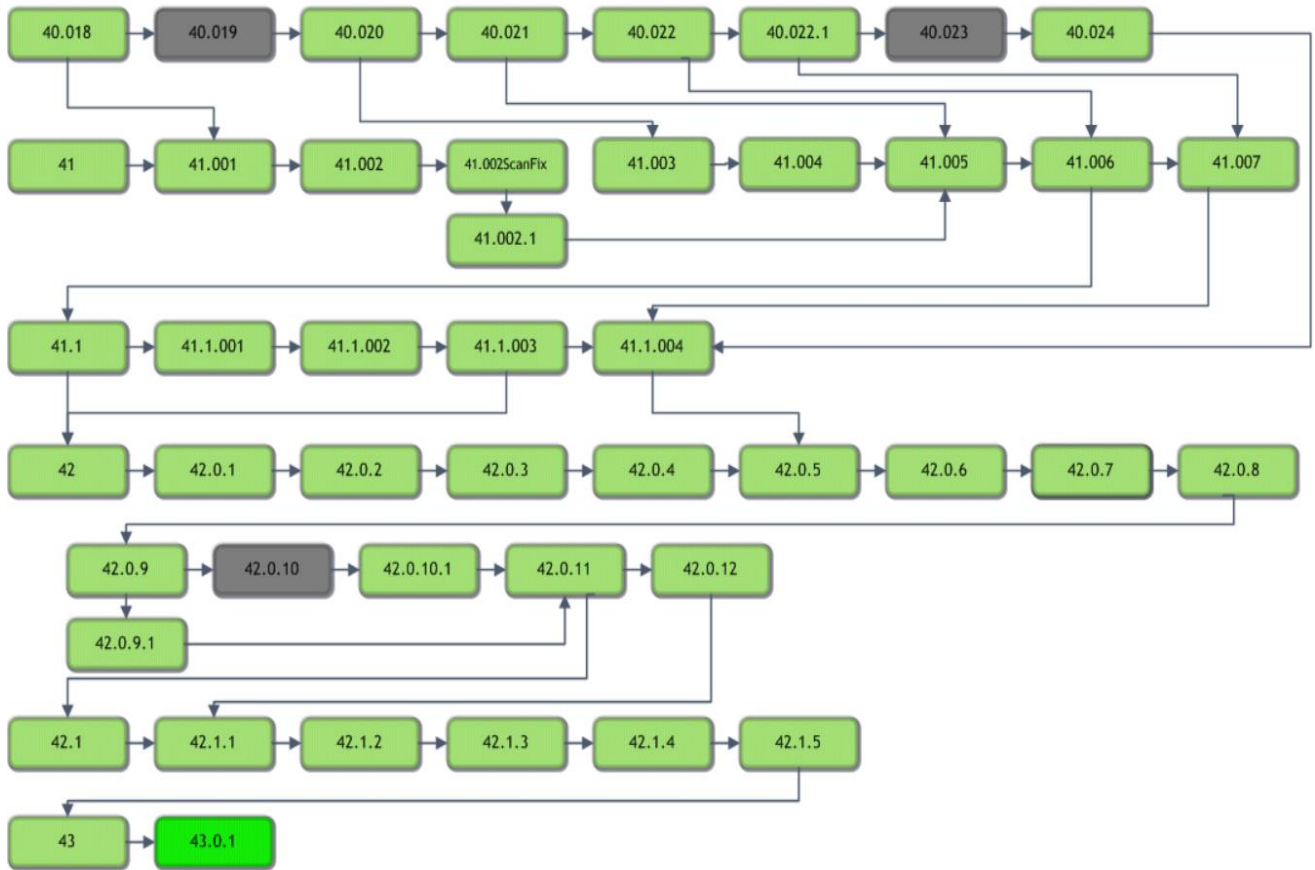
Redmine #	Tracker	Subject	Priority
7190	Bug	Dictated by user id changes to editor's id in PowerScribe 360	High
6894	Bug	Memory leak in insurance control	High
6856	Bug	CD Import - PACS Send fails due to compression	High
6540	Bug	Leading + sign in phone number field no longer disables the format mask	High
7193	Bug	MU Lab Screen Clean up	Normal
7183	Bug	maxConnections may be too low for large production environments	Normal
6968	Bug	DataStoreBase uses non thread safe dictionaries for storing credentials and connections	Normal
6967	Bug	CommonLib Config class uses non thread safe dictionaries for storing system and user configuration	Normal
6908	Bug	MU Quick Add Edit Dialog makes 30 consecutive service calls each time it is opened	Normal
7204	Feature	Site code needed in drop downs to support sites with long names	Urgent
6541	Feature	Phone number should allow leading 0	Urgent
7056	Feature	Worklists - Add site column to various mammo worklists to allow for better filtering	Normal

3. Changes to Configuration

Setting Placeholder	Setting	Default	Purpose / Controls Access to
<p>rRISService.exe.config and rRISService64.exe.config</p>	<p>Change to the <system.serviceModel> section of the rRISServices.exe.config and rRISServicesx64.exe.config file</p> <p>Before: <binding name="netTCPBinding" maxReceivedMessageSize="5000000" maxBufferSize="5000000" maxBufferPoolSize="5000000" maxConnections="3000" listenBacklog="3000"></p> <p>After: <binding name="netTCPBinding" maxReceivedMessageSize="5000000" maxBufferSize="5000000" maxBufferPoolSize="5000000" maxConnections="5000" listenBacklog="10000"></p>		<p>Changes are made under the <system.serviceModel> section of the file. Changes to be made in 2 places in the file</p> <p>The changes can be found in the deploy folder > rRISService.exe.config file. Compare with your current file in your rRISService folder. This applies to the rRISService.exe.config and the rRISService64.exe.config files</p> <p>Manual edit required.</p>
<p>Systemconfig setting</p>	<p>LocationLayoutFormatString</p>	<p>{description}</p>	<p>Desired layout for site and practice/site drop down fields such as Preferred location on order tab, search options on schedule tab and Site field on Import CD window. Possible values are {description} and ({code}). The values can be used individually or together. Example: ({code}) {description}</p>

4. Code Stream

eRAD RIS - Source Code Evolution



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

5. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:

- rRIS_1.3.43.0.1.23798.zip

2) RIS_Service_Updates contains:

- ABCpdf.dll
- ABCpdf9-32.dll
- ABCpdf9-64.dll
- Antlr3.Runtime.dll
- CDSJobManager.dll
- CDSJobManager.pdb
- CdsLib.dll
- CdsLib.xml
- CdsLib.XmlSerializers.dll
- CommonLib.dll
- CommonLib.pdb
- contents4301.txt
- DDEngine.dll
- DDEngine.pdb
- DiffPlex.dll
- Interop.ANYMODALCAPTURECTRLLib.dll
- Interop.FAXCOMEXLib.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.pdb
- Microsoft.Practices.EnterpriseLibrary.Common.dll
- Microsoft.Practices.EnterpriseLibrary.Common.pdb
- Microsoft.Practices.EnterpriseLibrary.Logging.dll
- Microsoft.Practices.EnterpriseLibrary.Logging.pdb
- Microsoft.Practices.ServiceLocation.dll
- Microsoft.Practices.ServiceLocation.pdb
- Microsoft.Practices.Unity.dll
- Microsoft.Practices.Unity.Interception.dll
- Microsoft.Practices.Unity.Interception.pdb
- Microsoft.Practices.Unity.pdb
- Microsoft.ReportViewer.Common.dll
- Microsoft.ReportViewer.WinForms.dll
- Microsoft.ReportViewer.WinForms.xml
- Newtonsoft.Json.dll
- Newtonsoft.Json.xml
- NLog.dll
- O2S.Components.PDFRender4NET.dll
- PDFToImages.exe
- Radar.Common.dll
- Radar.Common.pdb
- Radar.Common.WebClient.dll
- Radar.Common.WebClient.pdb
- Radar.DirectMessaging.Client.dll
- Radar.DirectMessaging.Client.pdb
- Radar.DirectMessaging.Model.dll
- Radar.DirectMessaging.Model.pdb
- rRISServices.exe
- rRISServices.pdb
- rRISServicesx64.exe
- ScheduledTaskManager.dll
- ScheduledTaskManager.pdb
- ServicesConfigWizard.exe
- ServicesConfigWizard.pdb
- SignatureApprovalService.exe
- SignatureApprovalService.pdb
- System.Net.Http.dll
- System.Net.Http.Formatting.dll
- System.Net.Http.xml
- System.Web.Http.dll
- System.Web.Http.SelfHost.dll
- System.Web.Http.SelfHost.xml
- System.Web.Http.WebHost.dll
- System.Web.Http.WebHost.xml
- System.Web.Http.xml
- System.Web.Mvc.dll
- System.Web.Mvc.xml
- System.Web.Optimization.dll
- System.Web.Razor.dll
- System.Web.Razor.xml
- System.Web.WebPages.Deployment.dll
- System.Web.WebPages.Deployment.xml
- System.Web.WebPages.dll
- System.Web.WebPages.Razor.dll
- System.Web.WebPages.Razor.xml
- System.Web.WebPages.xml
- Tourreau.Gilles.FaxDotNet.dll
- Tourreau.Gilles.FaxDotNet.pdb
- Tourreau.Gilles.FaxDotNet.xml
- WCFService.dll
- WCFService.pdb
- WCFServiceTests.dll
- WCFServiceTests.pdb
- WebApi.dll

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- WebApi.pdb
- WebGrease.dll
- Wedge.exe
- Wedge.pdb

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains

- a. Applicationsettings.config
- b. ReleaseVersion-connectionstrings.config
- c. rRISServices.exe.config
- d. services.config

B. XSL subfolder contains:

Subfolder titled “Stylesheets” which contains:

- a. CDAToHTMLCompleteReport.xslt
- b. CDAToHTMLCompleteReportDark.xslt
- c. CDAToHTMLImpressionSection.xslt
- d. CDAToRIS.xslt
- e. CDAToTxt.xslt
- f. DocumentModelReport.xslt
- g. DocumentModelReportAsXml.xslt

- h. CDA Subfolder contains
 - a. C-CDA.xsl
 - b. eRadStylesheet.xsl
 - c. generalTemplates.xsl
 - d. header.xsl
 - e. QRDA.xsl
 - f. QrdaLevel3_Cypress2.4.0.xsl
 - g. QrdaLevel3_ViewHtml.xsl
 - h. sectionAdministeredMedications.xsl
 - i. sectionAllergies.xsl
 - j. sectionEncounters.xsl
 - k. sectionFindings.xsl
 - l. sectionFuncCogStatus.xsl
 - m. sectionHospitalDischarge.xsl
 - n. sectionImmunizations.xsl
 - o. sectionInstructions.xsl
 - p. sectionMedications.xsl
 - q. sectionPlanOfCare.xsl
 - r. sectionProblemList.xsl
 - s. sectionProcedures.xsl
 - t. sectionQRDAMeasures.xsl
 - u. sectionQRDAPatientData.xsl
 - v. sectionQRDAREporting.xsl
 - w. sectionReasonForVisit.xsl
 - x. sectionResults.xsl
 - y. sectionSocialHistory.xsl
 - z. sectionVitalSigns.xsl

3) SQL Folder contains:

- B43.0.1.sql

eRAD RIS Server Update

6. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

7. Who is affected

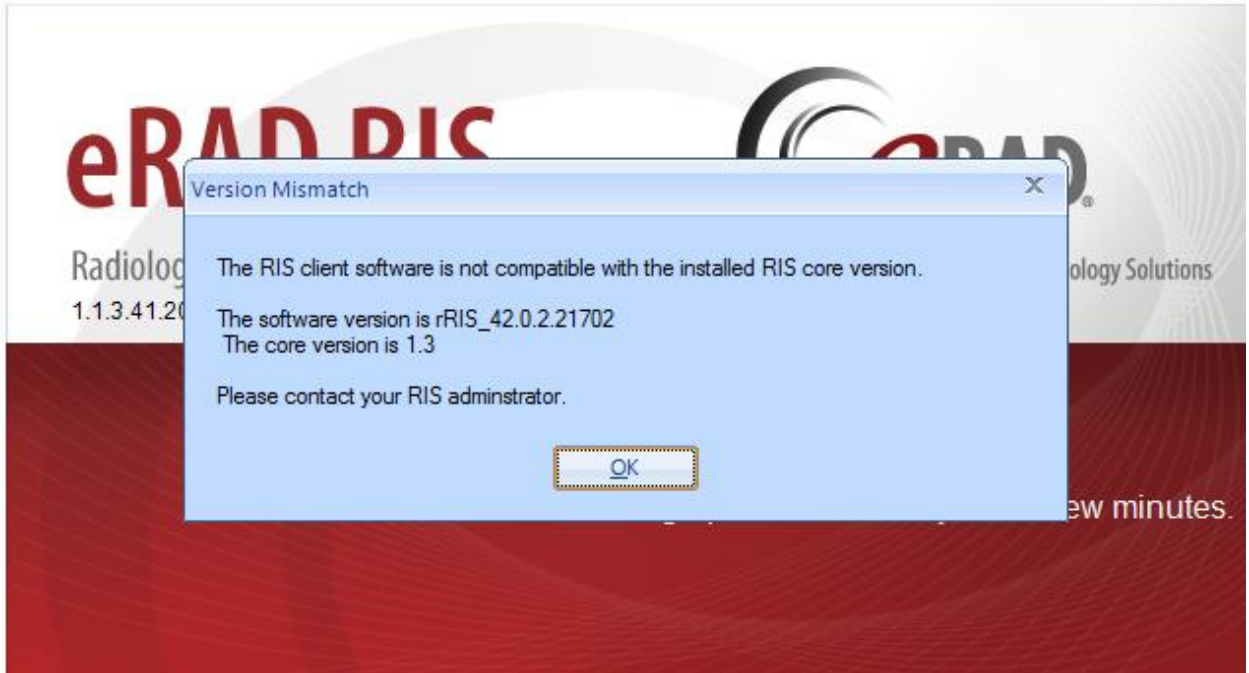
Build 43 installs. Server updates are not cumulative. This server update must be applied to 43

8. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
41.1	-	1.3.41.20918(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip, Core install, Web Service and DB updates, Help files
41.1	1	1.3.41.20987(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip
41.1	2	1.3.41.21162(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip, Web Service and DB updates,
41.1	3	1.3.41.21264(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
42	1	2.42.0.1.21597	2.42.0.0.21261	2.42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates
42	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates
42	3	2.42.0.2.21806	2.42.0.0.21261	2.42.0.2.21806	2.42.0.0.21187	GUI and Web Service updates
42	4	2.42.0.2.21862	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI and Database updates
42	5	2.42.0.5.21924	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI
42	6	2.42.0.5.22009	2.42.0.0.21261	2.42.0.5.22009	2.42.0.4.21870	GUI and Web Service updates
42	7	2.42.0.7.22090	2.42.0.0.21261	2.42.0.6.22009	2.42.0.4.21870	GUI.zip updates
42	8	2.42.0.7.22090	2.42.0.7.22150	2.42.0.6.22009	2.42.0.4.21870	Web Service updates
42	9	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI and Web Service updates
42	9.1	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	Web Service updates
42	10	2.42.0.10.22232	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip
42	10.1	2.42.0.10.22420	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip updates
42	11	2.42.0.11.22495a	2.42.0.0.21261	2.42.0.11.22471	2.42.0.11.22527	GUI.zip, Web Service, Database updates. Management Report Deployment
42	12	2.42.0.12.22982	2.42.0.0.21261	2.42.0.12.22982	2.42.0.12.22911	GUI.zip, Web Service, Database updates.
42.1	-	2.42.1.0.22744(3GB)	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.2296(3GB)	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates
42.1	2	2.42.1.2.23007(3GB)	2.42.0.0.21261	2.42.1.2.23007	2.42.1.2.23007	GUI.zip, Web Service, DB updates
42.1	3	2.42.1.2.23237(3GB)	2.42.0.0.21261	2.42.1.2.23237	2.42.1.2.23007	GUI.zip, Web Services
42.1	4	2.42.1.4.23348(3GB)	2.42.0.0.21261	2.42.1.4.23348	2.42.1.2.23007	GUI.zip, Web Services
42.1	5	2.42.1.5.23406(3GB)	2.42.0.0.21261	2.42.1.5.23406	2.42.1.2.23007	GUI.zip, Web Services
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

9. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.43.0.1.23798.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0.1.23798 → rRIS_1.3.43.0.1.23798

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

- 2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

- 3) Run the B43.0.1.sql file against the eRAD RIS database instance.

Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.2

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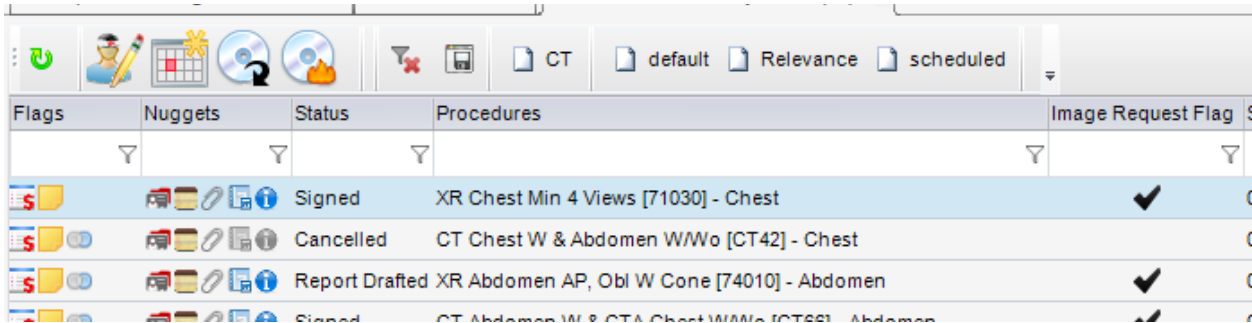
1. New Features 3
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eRAD RIS Server Update

1. New Features

Image Request flag added to the Patient Folder WL

A new column titled Image Request Flag has been added to the Patient Folder WL. This column is a visual indicator to let the user know if an Image Request has/had been requested for the study.



The screenshot shows a software interface for a patient folder work list. At the top, there is a toolbar with various icons for navigation and actions. Below the toolbar is a table with the following columns: 'Flags', 'Nuggets', 'Status', 'Procedures', and 'Image Request Flag'. The 'Image Request Flag' column contains checkmarks for certain rows, indicating that an image request has been made for those studies.

Flags	Nuggets	Status	Procedures	Image Request Flag
		Signed	XR Chest Min 4 Views [71030] - Chest	✓
		Cancelled	CT Chest W & Abdomen W/Wo [CT42] - Chest	
		Report Drafted	XR Abdomen AP, Obl W Cone [74010] - Abdomen	✓
		Signed	CT Abdomen W & CTA Chest W/Wo [CT68] - Abdomen	✓

Figure 1.1 – Image Request Flag column added to patient folder work list

eRAD RIS Server Update

ICD Support for Radiologists

In Build 43 we introduced support for ICD 10 codes. The feature was not complete as the Radiologist portion needed some fine tuning.

The Reporting window has a new ICD button. The button is located in the lower left corner of the reporting window.



Figure 1.2 – ICD button in reporting window

The button is enabled with the system configuration setting of “**RadCanProvideIcdCode**” that has a default of False. This button will open the same ICD Codes search window. The data for the indications defined here are saved to c_interpretation_indication.

The Radiologist can be forced to input an ICD code by enabling the system configuration setting of “**RadMustProvideIcdCode**” that has a default value of False. When this setting is set to “True” the Radiologist will be required to enter at least one ICD code before being able to sign. If a code is not entered they will be presented with a message prompt informing that one must be provided.

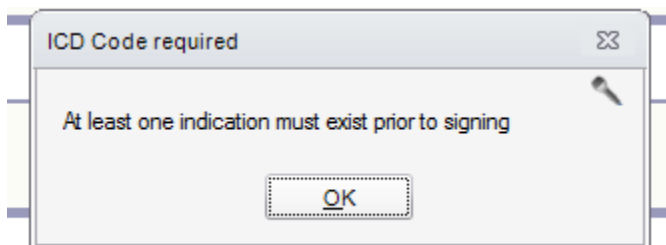


Figure 1.3 – cannot sign with ICD code when “**RadMustProvideIcdCode**” = true

The ICD search window looks the same as when accessed from other areas of eRAD RIS. The ICD Codes window will provide the Reason for exam, a text box to enter search criteria where the user can enter the code or description. At least 3 characters must be entered for the search button to enable. The Type of code selected will depend on the value in system configuration setting of “**Icd10EffectiveDate**” which has a default value of 08-07-2014. If the value entered is a future date the Type of code selected will default to ICD 9. In the ICD Codes window the user can still choose to search for either or combine a search for both ICD9 and ICD10. In the example below both are chosen and the search results window displays the values returned. The type column indicates if it is ICD9 or ICD10 codes.

eRAD RIS Server Update

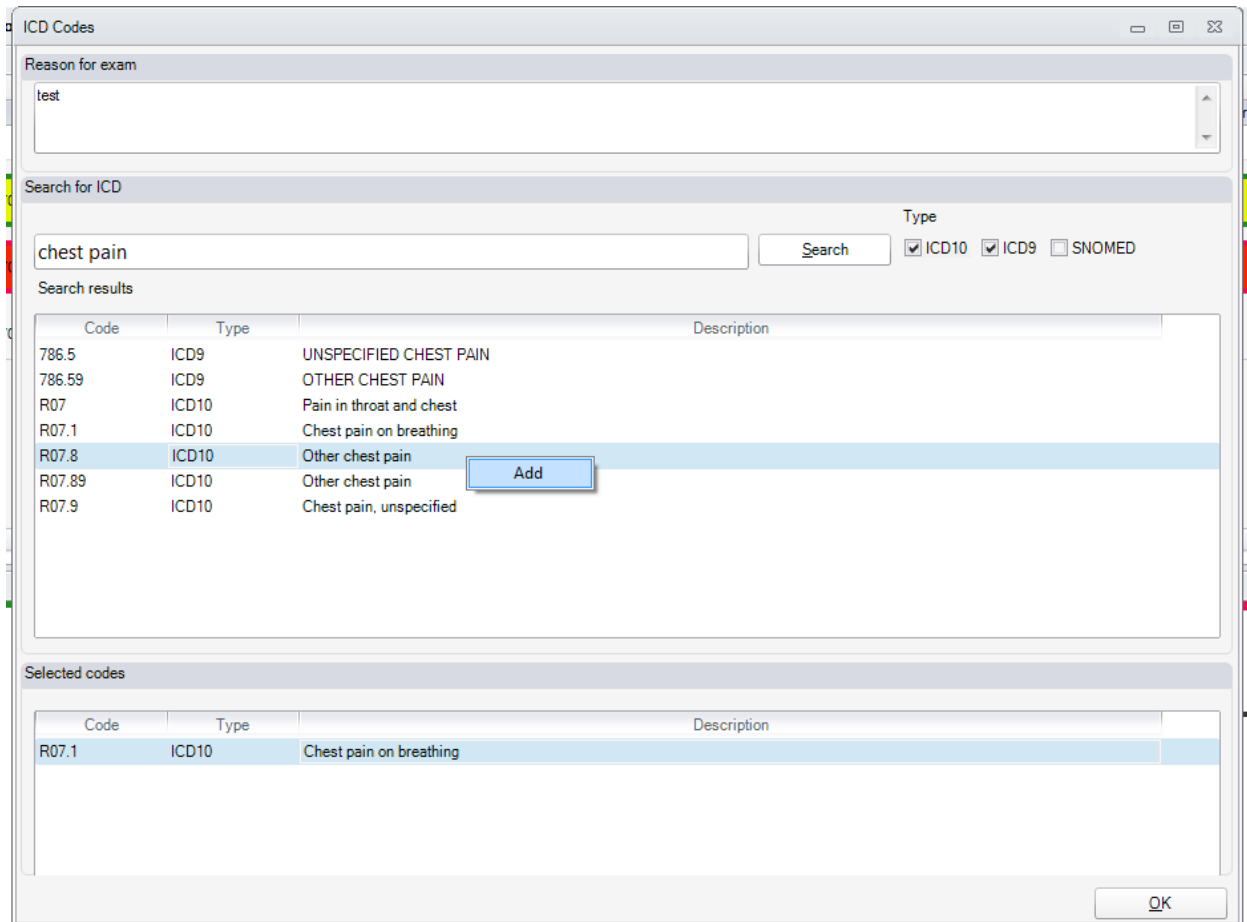


Figure 1.4 – ICD code search window

To move a code from the Search results to the Selected codes section of the window, the user must double mouse click, right click and select Add or use the Enter key on the desired code to be added. Multi select is not option. Codes will have to be entered one at a time.

To remove codes from the Selected codes section the user can double mouse click, right click and select Remove or use the delete key on your keyboard.

For the Radiologist to view the Tech workflow defined ICDs, viewing the Exam Details from the View menu will display indications defined in that workflow.

Codes added by a Radiologist can be viewed and/or edited from the View/Edit windows Documentation tab. Users will need the access string permission of **“Clinical.ViewEditCanChangeDiagIndications”** which has a default of None.

eRAD RIS Server Update

2. Defects Resolved

Redmine #	Tracker	Subject	Priority
7236	Feature	Patient Folder - Add "image request status" as a column on the worklist	Urgent
7291	Bug	DB Job: Update Mammo Recall categories job will not run	High
7238	Bug	Mgmt report deployment - issues when date format not same as US (found in SA)	High
7195	Bug	System config setting RadMustProvideIcdCode doesn't force rad to enter ICD code	High
7184	Bug	Error when trying to schedule new appointment on a patient with an existing procedure in ordered status	High
7065	Bug	ICD button is overlaid by the stat button in minimized dictation mode	High
7018	Bug	Chair and PowerScribe XML files writing to file system when exam not fully opened	High
6910	Bug	Ris hangs when editing a macro and pasting in new text	High
6037	Feature	MU2 - CCDA Encounter section does not include Encounter Diagnosis	High
3888	Feature	ICD 10 - Support	High
7287	Bug	MU Automated Measures Raw Data report needs Pass column added	Normal
7265	Bug	CCDA - Height, weight, Blood Pressure Diastolic and Blood Presssue Systolic values are taken from the 1st study	Normal
7264	Bug	MU Lab Clean up screen	Normal
7261	Bug	Neat ADF Scanner --> duplex scan support	Normal
7245	Bug	Clinical.Attachments should be default of Full	Normal
7237	Bug	Assign to Radiologist popup does not show the rad's for an outside reads c_order.filler_practice_code	Normal
7231	Bug	MU Related Lab Results window title - has the word Parent in the title	Normal
7229	Bug	there is a chance that there can be overlapping conflicting date ranges in availablity temaplttes	Normal
7222	Bug	Change location of Technologist Activity by Modality report	Normal
7219	Bug	Mgmt Report - Biopsy Results Pending Letter	Normal
7211	Bug	MU Lab Screen Clean date format	Normal
7207	Bug	MU - clinical.diagnosecodes doesn't control adding indictation codes on mu window	Normal

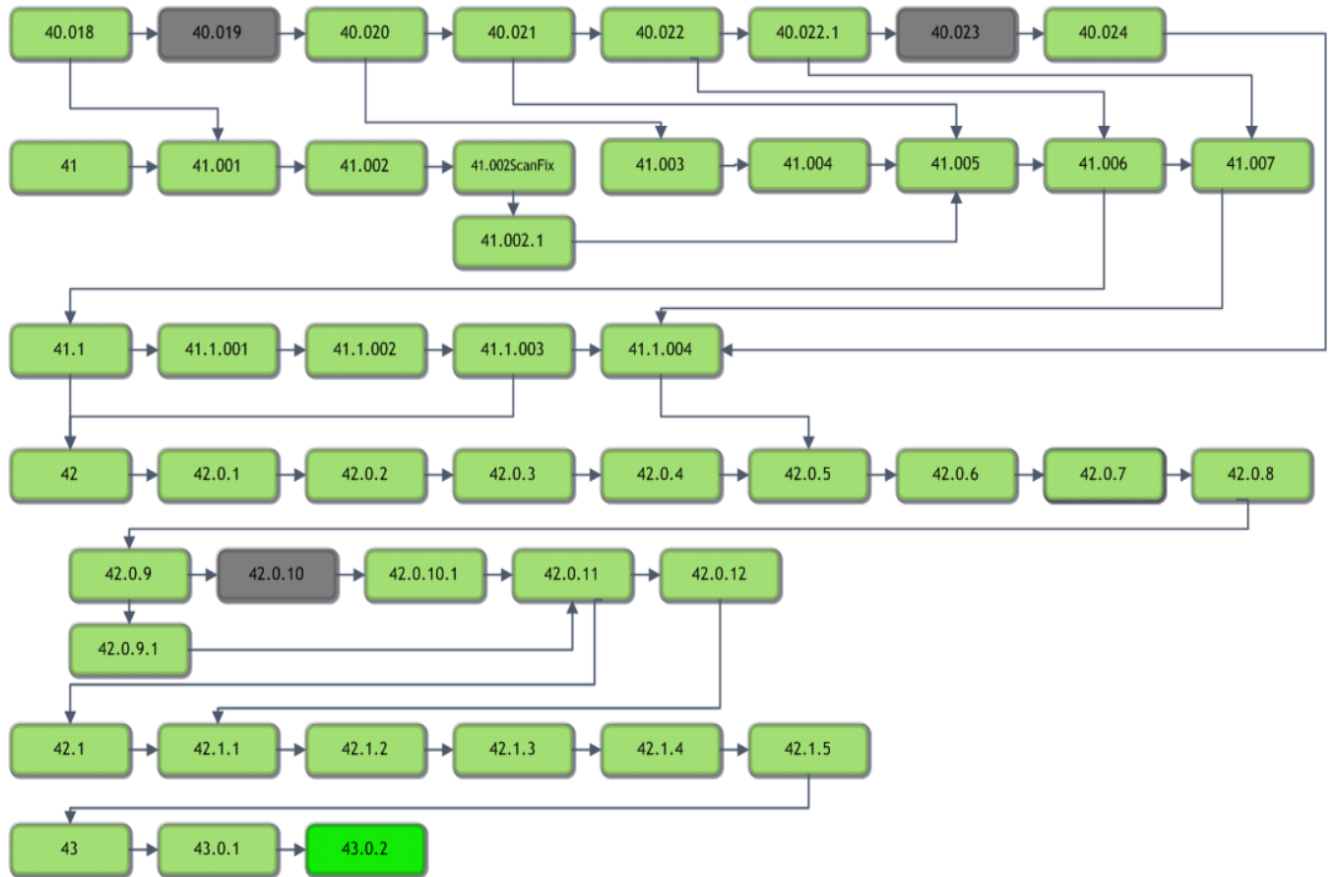
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7205	Bug	Invalid Zip code is retained and not the valid County selection.	Normal
7203	Management Report	Mgmt Report - Radiologist Signings by VR System	Normal
7182	Bug	Menu item Messaging doesn't have an access string	Normal
7166	Bug	Report deployment - MQSA folder really should be called Mammography	Normal
7164	Bug	Cannot delete indication codes from the Indication lookup table via GUI	Normal
7146	Bug	Assign ICD Code button - Using it when saving an order causes error.	Normal
7145	Bug	MU data is deleted if Patient Search is utilized after data is filled in.	Normal
7137	Bug	Management Report - Audit Log	Normal
7022	Bug	Closing .Net connections can cause delays	Normal
7016	Bug	Exception thrown when deleting a row in MU allergy section and adding a row in MU problem section	Normal
6990	Bug	the validation for Modality Restriction and Closures are not checking to ensure that the start date occurs before the end date	Normal
7050	Bug	CCDA - BMI value is different that the BMI value in MU tab	Low

3. Changes to Configuration

Setting Placeholder	Setting	Default	Purpose / Controls Access to
Access strings and User Group Permissions	Clinical.DiagnosisCodes Has been removed	N/A	This was originally added in an early build of 43 to control access to enter ICD codes in the MU's Extra Info Screen. The ability to add ICD codes in the Extra Info Screen was removed before release of 43. The user can add ICD Codes in the Medical History Grid. For access to add ICD codes into this grid, users must have access to MU.MUEnabledControls which controls access to the grids and radio buttons on the MU tab.
Access strings and User Group Permissions	Clinical.Attachments The default has changed from None to Full	Full	Controls access to the stand alone Attachments screen accessible in a work list via Right Click / Attachments
Access strings and User Group Permissions	Clinical.ViewEditCanChangeDiagIndications	None	In View/Edit, the indications defined by the radiologist can be edited
SystemConfig	Icd10EffectiveDate		(value = DateTime mm-dd-yyyy) The date on which ICD10 is effective. ICD9 will be used prior to this date.
SystemConfig	RadMustProvideIcdCode	False	A value of True will force radiologist to provide diagnosis ICD code prior to signing. Possible values are False and True
SystemConfig	RadCanProvideIcdCode	False	Enables the ability for the radiologist to provide diagnosis ICD code in the reporting screen. Possible values are False and True

4. Code Stream
eRAD RIS - Source Code Evolution



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

5. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:

- rRIS_1.3.43.0.2.24017.zip

2) RIS_Service_Updates contains:

- ABCpdf.dll
- ABCpdf9-32.dll
- ABCpdf9-64.dll
- Antlr3.Runtime.dll
- CDSJobManager.dll
- CDSJobManager.pdb
- CdsLib.dll
- CdsLib.xml
- CdsLib.XmlSerializers.dll
- CommonLib.dll
- CommonLib.pdb
- contents4301.txt
- DDEngine.dll
- DDEngine.pdb
- DiffPlex.dll
- Interop.ANYMODALCAPTURECTRLLib.dll
- Interop.FAXCOMEXLib.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.dll
- Microsoft.Practices.EnterpriseLibrary.Caching.pdb
- Microsoft.Practices.EnterpriseLibrary.Common.dll
- Microsoft.Practices.EnterpriseLibrary.Common.pdb
- Microsoft.Practices.EnterpriseLibrary.Logging.dll
- Microsoft.Practices.EnterpriseLibrary.Logging.pdb
- Microsoft.Practices.ServiceLocation.dll
- Microsoft.Practices.ServiceLocation.pdb
- Microsoft.Practices.Unity.dll
- Microsoft.Practices.Unity.Interception.dll
- Microsoft.Practices.Unity.Interception.pdb
- Microsoft.Practices.Unity.pdb
- Microsoft.ReportViewer.Common.dll
- Microsoft.ReportViewer.WinForms.dll
- Microsoft.ReportViewer.WinForms.xml
- Newtonsoft.Json.dll
- Newtonsoft.Json.xml
- NLog.dll
- O2S.Components.PDFRender4NET.dll
- PDFToImages.exe
- Radar.Common.dll
- Radar.Common.pdb
- Radar.Common.WebClient.dll
- Radar.Common.WebClient.pdb
- Radar.DirectMessaging.Client.dll
- Radar.DirectMessaging.Client.pdb
- Radar.DirectMessaging.Model.dll
- Radar.DirectMessaging.Model.pdb
- rRISServices.exe
- rRISServices.pdb
- rRISServicesx64.exe
- ScheduledTaskManager.dll
- ScheduledTaskManager.pdb
- ServicesConfigWizard.exe
- ServicesConfigWizard.pdb
- SignatureApprovalService.exe
- SignatureApprovalService.pdb
- System.Net.Http.dll
- System.Net.Http.Formatting.dll
- System.Net.Http.xml
- System.Web.Http.dll
- System.Web.Http.SelfHost.dll
- System.Web.Http.SelfHost.xml
- System.Web.Http.WebHost.dll
- System.Web.Http.WebHost.xml
- System.Web.Http.xml
- System.Web.Mvc.dll
- System.Web.Mvc.xml
- System.Web.Optimization.dll
- System.Web.Razor.dll
- System.Web.Razor.xml
- System.Web.WebPages.Deployment.dll
- System.Web.WebPages.Deployment.xml
- System.Web.WebPages.dll
- System.Web.WebPages.Razor.dll
- System.Web.WebPages.Razor.xml
- System.Web.WebPages.xml
- Tourreau.Gilles.FaxDotNet.dll
- Tourreau.Gilles.FaxDotNet.pdb
- Tourreau.Gilles.FaxDotNet.xml
- WCFService.dll
- WCFService.pdb
- WCFServiceTests.dll
- WCFServiceTests.pdb
- WebApi.dll

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- WebApi.pdb
- WebGrease.dll
- Wedge.exe
- Wedge.pdb

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains

- a. Applicationsettings.config
- b. ReleaseVersion-connectionstrings.config
- c. rRISServices.exe.config
- d. services.config

B. XSL subfolder contains:

Subfolder titled “Stylesheets” which contains:

- a. CDAToHTMLCompleteReport.xslt
- b. CDAToHTMLCompleteReportDark.xslt
- c. CDAToHTMLImpressionSection.xslt
- d. CDAToRIS.xslt
- e. CDAToTxt.xslt
- f. DocumentModelReport.xslt
- g. DocumentModelReportAsXml.xslt

- h. CDA Subfolder contains
 - a. C-CDA.xsl
 - b. eRadStylesheet.xsl
 - c. generalTemplates.xsl
 - d. header.xsl
 - e. QRDA.xsl
 - f. QrdaLevel3_Cypress2.4.0.xsl
 - g. QrdaLevel3_ViewHtml.xsl
 - h. sectionAdministeredMedications.xsl
 - i. sectionAllergies.xsl
 - j. sectionEncounters.xsl
 - k. sectionFindings.xsl
 - l. sectionFuncCogStatus.xsl
 - m. sectionHospitalDischarge.xsl
 - n. sectionImmunizations.xsl
 - o. sectionInstructions.xsl
 - p. sectionMedications.xsl
 - q. sectionPlanOfCare.xsl
 - r. sectionProblemList.xsl
 - s. sectionProcedures.xsl
 - t. sectionQRDAMEasures.xsl
 - u. sectionQRDAPatientData.xsl
 - v. sectionQRDAREporting.xsl
 - w. sectionReasonForVisit.xsl
 - x. sectionResults.xsl
 - y. sectionSocialHistory.xsl
 - z. sectionVitalSigns.xsl

3) SQL Folder contains:

- B43.0.2.sql

4) **SSRSDeployment** folder contains 7 subfolders, a batch file for deploying the reports and a help file for deploying the reports.

4.1. **Backups** folder is empty

4.2. **Fonts** folder contains 4 files:

- 4.1.1. FRE3OF9X

eRAD RIS Server Update

4.1.2FRE3OF9x_0

4.1.3FREE3OF9

4.1.4FREE3OF9_0

4.3. **ParentFolder** folder contains 7 subfolders

4.3.1. **Chair** folder contains 1 .rdl file

4.3.2. **Dashboards** folder contains 9 .rdl files

4.3.3. **Forms folder** contains sub folder and 2 .rdl files

4.3.3.1. **SubReports** contains 10 .rdl files

4.3.4. **Management Reports** folder contains 7 sub folders, these subfolders contain the core management report files (.rdl) to be deployed.

4.3.5. **Marketing** folder contains 5 .rdl files

4.3.6. **Order Templates** contains 1 file (Default.rdl)

4.3.7. **Referring Portal** contains 8 .rdl files

4.3.8. **SubReports** contains 11.rdl files

4.3.9. **Verbal Order** contains 4 .rdl files

4.4. **Scripts** folder contains 9 .rss files. These files are used with the DeployReports.bat utility to deploy the reports.

4.5. **Upload Custom Mangement Reports** is empty

4.6. **Upload Diagnostic Templates** folder contains 1 subfolder

4.6.1. **SubReports** folder is empty

4.7. **Upload Forms** folder contains 1 subfolder.

4.7.1. **SubReports** folder is empty

4.8. **eRADDeployReports.bat** - batch file for deploying reports to report server for eRAD customers

4.9. **RadnetDeployReports.bat** - batch file for deploying reports to report sever for RadNet

4.10. **Adding reports for Deployment.docx** document to assist in added a report to the install process when deploying the reports.

eRAD RIS Server Update

6. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

7. Who is affected

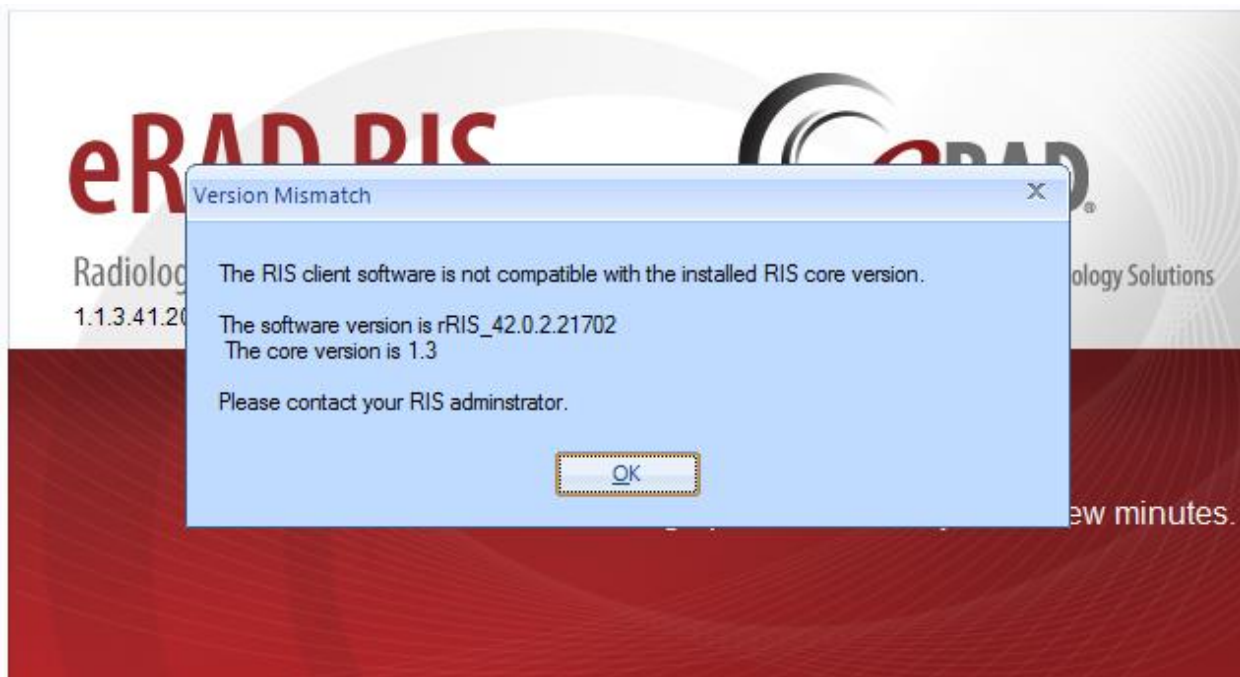
Build 43 installs. Server updates are not cumulative. This server update must be applied to 43

8. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
41.1	-	1.3.41.20918(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip, Core install, Web Service and DB updates, Help files
41.1	1	1.3.41.20987(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip
41.1	2	1.3.41.21162(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip, Web Service and DB updates,
41.1	3	1.3.41.21264(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
42	1	2.42.0.1.21597	2.42.0.0.21261	2.42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates
42	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates
42	3	2.42.0.2.21806	2.42.0.0.21261	2.42.0.2.21806	2.42.0.0.21187	GUI and Web Service updates
42	4	2.42.0.2.21862	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI and Database updates
42	5	2.42.0.5.21924	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI
42	6	2.42.0.5.22009	2.42.0.0.21261	2.42.0.5.22009	2.42.0.4.21870	GUI and Web Service updates
42	7	2.42.0.7.22090	2.42.0.0.21261	2.42.0.6.22009	2.42.0.4.21870	GUI.zip updates
42	8	2.42.0.7.22090	2.42.0.7.22150	2.42.0.6.22009	2.42.0.4.21870	Web Service updates
42	9	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI and Web Service updates
42	9.1	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	Web Service updates
42	10	2.42.0.10.22232	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip
42	10.1	2.42.0.10.22420	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip updates
42	11	2.42.0.11.22495a	2.42.0.0.21261	2.42.0.11.22471	2.42.0.11.22527	GUI.zip, Web Service, Database updates. Management Report Deployment
42	12	2.42.0.12.22982	2.42.0.0.21261	2.42.0.12.22982	2.42.0.12.22911	GUI.zip, Web Service, Database updates.
42.1	-	2.42.1.0.22744(3GB)	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.2296(3GB)	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates
42.1	2	2.42.1.2.23007(3GB)	2.42.0.0.21261	2.42.1.2.23007	2.42.1.2.23007	GUI.zip, Web Service, DB updates
42.1	3	2.42.1.2.23237(3GB)	2.42.0.0.21261	2.42.1.2.23237	2.42.1.2.23007	GUI.zip, Web Services
42.1	4	2.42.1.4.23348(3GB)	2.42.0.0.21261	2.42.1.4.23348	2.42.1.2.23007	GUI.zip, Web Services
42.1	5	2.42.1.5.23406(3GB)	2.42.0.0.21261	2.42.1.5.23406	2.42.1.2.23007	GUI.zip, Web Services
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

9. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.43.0.2.24017.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0.2.24017 → rRIS_1.3.43.0.2. 24017

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

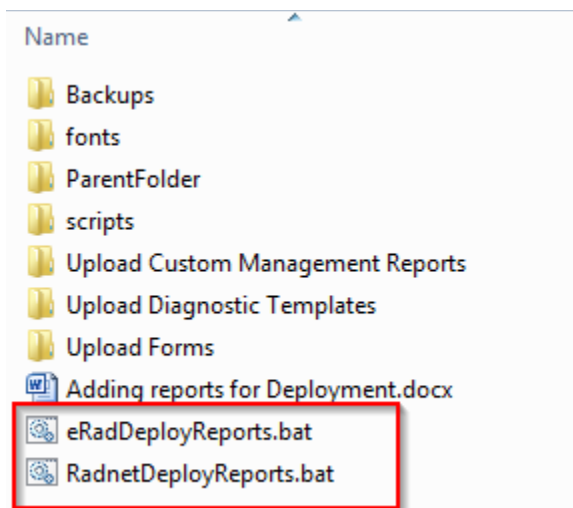
- 2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

- 3) Run the B43.0.2.sql file against the eRAD RIS database instance.
- 4) Management Reports Deployment / SSRSDeployment - There are 2 utilities called **RadnetDeployReports.bat** and **eRadDeployReports.bat** that will deploy the reports to a SQL Server Report Service. This utility is found in the **Build X\SSRSDeployment** folder. Below are the steps on how to use this utility. The purpose for the 2 .bat files are the RadNet one deploys a few extra reports specific to RadNet.



1. Launch the DeployReports.bat file.
2. **Enter report server name [default:<computer_name>]:**
 - a. A script will run against the server and return a list of all the root folders on that report server
**By Default this will pull the computer_name environmental variable from the machine running the script. I suggest running this from the report server for performance anyway.
3. **Enter root folder to deploy reports [default: production]:**

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- a. This will create a new root if the name you give doesn't exist, or it will simply publish below the root of the folder if it does already exist. We typically will use "production" for the installation folder. Note: The script forces the root name to be lowercase.
**Default is suggested to be production, but you may need to change it based on the environment you are deploying to. Ie: testserver might be called something else.
4. **Do you wish to create a backup of the existing reports?:**
 - a. This will create a file backup of the report directory specified in the same directory deploy.bat is being run from inside a folder called Backups where it will create a folder based on datetime of backup. Ie: 04172014_110605 (MMDDYYYY_HHMISS).
5. **Do you wish to deploy core management reports?**
 - a. If you enter "y", it will redeploy the core management reports
6. **Do you wish to upload Forms?**
 - a. If you enter "y", the script will deploy any .rdl files into the installations Forms folder that you have previously saved into the script folder called "Upload Forms" including the folder below it called SubReports.
7. **Do you wish to upload Diagnostic Templates?**
 - a. If you enter "y", the script will deploy any .rdl files into the installations Diagnostic Templates folder that you have previously saved into the script folder called "Upload Diagnostic Templates" including the folder below it called SubReports.
8. **Do you wish to upload Custom Management Reports?**
 - a. Entering "Y" will copy any .rdl files you've copied under the deployment folder called Upload Custom Management Reports onto the server under Management Reports\Custom\Uploads directory
9. **Do you wish to create a datasource?**
 - a. If you select "y" you will get prompted for more information about the datasource you wish to create. You only need to create a datasource, if this is a new installation. No need to do this if you are upgrading an existing installation. The datasource gets created in the root of the folder from step 3. The datasource will be called RISDataSource.

If you chose to create a datasource, the following steps will be requested to complete the connection string.

1. **Enter database server name:**
 - a. This is the name of the physical database server
ex. MYSERVER-1
 2. **Enter database name:**
 - a. This is the name of the database on the database server
ex. rRIS_Site
-

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3. **Enter report schema user name:** ex. The account that the datasource will use to connect to the database ie: SA. (For security reasons “sa” is not recommended)
4. **Enter report schema password:**

The results of deployment will be written to log.txt in the same folder as the DeployReports.bat file.

Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.3

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eRAD RIS Server Update

1. New Features

Insurance Eligibility

A summary of the Eligibility coverage is displayed when the mouse pointer is placed over the Eligibility icon. We also plan to show these details along with the calculated amount to collect in the scheduling information window.

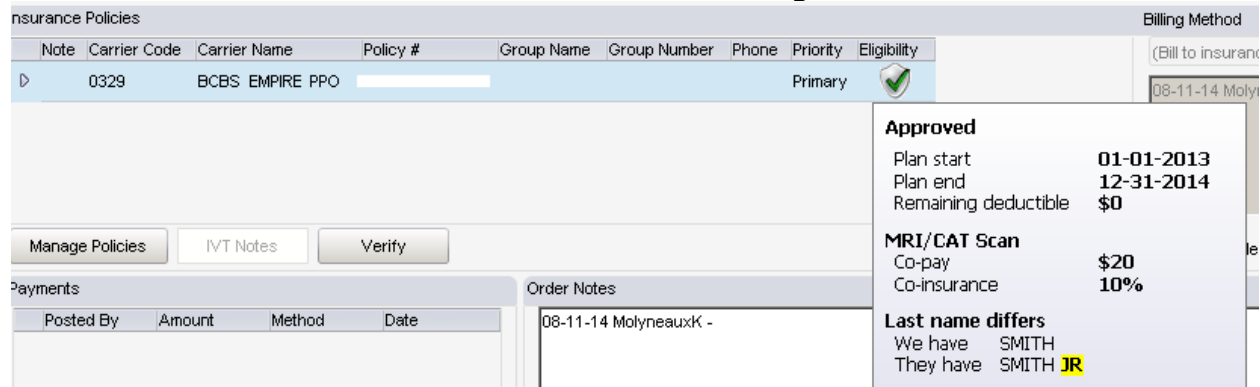


Figure 1.1 – Displaying eligibility summary

UI will auto initiate insurance check when all the required data has been entered. Starts after closing the manage policies grid or on “Verify” button.

The insurance check is automatically performed when scheduling or walking in a patient (the first time we get insurance information). Then a second check is automatically performed the first time we open the patients record on the date of service.

Before sending a request to Eligible, we query our previous requests for the current day. If we have an active coverage response from today, which used the same query parameters, we skip the call to Eligible and return the previous response saving us time and eliminating the issue where the user double clicks or missuses the “Verify” button. When we do this, a new root_eligibility_request_key is generated and passed to the eligibility check on the day of service.

The following information is required to start an eligibility request:

- Patient First Name
- Patient Last Name
- Patient DOB

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- Carrier (payer) name
- Subscriber name
- Subscriber ID

We re-validate when the service type (CT vs MRI) or time of exam change. Not all re-validations will require a second Eligible API query.

If patient insurance details change, another request will be made and the previous request will be terminated.

Although we will trigger this check automatically users have an option to manually request a new insurance check via a "Verify" button (previously "Reverify")

The eligibility check is asynchronous. When the check is in progress the icons for eligibility should display an image indicating that a request is in-progress.

When the results become available, the eligibility icons should update immediately.

If the RIS Screen is closed before the results were finalized or if there is an error in retrieving eligibility then the RIS will display an MS Outlook style notification message should be displayed (this is for when the user already closed the screen).

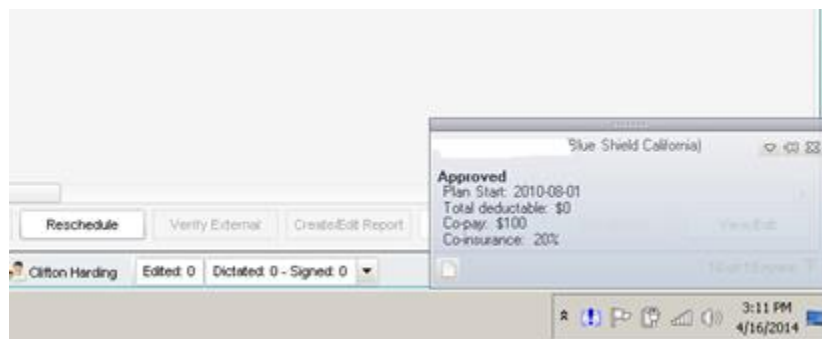








Figure 1.2 – Eligibility notification


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Icon in “Insurance Policies Grid” and WLs to display, IVT like shield icon combined with one of the status symbols.

-  → 1. Approved
-  → 2. Error
-  → 3. Warnings
-  → 4. Denied
-  → 5. in progress
-  → 6. Payer not responding

For the rare cases where the insurance response contains multiple possible co-pay or co-insurance values, then we will choose the highest value to collect.

We will use the individuals remaining deductible amount; however, if the family amount is less than the individuals we will use the family remaining deductible amount.

The complete details of the Eligibility response are available by clicking on the Eligibility Status icon and will be displayed using the Eligible API web browser scripts “coverage.js”. Clicking on  opens the following screen:

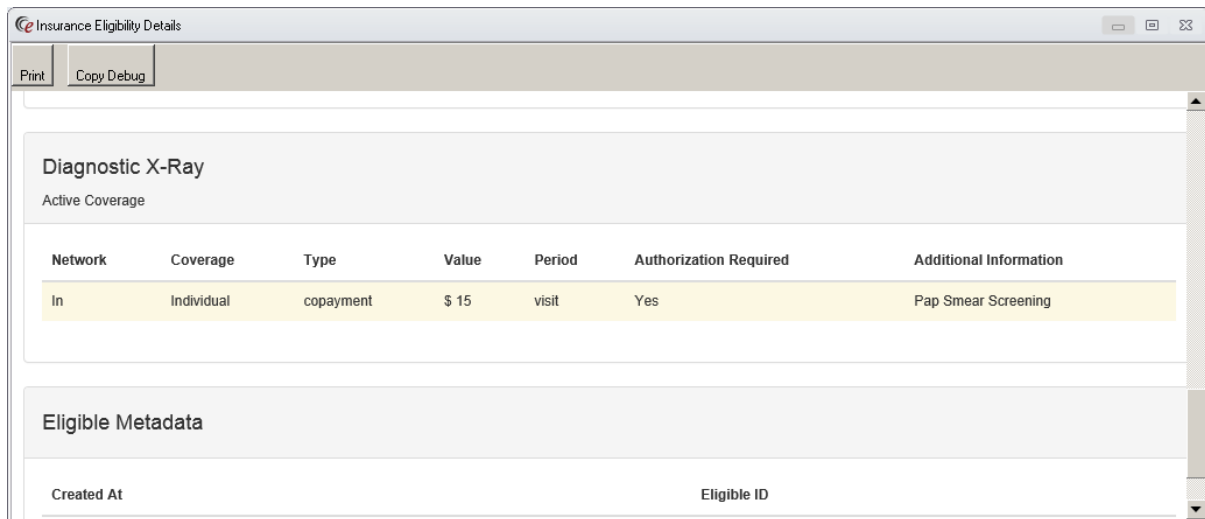


Figure 1.3 – Insurance Eligibility Details window

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The RIS will insert the values for the following fields, if they are 'blank':

- Patient address fields
- Patient middle_name

Patient name, gender and birth date are required for the query and will never be blank.

The RIS will insert or update the following RIS fields if they are different in the eligibility return so that we match the insurance company exactly

- Policy Number
- Group Name
- Group Number
- Subscriber's
 - Relation to patient
 - first_name,
 - last_name,
 - middle_name,
 - birth_date,
 - gender
 - Full address

Some fields like first name, last name and birth date might be correct in the RIS but wrong in the insurance database.

The screenshot shows a software interface with several tabs at the top: Patient, Patient Notes, Contacts / Demographics, Order, MU, Schedule, Image Request (0), Billing Codes, Review, and Co. The 'Patient' tab is active, displaying 'General Information' for a patient. Fields include Prefix (dropdown), MRN (etest1031), First name (ANNMARIE), Sex (Female), Last name, Middle, and a checkbox for 'Deceased'. An 'Insurance Eligibility Details' window is overlaid, showing a comparison of the patient's name and address with the insurance database. The insurance database shows the name 'ANN P...' and a redacted address.


Figure 1.4 – Comparing patient details

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In the above example, the patient goes by ANNMARIE, which is what is on her drivers licenses but on her insurance card her first name is just Ann. All other fields match last name, middle name and birthdate.

To make sure this is what the patient and doctors expect, we keep the value we have in RIS but also record the insurance returned values in the following fields, which will be used when communicating with billing:

- insurance_first_name
- insurance_last_name
- insurance_birth_date *see note below

If only one of the above is wrong, we will use the above logic to keep insurance fields for the billing. If two or more of the above fields do not match, we will flag the eligibility check as Questionable. The  status will display and the encounter will be referred to IVT. A user with IVT permissions will either need to fix the name or birth date in RIS or use the Eligibility Override feature to ignore the difference.

KM: In a later build, develop some more complex rules and use algorithms such as levenshtein distance (re: <http://www.antedes.com/blog/csharp/percentage-match-between-two-strings-levenshtein-distance>).

Note: if only one of these insurance field values is different we will allow a green check ; however, we will still mention the difference in the insurance summary text (the text displayed when we hover over the eligibility icon).

***We will also store the patient's insurance gender, middle name and address info.**

If the subscriber's relationship is self, we query with the patient's demographics such as first name, last name and birth date.

If the relationship is anything other than self, we will query with the policy holders name, birth_date, plus the patient's demographics as the dependent.

When the service type we are querying comes back as "contact the following entity for coverage info". It means that there is an additional insurance policy that must be checked manually. When this happens (less than 1% of

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cases tested to date) we will display a reference to the additional insurance policies in the summary text.

If the service type contains, "payer didn't give information for the service" and the service we are querying is not XRay we will attempt again with the XRay service type. If the service type is XRay we will attempt again with CT/MRI.

Worklists will display the eligibility status icon (* when integration with Eligibility API is configured for the site/carrier). Hovering over the icon in the worklist will query the visit information and display a summary of the eligibility results. Clicking on the icon will display the entire insurance details.

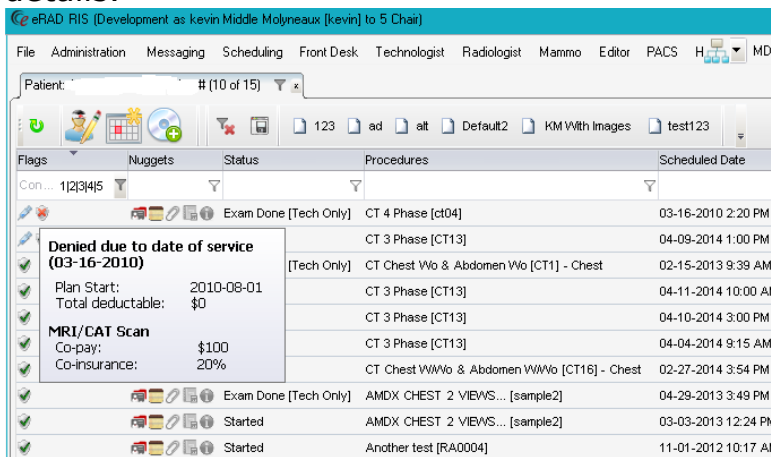


Figure 1.5 – Summary displayed from flag on patient folder

When the payer isn't responding, we use the previous result. For example, at the time of scheduling we verified their insurance, then on the day of service if the payer is not responding we allow things to continue with the previous eligibility response:

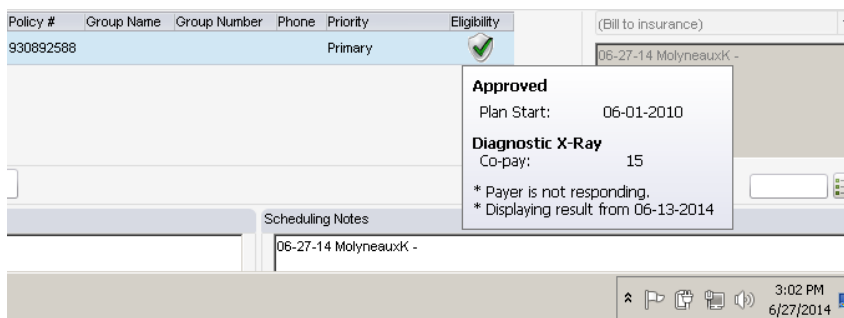


Figure 1.6 – Showing previous response

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If the payer isn't responding and we don't have a previous result, then we will display an empty shield icon for the Eligibility ICON, the study won't go to IVT and we will retry with Eligible API every 20 minutes. The `c_eligibility_response` table will keep a running count of the number of retries and each retry will be logged in the table `c_eligibility_retry`.

Integration with the National Payer Database (NPD)

We will integrate with the NPD, passing CPT codes, site information, date of service insurance type (from Eligible API response) and the payer to get the total cost of the visit.

The total cost of the visit will be calculated and stored in the amount to collect text field. The calculation is based on the Insurance Eligibility details and NPD price estimate.

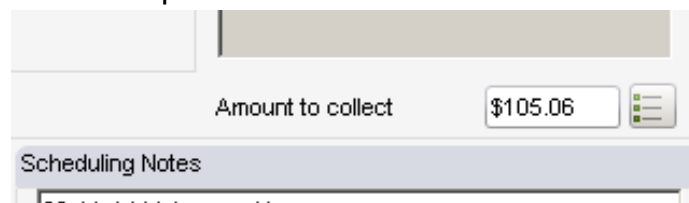


Figure 1.7 – Amount to collect field can be auto populated

When the price comes from the NPD, the amount to collect text field will be read-only. Otherwise, if we are using manual insurance verification then the amount to collect can be entered manually.

If we are processing a self-pay insurance, with the code '0100'. Then the price will come from the NPD and the total amount will be displayed in the amount to collect textbox.

If the NPD doesn't return a cost for a selected `cpt_code/site/carrier` then we will use the '0100' self-pay cost and log the fact that we couldn't find a price in the NPD. The log entry will be stored in the table `c_price_unavailable`.

To the right of the amount to collect text field, there is a "details" button. This button displays a screen, which explains how the amount to collect was calculated.

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Estimated visit cost	\$480.00		
Co-pay	\$20	Co-pay portion	20.00
Remaining Deductible	\$43.4	Deductible portion	43.40
Co-insurance	10%	Co-insurance portion	41.66
		Amount to collect	\$105.06

OK Cancel

Figure 1.8 – Amount to collect details

When we are in any of the scheduling/walking/registration or re-scheduling screens. Note this is only if we are using Auto Insurance Eligibility and NPD pricing.

Education level
Religion
Ethnicity
Race

Amount to collect: \$105.06

Print Form
Checking In

Opened: Register: #100... 5 Pending saves: 0 Clifton Harding Dictated: 0 - Signed: 0 Edited: 0

Figure 1.9 – Amount to collect can be seen on all tabs

Amount to collect:

- a. If there is a secondary insurance, NO COLLECTION WILL BE CALCULATED OR DISPLAYED
- b. NPD calculated visit cost is multiplied by the co-insurance % to derive a discrete dollar value to ONLY be displayed when the value of the remaining individual or family deductible is \$0 .
- c. NPD calculated visit cost will be subtracted from the individual remaining deductible. If this value is equal to or > 0 AND the remaining Family deductible has not been met, and the entire summed contract allowed amount is to be displayed in the RIS to be collected.

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- d. If the family deductible has been met or individual deductible amount has been met, collect \$0 for deductible. If the value is greater than 0, collect the remaining individual or family deductible amount, whichever is less. Copay, co-insurance, and remaining deductible will be summed and the value will be written into "total to be collected"

If the carrier's carrier_type_code is 'CAP', then we will not use the NPD price and instead only charge the co-pay amount.

At the end of the scheduling process there is now verbiage included in the "Patient Review" message explaining what the patient is expected to pay.

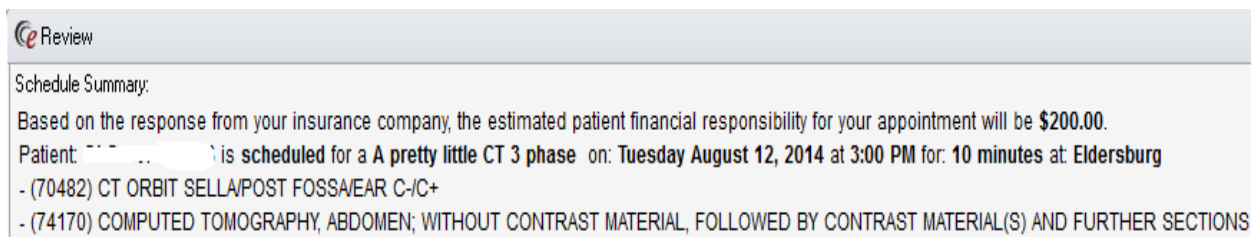


Figure 1.10 – Updated review window

IVT Workflow:

IVT workflow for pre-certs remains the same

If the payer isn't configured for automatic eligibility checking, then we revert to the manual IVT check (same as before).

If we are in the automatic insurance eligibility checking mode the control for manual intervention are not needed and therefore are not shown under the insurance policies as illustrated in the following:

eRAD RIS Server Update

Insurance Policies

Note	Carrier Code	Carrier Name	Policy #	Group Name	Group Number	Phone	Priority	Eligibility
▶	0329	BCBS EMPIRE PPO	[REDACTED]				Primary	

Manage Policies IVT Notes Verify

Figure 1.11 – With and eligible insurance

Insurance Policies

Note	Carrier Code	Carrier Name	Policy #	Group Name	Group Number	Phone	Priority	Eligibility
▶	0329	BCBS EMPIRE PPO	[REDACTED]				Primary	

Manage Policies IVT Notes Verify **Verification REQUIRED** Insurance verified

Figure 1.12 – Without an eligible insurance

If we get the green check, the study will skip the IVT worklist.

If a patient's insurance is denied, contain errors or has significant warnings, it will be listed in the IVT worklist. The following example shows a case where both the first name and last name are different that the insurer's and therefore we flag this is a possible patient mismatch.

IVT WL (2 of 14845)

Flags	Status	Procedures	Order Date	Scheduled Date	Referring
Contains: 3 2 4					
	Scheduled	CT 3 Phase [CT13]	04-10-2014 11:37 AM	04-10-2014 3:00 PM	a, a
	Scheduled	CT 3 Phase [CT13]	08-08-2014 4:03 PM	02-11-2015 10:00 AM	Abbott, Aaron 55833

Warning

Plan start 08-11-2014
 Remaining deductible \$0

MRI/CAT Scan
 Co-insurance 20%

First name differs
 We have RICARDOA
 They have RICARDO

Last name differs
 We have VALDEZA
 They have VALDEZ PASOS

Figure 1.13 – Eligible insurance that is denied, contains error or warnings will go to IVT

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The user will get the option on the IVT screen to address the eligibility issue by

- Fixing the issue
 - Correct spelling of patient's name
 - Fix typo in policy number
 - Select the right carrier
 - Change payment to self-pay
- Overriding the eligibility result (admin only)

Right click on the eligibility icon and choose "Override Result".

- Override values for (co_pay, co_insurance, deductible, status)
- Checkbox for override to identify null / not null

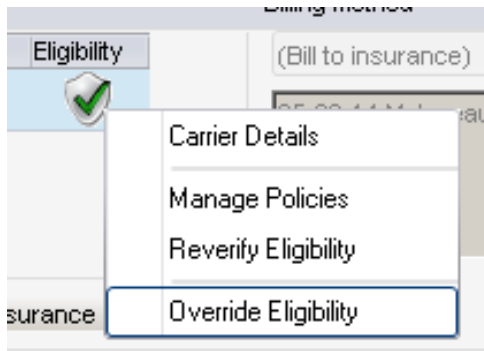


Figure 1.14 – Override

We expect this screen will only be accessible (via permissions) to IVT administrators.

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Override Eligibility

Eligibility status Warning was: Approved

Copay \$10.00 was: \$100

Coinsurance 20%

Remaining deductible \$0.00

Notes

Card owner claims that the copay is \$10 - Please verify with insurance co.

OK Cancel

Figure 1.15 – Override window

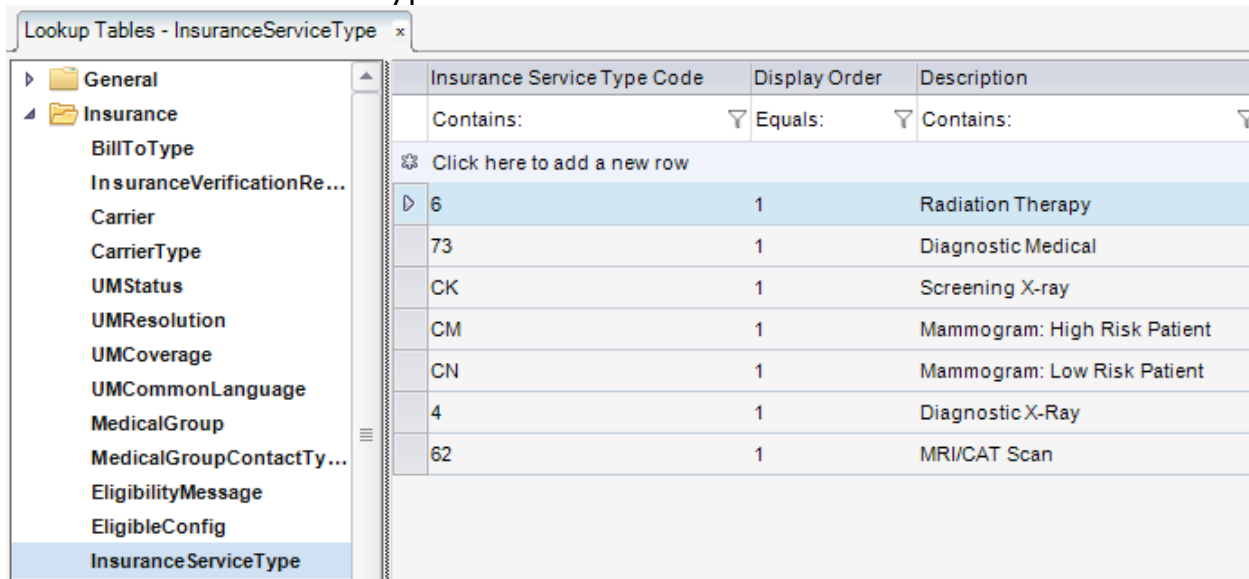
eRAD RIS Server Update

Eligibility API Configuration:

When requesting insurance eligibility we need to know the service type for the patient's visit. For example, is the patient coming in for Consultation (type '3') or a Mammogram (type 'CN') or a MRI (type '62')? For a full list of service types refer to:

<https://www.eligibleapi.com/resources/service-codes.xml>

A new lookup table called InsuranceServiceType has been created to house the Insurance Service Type Codes



Insurance Service Type Code	Display Order	Description
Contains:	Equals:	Contains:
Click here to add a new row		
6	1	Radiation Therapy
73	1	Diagnostic Medical
CK	1	Screening X-ray
CM	1	Mammogram: High Risk Patient
CN	1	Mammogram: Low Risk Patient
4	1	Diagnostic X-Ray
62	1	MRI/CAT Scan

Figure 1.16 – Insurance Service Type lookup table

Service type codes are specified in two places:

1. ModalityType lookup
2. ProcedureCode lookup

Specifying a service type code at the modality type level makes it apply for all procedures scheduled on that type of modality, while the procedure code level will override the modality type's service type code.

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Lookup Tables - ModalityType

Modality Type Code	Description	Display Order	Bloodwork Applicable Flag	Insurance Service Type Code	Last Updated
Click here to add a new row					
RT	Radiation Therapy	1	N	6 (Radiation Therapy)	04-08-2014
US	Ultrasound	1	N	4 (Diagnostic X-Ray)	04-08-2014
XR	Plain Film/Xray/CR	1	N	4 (Diagnostic X-Ray)	04-08-2014
MA	Mammography	1	N	CN (Mammogram: Low Risk P...	04-08-2014
CT	CT	1	Y	62 (MRI/CAT Scan)	04-08-2014
MR	MRI	1	N	62 (MRI/CAT Scan)	04-08-2014
PT	PET	1	N	62 (MRI/CAT Scan)	04-08-2014
INTERNAL	Used for creating blank patients for...	1	N		01-02-2014
AN	Angiography.	1	N	73 (Diagnostic Medical)	02-12-2013
EN	Endoscopy	1	N	4 (Diagnostic X-Ray)	02-12-2013
FL	Fluoroscopy	1	N	CM (Mammogram: High Ris...	02-12-2013
NM	Nuclear Medicine	1	N	CN (Mammogram: Low Risk...	02-12-2013
testb40	testb40	1	N	62 (MRI/CAT Scan)	02-12-2013
				6 (Radiation Therapy)	02-12-2013

Figure 1.17 – Modality Type – insurance service type code

eRAD RIS [Development as Kevin Middle Molyneaux [Kevin]]

File Administration Messaging Scheduling Front Desk Technologist Radiologist Mammo Editor Help

Lookup Tables - ProcedureCode

Procedure Code	Description	Insurance Service Type Code
Click here to add a new row		
CT39	CT Screen Chest Wo	CK (Screening X-ray)
70030	XR ORBITS FOR FOREIGN BODY	4 (Diagnostic X-Ray)
70100	XR Mandible 1-3 Views	4 (Diagnostic X-Ray)
70110	XR MANDIBLE 4 VIEWS	4 (Diagnostic X-Ray)
70120	XR Mastoid 1-2 View Ea Side	4 (Diagnostic X-Ray)
0000	_procedure	
0028T	DX Body Composition Study	
151198VRA	VR XR PELVIS	
20605	FL Arthrocentesis Inject Intermediate Jt	
379554757	MA. SCRIN MAMMO DIR DIGIT BILAT	
70130	XR MASTOID 3 VIEW EA SIDE	
70134	XR Internal Auditory Canals	

Figure 1.18 – Procedure Code – insurance service type code

Next we need to map carriers in RIS to payers in EligibleAPI. The entire list of eligible api payers is at:

<https://www.eligibleapi.com/resources/payers/eligibility.xml>

Some payers require enrollment, which can be completed at:

https://www.eligibleapi.com/dashboard/enrollment_npis

The mapping for RIS carrier to EligibleAPI Payer is done in the carrier lookup via the "Eligibility Payer ID" column as shown in the following:

eRAD RIS Server Update

eRAD RIS [Development as kevin Middle Molyneux [kevin]]

File Administration Messaging Scheduling Front Desk Technologist Radiologist Mammo Editor Help

Lookup Tables - Carrier * x

Carrier Code	Description	Eligibility Payer Id	Insurance Auto Check Flag	Collect Deductible Flag
Contains:	Contains:	Contains:	Contains:	Contains:
Click here to add a new row				
mm	Maryland Medicare	00431	Y	Y
am	Alabama Medicare	00431	Y	Y
BSCal	Blue Shield California	00361	Y	Y
ZAZ8	VANTAGE MEDICAL GROUP		Y	Y
VANC	VANTAGE MED GROUP CAP		Y	Y

Figure 1.19 – Carrier lookup with new columns

The Carrier table also has configuration for “Insurance Auto Check Flag”, when this value is Y we will check insurance as soon as we have enough information to perform the insurance check, otherwise, insurance checks will be disabled for this insurance carrier.

Finally, to enable Eligible API integration, we need to specify an NPI and Eligible API String for each site that will be Auto Insurance Eligibility enabled. If you specify a practice and omit the site, this setting will be used for all sites at the specified practice.

EligibleConfig * x

Practice Code	Site Code	Carrier Code	Eligible Api String	Group Npi	Provider Pin
Contains:	Contains:	Contains:	Contains:	Contains:	Contains:
Click here to add a new row					
Borg/IDE			21067474-0b3f-d4e7-190b-3f41396082ab	123123333	
Advanced Radiology	EL (Eldersburg)		21067474-0b3f-d4e7-190b-3f41396082ab	1932167178	
Advanced Radiology	FH (Fisher)	1500 - MEDICAID,	21067474-0b3f-d4e7-190b-3f41396082ab	123123333	3123213

Figure 1.20 – Eligible config lookup table

The Eligible Config lookup (shown above) also allows you to specify an optional carrier code if for you want to use a NPI for a given carrier. If you specify a provider_pin you are required to also include a carrier_code. The provider_pin is for payers such as “California Medicaid”, which require extra account verification. See the following website for more information:

[http://www.dhcs.ca.gov/provgovpart/Pages/ProviderIdentificationNumber\(PIN\).aspx](http://www.dhcs.ca.gov/provgovpart/Pages/ProviderIdentificationNumber(PIN).aspx)

Automatic insurance verification has the following access strings:

- Clinical.Insurance.Verify – controls access for re-verifying insurance
- Clinical.Insurance.Override - controls access to override Eligibility/Eligible API results

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You can also control access to who can see the worklist eligibility flags via the following access strings:

- Flag.EligibilityApproved
- Flag.EligibilityDenied
- Flag.EligibilityError
- Flag.EligibilityInProgress
- Flag.EligibilityWarnings

NPD Configuration:

There are two lookup tables to edit for NPD integration. In the Organization lookup table you will need to map the following three fields: NPD client ID, NPD site code and the NPD hospital group









The screenshot shows the 'Lookup Tables - Organization' window. On the left is a tree view with categories like General, Insurance, Mammography, MU, Procedure, Scheduling, and System. The 'Organization' category is selected. The main area is titled 'Edit Site' and shows configuration for a site named 'Advanced Radiology'. The 'Region' is set to 'Maryland'. The 'Site code' is 'LU' and is checked as 'Active'. The 'Description' is 'Lutherville'. Other fields include 'Phone #', 'Fax #', 'PACS Child Server', 'NDP client ID' (100), and 'NDP site code' (LU). There are also checkboxes for 'Mammography Tracking Enabled', 'Disable BI-RADS Controls', 'Outside Read Location', 'MU Required', and 'Insurance required'.

Figure 1.20 – Site configuration for NPD

In the Carrier lookup table you will either need the first 4 digits of the carrier code to equal the NPD's Insurance_co_number or you will need to populate the carrier table's "npd_insurance_co_number" field.

eRAD RIS Server Update

The table below shows the various Eligibility coverage status and error codes and how they are displayed to IVT.

Coverage Status / Error Code	ICON	IVT Workflow
Approved	 Approved	Skips the IVT WL for Insurance Verification
First name and last name are different between INS and RIS	 Warnings	Visit will appear in the IVT WL. Our staff will need to investigate and fix either the first or last name.
First name and birth date are different between INS and RIS	 Warnings	Visit will appear in the IVT WL. Our staff will need to investigate and fix either the first name or DOB.
Last name and birth date are different between INS and RIS	 Warnings	Visit will appear in the IVT WL. Our staff will need to investigate and fix either the last name or DOB.
Inactive	 Denied	Visit will appear in the IVT WL. We will need to use a different insurance or change payment to Self-pay.
Not Covered	 Denied	Visit will appear in the IVT WL. We will need to use a different insurance or change payment to Self-pay.
Not Covered due to DOS	 Denied	Visit will appear in the IVT WL. We will need to use a different insurance, change the DOS or change payment to Self-pay.
"42", "41", HTTP TIMEOUT Unable to Respond at Current Time Authorization/Access Restrictions	 Payer not responding	<p>The item will NOT appear in IVT while we are actively retrying. In this case we are either unable to connect to the payer or the payer isn't responding.</p> <p>We will re-try every 20 minutes until we receive a response. If the response is "Approved" it will skip the IVT worklist for Insurance Verification. If the response is "Denied", "Warning" or "Error" it will show in the IVT Worklist.</p>

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<p>“15”, “33”, “43”, “44”, “45”, “46”, “47”, “48”, “50-63”, “51”, “97”</p> <p>Required application data missing Input Errors Invalid/Missing Provider Identification Invalid/Missing Provider Name Invalid/Missing Provider Specialty Invalid/Missing Provider Phone Number Invalid/Missing Provider State Invalid/Missing Referring Provider Identification Number Provider Ineligible for Inquiries Provider Not on File Service Dates Not Within Provider Plan Enrollment Inquired Benefit Inconsistent with Provider Inappropriate Product/Service ID Qualifier Inappropriate Product/Service ID Inappropriate Date Missing Date(s) of Service Invalid or Missing Provider Address</p>	 Error	<p>Visit will appear in the IVT WL.</p> <p>These are errors that should never occur. These can be reported to help desk. Also our system administrators will be monitoring reports for these and will adjust configuration and communicate with Eligible API to have them resolved.</p> <p>An administrator can verify these manually and use the “Override Eligibility” to move them though the workflow. Or they can be ignored and they will fall off the IVT worklist when they are billed.</p>
<p>“64-79”</p> <p>Missing Patient ID Missing Patient Name Missing Patient Gender Code Patient Not Found Duplicate Patient ID Number Inconsistent with Patient’s Age Inconsistent with Patient’s Gender Patient Birth Date Does Not Match That for the Patient on the Database Subscriber Found, Patient Not Found Invalid/Missing Subscriber/Insured ID Invalid/Missing Subscriber/Insured Name Invalid/Missing Subscriber/Insured Gender Code Subscriber/Insured Not Found Duplicate Subscriber/Insured ID Number Subscriber/Insured Not in Group/Plan Identified Invalid Participant Identification</p>	 Error	<p>Visit will appear in the IVT WL.</p> <p>These are all because the patient information we entered was not found in the insurance company’s database.</p> <p>For example, in the case of “Duplicate Patient ID Number” we failed to match on the policy number and the patient name/dob matching returned more than one result.</p> <p>System administrators can use the Eligibility Message lookup table to customize the string that is displayed to the user.</p>

Table 1.1

eRAD RIS Server Update

Management Reports:

We will also develop reports for:

1. Response time performance with Eligible API by payer
2. Requests that failed by carrier and type of error
3. Average number of requests per encounter by site.
4. Insurances that didn't go through eligibility by payer

These management reports will highlight inefficiencies in system performance, the quality of our user entered data and identify populate carriers that haven't been properly configured for Eligible API integration.

The Carriers not using insurance eligibility is useful when examining payers that we should consider contacting Eligible API for a connection with the insurance company. This report shows the number of exams that have gone through our system with a carrier that has not been mapped. If the carrier has the attorney flag set to 'Y' then it will be excluded from this report.

The following reports added for B43.0.3 and are contained in a new directory called Insurance Eligibility.

Carriers Not Using Insurance Eligibility management report

Practice(s): Advanced Radiology Site(s): Eldersburg, Fisher, Lutherville
From: 8/10/2014 To: 8/22/2014
Min. Occurrence: 1

1 of 1 | 100% | Find | Next

Carriers Not Using Insurance Eligibility

Practice(s): Advanced Radiology
Site(s): Eldersburg, Fisher, Lutherville
Description: This report lists the carriers not using insurance eligibility and their usage (count) grouped by practice and site. This report also excludes carriers where the carriers' value for self pay flag or the attorney flag is set to Y.
Min. occurrence represents the minimum number of times the carrier is referenced before it will be pulled into the report.

Practice	Site	Carrier Code	Carrier Description	Count
Advanced Radiology				8
	⊗ Eldersburg			5
	⊗ Lutherville			2
		0140265	KADISH & KADISH	1
		051104	TRAVELERS	1
	⊗ Fisher			1
Grand Total				8

Carriers Not Using Insurance Eligibility Confidential and Proprietary Date Run: 8/22/2014 2:53 PM

Figure 1.21 – Carriers Not Using Insurance Eligibility management report

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Eligibility Failed Requests Management Report

Practice: Site(s):
From: To:

1 of 1 | 100% | Find | Next

Eligibility Failed Requests

Practice(s): Advanced Radiology
Site(s): Eldersburg, Fisher, Lutherville
Date Range: 7/22/2014 - 8/21/2014
Description: This report displays insurance eligibility carrier failed insurance requests.

Carrier	Failed Requests	Total
<input checked="" type="checkbox"/> AETNA		1
<input checked="" type="checkbox"/> BC CA PPO		21
	Insurance not found - birthdates do not match	14
	Invalid/Missing Subscriber/Insured ID	5
	Invalid/Missing Subscriber/Insured Name	2
<input checked="" type="checkbox"/> BCBS EMPIRE PPO		11
<input checked="" type="checkbox"/> Medicare CA Southern		13
<input checked="" type="checkbox"/> OXFORD HMO FREEDOM NETWORK		4
<input checked="" type="checkbox"/> PROSPECT HEALTH NET CAP		4
<input checked="" type="checkbox"/> PROSPECT MED GRP BLUE CROSS CAP		1
Total		55

Eligibility Failed Requests Confidential and Proprietary Date Run: 8/22/2014 2:56 PM

Figure 1.22 – Eligibility Failed Requests management report

As you can see in the screenshot above, this report contains hyperlinks. Using “Insurance not found – birthdates do not match” as an example, selecting the link will open a sub report which again contains hyper links

Insurance Eligibility Details

BC CA PPO (0342)
Practice: ADV
Site(s): EL,FH,LU
Date Range: 7/22/2014 - 8/21/2014
Failed Requests: **Insurance not found - birthdates do not match**

eRAD KEY: 510	Eligible_API_KEY: TQ5L6E478Y0C3	Completed Date: 08-20-2014
Member: klein, katheen		DOB: 02-28-1944
eRAD KEY: 511	Eligible_API_KEY: 899JW67PJ2Z1BP	Completed Date: 08-20-2014
Member: klein, katheen		DOB: 02-28-1944

Figure 1.23 – Insurance Eligibility Details sub report

Selecting the Eligible_API_KEY will open the Insurance Eligibility Details window. Select the patient’s name hyperlink will input the patient’s first and last name as well as DOB into the patient search window.

eRAD RIS Server Update

Eligibility Time to Complete (seconds) Management Report

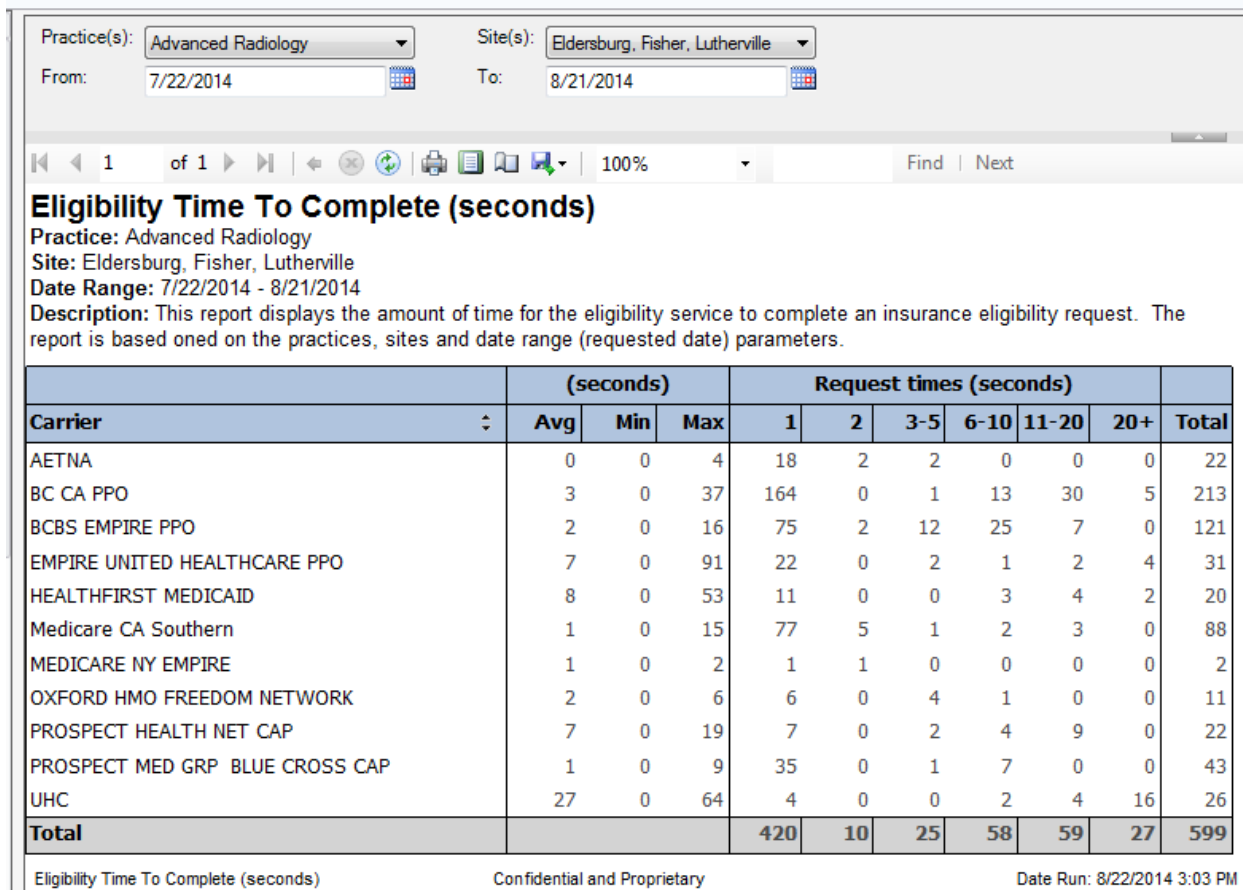


Figure 1.24 – Eligibility Time to Complete (seconds) management report

Insurance Eligibility Usage Management Report

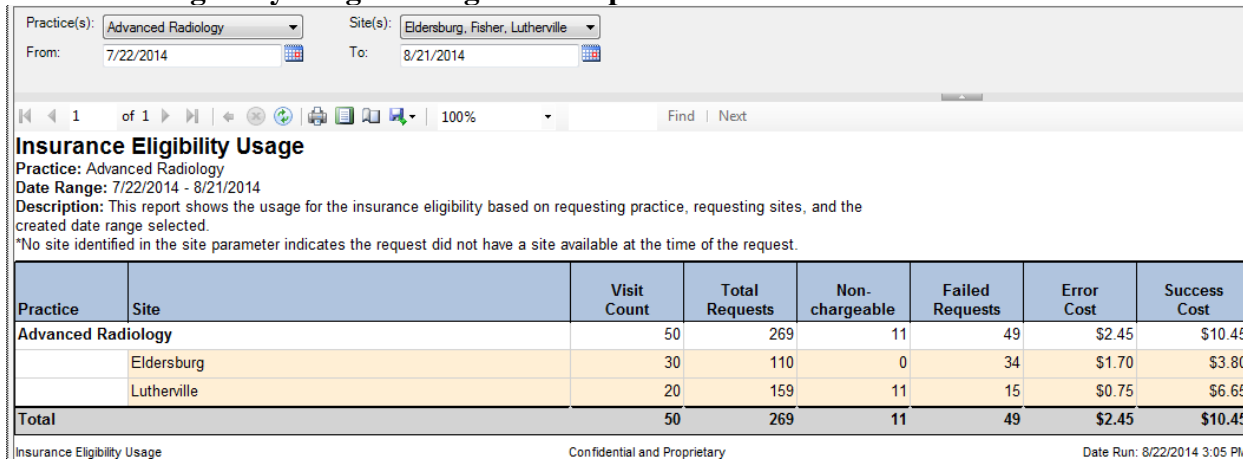


Figure 1.25 – Insurance Eligibility Usage management report

eRAD RIS Server Update

Unavailable Pricing Management Report

Practice:	Advanced Radiology	Site(s):	Eldersburg, Fisher, Lutherville
From:	8/10/2014	To:	8/22/2014

1 of 4 | 100% | Find | Next

Unavailable Pricing
 Practice: Advanced Radiology
 Site(s): Eldersburg, Fisher, Lutherville
 Date Range: 8/10/2014 - 8/22/2014
 Description: This report displays the details where the pricing is unavailable at the time insurance eligibility check is made. Based on the practice/site and date range selected (on last updated).

Site	Carrier	CPT	Self Pay Price Used
Eldersburg			37
	BC CA PPO (0342)		16
		RADIOLOGIC EXAMINATION, SACRUM AND COCCYX, MINIMUM OF 2 VIEWS (72220)	\$80.00
		CT ORBIT SELLA/POST FOSSA/EAR C-/C+ (70482)	\$560.00
		CT ORBIT SELLA/POST FOSSA/EAR C-/C+ (70482)	\$560.00
		CT ORBIT SELLA/POST FOSSA/EAR C-/C+ (70482)	\$560.00
		RADIOLOGIC EXAMINATION, ABDOMEN; ANTEROPOSTERIOR AND ADDITIONAL OBLIQUE AND CONE VIEWS (74010)	\$76.00
		RADIOLOGIC EXAMINATION, ABDOMEN; SINGLE ANTEROPOSTERIOR VIEW (74000)	\$64.00
		CT ORBIT SELLA/POST FOSSA/EAR C-/C+ (70482)	\$560.00

Figure 1.26 – Unavailable Pricing management report

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2. Defects Resolved

Redmine #	Tracker	Subject	Priority
7406	Bug	Hold codes - Studies that are changed to or from hold codes after scheduling but before completion of the exam will proceed to an incorrect final status. ie; ExamDone for Hold Codes and HoldCodeCompleted for non-hold codes	High
7305	Bug	DB view missing technologist flag	Normal
7301	Bug	Modality Closures are being applied to the wrong dates	Normal

eRAD RIS Server Update

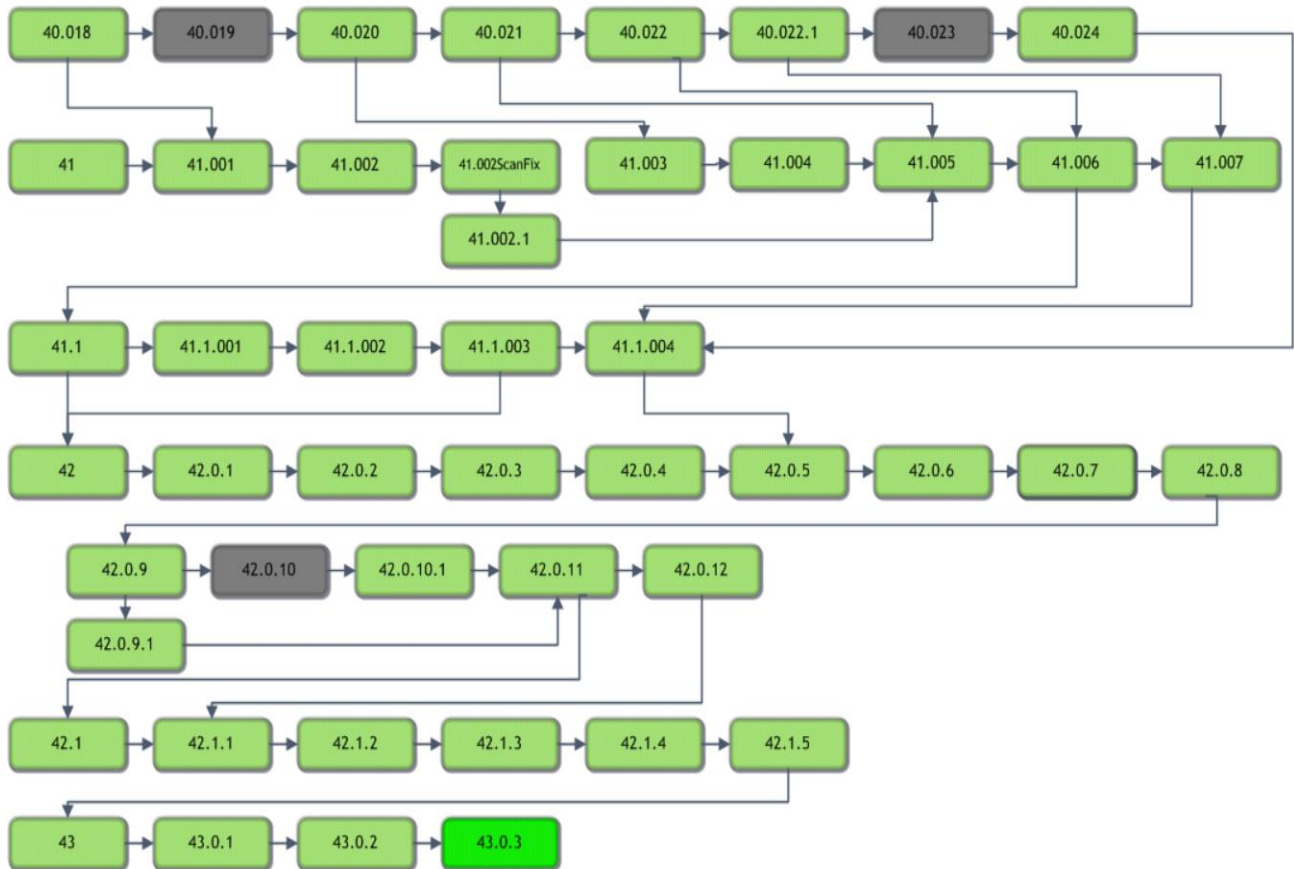
3. Changes to Configuration

Setting Placeholder	Setting	Default	Purpose / Controls Access to
Access strings and User Group Permissions	Clinical.Insurance.Override	None	controls access to override Eligibility/Eligible API results
Access strings and User Group Permissions	Clinical.Insurance.Reverify	None	Controls access to the Reverify button in the Manage Insurance groupbox
Access strings and User Group Permissions	Flag.EligibilityWarnings	Full	Controls access to the flag displayed on the work list's flag column for Eligibility Warning
Access strings and User Group Permissions	Flag.EligibilityApproved	Full	Controls access to the flag displayed on the work list's flag column for Eligibility Approved
Access strings and User Group Permissions	Flag.EligibilityDenied	Full	Controls access to the flag displayed on the work list's flag column for Eligibility Denied
Access strings and User Group Permissions	Flag.EligibilityError	Full	Controls access to the flag displayed on the work list's flag column for Eligibility Error
Access strings and User Group Permissions	Flag.EligibilityInProgress	Full	Controls access to the flag displayed on the work list's flag column for Eligibility In Progress
Access strings and User Group Permissions	Config.LookupEditor.InsuranceServiceType	None	Controls access to the lookup table InsuranceServiceType
Access strings and User Group Permissions	Config.LookupEditor.EligibleConfig	None	Controls access to the lookup table EligibleConfig
SystemConfig	InsuranceEligibleAPIString		Verification account for billing.
SystemConfig	InsuranceReVerifyInterval	10	Determines how often, in days, we will re-verify patients insurance before the study is performed. Note: we will also re-verify on the day of

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			service
SystemConfig	InsuranceVerificationGroupNPI		NPI for server initiated insurance eligibility requests
ApplicationSetting.config	StartInsuranceEligibilityService	False	Turns insurance eligibility checks on and off.
Ris.exe.config	<p>Before:</p> <pre><system.serviceModel> <bindings> <basicHttpBinding></pre> <p>After:</p> <pre><system.serviceModel> <bindings> <basicHttpBinding> <binding name="clsNPDSserviceSoap" /></pre>		
Ris.exe.config	<p>Before:</p> <pre><client> <endpoint address="net.tcp://192.168.16.100:8091/rRIS/Domain/" binding="netTcpBinding" bindingConfiguration="NetTcpBinding_IStudyServiceDomain" contract="ServiceReference.IStudyService" name="NetTcpBinding_IStudyServiceDomain"/></pre> <p>After:</p> <pre><client></pre> <pre><endpoint address="http://10.10.1.186/NPDSservice/NPDSservice.asmx" binding="basicHttpBinding" bindingConfiguration="clsNPDSserviceSoap" contract="NPDSservice.clsNPDSserviceSoap" name="clsNPDSserviceSoap" /></pre> <pre><endpoint address="net.tcp://192.168.16.100:9091/rRIS/Domain/" binding="netTcpBinding" bindingConfiguration="NetTcpBinding_IStudyServiceDomain" contract="ServiceReference.IStudyService" name="NetTcpBinding_IStudyServiceDomain"/></pre>		

4. Code Stream
eRAD RIS - Source Code Evolution



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

5. Package Contents

Files included for this server update:

- 1) GUI ZIP Updates folder contains:
 - rRIS_1.3.43.0.3.24298.zip

- 2) RIS_Service_Updates contains:
 - ABCpdf.dll
 - ABCpdf9-32.dll
 - ABCpdf9-64.dll
 - Antlr3.Runtime.dll
 - CDSJobManager.dll
 - CDSJobManager.pdb
 - CdsLib.dll
 - CdsLib.xml
 - CdsLib.XmlSerializers.dll
 - CommonLib.dll
 - CommonLib.pdb
 - contents.txt
 - DDEngine.dll
 - DDEngine.pdb
 - DiffPlex.dll
 - Interop.ANYMODALCAPTURECTRLLib.dll
 - Interop.FAXCOMEXLib.dll
 - Microsoft.Practices.EnterpriseLibrary.Caching.dll
 - Microsoft.Practices.EnterpriseLibrary.Caching.pdb
 - Microsoft.Practices.EnterpriseLibrary.Common.dll
 - Microsoft.Practices.EnterpriseLibrary.Common.pdb
 - Microsoft.Practices.EnterpriseLibrary.Logging.dll
 - Microsoft.Practices.EnterpriseLibrary.Logging.pdb
 - Microsoft.Practices.ServiceLocation.dll
 - Microsoft.Practices.ServiceLocation.pdb
 - Microsoft.Practices.Unity.dll
 - Microsoft.Practices.Unity.Interception.dll
 - Microsoft.Practices.Unity.Interception.pdb
 - Microsoft.Practices.Unity.pdb
 - Microsoft.ReportViewer.Common.dll
 - Microsoft.ReportViewer.WinForms.dll
 - Microsoft.ReportViewer.WinForms.xml
 - Newtonsoft.Json.dll
 - Newtonsoft.Json.xml
 - NLog.dll
 - O2S.Components.PDFRender4NET.dll
 - PDFToImages.exe
 - Radar.Common.dll
 - Radar.Common.pdb
 - Radar.Common.WebClient.dll
 - Radar.Common.WebClient.pdb
 - Radar.DirectMessaging.Client.dll
 - Radar.DirectMessaging.Client.pdb
 - Radar.DirectMessaging.Model.dll
 - Radar.DirectMessaging.Model.pdb
 - rRISServices.exe
 - rRISServices.pdb
 - rRISServicesx64.exe
 - ScheduledTaskManager.dll
 - ScheduledTaskManager.pdb
 - ServicesConfigWizard.exe
 - ServicesConfigWizard.pdb
 - SignatureApprovalService.exe
 - SignatureApprovalService.pdb
 - System.Net.Http.dll
 - System.Net.Http.Formatting.dll
 - System.Net.Http.xml
 - System.Web.Http.dll
 - System.Web.Http.SelfHost.dll
 - System.Web.Http.SelfHost.xml
 - System.Web.Http.WebHost.dll
 - System.Web.Http.WebHost.xml
 - System.Web.Http.xml
 - System.Web.Mvc.dll
 - System.Web.Mvc.xml
 - System.Web.Optimization.dll
 - System.Web.Razor.dll
 - System.Web.Razor.xml
 - System.Web.WebPages.Deployment.dll
 - System.Web.WebPages.Deployment.xml
 - System.Web.WebPages.dll
 - System.Web.WebPages.Razor.dll
 - System.Web.WebPages.Razor.xml
 - System.Web.WebPages.xml
 - Tourreau.Gilles.FaxDotNet.dll
 - Tourreau.Gilles.FaxDotNet.pdb
 - Tourreau.Gilles.FaxDotNet.xml
 - WCFService.dll
 - WCFService.pdb
 - WCFServiceTests.dll
 - WCFServiceTests.pdb
 - WebApi.dll
 - WebApi.pdb
 - WebGrease.dll
 - Wedge.exe
 - Wedge.pdb

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The rRIS_Service_Updates also contains to subfolders:

- A. Deploy folder contains
 - a. Applicationsettings.config
 - b. ReleaseVersion-connectionstrings.config
 - c. rRISServices.exe.config
 - d. services.config

- B. XSL subfolder contains:
 - a. Subfolder titled “Stylesheets” which contains:
 - a. CDAToHTMLCompleteReport.xslt
 - b. CDAToHTMLCompleteReportDark.xslt
 - c. CDAToHTMLImpressionSection.xslt
 - d. CDAToRIS.xslt
 - e. CDAToTxt.xslt
 - f. DocumentModelReport.xslt
 - g. DocumentModelReportAsXml.xslt

 - b. CDA Subfolder contains
 - a. C-CDA.xsl
 - b. eRadStylesheet.xsl
 - c. generalTemplates.xsl
 - d. header.xsl
 - e. QRDA.xsl
 - f. QrdaLevel3_Cypress2.4.0.xsl
 - g. QrdaLevel3_ViewHtml.xsl
 - h. sectionAdministeredMedications.xsl
 - i. sectionAllergies.xsl
 - j. sectionEncounters.xsl
 - k. sectionFindings.xsl
 - l. sectionFuncCogStatus.xsl
 - m. sectionHospitalDischarge.xsl
 - n. sectionImmunizations.xsl
 - o. sectionInstructions.xsl
 - p. sectionMedications.xsl
 - q. sectionPlanOfCare.xsl
 - r. sectionProblemList.xsl
 - s. sectionProcedures.xsl
 - t. sectionQRDAMEasures.xsl
 - u. sectionQRDAPatientData.xsl
 - v. sectionQRDAREporting.xsl
 - w. sectionReasonForVisit.xsl
 - x. sectionResults.xsl
 - y. sectionSocialHistory.xsl
 - z. sectionVitalSigns.xsl

3) SQL Folder contains:

- B43.0.3.sql

4) **SSRSDeployment** folder contains 7 subfolders, a batch file for deploying the reports and a help file for deploying the reports.

4.1. **Backups** folder is empty

4.2. **Fonts** folder contains 4 files:

- 4.1.1. FRE3OF9X
- 4.1.2 FRE3OF9x_0
- 4.1.3 FREE3OF9
- 4.1.4 FREE3OF9_0

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- 4.3. **ParentFolder** folder contains 7 subfolders
 - 4.3.1. **Chair** folder contains 1 .rdl file
 - 4.3.2. **Dashboards** folder contains 9 .rdl files
 - 4.3.3. **Forms folder** contains sub folder and 2 .rdl files
 - 4.3.3.1. **SubReports** contains 10 .rdl files
 - 4.3.4. **Management Reports** folder contains 9 sub folders, these subfolders contain the core management report files (.rdl) to be deployed.
 - 4.3.5. **Marketing** folder contains 5 .rdl files
 - 4.3.6. **Order Templates** contains 1 file (Default.rdl)
 - 4.3.7. **SubReports** contains 12.rdl files
 - 4.3.8. **Verbal Order** contains 4 .rdl files
- 4.4. **Scripts** folder contains 9 .rss files. These files are used with the DeployReports.bat utility to deploy the reports.
- 4.5. **Upload Custom Mangement Reports** is empty
- 4.6. **Upload Diagnostic Templates** folder contains 1 subfolder
 - 4.6.1. **SubReports** folder is empty
- 4.7. **Upload Forms** folder contains 1 subfolder.
 - 4.7.1. **SubReports** folder is empty
- 4.8. **eRADDeployReports.bat** - batch file for deploying reports to report server for eRAD customers
- 4.9. **RadnetDeployReports.bat** - batch file for deploying reports to report sever for RadNet
- 4.10. **Adding reports for Deployment.docx** document to assist in added a report to the install process when deploying the reports.

eRAD RIS Server Update

6. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

7. Who is affected

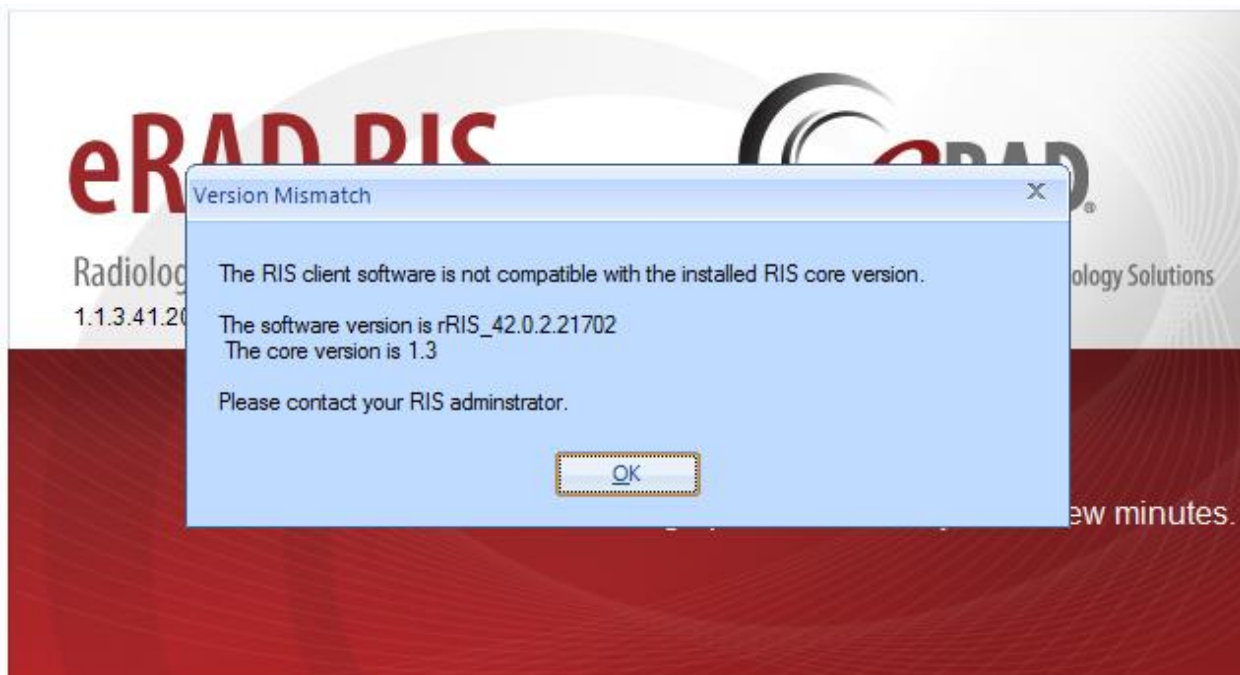
Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.2

8. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
41.1	-	1.3.41.20918(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip, Core install, Web Service and DB updates, Help files
41.1	1	1.3.41.20987(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip
41.1	2	1.3.41.21162(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip, Web Service and DB updates,
41.1	3	1.3.41.21264(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
42	1	2.42.0.1.21597	2.42.0.0.21261	2.42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates
42	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates
42	3	2.42.0.2.21806	2.42.0.0.21261	2.42.0.2.21806	2.42.0.0.21187	GUI and Web Service updates
42	4	2.42.0.2.21862	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI and Database updates
42	5	2.42.0.5.21924	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI
42	6	2.42.0.5.22009	2.42.0.0.21261	2.42.0.5.22009	2.42.0.4.21870	GUI and Web Service updates
42	7	2.42.0.7.22090	2.42.0.0.21261	2.42.0.6.22009	2.42.0.4.21870	GUI.zip updates
42	8	2.42.0.7.22090	2.42.0.7.22150	2.42.0.6.22009	2.42.0.4.21870	Web Service updates
42	9	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI and Web Service updates
42	9.1	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	Web Service updates
42	10	2.42.0.10.22232	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip
42	10.1	2.42.0.10.22420	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip updates
42	11	2.42.0.11.22495a	2.42.0.0.21261	2.42.0.11.22471	2.42.0.11.22527	GUI.zip, Web Service, Database updates. Management Report Deployment
42	12	2.42.0.12.22982	2.42.0.0.21261	2.42.0.12.22982	2.42.0.12.22911	GUI.zip, Web Service, Database updates.
42.1	-	2.42.1.0.22744(3GB)	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.2296(3GB)	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates
42.1	2	2.42.1.2.23007(3GB)	2.42.0.0.21261	2.42.1.2.23007	2.42.1.2.23007	GUI.zip, Web Service, DB updates
42.1	3	2.42.1.2.23237(3GB)	2.42.0.0.21261	2.42.1.2.23237	2.42.1.2.23007	GUI.zip, Web Services
42.1	4	2.42.1.4.23348(3GB)	2.42.0.0.21261	2.42.1.4.23348	2.42.1.2.23007	GUI.zip, Web Services
42.1	5	2.42.1.5.23406(3GB)	2.42.0.0.21261	2.42.1.5.23406	2.42.1.2.23007	GUI.zip, Web Services
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

9. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.43.0.3.24298.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0..3.24298 → rRIS_1.3.43.0.3. 24298

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

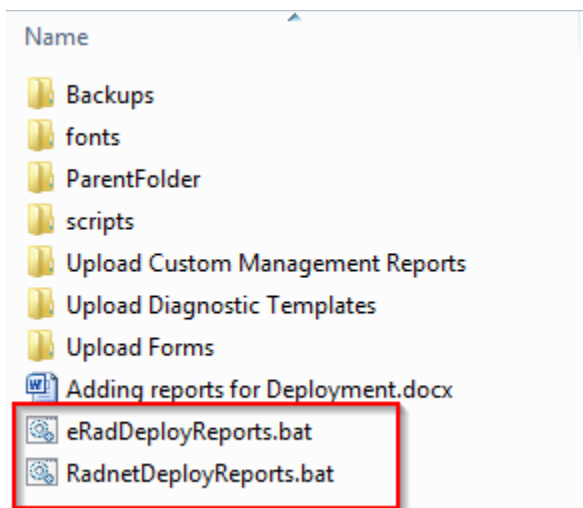
- 2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

- 3) Run the B43.0.3.sql file against the eRAD RIS database instance.
- 4) Management Reports Deployment / SSRSDeployment - There are 2 utilities called **RadnetDeployReports.bat** and **eRadDeployReports.bat** that will deploy the reports to a SQL Server Report Service. This utility is found in the **Build X\SSRSDeployment** folder. Below are the steps on how to use this utility. The purpose for the 2 .bat files are the RadNet one deploys a few extra reports specific to RadNet.



1. Launch the DeployReports.bat file.
2. **Enter report server name [default:<computer_name>]:**
 - a. A script will run against the server and return a list of all the root folders on that report server
**By Default this will pull the computer_name environmental variable from the machine running the script. I suggest running this from the report server for performance anyway.
3. **Enter root folder to deploy reports [default: production]:**

eRAD RIS Server Update

- a. This will create a new root if the name you give doesn't exist, or it will simply publish below the root of the folder if it does already exist. We typically will use "production" for the installation folder. Note: The script forces the root name to be lowercase.
**Default is suggested to be production, but you may need to change it based on the environment you are deploying to. Ie: testserver might be called something else.
4. **Do you wish to create a backup of the existing reports?:**
 - a. This will create a file backup of the report directory specified in the same directory deploy.bat is being run from inside a folder called Backups where it will create a folder based on datetime of backup. Ie: 04172014_110605 (MMDDYYYY_HHMISS).
5. **Do you wish to deploy core management reports?**
 - a. If you enter "y", it will redeploy the core management reports
6. **Do you wish to upload Forms?**
 - a. If you enter "y", the script will deploy any .rdl files into the installations Forms folder that you have previously saved into the script folder called "Upload Forms" including the folder below it called SubReports.
7. **Do you wish to upload Diagnostic Templates?**
 - a. If you enter "y", the script will deploy any .rdl files into the installations Diagnostic Templates folder that you have previously saved into the script folder called "Upload Diagnostic Templates" including the folder below it called SubReports.
8. **Do you wish to upload Custom Management Reports?**
 - a. Entering "Y" will copy any .rdl files you've copied under the deployment folder called Upload Custom Management Reports onto the server under Management Reports\Custom\Uploads directory
9. **Do you wish to create a datasource?**
 - a. If you select "y" you will get prompted for more information about the datasource you wish to create. You only need to create a datasource, if this is a new installation. No need to do this if you are upgrading an existing installation. The datasource gets created in the root of the folder from step 3. The datasource will be called RISDataSource.

If you chose to create a datasource, the following steps will be requested to complete the connection string.

1. **Enter database server name:**
 - a. This is the name of the physical database server
ex. MYSERVER-1
 2. **Enter database name:**
 - a. This is the name of the database on the database server
ex. rRIS_Site
-

eRAD RIS Server Update

3. **Enter report schema user name:** ex. The account that the datasource will use to connect to the database ie: SA. (For security reasons “sa” is not recommended)
4. **Enter report schema password:**

The results of deployment will be written to log.txt in the same folder as the DeployReports.bat file.

Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.3.1

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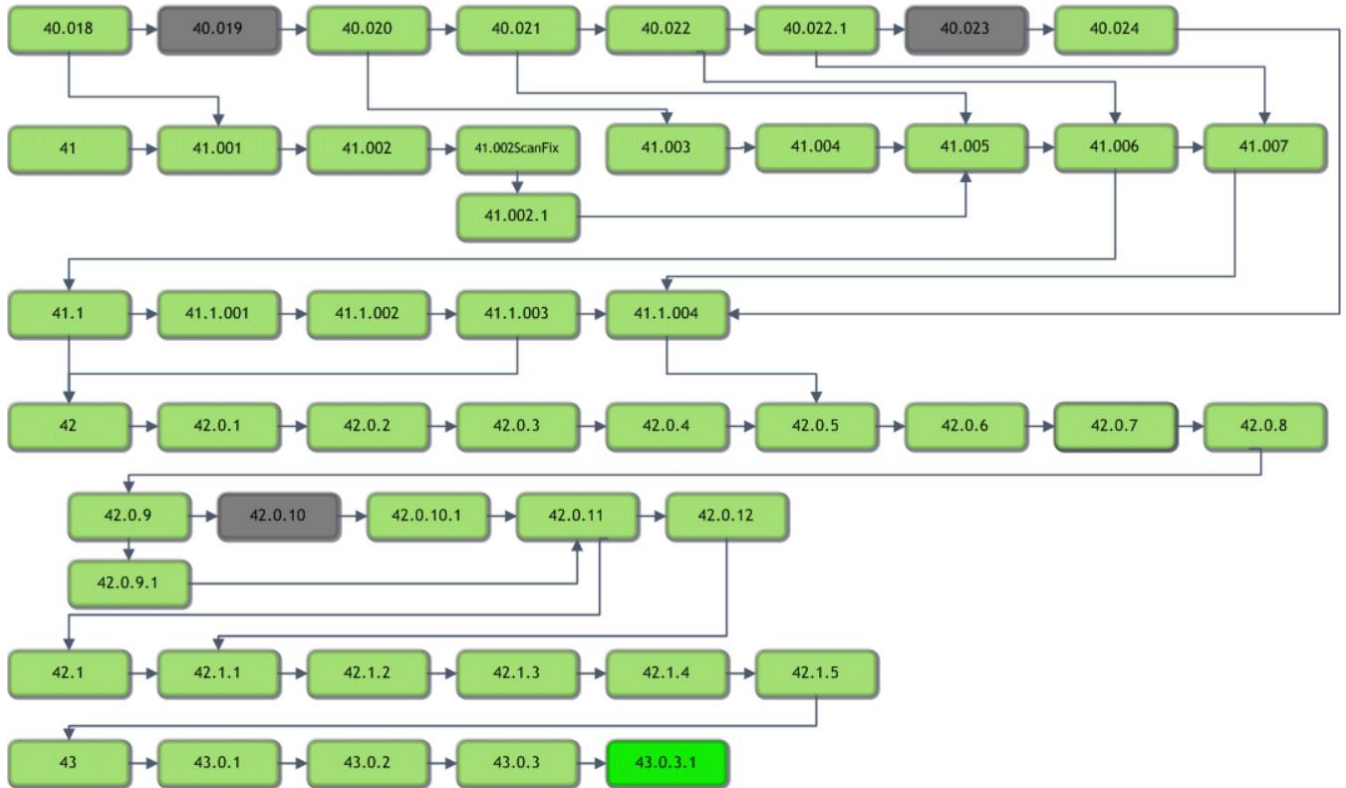
eRAD RIS Server Update

1. Defects Resolved

Redmine #	Tracker	Subject	Priority
7436	Bug	Prior Report button no longer visible on the schedule order screen for a mammo follow-up order	Urgent
7363	Bug	Precert behaviour has changed. Must save the study twice from IVT for to be removed from work list	Normal

2. Code Stream

eRAD RIS - Source Code Evolution



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

3. Package Contents

Files included for this server update:

- 1) GUI ZIP Updates folder contains:
 - rRIS_1.3.43.0.3.1.24450.zip

- 2) SQL Folder contains:
 - B43.0.3.1.sql

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.3

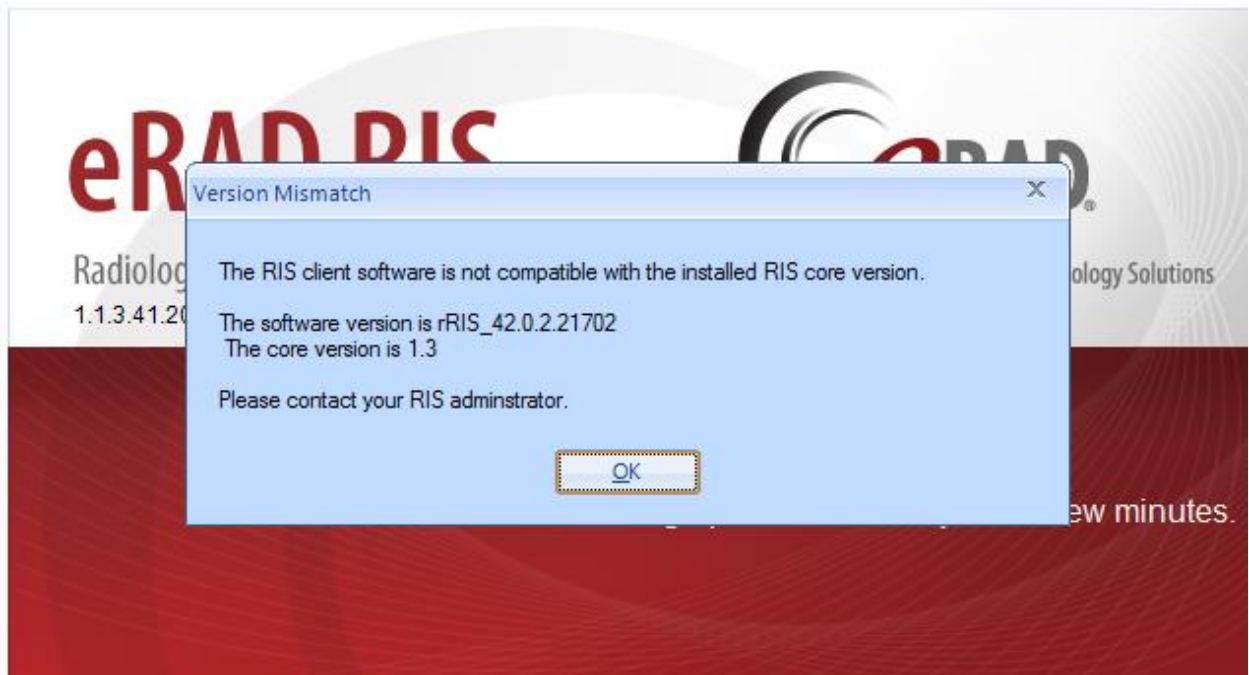
eRAD RIS Server Update

6. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
42	1	2.42.0.1.21597	2.42.0.0.21261	2.42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates
42	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates
42	3	2.42.0.2.21806	2.42.0.0.21261	2.42.0.2.21806	2.42.0.0.21187	GUI and Web Service updates
42	4	2.42.0.2.21862	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI and Database updates
42	5	2.42.0.5.21924	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI
42	6	2.42.0.5.22009	2.42.0.0.21261	2.42.0.5.22009	2.42.0.4.21870	GUI and Web Service updates
42	7	2.42.0.7.22090	2.42.0.0.21261	2.42.0.6.22009	2.42.0.4.21870	GUI.zip updates
42	8	2.42.0.7.22090	2.42.0.7.22150	2.42.0.6.22009	2.42.0.4.21870	Web Service updates
42	9	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI and Web Service updates
42	9.1	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	Web Service updates
42	10	2.42.0.10.22232	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip
42	10.1	2.42.0.10.22420	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip updates
42	11	2.42.0.11.22495a	2.42.0.0.21261	2.42.0.11.22471	2.42.0.11.22527	GUI.zip, Web Service, Database updates. Management Report Deployment
42	12	2.42.0.12.22982	2.42.0.0.21261	2.42.0.12.22982	2.42.0.12.22911	GUI.zip, Web Service, Database updates.
42.1	-	2.42.1.0.22744(3GB)	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.2296(3GB)	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates
42.1	2	2.42.1.2.23007(3GB)	2.42.0.0.21261	2.42.1.2.23007	2.42.1.2.23007	GUI.zip, Web Service, DB updates
42.1	3	2.42.1.2.23237(3GB)	2.42.0.0.21261	2.42.1.2.23237	2.42.1.2.23007	GUI.zip, Web Services
42.1	4	2.42.1.4.23348(3GB)	2.42.0.0.21261	2.42.1.4.23348	2.42.1.2.23007	GUI.zip, Web Services
42.1	5	2.42.1.5.23406(3GB)	2.42.0.0.21261	2.42.1.5.23406	2.42.1.2.23007	GUI.zip, Web Services
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

7. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.43.0.3.24450.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0..3.24450→ rRIS_1.3.43.0.3. 24450

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

- 2) Run the B43.0.3.1.sql file against the eRAD RIS database instance.

Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.3.2

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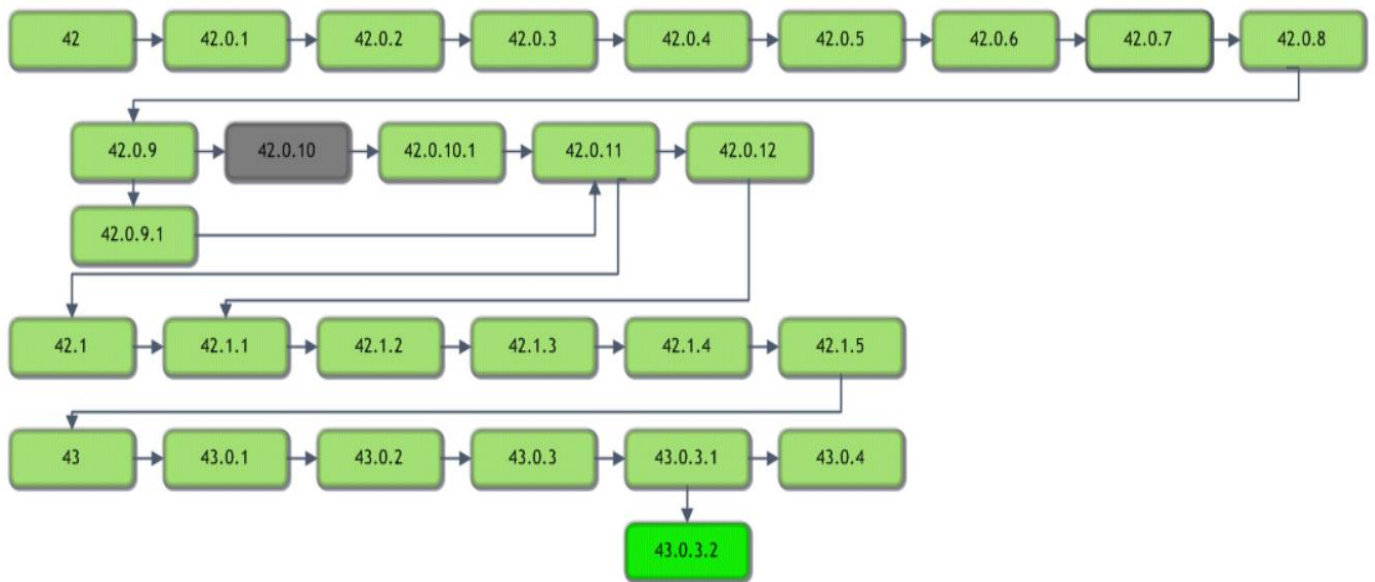
7. Installing 6

eRAD RIS Server Update

1. Defects Resolved

Redmine #	Tracker	Subject	Priority
7467	bug	Insurance Eligibility - Default value for eligibility_intervention_required_flag was incorrect. The result was studies appearing on the IVT work list with no value under the Insurance Verification Status column. Once opened in IVT window the user would see that IVT was required.	Normal

2. Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

3. Package Contents

Files included for this server update:

- 1) SQL Folder contains:
 - B43.0.3.2.sql

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.3.1

eRAD RIS Server Update

6. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
42	1	2.42.0.1.21597	2.42.0.0.21261	2.42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates
42	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates
42	3	2.42.0.2.21806	2.42.0.0.21261	2.42.0.2.21806	2.42.0.0.21187	GUI and Web Service updates
42	4	2.42.0.2.21862	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI and Database updates
42	5	2.42.0.5.21924	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI
42	6	2.42.0.5.22009	2.42.0.0.21261	2.42.0.5.22009	2.42.0.4.21870	GUI and Web Service updates
42	7	2.42.0.7.22090	2.42.0.0.21261	2.42.0.6.22009	2.42.0.4.21870	GUI.zip updates
42	8	2.42.0.7.22090	2.42.0.7.22150	2.42.0.6.22009	2.42.0.4.21870	Web Service updates
42	9	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI and Web Service updates
42	9.1	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	Web Service updates
42	10	2.42.0.10.22232	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip
42	10.1	2.42.0.10.22420	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip updates
42	11	2.42.0.11.22495a	2.42.0.0.21261	2.42.0.11.22471	2.42.0.11.22527	GUI.zip, Web Service, Database updates. Management Report Deployment
42	12	2.42.0.12.22982	2.42.0.0.21261	2.42.0.12.22982	2.42.0.12.22911	GUI.zip, Web Service, Database updates.
42.1	-	2.42.1.0.22744(3GB)	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.2296(3GB)	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates
42.1	2	2.42.1.2.23007(3GB)	2.42.0.0.21261	2.42.1.2.23007	2.42.1.2.23007	GUI.zip, Web Service, DB updates
42.1	3	2.42.1.2.23237(3GB)	2.42.0.0.21261	2.42.1.2.23237	2.42.1.2.23007	GUI.zip, Web Services
42.1	4	2.42.1.4.23348(3GB)	2.42.0.0.21261	2.42.1.4.23348	2.42.1.2.23007	GUI.zip, Web Services
42.1	5	2.42.1.5.23406(3GB)	2.42.0.0.21261	2.42.1.5.23406	2.42.1.2.23007	GUI.zip, Web Services
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

eRAD RIS Server Update

7. Installing

- 1) Run the B43.0.3.2.sql file against the eRAD RIS database instance.

Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.4

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eRAD RIS Server Update

1. Defects Resolved

Redmine #	Tracker	Subject	Priority
6912	Bug	EMR patient Merge.	Urgent
7089	Bug	HL7 merge allows the destination and source patient to be the same	Urgent
7438	Bug	Prior Report button no longer visible on the schedule order screen for a mammo follow-up order	Urgent
7008	Bug	IVT WL Counts are off when filters are added	High
7140	Bug	Message contents sent from portal are not kept	High
7208	Bug	Chair selection dialog opens with incorrect selection options and on every launch of pending dictation worklist - resulting in duplicate dialogs possible.	High
7277	Bug	Cannot access a disposed object. Object Name: RadGridView	High
7283	Bug	IVT Information entered outside of the IVT screen does not save.	High
7328	Bug	Personnel - Internal Notes field not displaying	High
6930	Bug	EMR Patient Merge (HL7 from eRAD)	Normal
6937	Bug	EMR merge issue - both alternative IDs remain active	Normal
6971	Bug	EMR merge erad patient into EMR patient	Normal
7007	Bug	EMR patient merge (remains on merge request WL)	Normal
7041	Bug	patient portal - no guarantee that the patient is presented with updated terms for a practice	Normal
7049	Bug	Error manually changing status	Normal
7063	Bug	Patient Portal - Visit summary page - there is text overwriting text	Normal
7167	Bug	Mgmt Report - Mammography Missing Data	Normal
7172	Bug	Reconcile Form - Issue with layout of Order and Scheduling Notes	Normal
7179	Bug	County/ZIP - possible wrong county selecting automatically. County drop down changing when nulling out ZIP textbox	Normal
7181	Bug	County/ZIP - county getting saved with data but dialog doesn't show one selected	Normal
7202	Bug	ICD - minimized dictation mode needs a smaller ICD icon	Normal
7223	Bug	CD Import- practice is assigned using the OrgManager instead of the selected site's practice	Normal
7246	Bug	setting up user for domain authentication - RIS still prompts for	Normal

eRAD RIS Server Update

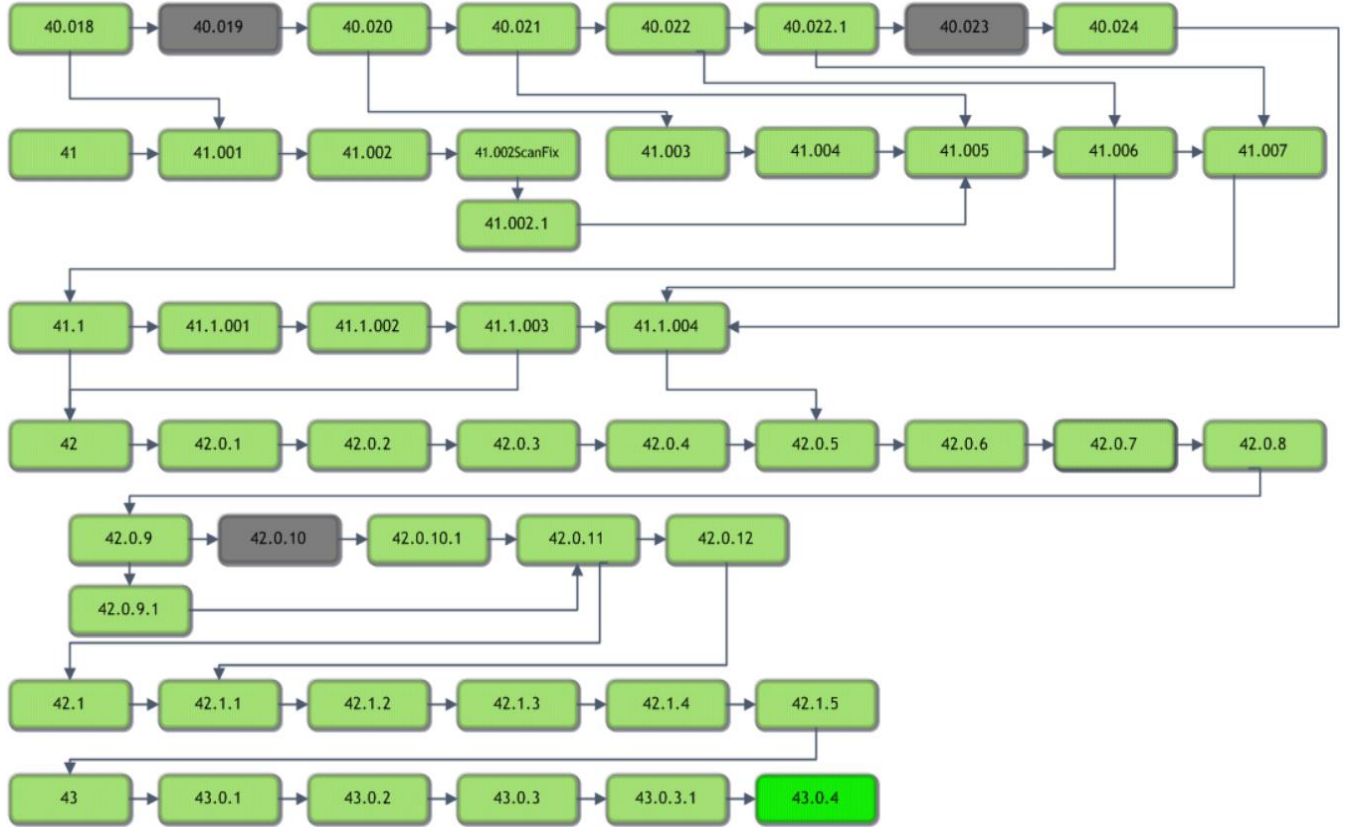
		a password	
7260	Bug	The INSERT statement conflicted with the Foreign key constraint "fk_c_scan_document_association_c_study" when rescheduling	Normal
7269	Bug	County selection with no chair - should not prompt users if they have ever selected a county on that work station	Normal
7321	Bug	ICD codes are unable to copy from the Search Grid	Normal
7397	Bug	Amount to collect is not cleared when changing site selection from site NPD enabled to site that is not	Normal
7408	Bug	Insurance Eligibility Details report hyperlink passing incorrect data to patient search	Normal
7412	Bug	Exam Search Date Range criteria does not work properly for named date ranges	Normal
7415	Bug	RISService does not scale up quickly if a lot of requests arrive simultaneously -- make min threads configurable	Normal
7437	Bug	Precert behaviour has changed. Must save the study twice from IVT for to be removed from work list	Normal
7379	Bug	Insurance Eligibility - Non URL characters entered into the policy number field causes an error	Low

2. Changes to Configuration

Setting Placeholder	Setting	Default	Purpose / Controls Access to
Applicationsettings.config file	<pre></setting> <setting name="CoreServiceMinIOThreads" serializeAs="String"> <value>-1</value> </setting></pre>	-1	The default value of -1 will keep the value as it currently is (before this patch) using the number of CPU's on the server. If there are 4 CPU's there will be 4 threads. Increasing the value will set the minimum IO threads.
Applicationsettings.config file	<pre><setting name="CoreServiceMinWorkerThreads" serializeAs="String"> <value>-1</value> </setting></pre>	-1	The default value of -1 will keep the value as it currently is (before this patch) using the number of CPU's on the server. If there are 4 CPU's there will be 4 threads. Increasing the value will set the minimum worker threads.

3. Code Stream

eRAD RIS - Source Code Evolution



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

4. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:

- rRIS_1.3.43.0.3.24447.zip

2) RIS_Service_Updates contains:

ABCpdf.dll	Radar.DirectMessaging.Model.dll
ABCpdf9-32.dll	Radar.DirectMessaging.Model.pdb
ABCpdf9-64.dll	rRISServices.exe
Antlr3.Runtime.dll	rRISServices.pdb
CDSJobManager.dll	rRISServicesx64.exe
CDSJobManager.pdb	ScheduledTaskManager.dll
CdsLib.dll	ScheduledTaskManager.pdb
CdsLib.xml	ServicesConfigWizard.exe
CdsLib.XmlSerializers.dll	ServicesConfigWizard.pdb
CommonLib.dll	SignatureApprovalService.exe
CommonLib.pdb	SignatureApprovalService.pdb
contents.txt	System.Net.Http.dll
DDEngine.dll	System.Net.Http.Formatting.dll
DDEngine.pdb	System.Net.Http.xml
DiffPlex.dll	System.Web.Http.dll
Interop.ANYMODALCAPTURECTRLLib.dll	System.Web.Http.SelfHost.dll
Interop.FAXCOMEXLib.dll	System.Web.Http.SelfHost.xml
Microsoft.Practices.EnterpriseLibrary.Caching.dll	System.Web.Http.WebHost.dll
Microsoft.Practices.EnterpriseLibrary.Caching.pdb	System.Web.Http.WebHost.xml
Microsoft.Practices.EnterpriseLibrary.Common.dll	System.Web.Http.xml
Microsoft.Practices.EnterpriseLibrary.Common.pdb	System.Web.Mvc.dll
Microsoft.Practices.EnterpriseLibrary.Logging.dll	System.Web.Mvc.xml
Microsoft.Practices.EnterpriseLibrary.Logging.pdb	System.Web.Optimization.dll
Microsoft.Practices.ServiceLocation.dll	System.Web.Razor.dll
Microsoft.Practices.ServiceLocation.pdb	System.Web.Razor.xml
Microsoft.Practices.Unity.dll	System.Web.WebPages.Deployment.dll
Microsoft.Practices.Unity.Interception.dll	System.Web.WebPages.Deployment.xml
Microsoft.Practices.Unity.Interception.pdb	System.Web.WebPages.dll
Microsoft.Practices.Unity.pdb	System.Web.WebPages.Razor.dll
Microsoft.ReportViewer.Common.dll	System.Web.WebPages.Razor.xml
Microsoft.ReportViewer.WinForms.dll	System.Web.WebPages.xml
Microsoft.ReportViewer.WinForms.xml	Tourreau.Gilles.FaxDotNet.dll
Newtonsoft.Json.dll	Tourreau.Gilles.FaxDotNet.pdb
Newtonsoft.Json.xml	Tourreau.Gilles.FaxDotNet.xml
NLog.dll	WCFSservice.dll
O2S.Components.PDFRender4NET.dll	WCFSservice.pdb
PDFToImages.exe	WCFSserviceTests.dll
Radar.Common.dll	WCFSserviceTests.pdb
Radar.Common.pdb	WebApi.dll
Radar.Common.WebClient.dll	WebApi.pdb
Radar.Common.WebClient.pdb	WebGrease.dll
Radar.DirectMessaging.Client.dll	Wedge.exe
Radar.DirectMessaging.Client.pdb	Wedge.pdb

eRAD RIS Server Update

The rRIS_Service_Updates also contains to subfolders:

- A. Deploy folder contains
 - a. Applicationsettings.config
 - b. ReleaseVersion-connectionstrings.config
 - c. rRISServices.exe.config
 - d. services.config

- B. XSL subfolder contains:
 - a. Subfolder titled “Stylesheets” which contains:
 - a. CDAToHTMLCompleteReport.xslt
 - b. CDAToHTMLCompleteReportDark.xslt
 - c. CDAToHTMLImpressionSection.xslt
 - d. CDAToRIS.xslt
 - e. CDAToTxt.xslt
 - f. DocumentModelReport.xslt
 - g. DocumentModelReportAsXml.xslt

 - b. CDA Subfolder contains
 - a. C-CDA.xsl
 - b. eRadStylesheet.xsl
 - c. generalTemplates.xsl
 - d. header.xsl
 - e. QRDA.xsl
 - f. QrdaLevel3_Cypress2.4.0.xsl
 - g. QrdaLevel3_ViewHtml.xsl
 - h. sectionAdministeredMedications.xsl
 - i. sectionAllergies.xsl
 - j. sectionEncounters.xsl
 - k. sectionFindings.xsl
 - l. sectionFuncCogStatus.xsl
 - m. sectionImmunizations.xsl
 - n. sectionInstructions.xsl
 - o. sectionMedications.xsl
 - p. sectionPlanOfCare.xsl
 - q. sectionProblemList.xsl
 - r. sectionProcedures.xsl
 - s. sectionQRDAMEasures.xsl
 - t. sectionQRDAPatientData.xsl
 - u. sectionQRDAREporting.xsl
 - v. sectionReasonForVisit.xsl
 - w. sectionResults.xsl
 - x. sectionSocialHistory.xsl
 - y. sectionVitalSigns.xsl

3) SQL Folder contains:

- B43.0.4.sql

4) **SSRSDeployment** folder contains 7 subfolders, a batch file for deploying the reports and a help file for deploying the reports.

4.1. **Backups** folder is empty

4.2. **Fonts** folder contains 4 files:

- 4.1.1. FRE3OF9X
- 4.1.2. FRE3OF9x_0
- 4.1.3. FREE3OF9
- 4.1.4. FREE3OF9_0

eRAD RIS Server Update

- 4.3. **ParentFolder** folder contains 7 subfolders
 - 4.3.1. **Chair** folder contains 1 .rdl file
 - 4.3.2. **Dashboards** folder contains 9 .rdl files
 - 4.3.3. **Forms folder** contains sub folder and 2 .rdl files
 - 4.3.3.1. **SubReports** contains 10 .rdl files
 - 4.3.4. **Management Reports** folder contains 9 sub folders, these subfolders contain the core management report files (.rdl) to be deployed.
 - 4.3.5. **Marketing** folder contains 5 .rdl files
 - 4.3.6. **Order Templates** contains 1 file (Default.rdl)
 - 4.3.7. **SubReports** contains 12.rdl files
 - 4.3.8. **Verbal Order** contains 4 .rdl files
- 4.4. **Scripts** folder contains 9 .rss files. These files are used with the DeployReports.bat utility to deploy the reports.
- 4.5. **Upload Custom Mangement Reports** is empty
- 4.6. **Upload Diagnostic Templates** folder contains 1 subfolder
 - 4.6.1. **SubReports** folder is empty
- 4.7. **Upload Forms** folder contains 1 subfolder.
 - 4.7.1. **SubReports** folder is empty
- 4.8. **eRADDeployReports.bat** - batch file for deploying reports to report server for eRAD customers
- 4.9. **RadnetDeployReports.bat** - batch file for deploying reports to report sever for RadNet
- 4.10. **Adding reports for Deployment.docx** document to assist in added a report to the install process when deploying the reports.

eRAD RIS Server Update

5. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

6. Who is affected

Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.3.1

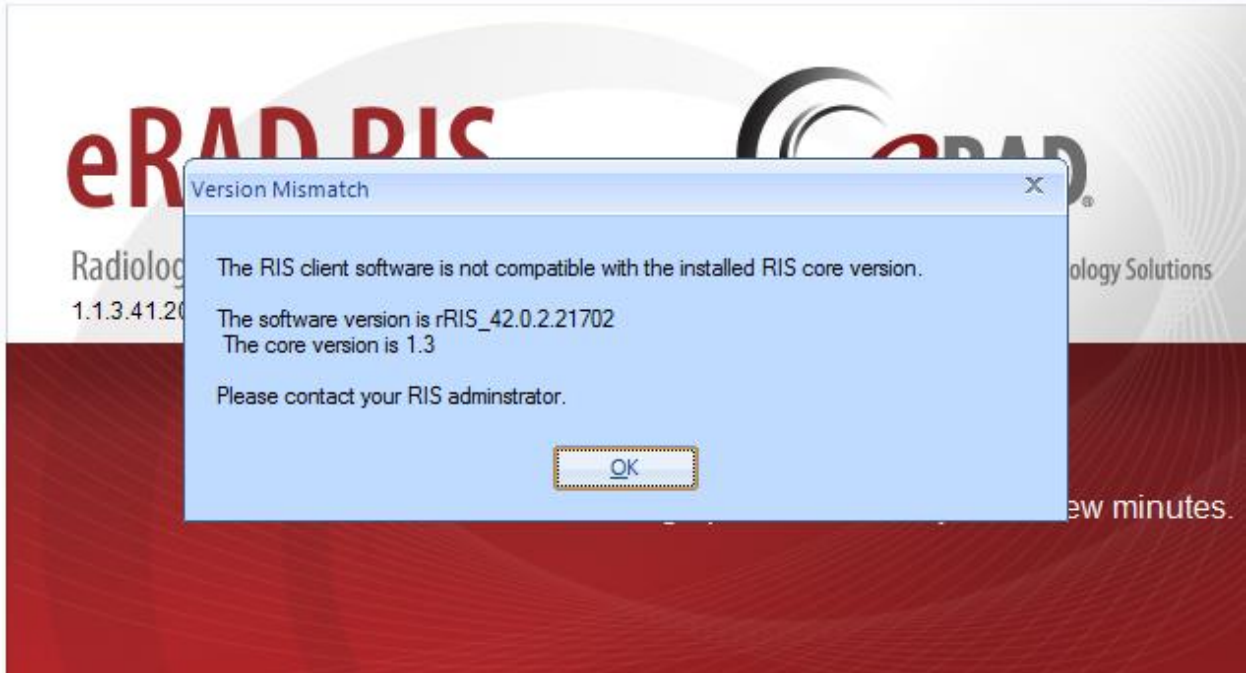
eRAD RIS Server Update

7. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
42	1	2.42.0.1.21597	2.42.0.0.21261	2.42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates
42	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates
42	3	2.42.0.2.21806	2.42.0.0.21261	2.42.0.2.21806	2.42.0.0.21187	GUI and Web Service updates
42	4	2.42.0.2.21862	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI and Database updates
42	5	2.42.0.5.21924	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI
42	6	2.42.0.5.22009	2.42.0.0.21261	2.42.0.5.22009	2.42.0.4.21870	GUI and Web Service updates
42	7	2.42.0.7.22090	2.42.0.0.21261	2.42.0.6.22009	2.42.0.4.21870	GUI.zip updates
42	8	2.42.0.7.22090	2.42.0.7.22150	2.42.0.6.22009	2.42.0.4.21870	Web Service updates
42	9	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI and Web Service updates
42	9.1	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	Web Service updates
42	10	2.42.0.10.22232	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip
42	10.1	2.42.0.10.22420	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip updates
42	11	2.42.0.11.22495a	2.42.0.0.21261	2.42.0.11.22471	2.42.0.11.22527	GUI.zip, Web Service, Database updates. Management Report Deployment
42	12	2.42.0.12.22982	2.42.0.0.21261	2.42.0.12.22982	2.42.0.12.22911	GUI.zip, Web Service, Database updates.
42.1	-	2.42.1.0.22744(3GB)	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.2296(3GB)	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates
42.1	2	2.42.1.2.23007(3GB)	2.42.0.0.21261	2.42.1.2.23007	2.42.1.2.23007	GUI.zip, Web Service, DB updates
42.1	3	2.42.1.2.23237(3GB)	2.42.0.0.21261	2.42.1.2.23237	2.42.1.2.23007	GUI.zip, Web Services
42.1	4	2.42.1.4.23348(3GB)	2.42.0.0.21261	2.42.1.4.23348	2.42.1.2.23007	GUI.zip, Web Services
42.1	5	2.42.1.5.23406(3GB)	2.42.0.0.21261	2.42.1.5.23406	2.42.1.2.23007	GUI.zip, Web Services
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	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

8. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.43.0.3.24447.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0..3.24447 → rRIS_1.3.43.0.3. 24447

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

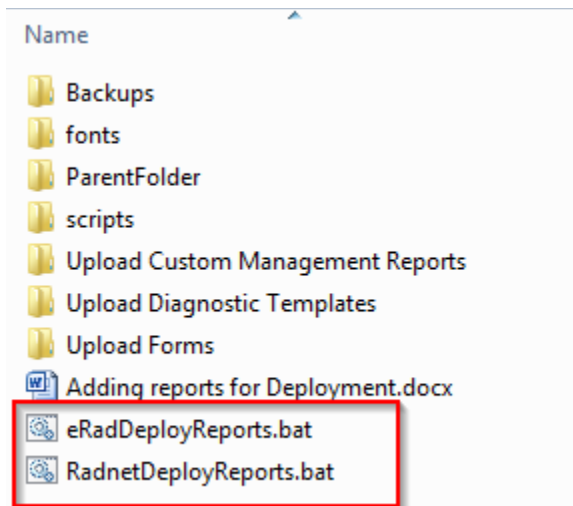
- 2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

- 3) Run the B43.0.4.sql file against the eRAD RIS database instance.
- 4) Management Reports Deployment / SSRSDeployment - There are 2 utilities called **RadnetDeployReports.bat** and **eRadDeployReports.bat** that will deploy the reports to a SQL Server Report Service. This utility is found in the **Build X\SSRSDeployment** folder. Below are the steps on how to use this utility. The purpose for the 2 .bat files are the RadNet one deploys a few extra reports specific to RadNet.



1. Launch the DeployReports.bat file.
2. **Enter report server name [default:<computer_name>]:**
 - a. A script will run against the server and return a list of all the root folders on that report server
**By Default this will pull the computer_name environmental variable from the machine running the script. I suggest running this from the report server for performance anyway.
3. **Enter root folder to deploy reports [default: production]:**

eRAD RIS Server Update

- a. This will create a new root if the name you give doesn't exist, or it will simply publish below the root of the folder if it does already exist. We typically will use "production" for the installation folder. Note: The script forces the root name to be lowercase.
**Default is suggested to be production, but you may need to change it based on the environment you are deploying to. Ie: testserver might be called something else.
4. **Do you wish to create a backup of the existing reports?:**
 - a. This will create a file backup of the report directory specified in the same directory deploy.bat is being run from inside a folder called Backups where it will create a folder based on datetime of backup. Ie: 04172014_110605 (MMDDYYYY_HHMISS).
5. **Do you wish to deploy core management reports?**
 - a. If you enter "y", it will redeploy the core management reports
6. **Do you wish to upload Forms?**
 - a. If you enter "y", the script will deploy any .rdl files into the installations Forms folder that you have previously saved into the script folder called "Upload Forms" including the folder below it called SubReports.
7. **Do you wish to upload Diagnostic Templates?**
 - a. If you enter "y", the script will deploy any .rdl files into the installations Diagnostic Templates folder that you have previously saved into the script folder called "Upload Diagnostic Templates" including the folder below it called SubReports.
8. **Do you wish to upload Custom Management Reports?**
 - a. Entering "Y" will copy any .rdl files you've copied under the deployment folder called Upload Custom Management Reports onto the server under Management Reports\Custom\Uploads directory
9. **Do you wish to create a datasource?**
 - a. If you select "y" you will get prompted for more information about the datasource you wish to create. You only need to create a datasource, if this is a new installation. No need to do this if you are upgrading an existing installation. The datasource gets created in the root of the folder from step 3. The datasource will be called RISDataSource.

If you chose to create a datasource, the following steps will be requested to complete the connection string.

1. **Enter database server name:**
 - a. This is the name of the physical database server
ex. MYSERVER-1
 2. **Enter database name:**
 - a. This is the name of the database on the database server
ex. rRIS_Site
-

eRAD RIS Server Update

3. **Enter report schema user name:** ex. The account that the datasource will use to connect to the database ie: SA. (For security reasons “sa” is not recommended)
4. **Enter report schema password:**

The results of deployment will be written to log.txt in the same folder as the DeployReports.bat file.

Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.5

Table of Contents

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eRAD RIS Server Update

1. New Features

New Alert Configuration Values

Two new alert generators have been added to the AlertConfiguration lookup table.

- InactiveReferringOrAddress – If the referring physician associated with the study has become inactive or the “visited at” address has become inactive in the system since the order was created the user will receive an alert from the Schedule Order, Registration and IVT windows.
- InacticeCCPhysicianOrAddress - If the CC physician associated with the study has become inactive or the “visited at” address has become inactive in the system since the order was created the user will receive an alert from the Schedule Order, Registration and IVT windows.

Configurable IVT option for Self-pay

A new system configuration setting of “**SelfPayAppearOnIVTWL**” with a default value of False has been added to control if a study created with Billing Method of Self-Pay has been selected on the Order tab. When set to false the study will be as before and will not appear on the IVT work list. With a value of True, the study will now appear on the IVT work list.

eRAD RIS Server Update

Document Distribution WL Context Menu

The context menu from the Distribution WL and the Distribution History by Date WL now have the option of Patient Folder.

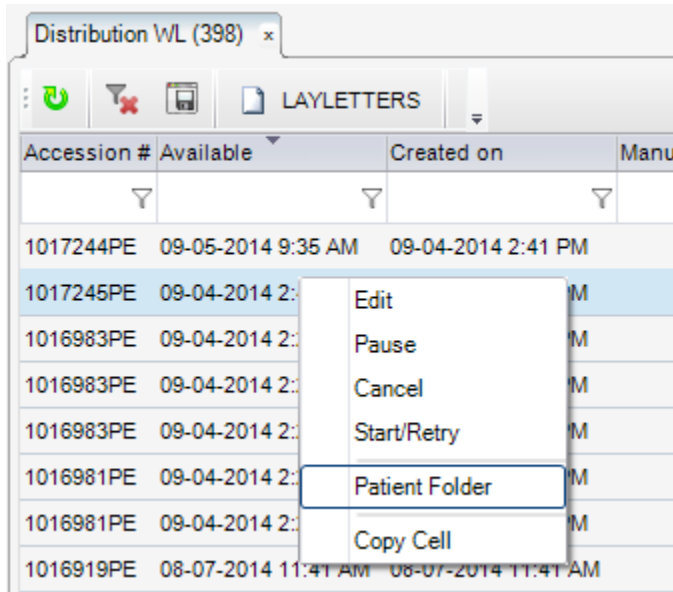


Figure 1.1 – Patient folder context menu added to Distribution WL's

eRAD RIS Server Update

2. Changes to Configuration

Setting Placeholder	Setting	Default	Purpose / Controls Access to
SystemConfig	SelfPayAppearOnIVTTL	False	Determines if Self-Pay insurance bypasses IVT rules (false) or appear on the IVT work list (true) Possible values are true and false
AccessString and UserGroup Permissions	Config.LookupEditor.EligibilityMessage	None	Controls access to the EligibilityMessage lookup table.

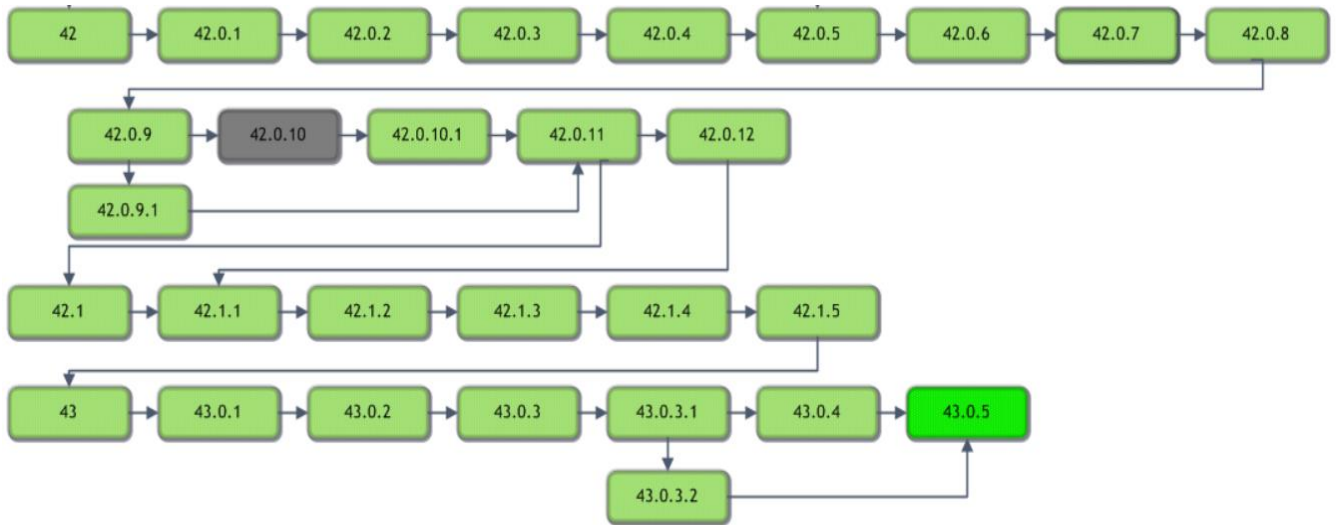
eRAD RIS Server Update

3. Defects Resolved

Redmine #	Tracker	Subject	Priority
7474	Bug	Insurance Eligibility - Default value for eligibility_intervention_required_flag was incorrect	Normal
7465	Bug	Stored procedure should return indicator that the user is inactive if the parameter IsInactive is passed to it.	Normal
7463	Bug	Insurance Eligibility - order saved with order filler site for eligibility doesn't perform eligibility check.	Normal
7462	Bug	Insurance Eligibility - Self pay amount to collect is not calculating	Normal
7434	Bug	Replacement MRNs for deleted alternate MRNs are visible in patient search results	Normal
7429	Bug	Cannot create internal ID for external patient (linked)	Urgent
7426	Bug	Document distribution jobs created with 'PRINTER NOT FOUND' message do not go to error status.	Normal
7414	Bug	automatically fail distribution jobs that are attached to inactive addresses.	Normal
7413	Bug	inactive referring addresses on active studies	Normal
7396	Bug	EligibilityMessage lookup requires access string	Normal
7388	Bug	IVT - Self pays are falling to the IVT worklist.	Normal
7383	Bug	Mgt Reports - Technologist Activity by Modality - the format of the values in the dropdown for the technologist is not the same as user dropdowns in other reports.	Normal
7377	Feature	Patient folder context menu option on Distribution worklists	Normal
7374	Bug	Indication grids on tech screen do not take multiple studies into account	High
7361	Bug	Patient Search - search a second time in new appointment window when first patient has patient portals documents	Normal
7355	Bug	Patient Search second time from Walk-in can throw error	Normal
7343	Bug	Unable to add ICD codes to a second addendum	Normal
7341	Bug	CD Burning - Introduce detection of images still uploading	High
7317	Bug	Wedge will only accept a POST message from Mirth with a size less than 2^18 bytes	High

eRAD RIS Server Update

4. Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

5. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:

- rRIS_1.3.43.0.5.24632.zip

2) RIS_Service_Updates contains:

ABCpdf.dll	Radar.DirectMessaging.Model.dll
ABCpdf9-32.dll	Radar.DirectMessaging.Model.pdb
ABCpdf9-64.dll	rRISServices.exe
Antlr3.Runtime.dll	rRISServices.pdb
CDSJobManager.dll	rRISServicesx64.exe
CDSJobManager.pdb	ScheduledTaskManager.dll
CdsLib.dll	ScheduledTaskManager.pdb
CdsLib.xml	ServicesConfigWizard.exe
CdsLib.XmlSerializers.dll	ServicesConfigWizard.pdb
CommonLib.dll	SignatureApprovalService.exe
CommonLib.pdb	SignatureApprovalService.pdb
contents.txt	System.Net.Http.dll
DDEngine.dll	System.Net.Http.Formatting.dll
DDEngine.pdb	System.Net.Http.xml
DiffPlex.dll	System.Web.Http.dll
Interop.ANYMODALCAPTURECTRLLib.dll	System.Web.Http.SelfHost.dll
Interop.FAXCOMEXLib.dll	System.Web.Http.SelfHost.xml
Microsoft.Practices.EnterpriseLibrary.Caching.dll	System.Web.Http.WebHost.dll
Microsoft.Practices.EnterpriseLibrary.Caching.pdb	System.Web.Http.WebHost.xml
Microsoft.Practices.EnterpriseLibrary.Common.dll	System.Web.Http.xml
Microsoft.Practices.EnterpriseLibrary.Common.pdb	System.Web.Mvc.dll
Microsoft.Practices.EnterpriseLibrary.Logging.dll	System.Web.Mvc.xml
Microsoft.Practices.EnterpriseLibrary.Logging.pdb	System.Web.Optimization.dll
Microsoft.Practices.ServiceLocation.dll	System.Web.Razor.dll
Microsoft.Practices.ServiceLocation.pdb	System.Web.Razor.xml
Microsoft.Practices.Unity.dll	System.Web.WebPages.Deployment.dll
Microsoft.Practices.Unity.Interception.dll	System.Web.WebPages.Deployment.xml
Microsoft.Practices.Unity.Interception.pdb	System.Web.WebPages.dll
Microsoft.Practices.Unity.pdb	System.Web.WebPages.Razor.dll
Microsoft.ReportViewer.Common.dll	System.Web.WebPages.Razor.xml
Microsoft.ReportViewer.WinForms.dll	System.Web.WebPages.xml
Microsoft.ReportViewer.WinForms.xml	Tourreau.Gilles.FaxDotNet.dll
Newtonsoft.Json.dll	Tourreau.Gilles.FaxDotNet.pdb
Newtonsoft.Json.xml	Tourreau.Gilles.FaxDotNet.xml
NLog.dll	WCFSservice.dll
O2S.Components.PDFRender4NET.dll	WCFSservice.pdb
PDFToImages.exe	WCFSserviceTests.dll
Radar.Common.dll	WCFSserviceTests.pdb
Radar.Common.pdb	WebApi.dll
Radar.Common.WebClient.dll	WebApi.pdb
Radar.Common.WebClient.pdb	WebGrease.dll
Radar.DirectMessaging.Client.dll	Wedge.exe
Radar.DirectMessaging.Client.pdb	Wedge.pdb

eRAD RIS Server Update

The rRIS_Service_Updates also contains to subfolders:

- A. Deploy folder contains
 - a. Applicationsettings.config
 - b. ReleaseVersion-connectionstrings.config
 - c. rRISServices.exe.config
 - d. services.config

 - B. XSL subfolder contains:
 - a. Subfolder titled “Stylesheets” which contains:
 - a. CDAToHTMLCompleteReport.xslt
 - b. CDAToHTMLCompleteReportDark.xslt
 - c. CDAToHTMLImpressionSection.xslt
 - d. CDAToRIS.xslt
 - e. CDAToTxt.xslt
 - f. DocumentModelReport.xslt
 - g. DocumentModelReportAsXml.xslt

 - b. CDA Subfolder contains

<ol style="list-style-type: none">a. C-CDA.xslb. eRadStylesheet.xslc. generalTemplates.xsld. header.xsle. QRDA.xslf. QrdaLevel3_Cypress2.4.0.xslg. QrdaLevel3_ViewHtml.xslh. sectionAdministeredMedications.xsli. sectionAllergies.xslj. sectionEncounters.xslk. sectionFindings.xsll. sectionFuncCogStatus.xslm. sectionImmunizations.xsl	<ol style="list-style-type: none">n. sectionInstructions.xslo. sectionMedications.xslp. sectionPlanOfCare.xslq. sectionProblemList.xslr. sectionProcedures.xsls. sectionQRDAMEasures.xslt. sectionQRDAPatientData.xslu. sectionQRDAREporting.xslv. sectionReasonForVisit.xslw. sectionResults.xslx. sectionSocialHistory.xsly. sectionVitalSigns.xsl
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-
- 3) SQL Folder contains:
 - B43.0.5.sql

eRAD RIS Server Update

6. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

7. Who is affected

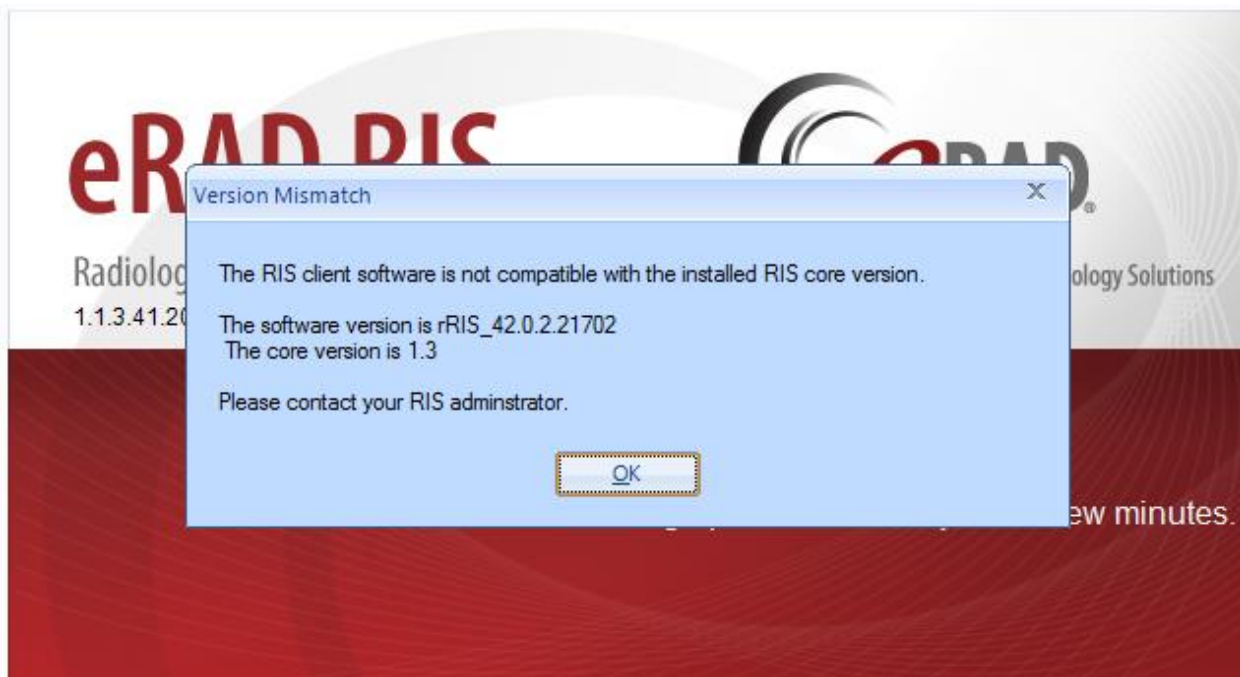
Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.4

8. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
42	1	2.42.0.1.21597	2.42.0.0.21261	2.42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates
42	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates
42	3	2.42.0.2.21806	2.42.0.0.21261	2.42.0.2.21806	2.42.0.0.21187	GUI and Web Service updates
42	4	2.42.0.2.21862	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI and Database updates
42	5	2.42.0.5.21924	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI
42	6	2.42.0.5.22009	2.42.0.0.21261	2.42.0.5.22009	2.42.0.4.21870	GUI and Web Service updates
42	7	2.42.0.7.22090	2.42.0.0.21261	2.42.0.6.22009	2.42.0.4.21870	GUI.zip updates
42	8	2.42.0.7.22090	2.42.0.7.22150	2.42.0.6.22009	2.42.0.4.21870	Web Service updates
42	9	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI and Web Service updates
42	9.1	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	Web Service updates
42	10	2.42.0.10.22232	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip
42	10.1	2.42.0.10.22420	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip updates
42	11	2.42.0.11.22495a	2.42.0.0.21261	2.42.0.11.22471	2.42.0.11.22527	GUI.zip, Web Service, Database updates. Management Report Deployment
42	12	2.42.0.12.22982	2.42.0.0.21261	2.42.0.12.22982	2.42.0.12.22911	GUI.zip, Web Service, Database updates.
42.1	-	2.42.1.0.22744(3GB)	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.2296(3GB)	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates
42.1	2	2.42.1.2.23007(3GB)	2.42.0.0.21261	2.42.1.2.23007	2.42.1.2.23007	GUI.zip, Web Service, DB updates
42.1	3	2.42.1.2.23237(3GB)	2.42.0.0.21261	2.42.1.2.23237	2.42.1.2.23007	GUI.zip, Web Services
42.1	4	2.42.1.4.23348(3GB)	2.42.0.0.21261	2.42.1.4.23348	2.42.1.2.23007	GUI.zip, Web Services
42.1	5	2.42.1.5.23406(3GB)	2.42.0.0.21261	2.42.1.5.23406	2.42.1.2.23007	GUI.zip, Web Services
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	2.43.0.5.24632(3GB)	2.43.0.0.23171	2.43.0.5.24632	2.43.0.5.24560	GUI.zip, Web Service and DB updates

9. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.43.0.3.24632.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0..3.24632 → rRIS_1.3.43.0.3. 24632

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

- 2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

- 3) Run the B43.0.5.sql file against the eRAD RIS database instance.

Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.6

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eRAD RIS Server Update

1. New Features

Relevancy Based on Laterality

A new system configuration setting titled “**LateralitiesThatAreNotRelevant**” has been added in 43.0.6 to determine relevant studies based on their laterality. The value field is a comma separated list of laterality codes. The default values for this setting are L,R. The user can also specify NULL, which would be used in the case of a study that doesn't have a laterality specified.

The values entered (with the exception of NULL) must match the values in the Laterality lookup table. For example if the values in the Laterality lookup are not L or R, but instead Left and Right, the values entered for the setting would be Left,Right.

Help About Window Contact Info Auto Sizing

There is a system configuration setting titled “**HelpContactInfo**” that allows for contact information to be displayed on the Help About window. Previous to this build, if the contact information entered was larger than the field allowed, the text would not be displayed. Now the Help About screen will expand (auto size) based on the content entered.

If the data entered it to be displayed on multiple lines the keyboard combination of Ctrl + Enter will create a new row. The field in the

Insurance Eligibility Co-pay to be Highest Service Type

When multiple procedures are specified prefer the CT service type based on the InsuranceServiceType table's display order. Service types with lower display orders will be preferred.

Please check the InsuranceServiceType lookup table and ensure that Insurance Service Type Code of 62 – MRI/CAT Scan is set to a lower display order number than Insurance Service Type Code of 4 – Diagnostic X-Ray

Example: MRI/CAT Scan has a display order of 1, then Diagnostic X-Ray will have a display order of 2.

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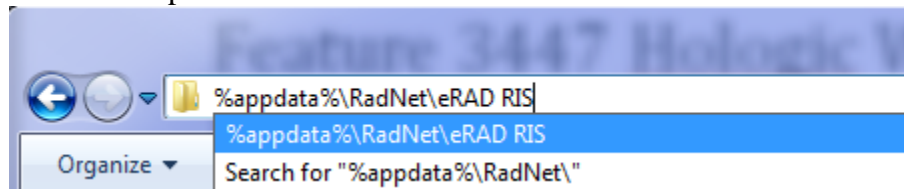
Hologic Integration

This integration is very similar to PACS integration, but differs in how we configure the RIS to communicate to the image viewer. In the PACS integrations the PACS server settings are configured in the PACS Server lookup table and are associated to an entity within the organization structure. Unless overridden, every workstation in the practice will use that PACS server information to launch images.

Configuration:

For Hologic integration, each RIS workstation will be set up to use an adjacent Hologic workstation. This means that instead of having one PACS server configured in a lookup table, the settings need to be made on each workstation that will integrate with Hologic. No entry is required for Hologic in the PACS Server lookup.

The settings for the Hologic integration are contained within a file called HologicConfig.xml that is located in the application data directory of eRad RIS. The best way to find where this should go is to open Windows Explorer and type `%appdata%\RadNet\eRAD RIS` into the address text box at the top.



If this file exists then RIS will make Hologic integration available. Since this directory is up a level from where the RIS client is installed the file will not be pushed out automatically nor will it be overwritten. This is to avoid having Hologic integration set up on every workstation even if it is not desired as well as to not overwrite any configuration that has been modified. A template file called HologicConfigTemplate.xml is contained within the RIS package and will be pulled down on an update of the RIS client into the same directory as the RIS executable. This file can be copied to the appropriate directory, renamed to HologicConfig.xml and have its contents changed to the correct settings. The file looks like this:

```
<configuration>
  <configSections>
    <section name="APPLINKER_PROPERTY_DEFINITION" type="a" />
    <section name="DEVICE" type="b" />
  </configSections>
  <APPLINKER_PROPERTY_DEFINITION>
    <NAME>Hologic Bridge</NAME>
    <IP_ADDRESS>ip_of_Hologic_workstation</IP_ADDRESS>
    <HOLOGIC_AS_PORT>5100</HOLOGIC_AS_PORT>
  </APPLINKER_PROPERTY_DEFINITION>
  <DEVICE name="RIS">
    <COMM type="TCPIP">
      <IP_ADDRESS>ip_of_RIS_workstation</IP_ADDRESS>
      <PORT_NUMBER>5102</PORT_NUMBER>
      <Encryption>XOrEncryption</Encryption>
    </COMM>
  </DEVICE>
</configuration>
```

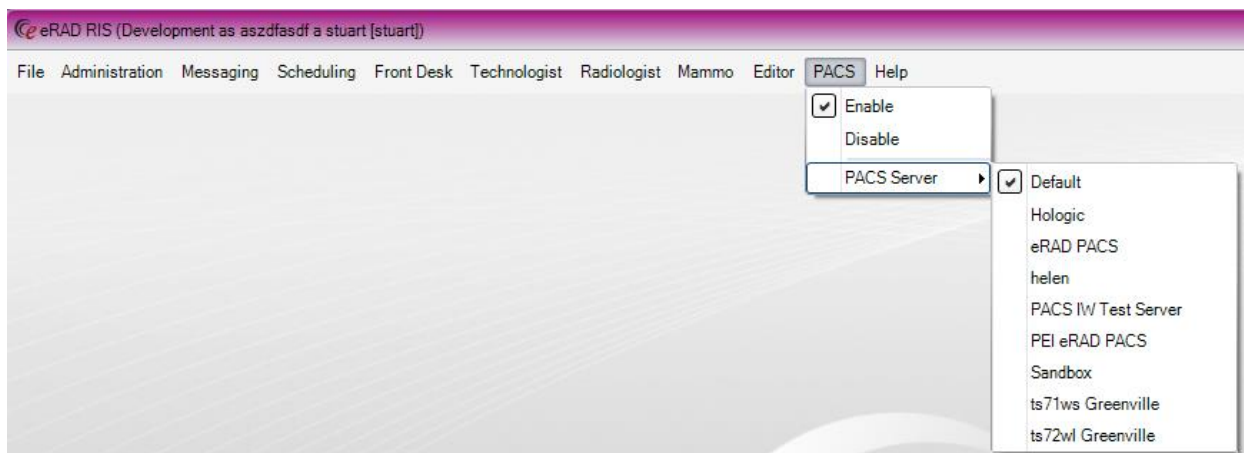
eRAD RIS Server Update

```
</COMM>  
</DEVICE>  
</configuration>
```

The important pieces of this are the ip addresses and ports of the Hologic workstation and of the RIS workstation. **Use of localhost or 127.0.0.1 will not work.** Matching changes need to be made on the Hologic workstation to define an incoming connection from a device named *RIS* communicating using that IP and port.

Activation

Hologic integration does not take effect initially when it is available. This is to allow radiologists who also use another PACS to only use Hologic when they are reading mammography studies. A new submenu has been added to the PACS menu on the main RIS menu bar to temporarily override the PACS integration. The PACS Server menu option is controlled by a new access string titled “**PACSIIntegration.Override**” that has a default of None. This setting does not persist across restarts of the RIS application. It is populated with items for Default, Hologic (if it is available), and one entry for each of the PACS servers defined in the PACS Server lookup table.



It is recommended that the user close all tabs prior to selecting Hologic or any other item in this menu. This is to avoid confusion between tabs that were opened and associated to an eRad PACS session attempting to close images from Hologic for example. After selecting Hologic from this menu images will be opened and closed from the Hologic workstation defined in the HologicConfig.xml.

Use

The RIS attempts to log in to the workstation when the user first tries to open images. Upon successfully logging in the images are opened. If login fails the user will be presented with a login dialog. If no connection can be made to AppSync then the login fails and the integration is disabled. It can be re-enabled from the PACS menu.

After the connection has been made and the user logged in, the images will open upon the user opening a reporting window such as the dictation window or the signature window (in this case

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they need to hit the View Images button). When the user closes the form the images will close on the workstation.

Switching between tabs will keep the images on the workstation in sync. Closing a tab and activating another integrated tab will also cause the appropriate images to be displayed. The View Images menu option from the Patient folder is also supported.

Limitations

The integration with Hologic is done purely on MRN. This means that the images loaded will be determined by what is on the Hologic workstation. The RIS will receive a success or failure message in response to an Open call but has no way to determine what studies actually opened. This means that the Radiologist's Patient Folder will not show any studies other than the current as loaded. Even the current one is only assumed to have been loaded. There are also no relevant priors requested so the Hologic will be responsible for loading them.

In theory Hologic SecurView can provide notifications to the RIS about actions taken by the user directly within it. During testing with an actual workstation this did not work, possibly due to misconfiguration. Testing with the AppSync simulator verified that the RIS responds to these messages with a NotSupported response, which seems appropriate as it does nothing with the information.

The PACSIntegration.log can be used to monitor the interactions between RIS and Hologic.

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2. Changes to Configuration

Setting Placeholder	Setting	Default	Purpose / Controls Access to
SystemConfig	LateralitiesThatAreNotRelevant	L,R	Comma separated list of laterality codes defaulted to: L,R the user can also specify NULL which would be when there is no laterality specified. In the case of L,R,NULL a left arm would only match with a Left and Bilateral and would not match if the other study was Right or an unspecified laterality.
AccessString and UserGroup Permissions	PACSIIntegration.Override	None	Controls access to the Menu option of PACS Server under the PACS menu. Allows the user to temporarily override the PACS Server from which to launch images.

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3. Defects Resolved

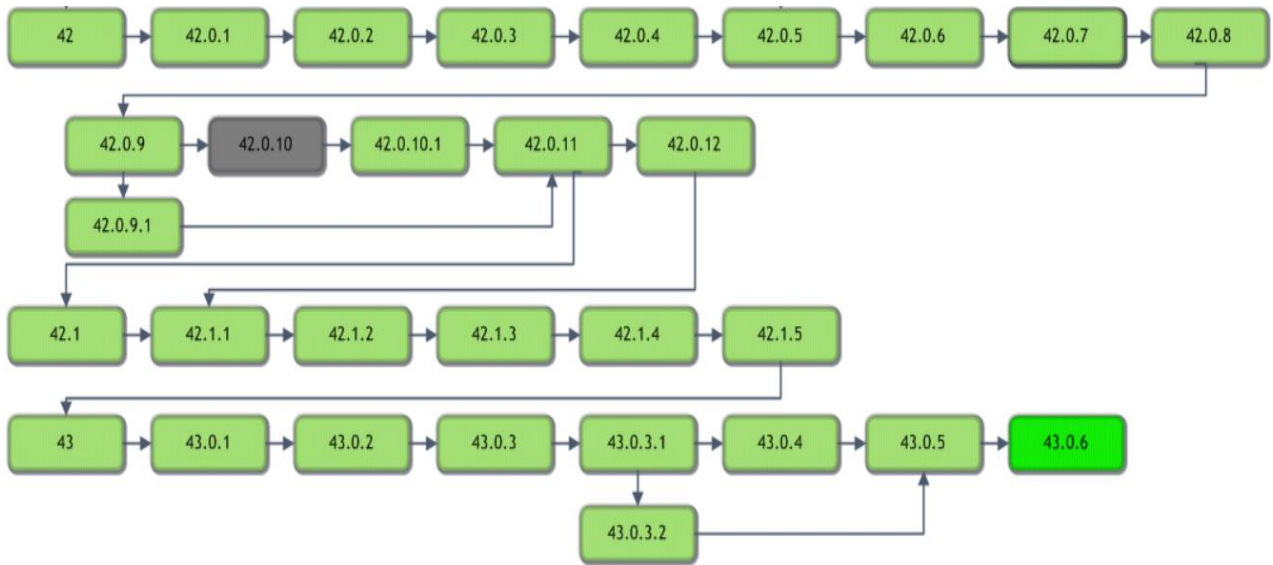
Redmine #	Tracker	Subject	Priority
7543	Bug	Insurance Eligibility - c_study_item_certification.cost column is a number vs smallmoney	Urgent
7515	Bug	Insurance eligibility - causes an unexpected error when you try and open an order that has missing information.	Urgent
3447	Feature	RadNet - Hologix integration	Urgent
7534	Bug	Insurance Eligibility Pilot - Overriding an exam in the IVT screen does not remove it from the WL.	High
7510	Bug	Insurance Eligibility Pilot - Patient with insurance should never be charged for specific CPT	High
7504	Bug	Ins Eligibility - Multiple Insurance carriers - when verification completes at different times the eligibility shield is not refreshing, hour glass (in progress) icon stays on the eligibility shield for the carrier(s) that didn't completed last.	High
7491	Bug	booking locks not released when opening reschedule	High
7251	Bug	Cannot reschedule patients that do not have a weight on their patient record	High
7547	Bug	Insurance Eligibility Pilot - For multiple Procedure Code Studies based the insurance check off of the most expensive service type.	Normal
7544	Bug	Insurance Eligibility Pilot - Workflow can cause errors when trying to validate insurance	Normal
7525	Bug	Insurance Eligibility Pilot - failing to run eligibility against a study that was previously cancelled (in IVT)	Normal
7513	Bug	MU Make Patient Educational resources available upon the patient arrival process	Normal
7511	Bug	Insurance Eligibility Pilot - When we are missing information to perform the eligibility check we should show the red "!" icon	Normal
7509	Bug	Insurance Eligibility Pilot - Retry logic is building up transactions	Normal
7502	Bug	Insurance Eligibility Pilot - IVT WL issue with Precert status 'Pending'	Normal
7501	Bug	Insurance Eligibility Pilot - Auto check on day of service isn't happening.	Normal
7482	Bug	Availability Template - delete and create a new date range can cause the default time range to copy and move to the new date range.	Normal
7471	Bug	CD Burning - PACS cleanup isn't executed if user exits CD Burning via the windows title bar	Normal
7466	Bug	Relevancy - do not mark as relevant if the laterality is different (Left vs Right)	Normal

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7443	Bug	Eligibility Flag displays in WL after rescheduling to a site that does not have Eligibility Automation enabled	Normal
7402	Bug	Error retrieving WL error when trying to use Equals filter on the columns that contain the new LastName, FirstName MI (userName) format	Normal
7375	Feature	Auto size the Contact block on the Help About screen for eRad Support & Sales contact info	Normal
7260	Bug	The INSERT statement conflicted with the Foreign key constraint "fk_c_scan_document_association_c_study" when rescheduling	Normal
6975	Bug	Unknown referring reconciliation breaks queued wedge messages	Normal
6614	Bug	Retrying multiple completed print jobs uses the printer description instead of code for the destination printer of the new jobs.	Normal
7387	Bug	MTG Reports - Eligibility Failed Requests report - may become quite large	Low

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4. Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

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5. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:

- rRIS_1.3.43.0.6.24914.zip

2) RIS_Service_Updates contains:

ABCpdf.dll	Radar.DirectMessaging.Model.dll
ABCpdf9-32.dll	Radar.DirectMessaging.Model.pdb
ABCpdf9-64.dll	rRISServices.exe
Antlr3.Runtime.dll	rRISServices.pdb
CDSJobManager.dll	rRISServicesx64.exe
CDSJobManager.pdb	ScheduledTaskManager.dll
CdsLib.dll	ScheduledTaskManager.pdb
CdsLib.xml	ServicesConfigWizard.exe
CdsLib.XmlSerializers.dll	ServicesConfigWizard.pdb
CommonLib.dll	SignatureApprovalService.exe
CommonLib.pdb	SignatureApprovalService.pdb
contents.txt	System.Net.Http.dll
DDEngine.dll	System.Net.Http.Formatting.dll
DDEngine.pdb	System.Net.Http.xml
DiffPlex.dll	System.Web.Http.dll
Interop.ANYMODALCAPTURECTRLLib.dll	System.Web.Http.SelfHost.dll
Interop.FAXCOMEXLib.dll	System.Web.Http.SelfHost.xml
Microsoft.Practices.EnterpriseLibrary.Caching.dll	System.Web.Http.WebHost.dll
Microsoft.Practices.EnterpriseLibrary.Caching.pdb	System.Web.Http.WebHost.xml
Microsoft.Practices.EnterpriseLibrary.Common.dll	System.Web.Http.xml
Microsoft.Practices.EnterpriseLibrary.Common.pdb	System.Web.Mvc.dll
Microsoft.Practices.EnterpriseLibrary.Logging.dll	System.Web.Mvc.xml
Microsoft.Practices.EnterpriseLibrary.Logging.pdb	System.Web.Optimization.dll
Microsoft.Practices.ServiceLocation.dll	System.Web.Razor.dll
Microsoft.Practices.ServiceLocation.pdb	System.Web.Razor.xml
Microsoft.Practices.Unity.dll	System.Web.WebPages.Deployment.dll
Microsoft.Practices.Unity.Interception.dll	System.Web.WebPages.Deployment.xml
Microsoft.Practices.Unity.Interception.pdb	System.Web.WebPages.dll
Microsoft.Practices.Unity.pdb	System.Web.WebPages.Razor.dll
Microsoft.ReportViewer.Common.dll	System.Web.WebPages.Razor.xml
Microsoft.ReportViewer.WinForms.dll	System.Web.WebPages.xml
Microsoft.ReportViewer.WinForms.xml	Tourreau.Gilles.FaxDotNet.dll
Newtonsoft.Json.dll	Tourreau.Gilles.FaxDotNet.pdb
Newtonsoft.Json.xml	Tourreau.Gilles.FaxDotNet.xml
NLog.dll	WCFSservice.dll
O2S.Components.PDFRender4NET.dll	WCFSservice.pdb
PDFToImages.exe	WCFSserviceTests.dll
Radar.Common.dll	WCFSserviceTests.pdb
Radar.Common.pdb	WebApi.dll
Radar.Common.WebClient.dll	WebApi.pdb
Radar.Common.WebClient.pdb	WebGrease.dll
Radar.DirectMessaging.Client.dll	Wedge.exe
Radar.DirectMessaging.Client.pdb	Wedge.pdb

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The rRIS_Service_Updates also contains to subfolders:

- A. Deploy folder contains
 - a. Applicationsettings.config
 - b. ReleaseVersion-connectionstrings.config
 - c. rRISServices.exe.config
 - d. services.config

 - B. XSL subfolder contains:
 - a. Subfolder titled “Stylesheets” which contains:
 - a. CDAToHTMLCompleteReport.xslt
 - b. CDAToHTMLCompleteReportDark.xslt
 - c. CDAToHTMLImpressionSection.xslt
 - d. CDAToRIS.xslt
 - e. CDAToTxt.xslt
 - f. DocumentModelReport.xslt
 - g. DocumentModelReportAsXml.xslt

 - b. CDA Subfolder contains
 - a. C-CDA.xsl
 - b. eRadStylesheet.xsl
 - c. generalTemplates.xsl
 - d. header.xsl
 - e. QRDA.xsl
 - f. QrdaLevel3_Cypress2.4.0.xsl
 - g. QrdaLevel3_ViewHtml.xsl
 - h. sectionAdministeredMedications.xsl
 - i. sectionAllergies.xsl
 - j. sectionEncounters.xsl
 - k. sectionFindings.xsl
 - l. sectionFuncCogStatus.xsl
 - m. sectionImmunizations.xsl
 - n. sectionInstructions.xsl
 - o. sectionMedications.xsl
 - p. sectionPlanOfCare.xsl
 - q. sectionProblemList.xsl
 - r. sectionProcedures.xsl
 - s. sectionQRDAMEasures.xsl
 - t. sectionQRDAPatientData.xsl
 - u. sectionQRDAREporting.xsl
 - v. sectionReasonForVisit.xsl
 - w. sectionResults.xsl
 - x. sectionSocialHistory.xsl
 - y. sectionVitalSigns.xsl
- 3) SQL Folder contains:
- B43.0.6.sql

eRAD RIS Server Update

6. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

7. Who is affected

Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.5

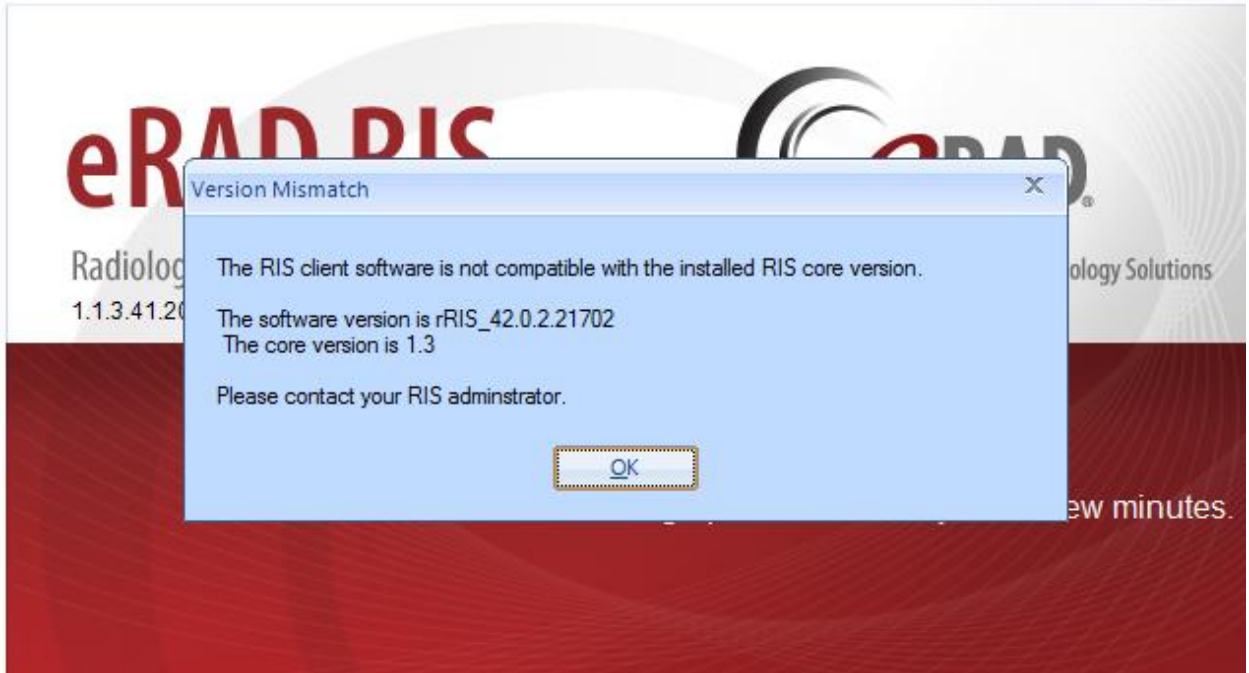
eRAD RIS Server Update

8. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
42	1	2.42.0.1.21597	2.42.0.0.21261	2.42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates
42	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates
42	3	2.42.0.2.21806	2.42.0.0.21261	2.42.0.2.21806	2.42.0.0.21187	GUI and Web Service updates
42	4	2.42.0.2.21862	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI and Database updates
42	5	2.42.0.5.21924	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI
42	6	2.42.0.5.22009	2.42.0.0.21261	2.42.0.5.22009	2.42.0.4.21870	GUI and Web Service updates
42	7	2.42.0.7.22090	2.42.0.0.21261	2.42.0.6.22009	2.42.0.4.21870	GUI.zip updates
42	8	2.42.0.7.22090	2.42.0.7.22150	2.42.0.6.22009	2.42.0.4.21870	Web Service updates
42	9	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI and Web Service updates
42	9.1	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	Web Service updates
42	10	2.42.0.10.22232	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip
42	10.1	2.42.0.10.22420	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip updates
42	11	2.42.0.11.22495a	2.42.0.0.21261	2.42.0.11.22471	2.42.0.11.22527	GUI.zip, Web Service, Database updates. Management Report Deployment
42	12	2.42.0.12.22982	2.42.0.0.21261	2.42.0.12.22982	2.42.0.12.22911	GUI.zip, Web Service, Database updates.
42.1	-	2.42.1.0.22744(3GB)	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.2296(3GB)	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates
42.1	2	2.42.1.2.23007(3GB)	2.42.0.0.21261	2.42.1.2.23007	2.42.1.2.23007	GUI.zip, Web Service, DB updates
42.1	3	2.42.1.2.23237(3GB)	2.42.0.0.21261	2.42.1.2.23237	2.42.1.2.23007	GUI.zip, Web Services
42.1	4	2.42.1.4.23348(3GB)	2.42.0.0.21261	2.42.1.4.23348	2.42.1.2.23007	GUI.zip, Web Services
42.1	5	2.42.1.5.23406(3GB)	2.42.0.0.21261	2.42.1.5.23406	2.42.1.2.23007	GUI.zip, Web Services
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	2.43.0.5.24632(3GB)	2.43.0.0.23171	2.43.0.5.24632	2.43.0.5.24560	GUI.zip, Web Service and DB updates
43	6	2.43.0.6.24914(3GB)	2.43.0.0.23171	2.43.0.6.24914	2.43.0.6.24914	GUI.zip, Web Service and DB updates

9. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.43.0.6.24914.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0..6.24914→ rRIS_1.3.43.0.6. 24914

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

- 2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

- 3) Run the B43.0.6.sql file against the eRAD RIS database instance.

Hologic Integration Installation

- a) Install/upgrade RIS installation to current build
- b) Copy HologicConfigTemplate.xml from the RIS GIU.zip folder to %appdata%\RadNet\eRAD RIS and rename it HologicConfig.xml.
- c) Change the configuration of the IP addresses in HologicConfig.xml to the IPs of the RIS workstation and the Hologic workstation. The port settings should not have to change unless configuration on the Hologic workstation conflicts with them.
Configure the Hologic workstation to communicate with the RIS device as defined in the config file. This will require logging in to an admin account on the Hologic side and updating the synchronization interface settings. This is accessed via the Configure button in the middle of the screen shown below.

eRAD RIS Server Update

Click the **Settings** tab to display the window.

User Setup | **User Preference** | **Settings** | **ReportFlow** | **Backup / Restore** | **Info**

Changes will only be applied after restart

Scheduling
 Off
 On

Disk space monitoring and Auto-Deletion
Disk space capacity level
Warning level: %
Critical level: %
Maximum storage period
New read studies: weekdays
New unread studies: weekdays
Old studies: weekdays
Automatic deletion: On Off

Auto-Fetching
 Off
 On
 Configuration [Configure](#)

Hanging Snapshots and ReportFlows
Time range for discrimination between Current - Prior 1 - Prior 2 - etc:
 days

Network search
Display of multi-modality studies
 Comma-separated modality list
 One virtual study per modality

Study date input
 Date interval picker
 Combo box with fixed values

Connectivity with synchronization interface
Synchronization: On Off

External application
IP-Address:
Port:
[Configure](#)

Worklists
 Unread studies
 Unread studies screening/diagnostic

 Second read
 Second read screening/diagnostic

Screening (MG)
 To be single read
 To be double read

Diagnostic (MG)
 To be single read
 To be double read

Resolution for MG secondary captures
 Small (quarter tiling)
 Large (single tiling)

Help | 2006-01-10 08:53:33 User Name: application | **OK**

d) Restart SecurView for the changes to take effect.

e) Launch RIS.

Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.6.1

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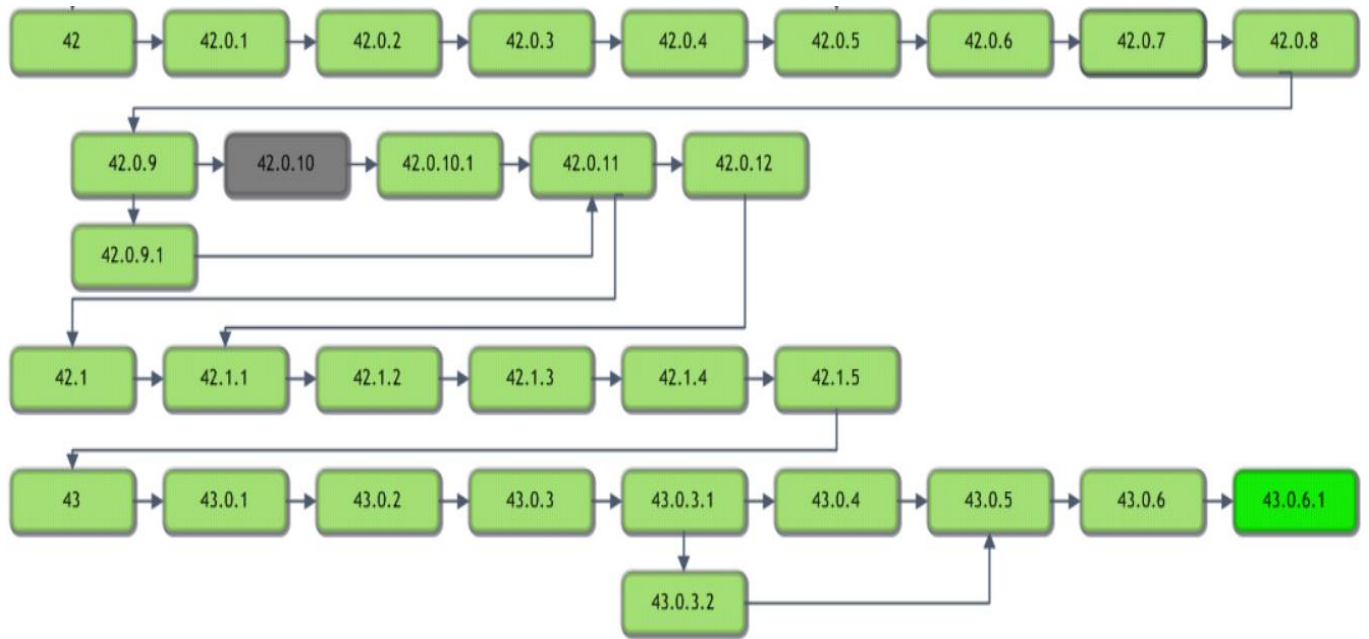
eRAD RIS Server Update

1. Defects Resolved

Redmine #	Tracker	Subject	Priority
7581	Bug	Complex WL filters not working, such as : !Ordered	Urgent

eRAD RIS Server Update

2. Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:

- rRIS_1.3.43.0.6.1.24937.zip

2) RIS_Service_Updates contains:

ABCpdf.dll	Radar.DirectMessaging.Model.dll
ABCpdf9-32.dll	Radar.DirectMessaging.Model.pdb
ABCpdf9-64.dll	rRISServices.exe
Antlr3.Runtime.dll	rRISServices.pdb
CDSJobManager.dll	rRISServicesx64.exe
CDSJobManager.pdb	ScheduledTaskManager.dll
CdsLib.dll	ScheduledTaskManager.pdb
CdsLib.xml	ServicesConfigWizard.exe
CdsLib.XmlSerializers.dll	ServicesConfigWizard.pdb
CommonLib.dll	SignatureApprovalService.exe
CommonLib.pdb	SignatureApprovalService.pdb
contents.txt	System.Net.Http.dll
DDEngine.dll	System.Net.Http.Formatting.dll
DDEngine.pdb	System.Net.Http.xml
DiffPlex.dll	System.Web.Http.dll
Interop.ANYMODALCAPTURECTRLLib.dll	System.Web.Http.SelfHost.dll
Interop.FAXCOMEXLib.dll	System.Web.Http.SelfHost.xml
Microsoft.Practices.EnterpriseLibrary.Caching.dll	System.Web.Http.WebHost.dll
Microsoft.Practices.EnterpriseLibrary.Caching.pdb	System.Web.Http.WebHost.xml
Microsoft.Practices.EnterpriseLibrary.Common.dll	System.Web.Http.xml
Microsoft.Practices.EnterpriseLibrary.Common.pdb	System.Web.Mvc.dll
Microsoft.Practices.EnterpriseLibrary.Logging.dll	System.Web.Mvc.xml
Microsoft.Practices.EnterpriseLibrary.Logging.pdb	System.Web.Optimization.dll
Microsoft.Practices.ServiceLocation.dll	System.Web.Razor.dll
Microsoft.Practices.ServiceLocation.pdb	System.Web.Razor.xml
Microsoft.Practices.Unity.dll	System.Web.WebPages.Deployment.dll
Microsoft.Practices.Unity.Interception.dll	System.Web.WebPages.Deployment.xml
Microsoft.Practices.Unity.Interception.pdb	System.Web.WebPages.dll
Microsoft.Practices.Unity.pdb	System.Web.WebPages.Razor.dll
Microsoft.ReportViewer.Common.dll	System.Web.WebPages.Razor.xml
Microsoft.ReportViewer.WinForms.dll	System.Web.WebPages.xml
Microsoft.ReportViewer.WinForms.xml	Tourreau.Gilles.FaxDotNet.dll
Newtonsoft.Json.dll	Tourreau.Gilles.FaxDotNet.pdb
Newtonsoft.Json.xml	Tourreau.Gilles.FaxDotNet.xml
NLog.dll	WCFSservice.dll
O2S.Components.PDFRender4NET.dll	WCFSservice.pdb
PDFToImages.exe	WCFSserviceTests.dll
Radar.Common.dll	WCFSserviceTests.pdb
Radar.Common.pdb	WebApi.dll
Radar.Common.WebClient.dll	WebApi.pdb
Radar.Common.WebClient.pdb	WebGrease.dll
Radar.DirectMessaging.Client.dll	Wedge.exe
Radar.DirectMessaging.Client.pdb	Wedge.pdb

eRAD RIS Server Update

The rRIS_Service_Updates also contains to subfolders:

- A. Deploy folder contains
 - a. Applicationsettings.config
 - b. ReleaseVersion-connectionstrings.config
 - c. rRISServices.exe.config
 - d. services.config

- B. XSL subfolder contains:
 - a. Subfolder titled “Stylesheets” which contains:
 - a. CDAToHTMLCompleteReport.xslt
 - b. CDAToHTMLCompleteReportDark.xslt
 - c. CDAToHTMLImpressionSection.xslt
 - d. CDAToRIS.xslt
 - e. CDAToTxt.xslt
 - f. DocumentModelReport.xslt
 - g. DocumentModelReportAsXml.xslt

 - b. CDA Subfolder contains
 - a. C-CDA.xsl
 - b. eRadStylesheet.xsl
 - c. generalTemplates.xsl
 - d. header.xsl
 - e. QRDA.xsl
 - f. QrdaLevel3_Cypress2.4.0.xsl
 - g. QrdaLevel3_ViewHtml.xsl
 - h. sectionAdministeredMedications.xsl
 - i. sectionAllergies.xsl
 - j. sectionEncounters.xsl
 - k. sectionFindings.xsl
 - l. sectionFuncCogStatus.xsl
 - m. sectionImmunizations.xsl
 - n. sectionInstructions.xsl
 - o. sectionMedications.xsl
 - p. sectionPlanOfCare.xsl
 - q. sectionProblemList.xsl
 - r. sectionProcedures.xsl
 - s. sectionQRDAMEasures.xsl
 - t. sectionQRDAPatientData.xsl
 - u. sectionQRDAREporting.xsl
 - v. sectionReasonForVisit.xsl
 - w. sectionResults.xsl
 - x. sectionSocialHistory.xsl
 - y. sectionVitalSigns.xsl

eRAD RIS Server Update

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

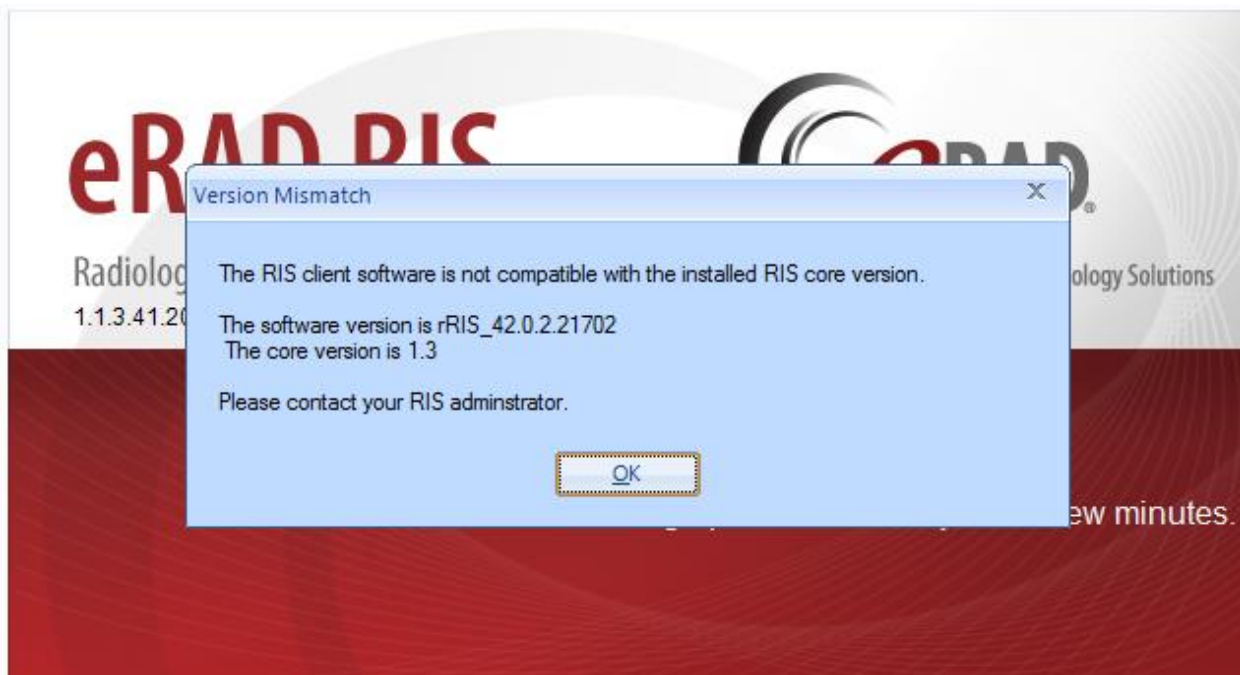
Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.6

6. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
42	1	2.42.0.1.21597	2.42.0.0.21261	2.42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates
42	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates
42	3	2.42.0.2.21806	2.42.0.0.21261	2.42.0.2.21806	2.42.0.0.21187	GUI and Web Service updates
42	4	2.42.0.2.21862	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI and Database updates
42	5	2.42.0.5.21924	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI
42	6	2.42.0.5.22009	2.42.0.0.21261	2.42.0.5.22009	2.42.0.4.21870	GUI and Web Service updates
42	7	2.42.0.7.22090	2.42.0.0.21261	2.42.0.6.22009	2.42.0.4.21870	GUI.zip updates
42	8	2.42.0.7.22090	2.42.0.7.22150	2.42.0.6.22009	2.42.0.4.21870	Web Service updates
42	9	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI and Web Service updates
42	9.1	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	Web Service updates
42	10	2.42.0.10.22232	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip
42	10.1	2.42.0.10.22420	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip updates
42	11	2.42.0.11.22495a	2.42.0.0.21261	2.42.0.11.22471	2.42.0.11.22527	GUI.zip, Web Service, Database updates. Management Report Deployment
42	12	2.42.0.12.22982	2.42.0.0.21261	2.42.0.12.22982	2.42.0.12.22911	GUI.zip, Web Service, Database updates.
42.1	-	2.42.1.0.22744(3GB)	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.2296(3GB)	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates
42.1	2	2.42.1.2.23007(3GB)	2.42.0.0.21261	2.42.1.2.23007	2.42.1.2.23007	GUI.zip, Web Service, DB updates
42.1	3	2.42.1.2.23237(3GB)	2.42.0.0.21261	2.42.1.2.23237	2.42.1.2.23007	GUI.zip, Web Services
42.1	4	2.42.1.4.23348(3GB)	2.42.0.0.21261	2.42.1.4.23348	2.42.1.2.23007	GUI.zip, Web Services
42.1	5	2.42.1.5.23406(3GB)	2.42.0.0.21261	2.42.1.5.23406	2.42.1.2.23007	GUI.zip, Web Services
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	2.43.0.5.24632(3GB)	2.43.0.0.23171	2.43.0.5.24632	2.43.0.5.24560	GUI.zip, Web Service and DB updates
43	6	2.43.0.6.24914(3GB)	2.43.0.0.23171	2.43.0.6.24914	2.43.0.6.24914	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

7. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.43.0.6.1.24937.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0.6.1.24937 → rRIS_1.3.43.0.6.1.24937

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

- 2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

Server Update

For eRAD RIS

Version 2.0

Build 43

Update 43.0.6.2

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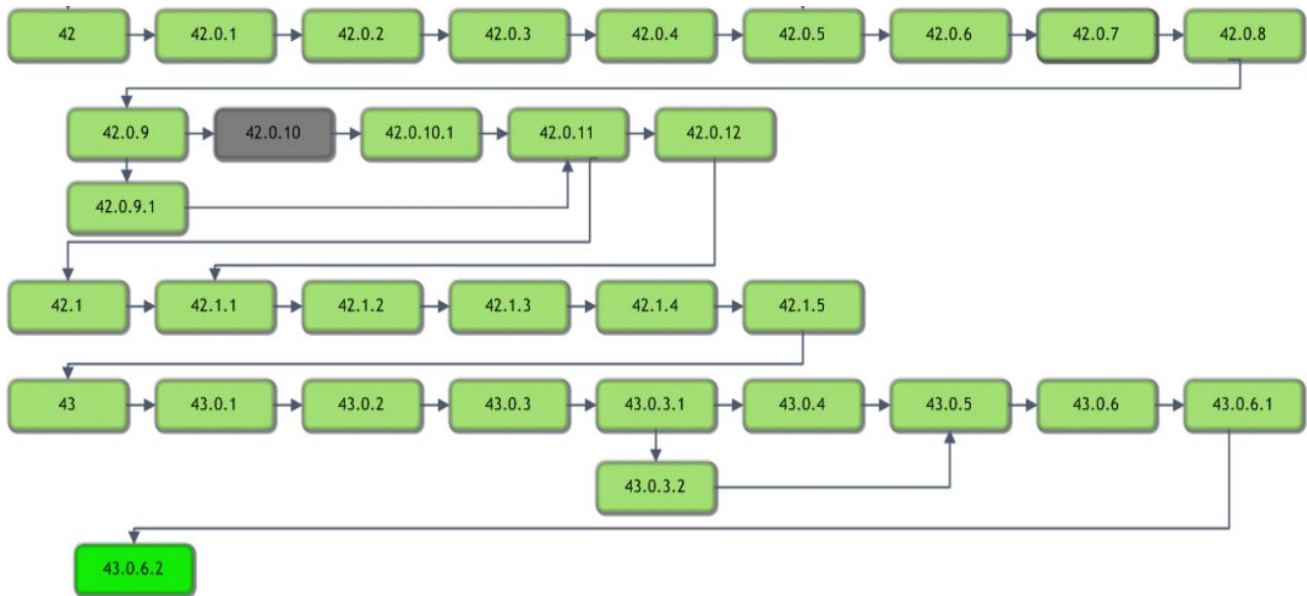
eRAD RIS Server Update

1. Defects Resolved

Redmine #	Tracker	Subject	Priority
7581	Bug	Complex WL filters not working, such as : !Ordered	Urgent
7485	Bug	Patient Search fails with "An unexpected error occurred: Sequence contains no elements"	Urgent

eRAD RIS Server Update

2. Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:

- rRIS_1.3.43.0.6.2.24970.zip

2) RIS_Service_Updates contains:

ABCpdf.dll	Radar.DirectMessaging.Model.dll
ABCpdf9-32.dll	Radar.DirectMessaging.Model.pdb
ABCpdf9-64.dll	rRISServices.exe
Antlr3.Runtime.dll	rRISServices.pdb
CDSJobManager.dll	rRISServicesx64.exe
CDSJobManager.pdb	ScheduledTaskManager.dll
CdsLib.dll	ScheduledTaskManager.pdb
CdsLib.xml	ServicesConfigWizard.exe
CdsLib.XmlSerializers.dll	ServicesConfigWizard.pdb
CommonLib.dll	SignatureApprovalService.exe
CommonLib.pdb	SignatureApprovalService.pdb
contents.txt	System.Net.Http.dll
DDEngine.dll	System.Net.Http.Formatting.dll
DDEngine.pdb	System.Net.Http.xml
DiffPlex.dll	System.Web.Http.dll
Interop.ANYMODALCAPTURECTRLLib.dll	System.Web.Http.SelfHost.dll
Interop.FAXCOMEXLib.dll	System.Web.Http.SelfHost.xml
Microsoft.Practices.EnterpriseLibrary.Caching.dll	System.Web.Http.WebHost.dll
Microsoft.Practices.EnterpriseLibrary.Caching.pdb	System.Web.Http.WebHost.xml
Microsoft.Practices.EnterpriseLibrary.Common.dll	System.Web.Http.xml
Microsoft.Practices.EnterpriseLibrary.Common.pdb	System.Web.Mvc.dll
Microsoft.Practices.EnterpriseLibrary.Logging.dll	System.Web.Mvc.xml
Microsoft.Practices.EnterpriseLibrary.Logging.pdb	System.Web.Optimization.dll
Microsoft.Practices.ServiceLocation.dll	System.Web.Razor.dll
Microsoft.Practices.ServiceLocation.pdb	System.Web.Razor.xml
Microsoft.Practices.Unity.dll	System.Web.WebPages.Deployment.dll
Microsoft.Practices.Unity.Interception.dll	System.Web.WebPages.Deployment.xml
Microsoft.Practices.Unity.Interception.pdb	System.Web.WebPages.dll
Microsoft.Practices.Unity.pdb	System.Web.WebPages.Razor.dll
Microsoft.ReportViewer.Common.dll	System.Web.WebPages.Razor.xml
Microsoft.ReportViewer.WinForms.dll	System.Web.WebPages.xml
Microsoft.ReportViewer.WinForms.xml	Tourreau.Gilles.FaxDotNet.dll
Newtonsoft.Json.dll	Tourreau.Gilles.FaxDotNet.pdb
Newtonsoft.Json.xml	Tourreau.Gilles.FaxDotNet.xml
NLog.dll	WCFSservice.dll
O2S.Components.PDFRender4NET.dll	WCFSservice.pdb
PDFToImages.exe	WCFSserviceTests.dll
Radar.Common.dll	WCFSserviceTests.pdb
Radar.Common.pdb	WebApi.dll
Radar.Common.WebClient.dll	WebApi.pdb
Radar.Common.WebClient.pdb	WebGrease.dll
Radar.DirectMessaging.Client.dll	Wedge.exe
Radar.DirectMessaging.Client.pdb	Wedge.pdb

eRAD RIS Server Update

The rRIS_Service_Updates also contains to subfolders:

- A. Deploy folder contains
 - a. Applicationsettings.config
 - b. ReleaseVersion-connectionstrings.config
 - c. rRISServices.exe.config
 - d. services.config

- B. XSL subfolder contains:
 - a. Subfolder titled “Stylesheets” which contains:
 - a. CDAToHTMLCompleteReport.xslt
 - b. CDAToHTMLCompleteReportDark.xslt
 - c. CDAToHTMLImpressionSection.xslt
 - d. CDAToRIS.xslt
 - e. CDAToTxt.xslt
 - f. DocumentModelReport.xslt
 - g. DocumentModelReportAsXml.xslt

 - b. CDA Subfolder contains
 - a. C-CDA.xsl
 - b. eRadStylesheet.xsl
 - c. generalTemplates.xsl
 - d. header.xsl
 - e. QRDA.xsl
 - f. QrdaLevel3_Cypress2.4.0.xsl
 - g. QrdaLevel3_ViewHtml.xsl
 - h. sectionAdministeredMedications.xsl
 - i. sectionAllergies.xsl
 - j. sectionEncounters.xsl
 - k. sectionFindings.xsl
 - l. sectionFuncCogStatus.xsl
 - m. sectionImmunizations.xsl
 - n. sectionInstructions.xsl
 - o. sectionMedications.xsl
 - p. sectionPlanOfCare.xsl
 - q. sectionProblemList.xsl
 - r. sectionProcedures.xsl
 - s. sectionQRDAMEasures.xsl
 - t. sectionQRDAPatientData.xsl
 - u. sectionQRDAREporting.xsl
 - v. sectionReasonForVisit.xsl
 - w. sectionResults.xsl
 - x. sectionSocialHistory.xsl
 - y. sectionVitalSigns.xsl

eRAD RIS Server Update

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.6.1

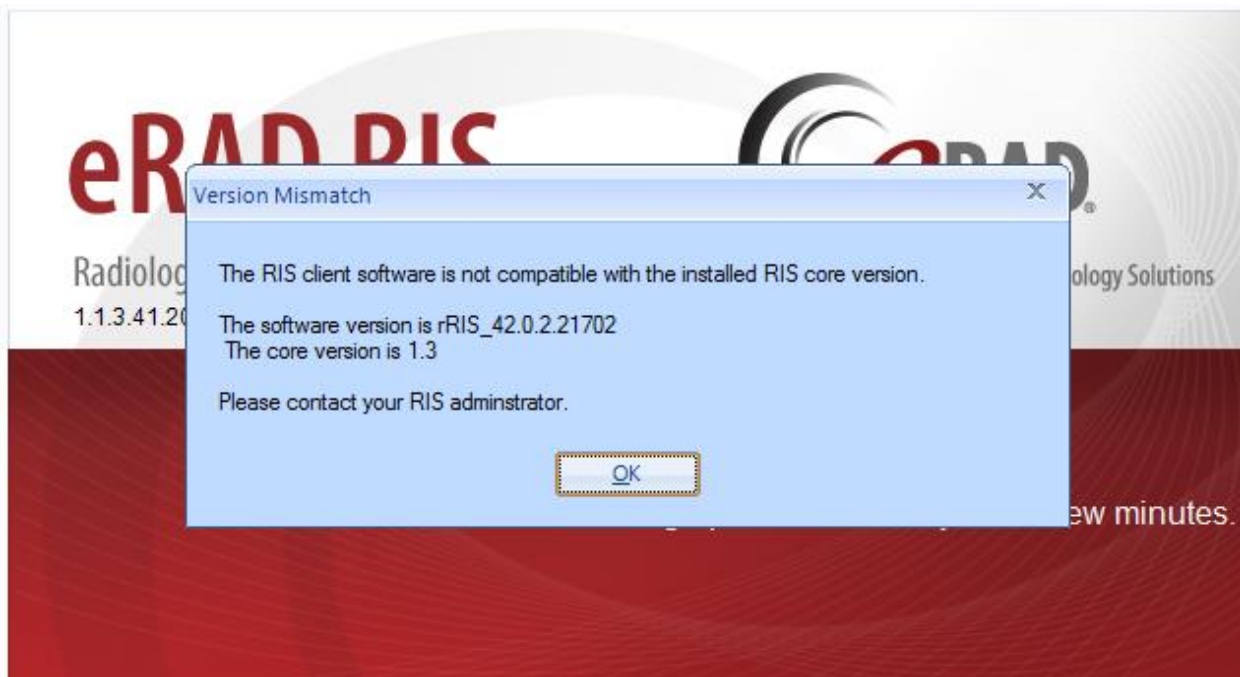
eRAD RIS Server Update

6. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
42	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates
42	3	2.42.0.2.21806	2.42.0.0.21261	2.42.0.2.21806	2.42.0.0.21187	GUI and Web Service updates
42	4	2.42.0.2.21862	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI and Database updates
42	5	2.42.0.5.21924	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI
42	6	2.42.0.5.22009	2.42.0.0.21261	2.42.0.5.22009	2.42.0.4.21870	GUI and Web Service updates
42	7	2.42.0.7.22090	2.42.0.0.21261	2.42.0.6.22009	2.42.0.4.21870	GUI.zip updates
42	8	2.42.0.7.22090	2.42.0.7.22150	2.42.0.6.22009	2.42.0.4.21870	Web Service updates
42	9	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI and Web Service updates
42	9.1	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	Web Service updates
42	10	2.42.0.10.22232	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip
42	10.1	2.42.0.10.22420	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip updates
42	11	2.42.0.11.22495a	2.42.0.0.21261	2.42.0.11.22471	2.42.0.11.22527	GUI.zip, Web Service, Database updates. Management Report Deployment
42	12	2.42.0.12.22982	2.42.0.0.21261	2.42.0.12.22982	2.42.0.12.22911	GUI.zip, Web Service, Database updates.
42.1	-	2.42.1.0.22744(3GB)	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.2296(3GB)	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates
42.1	2	2.42.1.2.23007(3GB)	2.42.0.0.21261	2.42.1.2.23007	2.42.1.2.23007	GUI.zip, Web Service, DB updates
42.1	3	2.42.1.2.23237(3GB)	2.42.0.0.21261	2.42.1.2.23237	2.42.1.2.23007	GUI.zip, Web Services
42.1	4	2.42.1.4.23348(3GB)	2.42.0.0.21261	2.42.1.4.23348	2.42.1.2.23007	GUI.zip, Web Services
42.1	5	2.42.1.5.23406(3GB)	2.42.0.0.21261	2.42.1.5.23406	2.42.1.2.23007	GUI.zip, Web Services
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	2.43.0.5.24632(3GB)	2.43.0.0.23171	2.43.0.5.24632	2.43.0.5.24560	GUI.zip, Web Service and DB updates
43	6	2.43.0.6.24914(3GB)	2.43.0.0.23171	2.43.0.6.24914	2.43.0.6.24914	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

7. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.43.0.6.2.24970.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0.6.2.24970→ rRIS_1.3.43.0.6.2.24970

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

- 2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.7

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1. New Features

Zotec TOS Inegration

For Zotec enabled sites, the “Add” button in the payments section will connect with the Zotec TOS portal, passing all relevant information, which includes: patient demographics, CPT codes, insurance and the amount to collect. Zotec will match the patient and display the Zotec TOS portal in a modal dialog as shown in the following:

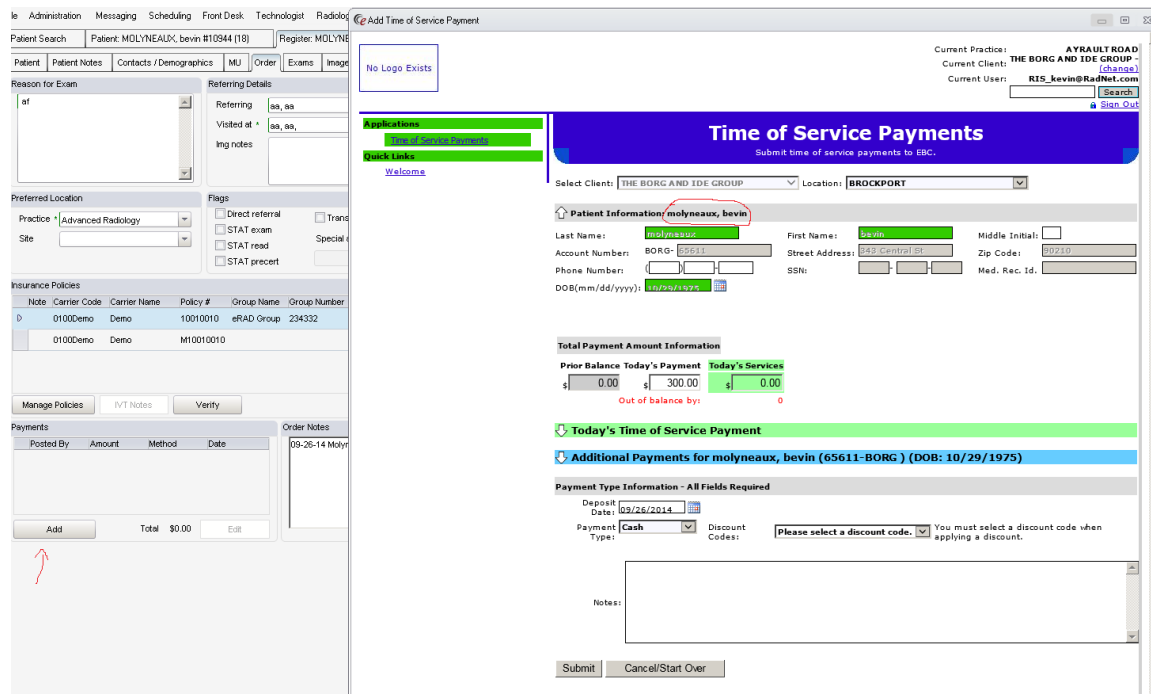


Figure 1.1 – Adding payment via Zotec TOS payment window

To record payments for Medical Records services, such as the cost of burning a CD, access the menu “Front Desk / Add Medical Record Payment” as shown in the following:

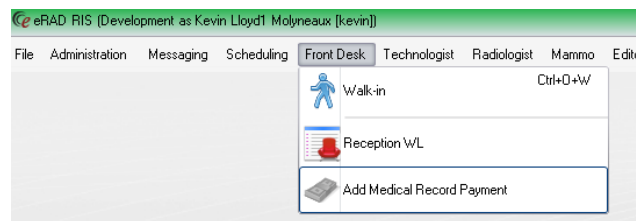


Figure 1.2 – Add Medical Record Payment access

When the user clicks on “Add Medical Record Payment”, a screen will display, asking the user for the site where the payment will be received. The user will have the option to select any Zotec enabled site for their practice but will default to their “Reception WL” preferred site.

eRAD RIS Server Update

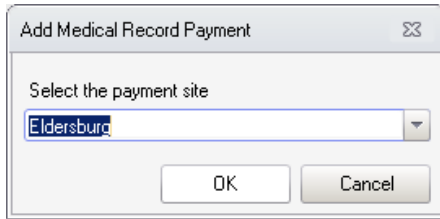


Figure 1.3 – Selecting site to add medical record payment

When these choose “OK” to the Add Medical Record Payment, the Zotec TOS web site will display with an extra message at the top of the screen, warning that they are processing a medical record payment. Medical record payments will be processed with following account:

Last Name: MedicalRecords

First Name: <PracticeCode>_<SiteCode>

Address: <site address information>

DOB: Site’s Zotec activation date

MRN (not seen on the TOS portal): z<space><PracticeCode>_<SiteCode>

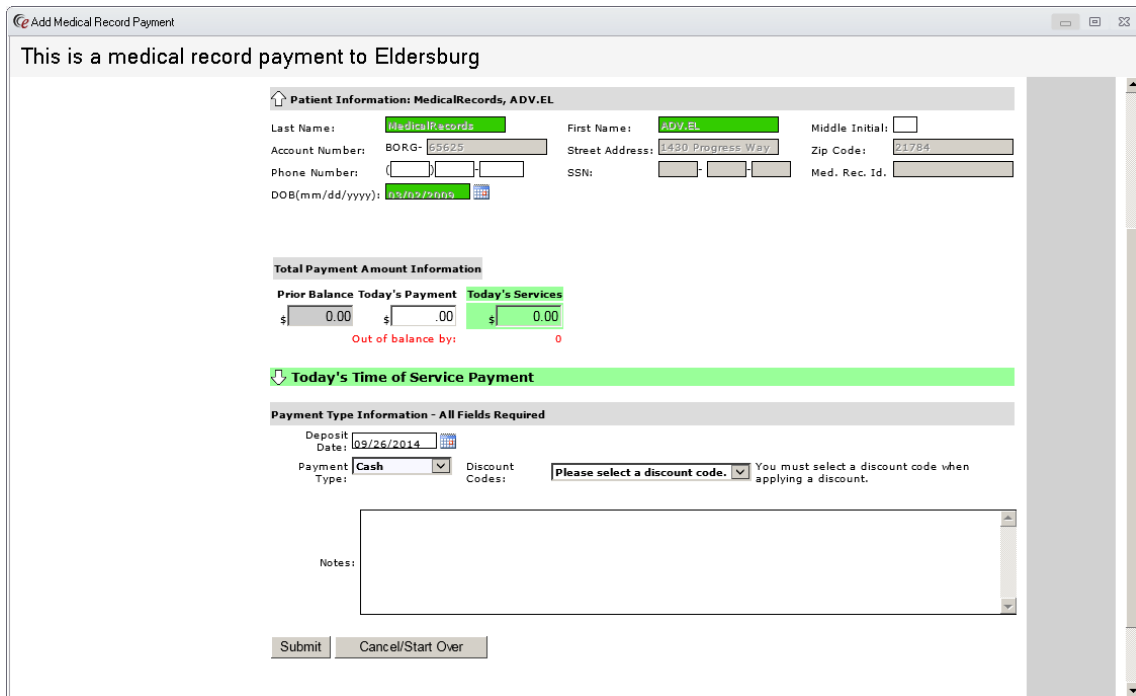


Figure 1.4 - Zotec TOS payment window

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2. Changes to Configuration

Setting Placeholder	Setting	Default	Purpose / Controls Access to
Applicationsetting.config	"StartInsuranceEligibilityService" Setting looks like this in the .config file <setting name="StartInsuranceEligibilityService" serializeAs="String"> <value>False</value> </setting>	False	This setting originally had a default of True, Changed to false in this build. If the current value of this setting is True when you run the ServicesConfigWizard.exe it will keep the current setting.
AccessString and UserGroup Permissions	Zotec.AllowDiscount	None	Allows the user to add a medical record payment, via "Add Medial Record Payment" from the "Front Desk" main menu.
AccessString and UserGroup Permissions	Zotec.AllowRefund	None	Allows the user to give refunds in the Zotec time-of-service website
AccessString and UserGroup Permissions	Zotec.AddMedicalRecordPayment	Full	Allows the user to add a medical record payment, via "Add Medial Record Payment" from the "Front Desk" main menu.
SystemConfig settings	ZotecAmountPaidPrefixString	Amount Paid: <td align='left'>	string in the Zotec receipt, just before the amount paid, which will be reported back to the RIS
SystemConfig settings	ZotecTOSPassword	None	Password for Zotec TOS (time of service) integration
SystemConfig settings	ZotecTOSUrl	None	URL to the Zotec TOS portal
SystemConfig settings	ZotecTOSUser	None	Username for Zotec TOS integration

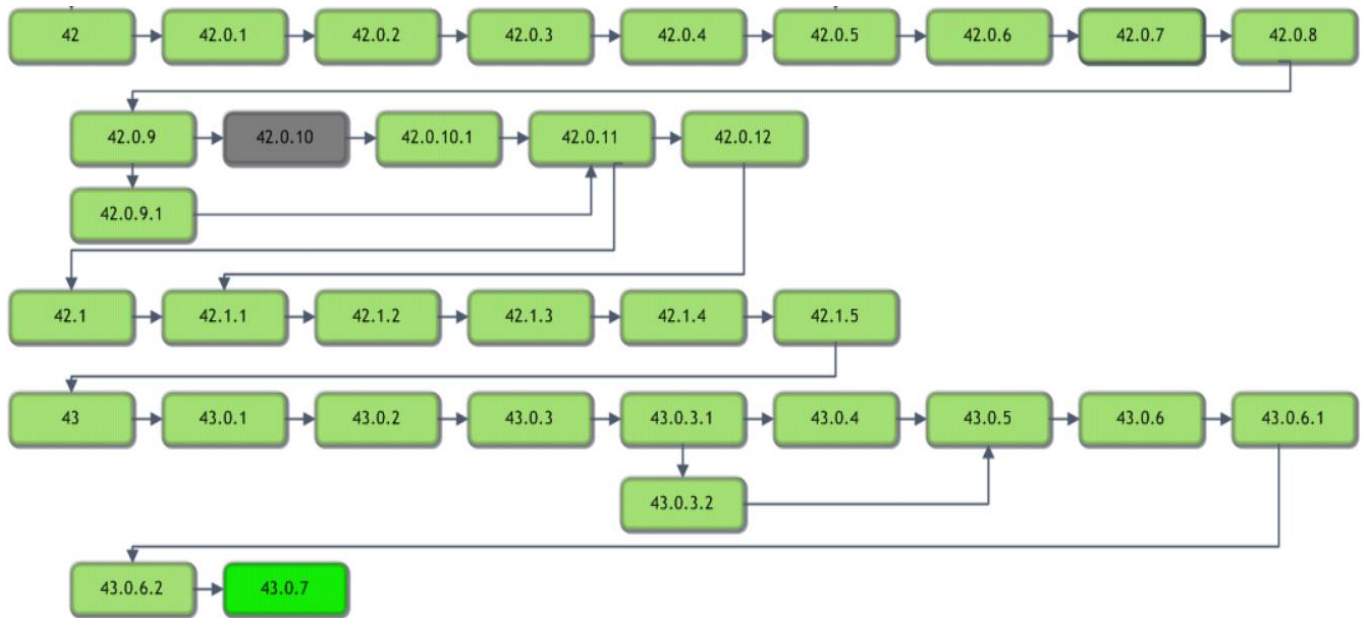
eRAD RIS Server Update

3. Defects Resolved

Redmine #	Tracker	Subject	Priority
7671	Bug	internal dataset properties not correctly set	Immediate
7398	Feature	RIS Integration with Zotec payment portal (TOS)	Urgent
7604	Bug	Insurance Eligibility Pilot - Invoice Inconsistency	High
7584	Bug	IVT workflow can cause studies to be moved to Exam Done	High
7455	Bug	Patient Merge with 1 external MRN is being merged into itself	High
7721	Slush	Insurance Eligibility Pilot - Should not have pre transaction fee charged to eRAD_Demo payer id	Normal
7716	Slush	Null exception on login for zotec integration, preventing other code from running, no exception shown to user.	Normal
7715	Slush	Insurance Eligibility - Zotec integration	Normal
7713	Slush	Insurance Eligibility - subreport needed to identify patients on the Carriers Not Using Insurance Eligibility report	Normal
7709	Slush	Zotec integration - after submitting a payment in Zotec, the payment can be deleted in RIS	Normal
7691	Bug	Alternate MRN's don't display in patient search window	Normal
7680	Bug	Unable to cancel exam done studies for outside read sites	Normal
7669	Bug	Insurance Eligibility - IVT screen issue when no insurance is specified.	Normal
7666	Feature	Enhanced patient search in walk-in screen to include more than just internal persons	Normal
7645	Bug	StartInsuranceEligibilityService should be turned off by default	Normal
7636	Bug	Possible search returns as valid, when the start and end time straddle a closure start date.	Normal
7633	Bug	Problem List Error on Scheduling Outside Read	Normal
7514	Bug	Help -> Refresh Configuration required on new builds	Normal
7484	Bug	Document distribution - sites with no printer configured in RIS can still have jobs printed to other sites.	Normal
7435	Bug	IVT WL - Precert required and Insurance required - changing to an insurance that eligibilty is checked, the required value is not removed from WL (timng issue)	Normal
7255	Bug	CD Burning - Improve PACS failed to export message	Normal
7166	Bug	Report deployment - MQSA folder really should be called Mammography	Normal
7015	Bug	MU - A requested lab order can be entered with a blank observation and return an error	Low

eRAD RIS Server Update

4. Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

5. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:

- rRIS_1.3.43.0.7.25258.zip

2) RIS_Service_Updates contains:

ABCpdf.dll	Radar.DirectMessaging.Model.dll
ABCpdf9-32.dll	Radar.DirectMessaging.Model.pdb
ABCpdf9-64.dll	rRISServices.exe
Antlr3.Runtime.dll	rRISServices.pdb
CDSJobManager.dll	rRISServicesx64.exe
CDSJobManager.pdb	ScheduledTaskManager.dll
CdsLib.dll	ScheduledTaskManager.pdb
CdsLib.xml	ServicesConfigWizard.exe
CdsLib.XmlSerializers.dll	ServicesConfigWizard.pdb
CommonLib.dll	SignatureApprovalService.exe
CommonLib.pdb	SignatureApprovalService.pdb
contents.txt	System.Net.Http.dll
DDEngine.dll	System.Net.Http.Formatting.dll
DDEngine.pdb	System.Net.Http.xml
DiffPlex.dll	System.Web.Http.dll
Interop.ANYMODALCAPTURECTRLLib.dll	System.Web.Http.SelfHost.dll
Interop.FAXCOMEXLib.dll	System.Web.Http.SelfHost.xml
Microsoft.Practices.EnterpriseLibrary.Caching.dll	System.Web.Http.WebHost.dll
Microsoft.Practices.EnterpriseLibrary.Caching.pdb	System.Web.Http.WebHost.xml
Microsoft.Practices.EnterpriseLibrary.Common.dll	System.Web.Http.xml
Microsoft.Practices.EnterpriseLibrary.Common.pdb	System.Web.Mvc.dll
Microsoft.Practices.EnterpriseLibrary.Logging.dll	System.Web.Mvc.xml
Microsoft.Practices.EnterpriseLibrary.Logging.pdb	System.Web.Optimization.dll
Microsoft.Practices.ServiceLocation.dll	System.Web.Razor.dll
Microsoft.Practices.ServiceLocation.pdb	System.Web.Razor.xml
Microsoft.Practices.Unity.dll	System.Web.WebPages.Deployment.dll
Microsoft.Practices.Unity.Interception.dll	System.Web.WebPages.Deployment.xml
Microsoft.Practices.Unity.Interception.pdb	System.Web.WebPages.dll
Microsoft.Practices.Unity.pdb	System.Web.WebPages.Razor.dll
Microsoft.ReportViewer.Common.dll	System.Web.WebPages.Razor.xml
Microsoft.ReportViewer.WinForms.dll	System.Web.WebPages.xml
Microsoft.ReportViewer.WinForms.xml	Tourreau.Gilles.FaxDotNet.dll
Newtonsoft.Json.dll	Tourreau.Gilles.FaxDotNet.pdb
Newtonsoft.Json.xml	Tourreau.Gilles.FaxDotNet.xml
NLog.dll	WCFSservice.dll
O2S.Components.PDFRender4NET.dll	WCFSservice.pdb
PDFToImages.exe	WCFSserviceTests.dll
Radar.Common.dll	WCFSserviceTests.pdb
Radar.Common.pdb	WebApi.dll
Radar.Common.WebClient.dll	WebApi.pdb
Radar.Common.WebClient.pdb	WebGrease.dll
Radar.DirectMessaging.Client.dll	Wedge.exe
Radar.DirectMessaging.Client.pdb	Wedge.pdb

eRAD RIS Server Update

The rRIS_Service_Updates also contains to subfolders:

- A. Deploy folder contains
 - a. Applicationsettings.config
 - b. ReleaseVersion-connectionstrings.config
 - c. rRISServices.exe.config
 - d. services.config

- B. XSL subfolder contains:
 - a. Subfolder titled “Stylesheets” which contains:
 - a. CDAToHTMLCompleteReport.xslt
 - b. CDAToHTMLCompleteReportDark.xslt
 - c. CDAToHTMLImpressionSection.xslt
 - d. CDAToRIS.xslt
 - e. CDAToTxt.xslt
 - f. DocumentModelReport.xslt
 - g. DocumentModelReportAsXml.xslt

 - b. CDA Subfolder contains
 - a. C-CDA.xsl
 - b. eRadStylesheet.xsl
 - c. generalTemplates.xsl
 - d. header.xsl
 - e. QRDA.xsl
 - f. QrdaLevel3_Cypress2.4.0.xsl
 - g. QrdaLevel3_ViewHtml.xsl
 - h. sectionAdministeredMedications.xsl
 - i. sectionAllergies.xsl
 - j. sectionEncounters.xsl
 - k. sectionFindings.xsl
 - l. sectionFuncCogStatus.xsl
 - m. sectionImmunizations.xsl
 - n. sectionInstructions.xsl
 - o. sectionMedications.xsl
 - p. sectionPlanOfCare.xsl
 - q. sectionProblemList.xsl
 - r. sectionProcedures.xsl
 - s. sectionQRDAMEasures.xsl
 - t. sectionQRDAPatientData.xsl
 - u. sectionQRDAREporting.xsl
 - v. sectionReasonForVisit.xsl
 - w. sectionResults.xsl
 - x. sectionSocialHistory.xsl
 - y. sectionVitalSigns.xsl

3) SQL Folder contains:

- B43.0.7.sql

4) **SSRSDeployment** folder contains 7 subfolders, a batch file for deploying the reports and a help file for deploying the reports.

4.1. **Backups** folder is empty

4.2. **Fonts** folder contains 4 files:

- 4.1.1. FRE3OF9X
- 4.1.2FRE3OF9x_0
- 4.1.3FREE3OF9

eRAD RIS Server Update

4.1.4FREE3OF9_0

- 4.3. **ParentFolder** folder contains 7 subfolders
 - 4.3.1. **Chair** folder contains 1 .rdl file
 - 4.3.2. **Dashboards** folder contains 9 .rdl files
 - 4.3.3. **Forms folder** contains sub folder and 2 .rdl files
 - 4.3.3.1. **SubReports** contains 10 .rdl files
 - 4.3.4. **Management Reports** folder contains 9 sub folders, these subfolders contain the core management report files (.rdl) to be deployed.
 - 4.3.5. **Marketing** folder contains 5 .rdl files
 - 4.3.6. **Order Templates** contains 1 file (Default.rdl)
 - 4.3.7. **SubReports** contains 13.rdl files
 - 4.3.8. **Verbal Order** contains 4 .rdl files
- 4.4. **Scripts** folder contains 9 .rss files. These files are used with the DeployReports.bat utility to deploy the reports.
- 4.5. **Upload Custom Mangement Reports** is empty
- 4.6. **Upload Diagnostic Templates** folder contains 1 subfolder
 - 4.6.1. **SubReports** folder is empty
- 4.7. **Upload Forms** folder contains 1 subfolder.
 - 4.7.1. **SubReports** folder is empty
- 4.8. **eRADDeployReports.bat** - batch file for deploying reports to report server for eRAD customers
- 4.9. **RadnetDeployReports.bat** - batch file for deploying reports to report sever for RadNet
- 4.10. **Adding reports for Deployment.docx** document to assist in added a report to the install process when deploying the reports.

eRAD RIS Server Update

6. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

7. Who is affected

Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.6

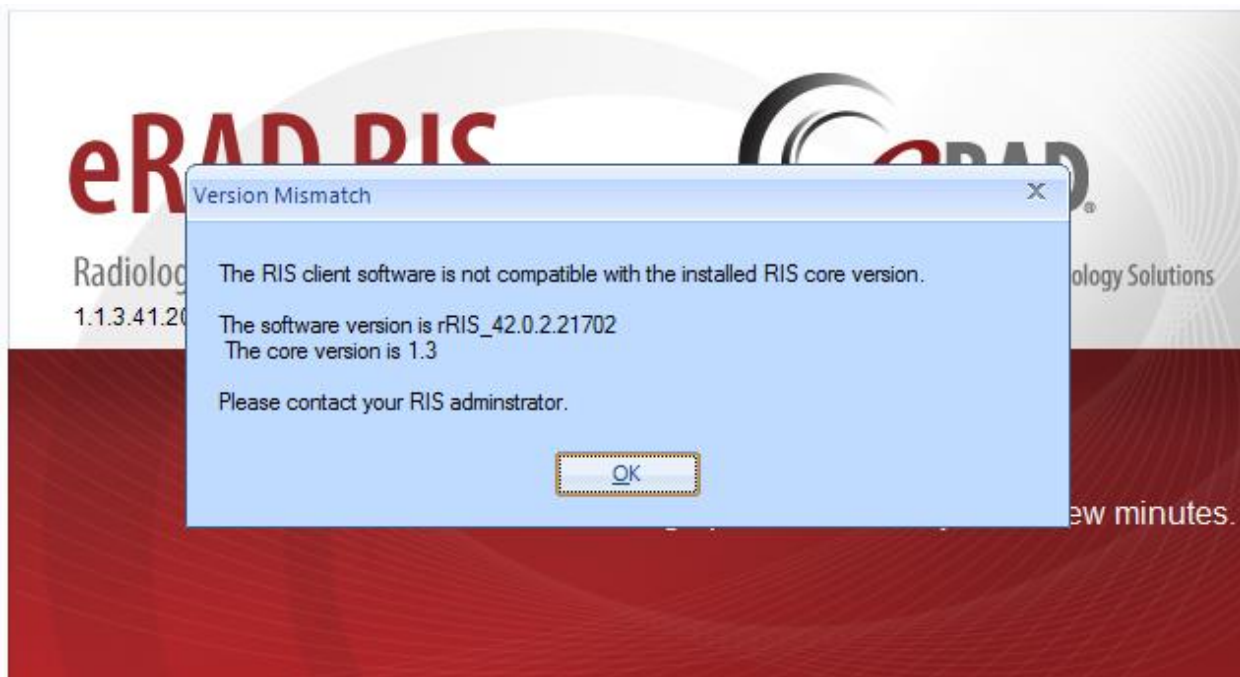
eRAD RIS Server Update

8. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
42.1	-	2.42.1.0.22744(3GB)	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.2296(3GB)	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates
42.1	2	2.42.1.2.23007(3GB)	2.42.0.0.21261	2.42.1.2.23007	2.42.1.2.23007	GUI.zip, Web Service, DB updates
42.1	3	2.42.1.2.23237(3GB)	2.42.0.0.21261	2.42.1.2.23237	2.42.1.2.23007	GUI.zip, Web Services
42.1	4	2.42.1.4.23348(3GB)	2.42.0.0.21261	2.42.1.4.23348	2.42.1.2.23007	GUI.zip, Web Services
42.1	5	2.42.1.5.23406(3GB)	2.42.0.0.21261	2.42.1.5.23406	2.42.1.2.23007	GUI.zip, Web Services
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	2.43.0.5.24632(3GB)	2.43.0.0.23171	2.43.0.5.24632	2.43.0.5.24560	GUI.zip, Web Service and DB updates
43	6	2.43.0.6.24914(3GB)	2.43.0.0.23171	2.43.0.6.24914	2.43.0.6.24914	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

9. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.43.0.7.25258.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0.7.25258 → rRIS_1.3.43.0.7.25258

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

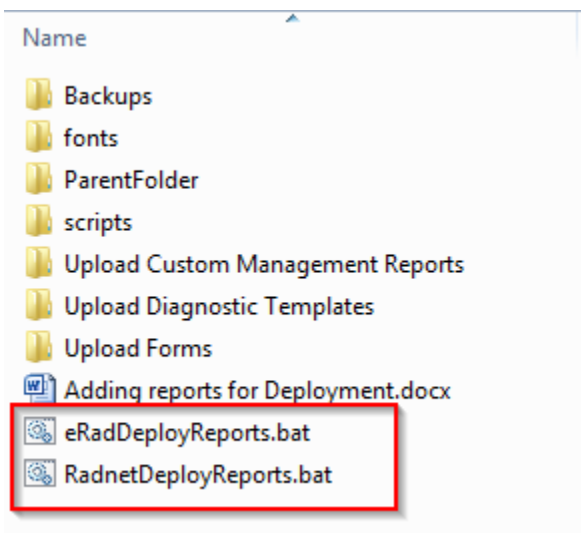
- 2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

- 3) Run the B43.0.7.sql file against the eRAD RIS database instance.
- 4) Management Reports Deployment / SSRSDeployment - There are 2 utilities called **RadnetDeployReports.bat** and **eRadDeployReports.bat** that will deploy the reports to a SQL Server Report Service. This utility is found in the **Build X\SSRSDeployment** folder. Below are the steps on how to use this utility. The purpose for the 2 .bat files are the RadNet one deploys a few extra reports specific to RadNet.



1. Launch the DeployReports.bat file.
2. **Enter report server name [default:<computer_name>]:**
 - a. A script will run against the server and return a list of all the root folders on that report server
**By Default this will pull the computer_name environmental variable from the machine running the script. I suggest running this from the report server for performance anyway.
3. **Enter root folder to deploy reports [default: production]:**

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- a. This will create a new root if the name you give doesn't exist, or it will simply publish below the root of the folder if it does already exist. We typically will use "production" for the installation folder. Note: The script forces the root name to be lowercase.
**Default is suggested to be production, but you may need to change it based on the environment you are deploying to. Ie: testserver might be called something else.
4. **Do you wish to create a backup of the existing reports?:**
 - a. This will create a file backup of the report directory specified in the same directory deploy.bat is being run from inside a folder called Backups where it will create a folder based on datetime of backup. Ie: 04172014_110605 (MMDDYYYY_HHMISS).
5. **Do you wish to deploy core management reports?**
 - a. If you enter "y", it will redeploy the core management reports
6. **Do you wish to upload Forms?**
 - a. If you enter "y", the script will deploy any .rdl files into the installations Forms folder that you have previously saved into the script folder called "Upload Forms" including the folder below it called SubReports.
7. **Do you wish to upload Diagnostic Templates?**
 - a. If you enter "y", the script will deploy any .rdl files into the installations Diagnostic Templates folder that you have previously saved into the script folder called "Upload Diagnostic Templates" including the folder below it called SubReports.
8. **Do you wish to upload Custom Management Reports?**
 - a. Entering "Y" will copy any .rdl files you've copied under the deployment folder called Upload Custom Management Reports onto the server under Management Reports\Custom\Uploads directory
9. **Do you wish to create a datasource?**
 - a. If you select "y" you will get prompted for more information about the datasource you wish to create. You only need to create a datasource, if this is a new installation. No need to do this if you are upgrading an existing installation. The datasource gets created in the root of the folder from step 3. The datasource will be called RISDataSource.

If you chose to create a datasource, the following steps will be requested to complete the connection string.

1. **Enter database server name:**
 - a. This is the name of the physical database server
ex. MYSERVER-1
 2. **Enter database name:**
 - a. This is the name of the database on the database server
ex. rRIS_Site
-

eRAD RIS Server Update

3. **Enter report schema user name:** ex. The account that the datasource will use to connect to the database ie: SA. (For security reasons “sa” is not recommended)
4. **Enter report schema password:**

The results of deployment will be written to log.txt in the same folder as the DeployReports.bat file.

Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.8

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eRAD RIS Server Update

1. New Features

Integration with Carestream PACS

With the release of 43.0.8, eRAD RIS now integrates with Carestream PACS. This integration is very similar to the eRad PACS integration. Login, logout, open, append, and close images are all supported. No form of caching is supported.

Configuration:

When adding a new row to the PACSServer lookup table, CARESTREAM is now an available option under PACS Server Type. An IP address needs to be provided in the URL column but it is not used by the integration, so 127.0.0.1 can be used.

Pacs Server Code	Description	Protocol	URL	Port	Display Order	Pass As Title	Pacs Server Type Code	Cache Field	Cache Delimiter	Caching Enabled Flag	Cache Order Field	Cache Query As Contains Flag	Cache Null Value
	CSH PACS	http	127.0.0.1	80	1		CARESTREAM			N		N	

Figure 1.1 – PACSServer lookup table

When the Carestream option is added to the PACS Server lookup table, this option can then be added as the default for a Practice from the Organization lookup. Open the Practice for edit and on the PACS and Reporting tab select the Carestream PACS Option.

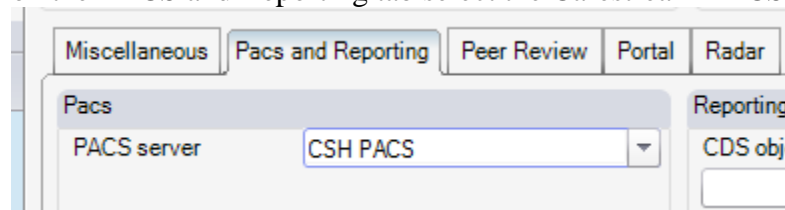


Figure 1.2 – Adding PACS Server as default to Practice.

It can also be selected as an option under the PACS menu > PACS Server option which was added in build 43.0.6.

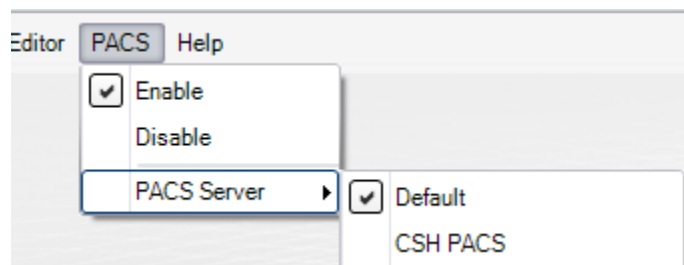


Figure 1.3 – PACS Server menu option

Use:

The RIS attempts to log in to the PACS when the user first tries to open images. Upon successfully logging in the images are opened. If login fails the user will be presented with a login dialog from the PACS. If the user then logs into the PACS successfully the images will then be launched. If they cancel the PACS login dialog the RIS will try to force the PACS to finish logging out and then display its own login dialog to attempt to resume logging in. The

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cancellation of the PACS login dialog often leads to disruption of the COM interface which is sometimes irrecoverable.

After the user is logged in, the images will open upon the user opening a reporting window such as the dictation window or the signature window (in this case they need to hit the View Images button). When the user closes the form, the images will close on the workstation.

Switching between tabs will keep the images in the PACS in sync. Closing a tab and activating another integrated tab will also cause the appropriate images to be displayed.

Limitations:

The open images call to Carestream PACs is an asynchronous call, meaning that when the RIS instructs the PACs to load images the PACS returns control to the RIS immediately and provides no feedback to the RIS as to whether or not the images actually loaded. The RIS assumes success. In an effort to make sure the images are never out of sync the RIS first issues a Close call before an Open call any time it believes an image session is open.

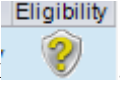
The COM interfaces that allow PACS to issue call-backs to the RIS have not been implemented as this is very problematic between a COM dll and a .NET application.

The PACSIntegration.log can be used to monitor the interactions between RIS and Carestream.

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Eligibility Check for Medical Group

For several carriers the medical group is mentioned in the eligibility return. We would like to notify the staff when they have chosen an incorrect medical group. If the return does not have the expected medical group we can show a warning message that will display in the lower right

corner of the application and the eligibility icon will be a yellow question mark .

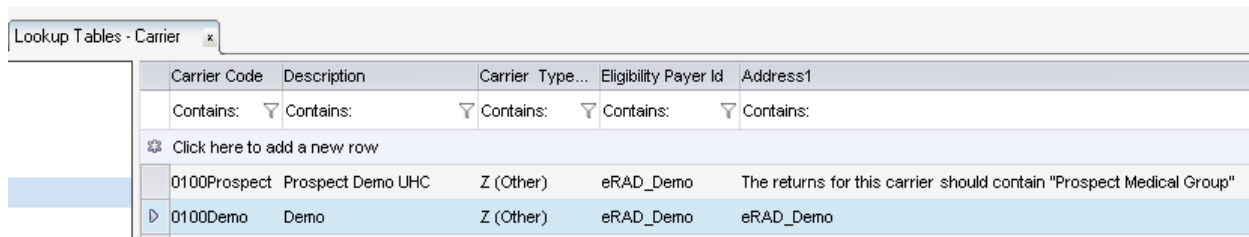
To configure this feature a new lookup table titled Eligibility Special Condition has been added under the Insurance folder group. This new lookup tables access is controlled by a new access string titled “**Config.LookupEditor.EligibilitySpecialCondition**” which has a default of None.

In this table administrator will input the Carrier, matching string and warning message. If insurance details contains the matching_string, we will display the warning_message. If the matching_string STARTS WITH !, we will display the warning_message when the details does not containing the matching_string.

For example, the configuration may look like:

Carrier	maching_string	warning_message
Prospect Aetna	!Prospect Medical Group	Medical group is incorrect (PROSPECT)
Monarch UHC	!Monarch	Medical group is incorrect

In the following example, we have created a carrier “Prospect Demo UHC”, which is only valid if the return contains “Prospect medical Group”.



Carrier Code	Description	Carrier Type...	Eligibility Payer Id	Address1
Contains: ▾	Contains: ▾	Contains: ▾	Contains: ▾	Contains: ▾
Click here to add a new row				
0100Prospect	Prospect Demo UHC	Z (Other)	eRAD_Demo	The returns for this carrier should contain "Prospect Medical Group"
0100Demo	Demo	Z (Other)	eRAD_Demo	eRAD_Demo

Figure 1.4 – Carrier lookup

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Then, the eligibility special condition is configured as shown in the following:

Carrier Code	Matching String	Warning Message
Contains:	Contains:	Contains:
Click here to add a new row		
0100Prospect - Prospect Demo UHC	IPROSPECT MEDICAL GROUP	Invalid medical group

Figure 1.5 – Eligibility Special Condition lookup

Carriers can have multiple special conditions but only the first matching condition is displayed. Because the “Prospect Demo UHC” carrier is configured with the eRAD_DEMO eligibility_payer_id testing with the policy #7695 will give a green check. Testing with other policy numbers such as 10010010 will result in the “Invalid medical group” warning.

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Copy and Paste Enhancements

The pre-cert field in the billing codes grid, the insurance policy number, group number and group name columns in the Manage Insurance Policies feature all allow a paste to occur that may have unprintable characters. The issues are white space, tab characters, and a trailing CRLF. These characters will cause billing to fail.

The new code looks at PASTE events. These are caused by Ctrl – V, Shift-Insert, and right-click context menu, and Paste.

It also looks at the character by character typing performed by the user.

Before accepting the value into the RIS, the RIS will search the string for any of these magic unprintable characters, and will replace them with a visible space character.

The new code will then trim all leading and trailing spaces, leading and trailing tab characters, and trailing CRLF (that's the problematic 'enter' key that gets auto-pasted from Excel).

**Example – Someone copies from a web page and the copy buffer contains :
(space)123(tab)456(space)(CRLF)(space)(tab)(CRLF) the RIS will simply paste '123 456'**

OR – Someone types in (space)123(space)456(space)(tab) – The RIS will simply apply '123 456'

We envision that perhaps some rare circumstance will require a special character to be entered. So, we included the following context menu options:

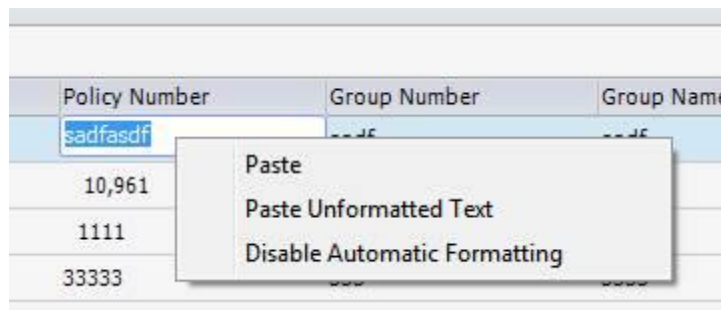


Figure 1.6 – Pasting options

Paste Unformatted Text disables all the special trimming, and does just what the old paste used to do.

Disable Automatic Formatting turns off the auto-trimming feature for every column in that open grid only. When the grid is closed and re-opened (ie, for the next patient) the auto-trimming is again enabled.

We want to put this into a trial-basis by only applying it to the most problematic areas of the RIS first. So, for 43.0.8, it will only work in the areas shown in RED.

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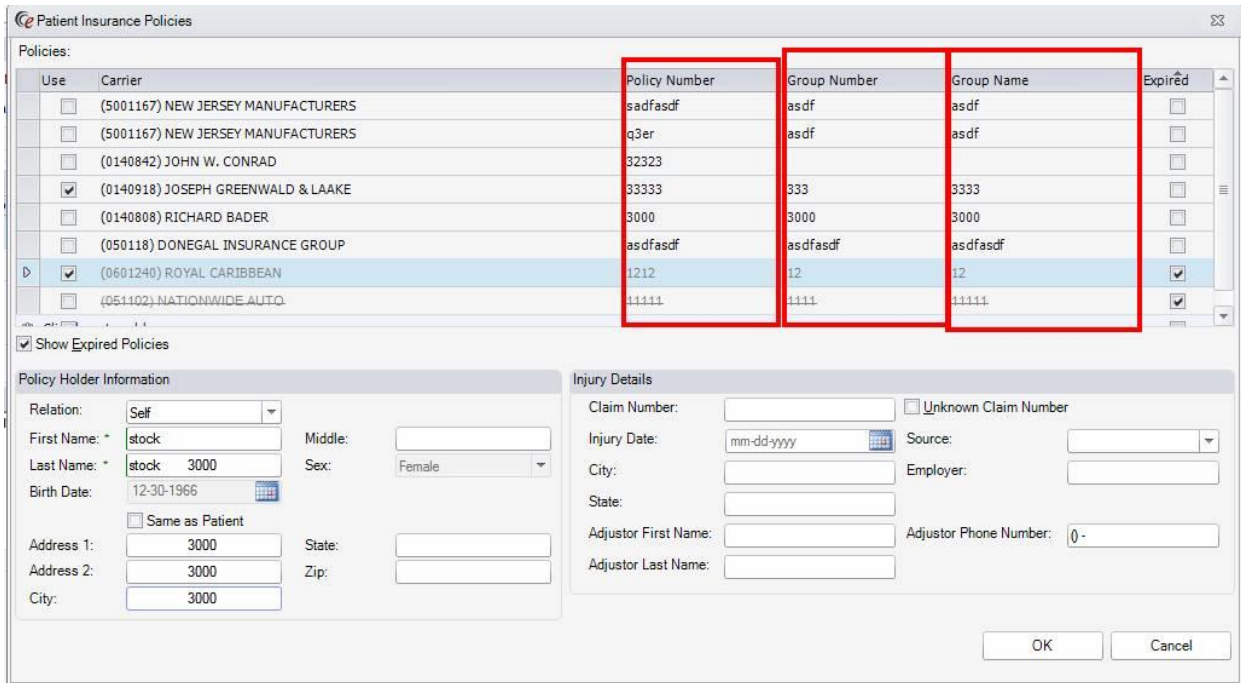


Figure 1.7 – Manage Policies



Figure 1.8 – Billing codes PreCert number

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Patient Insurance Verification PreCert Order \ Exam Attachments Contact Log

Patient birth date: 11-05-1955 (58y 10m) Referring: Doyle, Bob (443) 436-1234

Insurance Policies

Note	Carrier Code	Carrier Name	Policy #	Group Name	Group Number	Phone	Pr
▷	7595	MID-WEST NATIONAL LIFE	538		538	800733... Pr	

Manage Policies Verify Verification RI

Verification and PreCert Notes

09-24-14 Powells -

Order Not 09-24-14

test data

Billing Code information

PreCert #	Expiry Date	PreCert Status	Billing Code
Procedure: MA xDigi Mam Scr Bil & Diag Bil (MA11)			
3000		Not Required	Screening mammography, prod

Figure 1.9 - Billing codes PreCert number

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2. Changes to Configuration

Setting Placeholder	Setting	Default	Purpose / Controls Access to
Applicationsetting. config	Config.LookupEditor.EligibilitySpecialCondition	None	lookup table access for the Eligibility Special Conditions lookup

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3. Defects Resolved

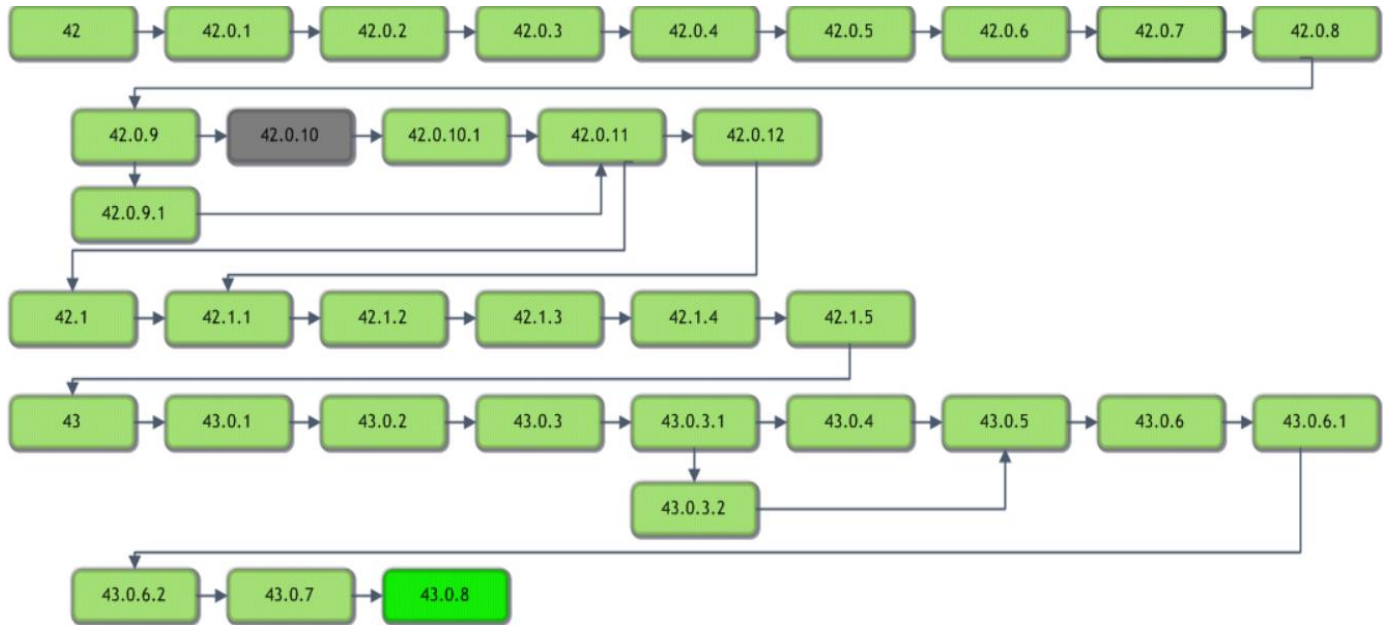
Redmine #	Tracker	Subject	Priority
7751	Bug	Legacy Reports are included in action data container	Urgent
7627	Bug	Copy & paste can include unprintable characters that affects billing	Urgent
7818	Bug	v43 new install number of indexes are not in the right tablespace preventing record inserts	High
7806	Bug	object reference error when scheduling from the Follow Up screen from BI-RADS 4/5 worklist	High
7612	Bug	unable to cancel an order if the order contained multiple items, one of which has progressed past scheduling and generated an i-code	High
7354	Feature	eRAD RIS to Carestream PACS Desktop integration	High
7815	Bug	Can't set a signed study to Voided status	Normal
7814	Bug	Insurance Eligibility - for multiple insurances we how now decided to collect the co-pay for the primary insurance	Normal
7786	Bug	Insurance Eligibility - Issue rescheduling a newly added appointment.	Normal
7779	Bug	Insurance Eligibility - Deadlock when multiple requests are being made	Normal
7758	Bug	Editors Activity report fails	Normal
7747	Bug	Automated Measures by Radiologist - Fails on DRA for 2014 yr and stage 2	Normal
7740	Bug	Insurance Eligibility - Multiple STC count - adding multiple rows in c_eligibility_invoice table and affecting the Multiple STC count value on Eligible API Invoice report.	Normal
7734	Bug	Error on rescheduling study with insurance eligibility	Normal
7731	Bug	Insurance Eligibility Pilot - Invoice Inconsistency (PassThrough Fee)	Normal
7729	Bug	Insurance Eligibility Pilot - Invoice Inconsistency (Search Option Count)	Normal
7718	Bug	MU CQM Report with Both Stage 1 and Stage 2 numerator/denominator	Normal
7700	Bug	Insurance Eligibility - If Maximum remaining has been met, we should not charge a co-insurance	Normal
7699	Bug	Insurance Eligibility - Ignore plan deductible if deductible exists in the service section.	Normal
7697	Bug	Insurance Eligibility Pilot - Amount to collect refresh issue	Normal
7695	Feature	Insurance Eligibility - add a check for the Medical Group	Normal

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7677	Bug	need ability to move non-mapped patients EMR order to existing internal patient orders	Normal
7647	Bug	Insurance verification required may be inaccurate	Normal
7632	Bug	Error using Make Known functionality in unknown carrier workflow	Normal
7631	Bug	Error replacing carrier info on Reconcile screen	Normal
7585	Bug	Error while scanning - unable to cast object of type 'System.DBNull' to type 'System.String'	Normal
7579	Bug	Error performing Exam Search	Normal
7563	Bug	patient portal - Complete Notice of Privacy Practices link is not configurable	Normal
7561	Bug	Operations \ Unknown Referring report - fails if more than one user with the matching name found.	Normal
7557	Bug	Patient portal https:// vs http:// links	Normal
7537	Bug	Management Reports- Date range calendar fields of Insurance Eligibility Reports pre populating with random dates causing ability to search/display inaccurate time ranges	Normal
7533	Bug	Filtering Assigned To columns with multiple users returns work list error.	Normal
7508	Bug	Insurance Eligibility Prototype - more details when we have an error message	Normal

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4. Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

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5. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:

- rRIS_1.3.43.0.8.25440.zip

2) RIS_Service_Updates contains:

ABCpdf.dll	Radar.DirectMessaging.Model.dll
ABCpdf9-32.dll	Radar.DirectMessaging.Model.pdb
ABCpdf9-64.dll	rRISServices.exe
Antlr3.Runtime.dll	rRISServices.pdb
CDSJobManager.dll	rRISServicesx64.exe
CDSJobManager.pdb	ScheduledTaskManager.dll
CdsLib.dll	ScheduledTaskManager.pdb
CdsLib.xml	ServicesConfigWizard.exe
CdsLib.XmlSerializers.dll	ServicesConfigWizard.pdb
CommonLib.dll	SignatureApprovalService.exe
CommonLib.pdb	SignatureApprovalService.pdb
contents.txt	System.Net.Http.dll
DDEngine.dll	System.Net.Http.Formatting.dll
DDEngine.pdb	System.Net.Http.xml
DiffPlex.dll	System.Web.Http.dll
Interop.ANYMODALCAPTURECTRLLib.dll	System.Web.Http.SelfHost.dll
Interop.FAXCOMEXLib.dll	System.Web.Http.SelfHost.xml
Microsoft.Practices.EnterpriseLibrary.Caching.dll	System.Web.Http.WebHost.dll
Microsoft.Practices.EnterpriseLibrary.Caching.pdb	System.Web.Http.WebHost.xml
Microsoft.Practices.EnterpriseLibrary.Common.dll	System.Web.Http.xml
Microsoft.Practices.EnterpriseLibrary.Common.pdb	System.Web.Mvc.dll
Microsoft.Practices.EnterpriseLibrary.Logging.dll	System.Web.Mvc.xml
Microsoft.Practices.EnterpriseLibrary.Logging.pdb	System.Web.Optimization.dll
Microsoft.Practices.ServiceLocation.dll	System.Web.Razor.dll
Microsoft.Practices.ServiceLocation.pdb	System.Web.Razor.xml
Microsoft.Practices.Unity.dll	System.Web.WebPages.Deployment.dll
Microsoft.Practices.Unity.Interception.dll	System.Web.WebPages.Deployment.xml
Microsoft.Practices.Unity.Interception.pdb	System.Web.WebPages.dll
Microsoft.Practices.Unity.pdb	System.Web.WebPages.Razor.dll
Microsoft.ReportViewer.Common.dll	System.Web.WebPages.Razor.xml
Microsoft.ReportViewer.WinForms.dll	System.Web.WebPages.xml
Microsoft.ReportViewer.WinForms.xml	Tourreau.Gilles.FaxDotNet.dll
Newtonsoft.Json.dll	Tourreau.Gilles.FaxDotNet.pdb
Newtonsoft.Json.xml	Tourreau.Gilles.FaxDotNet.xml
NLog.dll	WCFSservice.dll
O2S.Components.PDFRender4NET.dll	WCFSservice.pdb
PDFToImages.exe	WCFSserviceTests.dll
Radar.Common.dll	WCFSserviceTests.pdb
Radar.Common.pdb	WebApi.dll
Radar.Common.WebClient.dll	WebApi.pdb
Radar.Common.WebClient.pdb	WebGrease.dll
Radar.DirectMessaging.Client.dll	Wedge.exe
Radar.DirectMessaging.Client.pdb	Wedge.pdb

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The rRIS_Service_Updates also contains to subfolders:

- A. Deploy folder contains
 - a. Applicationsettings.config
 - b. ReleaseVersion-connectionstrings.config
 - c. rRISServices.exe.config
 - d. services.config

- B. XSL subfolder contains:
 - a. Subfolder titled “Stylesheets” which contains:
 - a. CDAToHTMLCompleteReport.xslt
 - b. CDAToHTMLCompleteReportDark.xslt
 - c. CDAToHTMLImpressionSection.xslt
 - d. CDAToRIS.xslt
 - e. CDAToTxt.xslt
 - f. DocumentModelReport.xslt
 - g. DocumentModelReportAsXml.xslt

 - b. CDA Subfolder contains
 - a. C-CDA.xsl
 - b. eRadStylesheet.xsl
 - c. generalTemplates.xsl
 - d. header.xsl
 - e. QRDA.xsl
 - f. QrdaLevel3_Cypress2.4.0.xsl
 - g. QrdaLevel3_ViewHtml.xsl
 - h. sectionAdministeredMedications.xsl
 - i. sectionAllergies.xsl
 - j. sectionEncounters.xsl
 - k. sectionFindings.xsl
 - l. sectionFuncCogStatus.xsl
 - m. sectionImmunizations.xsl
 - n. sectionInstructions.xsl
 - o. sectionMedications.xsl
 - p. sectionPlanOfCare.xsl
 - q. sectionProblemList.xsl
 - r. sectionProcedures.xsl
 - s. sectionQRDAMEasures.xsl
 - t. sectionQRDAPatientData.xsl
 - u. sectionQRDAREporting.xsl
 - v. sectionReasonForVisit.xsl
 - w. sectionResults.xsl
 - x. sectionSocialHistory.xsl
 - y. sectionVitalSigns.xsl

3) SQL Folder contains:

- B43.0.8.sql

4) **SSRSDeployment** folder contains 7 subfolders, a batch file for deploying the reports and a help file for deploying the reports.

4.1. **Backups** folder is empty

4.2. **Fonts** folder contains 4 files:

- 4.1.1. FRE3OF9X
- 4.1.2FRE3OF9x_0
- 4.1.3FREE3OF9

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4.1.4FREE3OF9_0

- 4.3. **ParentFolder** folder contains 7 subfolders
 - 4.3.1. **Chair** folder contains 1 .rdl file
 - 4.3.2. **Dashboards** folder contains 9 .rdl files
 - 4.3.3. **Forms folder** contains sub folder and 2 .rdl files
 - 4.3.3.1. **SubReports** contains 10 .rdl files
 - 4.3.4. **Management Reports** folder contains 9 sub folders, these subfolders contain the core management report files (.rdl) to be deployed.
 - 4.3.5. **Marketing** folder contains 5 .rdl files
 - 4.3.6. **Order Templates** contains 1 file (Default.rdl)
 - 4.3.7. **SubReports** contains 13.rdl files
 - 4.3.8. **Verbal Order** contains 4 .rdl files
- 4.4. **Scripts** folder contains 9 .rss files. These files are used with the DeployReports.bat utility to deploy the reports.
- 4.5. **Upload Custom Mangement Reports** is empty
- 4.6. **Upload Diagnostic Templates** folder contains 1 subfolder
 - 4.6.1. **SubReports** folder is empty
- 4.7. **Upload Forms** folder contains 1 subfolder.
 - 4.7.1. **SubReports** folder is empty
- 4.8. **eRADDeployReports.bat** - batch file for deploying reports to report server for eRAD customers
- 4.9. **RadnetDeployReports.bat** - batch file for deploying reports to report sever for RadNet
- 4.10. **Adding reports for Deployment.docx** document to assist in added a report to the install process when deploying the reports.

eRAD RIS Server Update

6. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

7. Who is affected

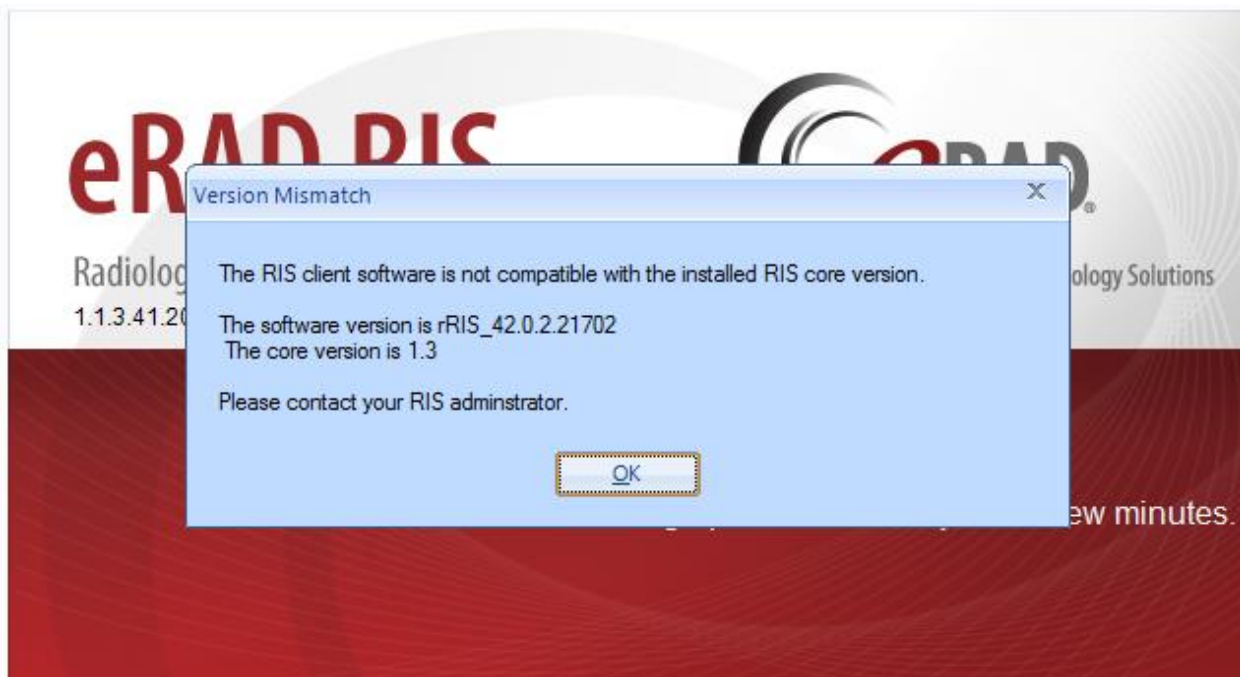
Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.7

8. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
42.1	-	2.42.1.0.22744(3GB)	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.2296(3GB)	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates
42.1	2	2.42.1.2.23007(3GB)	2.42.0.0.21261	2.42.1.2.23007	2.42.1.2.23007	GUI.zip, Web Service, DB updates
42.1	3	2.42.1.2.23237(3GB)	2.42.0.0.21261	2.42.1.2.23237	2.42.1.2.23007	GUI.zip, Web Services
42.1	4	2.42.1.4.23348(3GB)	2.42.0.0.21261	2.42.1.4.23348	2.42.1.2.23007	GUI.zip, Web Services
42.1	5	2.42.1.5.23406(3GB)	2.42.0.0.21261	2.42.1.5.23406	2.42.1.2.23007	GUI.zip, Web Services
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	2.43.0.5.24632(3GB)	2.43.0.0.23171	2.43.0.5.24632	2.43.0.5.24560	GUI.zip, Web Service and DB updates
43	6	2.43.0.6.24914(3GB)	2.43.0.0.23171	2.43.0.6.24914	2.43.0.6.24914	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

9. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.43.0.8.25440.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0.8.25440 → rRIS_1.3.43.0.8.25440

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

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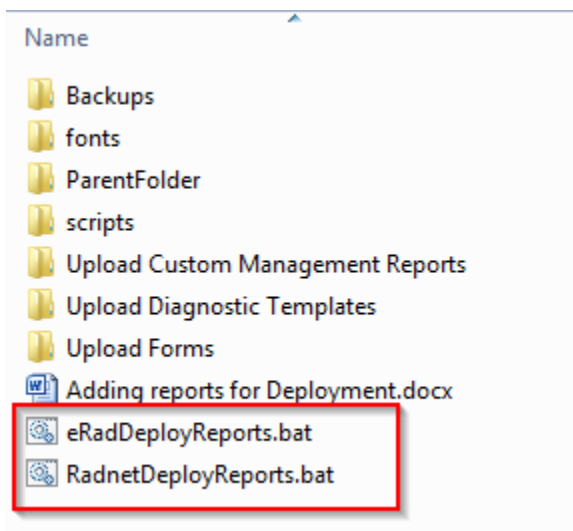
- 2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

- 3) Run the B43.0.8.sql file against the eRAD RIS database instance.
- 4) Management Reports Deployment / SSRSDeployment - There are 2 utilities called **RadnetDeployReports.bat** and **eRadDeployReports.bat** that will deploy the reports to a SQL Server Report Service. This utility is found in the **Build X\SSRSDeployment** folder. Below are the steps on how to use this utility. The purpose for the 2 .bat files are the RadNet one deploys a few extra reports specific to RadNet.



1. Launch the DeployReports.bat file.
2. **Enter report server name [default:<computer_name>]:**
 - a. A script will run against the server and return a list of all the root folders on that report server
**By Default this will pull the computer_name environmental variable from the machine running the script. I suggest running this from the report server for performance anyway.
3. **Enter root folder to deploy reports [default: production]:**

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- a. This will create a new root if the name you give doesn't exist, or it will simply publish below the root of the folder if it does already exist. We typically will use "production" for the installation folder. Note: The script forces the root name to be lowercase.
**Default is suggested to be production, but you may need to change it based on the environment you are deploying to. Ie: testserver might be called something else.
4. **Do you wish to create a backup of the existing reports?:**
 - a. This will create a file backup of the report directory specified in the same directory deploy.bat is being run from inside a folder called Backups where it will create a folder based on datetime of backup. Ie: 04172014_110605 (MMDDYYYY_HHMISS).
5. **Do you wish to deploy core management reports?**
 - a. If you enter "y", it will redeploy the core management reports
6. **Do you wish to upload Forms?**
 - a. If you enter "y", the script will deploy any .rdl files into the installations Forms folder that you have previously saved into the script folder called "Upload Forms" including the folder below it called SubReports.
7. **Do you wish to upload Diagnostic Templates?**
 - a. If you enter "y", the script will deploy any .rdl files into the installations Diagnostic Templates folder that you have previously saved into the script folder called "Upload Diagnostic Templates" including the folder below it called SubReports.
8. **Do you wish to upload Custom Management Reports?**
 - a. Entering "Y" will copy any .rdl files you've copied under the deployment folder called Upload Custom Management Reports onto the server under Management Reports\Custom\Uploads directory
9. **Do you wish to create a datasource?**
 - a. If you select "y" you will get prompted for more information about the datasource you wish to create. You only need to create a datasource, if this is a new installation. No need to do this if you are upgrading an existing installation. The datasource gets created in the root of the folder from step 3. The datasource will be called RISDataSource.

If you chose to create a datasource, the following steps will be requested to complete the connection string.

1. **Enter database server name:**
 - a. This is the name of the physical database server
ex. MYSERVER-1
 2. **Enter database name:**
 - a. This is the name of the database on the database server
ex. rRIS_Site
-

eRAD RIS Server Update

3. **Enter report schema user name:** ex. The account that the datasource will use to connect to the database ie: SA. (For security reasons “sa” is not recommended)
4. **Enter report schema password:**

The results of deployment will be written to log.txt in the same folder as the DeployReports.bat file.

Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.9

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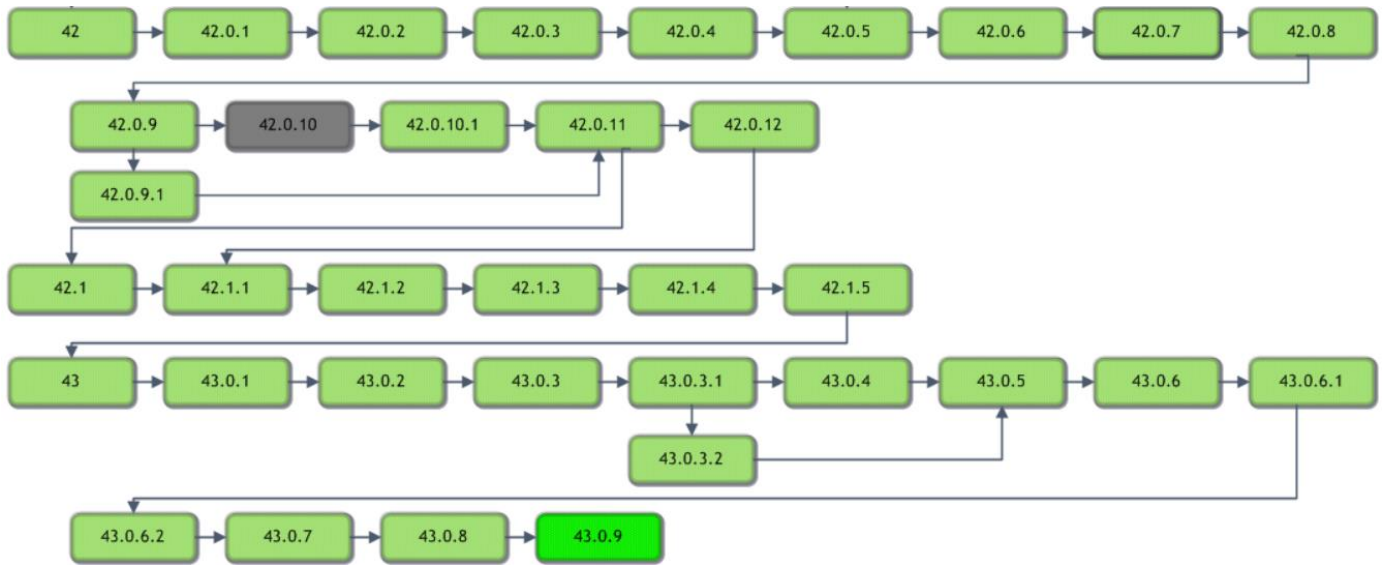
eRAD RIS Server Update

1. Defects Resolved

Redmine #	Tracker	Subject	Priority
7844	Bug	Billing Grid - Unable to manually key in a space character	Normal
7843	Bug	Creating an addendum - when you submit it , the status stays as SIGNED, Cannot sign off this addendum	Normal

eRAD RIS Server Update

2. Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:

- rRIS_1.3.43.0.9.25477.zip

2) RIS_Service_Updates contains:

ABCpdf.dll	Radar.DirectMessaging.Model.dll
ABCpdf9-32.dll	Radar.DirectMessaging.Model.pdb
ABCpdf9-64.dll	rRISServices.exe
Antlr3.Runtime.dll	rRISServices.pdb
CDSJobManager.dll	rRISServicesx64.exe
CDSJobManager.pdb	ScheduledTaskManager.dll
CdsLib.dll	ScheduledTaskManager.pdb
CdsLib.xml	ServicesConfigWizard.exe
CdsLib.XmlSerializers.dll	ServicesConfigWizard.pdb
CommonLib.dll	SignatureApprovalService.exe
CommonLib.pdb	SignatureApprovalService.pdb
contents.txt	System.Net.Http.dll
DDEngine.dll	System.Net.Http.Formatting.dll
DDEngine.pdb	System.Net.Http.xml
DiffPlex.dll	System.Web.Http.dll
Interop.ANYMODALCAPTURECTRLLib.dll	System.Web.Http.SelfHost.dll
Interop.FAXCOMEXLib.dll	System.Web.Http.SelfHost.xml
Microsoft.Practices.EnterpriseLibrary.Caching.dll	System.Web.Http.WebHost.dll
Microsoft.Practices.EnterpriseLibrary.Caching.pdb	System.Web.Http.WebHost.xml
Microsoft.Practices.EnterpriseLibrary.Common.dll	System.Web.Http.xml
Microsoft.Practices.EnterpriseLibrary.Common.pdb	System.Web.Mvc.dll
Microsoft.Practices.EnterpriseLibrary.Logging.dll	System.Web.Mvc.xml
Microsoft.Practices.EnterpriseLibrary.Logging.pdb	System.Web.Optimization.dll
Microsoft.Practices.ServiceLocation.dll	System.Web.Razor.dll
Microsoft.Practices.ServiceLocation.pdb	System.Web.Razor.xml
Microsoft.Practices.Unity.dll	System.Web.WebPages.Deployment.dll
Microsoft.Practices.Unity.Interception.dll	System.Web.WebPages.Deployment.xml
Microsoft.Practices.Unity.Interception.pdb	System.Web.WebPages.dll
Microsoft.Practices.Unity.pdb	System.Web.WebPages.Razor.dll
Microsoft.ReportViewer.Common.dll	System.Web.WebPages.Razor.xml
Microsoft.ReportViewer.WinForms.dll	System.Web.WebPages.xml
Microsoft.ReportViewer.WinForms.xml	Tourreau.Gilles.FaxDotNet.dll
Newtonsoft.Json.dll	Tourreau.Gilles.FaxDotNet.pdb
Newtonsoft.Json.xml	Tourreau.Gilles.FaxDotNet.xml
NLog.dll	WCFSservice.dll
O2S.Components.PDFRender4NET.dll	WCFSservice.pdb
PDFToImages.exe	WCFSserviceTests.dll
Radar.Common.dll	WCFSserviceTests.pdb
Radar.Common.pdb	WebApi.dll
Radar.Common.WebClient.dll	WebApi.pdb
Radar.Common.WebClient.pdb	WebGrease.dll
Radar.DirectMessaging.Client.dll	Wedge.exe
Radar.DirectMessaging.Client.pdb	Wedge.pdb

eRAD RIS Server Update

The rRIS_Service_Updates also contains to subfolders:

- A. Deploy folder contains
 - a. Applicationsettings.config
 - b. ReleaseVersion-connectionstrings.config
 - c. rRISServices.exe.config
 - d. services.config

- B. XSL subfolder contains:
 - a. Subfolder titled “Stylesheets” which contains:
 - a. CDAToHTMLCompleteReport.xslt
 - b. CDAToHTMLCompleteReportDark.xslt
 - c. CDAToHTMLImpressionSection.xslt
 - d. CDAToRIS.xslt
 - e. CDAToTxt.xslt
 - f. DocumentModelReport.xslt
 - g. DocumentModelReportAsXml.xslt

 - b. CDA Subfolder contains
 - a. C-CDA.xsl
 - b. eRadStylesheet.xsl
 - c. generalTemplates.xsl
 - d. header.xsl
 - e. QRDA.xsl
 - f. QrdaLevel3_Cypress2.4.0.xsl
 - g. QrdaLevel3_ViewHtml.xsl
 - h. sectionAdministeredMedications.xsl
 - i. sectionAllergies.xsl
 - j. sectionEncounters.xsl
 - k. sectionFindings.xsl
 - l. sectionFuncCogStatus.xsl
 - m. sectionImmunizations.xsl
 - n. sectionInstructions.xsl
 - o. sectionMedications.xsl
 - p. sectionPlanOfCare.xsl
 - q. sectionProblemList.xsl
 - r. sectionProcedures.xsl
 - s. sectionQRDAMEasures.xsl
 - t. sectionQRDAPatientData.xsl
 - u. sectionQRDAREporting.xsl
 - v. sectionReasonForVisit.xsl
 - w. sectionResults.xsl
 - x. sectionSocialHistory.xsl
 - y. sectionVitalSigns.xsl

eRAD RIS Server Update

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

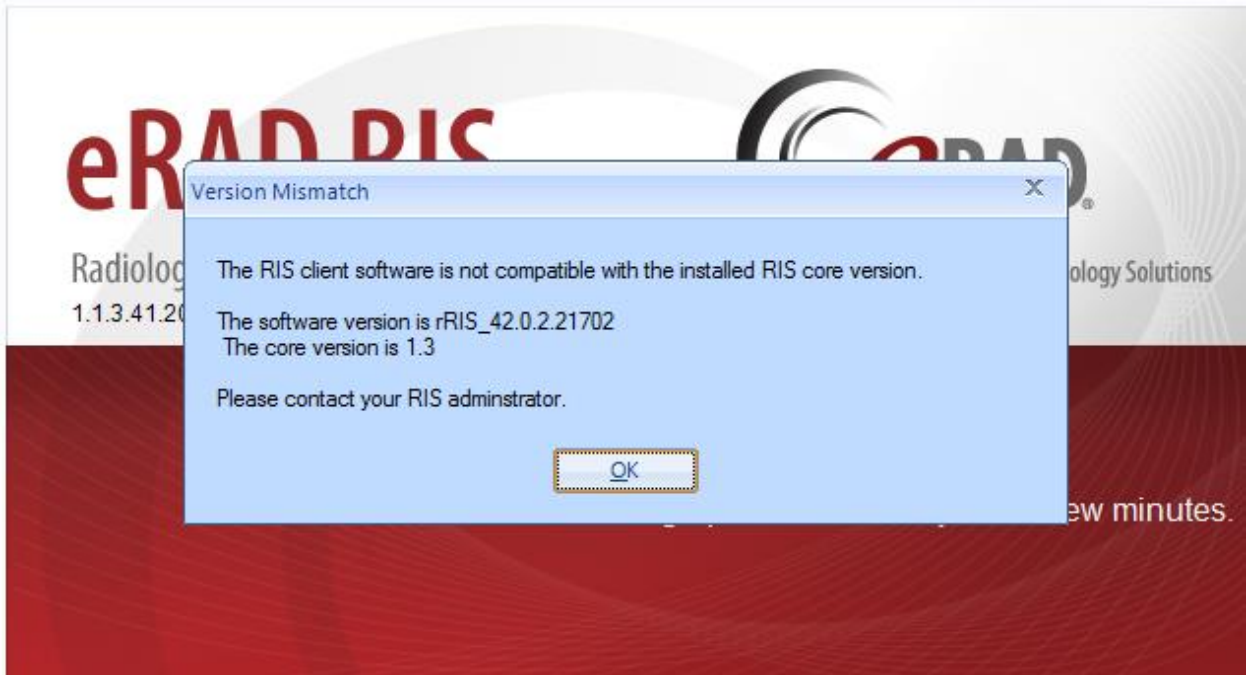
Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.8

6. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
42.1	-	2.42.1.0.22744(3GB)	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.2296(3GB)	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates
42.1	2	2.42.1.2.23007(3GB)	2.42.0.0.21261	2.42.1.2.23007	2.42.1.2.23007	GUI.zip, Web Service, DB updates
42.1	3	2.42.1.2.23237(3GB)	2.42.0.0.21261	2.42.1.2.23237	2.42.1.2.23007	GUI.zip, Web Services
42.1	4	2.42.1.4.23348(3GB)	2.42.0.0.21261	2.42.1.4.23348	2.42.1.2.23007	GUI.zip, Web Services
42.1	5	2.42.1.5.23406(3GB)	2.42.0.0.21261	2.42.1.5.23406	2.42.1.2.23007	GUI.zip, Web Services
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	2.43.0.5.24632(3GB)	2.43.0.0.23171	2.43.0.5.24632	2.43.0.5.24560	GUI.zip, Web Service and DB updates
43	6	2.43.0.6.24914(3GB)	2.43.0.0.23171	2.43.0.6.24914	2.43.0.6.24914	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

7. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.43.0.9.25477.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0.9.25477 → rRIS_1.3.43.0.9.25477

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

- 2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.

rRISService directories include:

- a) rRISService*
- b) CDS rRISService*
- c) Wedge rRISService*
- d) DDE rRISService*

Restart each service.

Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.10

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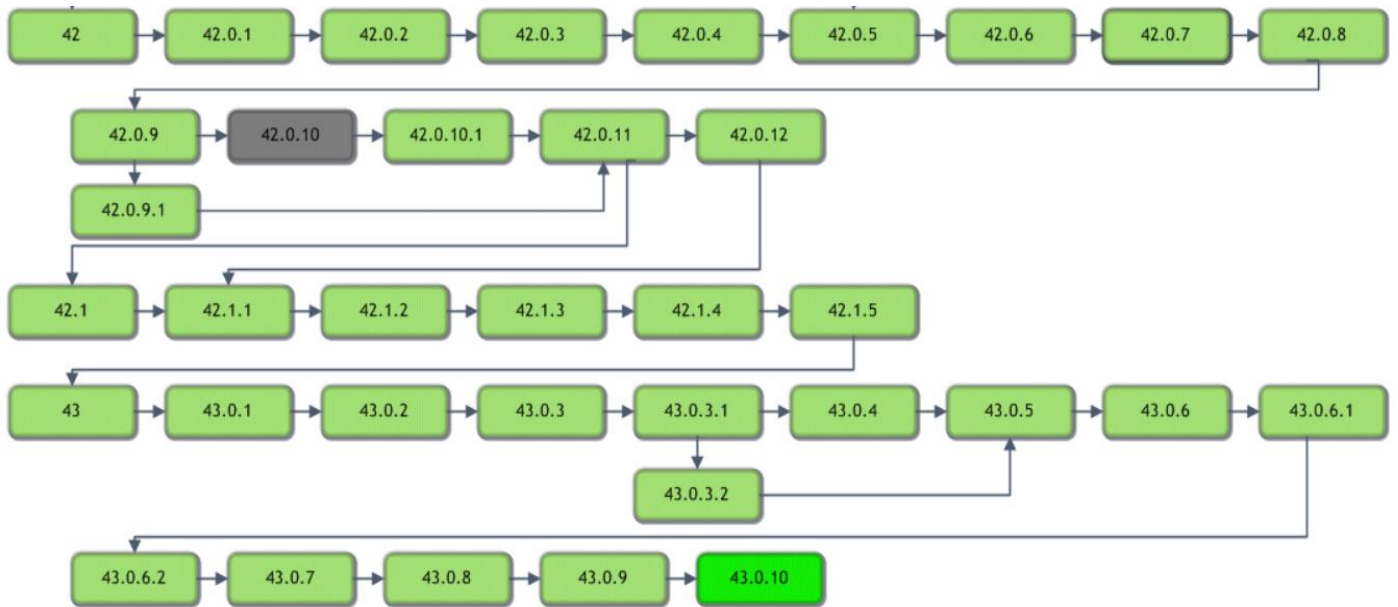
eRAD RIS Server Update

1. Defects Resolved

Redmine #	Tracker	Subject	Priority
7859	Bug	slow performance retrieving visit data set	Normal

eRAD RIS Server Update

2. Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

3. Package Contents

Files included for this server update:

1) RIS_Service_Updates contains:

ABCpdf.dll	Radar.DirectMessaging.Model.dll
ABCpdf9-32.dll	Radar.DirectMessaging.Model.pdb
ABCpdf9-64.dll	rRISServices.exe
Antlr3.Runtime.dll	rRISServices.pdb
CDSJobManager.dll	rRISServicesx64.exe
CDSJobManager.pdb	ScheduledTaskManager.dll
CdsLib.dll	ScheduledTaskManager.pdb
CdsLib.xml	ServicesConfigWizard.exe
CdsLib.XmlSerializers.dll	ServicesConfigWizard.pdb
CommonLib.dll	SignatureApprovalService.exe
CommonLib.pdb	SignatureApprovalService.pdb
contents.txt	System.Net.Http.dll
DDEngine.dll	System.Net.Http.Formatting.dll
DDEngine.pdb	System.Net.Http.xml
DiffPlex.dll	System.Web.Http.dll
Interop.ANYMODALCAPTURECTRLLib.dll	System.Web.Http.SelfHost.dll
Interop.FAXCOMEXLib.dll	System.Web.Http.SelfHost.xml
Microsoft.Practices.EnterpriseLibrary.Caching.dll	System.Web.Http.WebHost.dll
Microsoft.Practices.EnterpriseLibrary.Caching.pdb	System.Web.Http.WebHost.xml
Microsoft.Practices.EnterpriseLibrary.Common.dll	System.Web.Http.xml
Microsoft.Practices.EnterpriseLibrary.Common.pdb	System.Web.Mvc.dll
Microsoft.Practices.EnterpriseLibrary.Logging.dll	System.Web.Mvc.xml
Microsoft.Practices.EnterpriseLibrary.Logging.pdb	System.Web.Optimization.dll
Microsoft.Practices.ServiceLocation.dll	System.Web.Razor.dll
Microsoft.Practices.ServiceLocation.pdb	System.Web.Razor.xml
Microsoft.Practices.Unity.dll	System.Web.WebPages.Deployment.dll
Microsoft.Practices.Unity.Interception.dll	System.Web.WebPages.Deployment.xml
Microsoft.Practices.Unity.Interception.pdb	System.Web.WebPages.dll
Microsoft.Practices.Unity.pdb	System.Web.WebPages.Razor.dll
Microsoft.ReportViewer.Common.dll	System.Web.WebPages.Razor.xml
Microsoft.ReportViewer.WinForms.dll	System.Web.WebPages.xml
Microsoft.ReportViewer.WinForms.xml	Tourreau.Gilles.FaxDotNet.dll
Newtonsoft.Json.dll	Tourreau.Gilles.FaxDotNet.pdb
Newtonsoft.Json.xml	Tourreau.Gilles.FaxDotNet.xml
NLog.dll	WCFSERVICE.dll
O2S.Components.PDFRender4NET.dll	WCFSERVICE.pdb
PDFToImages.exe	WCFSERVICE.Tests.dll
Radar.Common.dll	WCFSERVICE.Tests.pdb
Radar.Common.pdb	WebApi.dll
Radar.Common.WebClient.dll	WebApi.pdb
Radar.Common.WebClient.pdb	WebGrease.dll
Radar.DirectMessaging.Client.dll	Wedge.exe
Radar.DirectMessaging.Client.pdb	Wedge.pdb

The rRIS_Service_Updates also contains to subfolders:

A. Deploy folder contains

eRAD RIS Server Update

- a. Applicationsettings.config
 - b. ReleaseVersion-connectionstrings.config
 - c. rRISServices.exe.config
 - d. services.config
- B. XSL subfolder contains:
- a. Subfolder titled “Stylesheets” which contains:
 - a. CDAToHTMLCompleteReport.xslt
 - b. CDAToHTMLCompleteReportDark.xslt
 - c. CDAToHTMLImpressionSection.xslt
 - d. CDAToRIS.xslt
 - e. CDAToTxt.xslt
 - f. DocumentModelReport.xslt
 - g. DocumentModelReportAsXml.xslt

 - b. CDA Subfolder contains
 - a. C-CDA.xsl
 - b. eRadStylesheet.xsl
 - c. generalTemplates.xsl
 - d. header.xsl
 - e. QRDA.xsl
 - f. QrdaLevel3_Cypress2.4.0.xsl
 - g. QrdaLevel3_ViewHtml.xsl
 - h. sectionAdministeredMedications.xsl
 - i. sectionAllergies.xsl
 - j. sectionEncounters.xsl
 - k. sectionFindings.xsl
 - l. sectionFuncCogStatus.xsl
 - m. sectionImmunizations.xsl
 - n. sectionInstructions.xsl
 - o. sectionMedications.xsl
 - p. sectionPlanOfCare.xsl
 - q. sectionProblemList.xsl
 - r. sectionProcedures.xsl
 - s. sectionQRDAMEasures.xsl
 - t. sectionQRDAPatientData.xsl
 - u. sectionQRDAREporting.xsl
 - v. sectionReasonForVisit.xsl
 - w. sectionResults.xsl
 - x. sectionSocialHistory.xsl
 - y. sectionVitalSigns.xsl

eRAD RIS Server Update

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.9

6. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
42.1	-	2.42.1.0.22744(3GB)	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.2296(3GB)	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates
42.1	2	2.42.1.2.23007(3GB)	2.42.0.0.21261	2.42.1.2.23007	2.42.1.2.23007	GUI.zip, Web Service, DB updates
42.1	3	2.42.1.2.23237(3GB)	2.42.0.0.21261	2.42.1.2.23237	2.42.1.2.23007	GUI.zip, Web Services
42.1	4	2.42.1.4.23348(3GB)	2.42.0.0.21261	2.42.1.4.23348	2.42.1.2.23007	GUI.zip, Web Services
42.1	5	2.42.1.5.23406(3GB)	2.42.0.0.21261	2.42.1.5.23406	2.42.1.2.23007	GUI.zip, Web Services
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	2.43.0.5.24632(3GB)	2.43.0.0.23171	2.43.0.5.24632	2.43.0.5.24560	GUI.zip, Web Service and DB updates
43	6	2.43.0.6.24914(3GB)	2.43.0.0.23171	2.43.0.6.24914	2.43.0.6.24914	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

7. Installing

- 1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the configuration files. These include rRISServices.exe.config, rRISServicesx64.exe.config, applicationsettings.config, connectionstrings.config and services.config files.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.11

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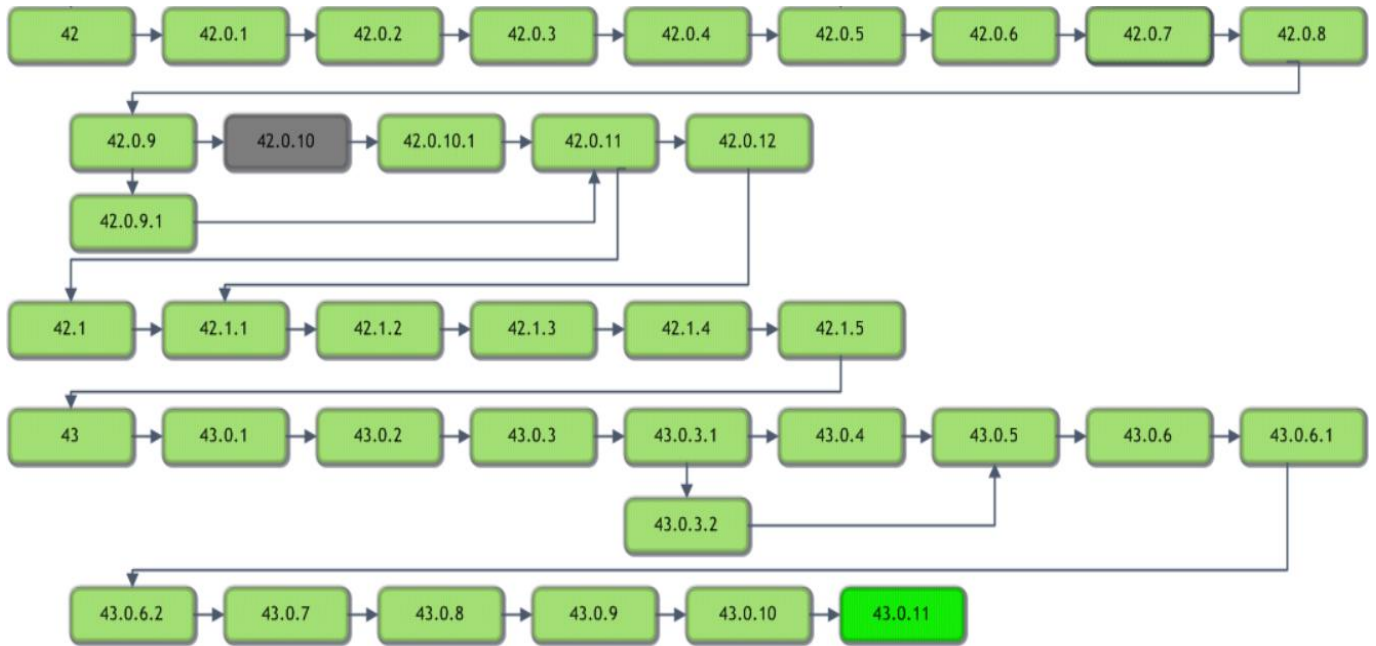
eRAD RIS Server Update

1. Defects Resolved

Redmine #	Tracker	Subject	Priority
7828	Feature	CD Burning - Add MRN to interface to PACS to ensure correct images are requested	Urgent

eRAD RIS Server Update

2. Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:

- rRIS_1.3.43.0.11.25512.zip

2) RIS_Service_Updates contains:

ABCpdf.dll	Radar.DirectMessaging.Model.dll
ABCpdf9-32.dll	Radar.DirectMessaging.Model.pdb
ABCpdf9-64.dll	rRISServices.exe
Antlr3.Runtime.dll	rRISServices.pdb
CDSJobManager.dll	rRISServicesx64.exe
CDSJobManager.pdb	ScheduledTaskManager.dll
CdsLib.dll	ScheduledTaskManager.pdb
CdsLib.xml	ServicesConfigWizard.exe
CdsLib.XmlSerializers.dll	ServicesConfigWizard.pdb
CommonLib.dll	SignatureApprovalService.exe
CommonLib.pdb	SignatureApprovalService.pdb
contents.txt	System.Net.Http.dll
DDEngine.dll	System.Net.Http.Formatting.dll
DDEngine.pdb	System.Net.Http.xml
DiffPlex.dll	System.Web.Http.dll
Interop.ANYMODALCAPTURECTRLLib.dll	System.Web.Http.SelfHost.dll
Interop.FAXCOMEXLib.dll	System.Web.Http.SelfHost.xml
Microsoft.Practices.EnterpriseLibrary.Caching.dll	System.Web.Http.WebHost.dll
Microsoft.Practices.EnterpriseLibrary.Caching.pdb	System.Web.Http.WebHost.xml
Microsoft.Practices.EnterpriseLibrary.Common.dll	System.Web.Http.xml
Microsoft.Practices.EnterpriseLibrary.Common.pdb	System.Web.Mvc.dll
Microsoft.Practices.EnterpriseLibrary.Logging.dll	System.Web.Mvc.xml
Microsoft.Practices.EnterpriseLibrary.Logging.pdb	System.Web.Optimization.dll
Microsoft.Practices.ServiceLocation.dll	System.Web.Razor.dll
Microsoft.Practices.ServiceLocation.pdb	System.Web.Razor.xml
Microsoft.Practices.Unity.dll	System.Web.WebPages.Deployment.dll
Microsoft.Practices.Unity.Interception.dll	System.Web.WebPages.Deployment.xml
Microsoft.Practices.Unity.Interception.pdb	System.Web.WebPages.dll
Microsoft.Practices.Unity.pdb	System.Web.WebPages.Razor.dll
Microsoft.ReportViewer.Common.dll	System.Web.WebPages.Razor.xml
Microsoft.ReportViewer.WinForms.dll	System.Web.WebPages.xml
Microsoft.ReportViewer.WinForms.xml	Tourreau.Gilles.FaxDotNet.dll
Newtonsoft.Json.dll	Tourreau.Gilles.FaxDotNet.pdb
Newtonsoft.Json.xml	Tourreau.Gilles.FaxDotNet.xml
NLog.dll	WCFSservice.dll
O2S.Components.PDFRender4NET.dll	WCFSservice.pdb
PDFToImages.exe	WCFSserviceTests.dll
Radar.Common.dll	WCFSserviceTests.pdb
Radar.Common.pdb	WebApi.dll
Radar.Common.WebClient.dll	WebApi.pdb
Radar.Common.WebClient.pdb	WebGrease.dll
Radar.DirectMessaging.Client.dll	Wedge.exe
Radar.DirectMessaging.Client.pdb	Wedge.pdb

eRAD RIS Server Update

The rRIS_Service_Updates also contains to subfolders:

- A. Deploy folder contains
 - a. Applicationsettings.config
 - b. ReleaseVersion-connectionstrings.config
 - c. rRISServices.exe.config
 - d. services.config

- B. XSL subfolder contains:
 - a. Subfolder titled “Stylesheets” which contains:
 - a. CDAToHTMLCompleteReport.xslt
 - b. CDAToHTMLCompleteReportDark.xslt
 - c. CDAToHTMLImpressionSection.xslt
 - d. CDAToRIS.xslt
 - e. CDAToTxt.xslt
 - f. DocumentModelReport.xslt
 - g. DocumentModelReportAsXml.xslt

 - b. CDA Subfolder contains
 - a. C-CDA.xsl
 - b. eRadStylesheet.xsl
 - c. generalTemplates.xsl
 - d. header.xsl
 - e. QRDA.xsl
 - f. QrdaLevel3_Cypress2.4.0.xsl
 - g. QrdaLevel3_ViewHtml.xsl
 - h. sectionAdministeredMedications.xsl
 - i. sectionAllergies.xsl
 - j. sectionEncounters.xsl
 - k. sectionFindings.xsl
 - l. sectionFuncCogStatus.xsl
 - m. sectionImmunizations.xsl
 - n. sectionInstructions.xsl
 - o. sectionMedications.xsl
 - p. sectionPlanOfCare.xsl
 - q. sectionProblemList.xsl
 - r. sectionProcedures.xsl
 - s. sectionQRDAMEasures.xsl
 - t. sectionQRDAPatientData.xsl
 - u. sectionQRDAREporting.xsl
 - v. sectionReasonForVisit.xsl
 - w. sectionResults.xsl
 - x. sectionSocialHistory.xsl
 - y. sectionVitalSigns.xsl

eRAD RIS Server Update

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

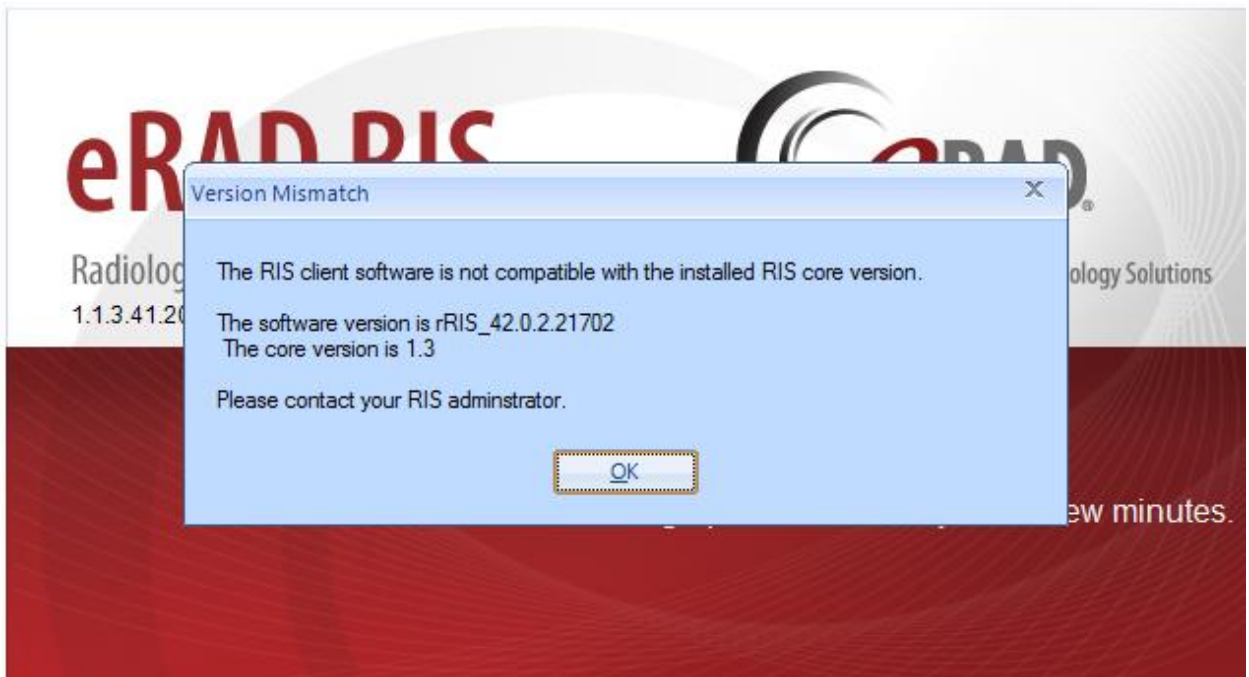
Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.9

6. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
42.1	-	2.42.1.0.22744(3GB)	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.2296(3GB)	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates
42.1	2	2.42.1.2.23007(3GB)	2.42.0.0.21261	2.42.1.2.23007	2.42.1.2.23007	GUI.zip, Web Service, DB updates
42.1	3	2.42.1.2.23237(3GB)	2.42.0.0.21261	2.42.1.2.23237	2.42.1.2.23007	GUI.zip, Web Services
42.1	4	2.42.1.4.23348(3GB)	2.42.0.0.21261	2.42.1.4.23348	2.42.1.2.23007	GUI.zip, Web Services
42.1	5	2.42.1.5.23406(3GB)	2.42.0.0.21261	2.42.1.5.23406	2.42.1.2.23007	GUI.zip, Web Services
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	2.43.0.5.24632(3GB)	2.43.0.0.23171	2.43.0.5.24632	2.43.0.5.24560	GUI.zip, Web Service and DB updates
43	6	2.43.0.6.24914(3GB)	2.43.0.0.23171	2.43.0.6.24914	2.43.0.6.24914	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

7. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.43.0.11.25512.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0.11.25512 → rRIS_1.3.43.0.11.25512

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

eRAD RIS Server Update

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

- 2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.12

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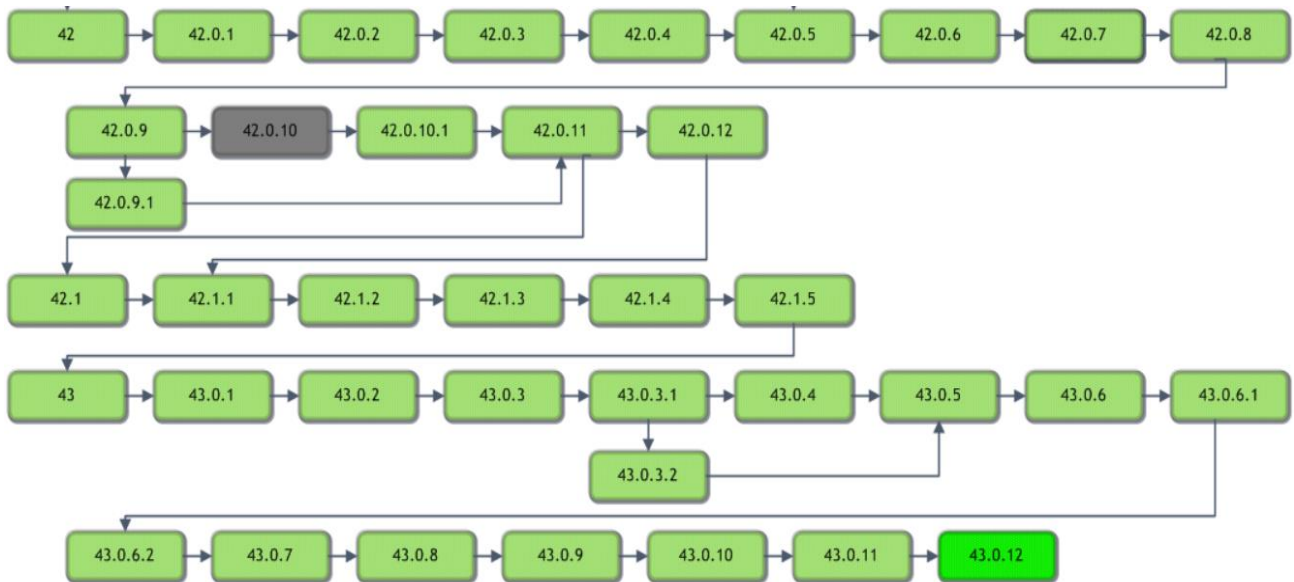
eRAD RIS Server Update

1. Defects Resolved

Redmine #	Tracker	Subject	Priority
7896	Bug	Residual Cross site schedule code from future development got put into b43.0.7 that can allow multiple site to come back in a search result	Urgent
7870	Bug	Insurance Eligibility - Exclude Service Type lines that have a null Period	Urgent
7868	Bug	Insurance Eligibility - Need to parse returns for text applying to RadNet	Urgent
7907	Bug	Billing Grid - Unable to copy policy number	Normal
7906	Bug	CD Burning - Failing due to missing patient_id field in Perform Exam	Normal

eRAD RIS Server Update

2. Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:

- rRIS_1.3.43.0.12.25554.zip

2) RIS_Service_Updates contains:

ABCpdf.dll	Radar.DirectMessaging.Model.dll
ABCpdf9-32.dll	Radar.DirectMessaging.Model.pdb
ABCpdf9-64.dll	rRISServices.exe
Antlr3.Runtime.dll	rRISServices.pdb
CDSJobManager.dll	rRISServicesx64.exe
CDSJobManager.pdb	ScheduledTaskManager.dll
CdsLib.dll	ScheduledTaskManager.pdb
CdsLib.xml	ServicesConfigWizard.exe
CdsLib.XmlSerializers.dll	ServicesConfigWizard.pdb
CommonLib.dll	SignatureApprovalService.exe
CommonLib.pdb	SignatureApprovalService.pdb
contents.txt	System.Net.Http.dll
DDEngine.dll	System.Net.Http.Formatting.dll
DDEngine.pdb	System.Net.Http.xml
DiffPlex.dll	System.Web.Http.dll
Interop.ANYMODALCAPTURECTRLLib.dll	System.Web.Http.SelfHost.dll
Interop.FAXCOMEXLib.dll	System.Web.Http.SelfHost.xml
Microsoft.Practices.EnterpriseLibrary.Caching.dll	System.Web.Http.WebHost.dll
Microsoft.Practices.EnterpriseLibrary.Caching.pdb	System.Web.Http.WebHost.xml
Microsoft.Practices.EnterpriseLibrary.Common.dll	System.Web.Http.xml
Microsoft.Practices.EnterpriseLibrary.Common.pdb	System.Web.Mvc.dll
Microsoft.Practices.EnterpriseLibrary.Logging.dll	System.Web.Mvc.xml
Microsoft.Practices.EnterpriseLibrary.Logging.pdb	System.Web.Optimization.dll
Microsoft.Practices.ServiceLocation.dll	System.Web.Razor.dll
Microsoft.Practices.ServiceLocation.pdb	System.Web.Razor.xml
Microsoft.Practices.Unity.dll	System.Web.WebPages.Deployment.dll
Microsoft.Practices.Unity.Interception.dll	System.Web.WebPages.Deployment.xml
Microsoft.Practices.Unity.Interception.pdb	System.Web.WebPages.dll
Microsoft.Practices.Unity.pdb	System.Web.WebPages.Razor.dll
Microsoft.ReportViewer.Common.dll	System.Web.WebPages.Razor.xml
Microsoft.ReportViewer.WinForms.dll	System.Web.WebPages.xml
Microsoft.ReportViewer.WinForms.xml	Tourreau.Gilles.FaxDotNet.dll
Newtonsoft.Json.dll	Tourreau.Gilles.FaxDotNet.pdb
Newtonsoft.Json.xml	Tourreau.Gilles.FaxDotNet.xml
NLog.dll	WCFSservice.dll
O2S.Components.PDFRender4NET.dll	WCFSservice.pdb
PDFToImages.exe	WCFSserviceTests.dll
Radar.Common.dll	WCFSserviceTests.pdb
Radar.Common.pdb	WebApi.dll
Radar.Common.WebClient.dll	WebApi.pdb
Radar.Common.WebClient.pdb	WebGrease.dll
Radar.DirectMessaging.Client.dll	Wedge.exe
Radar.DirectMessaging.Client.pdb	Wedge.pdb

eRAD RIS Server Update

The rRIS_Service_Updates also contains to subfolders:

- A. Deploy folder contains
 - a. Applicationsettings.config
 - b. ReleaseVersion-connectionstrings.config
 - c. rRISServices.exe.config
 - d. services.config

- B. XSL subfolder contains:
 - a. Subfolder titled “Stylesheets” which contains:
 - a. CDAToHTMLCompleteReport.xslt
 - b. CDAToHTMLCompleteReportDark.xslt
 - c. CDAToHTMLImpressionSection.xslt
 - d. CDAToRIS.xslt
 - e. CDAToTxt.xslt
 - f. DocumentModelReport.xslt
 - g. DocumentModelReportAsXml.xslt

 - b. CDA Subfolder contains
 - a. C-CDA.xsl
 - b. eRadStylesheet.xsl
 - c. generalTemplates.xsl
 - d. header.xsl
 - e. QRDA.xsl
 - f. QrdaLevel3_Cypress2.4.0.xsl
 - g. QrdaLevel3_ViewHtml.xsl
 - h. sectionAdministeredMedications.xsl
 - i. sectionAllergies.xsl
 - j. sectionEncounters.xsl
 - k. sectionFindings.xsl
 - l. sectionFuncCogStatus.xsl
 - m. sectionImmunizations.xsl
 - n. sectionInstructions.xsl
 - o. sectionMedications.xsl
 - p. sectionPlanOfCare.xsl
 - q. sectionProblemList.xsl
 - r. sectionProcedures.xsl
 - s. sectionQRDAMEasures.xsl
 - t. sectionQRDAPatientData.xsl
 - u. sectionQRDAREporting.xsl
 - v. sectionReasonForVisit.xsl
 - w. sectionResults.xsl
 - x. sectionSocialHistory.xsl
 - y. sectionVitalSigns.xsl

- C. SQL Folder contains:
 - B43.0.12.sql

eRAD RIS Server Update

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

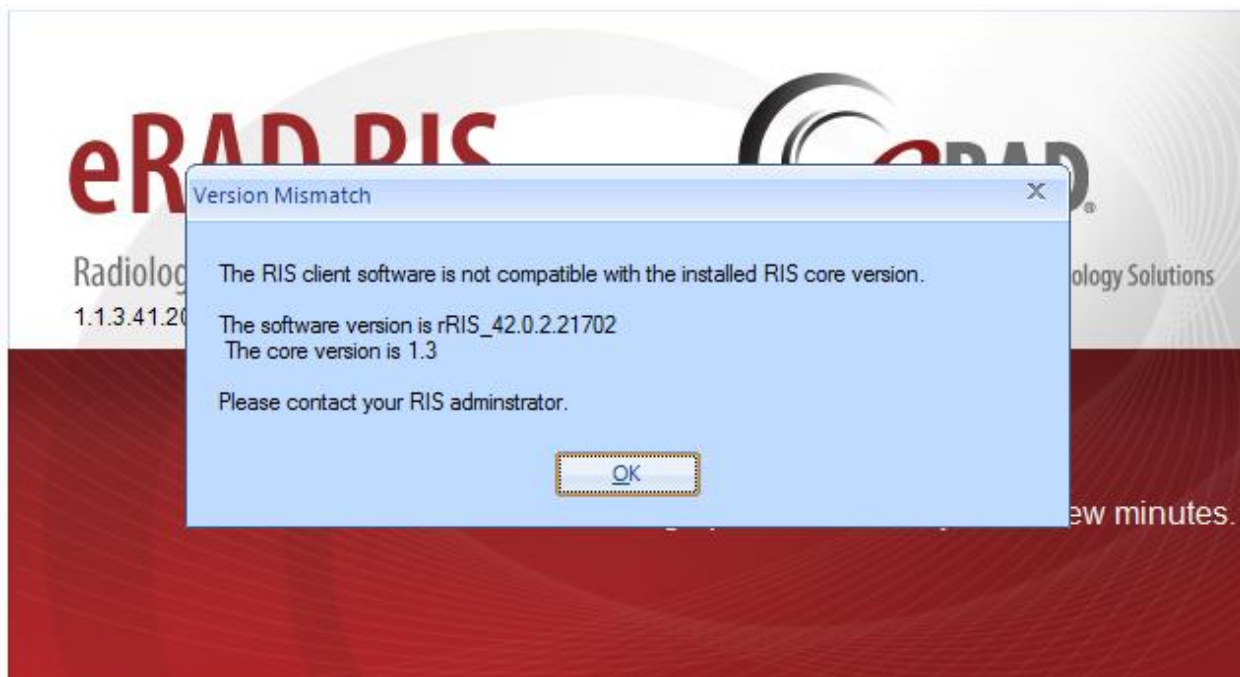
Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.8

6. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
42.1	-	2.42.1.0.22744(3GB)	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.2296(3GB)	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates
42.1	2	2.42.1.2.23007(3GB)	2.42.0.0.21261	2.42.1.2.23007	2.42.1.2.23007	GUI.zip, Web Service, DB updates
42.1	3	2.42.1.2.23237(3GB)	2.42.0.0.21261	2.42.1.2.23237	2.42.1.2.23007	GUI.zip, Web Services
42.1	4	2.42.1.4.23348(3GB)	2.42.0.0.21261	2.42.1.4.23348	2.42.1.2.23007	GUI.zip, Web Services
42.1	5	2.42.1.5.23406(3GB)	2.42.0.0.21261	2.42.1.5.23406	2.42.1.2.23007	GUI.zip, Web Services
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	2.43.0.5.24632(3GB)	2.43.0.0.23171	2.43.0.5.24632	2.43.0.5.24560	GUI.zip, Web Service and DB updates
43	6	2.43.0.6.24914(3GB)	2.43.0.0.23171	2.43.0.6.24914	2.43.0.6.24914	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

7. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.43.0.12.25554.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0.12.25554 → rRIS_1.3.43.0.12.25554

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

- 2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

- 3) Run the B43.0.12.sql file against the eRAD RIS database instance.

Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.13

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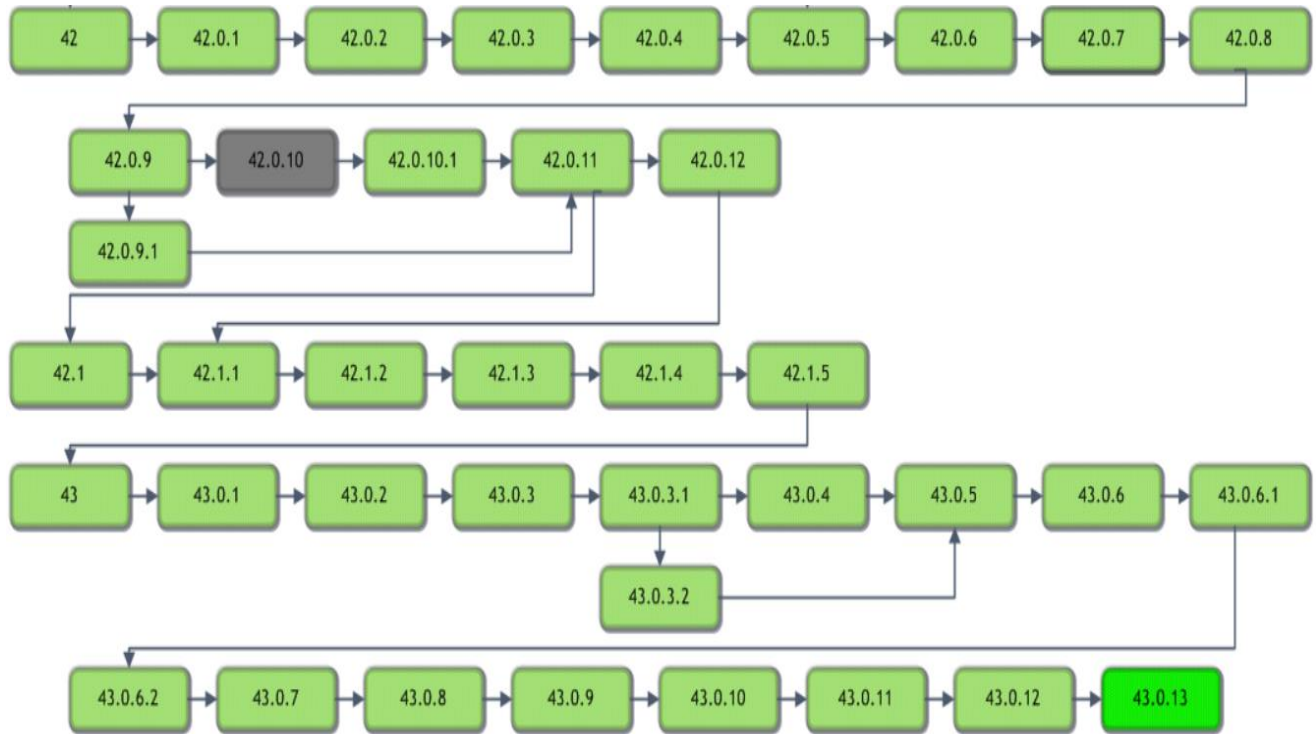
eRAD RIS Server Update

1. Defects Resolved

Redmine #	Tracker	Subject	Priority
7944	Bug	Insurance Eligibility - Checks are failing due to problem with fix #7870	Immediate
7946	Bug	Powerscribe - discard an addendum may delete original report if HL7 not received	High

eRAD RIS Server Update

2. Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

3. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:

- rRIS_1.3.43.0.13.25610.zip

2) RIS_Service_Updates contains:

ABCpdf.dll	Radar.DirectMessaging.Model.dll
ABCpdf9-32.dll	Radar.DirectMessaging.Model.pdb
ABCpdf9-64.dll	rRISServices.exe
Antlr3.Runtime.dll	rRISServices.pdb
CDSJobManager.dll	rRISServicesx64.exe
CDSJobManager.pdb	ScheduledTaskManager.dll
CdsLib.dll	ScheduledTaskManager.pdb
CdsLib.xml	ServicesConfigWizard.exe
CdsLib.XmlSerializers.dll	ServicesConfigWizard.pdb
CommonLib.dll	SignatureApprovalService.exe
CommonLib.pdb	SignatureApprovalService.pdb
contents.txt	System.Net.Http.dll
DDEngine.dll	System.Net.Http.Formatting.dll
DDEngine.pdb	System.Net.Http.xml
DiffPlex.dll	System.Web.Http.dll
Interop.ANYMODALCAPTURECTRLLib.dll	System.Web.Http.SelfHost.dll
Interop.FAXCOMEXLib.dll	System.Web.Http.SelfHost.xml
Microsoft.Practices.EnterpriseLibrary.Caching.dll	System.Web.Http.WebHost.dll
Microsoft.Practices.EnterpriseLibrary.Caching.pdb	System.Web.Http.WebHost.xml
Microsoft.Practices.EnterpriseLibrary.Common.dll	System.Web.Http.xml
Microsoft.Practices.EnterpriseLibrary.Common.pdb	System.Web.Mvc.dll
Microsoft.Practices.EnterpriseLibrary.Logging.dll	System.Web.Mvc.xml
Microsoft.Practices.EnterpriseLibrary.Logging.pdb	System.Web.Optimization.dll
Microsoft.Practices.ServiceLocation.dll	System.Web.Razor.dll
Microsoft.Practices.ServiceLocation.pdb	System.Web.Razor.xml
Microsoft.Practices.Unity.dll	System.Web.WebPages.Deployment.dll
Microsoft.Practices.Unity.Interception.dll	System.Web.WebPages.Deployment.xml
Microsoft.Practices.Unity.Interception.pdb	System.Web.WebPages.dll
Microsoft.Practices.Unity.pdb	System.Web.WebPages.Razor.dll
Microsoft.ReportViewer.Common.dll	System.Web.WebPages.Razor.xml
Microsoft.ReportViewer.WinForms.dll	System.Web.WebPages.xml
Microsoft.ReportViewer.WinForms.xml	Tourreau.Gilles.FaxDotNet.dll
Newtonsoft.Json.dll	Tourreau.Gilles.FaxDotNet.pdb
Newtonsoft.Json.xml	Tourreau.Gilles.FaxDotNet.xml
NLog.dll	WCFSservice.dll
O2S.Components.PDFRender4NET.dll	WCFSservice.pdb
PDFToImages.exe	WCFSserviceTests.dll
Radar.Common.dll	WCFSserviceTests.pdb
Radar.Common.pdb	WebApi.dll
Radar.Common.WebClient.dll	WebApi.pdb
Radar.Common.WebClient.pdb	WebGrease.dll
Radar.DirectMessaging.Client.dll	Wedge.exe
Radar.DirectMessaging.Client.pdb	Wedge.pdb

eRAD RIS Server Update

The rRIS_Service_Updates also contains to subfolders:

- A. Deploy folder contains
 - a. Applicationsettings.config
 - b. ReleaseVersion-connectionstrings.config
 - c. rRISServices.exe.config
 - d. services.config

- B. XSL subfolder contains:
 - a. Subfolder titled “Stylesheets” which contains:
 - a. CDAToHTMLCompleteReport.xslt
 - b. CDAToHTMLCompleteReportDark.xslt
 - c. CDAToHTMLImpressionSection.xslt
 - d. CDAToRIS.xslt
 - e. CDAToTxt.xslt
 - f. DocumentModelReport.xslt
 - g. DocumentModelReportAsXml.xslt

 - b. CDA Subfolder contains
 - a. C-CDA.xsl
 - b. eRadStylesheet.xsl
 - c. generalTemplates.xsl
 - d. header.xsl
 - e. QRDA.xsl
 - f. QrdaLevel3_Cypress2.4.0.xsl
 - g. QrdaLevel3_ViewHtml.xsl
 - h. sectionAdministeredMedications.xsl
 - i. sectionAllergies.xsl
 - j. sectionEncounters.xsl
 - k. sectionFindings.xsl
 - l. sectionFuncCogStatus.xsl
 - m. sectionImmunizations.xsl
 - n. sectionInstructions.xsl
 - o. sectionMedications.xsl
 - p. sectionPlanOfCare.xsl
 - q. sectionProblemList.xsl
 - r. sectionProcedures.xsl
 - s. sectionQRDAMEasures.xsl
 - t. sectionQRDAPatientData.xsl
 - u. sectionQRDAREporting.xsl
 - v. sectionReasonForVisit.xsl
 - w. sectionResults.xsl
 - x. sectionSocialHistory.xsl
 - y. sectionVitalSigns.xsl

eRAD RIS Server Update

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

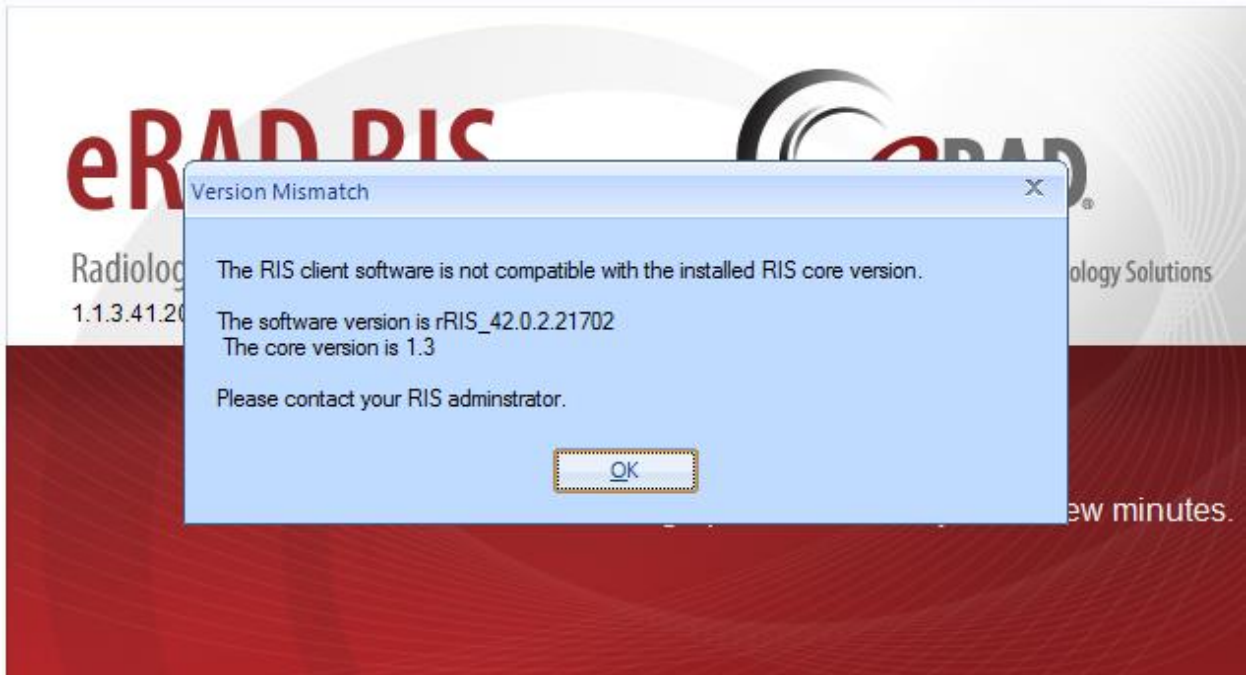
Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.12

6. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
42.1	-	2.42.1.0.22744(3GB)	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.2296(3GB)	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates
42.1	2	2.42.1.2.23007(3GB)	2.42.0.0.21261	2.42.1.2.23007	2.42.1.2.23007	GUI.zip, Web Service, DB updates
42.1	3	2.42.1.2.23237(3GB)	2.42.0.0.21261	2.42.1.2.23237	2.42.1.2.23007	GUI.zip, Web Services
42.1	4	2.42.1.4.23348(3GB)	2.42.0.0.21261	2.42.1.4.23348	2.42.1.2.23007	GUI.zip, Web Services
42.1	5	2.42.1.5.23406(3GB)	2.42.0.0.21261	2.42.1.5.23406	2.42.1.2.23007	GUI.zip, Web Services
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	2.43.0.5.24632(3GB)	2.43.0.0.23171	2.43.0.5.24632	2.43.0.5.24560	GUI.zip, Web Service and DB updates
43	6	2.43.0.6.24914(3GB)	2.43.0.0.23171	2.43.0.6.24914	2.43.0.6.24914	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

7. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.43.0.13.25610.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0.13.25610 → rRIS_1.3.43.0.13.25610

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

- 2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.

rRISService directories include:

- a) rRISService*
- b) CDS rRISService*
- c) Wedge rRISService*
- d) DDE rRISService*

Restart each service.

Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.0.14

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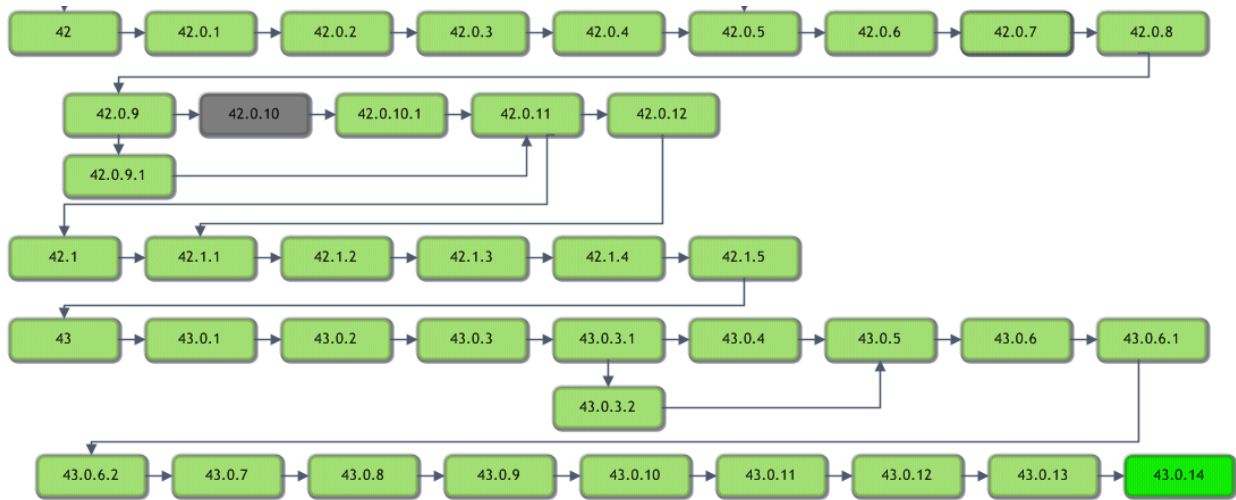
eRAD RIS Server Update

1. Defects Resolved

Redmine #	Tracker	Subject	Priority
7985	Bug	PowerScribe Integration - exception message when trying to open a study	High
8011	Bug	Carestream PACS integration Read Only mode issue	Urgent

eRAD RIS Server Update

2. Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

3. Package Contents

Files included for this server update:

- 1) GUI ZIP Updates folder contains:
 - rRIS_1.3.43.0.14.25644.zip

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

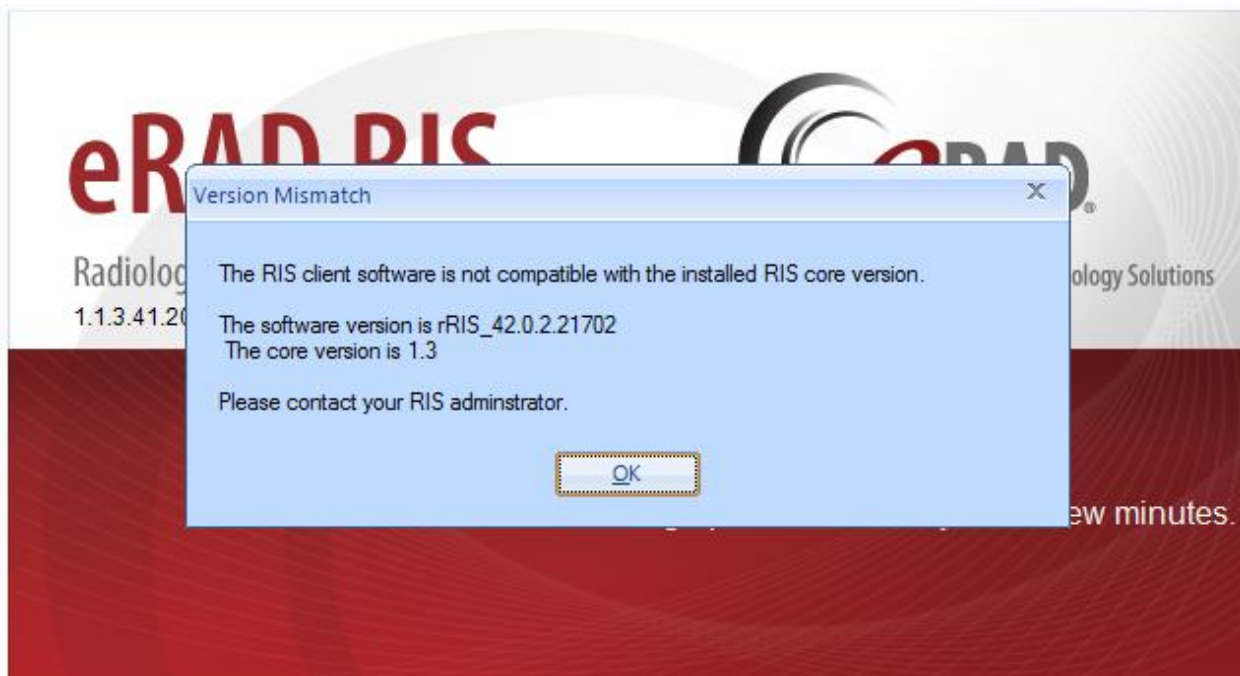
Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.13

6. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
42.1	-	2.42.1.0.22744(3GB)	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.2296(3GB)	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates
42.1	2	2.42.1.2.23007(3GB)	2.42.0.0.21261	2.42.1.2.23007	2.42.1.2.23007	GUI.zip, Web Service, DB updates
42.1	3	2.42.1.2.23237(3GB)	2.42.0.0.21261	2.42.1.2.23237	2.42.1.2.23007	GUI.zip, Web Services
42.1	4	2.42.1.4.23348(3GB)	2.42.0.0.21261	2.42.1.4.23348	2.42.1.2.23007	GUI.zip, Web Services
42.1	5	2.42.1.5.23406(3GB)	2.42.0.0.21261	2.42.1.5.23406	2.42.1.2.23007	GUI.zip, Web Services
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	2.43.0.5.24632(3GB)	2.43.0.0.23171	2.43.0.5.24632	2.43.0.5.24560	GUI.zip, Web Service and DB updates
43	6	2.43.0.6.24914(3GB)	2.43.0.0.23171	2.43.0.6.24914	2.43.0.6.24914	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	2.43.0.13.25610(3GB)	2.43.0.0.23171	2.43.0.13.25610	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

7. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.43.0.14.25644.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0.14.25644 → rRIS_1.3.43.0.14.25644

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

Server Update

For eRAD RIS
Version 2.0
Build 43
Update 43.1

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1. New Features

a.) Distribution of Encrypted PDF via Email

1). Person/Address level configuration of email address and password

For now, this will be configured at the address level and later functionality will be provided to allow a default at the person level (see Outstanding Issues).

Passwords added at the address level are hidden from end users by default. If they have access they can click a button to view the password in plain text. Clicking this button audits their request for access and access to the password.

Changing a password is also an audited event.

Passwords are subject to a “strong password check” as a part of their data validation. The check is running the password against a regular expression. There is a system configuration item for

EmailPDFPasswordRegex to house the regular expression, thus allowing it to be customized per install.

2). Queue Poller

Changes were made to the queue poller to pick up any referring or CC addresses that prefer to receive email and create a distribution job with the specified email address.

3). PDF Encryption

In order to password protect the PDF file, an open source PDF library called PDFSharp is being used. This library allows us to pass it a password and a byte array containing a non-encrypted PDF and it then returns the password protected PDF.

4). RADAR

After some discussion of using Mirth to encrypt the PDF and send the email, it was decided that PDFSharp would be used to encrypt the pdf and RADAR would be used to send the email. This required an enhancement to the RADAR dll in order to pass a file to the service so they could attach it to the email.

Part of the message to RADAR involves an account name. RIS has always used the practice_code of the relevant practice for this. It is being determined based on the practice related to the _site_code of the study of the distribution job. RADAR uses the account name to determine who the sending message is from. Configuration of the email’s format will be done in RADAR, including logos, header, footer, colors, and verbiage.

5). Email Sender

A configuration setting called DDEnableEmail has been added to the applicationsettings.config file of the RIS services binaries. When this setting is True the main method of the Distribution engine will create a worklist working thread that will poll for Email jobs created by the queue poller. This setting was added in order to provide the ability to disable email functionality on a particular Distribution server, mostly for testing purposes. There is nothing preventing multiple Distribution services from processing email jobs at the same time for scalability purposes.

When the Distribution service finds an email job, it will create a PDF of the report using the Sql Server Reporting Services framework in the same way faxes and print jobs are done. It then encrypts the PDF using the PDFSharp library and sends it via RADAR using the dll the RADAR team has provided.

6). Send Report Dialog

The Send Report dialog, also used to edit active Distribution jobs, has been enhanced to allow sending emails. The email portion is disabled when the Other radio button is selected. This is because the password used to encrypt the PDF file is set for the particular person and address.

Upon selecting an address with a delivery preference of Email the Email textbox will automatically populate based on the value from the person’s address. For addresses with other default delivery preferences, changing the Delivery method dropdown to Email will cause the email textbox to populate if and Email has been specified for that address.

Note there are outstanding issues regarding this screen.

eRAD RIS Server Update

7). Worklists

The Document Distribution Worklists in the RIS client now show Email jobs with a Delivery Method value of “Email” and an Email Address column valued with the destination Email address. See screenshots below.

How to enable the Feature

- 1) Personnel changes
 - a. Any referring physicians that wish to receive reports via email when they are the referring or a CC doctor on a study must be configured with that preference via the Personnel editor.
- 2) Service setting changes
 - a. The queue used by the Distribution Engine must be set up appropriately to subscribe to report related events. If the service is already set up for Fax and Print jobs the queue is already ready.
 - b. The applicationsettings.config file for the Document Distribution service now contains a setting called “**DDEEnableEmail**” which must be set to True for the DD to process email jobs.
- 3) RADAR settings
 - a. RADAR must have accounts for all practices which will be sending emails.

Permission Strings

Config.LookupEditor.Personnel.EmailPassword = full access to this enables users to view personnel address distribution email passwords (Default == None)

eRAD RIS Server Update

Screen captures of screens / dialog

Edit Address

Address

Type: WorkAddress Active

Address 1: 111

Address 2: 111

City: 111

State: 111 Zip code: 111

Phone #: ()- Fax #: ()-

Affiliations:

Referring Practices:

Deliver to

Print Refer CC

Address 1: 111

Address 2: 111

City: 111

State: 111

Zip code: 111 Same as above

Fax Refer CC

Fax #: (902) 724-3316

Email Refer CC

Email *: dsfasd@zsdffas.com; asdf@

Password: ***** Reveal Password

EMR Refer CC

EMR:

Disable report delivery for this address

OK Cancel

Showing new Email section of address config

eRAD RIS Server Update

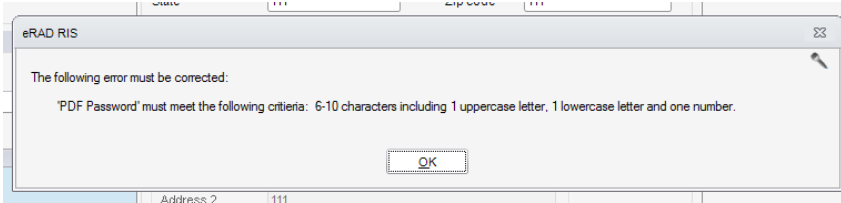
The screenshot shows a web form with several input fields. A modal dialog box titled "Reveal Password" is overlaid on top. The dialog contains the text: "Revealing a password is an audited event, and must only be used when requested by the referring doctor. Would you like to proceed with revealing the password?" with "Yes" and "No" buttons. The background form includes fields for Address 2, City, State, Zip code, Phone #, Fax #, Affiliations, State, Zip code, Fax #, Email, PDF Password, and EMR. There are also checkboxes for "Refer" and "CC" for each section.

Showing audit warning.

The screenshot shows the same web form as above, but with the "Reveal Password" dialog box removed. The "PDF Password" field now displays the text "ris123" in clear text. The "Reveal Password" button is still present next to it. The rest of the form fields and checkboxes are the same as in the previous screenshot.

Showing clear text password

eRAD RIS Server Update



PDF password failed strong passwords rules.

Send Report dialog with Email in the Delivery method dropdown.

Distribution History By Date WL (2) Patient: CREDIBLE, Justin #19497 (2)

Created Datetime	Manual Job Flag	Priority	Status	Document Type	BI-RADS	Delivery Method	Deliver To	Email Address	Destination Printer	Fax Number	Job Id
11-18-2014 3:01 PM		1	Completed	INTERPRETATION		Email	SINTON JR, WILLIAM A	stephen.stuart@radnet.com			1830507
11-18-2014 3:40 PM	✓	0	Completed	INTERPRETATION		Email	SINTON JR, WILLIAM A	stephen.stuart@radnet.com			1830511

Distribution History By Date WL showing two completed Email jobs.

Distribution WL (1 of 1756) Patient: CREDIBLE, Justin #19497 (2)

Accession #	Available	Status	Delivery Method	Email Address
1014772	11-18-2014 4:27 PM	Pending	Email	stephen.stuart@radnet.com

Distribution WL of active jobs, showing one Email job in Pending status

b.) CD Burning - new custom fields and support for multiple disc producers

In addition to the existing discproducer labels:

name, patient_id, site_code, site_description, deliver_to_first_name, deliver_to_last_name,
 deliver_to_address_lines, deliver_to_city, deliver_to_country, deliver_to_state, deliver_to_zip

We have added:

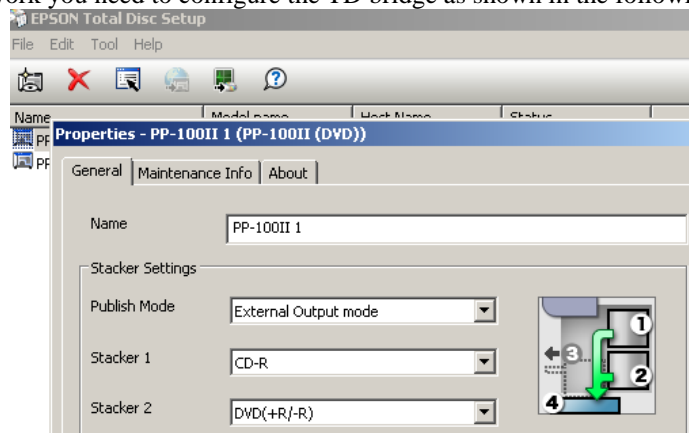
study_count, study1, study2, study3, study4, study5, study6, study7, study8, study9, study10

eRAD RIS Server Update

The name parameter now works and has the format <last_name><first_name> (DOB: <date>). An example label is shown in the following screen shot. Note in this example, I've burned a CD with data from several different PACS patients. As discussed in the previous RIS release, the format and design of the disc label is totally customizable by site.



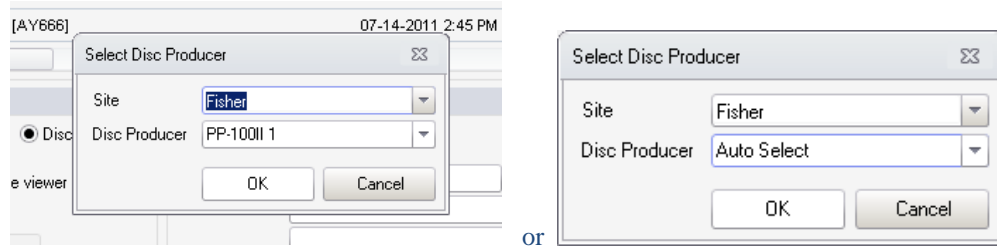
If the content to be written is greater than 650MB we now instruct the disc producer to burn to a DVD. For this to work you need to configure the TD bridge as shown in the following:



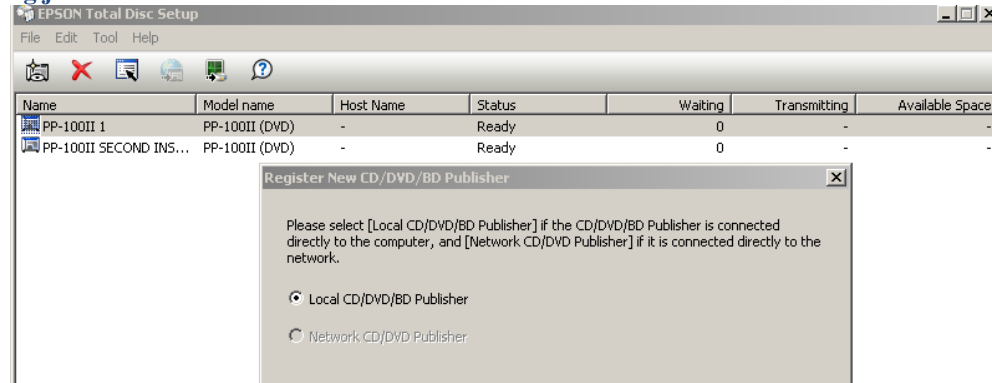
The disc producer's default share location has been added to the site configuration. With this setting, the disc producer location will default base on the site chosen in the "Select CD Burner" dialog. This popup, was previously titled "Select a label for the CD".

To support multiple burners we have modified the "Select Disc Producer" dialog to include an input for the burner at the selected site. If there is only one burner at the site, the burner dropdown is disabled; otherwise, it defaults to the last selection used for that site. If "Auto Select" is chosen, RIS will randomly pick one of the burners and will use that selection for the remainder of the RIS session. If the user specifically picks one of the burners, that selection will persist for that site.

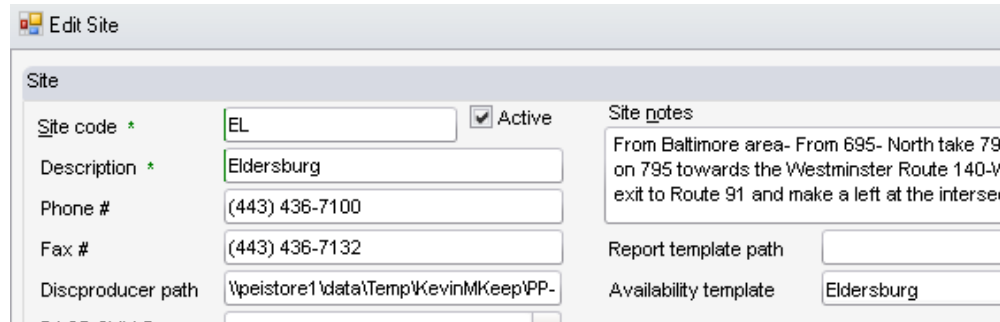
eRAD RIS Server Update



To configure more than one burner, go to the Epson Total Disc Setup as shown in the following screen shot. After setting up the additional instances you must restart the TD Bridge. **NOTE: DISC PRODUCER NAMES MUST BE TYPED IN UPPER CASE, lower case will cause an error when submitting job files.**



The disc producer path is configurable in the Organization lookup for a Site, as shown in the following:



If you have used the discproducer with a previous B43 build, you will need to delete the label subfolder in all of your discproducer shares; otherwise, you will not have access to the new fields: study_count and study<n>.

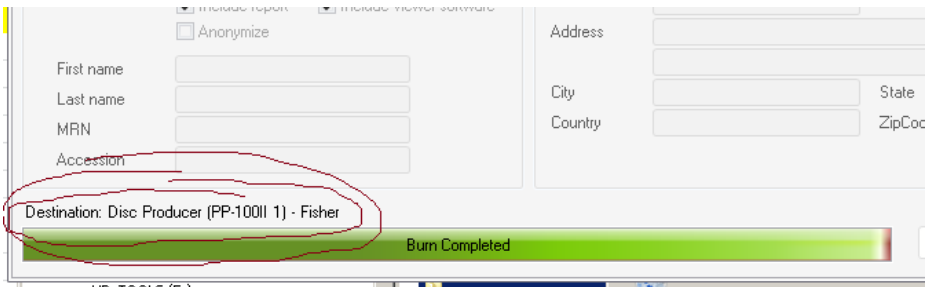
We have also added a text label at the bottom of the CD Burning screen to remind the user what they selected for the destination. A few examples are as follows:

Destination: Disc Producer (<name of burner>) – <site description>

Destination: File System - c:\<path>

Destination: CD\DVD - D:\

eRAD RIS Server Update



DB schema changes

Added discproducer_path to the l_site table.

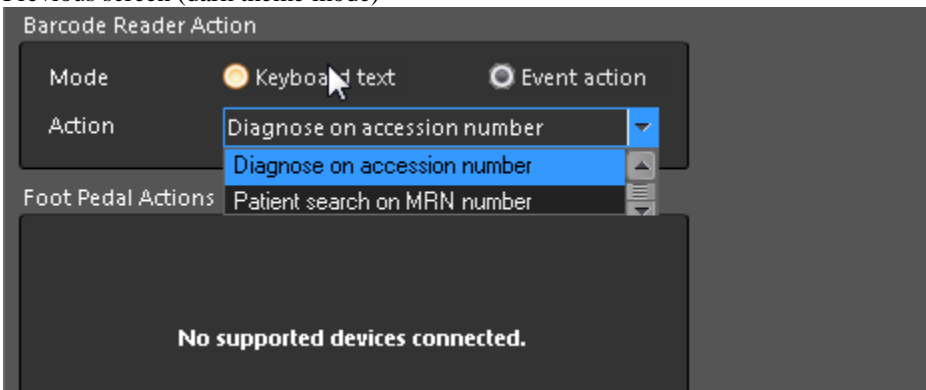
c.) Radiology Reporting - Motorola Symbol Barcode Support

Motorola provides an SDK for tightly integrating with their devices. See miscellaneous for link info. Within the SDK we used the Interop.CoreScanner.dll file which we included in our main application as a reference. This allows us to call methods and subscribe to events coming from the barcoding device.

Note at this time we are not undertaking the installation of the Motorola Symbol device. There are installation drivers available directly from Motorola for both 32 and 64 bit.

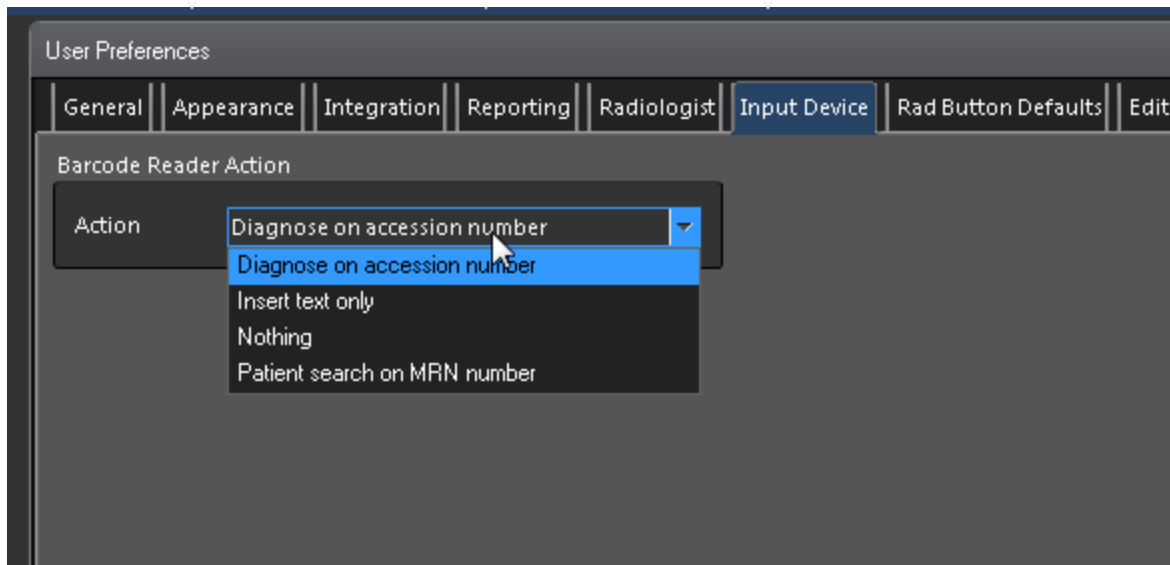
We will use the same Barcode control for Motorola Device as we do for the Philips Speech Mike device. We have also simplified the user preference control by eliminating the “Mode” option and adding a new action of “Insert Text Only” and “Nothing”.

Previous screen (dark theme mode)



Current Screen (dark theme mode)

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As illustrated in the above image users can now choose two new options. This simplifies the choice for users.

- “Insert Text Only” will send the text of the barcode plus an <ENTER> press key to the current cursor location. This is not application specific.
- “Nothing” will simply swallow the event and take no action. This may be handy if another application is integrated with the barcoding device.

We now show the “Input Device” tab regardless of reporting mode. Previously we only presented the tab if you were in M*Modal reporting mode. We do hide the other (non barcode) group boxes when not in M*Modal mode as they are not relevant to other reporting modes. We don’t initialize all devices (start them up) for particular reporting modes. We do attempt to initialize the Motorola Symbol Barcode scanner for all users. If the drivers exist it will start up if not the users will see no negative side effects.

How to enable this feature

The feature is enabled by default. To make the feature usable workstations will need to install the correct drivers for the Motorola Symbol Barcode device.

d.) Support patient electronic signature on defined hardware (Lenox Hill)

RIS needs to support the ability to show a form (e.g. a consent form, etc) on the screen and allow the Patient to review the document and then sign their name with a stylus.

1. Functionality was designed around our current management report functionality. A special form category can be used to make RIS treat forms as a signature type form.

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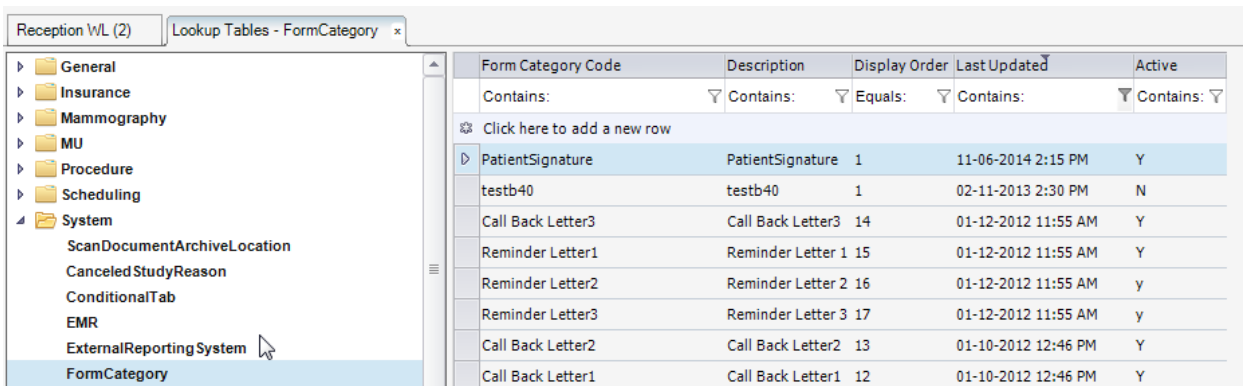


Figure 1 – Form Category editor allows the creation of a new form category.

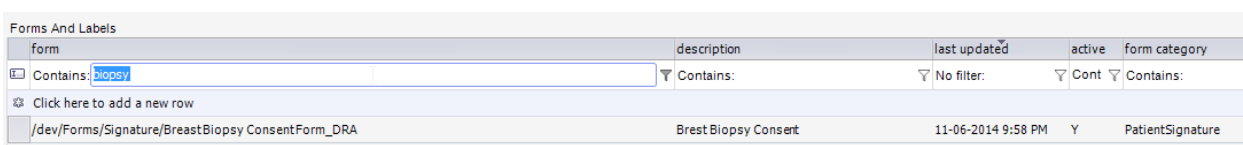


Figure 2 – Assign a form category of PatientSignature to a form to drive the signature.

2. If the user tries to print a form that is signature driven, we collect the signature and then save the form as a scan document, currently using the Scan Document Type of “Consent”, although the user can re-classify the document type afterwards. RIS allows the user to manually print a form by using one of 3 methods below.
 - a. “Print Forms” on the “Patient” tab on Registration/PerformExam, ViewEdit, etc
 - b. Using the right click/context menu from a worklist and choosing “Print Forms”
 - c. Saving a screen in RIS and working with the “Print Forms” dialog to print specially configured forms (e.g. certain forms are configured to fire for different actions in RIS such as CheckingIn based on the modality type, procedure, practice, or other criteria)
3. When a form is previewed or sent to the printer, RIS will check to see if the form requires signature controls and show a maximized window with the report if this is the case.
4. If multiple forms meet the filter criteria when a patient is being checked in, RIS will first print the matching non-signature based forms and will then present the signature based forms one at a time.
5. The users at the front desk will have a WACOM monitor with stylus facing the patient and when they are ready to collect signatures they will press WindowsKey+P and choose Mirror Desktop to allow the patient to complete the forms.
6. The window that pops up with the patient form will have a Sign button to allow the signature to be collected, a reset button to clear the signature on the current page and start again, an accept signature button to save the form with signature as a scan document, and previous page / next page buttons. The buttons are disabled until the user clicks the Sign button. Prev Page / Next Page will be disabled if there is only one page, and are disabled where appropriate at the start and end of the document.

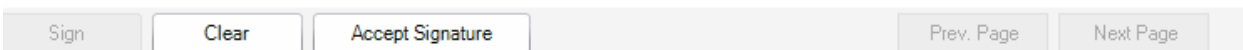


Figure 3 – Signature buttons

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How to enable this feature

Create form category as discussed above, associate category with forms in the forms and labels lookup editor

e.) Support ability to enter preferences for a referring physician to receive films or CD based on procedure type performed

The Personnel configuration screen has been enhanced for setting up or modifying referring physicians. An additional tab called Referring Preferences has been added. The Referring Preferences tab is only enabled when the Referring Physician resource flag is enabled on the Resource tab.

The Preferred Radiologists control has been moved to the new Referring Preferences tab. The Image Request Preferences can also be found here.

The Image Request Preferences selection functions very similarly to the Preferred Radiologists. The user starts by selecting a format. The image request format is a combination of the image medium and delivery method. The image medium options are determined by the values in the ImageMedium lookup table. The delivery method options are limited to Mail, Courier, Pickup, and Other.

Once a format is specified, the user may further filter studies by selecting a modality type. The modality type listing is determined by the active types in the ModalityType lookup. To further filter the study selection for image requests, the user may specify one or more procedures by modality type. The procedure listing is determined by the mappings in the ScheduleGroup lookup.

If a referring physician wants all his or her studies burnt to a CD and sent by courier, simply adding a format of CD and Courier will accomplish this. As the patient is arrived by the front desk staff, a new image request will automatically be created for the study. If the referring physician only wants CDs sent by courier for all CT and US procedures, adding a modality type filter on the CD – Courier node will do this. If the referring physician wants to pick up film copies of XR procedures, adding an additional node of Film – Pickup with a modality type of XR will accomplish this.

If the referring only wants image requests for certain procedures, this can be accomplished by adding one or more procedure nodes to the modality selection.

When a new image request is added based on the above preferences, the image request fields are defaulted as follows:

- Request Datetime - The date and time when the patient is arrived
- Requested by Type – Referring
- Requested by Contact Name – The first name and last name of the referring physician
- Requested by Phone Number – The phone number of the address matched to the order
- Image Medium Code – The image medium from the image request preference
- Delivery Method – The delivery method from the image request preference
- Deliver to Last Name – The last name of the referring physician
- Deliver to First Name – The first name of the referring physician
- Deliver to Name Suffix – The suffix of the referring physician
- Deliver to Name Prefix – The prefix of the referring physician
- Request Status – Pending
- Deliver to Type – Referring
- Site Code – The site code that the scheduled modality belongs to

If a “Deliver To” address is specified in the contact information of the referring physician, the following image request address fields will default to the specified address or they will default to the referring address that is matched to the order.

- Deliver to Address 1
- Deliver to Address 2

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- Deliver to City
- Deliver to State
- Deliver to Country
- Deliver to Zipcode
- Deliver to Phone Number

Screen captures of screens / dialogs / screen changes

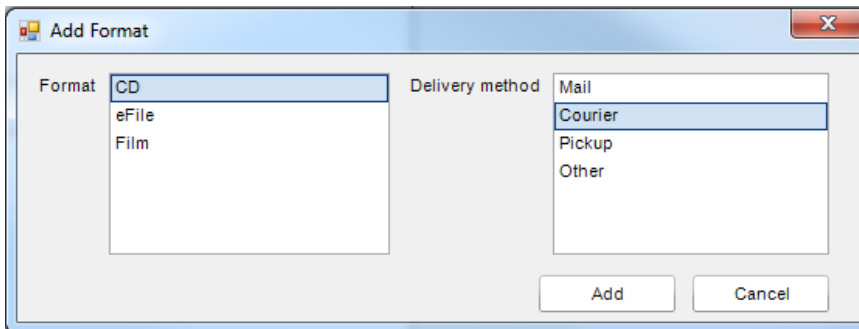


Figure 1 – Adding a Format of CD and a Delivery Method of Courier

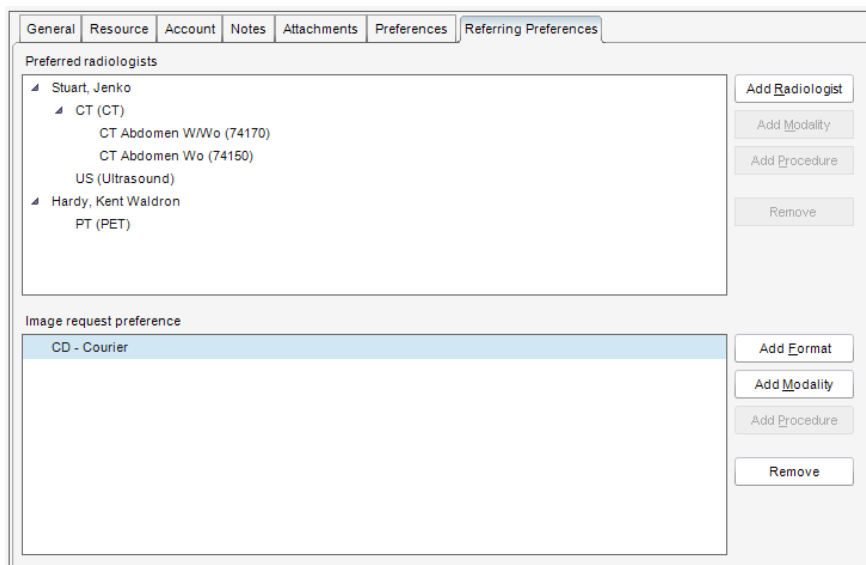


Figure 2 – Image request preference for all studies to be CD - Courier

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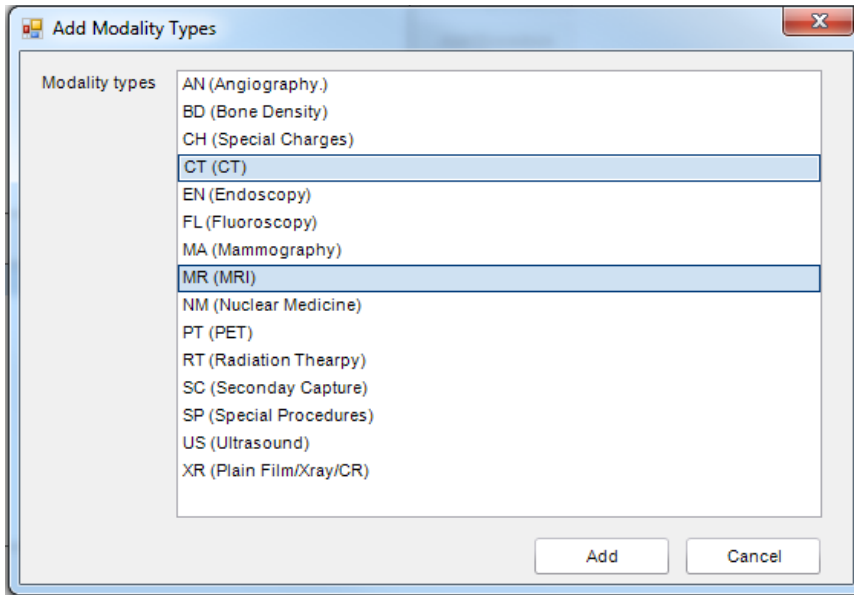


Figure 3 – Adding Modality Types of CT and MR

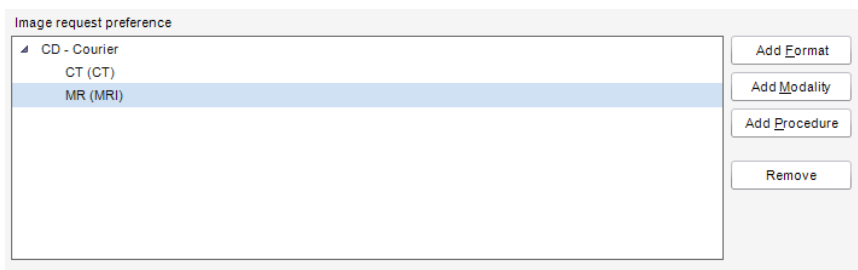


Figure 4 – CD – Courier for CT and MR Modality Types only

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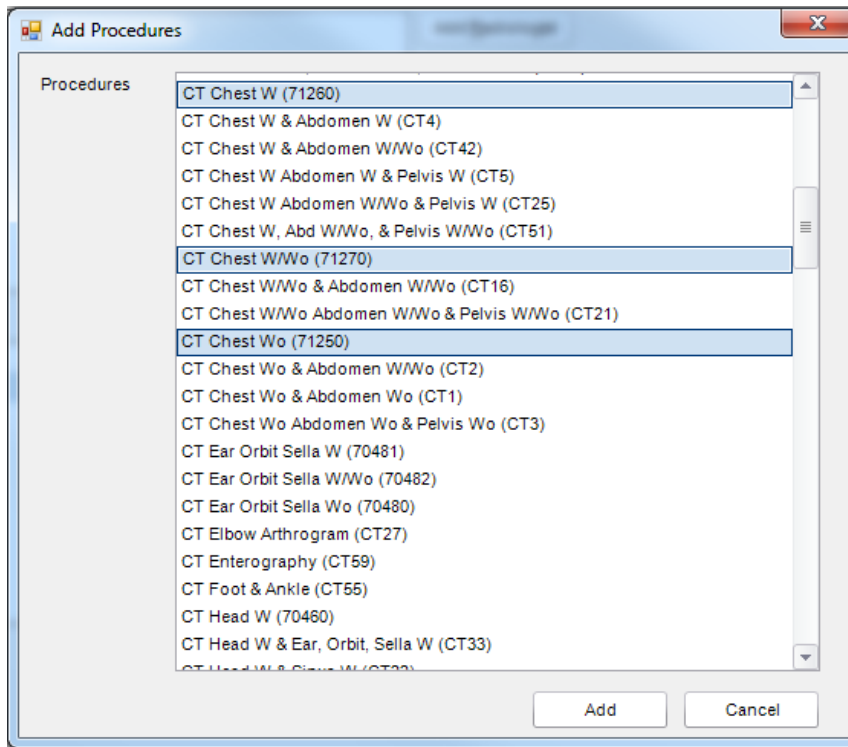


Figure 5 – Selecting Procedures for the CT Modality Type

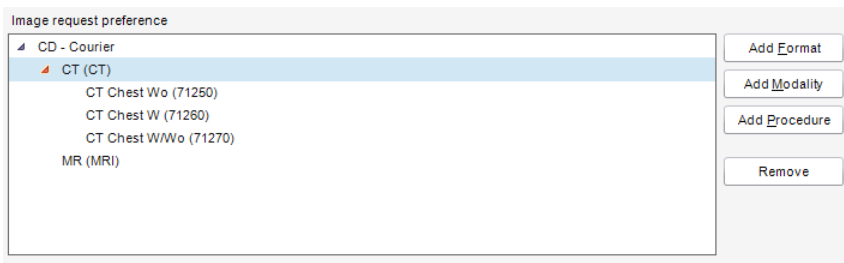


Figure 6 – CD – Courier for 71250, 71260, 72170 and MR Modality Type

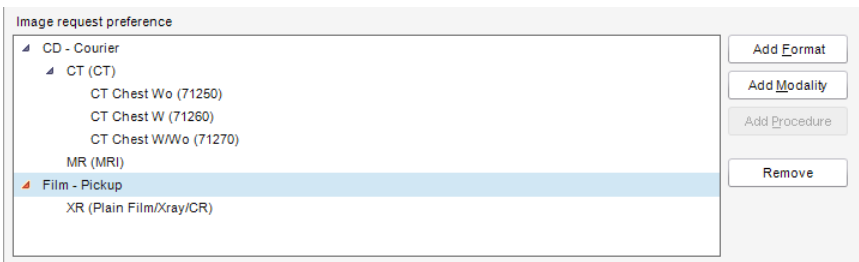


Figure 7 – Adding Film - Pickup for the XR Modality Type

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The screenshot shows the 'Image Request' application window. At the top, there are two tables: 'Studies (1)' with one entry for 11/13/2014 1:10:00 PM by Carter, Jeff, for a 71552^MR Chest W/Wo study; and 'Previous Requests (1)' with one entry from 11-13-2014 1:08 PM by John Ben, Referring, CD format, Courier delivery, and Pending status. Below these are two main form sections: 'Requested By' and 'Deliver To / Pickup By'. Both sections have radio buttons for Patient, Referring (selected), Other doctor, and Other. The 'Requested By' section includes fields for Doctor (Ben, John 9), Location (Nobel St., Raleigh, North Dakota, 73295), Name (John Ben), Organization, and Phone number ((999) 888-4512). The 'Deliver To / Pickup By' section includes fields for Doctor (Ben, John 9), Location (Nobel St., Raleigh, North Dakota, 73295), Prefix (DR), Suffix (Jr), First name (John), Last name (Ben), Address (12 Oak Road, 182 Nobel St.), City (Raleigh), State (North Dakota), Country (Micronesia), Zip (73295), and Phone number ((999) 888-4512). A 'Details' section has fields for Requesting site (LU) Lutherville, Format (CD), Notes, Delivery method (Courier), and Delivery Instructions. At the bottom, the 'Image Request Status' section has radio buttons for Pending (selected), Cancelled, Ready, Sent, Picked up, and a checkbox for Identification verified. 'OK' and 'Cancel' buttons are at the bottom right.

Figure 8 – New Image Request created on arrival for MR of the Chest

Impacts on other components

This feature has changed the behaviour of the Personnel lookup by adding an additional tab called Referring Preferences. This new tab is enabled for Referring Physician resource types only.

DB schema changes

Added l_image_preference

Added l_image_preference_x_study

2. Defects Resolved

Redmine #	Tracker	Subject	Priority
8000	Feature	Distribution of Encrypted PDF via Email	High
7648	Feature	CD Burning - new custom fields and support for multiple disc producers	Normal
8006	Feature	Radiology Reporting - Motorola Symbol Barcode Support	Urgent
7960	Feature	DB upgrade scripts need to be accumulative	Normal
7898	Feature	Support patient electronic signature on defined hardware (Lenox Hill)	Urgent

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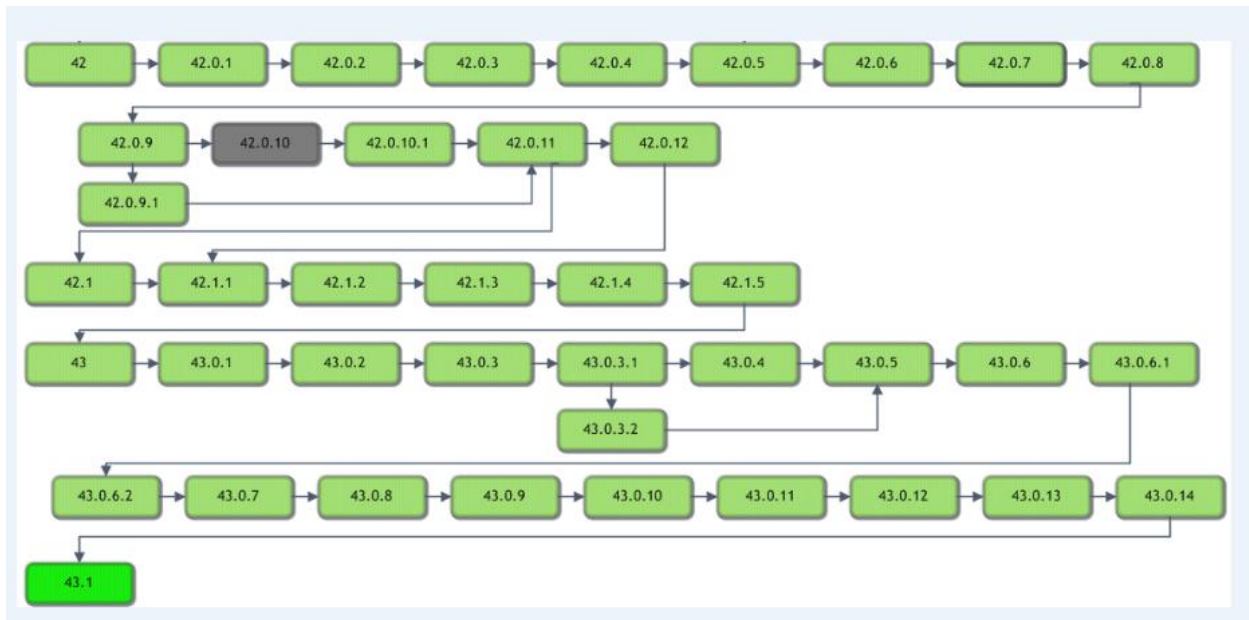
7797	Feature	Support ability to enter preferences for a referring physician to receive films or CD based on procedure type performed.	Urgent
8109	Bug	Regarding Barcode scanning the file <Interop.CoreScanner.dll> is missing from the build.	High
8039	Bug	Users/Persons with no first names cause View/Edit screen to throw an error and not open	Normal
8003	Bug	Unable to suspend an addendum	Normal
8001	Bug	Epson Discproducer problem does not write DVDs	Normal
7958	Bug	Insurance Eligibility - Zotec TOS not returning payment amounts back to RIS	Normal
7943	Bug	Carestream PACS Integration - Accession Number being used instead of External Study Identifier	Normal
7942	Bug	Carestream PACS Integration - Password is stored in log file	Normal
7926	Bug	Timeout error while burning images to CD	Normal
7856	Bug	CD Burning - w discproducer the pt name is not printed	Normal
7744	Bug	CD Import - Windows 7 CD Burning via Explorer prevents us from scanning CD without DICOMDIR	Urgent

3. Changes to Configuration

Setting Placeholder	Setting	Default	Purpose / Controls Access to
Access string / User Group Permission tables	Config.LookupEditor.Personnel.EmailPassword	None	Full access to this enables users to view personnel address distribution email passwords
Applicationsettings.config	DDEEnableEmail	True	Must be set to True for the DD to process email jobs

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4. Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

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5. Package Contents

Files included for this server update:

- 1) GUI ZIP Updates folder contains:
 - rRIS_1.3.43.1.0.25850.zip

- 2) RIS_Service_Updates contains:

ABCpdf.dll	Radar.DirectMessaging.Model.dll
ABCpdf9-32.dll	Radar.DirectMessaging.Model.pdb
ABCpdf9-64.dll	rRISServices.exe
Antlr3.Runtime.dll	rRISServices.pdb
CDSJobManager.dll	rRISServicesx64.exe
CDSJobManager.pdb	ScheduledTaskManager.dll
CdsLib.dll	ScheduledTaskManager.pdb
CdsLib.xml	ServicesConfigWizard.exe
CdsLib.XmlSerializers.dll	ServicesConfigWizard.pdb
CommonLib.dll	SignatureApprovalService.exe
CommonLib.pdb	SignatureApprovalService.pdb
contents.txt	System.Net.Http.dll
DDEngine.dll	System.Net.Http.Formatting.dll
DDEngine.pdb	System.Net.Http.xml
DiffPlex.dll	System.Web.Http.dll
Interop.ANYMODALCAPTURECTRLLib.dll	System.Web.Http.SelfHost.dll
Interop.FAXCOMEXLib.dll	System.Web.Http.SelfHost.xml
Microsoft.Practices.EnterpriseLibrary.Caching.dll	System.Web.Http.WebHost.dll
Microsoft.Practices.EnterpriseLibrary.Caching.pdb	System.Web.Http.WebHost.xml
Microsoft.Practices.EnterpriseLibrary.Common.dll	System.Web.Http.xml
Microsoft.Practices.EnterpriseLibrary.Common.pdb	System.Web.Mvc.dll
Microsoft.Practices.EnterpriseLibrary.Logging.dll	System.Web.Mvc.xml
Microsoft.Practices.EnterpriseLibrary.Logging.pdb	System.Web.Optimization.dll
Microsoft.Practices.ServiceLocation.dll	System.Web.Razor.dll
Microsoft.Practices.ServiceLocation.pdb	System.Web.Razor.xml
Microsoft.Practices.Unity.dll	System.Web.WebPages.Deployment.dll
Microsoft.Practices.Unity.Interception.dll	System.Web.WebPages.Deployment.xml
Microsoft.Practices.Unity.Interception.pdb	System.Web.WebPages.dll
Microsoft.Practices.Unity.pdb	System.Web.WebPages.Razor.dll
Microsoft.ReportViewer.Common.dll	System.Web.WebPages.Razor.xml
Microsoft.ReportViewer.WinForms.dll	System.Web.WebPages.xml
Microsoft.ReportViewer.WinForms.xml	Tourreau.Gilles.FaxDotNet.dll
Newtonsoft.Json.dll	Tourreau.Gilles.FaxDotNet.pdb
Newtonsoft.Json.xml	Tourreau.Gilles.FaxDotNet.xml
NLog.dll	WCFService.dll
O2S.Components.PDFRender4NET.dll	WCFService.pdb
PDFToImages.exe	WCFServiceTests.dll
Radar.Common.dll	WCFServiceTests.pdb
Radar.Common.pdb	WebApi.dll
Radar.Common.WebClient.dll	WebApi.pdb
Radar.Common.WebClient.pdb	WebGrease.dll
Radar.DirectMessaging.Client.dll	Wedge.exe
Radar.DirectMessaging.Client.pdb	Wedge.pdb

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The rRIS_Service_Updates also contains to subfolders:

- A. Deploy folder contains
 - a. Applicationsettings.config
 - b. ReleaseVersion-connectionstrings.config
 - c. rRISServices.exe.config
 - d. services.config

- B. XSL subfolder contains:
 - a. Subfolder titled “Stylesheets” which contains:
 - a. CDAToHTMLCompleteReport.xslt
 - b. CDAToHTMLCompleteReportDark.xslt
 - c. CDAToHTMLImpressionSection.xslt
 - d. CDAToRIS.xslt
 - e. CDAToTxt.xslt
 - f. DocumentModelReport.xslt
 - g. DocumentModelReportAsXml.xslt

 - b. CDA Subfolder contains
 - a. C-CDA.xsl
 - b. eRadStylesheet.xsl
 - c. generalTemplates.xsl
 - d. header.xsl
 - e. QRDA.xsl
 - f. QrdaLevel3_Cypress2.4.0.xsl
 - g. QrdaLevel3_ViewHtml.xsl
 - h. sectionAdministeredMedications.xsl
 - i. sectionAllergies.xsl
 - j. sectionEncounters.xsl
 - k. sectionFindings.xsl
 - l. sectionFuncCogStatus.xsl
 - m. sectionImmunizations.xsl
 - n. sectionInstructions.xsl
 - o. sectionMedications.xsl
 - p. sectionPlanOfCare.xsl
 - q. sectionProblemList.xsl
 - r. sectionProcedures.xsl
 - s. sectionQRDAMEasures.xsl
 - t. sectionQRDAPatientData.xsl
 - u. sectionQRDAREporting.xsl
 - v. sectionReasonForVisit.xsl
 - w. sectionResults.xsl
 - x. sectionSocialHistory.xsl
 - y. sectionVitalSigns.xsl

- 3) DB folder contains 1 file and 2 subfolders:

Readme.txt

 - a. Common subfolder contains
 - a. RISMaintenancejoBS.SQL
 - b. MU subfolder
 - b. Upgrade
 - a. RunUpgrade.bat
 - b. Scripts subfolder
 - c. Log subfolder

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6. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

7. Who is affected

Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.0.14

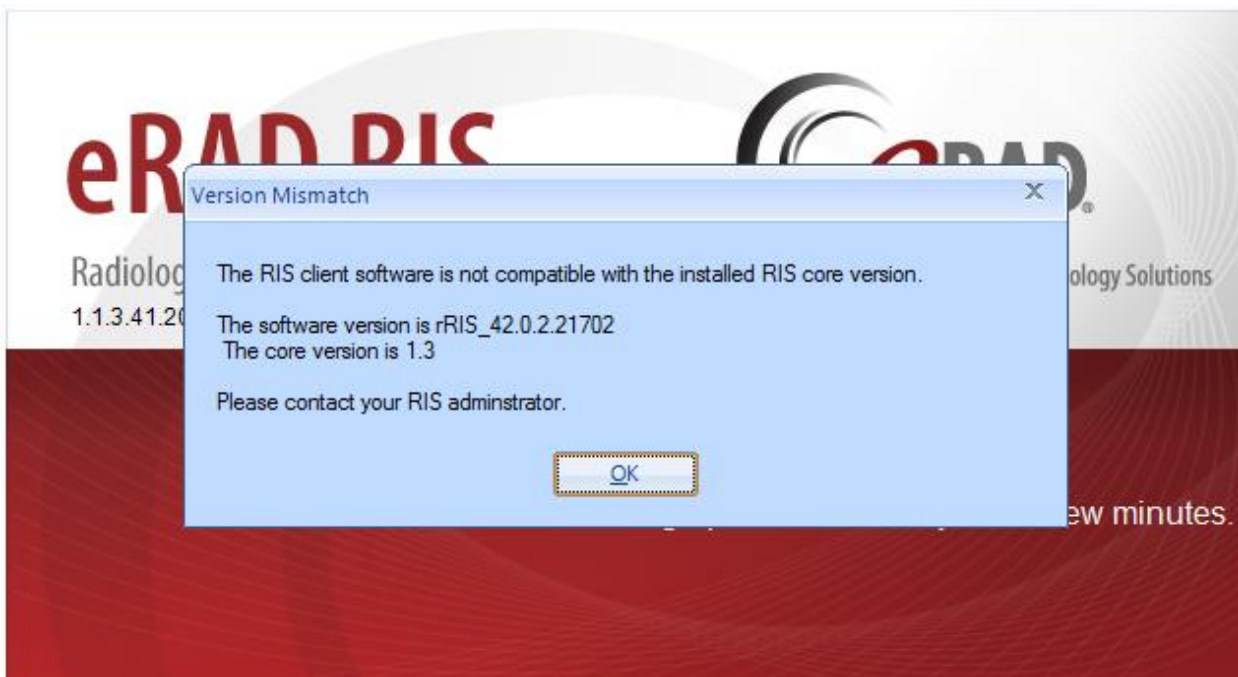
8. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
42.1	-	2.42.1.0.22744(3GB)	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.2296(3GB)	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates
42.1	2	2.42.1.2.23007(3GB)	2.42.0.0.21261	2.42.1.2.23007	2.42.1.2.23007	GUI.zip, Web Service, DB updates
42.1	3	2.42.1.2.23237(3GB)	2.42.0.0.21261	2.42.1.2.23237	2.42.1.2.23007	GUI.zip, Web Services
42.1	4	2.42.1.4.23348(3GB)	2.42.0.0.21261	2.42.1.4.23348	2.42.1.2.23007	GUI.zip, Web Services
42.1	5	2.42.1.5.23406(3GB)	2.42.0.0.21261	2.42.1.5.23406	2.42.1.2.23007	GUI.zip, Web Services
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	2.43.0.5.24632(3GB)	2.43.0.0.23171	2.43.0.5.24632	2.43.0.5.24560	GUI.zip, Web Service and DB updates
43	6	2.43.0.6.24914(3GB)	2.43.0.0.23171	2.43.0.6.24914	2.43.0.6.24914	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

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9. Installing

1. Copy and replace the current rRIS...zip file with the rRIS_1.3.43.1.0.25850.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.1.0.25850→ rRIS_1.3.43.1.0.25850
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

2. Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*

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- c) Wedge rRISService
- d) DDE rRISService

Restart each service.

3. Data upgrade Instructions.

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

Note: There is a new upgrade program with B43.1 called "RunUpgrade.bat". This program will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.

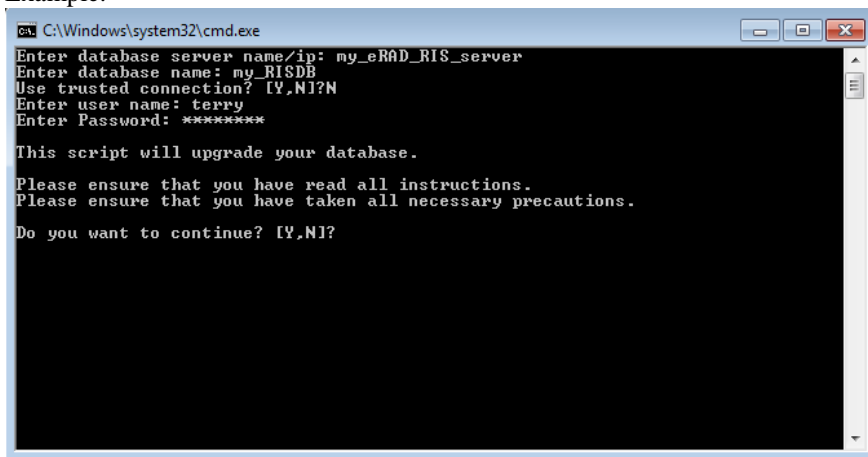
From the upgrade folder, double click the "RunUpgrade.bat" command file.

Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

You can choose to use "Trusted connection". Using this option will pass the identity of the currently logged on user. If this user has "db_owner" access to the eRAD RIS database then feel free to use this options.

If you decide not to use "Trusted connection" then you will be prompted for user id and password.

Example:



```
C:\Windows\system32\cmd.exe
Enter database server name/ip: my_eRAD_RIS_server
Enter database name: my_RISDB
Use trusted connection? [Y,N]N
Enter user name: terry
Enter Password: *****
This script will upgrade your database.
Please ensure that you have read all instructions.
Please ensure that you have taken all necessary precautions.
Do you want to continue? [Y,N]?
```

After the upgrade program has finished you can find the upgrade logs in the "log" folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

Server Update

For eRAD RIS
Version 2.0
Build 43.2

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eRAD RIS Server Update

1. New Features

The purpose of Build 43.2 is to add Remine bug number [9146 - Patient Name to be included in Email message to RADAR](#). The original feature to support emailing diagnostic reports was introduced in 43.1 and is described below. You will also find the configuration settings required to use the feature were re-added to this document as well.

The following is from 43.1

Distribution of Encrypted PDF via Email

1). Person/Address level configuration of email address and password

For now, this will be configured at the address level and later functionality will be provided to allow a default at the person level (see Outstanding Issues).

Passwords added at the address level are hidden from end users by default. If they have access they can click a button to view the password in plain text. Clicking this button audits their request for access and access to the password.

Changing a password is also an audited event.

Passwords are subject to a “strong password check” as a part of their data validation. The check is running the password against a regular expression. There is a system configuration item for EmailPDFPasswordRegex to house the regular expression, thus allowing it to be customized per install.

2). Queue Poller

Changes were made to the queue poller to pick up any referring or CC addresses that prefer to receive email and create a distribution job with the specified email address.

3). PDF Encryption

In order to password protect the PDF file, an open source PDF library called PDFSharp is being used. This library allows us to pass it a password and a byte array containing a non-encrypted PDF and it then returns the password protected PDF.

3). RADAR

After some discussion of using Mirth to encrypt the PDF and send the email, it was decided that PDFSharp would be used to encrypt the pdf and RADAR would be used to send the email. This required an enhancement to the RADAR dll in order to pass a file to the service so they could attach it to the email.

Part of the message to RADAR involves an account name. RIS has always used the practice_code of the relevant practice for this. It is being determined based on the practice related to the _site_code of the study of the distribution job. RADAR uses the account name to determine who the sending message is from.

Configuration of the email's format will be done in RADAR, including logos, header, footer, colors, and verbiage.

4). Email Sender

A configuration setting called DDEEnableEmail has been added to the applicationsettings.config file of the RIS services binaries. When this setting is True the main method of the Distribution engine will create a worklist working thread that will poll for Email jobs created by the queue poller. This setting was added in order to provide the ability to disable email functionality on a particular Distribution server, mostly for testing purposes. There is nothing preventing multiple Distribution services from processing email jobs at the same time for scalability purposes.

When the Distribution service finds an email job, it will create a PDF of the report using the Sql Server Reporting Services framework in the same way faxes and print jobs are done. It then encrypts the PDF using the PDFSharp library and sends it via RADAR using the dll the RADAR team has provided.

eRAD RIS Server Update

5). Send Report Dialog

The Send Report dialog, also used to edit active Distribution jobs, has been enhanced to allow sending emails. The email portion is disabled when the Other radio button is selected. This is because the password used to encrypt the PDF file is set for the particular person and address.

Upon selecting an address with a delivery preference of Email the Email textbox will automatically populate based on the value from the person's address. For addresses with other default delivery preferences, changing the Delivery method dropdown to Email will cause the email textbox to populate if and Email has been specified for that address.

Note there are outstanding issues regarding this screen.

6). Worklists

The Document Distribution Worklists in the RIS client now show Email jobs with a Delivery Method value of "Email" and an Email Address column valued with the destination Email address. See screenshots below.

How to enable the Feature

1) Personnel changes

- a. Any referring physicians that wish to receive reports via email when they are the referring or a CC doctor on a study must be configured with that preference via the Personnel editor.

2) Service setting changes

- a. The queue used by the Distribution Engine must be set up appropriately to subscribe to report related events. If the service is already set up for Fax and Print jobs the queue is already ready.
- b. The applicationsettings.config file for the Document Distribution service now contains a setting called "DDEEnableEmail" which must be set to True for the DD to process email jobs.

3) RADAR settings

- a. RADAR must have accounts for all practices which will be sending emails.

Permission Strings

Config.LookupEditor.Personnel.EmailPassword = full access to this enables users to view personnel address distribution email passwords (Default == None)

eRAD RIS Server Update

Screen captures of screens / dialog

Edit Address

Address

Type: WorkAddress Active

Address 1: 111

Address 2: 111

City: 111

State: 111 Zip code: 111

Phone #: ()- Fax #: ()-

Affiliations:

Referring Practices:

Deliver to

Print Refer CC

Address 1: 111

Address 2: 111

City: 111

State: 111

Zip code: 111 Same as above

Fax Refer CC

Fax #: (902) 724-3316

Email Refer CC

Email *: dsfasd@zsdffas.com; asdf@

Password: ***** Reveal Password

EMR Refer CC

EMR:

Refer CC

Disable report delivery for this address

OK Cancel

Showing new Email section of address config

eRAD RIS Server Update

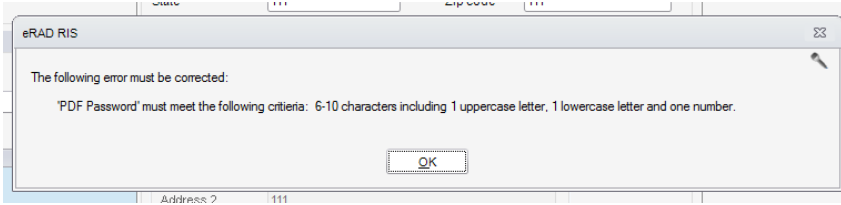
The screenshot shows a web form with several input fields. A modal dialog box titled "Reveal Password" is overlaid on top. The dialog contains the text: "Revealing a password is an audited event, and must only be used when requested by the referring doctor. Would you like to proceed with revealing the password?" with "Yes" and "No" buttons. The background form includes fields for Address 2, City, State, Zip code, Phone #, Fax #, Affiliations, State, Zip code, Fax #, Email, PDF Password, EMR, and checkboxes for Refer and CC.

Showing audit warning.

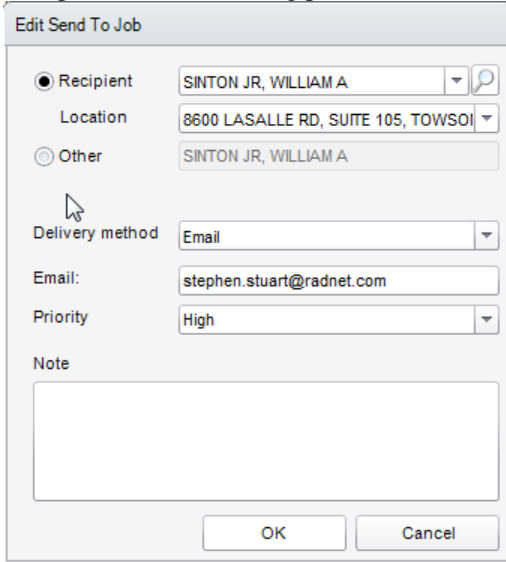
The screenshot shows the same web form as above, but with the "Reveal Password" dialog removed. The "PDF Password" field now displays the text "ris123" in clear text. The "Reveal Password" button is still present next to it.

Showing clear text password

eRAD RIS Server Update



PDF password failed strong passwords rules.



Send Report dialog with Email in the Delivery method dropdown.

Distribution History By Date WL (2) x Patient: CREDIBLE, Justin #19497 (2)

Created Datetime	Manual Job Flag	Priority	Status	Document Type	BI-RADS	Delivery Method	Deliver To	Email Address	Destination Printer	Fax Number	Job Id
11-18-2014 3:01 PM		1	Completed	INTERPRETATION		Email	SINTON JR, WILLIAM A	stephen.stuart@radnet.com			1830507
11-18-2014 3:40 PM	✓	0	Completed	INTERPRETATION		Email	SINTON JR, WILLIAM A	stephen.stuart@radnet.com			1830511

Distribution History By Date WL showing two completed Email jobs.

Distribution WL (1 of 1756) x Distribution History By Date WL (2) Patient: CREDIBLE, Justin #19497 (2)

Accession #	Available	Status	Delivery Method	Email Address
1014772	11-18-2014 4:27 PM	Pending	Email	stephen.stuart@radnet.com

Distribution WL of active jobs, showing one Email job in Pending status

eRAD RIS Server Update

2. Defects Resolved

Redmine #	Tracker	Subject	Priority
9146	Bug	Patient Name to be included in Email message to RADAR	Urgent

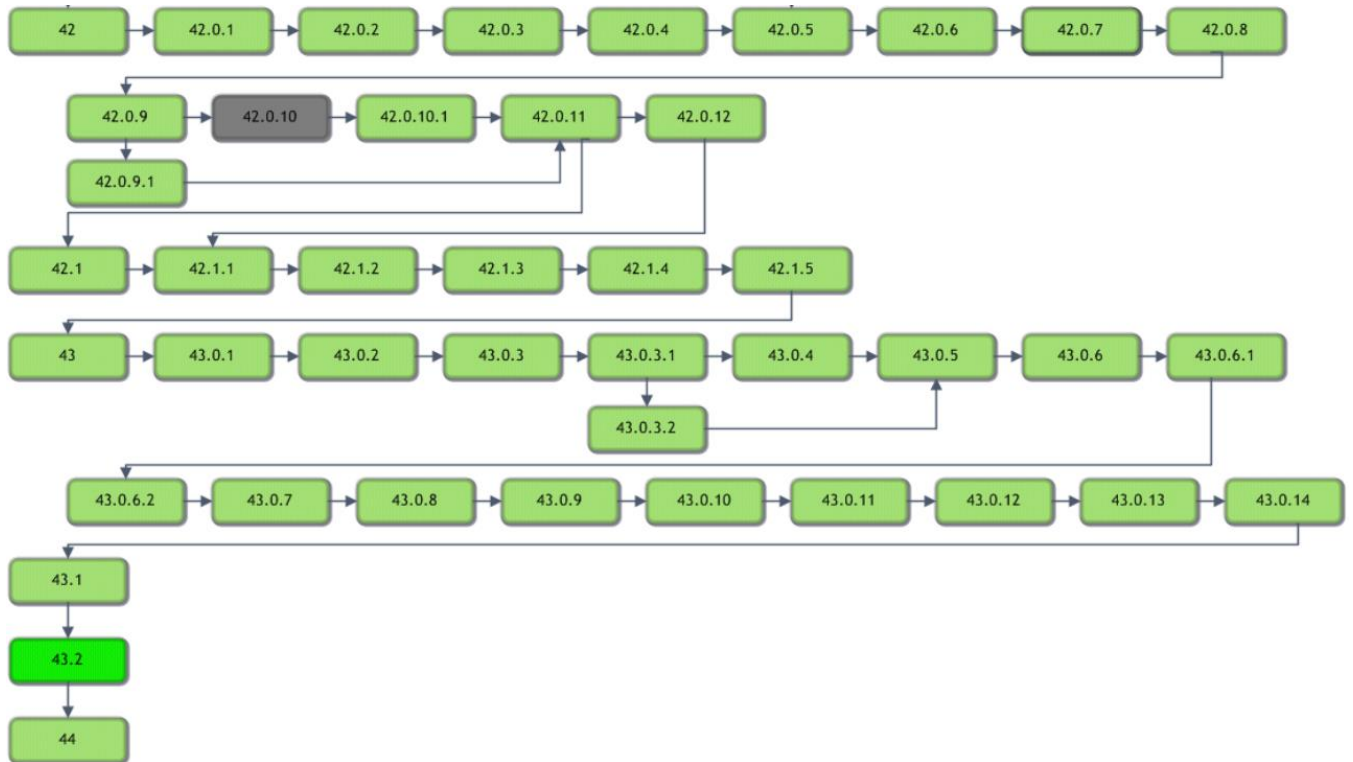
3. Changes to Configuration

The following configuration changes are from 43.1

Setting Placeholder	Setting	Default	Purpose / Controls Access to
Access string / User Group Permission tables	Config.LookupEditor.Personnel.EmailPassword	None	Full access to this enables users to view personnel address distribution email passwords
Applicationsettings.config	DDEEnableEmail	True	Must be set to True for the DD to process email jobs

eRAD RIS Server Update

4. Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

5. Package Contents

Files included for this server update:

- 1) GUI ZIP Updates folder contains:
 - rRIS_1.3.43.2.0.26864.zip

- 2) RIS_Service_Updates contains:

ABCpdf.dll
ABCpdf9-32.dll
ABCpdf9-64.dll
Antlr3.Runtime.dll
CDSJobManager.dll
CDSJobManager.pdb
CdsLib.dll
CdsLib.xml
CdsLib.XmlSerializers.dll
CommonLib.dll
CommonLib.pdb
DDEngine.dll
DDEngine.pdb
DiffPlex.dll
Interop.ANYMODALCAPTURECTRLLib.dll
Interop.FAXCOMEXLib.dll
Microsoft.Practices.EnterpriseLibrary.Caching.dll
Microsoft.Practices.EnterpriseLibrary.Caching.pdb
Microsoft.Practices.EnterpriseLibrary.Common.dll
Microsoft.Practices.EnterpriseLibrary.Common.pdb
Microsoft.Practices.EnterpriseLibrary.Logging.dll
Microsoft.Practices.EnterpriseLibrary.Logging.pdb
Microsoft.Practices.ServiceLocation.dll
Microsoft.Practices.ServiceLocation.pdb
Microsoft.Practices.Unity.dll
Microsoft.Practices.Unity.Interception.dll
Microsoft.Practices.Unity.Interception.pdb
Microsoft.Practices.Unity.pdb
Microsoft.ReportViewer.Common.dll
Microsoft.ReportViewer.WinForms.dll
Microsoft.ReportViewer.WinForms.xml
Microsoft.Web.Infrastructure.dll
Newtonsoft.Json.dll
Newtonsoft.Json.xml
NLog.dll
O2S.Components.PDFRender4NET.dll
PdfSharp.dll
PDFToImages.exe
Radar.Api.Client.dll
Radar.Api.Client.pdb
Radar.Api.Model.dll
Radar.Api.Model.pdb
Radar.Common.dll
Radar.Common.pdb
Radar.Common.WebClient.dll
Radar.Common.WebClient.pdb
Radar.DirectMessaging.Client.dll
Radar.DirectMessaging.Client.pdb
Radar.DirectMessaging.Model.dll
Radar.DirectMessaging.Model.pdb
rRISServices.exe
rRISServices.pdb
rRISServicesx64.exe
ScheduledTaskManager.dll
ScheduledTaskManager.pdb
ServicesConfigWizard.exe
ServicesConfigWizard.pdb
SignatureApprovalService.exe
SignatureApprovalService.pdb
System.Net.Http.dll
System.Net.Http.Formatting.dll
System.Net.Http.xml
System.Web.Http.dll
System.Web.Http.SelfHost.dll
System.Web.Http.SelfHost.xml
System.Web.Http.WebHost.dll
System.Web.Http.WebHost.xml
System.Web.Http.xml
System.Web.Mvc.dll
System.Web.Mvc.xml
System.Web.Optimization.dll
System.Web.Razor.dll
System.Web.Razor.xml
System.Web.WebPages.Deployment.dll
System.Web.WebPages.Deployment.xml
System.Web.WebPages.dll
System.Web.WebPages.Razor.dll
System.Web.WebPages.Razor.xml
System.Web.WebPages.xml
Tourreau.Gilles.FaxDotNet.dll
Tourreau.Gilles.FaxDotNet.pdb
Tourreau.Gilles.FaxDotNet.xml
WCFService.dll
WCFService.pdb
WCFServiceTests.dll
WCFServiceTests.pdb
WebApi.dll
WebApi.pdb
WebGrease.dll
Wedge.exe
Wedge.pdb

eRAD RIS Server Update

The rRIS_Service_Updates also contains to subfolders:

- A. Deploy folder contains
 - a. Applicationsettings.config
 - b. ReleaseVersion-connectionstrings.config
 - c. rRISServices.exe.config
 - d. services.config
 - e. rRISServicesx64.exe.config

- B. XSL subfolder contains:
 - a. Subfolder titled “Stylesheets” which contains:
 - a. CDAToHTMLCompleteReport.xslt
 - b. CDAToHTMLCompleteReportDark.xslt
 - c. CDAToHTMLImpressionSection.xslt
 - d. CDAToRIS.xslt
 - e. CDAToTxt.xslt
 - f. DocumentModelReport.xslt
 - g. DocumentModelReportAsXml.xslt

 - b. CDA Subfolder contains
 - a. C-CDA.xml
 - b. eRadStylesheet.xml
 - c. generalTemplates.xml
 - d. header.xml
 - e. QRDA.xml
 - f. QrdaLevel3_Cypress2.4.0.xml
 - g. QrdaLevel3_ViewHtml.xml
 - h. sectionAdministeredMedications.xml
 - i. sectionAllergies.xml
 - j. sectionEncounters.xml
 - k. sectionFindings.xml
 - l. sectionFuncCogStatus.xml
 - m. sectionImmunizations.xml
 - n. sectionInstructions.xml
 - o. sectionMedications.xml
 - p. sectionPlanOfCare.xml
 - q. sectionProblemList.xml
 - r. sectionProcedures.xml
 - s. sectionQRDAMeasures.xml
 - t. sectionQRDAPatientData.xml
 - u. sectionQRDAREporting.xml
 - v. sectionReasonForVisit.xml
 - w. sectionResults.xml
 - x. sectionSocialHistory.xml
 - y. sectionVitalSigns.xml

eRAD RIS Server Update

6. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

7. Who is affected

Build 43 installs. Server updates are not cumulative. This server update must be applied to 43.1

8. eRAD RIS Release Version Numbers

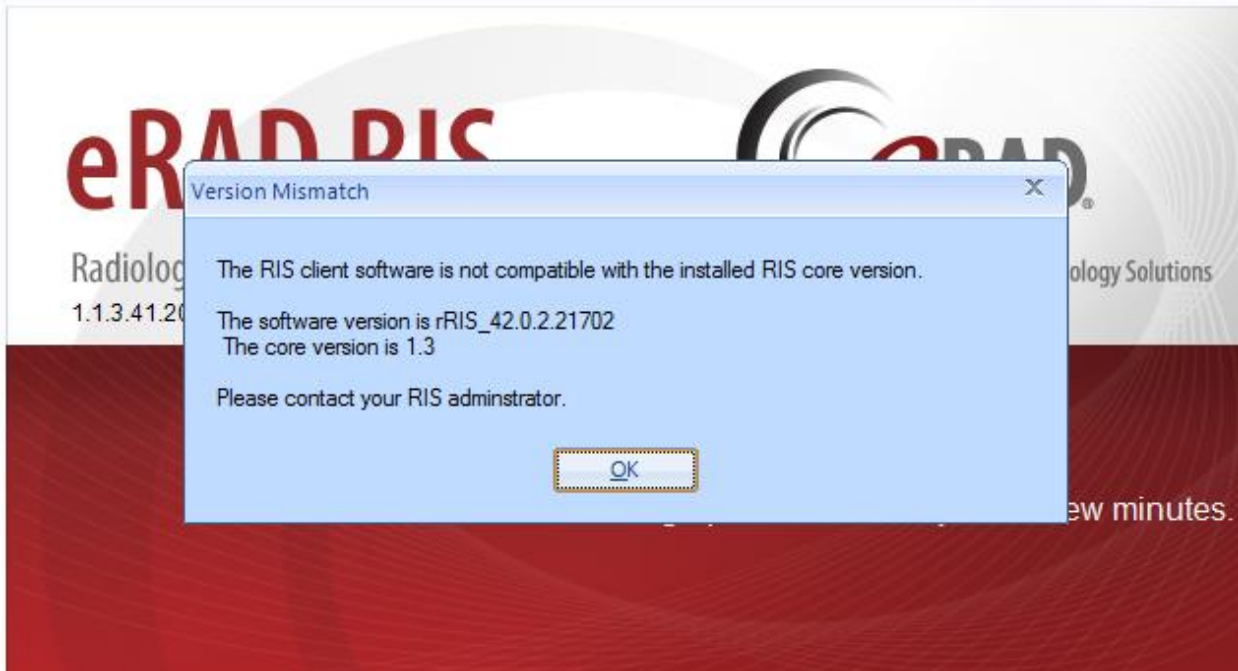
Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
42.1	-	2.42.1.0.22744(3GB)	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.2296(3GB)	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates
42.1	2	2.42.1.2.23007(3GB)	2.42.0.0.21261	2.42.1.2.23007	2.42.1.2.23007	GUI.zip, Web Service, DB updates
42.1	3	2.42.1.2.23237(3GB)	2.42.0.0.21261	2.42.1.2.23237	2.42.1.2.23007	GUI.zip, Web Services
42.1	4	2.42.1.4.23348(3GB)	2.42.0.0.21261	2.42.1.4.23348	2.42.1.2.23007	GUI.zip, Web Services
42.1	5	2.42.1.5.23406(3GB)	2.42.0.0.21261	2.42.1.5.23406	2.42.1.2.23007	GUI.zip, Web Services
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	2.43.0.5.24632(3GB)	2.43.0.0.23171	2.43.0.5.24632	2.43.0.5.24560	GUI.zip, Web Service and DB updates
43	6	2.43.0.6.24914(3GB)	2.43.0.0.23171	2.43.0.6.24914	2.43.0.6.24914	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

eRAD RIS Server Update

9. Installing

1. Copy and replace the current rRIS...zip file with the rRIS_1.3.43.2.0.26864.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.2.0.26864 → rRIS_1.3.43.2.0.26864

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

2. Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

User Release Notes

for eRAD RIS
Version 2
Build 43

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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 43 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.43.

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 2.43 is considered a new core release of the application and will require a reinstallation of eRAD RIS. 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. New Access Strings and Configuration Settings 43

Setting Placeholder	Setting	Default	Purpose / Controls Access to
Access string / User Group Permission tables	Alert.AgeGreaterThan	Full	full access to this enables users to see the alert of the "AgeGreaterThan" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.CDS_01_HighBP	Full	full access to this enables users to see the alert
Access string / User Group Permission tables	Alert.CDS_02_HighCholesterol	Full	full access to this enables users to see the alert
Access string / User Group Permission tables	Alert.CDS_03_PossibleReaction	Full	full access to this enables users to see the alert
Access string / User Group Permission tables	Alert.CDS_04_TobaccoUser	Full	full access to this enables users to see the alert
Access string / User Group Permission tables	Alert.CDS_05_PneumoniaBooster	Full	full access to this enables users to see the alert
Access string / User Group Permission tables	Alert.ExpiredInsurance	Full	full access to this enables users to see the alert of the "ExpiredInsurance" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.HasAllergy	Full	full access to this enables users to see the alert of the "HasAllergy" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.HasProblem	Full	full access to this enables users to see the alert of the "HasProblem" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.InactiveCarrierAppliedToVisit	Full	full access to this enables users to see the alert of the "InactiveCarrierAppliedToVisit" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.IndicationAndMedication	Full	full access to this enables users to see the alert of the "IndicationAndMedication" type when it is evaluated

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			to be true
Access string / User Group Permission tables	Alert.IndicationAndSevereContrastAllergy	Full	full access to this enables users to see the alert of the "IndicationAndSevereContrastAllergy" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.LabOrderWithEmptyValue	Full	full access to this enables users to see the alert of the "LabOrderWithEmptyValue" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.MRI65PlusHeartDiseaseLipitorAndLDL100Plus	Full	full access to this enables users to see the alert of the "MRI65PlusHeartDiseaseLipitorAndLDL100Plus" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.OnMedication	Full	full access to this enables users to see the alert of the "OnMedication" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.PatientBirthChanged	Full	full access to this enables users to see the alert of the "PatientBirthChanged" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.PatientDeceased	Full	full access to this enables users to see the alert of the "PatientDeceased" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.PatientDrugAllergyWhenArrivedOrStarted	Full	full access to this enables users to see the alert of the "PatientDrugAllergyWhenArrivedOrStarted" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.PatientFirstNameChanged	Full	full access to this enables users to see the alert of the "PatientFirstNameChanged" type when it is evaluated

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			to be true
Access string / User Group Permission tables	Alert.PatientLastNameChanged	Full	full access to this enables users to see the alert of the "PatientLastNameChanged" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.PatientMissingPhoneInfo	Full	full access to this enables users to see the alert of the "PatientMissingPhoneInfo" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.ProcedureXAndHighBP	Full	full access to this enables users to see the alert of the "ProcedureXAndHighBP" type when it is evaluated to be true
	Clinical.AlertFramework	Full	Allows the user to see alerts, which by default should be set to full access. Added this to pass an MU test case which requires us to show we can configure alerts not to fire for a specific user group.
Access string / User Group Permission tables	Config.LookupEditor.AllergySeverity	Full	allows the user to see alerts, which by default should be enabled full for all users. Added this to pass an MU test case which requires us to show we can configure alerts not to fire for a specific user group.
Access string / User Group Permission tables	Clinical.Attachments	Full	Controls access to the standalown Attachments screen accessible in a worklist via Right Click / Attachments
Access string / User Group Permission tables	Clinical.BurnCD	None	Controls access to the "Burn CD" Image Request context menu, the "Burn CD" from the tech's Perform Exam screen and

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			the patient folder's Burn CD menu items
Access string / User Group Permission tables	Clinical.DataField.Patient.Notes	None	Controls if the user has access to change previous patient notes
Access string / User Group Permission tables	Clinical.DeleteDictationAndResetStatus.ExternalReportVerified	None	When a external report is verified, this permission will allow the verified report to be reverted back to exam done so it can be either re-verified or changed to a non-external report.
Access string / User Group Permission tables	Clinical.DiagnosisCodes	None	Controls access for users to enter ICD Codes in the MU Tab's MU Extra Info Screen.
Access string / User Group Permission tables	Clinical.InfoButton	Full	allows user access to the MU Info button feature accessabel in the MU tab's grids for Medications, Medical History or Lab Results via a Right Click / View Medline Plus Info.
Access string / User Group Permission tables	Clinical.Insurace.Override	None	controls access to override Eligibility/Eligible API results
Access string / User Group Permission tables	Clinical.Insurace.Reverify	None	Controls access to the Reverify button in the Manage Insurance groupbox
Access string / User Group Permission tables	Clinical.Labwork.AddEdit	None	limits users ability to add or edit labwork
Access string / User Group Permission tables	Clinical.Labwork.Request	None	limits users ability to request labwork
Access string / User Group Permission tables	Clinical.PeerReview	None	Access to Peer Review context menu item and buttons
Access string / User Group Permission tables	Clinical.Schedule.AssignIcdCode	None	Controls whether ICD codes can be assigned during scheduling, ordering, registering
Access string / User	Clinical.Schedule.Calendar	None	Schedule Calendar control

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Group Permission tables	This is not a new access string but the default value has changed from full to none		
Access string / User Group Permission tables	Clinical.ViewEditCanChangeDiagIndications	None	In View/Edit, the indications defined by the radiologist can be edited
Access string / User Group Permission tables	Clinical.ViewEditCanChangeTechIndications	None	In View/Edit, the indications defined up to the technologist workflow can be edited
Access string / User Group Permission tables	Config.AllowMModalConfig This is not a new access string but the default value has changed from none to full	Full	Allows users access to turning on M*Modal workflow for themselves or other users if the current user has admin access
Access string / User Group Permission tables	Config.CreateMessage	None	Gives ability to create a new secure message for communication between Patient Portal and RIS
Access string / User Group Permission tables	Config.LookupEditor.AllergySeverity	None	lookup table access for Allergy Severity
Access string / User Group Permission tables	Config.LookupEditor.EligibleConfig	None	controls access in the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.HL7v3Vocabulary	None	controls access in the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.InsuranceServiceType	None	Controls access to the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.LabObservation	None	Controls access to the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.LabProvider	None	Controls access to the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.LegalAuthenticator	None	controls access in the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.LegalDocument	None	Controls access to lookup table legal document
Access string / User Group Permission tables	Config.LookupEditor.MedicalGroup	None	lookup table access for Medical Group
Access string / User Group Permission tables	Config.LookupEditor.MedicalGroupContactType	None	lookup table access for Medical Group Contact Type.
Access string / User	Config.LookupEditor.MessageGroup	None	Controls access to the

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Group Permission tables	p		Message Group lookup table
Access string / User Group Permission tables	Config.LookupEditor.ObservationResult	None	Controls access to the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.ReferringAddresses	None	limits users ability to view or edit the Lookup editor for Referring Addresses. To have access users will also need to have access to the Config.LookupEditor.Personnel item.
Access string / User Group Permission tables	Config.LookupEditor.SpecimenAction	None	Controls access to the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.SpecimenCondition	None	Controls access to the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.SpecimenQuality	None	Controls access to the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.SpecimenType	None	Controls access to the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.UMCommonLanguage	None	lookup table access for UM Common Language
Access string / User Group Permission tables	Config.LookupEditor.UMCoverage	None	lookup table access for UM Coverage
Access string / User Group Permission tables	Config.LookupEditor.UMResolution	None	lookup table access for UM Resolution
Access string / User Group Permission tables	Config.LookupEditor.UMStatus	None	lookup table access for UM Status
Access string / User Group Permission tables	Config.MessageInbox	None	Gives ability to access the Secure message inbox
Access string / User Group Permission tables	ContentEnum.Reschedule	None	Reschedule Studies
Access string / User Group Permission tables	Flag.EligibilityApproved	Full	Access to see the flag
Access string / User Group Permission tables	Flag.EligibilityDenied	Full	Access to see the flag
Access string / User Group Permission tables	Flag.EligibilityError	Full	Access to see the flag
Access string / User Group Permission tables	Flag.EligibilityInProgress	Full	Access to see the flag
Access string / User Group Permission tables	Flag.EligibilityWarnings	Full	Access to see the flag
Access string / User	Flag.Problem	Full	Access to see the Problem

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Group Permission tables			flag
Access string / User Group Permission tables	Flag.QA	Full	Access to see the QA flag
Access string / User Group Permission tables	MU.ExportAll	None	controls access for administrators to export all CCDA Data to the system config location MU_ExportALL_Path
Access string / User Group Permission tables	WL.DirectMessage	None	Gives ability to access the Direct message inbox
Access string / User Group Permission tables	WL.LabworkAdvisedWL	None	WL access for the LabworkAdvice context menu item.
Access string / User Group Permission tables	WL.LabworkRequestedWL	None	WL access for the Labwork Requested context menu item.
Access string / User Group Permission tables	WL.MT.PeerReviewPendingAction All	None	WL access to All Peer Reviews Pending QA under the Editor menu
Access string / User Group Permission tables	WL.Rad.PeerReviewPendingAction All	None	WL access to All Peer Reviews Pending QA under the Radiologist menu
Access string / User Group Permission tables	PowerScribe360.AllowAutofeed This access string has been removed	removed	This access string has been removed.
SystemConfig lookup	APIServerUrl		the URL for Webservice API services (ie: http://<your rRisService server><API Port>/API)
SystemConfig lookup	AuthorizationPrefix		A prefix that will be added to the new Authorization numbers that are assigned
SystemConfig lookup	CallbackDeclinedValue		The key in Follow Up Type system config table to be considered as 'Declined Callback Letter'
SystemConfig lookup	DDRemoveErroredFaxJobs	True	Determines if the Document Distribution Engine removes failed fax jobs after recording their status

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SystemConfig lookup	DefaultAgeofMinor	18	The maximum number that would define a patient as being a minor
SystemConfig lookup	EnableContrastBillingRelation	True	Enables billing and contrast code syncing in the tech window
SystemConfig lookup	EnforceCountySelection	False	To force user to select a county for signing
SystemConfig lookup	HeightRequiredOnSchedule	False	Height is required when scheduling the patient
SystemConfig lookup	Icd10EffectiveDate	07-16-2014	(value = DateTime mm-dd-yyyy) The date on which ICD10 is effective. ICD9 will be used prior to this date.
SystemConfig lookup	InsuranceEligibleAPIString		Verification account for billing.
SystemConfig lookup	InsuranceReVerifyInterval	10	(value = int in days) Determines how often we will reverify a patients insurance, before the study is preformed. Note: we will also re-verify on the day of service
SystemConfig lookup	InsuranceVerificationGroupNPI		NPI for server initiated insurance eligiblity requests
SystemConfig lookup	MUExportAllPath		Path where the MU feature to export all patient CCDA will be stored (Ex: c:\temp\muexport)
SystemConfig lookup	PeerReviewScoreToStartRequiring Notes	2b	Determines the score at which we will start to require they enter notes. Possible values are - 1, 2a, 2b, 3a, 3b, 4a or 4b.
SystemConfig lookup	PeerReviewScoreToStartSendingToQa	2b	Determines the score at which we will start to mark them as pending Qa. Possible values are - 1, 2a, 2b, 3a, 3b, 4a or 4b

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SystemConfig lookup	RadarAPIURL	https://api.myradarcconnect.com/v1/	(value = URL) Determines the start of day to jump the calendar too.
SystemConfig lookup	RadMustProvideIcdCode	False	To force radiologist to provide diagnosis ICD code prior to signing.
SystemConfig lookup	TechMustProvideIcdCode	False	To force technologist to provide diagnosis ICD code prior to exam done.
SystemConfig lookup	UMRoutineReview	30	The maximum number of UM hours for a routine exam.
SystemConfig lookup	UMStatReview	4	The maximum number of UM hours for a STAT exam.
SystemConfig lookup	UMUrgentReview	10	The maximum number of UM hours for an urgent exam.
SystemConfig lookup	WeightRequiredOnSchedule	False	weight is required when scheduling the patient (value = True/False)
SystemConfig lookup	WeightUnitsAbbreviation	lbs	An abbreviation of the system's weight measurement unit (i.e. kg or lbs) Default is lbs.
SystemConfig lookup	WorklistDateRangeDays	10	Maximum number of days to filter date enabled worklists by.
rRISService.exe.config and rRISServicex64.exe.config	Setting <serviceThrottling> has been increased. Before: <serviceThrottling maxConcurrentCalls="2000" maxConcurrentSessions="4000" maxConcurrentInstances="4000" > After: <serviceThrottling maxConcurrentCalls="3000" maxConcurrentSessions="5000" maxConcurrentInstances="5000" >		This increase was added for larger implementations. The changes can be found in the deploy folder > rRISService.exe.config file. Compare with your current file in your rRISService folder. This applies to the rRISService.exe.config and the rRISServicex64.exe.config files Manual edit required.

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<p>rRISService.exe.config and rRISService64.exe.config</p>	<p>Change to the <system.serviceModel> section of the rRISServices.exe.config and rRISServicesx64.exe.config file</p> <p>Before: <binding name="netTCPBinding" maxReceivedMessageSize="5000000" maxBufferSize="5000000" maxBufferPoolSize="5000000"></p> <p>After: <binding name="netTCPBinding" maxReceivedMessageSize="5000000" maxBufferSize="5000000" maxBufferPoolSize="5000000" maxConnections="3000" listenBacklog="3000"></p>		<p>Changes are made under the <system.serviceModel> section of the file. Changes to be made in 2 places in the file</p> <p>The changes can be found in the deploy folder > rRISService.exe.config file. Compare with your current file in your rRISService folder. This applies to the rRISService.exe.config and the rRISService64.exe.config files</p> <p>Manual edit required.</p>
<p>rRISService.exe.config and rRISService64.exe.config</p>	<p>Change to the <system.serviceModel> section of the rRISServices.exe.config and rRISServicesx64.exe.config file</p> <p>Before: <readerQuotas maxStringContentLength="1024000" maxArrayLength="1024000" /></p> <p>After: <readerQuotas maxStringContentLength="1024000" maxArrayLength="1024000" maxNameTableCharCount="32768" /></p>		<p>Changes are made under the <system.serviceModel> section of the file. Changes to be made in 2 places in the file</p> <p>The changes can be found in the deploy folder > rRISService.exe.config file. Compare with your current file in your rRISService folder. This applies to the rRISService.exe.config and the rRISService64.exe.config files</p> <p>Manual edit required.</p>
<p>rRISService.exe.config and rRISService64.exe.config</p>	<pre><runtime> <gcServer enabled="true"/> </runtime></pre>	true	<p>Added to the base rriservices.config file. Possible values are true and false.</p> <p>Manual edit required.</p>
<p>rRISService.exe.config and rRISService64.exe.config</p>	<p>Before: <serviceThrottling maxConcurrentCalls="2000" maxConcurrentSessions="4000" maxConcurrentInstances="4000" /></p> <p>After:</p>		<p>Changes are made under the <behaviors> section of the file.</p> <p>The changes can be found in the deploy folder > rRISService.exe.config file.</p>

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	<pre><serviceThrottling maxConcurrentCalls="3000" maxConcurrentSessions="5000" maxConcurrentInstances="5000" /></pre>		<p>Compare with your current file in your rRISService folder. This applies to the rRISService.exe.config and the rRISService64.exe.config files</p> <p>Manual edit required.</p>
Applicationsettings.config	UsePerCallInstanceContextMode	False	<p>Will use PerSession mode by default but if UsePerCallInstanceContextMode is True we use PerCall instead.</p> <p>PerCall = the service creates resources, processes the client call, and then destroys the resources. This provides greater scalability as the resources are released sooner, but each call may experience more latency</p> <p>PerSession = the service creates resources for a session which are then kept alive and re-used from one user call to the next. May provide less latency.</p>
Applicationsettings.config	StartInsuranceEligibilityService	False	<p>This is not completely implemented in this build and should remain as false.</p>

5. New Features and Enhancements

Reporting – Peer Review (Phase 1)

In build 43 peer review options have been added to the Patient Folder and also from the Reporting windows Patient History data pane.

From the Patient Folder the study can be peer reviewed by selecting the Peer Review option from the context menu. The option will display for studies not signed by “you” and are in signed status.

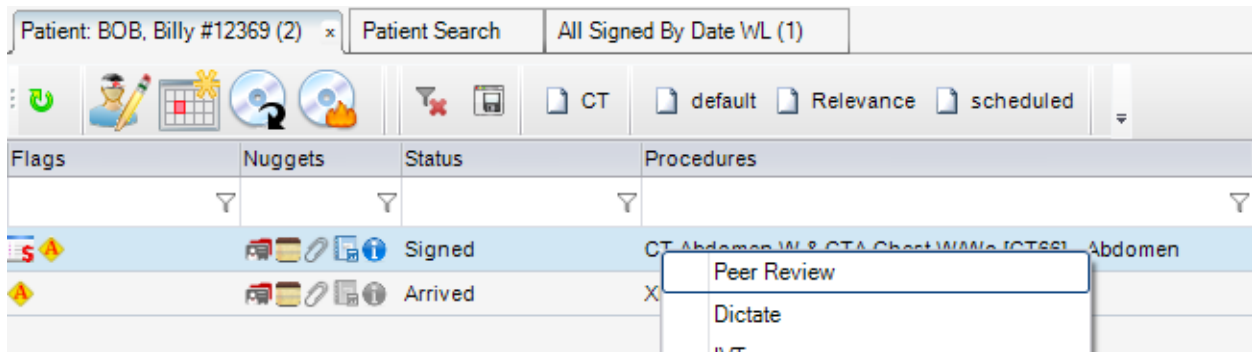


Figure 5.1 – Peer Review context menu option from Patient Folder

From the Reporting windows Patient History control the Peer Review button will be displayed in the “My Views” column.

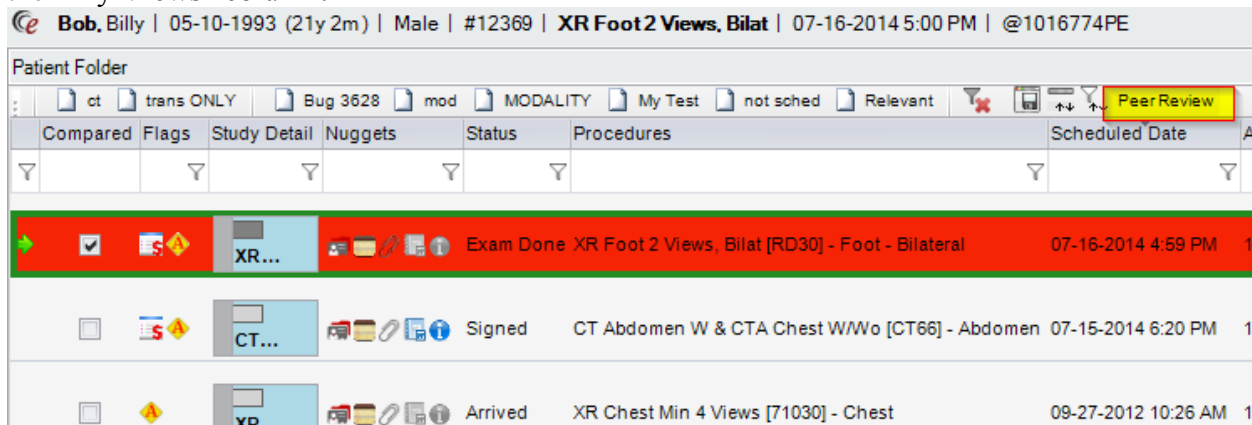


Figure 5.2 – Peer Review button on Patient History control of reporting window.

Again, only the studies in signed status that were not signed by you can be reviewed. Selecting a study in a status other than signed will inform the user that the current study status cannot be peer reviewed.

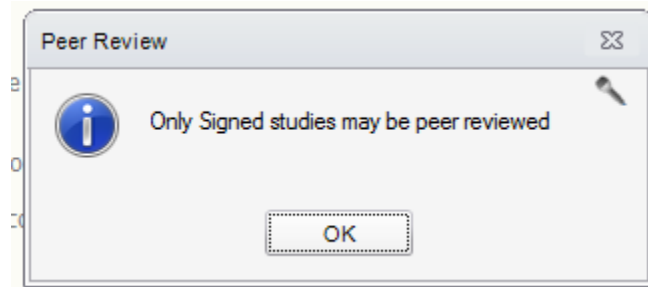


Figure 5.3 – Attempt to peer review a study in status other than signed

The options for peer review are controlled by an access string titled **“Clinical.PeerReview”** with a default level of None.

Upon selecting one of the options for peer review the Peer Review window will open. From this window the user can see the performed data, accession number, procedure performed, patients name, MRN and date of birth.

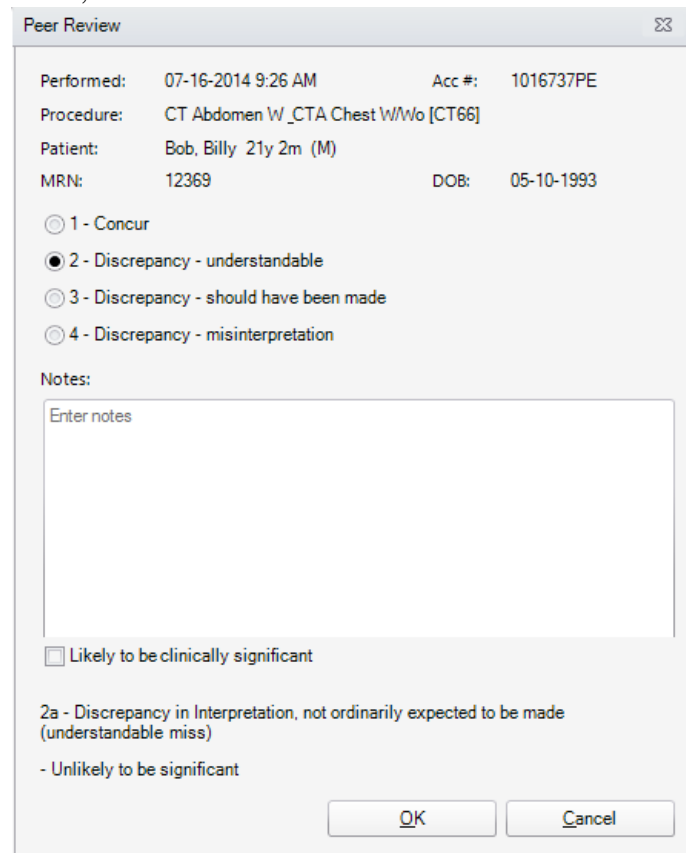


Figure 5.3 – Peer Review window

The Peer Reviewer will have 7 scoring options. The values are 1-4 with the option to select the check box “Likely to be clinically significant”. Selecting this check box if the difference of the study to be Unlikely significant and Likely significant, changing the score from 2a to 2b for example.

The scoring would look like this:

Peer review score code	Description
1	Concur with interpretation
2a	Discrepancy in Interpretation/not ordinarily expected to be made (understandable miss) - Unlikely to be significant
2b	Discrepancy in Interpretation/not ordinarily expected to be made (understandable miss) - Likely to be significant
3a	Discrepancy in Interpretation/should be made most of time - Unlikely to be significant
3b	Discrepancy in Interpretation/should be made most of time - Likely to be significant
4a	Discrepancy in Interpretation/should be made almost every time (misinterpretation of findings) - Unlikely to be significant
4b	Discrepancy in Interpretation/should be made almost every time (misinterpretation of findings) - Likely to be significant

Table 5.1 – Peer review scores

There is also a notes field for the user to add any notes pertaining to the studies peer review. Notes are required when the score passes a certain threshold, that threshold is configurable at the system and the practice level. The practice level overrides the system configuration setting if it is configured. This threshold identifies the score at which notes will start to be required. When notes are required, the OK button will be disabled until notes are entered. This is also set at the system and practice level. The system configuration setting it titled **“PeerReviewScoreToStartRequiringNotes”** with a default value of 2b.

The Add/Edit Practice window has been redesigned. To access the optional settings for Peer Review, select the appropriate tab as shown in the screenshot below.

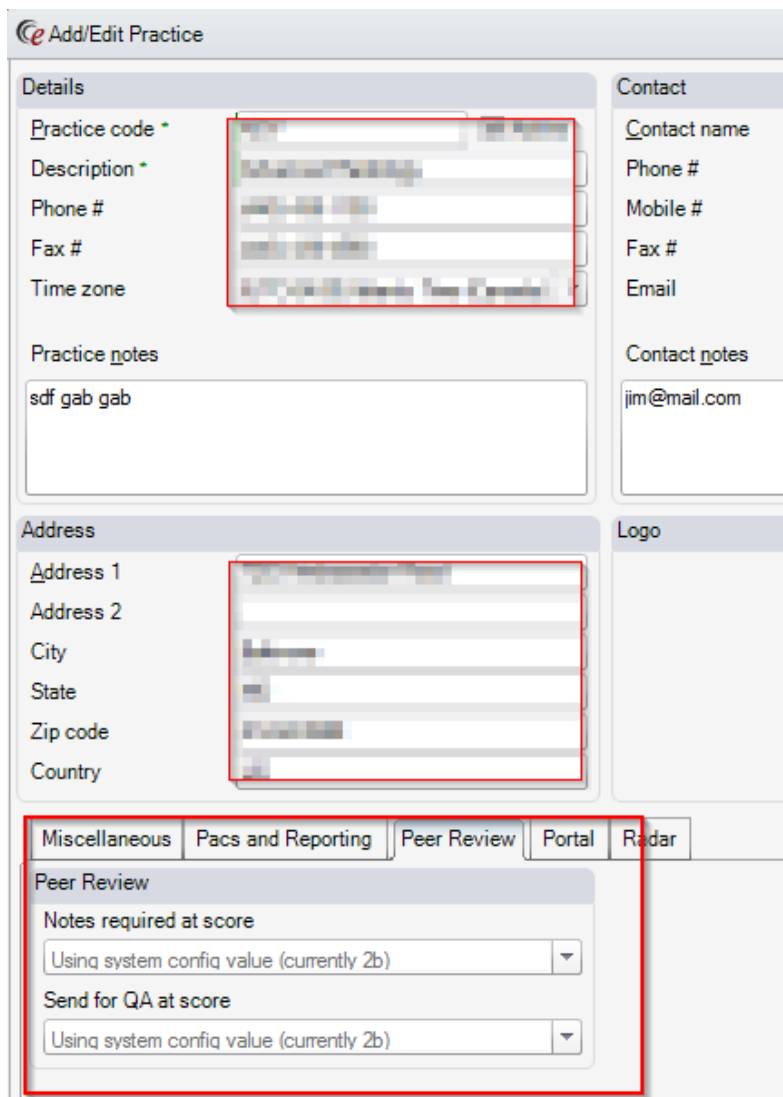


Figure 5.4 – Peer Review tab of the Add/Edit Practice window

Similar to the system configuration setting for notes, we have another setting titled **“PeerReviewScoreToStartSendinfToQA”** with a default value of 2b that determines if a peer review will then go to a “post peer review work list” where it can then be reviewed, or entered in an external system and marked as completed. This is also set at the system and practice level with the practice level overriding the system configuration setting.

Once a study is peer reviewed, if it meets the **“PeerReviewScoreToStartSendinfToQA”** settings, the peer review will be went to the “All Peer Review Pending Action WL”. This worklist can be accessed from the Radiologist and Editor menus and each is controlled by its

own new access string. The All Peer Review Pending Action WL under the Radiologist menu is controlled by access string **“WL.Rad.PeerReviewPendingActionAll”** with a default of none. Access to the work list option under the Editor menu is controlled by access string **“WL.MT.PeerReviewPendingActionAll”** which also has a default of none.

This work list will show the score and score description along with some details attached to the peer review and the study itself. From this worklist, the user will have the option to “Mark as Completed” which will remove the item from the worklist, or “Open”.

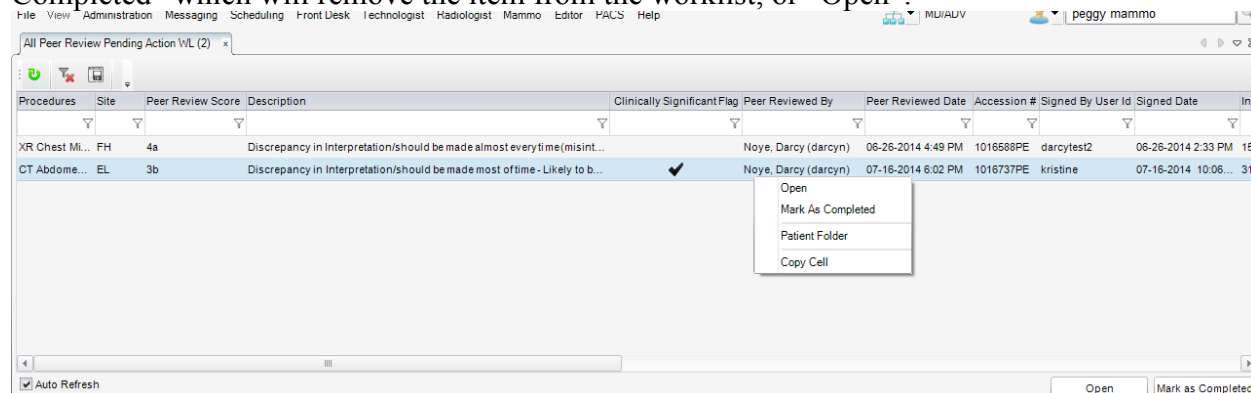


Figure 5.5 – All Peer Review Pending Action WL

Selecting Open will present the user with a read only version of the Peer Review window. The user can see the notes and score given by the peer reviewer. Options in this window are to Mark As Completed and Cancel. There is also an ICON in the upper right corner that will allow the user to copy and paste the details of the peer review. Data can also be copied from each row in the peer review window via a right click on the snippet of information.

Example of the text:

Reviewed by: Noye, Darcy (darcyn)
Date: 07-16-2014 6:02 PM

Performed: 07-16-2014 9:26 AM
Acc #: 1016737PE
Procedure: CT Abdomen W & CTA Chest W/Wo [CT66]
Patient: Bob, Billy 21y 2m (M)
MRN: 12369
DOB: 05-10-1993

Notes:
I have entered my notes

Score:
3b - Discrepancy in Interpretation, should be made most of time
- Likely to be significant

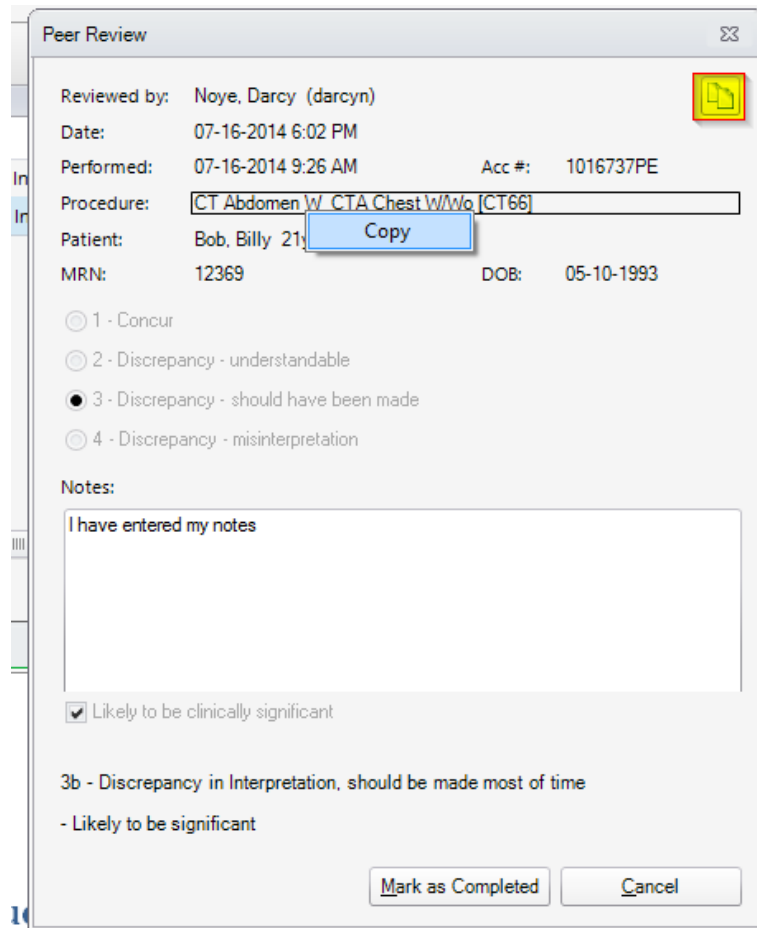


Figure 5.6 – Peer Review window displaying score from peer reviewer and copy options.

Export Images (Burn CD)

Burn CD option in eRAD RIS will be available from 3 locations in the application, the Image Request work list, the Patient Folder work list and the Technologists Perform Exam window. Access to Burn CD from all 3 locations is controlled by the access string titled **“Clinical.BurnCD”** with a default value of Full.

Access from Image Request work list:

Image request work list now has the option to group requests. Default grouping is: Site, Media Type and Deliver To. This grouping makes it easier to multi select the items and completes the “Burn CD” in one step as shown in the following “Burn CD” context menu selection. Multiple studies can be selected from the Image request work list to be burned. From the Burn CD window the user can choose to include or not the studies for the CD. The Deliver To information in the Burn CD window will automatically be populated from the data entered on the Image Request. If there are different deliver to addresses, the user will be required to select one or can cancel and reselect the studies from the work list.

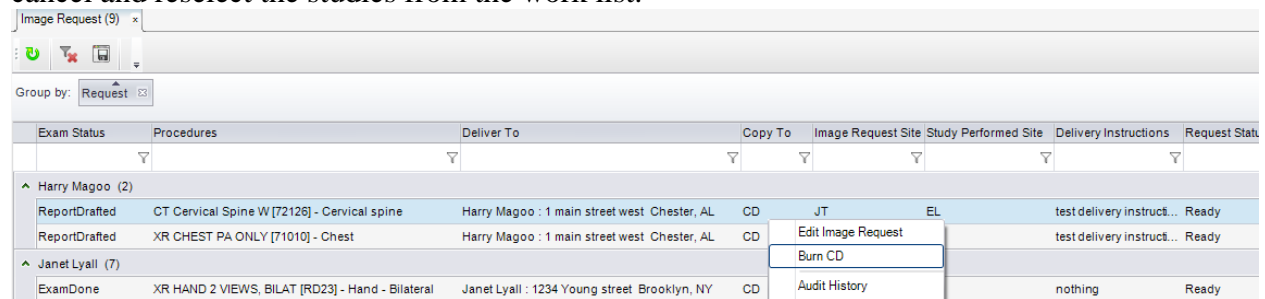


Figure 5.7 – Image Request work list

Access from Patient Folder work list:

From the Patient Folder work list the user can select a single or multiple studies. The Burn CD option is also in the context menu. When the Burn CD window opens the Deliver To information will be blank. These fields are not required to be completed. Again the user can decide in the Burn CD window if they want to include all of the studies that were selected.

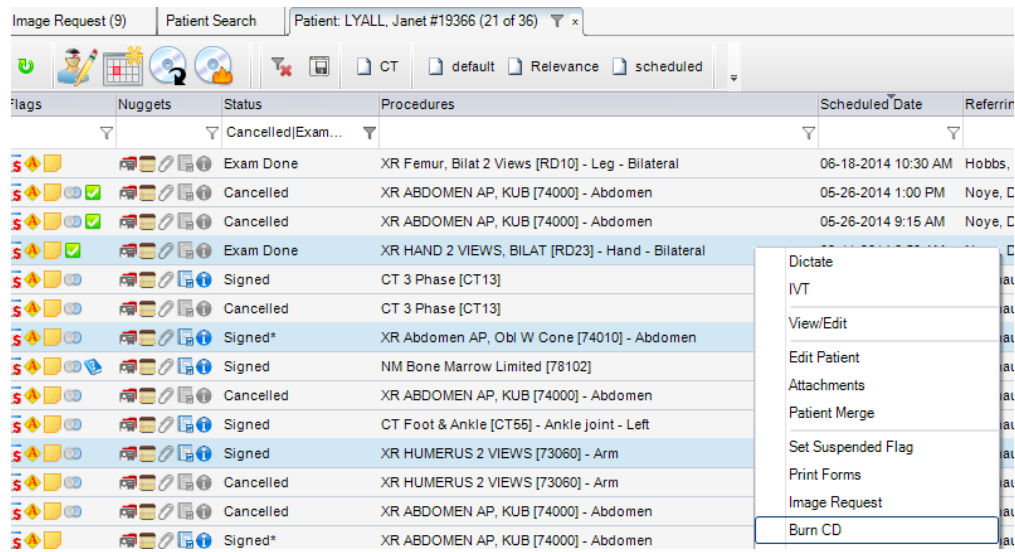


Figure 5.8 – Patient Folder work list

Access from Technologist’s Perform Exam window:

The Perform Exam window will have access to the Burn CD window via the button of the same name in the lower left corner of the data window.

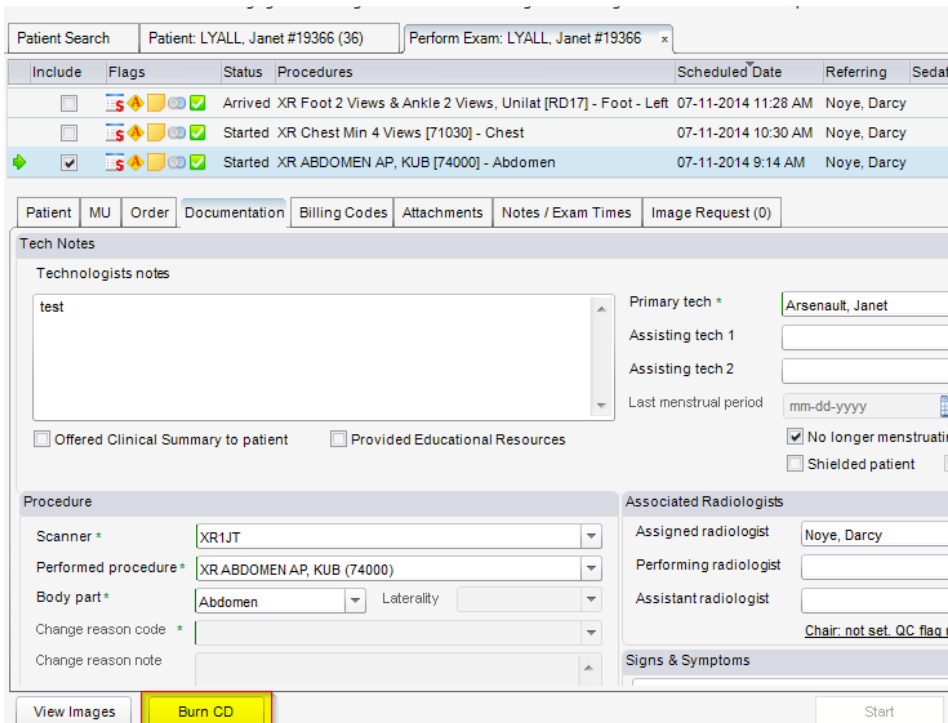


Figure 5.9 – Perform Exam window

As a precaution the user will be prompted with a message from the Perform Exam window to ensure all of the images have been uploaded to PACS.

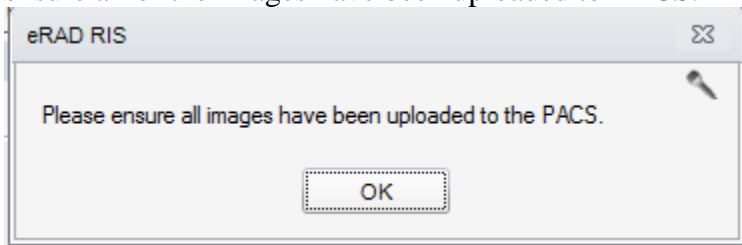


Figure 5.10 – Message displayed from Perform Exam window when Burn CD is selected

When the Burn CD window opens the Deliver To information will be blank. The user will have the option to select additional studies to burn that have been completed for that day.

Burn CD window:

The Burn CD window is the main dialog for this feature. It shows all the studies that were selected in the Image Request WL or Patient Folder WL (the exception is the Burn CD from Perform Exam) and allows you to uncheck items to exclude them from the CD. The checked items are included in an Image Request level lock so that if another user tries to export the same Image Requests they will be notified that another user is processing that request.

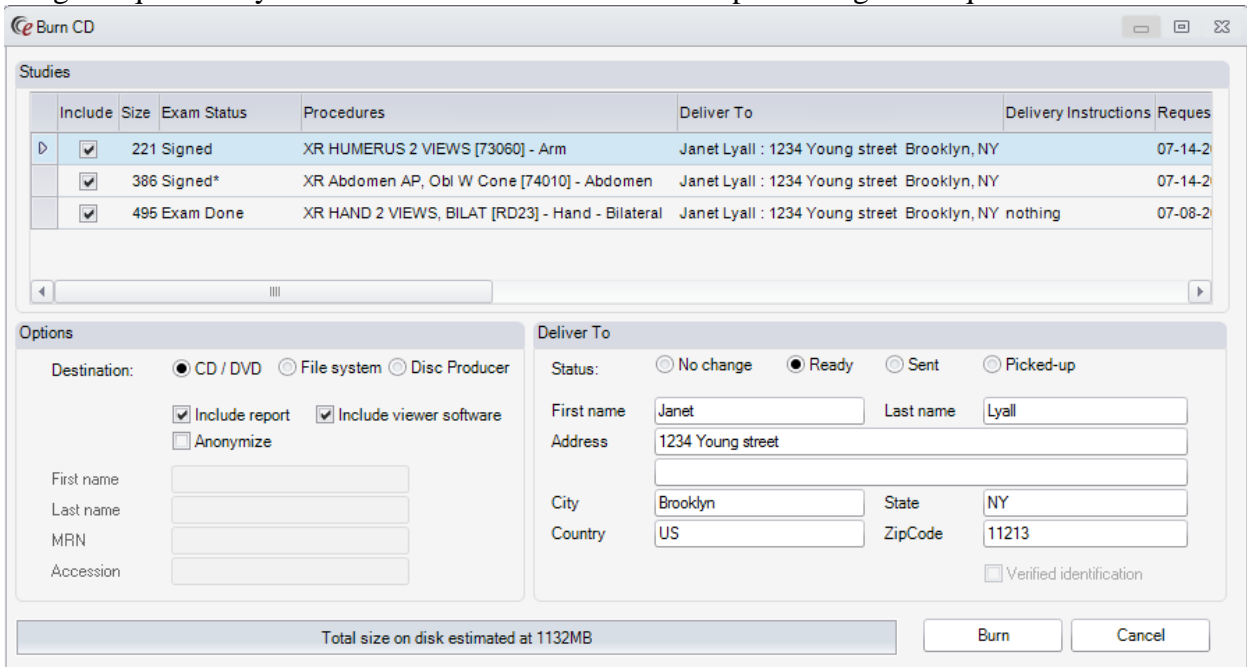


Figure 5.11 – Burn CD window

If actioned from the Image Request WL, successful burns will remove the selected studies requests from the WL.

Images for the selected studies are requested from PACS and the contents are written to the specified media type. If the media type is “CD/DVD”, the contents will be written to the local burner. If the media type is Filesystem or Disc Producer, the contents will be written to the directory chosen. For disc producer the file format written is specific to the Epson JDF file format. After the JDF file is created, the progress can be monitored via the Epson TD Bridge software. The RIS will do an estimated size of the images to be burned.

When the Burn CD window opens, it queries each of the Requesting Site’s local child PACS servers. If it does not have the study, it then queries the Practice’s PACS WL server. The goal of this query is:

1. To obtain an approximate size of the study data
2. To identify which server has the images

The figure above of the Burn CD window shows the approximate sizes and in the progress bar area a total estimate of the size on disc.

If it exceeds 680MB it will present the user will message informing that the estimated size may not fit on one CD.

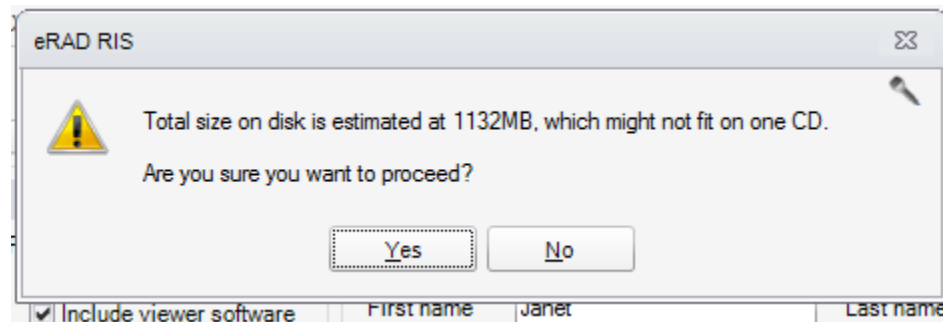


Figure 5.12 – Are you sure?

If they are actually burning to a DVD media, they should ignore this message and click “Yes” but if they only have CD’s then they will need to click “NO” and include fewer studies.

If all of the selected studies are on the local child PACS server then the request for the CD contents will be made local. But if one or more of the studies are not local the request will be made to the practices PACS WL server.

When the media is successfully burned, the status and deliver to information for the “included” image requests will be updated. And before and after audit messages are written to the Audit log. The description in the audit entry is basically the entire contents of the CD’s Readme file, which includes unique identifiers and even the CD’s checksum.

Date	Action	Description	User
07-14-2014 12:17 PM	CD/DVD export started	Delivered to : Lyall, Janet 1234 Young street NY, Brooklyn MediaUID="1.2.826.0.1.3680043.2.93.1.4.2831167776.22896.1405351020.1" MediaID="WL1_HXLXPM93_TPZ" Server="unknownSite/peipacswl1" Creator="remote:192.168.16.99" Time="Mon Jul 14 11:17:00 EDT 2014" CheckSum="86b5f5dd89b17f508b4ebaa080809af6"	Noye, Darcy (darcy)

Figure 5.13 – Audit history

Change to Image Request:

With B43, when creating an image request there is a new required field “Requesting site”.

The screenshot shows the 'Image Request' form in the eRAD RIS system. The form includes sections for 'Studies (2)', 'Previous Requests (5)', and 'Requested By'. The 'Requested By' section has radio buttons for 'Patient', 'Referring', 'Other doctor', and 'Other'. Below these are fields for 'Doctor', 'Location', 'Name', 'Organization', and 'Phone number'. The 'Details' section includes a 'Requesting site' dropdown menu (set to 'Test Site 1'), a 'Format' dropdown menu (set to 'Test Site 1'), and a 'Notes' field. The 'Deliver To / Pickup By' section has radio buttons for 'Patient', 'Referring', 'Other doctor', and 'Other', a 'Copy requested by' checkbox, and fields for 'Doctor', 'Location', 'Prefix', 'Suffix', 'First name', 'Last name', and 'Address'.

Figure 5.14 – Image request has new required field of Requesting site

The “Requesting Site” value is the site used when showing the Image Request WL. So when looking at the JTEST/JT WL as shown in the following screen shot, you see all the image requests that need to be completed at JT. Previous to B43, the JT WL would only show the image request’s needed at a site such as JT if they were performed at JT.

We also changed the work list so (by default) it groups Requests by Patient, Meida Format and Deliver To. In the following screen you can see the default “Request” grouping. If the user clicks on the “Group by.” button the sorting changes between Ascending and Descending (by image request date).

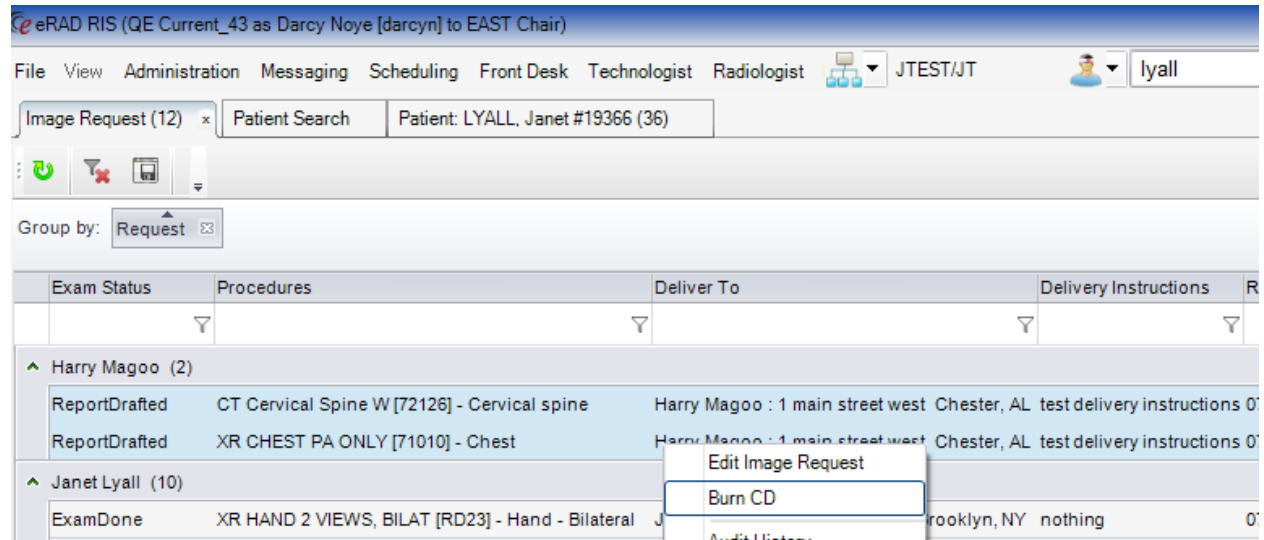


Figure 5.15 – Image request work list group by Request

The remaining will explain how to set up the Disc Producers Epson TD Bridge Server

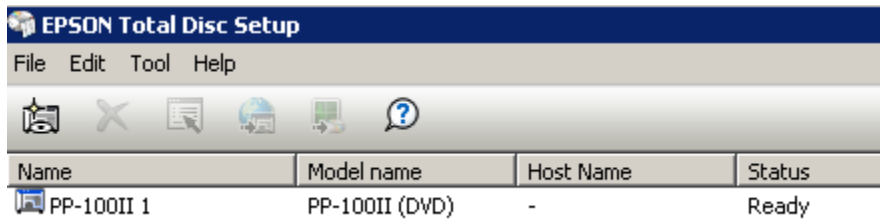
When using an Epson Disc Producer you will need to dedicate a PC to host the hardware. On that PC you will need to install the EPSON TD Bridge software. The TD Bridge software and documentation is available at:

<https://www.epsonexpert.com/login>

<https://www.epsonexpert.com/ee/techRes/index.htm?ProductId=598>

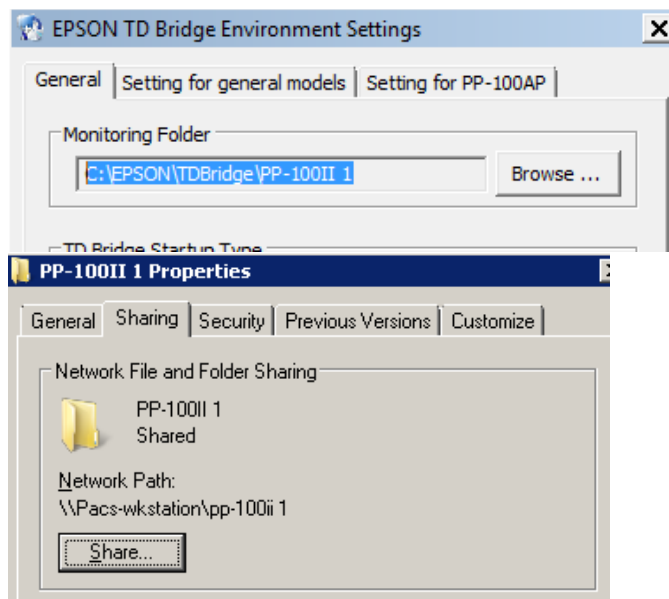
In addition to the typical install you will need to:

1. Install the Epson Total Disc Maker Software, either download the latest from Epson or use the install disc that came with the burner.
2. Launch the “Epson Total Disc Setup” utility, which is in your “start/program” menu after the install. Add the local “PP-100” burner as shown in the following:



3. Install the TD Bridge software.
4. Launch the program “EPSON TD Bridge Environment Settings”

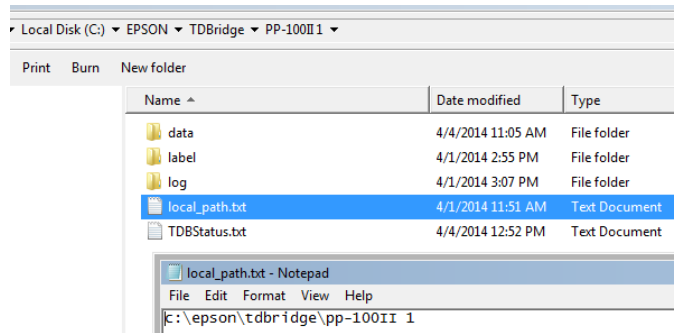
5. Setup the TD Bridge monitoring folder to use a network share, which users will have write access for submitting JDF files and data. Unfortunately, the monitoring folder must be on the host system's hard drive; therefore, will need to share the folder on the Epson Disc Publisher host.
6. **Make sure the subfolder name for that share location is the name of the EPSON Disc Publisher Instance.** For example, in my installation the hardware's name is "PP-100II 1" so:



7. Next, create a text file in the share called "**local_path.txt**", which contains the file path to the monitoring folder as seen by the TD Bridge.

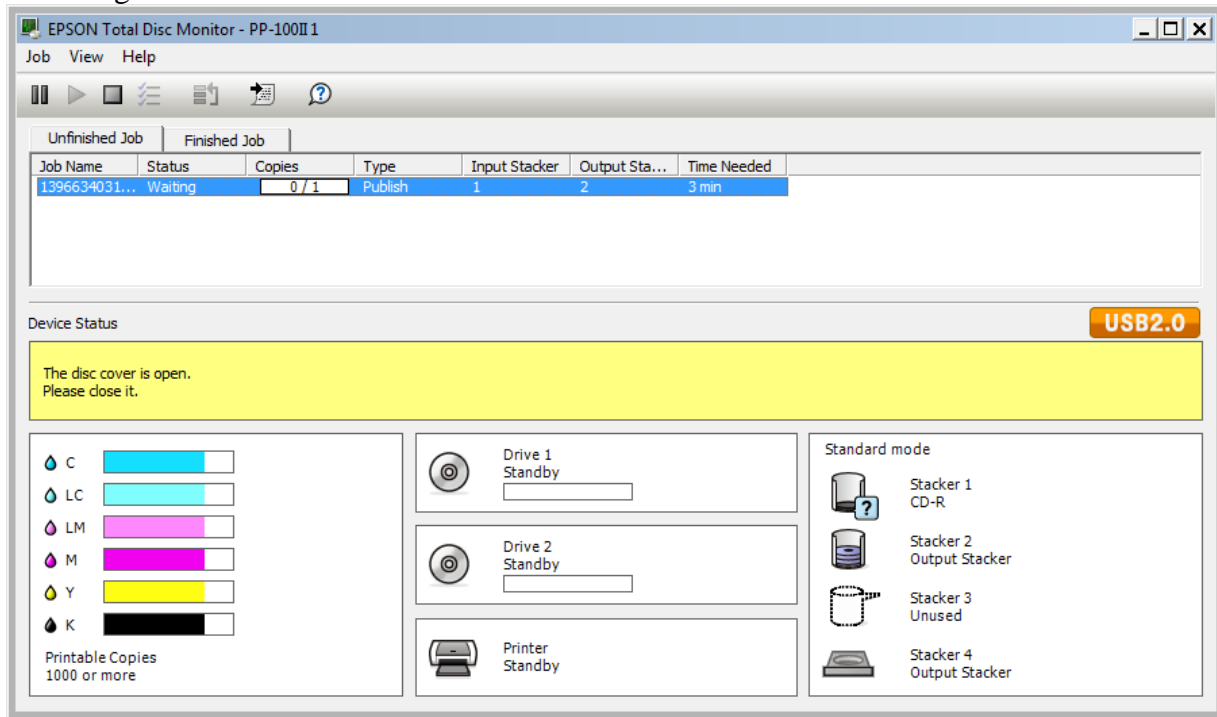
The reason for this is that users might access the share via `g:\Public\PP-100II 1\` but on the server it is actually `c:\EPSON\TDBridge\PP-100II 1\` and when the RIS creates the JDF file it needs the actual path as registered in the TD Bridge software

The following screen shot illustrates what you need to do for this step:



Finally, as an administrator of the TD Bridge host machine, you may want to consider a batch job that cleans up completed jobs and deletes their data.

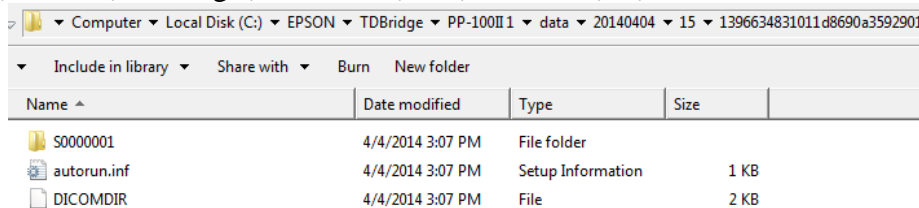
When a user creates a Disc Producer Job by submitting a CD Burn request via the RIS, a JDF (Epson Job Definition File) will be created at the monitoring location. As the TD Bridge processes that file its file extension will change JDF → RJD → IMP → STF → DON and if there is an error it will be renamed to ERR. In the case of an error you can re-submit the job by changing the extension back to “JDF” and lookup the error code in the TDBStatus.txt file. You can also monitor the JOB status in the Epson Total Disc Monitor application, which will tell you when you need to put more discs in the stacker or close the door to the device as shown in the following.



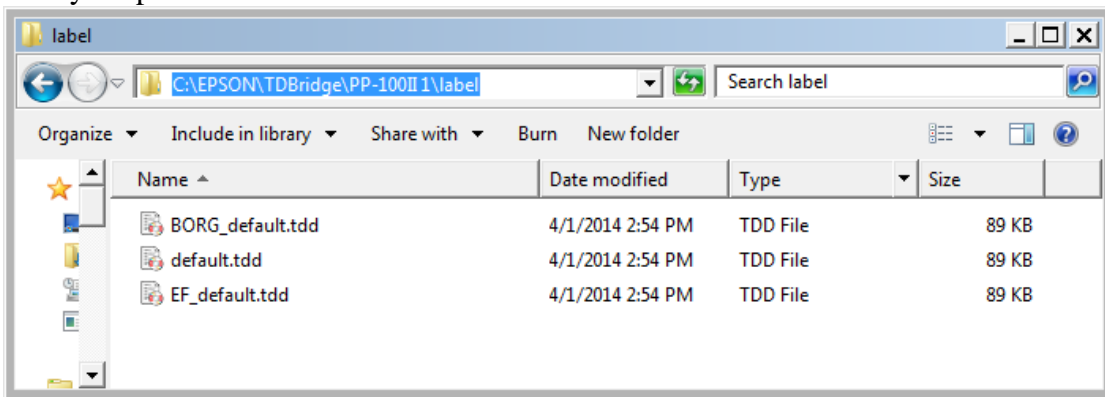
IMPORTANT: After the CDs are burned the data for the CD will remain on the TD Bridge share. Over time this will take up lots of drive space and it will be in your best interest to delete/clean out the old data on a daily bases. You just want to make sure the data you are deleting isn't for a job that is in the “.ERR” status.

The data directory is organized by date then by hour, then by JDF file name. The following example shows the job 1396634831011d8690a3592901, which was submitted on April 4th at the 15h and if you look closely at the job id a3592901 represents the accession number of the first study on the CD. The audit log for that study can be used to track down more information about the job.

>> C:\EPSON\TDBridge\PP-100II 1\data\20140404\15\1396634831011d8690a3592901



You can also create a label sub-directory and create default *.TDD files, which will get printed to your CDs. If the label directory and default tdd files don't exist, they will be created the first time RIS submits a job to the disc producer share. You can then edit the default.tdd file to meet the needs of your practice or site.



The fields available for the labels are:

name, patient_id, site_code, site_description, deliver_to_first_name,
deliver_to_last_name, deliver_to_address_lines, deliver_to_city, deliver_to_country,
deliver_to_state, deliver_to_zip

For reference, the following is a sample JDF file:

```
#
# JOB_ID === <PacsMediaRequestID>a<RISAccessionNumber>
# you can use the accession number to look at the RIS audit log and see more information about the job
#
JOB_ID=1396634831011d8690a3592901
#
# PUBLISHER === the name of the folder where this job file was written
#
PUBLISHER=PP-100II 1
#
# Only writing CDs, if you need to write a DVD you will need to use an attached burner or
# change this to DVD and change the job extension back to JDF
#
DISC_TYPE=CD
COPIES=1
FORMAT=ISO9660L2
#
# Note: location of data/label is relative to the share/UNC path that was used by the RIS user.
#   If you would like to use another path specific to the local TD Bridge software,
#   create a file named local_path.txt in the DiscPublisher share.
#   It should contain the full path to the share location as accessible by the TD Bridge software
#
DATA=c:\epson\tdbridge\pp-100II 1\data\20140404\15\1396634831011d8690a3592901\
#
# Fields available for the labels are:
#   name,patient_id,site_code,site_description,
#   deliver_to_first_name,deliver_to_last_name,deliver_to_address_lines,
#   deliver_to_city,deliver_to_country,deliver_to_state,deliver_to_zip
#
LABEL=c:\epson\tdbridge\pp-100II 1\data\20140404\15\1396634831011d8690a3592901_label.tdd
```

County Option for Radiologist Signing Location

Option to select the County for the Radiologist is controlled by a new system configuration setting titled **“EnforceCountySelection”** with a default of False.

If set to False, the application will behave as before and the user will not be required to select a county before dictation. If the site is Chair enabled at the practice level they will still be required to select a Chair, but the County and Zip Code options will not be presented.

If the site is not Chair enabled but requires County based on the above system configuration setting, they will be presented with a window that will allow them to select a County. They can also enter a Zip Code to shorten the list or select the County automatically. The following window is presented on login. The value entered is remembered on a workstation bases.

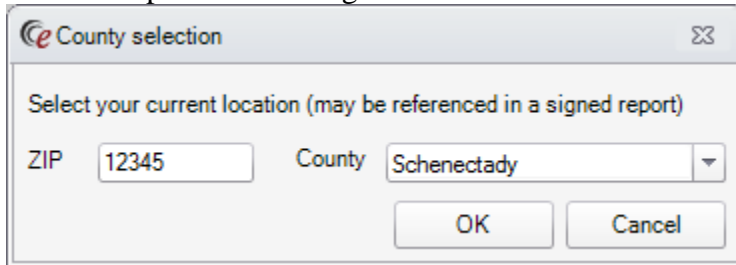


Figure 5.16 – County selection window prompt

If **“EnforceCountySelection”** is true and the chair workflow is enabled for the practice, then the chair selection dialogs with the additional county fields will be displayed

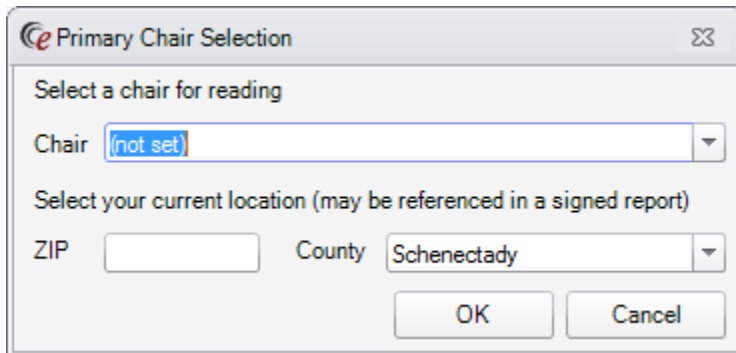


Figure 5.17 – Chair selector with Zip and County fields

If the user preference **“Use detailed chair selector”** is on the user will be prompted with the detailed chair selector window

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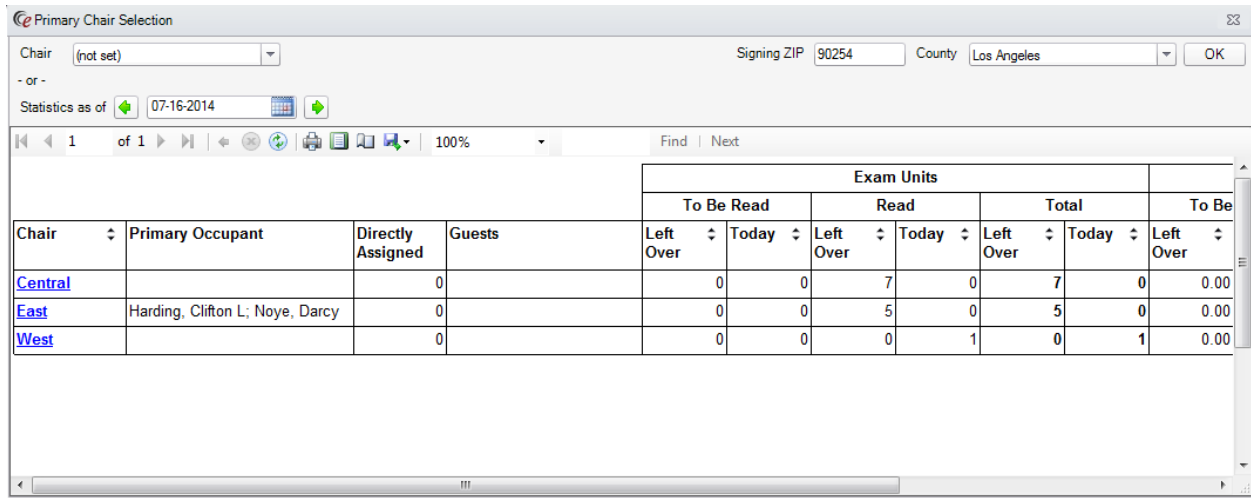


Figure 5.18 – Detailed chair selector

If the county selection is enforced, the county that is set at the time of signing is saved to the interpretation table’s “signed_county” column.

If Chair is not enabled for the current user but county is enabled, a new status bar icon will be displayed allowing the user to open the County selector.

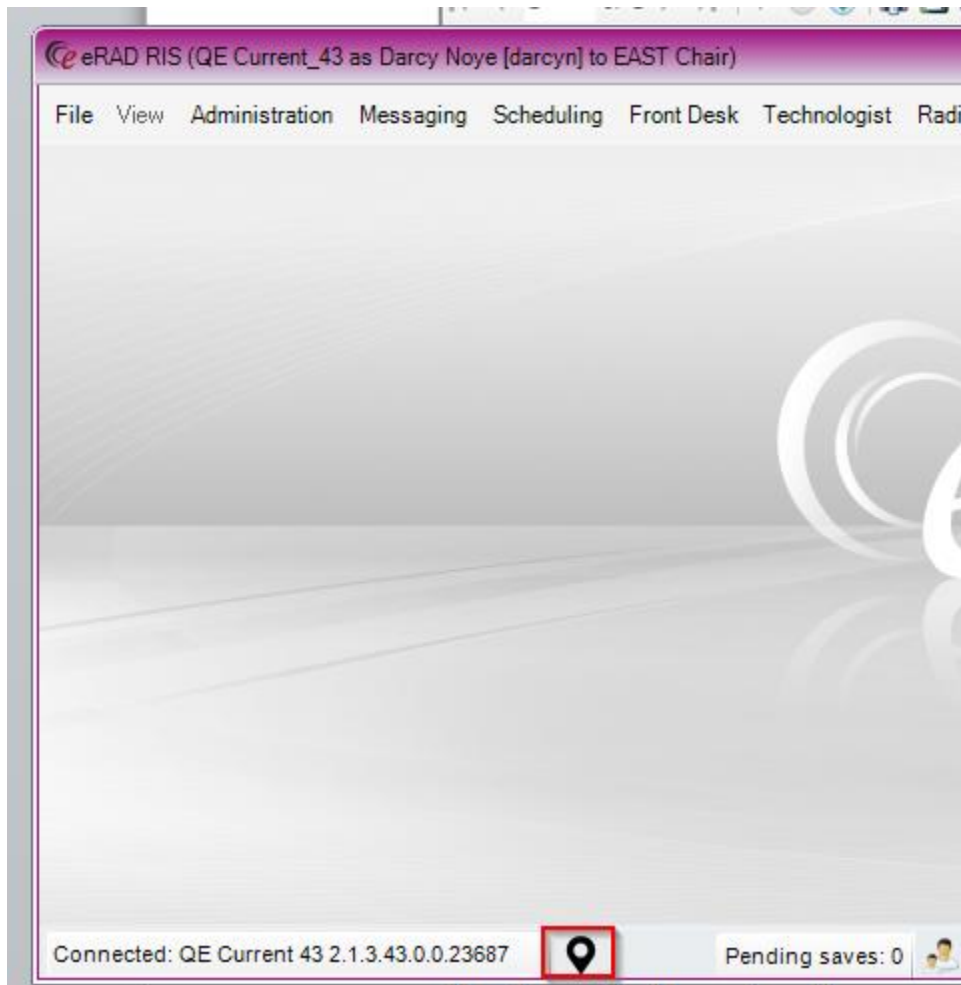


Figure 5.19 – County selector

IVT – Ability to Edit Patient Information

Previous to Build 43, users had to access the Patient Folder – View Edit to alter patient information on the Patient tab. Now the patient tab is editable from the IVT window.

The screenshot displays the IVT window for patient Peggy Mammo. At the top, there are two tabs: 'IVT WL (4828)' and 'IVT: MAMMO, Peggy #23195PE'. Below the tabs is a navigation bar with buttons for 'Patient', 'Insurance Verification PreCert', 'Order \ Exam', 'Attachments', and 'Contact Log'. The main content area is divided into three sections: 'General Information', 'Contact Information', and 'Patient Notes'. The 'General Information' section includes fields for Prefix, First name (Peggy), Last name (Mammo), Middle, MRN (23195PE), Sex (Female), Birth date (10-02-1955), and Place of birth. The 'Contact Information' section includes Address 1 (4 Green Tree Ave.), Address 2 (Suite 4), City (Nantucket), State (Massachusetts), Zip (02584), Country (US), Email (darcy.noye@radnet.com), Home phone ((902) 555-8471), Work phone (() -), and Cell phone (() -). There is also a checkbox for 'No Alternate Phone' and a 'Preferred contact method' dropdown. The 'Patient Notes' section shows a single note: '07-16-14 Test UserS -'.

Figure 5.20 – Patient tab fields editable from IVT window

ICD10 Support

To support ICD-10, the RIS code table that current contains ICD9 must be upgraded to support ICD-10 and other coding schemes as necessary. A new table called `I_indication` that is similar to the current `I_indication_code` has been created. The new table employs a composite key consisting of coding scheme, release date, and code. Rather than the code itself being the primary key, a numeric primary key exists instead. This approach requires that any place in code/XSLT etc. that refers to the indication code explicitly must be updated to perform a reverse lookup to find the code/coding scheme based on the numeric key.

ICD10 codes can be downloaded from

<http://www.cdc.gov/nchs/icd/icd10cm.htm#icd2014>

Choose the ICD-10-CM XML Format Option

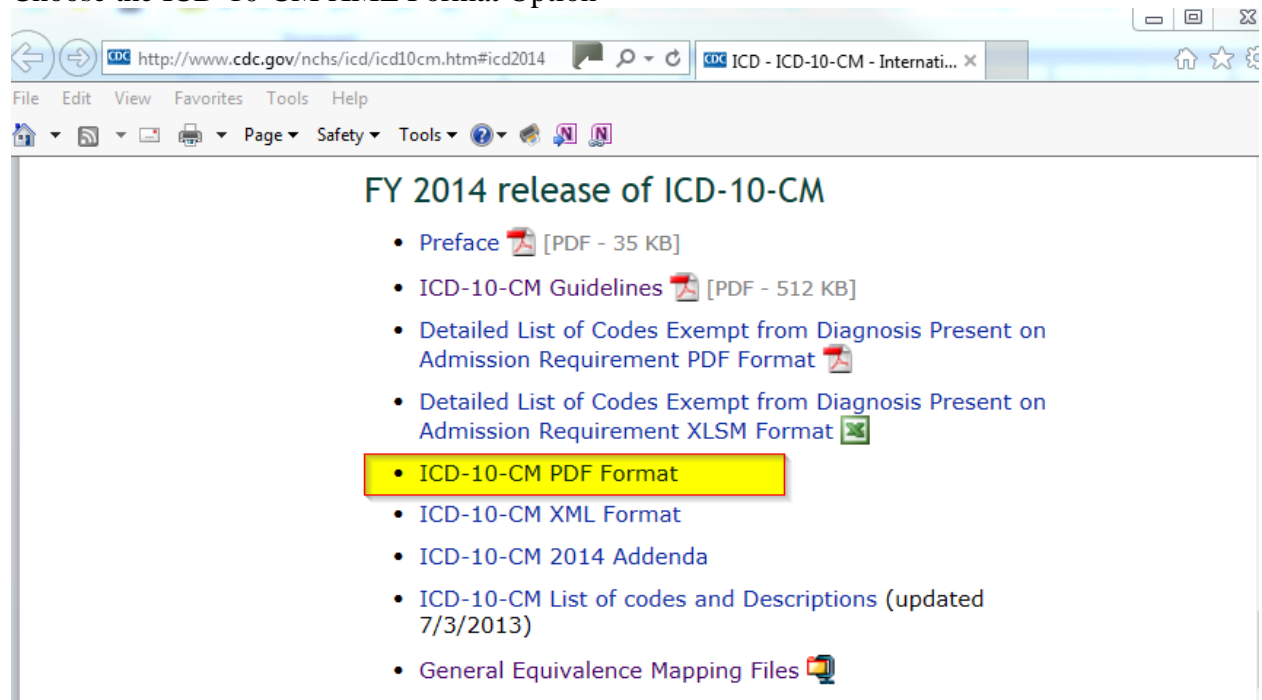


Figure 5.21 – ICD-10 download

This XML import file contained roughly 45,000 rows of ICD-10 Clinical Modification (CM) data. Procedure Coding System (PCS) that is also available seems to be for other purposes and not necessary for ICD-10 support. To manage importing of new versions of ICD-10, the indication code lookup has been enhanced with an “Import” button and associated screen for importing only rows in the import XML that do not already exist in the `I_indication` table. The placement of the “Import” button on the Indications lookup is shown below.

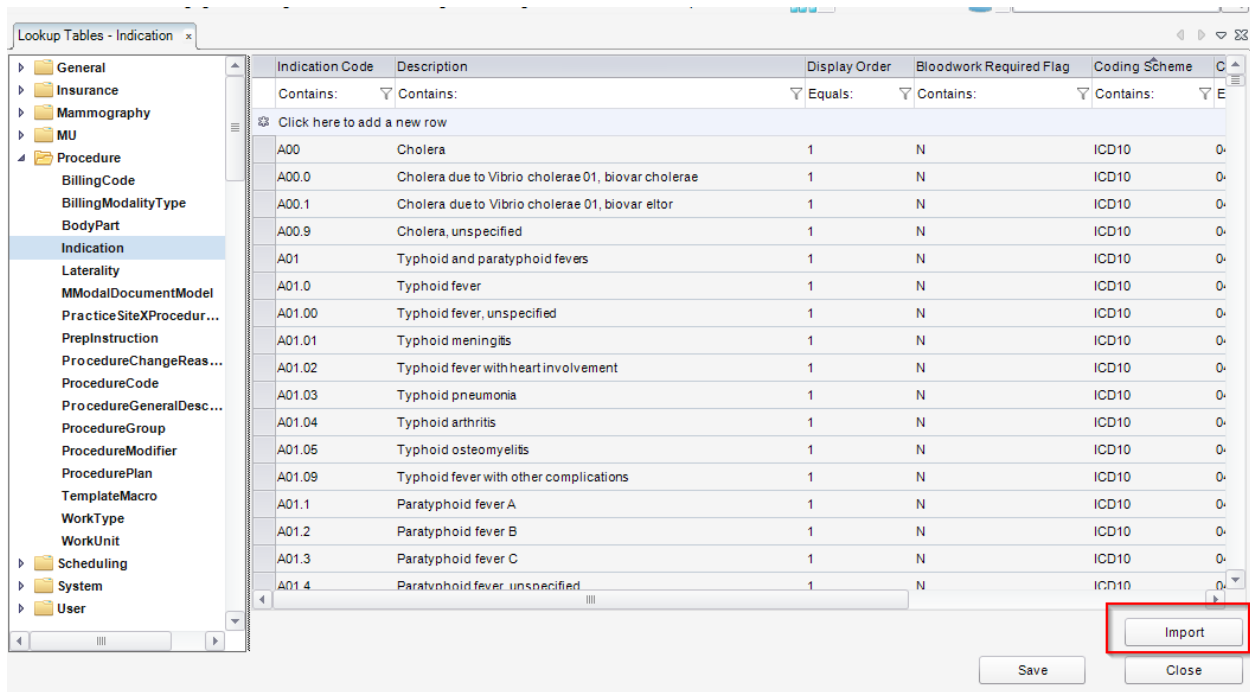



Figure 5.22 – Indication table with option to Import codes

To Import new codes select the “Import” button and this will present the Import ICD10 window.

Select the ellipsis button  next to the File field. Locate the directory where the XML file was saved. With this folder select the ICD10CM_FY_Full_XML_Tabular.xml file (NOTE: this file will change as new versions are released. It will be the responsibility of the site to continually update with newest codes).

The File path will not be populated. Select the Load XML button. At this point, the user can enter keywords as required. Only the codes that are missing from your current indication list will be imported. In my example I was only missing ICD10 code A22.9, so this is the only one available for download. The “include” column is checked by default. Once editing is complete and all rows that are needed are checked, the “Import” button can be selected. Before selecting the Import button you can also change the effective date.

After import of new rows, RIS must be closed and re-opened for the newly-imported rows to be available in the lookup editor.

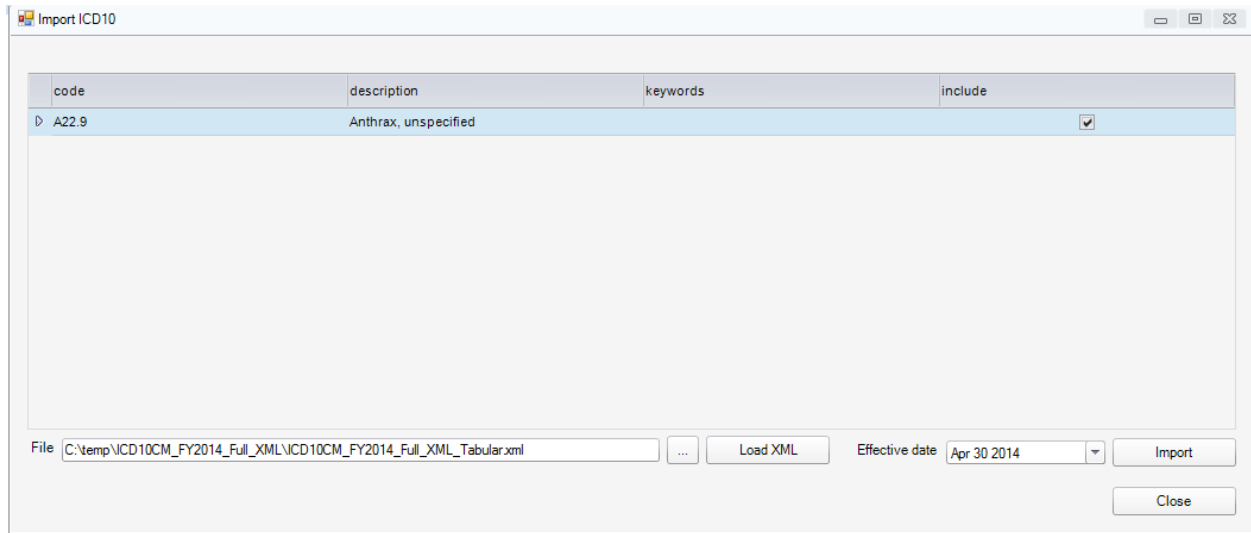


Figure 5.23 – Import ICD10 window

Searching for ICD Codes:

The ICD Codes dialog facilitates searching and filtering of ICD codes in the Indication table. The form contains a textbox for the reason for the exam (from the Order tab) and then the search/results section.

ICD search can be performed from many areas of the application. A general search of a code can be performed from the ‘Quick Search’ field in the upper right corner of eRAD RIS.

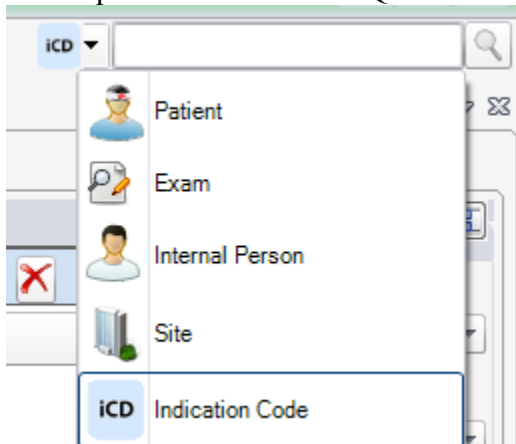


Figure 5.24 – ICD Quick Search

Enter the code or description in the field or leave it empty and select the search button to open the ICD Codes window. From this window you can select the Type of code being search for, this

can be a combination of ICD9 and ICD10. There is an option for SNOWMED codes, but by default there are no SNOWMED codes included. The box can be checked, but no data will be returned. By default, ICD9 will be checked until the date value in the System Config’s **“ICD10EffectiveDate”** whereby ICD10 will be checked by default when the window opens.

Entering a partial or full code number or description will return the results. The search results will display the Code, the Type of code and the Description.

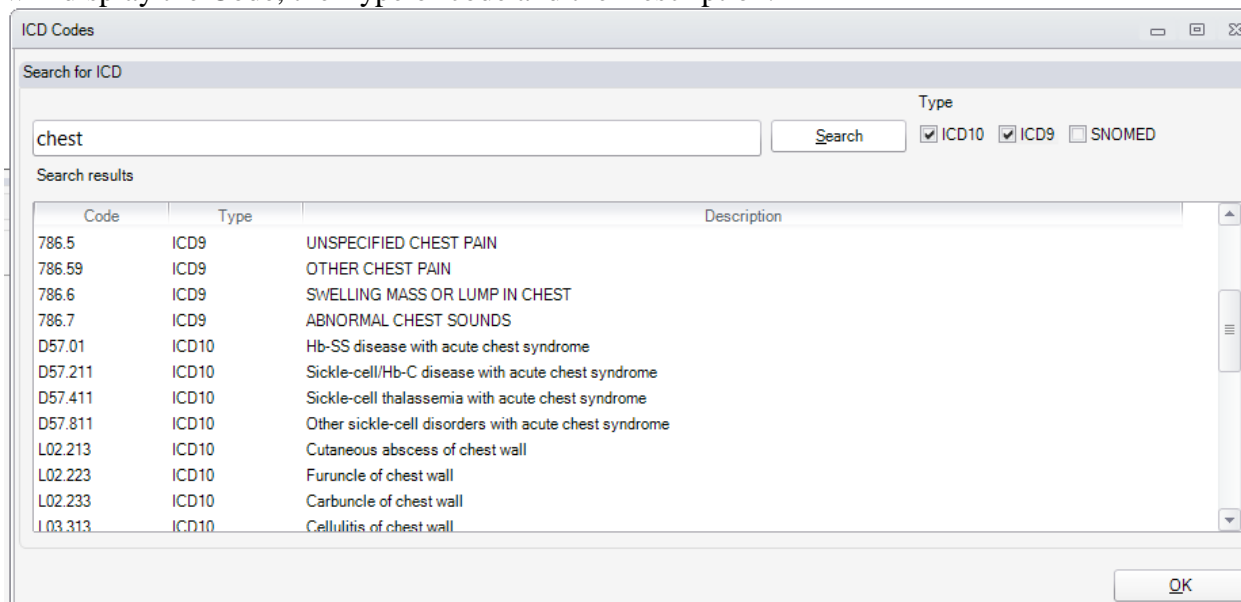


Figure 5.25 – ICD Codes search window.

From the Scheduling\Registration\Walk-In windows the user can add Indication codes. The window is accessed on the Schedule\Exam tab, with a new button labeled ICD on the procedure picker row. The button is enabled after the Study is entered. This button is controlled by new access string **“Clinical.Schedule.AssignIcdCode”** with a default of none.

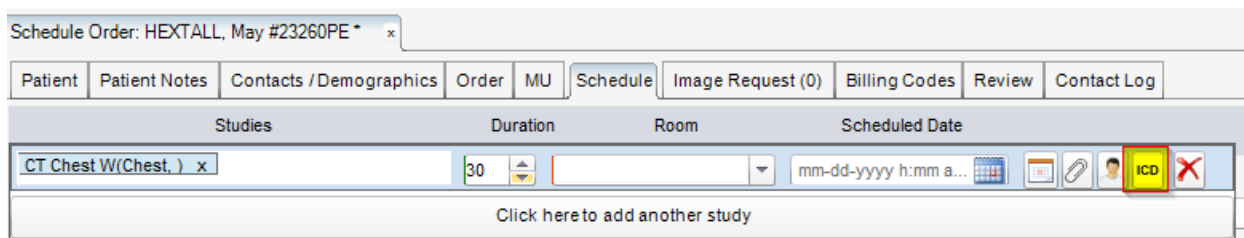


Figure 5.26 – Add Indication code in Scheduling

When the ICD Codes window opens, the Reason for exam will be pre-populated from Order tab. Perform search and from the Search results you can double click a row to insert in the selected codes section of the window. Multiple codes can be entered. When finished, select OK.

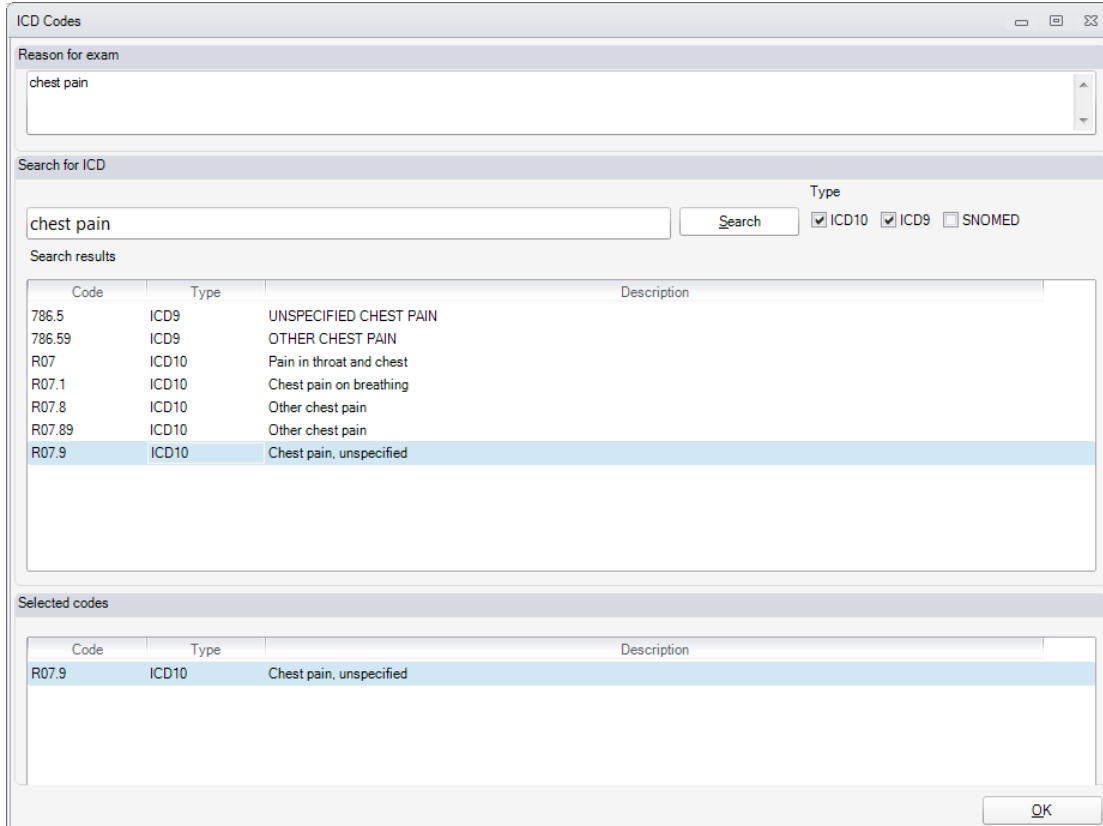


Figure 5.27 – ICD Codes window accessed from Scheduling\Registration\Walk-in windows.

In the Technologist workflow, and in View/Edit, The Documentation tab contains two grids that display the ICDs captured up to exam done, and those captured by the radiologist. The buttons to the right of each grid are enabled based on whether the current context should allow editing. If the new access string titled **“Clinical.ViewEditCanChangeTechIndications”** is set to full then the Indications button is enabled allowing changing of indications set up to Exam Done. It can be enforced that a code must be entered by the Tech is the system configuration setting of **“TechMustProvideIcdCode”** is set to True. The default is False. If the new access string titled **“Clinical.ViewEditCanChangeDiagIndications”** is set to full, then the Diagnostic Indications button is enabled, allowing changing of indications set by the radiologist. The default for both of the above mentioned access strings is none.

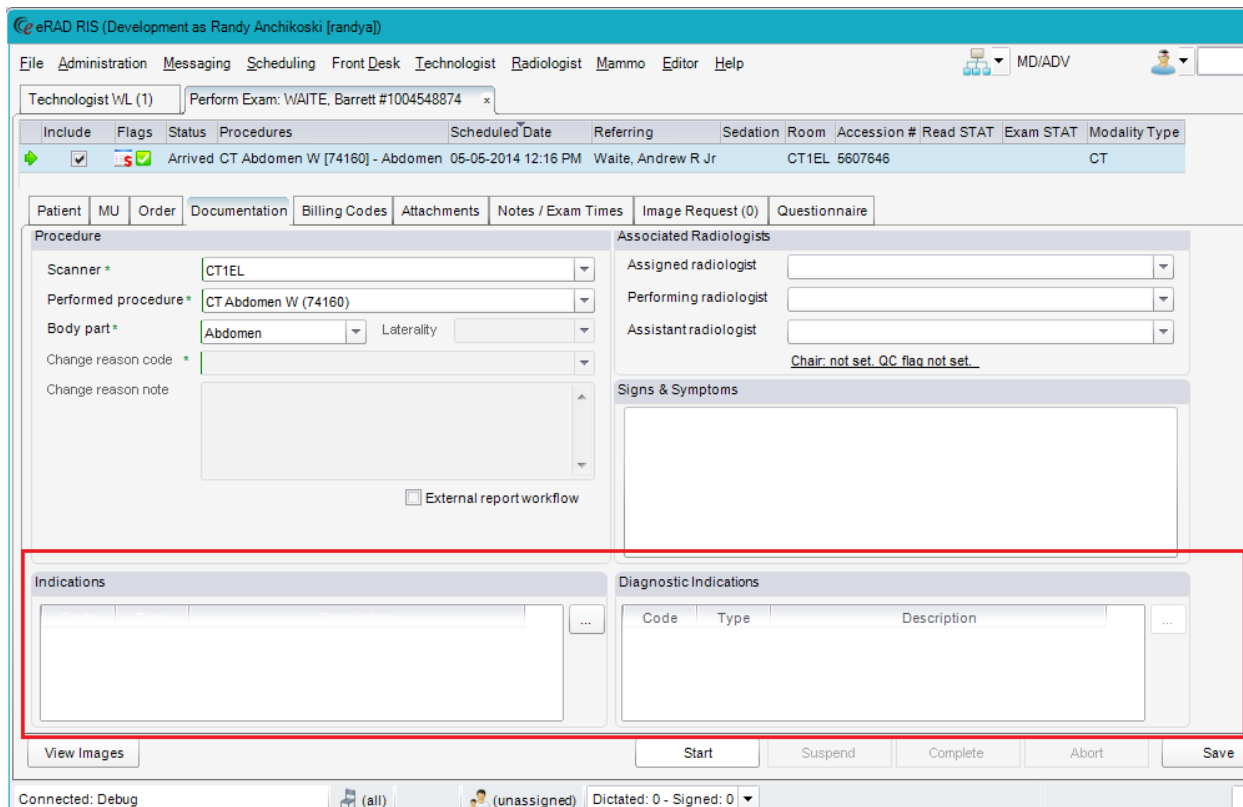


Figure 5.28 – Indication grids. Left for Technicians and right for Radiologist

IMPORTANT: Radiologist ICD Support Uncomplete

The Radiologist portion of this feature is not complete. It is recommended that the system configuration setting “RadMustProvideIcdCode” be left to the default of “False” and the access string of “Clinical.ViewEditCanChangeDiagIndications” be left to the default of None.

The Reporting window also has a new ICD button. The button is enabled with the system configuration setting of **“RadMustProvideIcdCode”** that has a default of False. This button will open the same ICD Codes search window. The data for the indications defined here are saved to c_interpretation_indication.

For the Radiologist to view the Tech workflow defined ICDs, viewing the Exam Details from the View menu will display indications defined in that workflow.

On the MU tabs Medical History pane the problem codes added are ICD codes and the same search window is provided allowing the user of both ICD9 and ICD10 codes. The user can select the search icon in the problem field of the Medical History grid to open the ICD Codes window, or can enter partial or full value in the problem field and search.

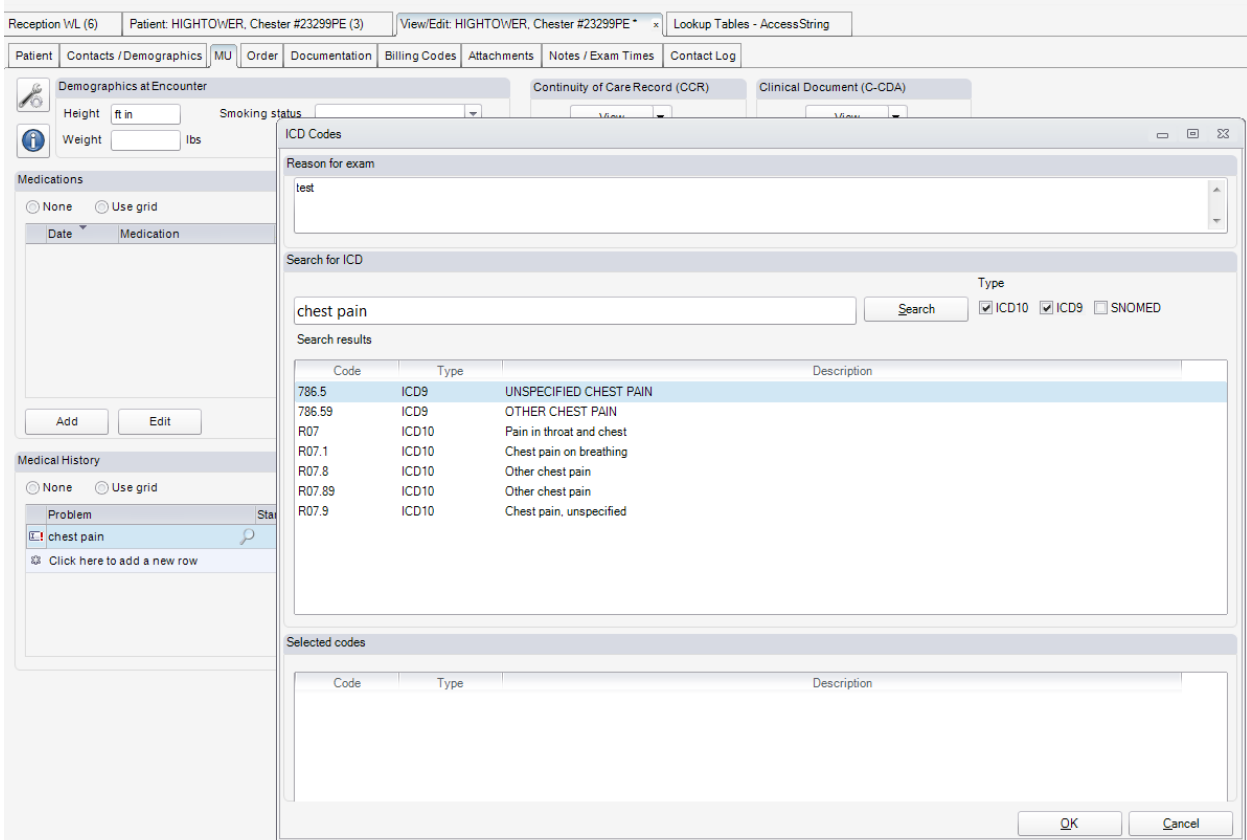
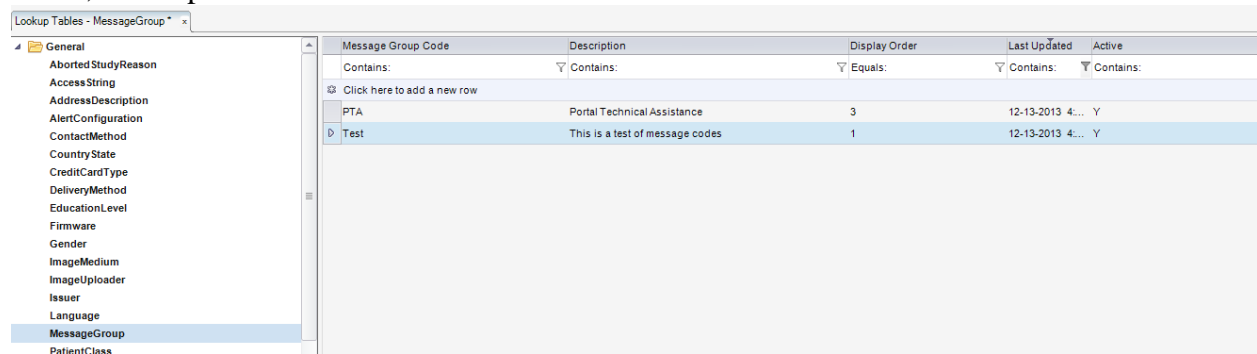


Figure 5.29 – MU ICD Code search

Secure Messaging

Secure Messaging has been added in Build 43. This allows RIS users to send secure encrypted messages to other users in the RIS and also to patient that can access the message via the Patient Portal.

To start a new Lookup table titled MessageGroup was created and located under the General list of lookup tables. Columns of the table include the Message Group Code, Description, Display Order, Last Updated and Active column.



Message Group Code	Description	Display Order	Last Updated	Active
Contains:	Contains:	Equals:	Contains:	Contains:
Click here to add a new row				
PTA	Portal Technical Assistance	3	12-13-2013 4:...	Y
D Test	This is a test of message codes	1	12-13-2013 4:...	Y

Figure 5.30 – Message Group lookup

Values entered in this table will appear in a new field in the Personnel editors Account tab. This field is similar to the other fields on this tab. It is a type ahead field that can contain multiple values.

Having the messaging groups would allow a patient to send a message to a group if they don't know an individual to send it to. The RIS users who have access to this group would then get the messages.

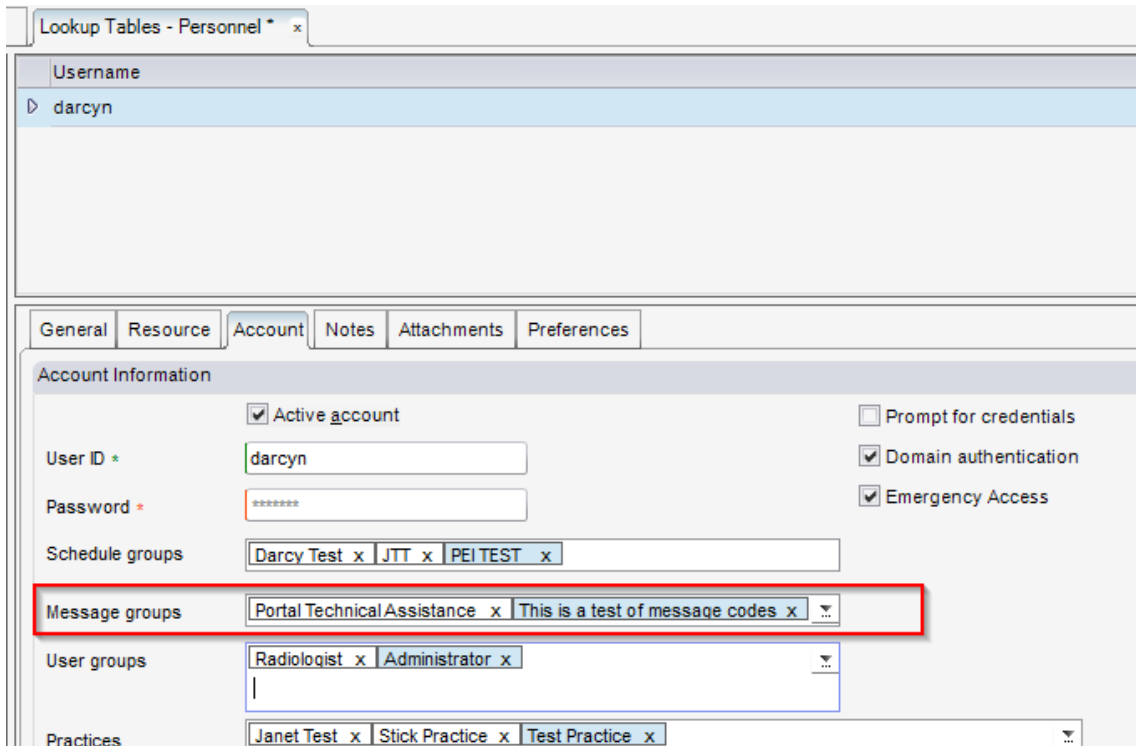


Figure 5.31 – Assigning message groups to users

From within the RIS messages are sent/received from under a new Menu option titled Messaging. The Messaging work list access is controlled by access string **“Config.MessageInbox”**. This access string also controls access to the Menu option of Secure Message Inbox that is under this Messaging menu. Default is none.

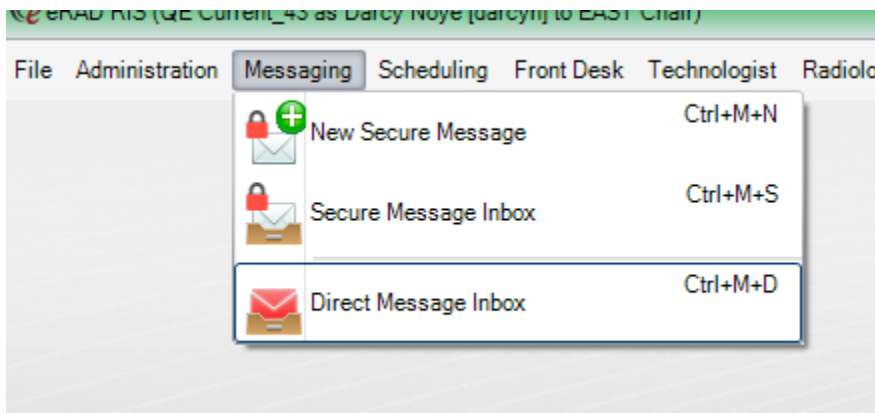


Figure 5.31a – Message menu and menu options

To create a new message select the menu option of New Secure Message that is controlled by the new access string of **“Config.CreateMessage”** that has a default of none. In this window the user can select to send to one of the messaging groups created, or they can send to a patient or another RIS user. The other RIS user would also need access to the Secure Messaging in order to receive the message in their inbox.

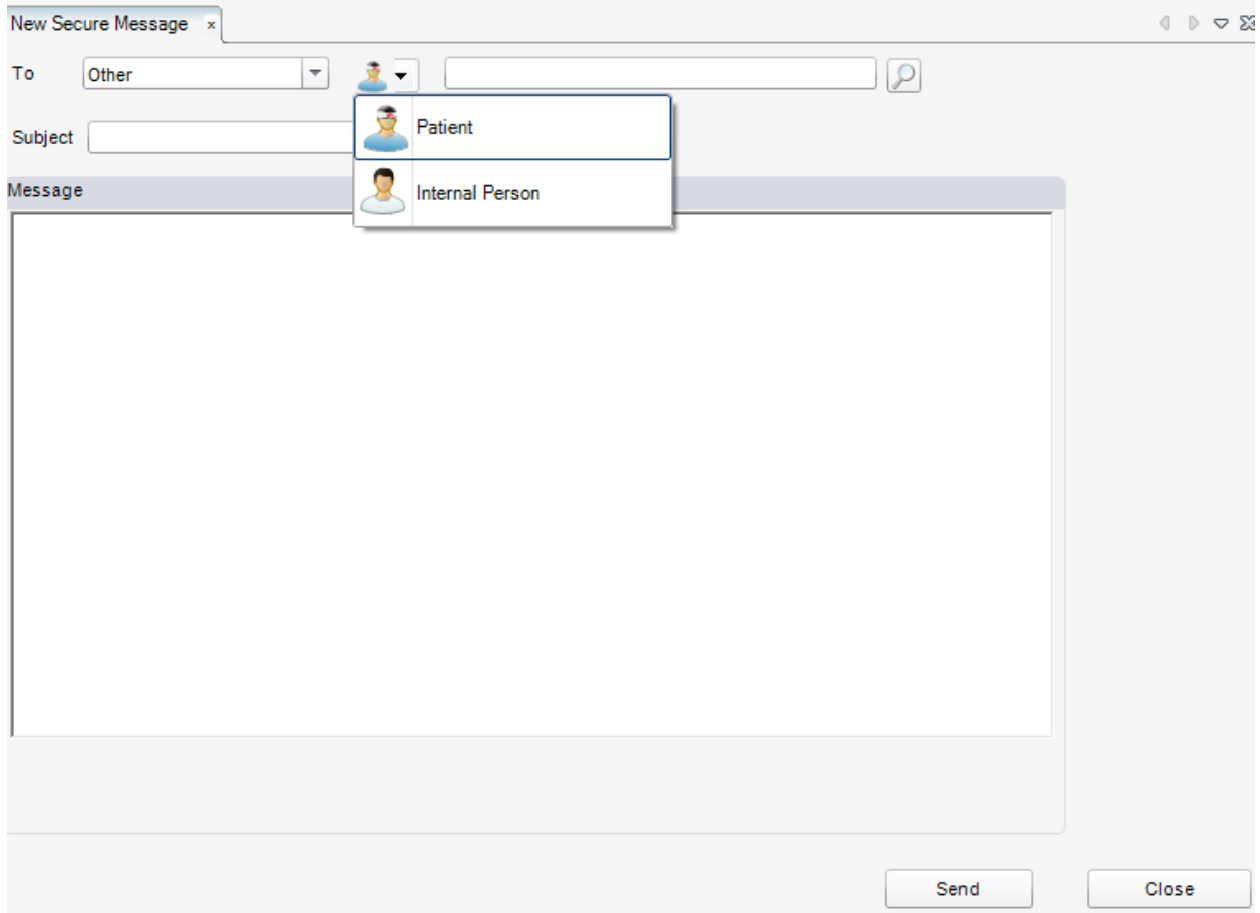
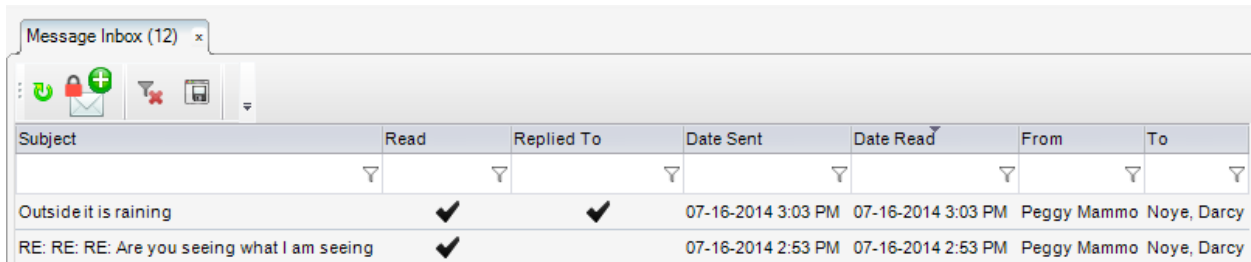


Figure 5.32 – New Secure Message

The RIS user can search for a patient or internal person, enter a message and send.

Messages sent to the user can be viewed / reviewed in the Message Inbox. This is accessed from the menu option Secure Message Inbox. Columns of Subject of the message, if the message has been Read, if the message has been replied, Date Sent, Date Read and From and To columns.



The screenshot shows a web-based interface for a secure message inbox. At the top, there is a tab labeled "Message Inbox (12)" with a close button. Below the tab is a toolbar with icons for refresh, lock, add, delete, and print. The main area is a table with the following columns: Subject, Read, Replied To, Date Sent, Date Read, From, and To. The table contains two rows of message data.

Subject	Read	Replied To	Date Sent	Date Read	From	To
Outside it is raining	✓	✓	07-16-2014 3:03 PM	07-16-2014 3:03 PM	Peggy Mammo	Noye, Darcy
RE: RE: RE: Are you seeing what I am seeing	✓		07-16-2014 2:53 PM	07-16-2014 2:53 PM	Peggy Mammo	Noye, Darcy

Figure 5.33 – Secure message inbox

The Direct Message aspect of this menu will be covered later in this document with the Meaningful Use updates.

Patient Portal Legal Documents

Legal documents were required for the Patient Portal. A new lookup table was created titled LegalDocument that resides under the System folder of the Administration>Configure menu.

Document types that can be created include:

- Terms and Conditions
- Privacy Statement
- Notice of Privacy Practices
- Patient Portal Terms and Conditions
- Patient Privacy Notes
- Patient Service Agreement
- Patient Consent Agreement

The user can define the Document Title and the Description of the Document to be displayed in the Patient Portal.

Document Title	Description	Document Type	Default Flag	Version	Last Updated	Active
Contains:	Contains:	Contains:	Contains:	Contains:	Equals:	Contains:
Click here to add a new row						
MyTermsAndConditions	Patient Terms and conditions go here hello world v2 and then some Why aren't we seeing this? L...	Patient Portal Terms and Conditions	Y	1	07-15-2014 3...	Y
TermsAndConditions	Terms and Conditions23 These are the Terms and Conditions that you must agree too a couple of ch...	Terms and Conditions	Y	4	07-15-2014 3...	Y
PatientPrivacyADV	We respect your privacy at ADVI if you are reading this you are reading the Patient Privacy Statement...	Patient Privacy Notes	N	1	07-15-2014 1...	Y
PatientPrivacyElseWhere	We respect your privacy at this unnamed practice Patient privacy elsewhere . as in St. Elsewhere	Patient Privacy Notes	Y	1	07-15-2014 1...	Y
PatientTermsAndConditionsARS	Here are the Patient Terms and conditions for ARS. Hello !!!world is there anyone in heropenT...	Patient Portal Terms and Conditions	N	1	07-15-2014 1...	N

Figure 5.34 – LegalDocument look up

Each type is allowed to have one default of that type, which would be used in the case when a practice cannot be determined or the practice does not have the desired legal document.

The Add/Edit Practice window accessed from the Organization lookup can have Legal Documents defined for a specific practice. Select the Portal tab and use the type ahead feature to add the legal documents.

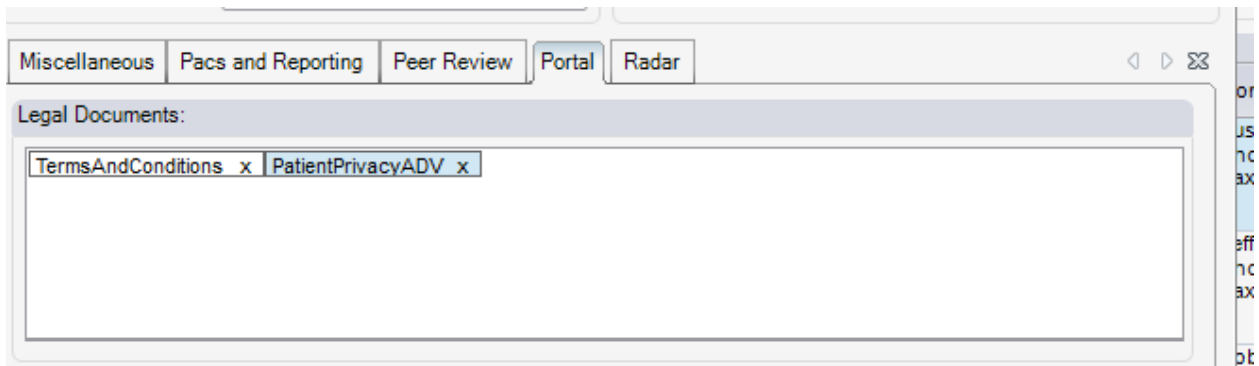


Figure 5.35 – Legal document specified for a practice

When logging into the Portal the system will check to see if the document has changed based on the last updated date, and display to the user before they will be able to access the site, if they have already approved that version then the site will load as normal.

Mammography – Suggest Manual Review

Manual review has been addressed by adding a new column to the Mammo Letters WL. The column titled “Suggest Manual Review Reason” will display reasons for a manual review. If the patient has multiple follow up orders that have not been scheduled the column will inform the user.

Status	Procedures	Suggest Manual Review Reason	Order Date	Referring	Target Date	Next Letter	First Name	Last Name	Patie
Short Term Follow Up	MA Digital Mammo Diag Bil [G0204] - Breast	Multiple active follow-up orders	07-15-2014 12:15 PM	Mutterly, Troy	07-25-2014 12:00 AM	Short Term Followup2	Peggy	Mammo	Mam

Figure 5.36 – Mammo Letters work list displaying new column for patient with multiple follow up orders.

If the patient has a follow up letter on the Mammo Letters WL and the patient has another mammo exam scheduled within 30 days of the target date of the follow up, this column will also inform the user with a reason of another breast exam.

Status	Procedures	Suggest Manual Review Reason	Order Date	Referring	Target Date	Next Letter	First Name	Last Name	Patie
Short Term Follow Up	MA Digital Mammo Diag Bil [G0204] - Breast	Other breast exam 2014-07-15	07-15-2014 12:15 PM	Mutterly, Troy	07-25-2014 12:00 AM	Short Term Followup2	Peggy	Mammo	Mam
Short Term Follow Up	Breast Imaging to be Determined [BID]		06-04-2014 11:44 AM	Mutterly, Troy	06-04-2014 11:43 AM	Short Term Followup2	Tanya	Mammo	Mam

Figure 5.37 – Mammo Letters work list displaying new column for patient with a breast exam scheduled.

Also from this work list the user can access the Patient Folder and Cancel Order from the context menu.

Status	Procedures	Suggest Manual Review Reason	Order Date	Referring	Target Date	Next Letter	First Name	Last Name	Patie
Short Term Follow Up	MA Digital Mammo Diag Bil [G0204] - Breast	Other breast exam	12:15 PM	Mutterly, Troy					Mu
Short Term Follow Up	Breast Imaging to be Determined [BID]		11:44 AM	Mutterly, Troy					Mu
Short Term Follow Up	Breast Imaging to be Determined [BID]		1:36 PM	Mutterly, Troy					HC
Call Back	US Breast Uni Or Bil [76645]		2:27 PM	Mutterly, Troy					Po
Call Back	US Breast Uni Or Bil [76645]		3:13 PM	Mutterly, Troy					Po

Figure 5.38 – Context menu options from Mammo Letters WL

Option to Not Allow Editing of Billing Codes by Technicians

Currently in the RIS we have an option on the procedure code that will allow\disallow the editing of the amount of units for a billing code. This works great for billing codes that are associated to the procedure, but doesn't prevent the tech user from adding a different code and change the units.

For this we have added a new column on the Billing Code table titled Allow Edit Units Flag. If the value of this column is set to Y the user will be able to edit the value on the Billing Code tab of the Perform Exam window. Alternately, if it is N, the user will be prevented from changing the unit value.

Billing Code	Description	Allow Edit Units Flag	Version	Display Order	Billing Mod
Click here to add a new row					
186349003	Encounter for "check-up"	Y	1	1	
90920	Dialysis Services	Y	1	1	OTHER (N
70134	RADIOLOGIC EXAMINATION, INTERNAL AUDITORY MEATI, COMPLETE	Y	1	1	DIA (X-ray)
70480	COMPUTED TOMOGRAPHY, HEAD OR BRAIN; WITH CONTRAST MATERIAL(S)	N	1	1	CT (CAT SI
70450	COMPUTED TOMOGRAPHY, HEAD OR BRAIN; WITHOUT CONTRAST MATER...	N	1	1	CT (CAT SI

Figure 5.39 – Billing code lookup showing new column Allow Edit Units Flag

Add Billing Code

Billing code*: (72125) COMPUTED TOMOGRAPHY, CERVICAL SPINE; WITHOUT CONTR...

Units: 1

CPT modifier 1: []

Figure 5.40 – Unit that cannot be edited

Patient “Not Yet Menstruating” Flag

In the Perform Exam window there was a flag of No longer menstruating that would disable the LMP and Pregnant fields. For cases of patients that have not starting menstruating but were over the age in which we active the LMP and Pregnant fields, there was no mechanism to disable.

We have added another flag of “Not yet menstruating”.

The screenshot displays the 'Tech Notes' section of the eRAD RIS interface. It includes a 'Technologists notes' text area, a 'Primary tech' dropdown with a red exclamation mark, and 'Assisting tech 1' and 'Assisting tech 2' dropdowns. The 'Last menstrual period' field is set to 'mm-dd-yyyy' with a calendar icon and radio buttons for 'Pregnant' and 'Not pregnant'. Below this, there are checkboxes for 'No longer menstruating', 'Not yet menstruating' (highlighted with a red box), 'Shielded patient', 'Pregnancy test', and 'Blood test'. The 'Procedure' section shows 'Scanner *' as 'CT1EL', 'Performed procedure *' as 'CT Chest W & Abdomen W/Wo (CT42)', and 'Body part *' as 'Chest'. The 'Associated Radiologists' section shows 'Assigned radiologist' as 'Preferred: Strife, Barney a'.

Figure 5.41 – Not yet menstruating flag

Exam Search Filter of BI-RADS

The exam search window now has the BI-RADS option filter that can be added for search criteria

The screenshot shows the 'Exam Search' window with several search criteria fields. The 'Birads:' field is open, displaying a dropdown menu with the following options: BI-RADS 0, BI-RADS 1, BI-RADS 2, BI-RADS 3, BI-RADS 4, and BI-RADS 4a. Other search criteria include Site, Ref. Last Name, Modality Type, Gender, Status, Procedure, and External Re. Below the search criteria is a table with columns: Flags, Status, Pro, MRN, Birth Date, Accession #, Referring, Room, Site, Modality Typ.

Figure 5.42 – Exam search capability of searching on BI-RAD levels

Patient Search – New Patient Split Button Added

The New Patient button has been updated with a new split button. Options within the split button are New patient / New appointment, New appointment and New patient.

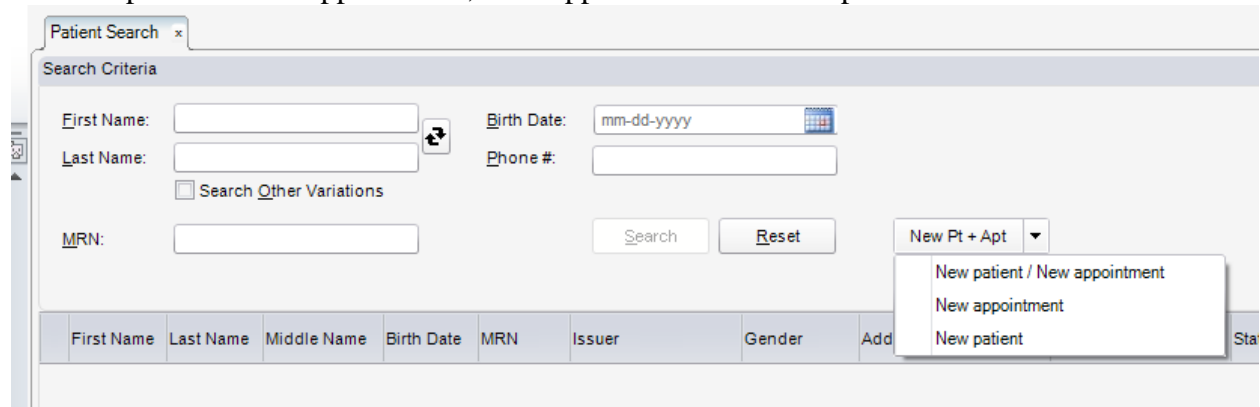


Figure 5.43 – Patient search

If the user wishes to create a new appointment and performs a search and no results are found the New patient / New appointment option can be selected. This will open the Schedule Order window with for a new patient. If they wish to just create a new patient in the system the New patient option can be used

If the user performs a search and the results list does have a match or multiple results returned, they can select a patient from the list and select the New appointment option. This will open the Schedule Order window with the patient details pre-populated.

In the case of orders from external systems that have to matched with an eRAD RIS MRN, the patient search window will open with only the option of New patient.

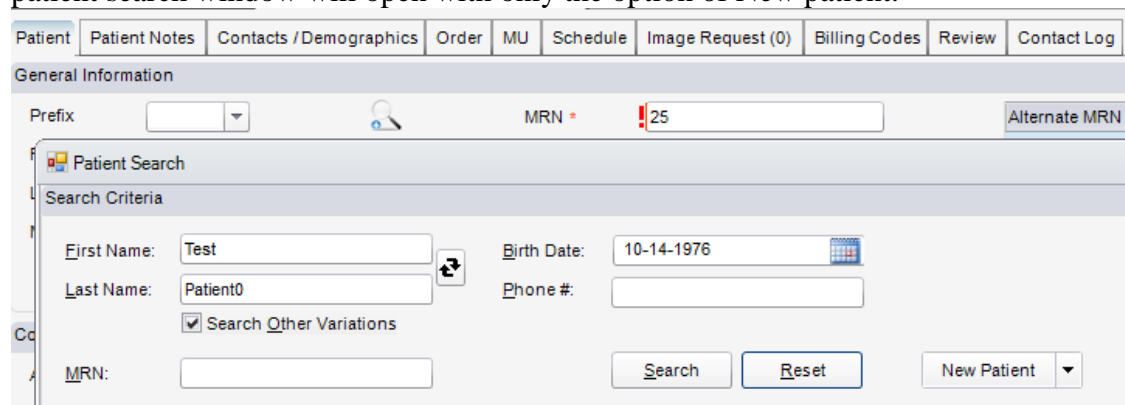


Figure 5.44 – Patient search for external order

Responsible Party MRN

Two new fields have been added to the Responsible Party’s information on the Contacts / Demographics tab. The fields are not required to be completed. The fields are Relation’s ID and ID Issuer.

The screenshot shows a web-based form for entering patient information. At the top, there are several tabs: 'Patient', 'Patient Notes', 'Contacts / Demographics', 'Order', 'MU', 'Schedule', and 'Image Request (C)'. The 'Contacts / Demographics' tab is selected. Below the tabs is a section titled 'Responsible Party'. This section contains the following fields:

- Relation: Spouse (dropdown menu)
- First name: Mary (text input)
- Last name: Hextall (text input)
- Same as patient (checkbox)
- Address 1: 1 (text input)
- State: MA (text input)
- Address 2: (text input)
- Zip: 02584 (text input)
- City: Nantucket (text input)
- Phone: () - (text input)
- Relation's ID: 12358 (text input)
- ID Issuer: QE Test (dropdown menu)

The 'Relation's ID' and 'ID Issuer' fields are highlighted with a red border. Below the form is a section titled 'Approved Medical Record Access'.

Figure 5.45 – Responsible Party fields added

Scheduling – Patients Height and Weight Required at Time of Scheduling

In previous versions we had the ability to turn on/off if the patient’s height and weight were required at the time of “arriving” the patient. We have added to the ability to turn on/off is the patient’s height and / or weight is required at the time of scheduling.

Two new system configuration settings have been created. For patient’s height required at scheduling the setting is **“HeightRequiredOnSchedule”**

For the patient’s weight required at the time of scheduling the new setting is **“WeightRequiredOnSchedule”**

Both have a default value of none.

System Config Code	Value	Default	Description
Contains: onsche	Contains:	Contains:	Contains:
HeightRequiredOnSchedule	False	False	(value = True/False) height is required when scheduling the patient
WeightRequiredOnSchedule	False	False	(value = True/False) weight is required when scheduling the patient

Figure 5.46 – new system configuration settings for height/weight required at scheduling.

Patients Weight and Room Added to Weight Limit Message

The message box that is presented to the user informing them that the current selected scanner has a weight limit that the patient exceeds has had the weight of the patient and the room name added to the message.

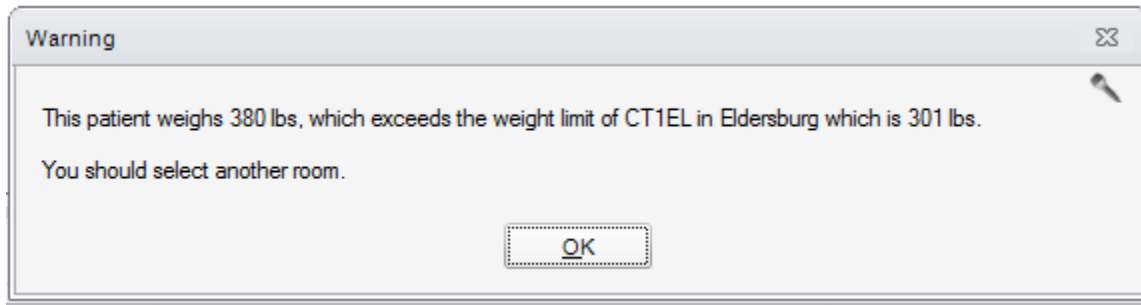


Figure 5.47 – Message includes patients weight and room

Ability to Add Longer Room Names

Currently in the scheduling window the names of the rooms come from the Modality Code of the Modality table. A new column was added to the Modality lookup titled Short Description that has a character length of 50. If this field has a value it will be displayed.

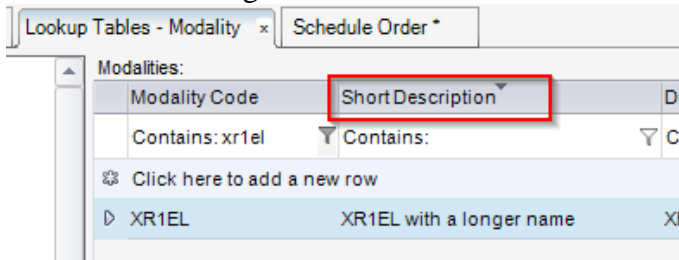


Figure 5.48 – Short description column added to the modality lookup

Admins can enter in a longer description name of the room and have it display in the scheduling windows details section.

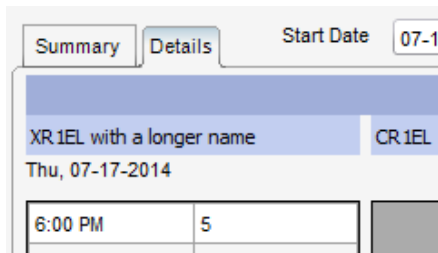


Figure 5.49 – Details showing short description

Also displayed in the Calendar of the Scheduling window

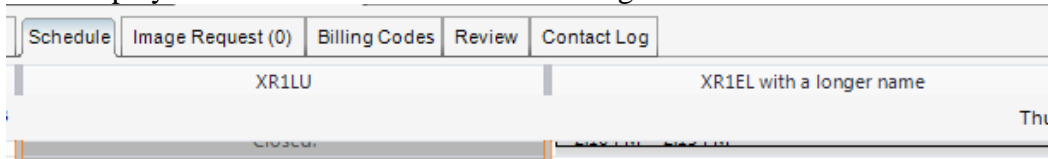


Figure 5.50 – Calendar control of the new appointment window

Lastly in the procedure picker rows Room list box

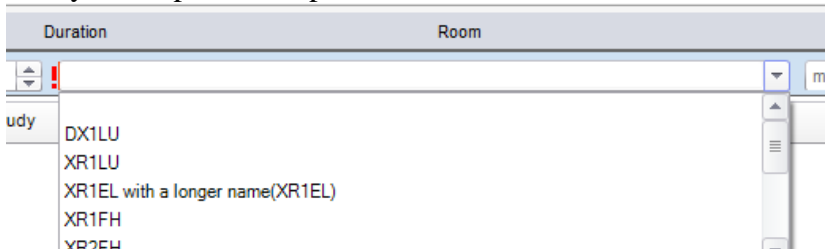


Figure 5.51 – Room list box on the procedure picker row

Ability to Use a Closed Room from Registration Window

Registration screen will now allow the use of a closed room/holiday, but on checking-in and arriving they will be prompted to ensure they would like to still use the selected modality.

For checking in a patient, the user will be presented with the following message

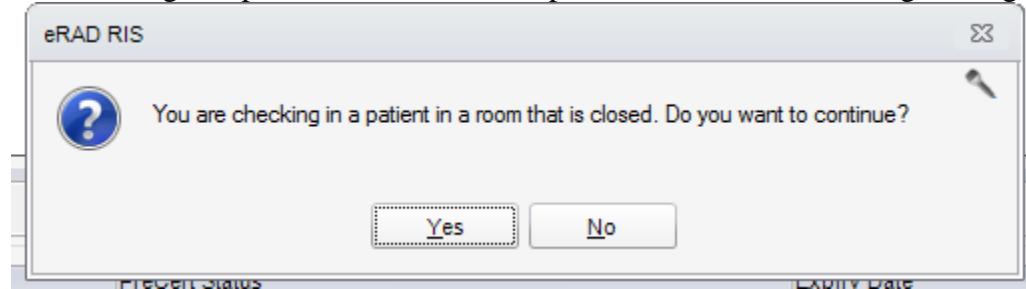


Figure 5.52 – Message on closed room for checking in a patient

When arriving the patient in a closed the room the message is:

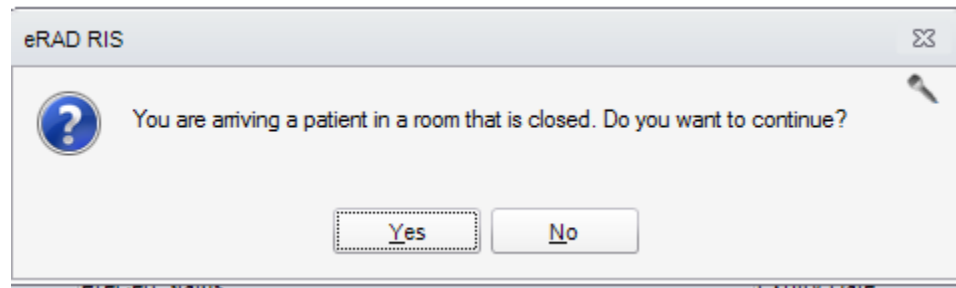


Figure 5.53 – Arriving a patient in a closed room

The message will be presented when completing a walk in to a closed room as well.

Scheduling – Repeating Modality Closures

The modality lookup table has an additional option added to the modality closures grid. The Repeat column has a list of values that include days of the week, weekday, weekend, all week and full range.

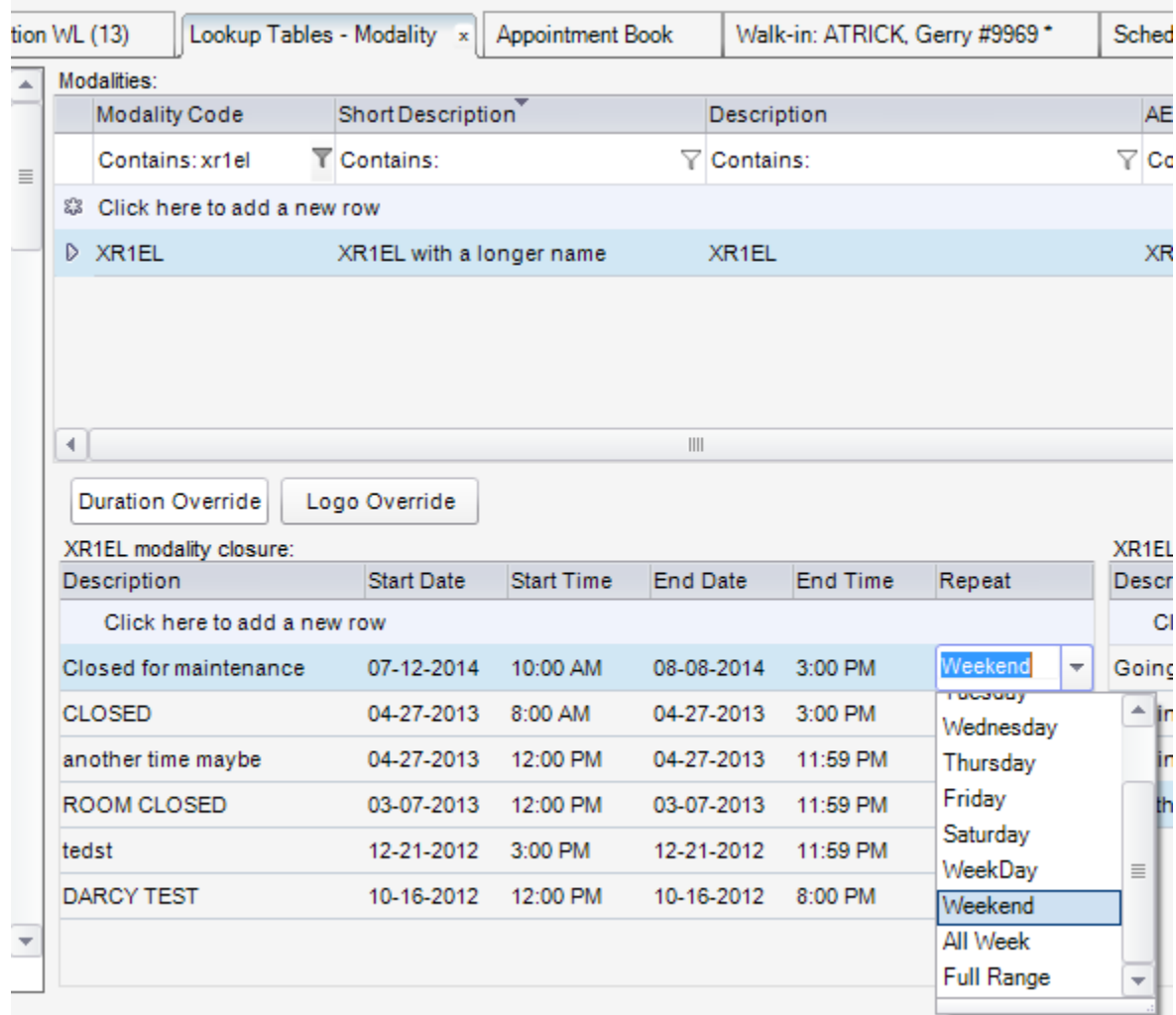


Figure 5.54 – Repeating room closures

An example of this would be closure on the weekend between 7am – 5pm, selecting the Weekend option would apply the closure to Saturdays and Sundays in your specified date range.

Last Contact and Last Contacted Type Added to Work Lists

The columns of Last Contact and Last Contacted Type have been added to the following work lists.

- Confirmation
- Reception
- Technologist
- No Show
- Closed Room

Example of the columns from the Reception work list:

Room	Accession #	Exam STAT	Last Contact	Last Contact Type	Carrier
E CT1EL	1016815PE		07-17-2014 2:43 PM	Phone Call	
E CT1EL	1016814PE		07-17-2014 2:43 PM	Phone Call	
E CT1EL	1016813PE		07-17-2014 2:43 PM	Phone Call	
E CT1EL	1016761PE				AETNA
E XR1EL	1016760PE				AETNA
E CT1EL	1016804PE				TRAVEL

Figure 5.55 – Last contact and last contact type added to work lists

Additional Columns Added to the Confirmation WL

The IV Status and PreCert Required columns have been added to the Confirmation WL.

IV Status	PreCert Required	Last Contact	Last Contact Type	Sched
Verified				07-17-
Required				07-17-
N				07-17-

Figure 5.56 – Columns added to the Confirmation WL

Additional Columns added to the Orders to Schedule WL

The columns Birth Date, Abort Reason and Carrier Type have been added to the Orders to Schedule WL

Flags	Status	Birth Date	Abort Reason	Carrier Type
\$	Ordered	01-13-1969	Unable to finance	
	Ordered	01-13-1969	Unable to finance	
	Ordered	09-17-1993	Unable to finance	Other
\$	Ordered	03-07-2012	Unable to finance	Other

Figure 5.57 – Columns added to the Orders to Schedule WL

Columns added to the Image Request WL

The columns of Date of Service and Site columns of Study Performed Site and Image Request site are included on the Image Request WL.

Exam Status	Procedures	Date Of Service	Study Performed Site	Image Request Site
Roman724 Boone (66)				
Signed1	CT Sinus Wo & Temporal Bone Wo [CT62] - Head	03-06-2012 11:17 AM	LU	LU
Signed1	MR Ankle Wo [MR25] - Ankle joint	03-14-2012 10:33 AM	LU	LU
Transcribed	CT 3 Phase [CT13]	03-16-2012 10:57 AM	EL	EL

Figure 5.58 – Columns added to the Image Request WL

Locked By Column Added to the CTRM WL

The locked by column has been added to the Critical Results WL and the All Critical Results WL

Flags	Status	Procedures	Referring	Locked By	Si
	ReportDrafted	XR IVP [74400]	Power, Ian		O
	ReportDrafted	CT Abdomen W/Wo & Pelvis W [CT23] - Abdomen	ROBERTS, WENDY		LU
	Signed1	XR Spine 1 View [72020] - Lumbar spine	Graves, Laurie		EL
	Signed1	XR Coccyx Only [RD42]	Arsenault, Janet		FI

Figure 5.59 – Locked by column added to Critical Results WL

Ability to Select Date Range for Confirmation WL

There Confirmation WL is a daily work list in which the user must select each day to see the studies for a specific day. In build 43 we have added to the ability to select a date range from the calendar control to a maximum of 10 days.

This is accomplished by opening the calendar. Focus will be on the current date. Holding down the shift key on the keyboard and select the day in which you would like to end the range. To change back to a single day, double click the day from the calendar.

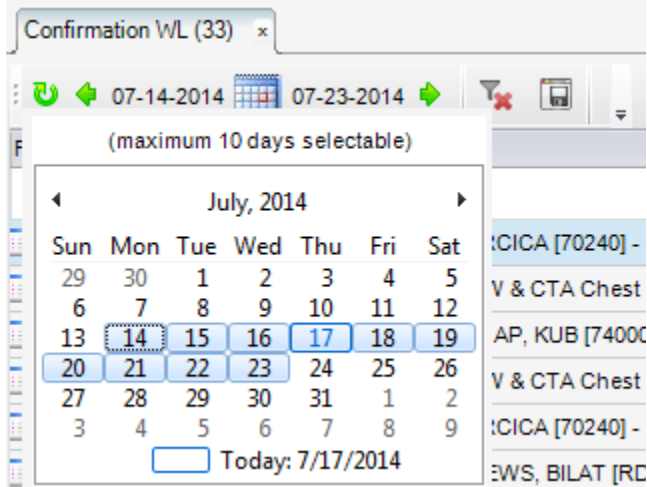




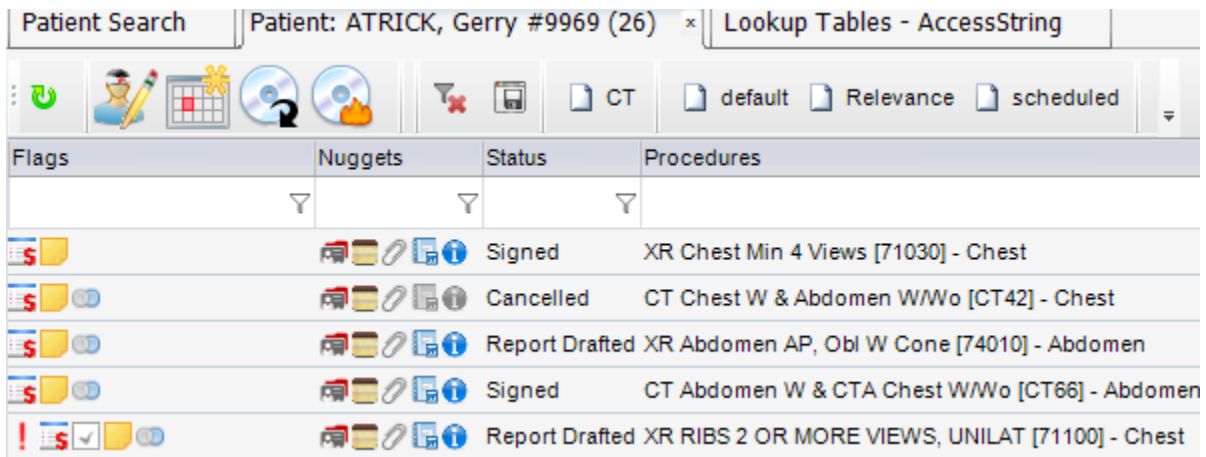
Figure 5.60 – Selecting a date range on Confirmation WL

The previous/next arrows cause dates to slide by one day but maintain the selected number of days in the range.

Problem and QA Flags Added to Patient Folder WL

Two new flags have been created for display on the Patient Folder WL. The flag for Problem, with an ICON of a red exclamation point  and the flag for QA with an ICON of a check mark  have been added. The Problem flag is controlled by a new access string titled **“Flag.Problem”** with a default access of full.

The QA flag is controlled by a new access string titled **“Flag.QA”** and it also have a default access of full














Flags	Nuggets	Status	Procedures
		Signed	XR Chest Min 4 Views [71030] - Chest
		Cancelled	CT Chest W & Abdomen W/Wo [CT42] - Chest
		Report Drafted	XR Abdomen AP, Obl W Cone [74010] - Abdomen
		Signed	CT Abdomen W & CTA Chest W/Wo [CT66] - Abdomen
 		Report Drafted	XR RIBS 2 OR MORE VIEWS, UNILAT [71100] - Chest

Figure 5.61 – Problem and QA flags added to Patient Folder

Personnel Editor – Have City Populated by Zip Code

The common zip code lookup to both the Address section and Deliver To section has been added. The functionality is the same as other areas where this feature exists: when tabbing away from the zip code textbox, if the zip code exists then the city/state will be automatically populated. If more than one entry exists, then the popup shown below will be displayed.

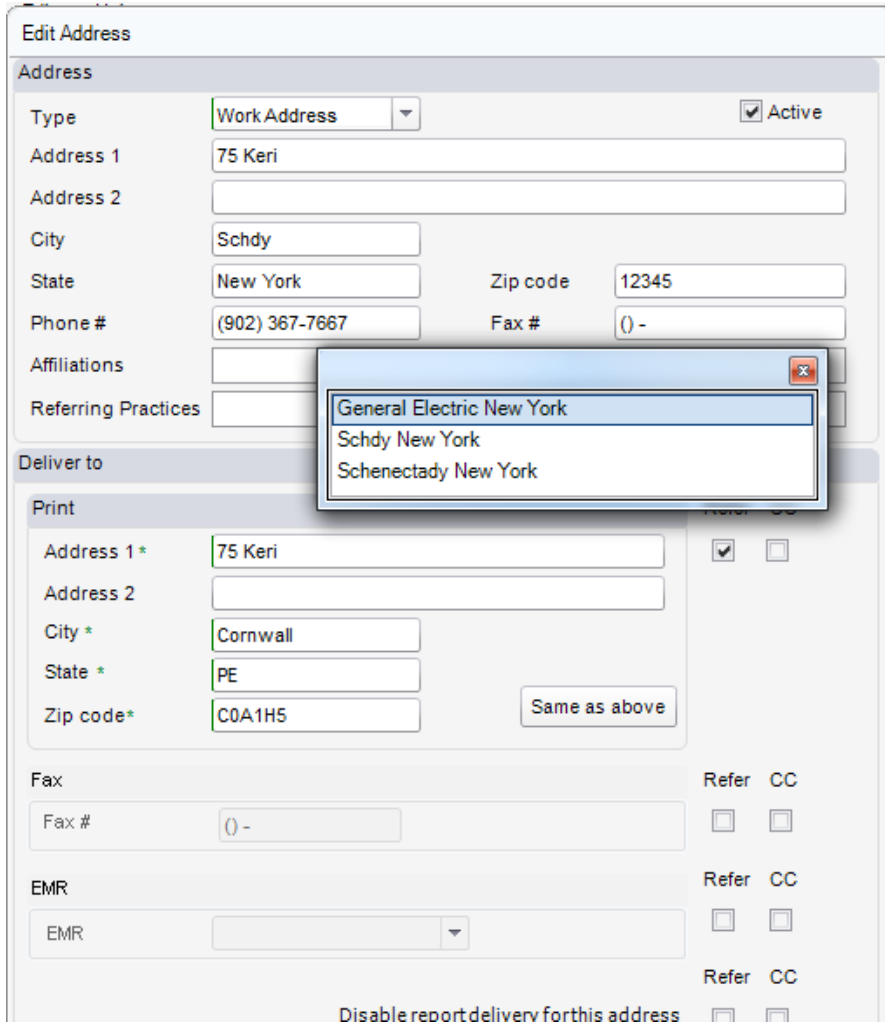


Figure 5.62 – Personnel editor with zip code lookup

Ability to Define Primary Specialty for Referring Physician

To set a specialty to ‘primary’, right click on the item in the multi-select Specialties box and select ‘Set as primary’. Only the specialties multi-select should allow this right-click functionality. Only one primary should be allowed.

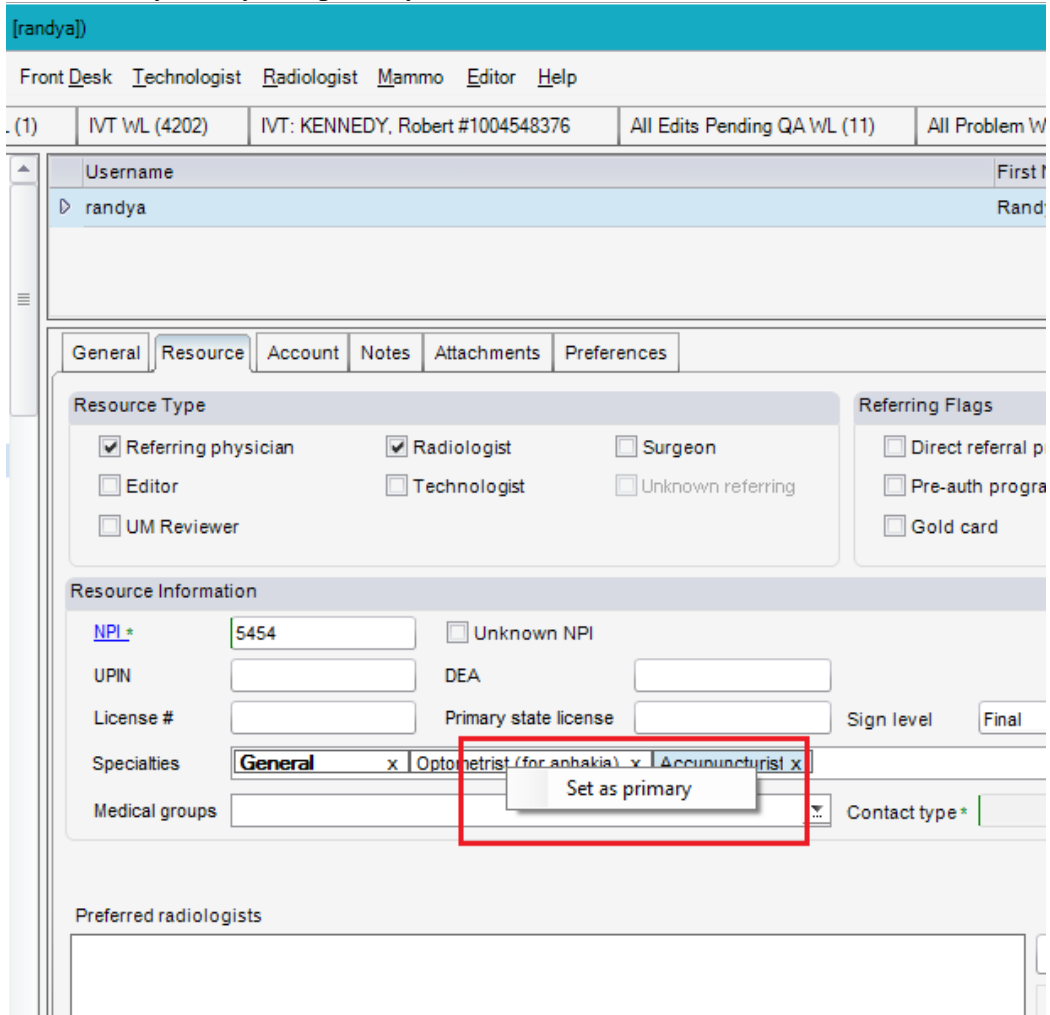


Figure 5.63 – Set specialty as primary in personnel editor

Referring Practice Address Changes

Instead of adding a referring practice at the Personnel Level we now have the ability to add 1 or more referring practices when adding or editing addresses as shown in the following:

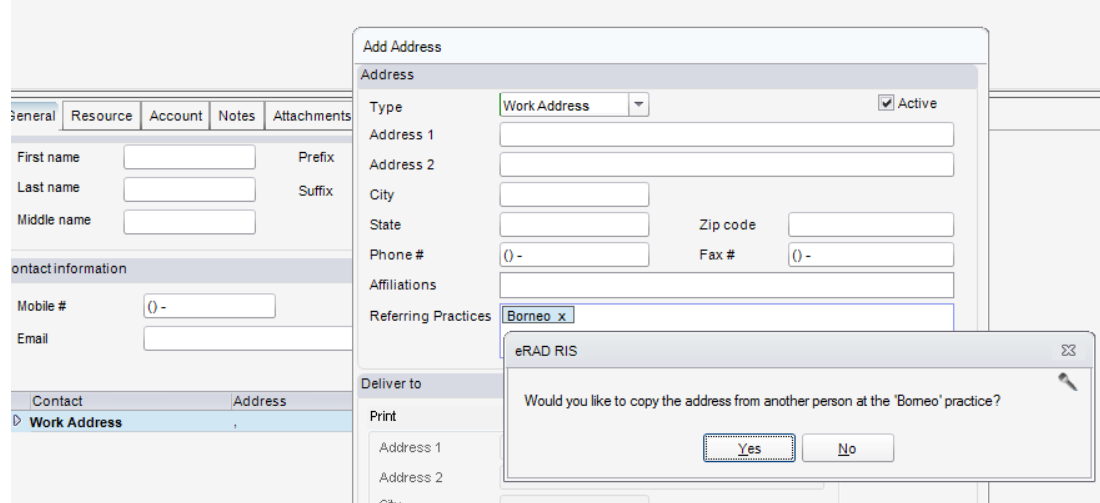


Figure 5.64 – Add address in Personnel editor

When a referring practice is added, the user is prompted, “to copy the address from another person at the selected practice”. If they choose “Yes” to that question they get a list of person’s addresses to use as the address/delivery information, as shown in the following screen capture:

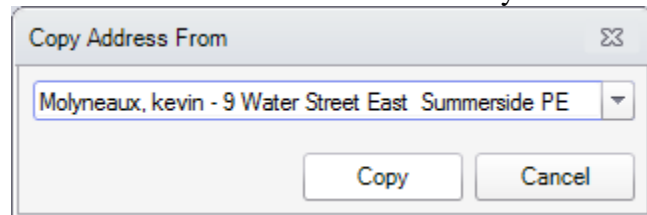


Figure 5.65 – Copy Address From prompt

The Personnel editor allows the user to add addresses and edit them individually. To make managing referring addresses easier, we have introduced the following “- Referring Address” editor:

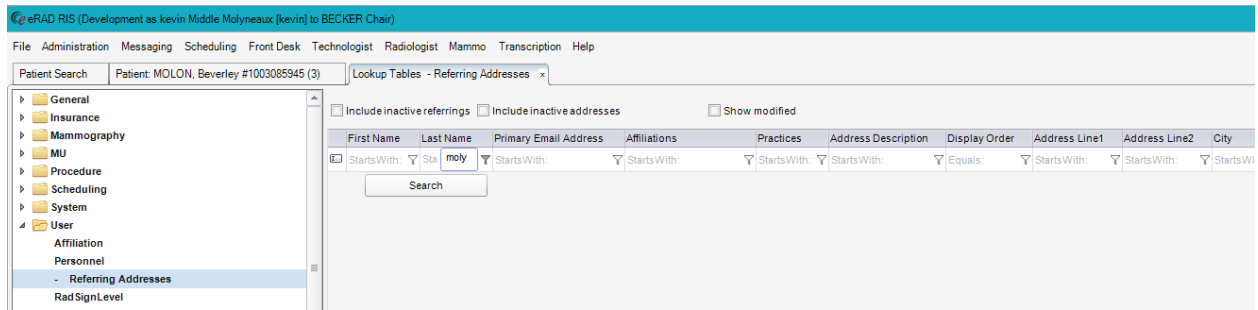


Figure 5.66 – Referring Addresses lookup

When you open this screen the first thing you must do is to specify at least one filter value and then click the “Search” button. In this example, I’ve search for all users with the last name ‘moly’.

Using the context menu option ‘Copy/Paste Referring Address’ the user can copy an entire address row and paste it to another person/address row.

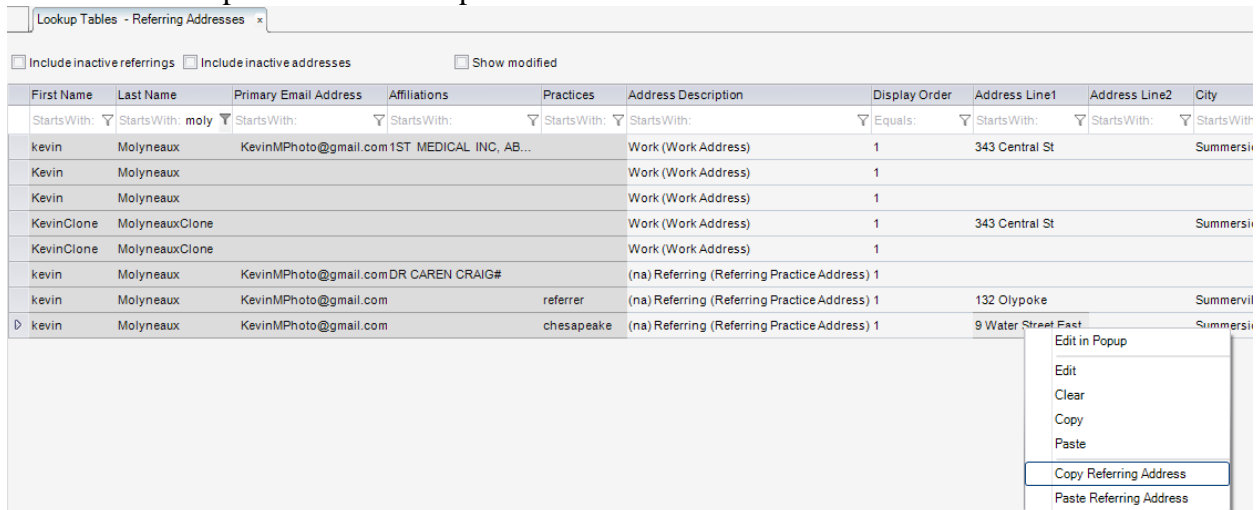


Figure 5.67 – Referring Addresses context menu options

Note, the columns shown in the darker shading are non-address fields, which are not included in the “Paste Referring Address” operation and are not editable directly in the grid. Consider these darker columns as read-only, except for the Practice and Affiliations columns which can be edited via the “Add/Remove Practice” context menu as shown in the following screen capture:

RADNET Inc. – eRAD RIS Release Notes

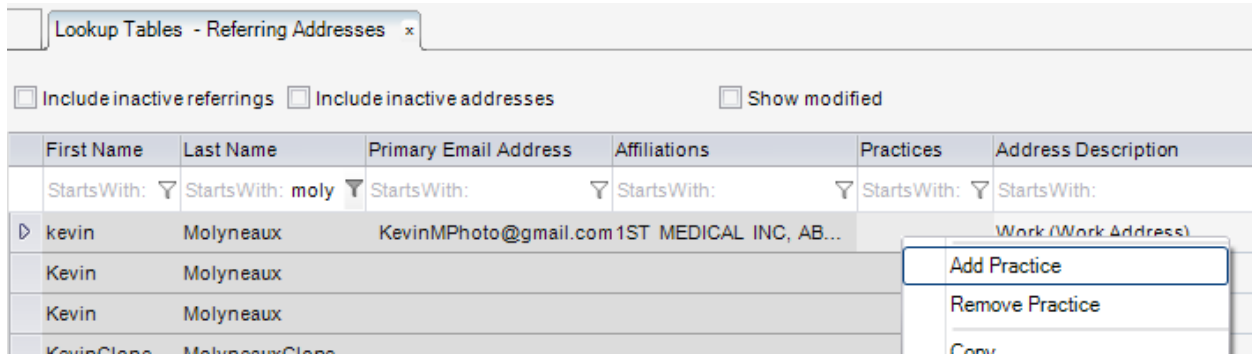


Figure 5.68 – Add or remove practice

The grid also support multi cell selection so you could add a practice to more than one address in the same operation as shown in the following screen capture, where I used the keyboard or mouse plus the <CTRL> key to selected multiple Practice cells:

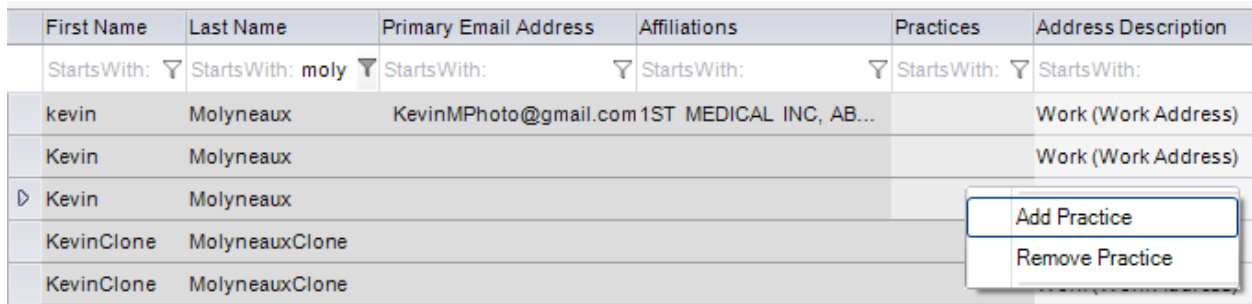


Figure 5.69 – Multi select cells

The user can also select multiple cells and paste the same value to all of them as shown in the following example where I am pasting the ‘343 central st’ to all of the selected cells:

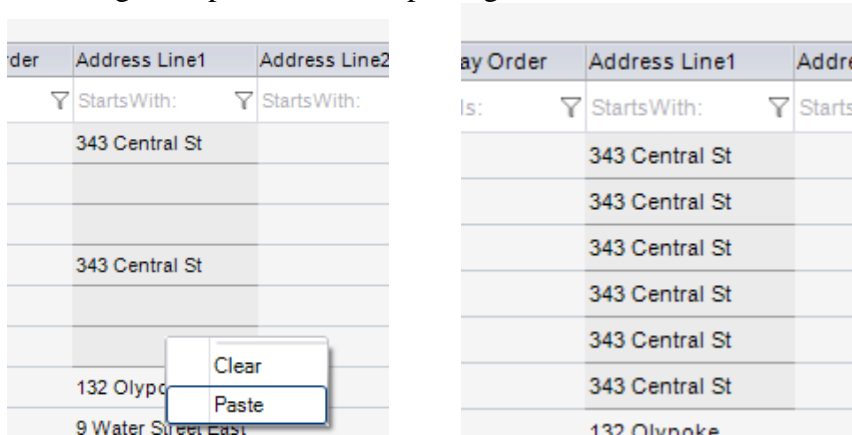


Figure 5.70 – Before and after copy / paste

Checking the “Show Modified” checkbox will remove all filters and show all the rows that have been modified and not yet been saved:

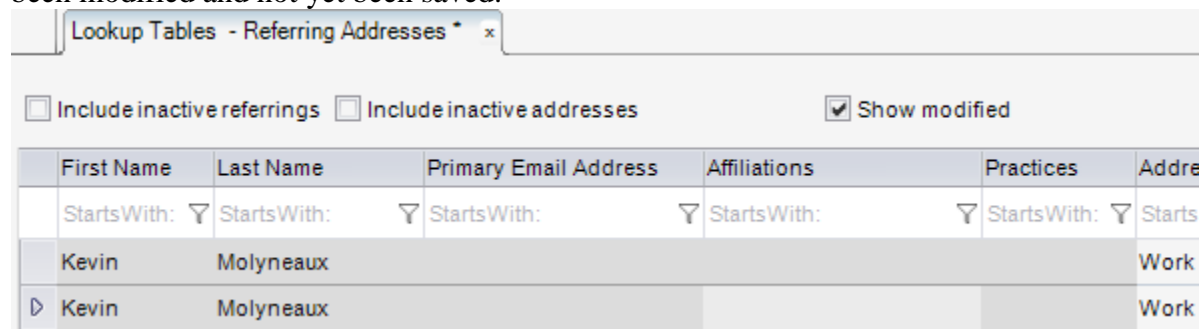


Figure 5.71 – Show modified

Then after unchecking the “Show Modified” the filters you had before checking it will be re-applied. If your search returns too many rows (~1000), then the amount returned will be limited and you will see a message explaining that partial results are being displayed. You will also notice that at all times the row count is displayed in the bottom right corner of the RIS screen as shown in the following:

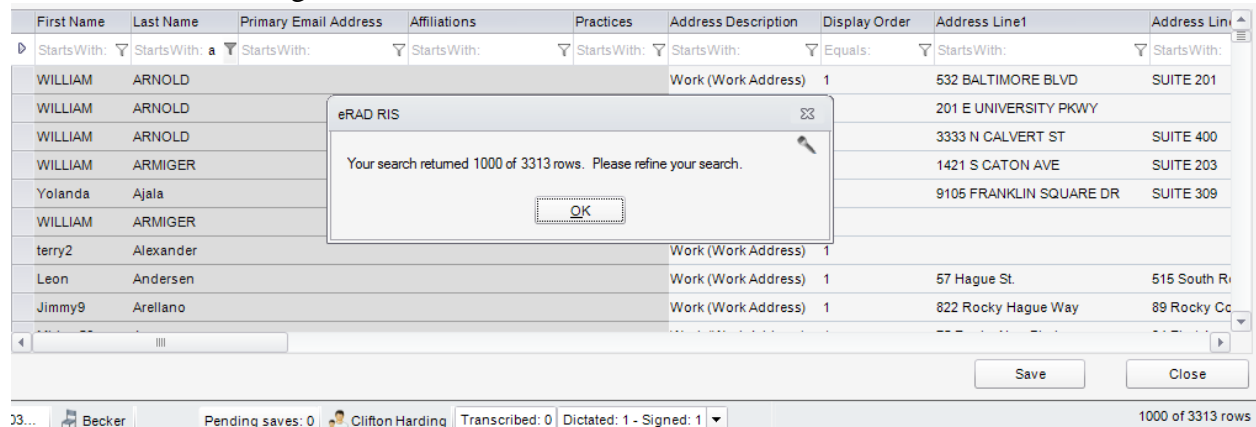


Figure 5.72 – Unselecting Show Modified results

Management Report – Appointment Schedule by Procedure Group

The Appointment Schedule by Procedure Group management report will display the details for exams scheduled on the specified date for practice, site(s) and procedure groups selected.

Appointment Schedule by Procedure Group

Practice: [REDACTED]

Site(s): [REDACTED]

Date: 4/24/2014

Procedure Group(s): PET

Description: This report displays the details for exams scheduled on the specified date for the practice, site(s) and procedure groups selected.

Scanner	Time Sched	Patient Name	MRN#	DOB	Exam(s)
MODCT1	8:30 AM	[REDACTED]	[REDACTED]	[REDACTED]	PETCT Tumor Imaging Skull-Thigh [78815] - Body Body Part\Lat:Body/
		Home Phone: [REDACTED]	ALT#: [REDACTED]	Age: [REDACTED] years	Referring: [REDACTED]
		Cell Phone:			Copay:
		Current Exam Status: Scheduled		Enc #:	Acc #: [REDACTED]
		Insurance: [REDACTED]		Insurance:	

Figure 5.73 – Appointment Schedule by Procedure Group management report

Management Report – Users in Usergroups

This report displays the list of users assigned to the selected user group(s). You can choose to see both active (by default) as well as inactive user accounts.

User group(s) Active user flag:

1 of 1 100% Find | Next

Users in Usergroups

User Group(s): Add Referring (Add Referring)

Description: This report displays the list of users assigned to the selected user group(s).

User id	Name	Active User
Group: Add Referring (Add Referring)		
User ID Hidden	User Name Hidden	Y
		Y
		Y
		Y
		Y
		Y
		Y
		Y
		Y
		Y
		Y
		Y
		Y
Total Count		14

Figure 5.74 – Users in Usergroups management report

Management Reports – Radiologist Productivity by User – Mammo

This report is to display the selected mammography exams read by the radiologists for the period specified based on signed off exams.

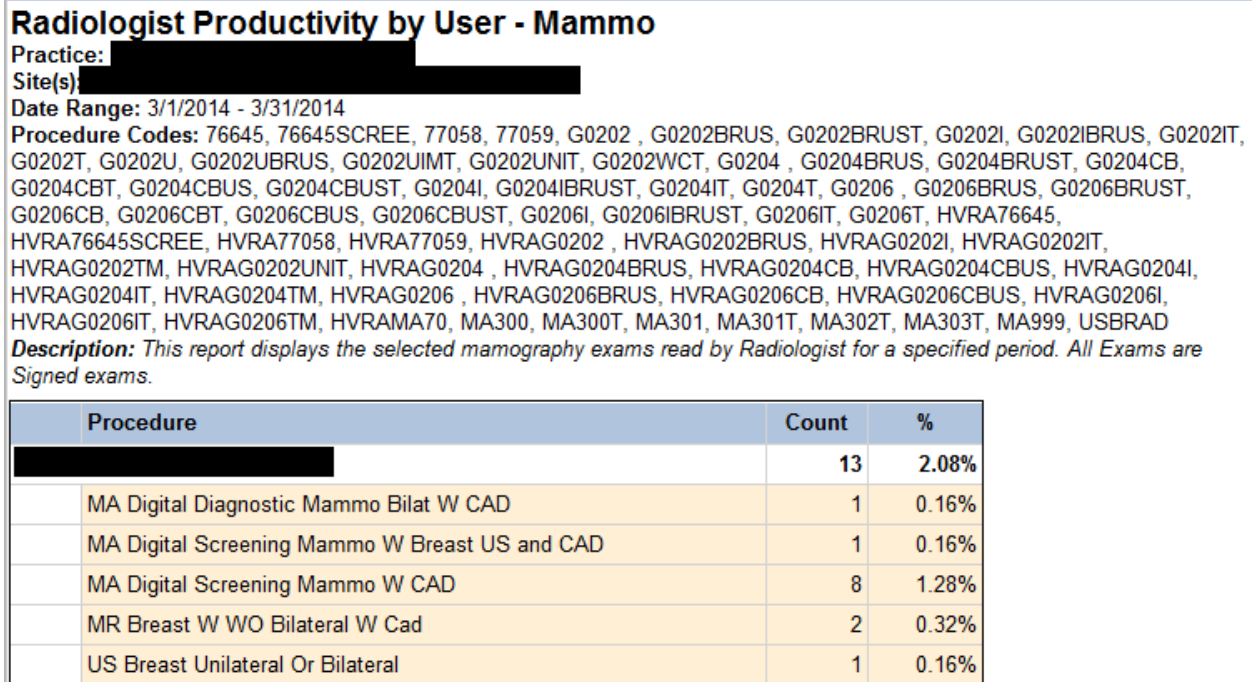


Figure 5.74a – Radiologist Productivity by User – Mammo Management report

Utilization Management – Addition of Medical Group Lookup Table

A lookup has been added called Medical Group has been added under the Insurance directory of the Administration>Configure menu. This contains the name and demographics of the medical group. The table includes the column for UM Routine Review, UM Stat Review and UM Urgent Review

Medical Group Code	Description	Phone	Fax	Address1	Address2	City	Zipcode	State	Notes	Um Routine Review	Um Stat Review	Um Urgent Review	Last Updated	Active
Click here to add a new row														
D	Summerside	Summerside Group	902-123-4567	902-111-2222	251 Water Street Suite 301	Summerside	92140	PE		30	5	15	06-27-2014...	Y
	Vantage	Vantage Medical Group	951-280-8200	951-280-8203	2115 Compton Suite 301	Corona	92881	CA		0	0	0	02-19-2014...	Y
	SeaView	SeaView IPA	805-988-5188	805-988-5183	1901 N. Solar Drive Suite 266	Oxnard	93036	CA		20	0	0	01-15-2014...	Y
	RPN	Riverside Physician Network	951-788-9800		1650 Iowa Ave Ste 220	Riverside	92507	CA		0	0	0	01-15-2014...	Y

Figure 5.75 – Medical Group lookup table

Access to this new lookup table is controlled by the access string **“Config.LookupEditor.MedicalGroup”** with a default of none.

From the Personnel editor the user can be mapped to one or multiple Medical Groups. The option is found on the Resource tab.

The screenshot shows the 'Resource' tab of a personnel editor. It features several sections:

- Resource Type:** Checkboxes for 'Referring physician', 'Editor', 'UM Reviewer' (highlighted with a red box), 'Radiologist', 'Technologist', 'Surgeon', and 'Unknown referring'.
- Referring Flags:** Checkboxes for 'Direct referral program', 'Pre-auth program', and 'Gold card' (highlighted with a red box).
- Resource Information:** Fields for NPI (9876541231), UPIN, License #, DEA (AA1234567), Primary state license, Sign level (Final), and Specialties (Radiology x, Diagnostic X-Ray x, Occupational Therapy x).
- Medical groups:** A dropdown menu (highlighted with a red box) showing 'Riverside Physician Network x' as the selected option. Other options include 'Riverside Physician Network', 'SeaView IPA', 'Summerside Group', and 'Vantage Medical Group'.
- Contact type:** A dropdown menu (highlighted with a red box) set to 'Medical Director'.
- Preferred radiologist:** A field containing 'Power, Ian G'.
- Add Radiologist:** A button at the bottom right.

Figure 5.76 – Map person to medical group

Also in the Personnel Editor on the Resource tab is the Referring Flag of Gold Card. The gold card flag is only available if the resource type is referring physician. If the gold card flag is checked, then the utilization management notes field, located on the Notes tab, becomes required.

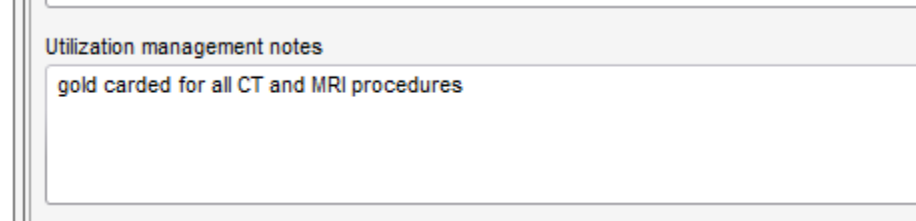


Figure 5.77 – Utilization management notes

The end user will need to know why the requesting physician is marked as gold carded. If the utilization notes field is not completed, the user will be prompted with an error message.

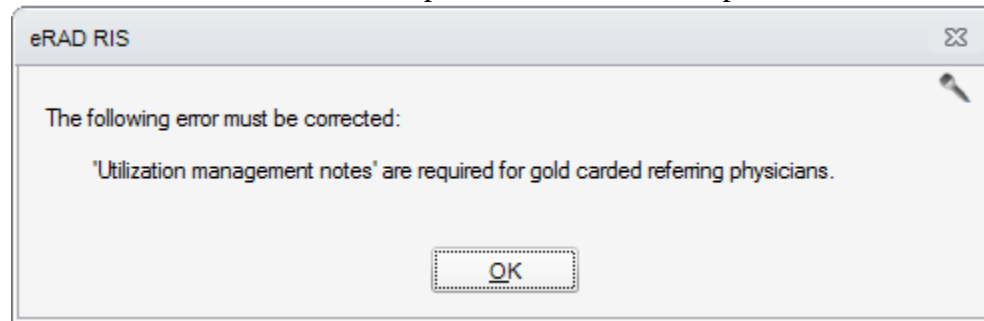


Figure 5.78 – Prompt is Utilization management notes are not completed

Again on the Resource tab, the Resource Type of UM Receiver has been added. The Internal Person Search has been modified to include “UM Reviewer” as a Type filter.

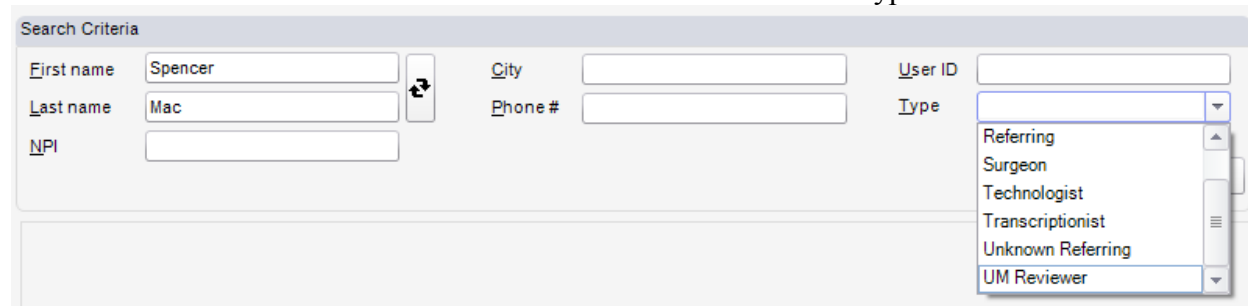


Figure 5.79 – Internal person search with type of UM Reviewer added

Utilization Management – Support Medical Group Contact Types

The lookup table Medical Group Contact Type has been added under the Insurance directory of the Administration>Configure menu. This new lookup table is controlled by access string

“Config.LookupEditor.MedicalGroupContactType”

Medical Group Contact Type Code	Description	Display Order	Last Updated	Active
Contains:	Contains:	Equals:	Contains:	Contain
Click here to add a new row				
Administration	Administration	1	01-15-2014 1:...	Y
Contract	Contract	1	01-15-2014 1:...	Y
Group	Group	1	01-15-2014 1:...	Y
Marketing	Marketing	1	01-15-2014 1:...	Y
MedicalDirector	Medical Director	1	01-15-2014 1:...	Y
Regional	Regional	1	01-15-2014 1:...	Y
Billing	Billing	1	01-15-2014 1:...	Y

Figure 5.80 – Medical Group Contact Type lookup table

The values from this table are used in the Resource tab on the Personnel editor, which has been enhanced to contain a multi type-ahead control for medical groups as well as a corresponding drop-down for medical group contact type. If a medical group is selected, the contact type is a required field.

Resource Information

NPI: 20144 Unknown NPI

UPIN: 334 DEA:

License #: Primary state license: MD Sign level: Final

Specialties:

Medical groups:

Contact type: (dropdown menu open showing: Administration, Medical Director, Billing, Contract, Group, Marketing, Regional)

Preferred radiologists:

Figure 5.81 – Adding Contact Type to a user account in Personnel editor

Utilization Management – Support UM Coverage Type

A lookup called UMCoverage will hold the coverage types that will eventually be applied to a CPT Code level. These coverage types are displayed on the matrix for each medical group so staff can determine which CPT Codes require authorization. The Authorization Flag column will specify which coverage types require review.

<u>Matrix Name</u>	<u>Effective Date</u>	<u>Revision Date</u>
ADP - 2013 Matrix - Alliance Desert Physicians	1/1/2013	2/18/2013

Disposition Legend

- A - Capitated service, authorization required
- EX - Exclude
- FFS - Fee for service, authorization required
- IN - Include
- TBD - To be determined
- X - Capitated service, direct referral (no authorization required)

EXAM	Body Part	General Comments	CPT	Group Comments	ADP
Computed Tomography					
CT HEAD W/O CONTRAST	Head		70450		A
CT HEAD WITH CONTRAST	Head		70460		A
CT HEAD W/O AND W/CONTRAST	Head		70470		A
CT ORBIT W/O CONTRAST	Head		70480		A
CT ORBIT WITH CONTRAST	Head		70481		A
CT ORBIT WITH&WITHOUT CON	Head		70482		A
CT FACIAL BONES W/O CONTRAST	Head		70486		A

Figure 5.82 – Matrix showing coverage type legend

The lookup table access is controlled by a new access string titled **“Config.LookupEditor.UMCoverage”** with a default of none.

Utilization Management – Support UM Common Language

A lookup called UMCommonLanguage will hold the list of common language items which will be accessed by the utilization management staff when performing reviews. Each common language item stores the content which will appear in the external comments which will be distributed to the requesting physician and/or medical group.

Um Common Language Code	Description	Language Content
Click here to add a new row		
QE Test	QE Test	This is a test that QE can add, edit and delete an entry.
Insufficient Clinical	Insufficient: Specific Clinical	To facilitate your request, we ask that you limit your response to the following specific information:

Figure 5.83 – UM Common Language lookup

Access to this lookup table is controlled by access string

“Config.LookupEditor.UMCommonLanguage” with a default of none.

Utilization Management – Support Default Review Times

A key component of Utilization Management workflow is review time. This is the amount of time (in hours) that it took the UM team to review and finalize the request. Although times can differ based on the contract with the Medical Group, the system is required to have default times for STAT, Urgent, and Routine requests.

UMRoutineReview	30	30	(value = int) The maximum number of UM hours for a routine exam.
UMStatReview	4	4	(value = int) The maximum number of UM hours for a STAT exam.
UMUrgentReview	10	10	(value = int) The maximum number of UM hours for an urgent exam.

Figure 5.84 – system configuration settings

Three new system configuration settings have been added. These values will be used when calculating review time in future releases. Based on a 10 hour workday

- **“UMRoutineReview”** that has a default of 30 hours
- **“UMStatReview”** that has a default of 4 hours
- **“UMUrgentReview”** that has a default of 10 hours

The Medical Group lookup table has 3 columns that will allow for an override to the above system configuration settings to allow for contracts or arrangement differences with the groups.

Utilization Management – Support UM Status

Two lookup tables called UMStatus and UMRResolution have been added that are under the Insurance grouping in the lookup table editor. UMStatus contains a list of UM Statuses. This lookup table’s access is controlled by the access string “Config.LookupEditor.UMStatus” with a default of none.

Um Status Code	Description	Form Content	Final Flag	Display Order
Contains: ▾	Contains: ▾	Contains: ▾	Contains: ▾	Equals: ▾
✎ Click here to add a new row				
QE_Test	QE Test	We're sorry your claim cannot be viewed, processed, approved, declined or rejected at this time. We are doing the...	N	1
Approved	Approved		Y	11

Figure 5.85 – UMStatus lookup table

The UMRResolution look up is controlled by the access string “Config.LookupEditor.UMResolution”

Um Resolution Code	Description	Form Content	Um Status Code	Display C
Contains: ▾	Contains: ▾	Contains: ▾	Contains: ▾	Equals: ▾
✎ Click here to add a new row				
QE_Approved	QE Approved	Please contact QE Test Department for approval process.	QE_Test (QE Test)	1
QE_Declined	QE Declined	We're sorry your claim cannot be declined at this time. Please try agai...	QE_Test (QE Test)	1
DirectReferral	Direct Referral	No prior review necessary for the requested exam procedure. Please schedule directly with the RadNet site.	ReturnedNotInitiat...	1

Figure 5.86 – UMRResolution lookup table

Each UMRResolution is mapped to one UMStatus. A field called Form Content contains the text that will be displayed on the authorization letter when that status and resolution is selected.

Utilization Management – Authorization Rules for Medical Groups

From medical group lookup table the user can create the authorization rules. Each medical group has a set of authorization rules which is available on the right-click context menu. Typically authorization rules will be created by CPT Code and not procedure code or modality type. The rules are access from the context menu.

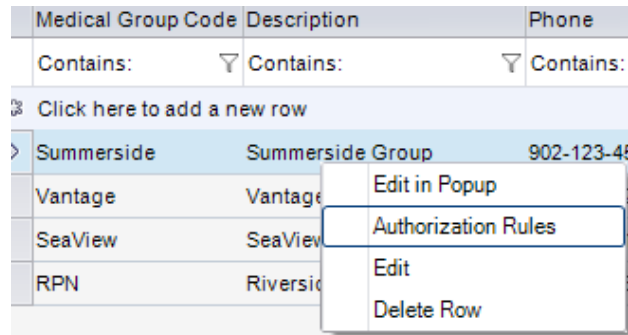


Figure 5.87 – Accessing Authorization Rules

The user must select one or more CPT Codes. The user must then specify if this rule is for all practices or a specific one (Matrices will usually apply to all practices however; there are some medical groups where the authorization rules can vary across geographical areas). A coverage type must be specified. These are based on the UM Coverage lookup values.

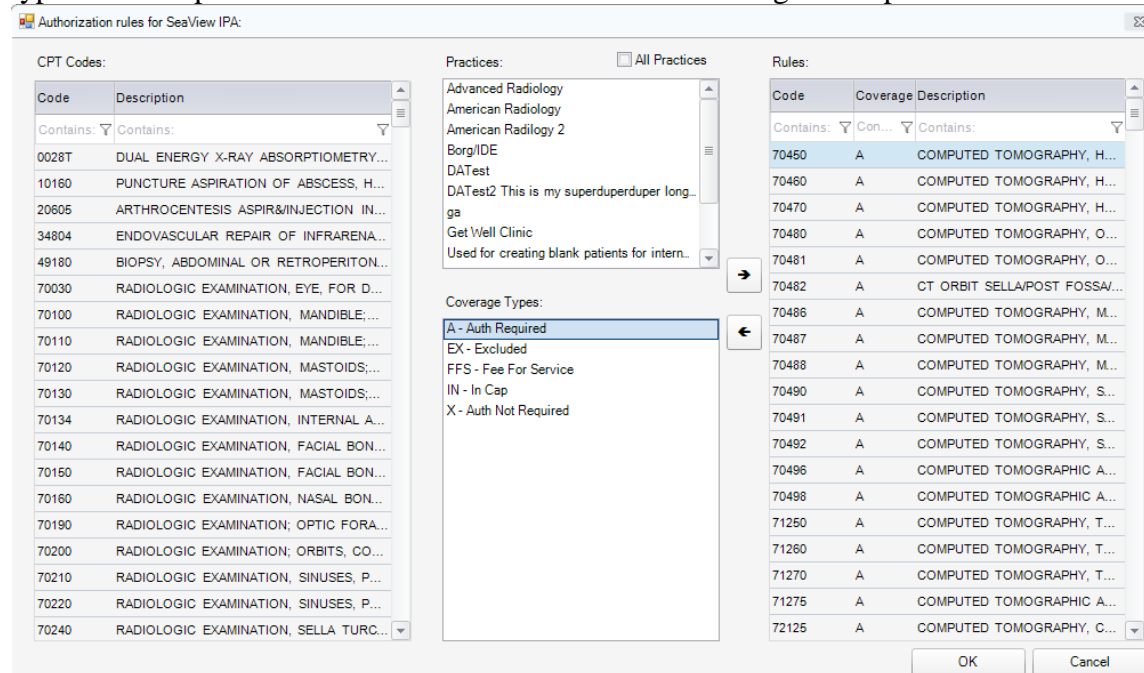


Figure 5.88 – Authorization rules form

Utilization Management – Support Capitated Carriers

A new column has been added to the Carrier lookup table titled UM Required Flag. All current rows in this the Carrier lookup will have a default of N.

Carrier Code	Description	Um Required Flag	Medical Group Code
Contains: ▾	Contains: RPN ▾	Contains: ▾	Contains: ▾
✳ Click here to add a new row			
RPNAET	RPN Aetna	Y	RPN (Riverside Physician Network)

Figure 5.89 – Carrier showing UM required flag

In addition, the Carrier Type lookup table has a new Carrier Type of CAP has been added to further categorise the carriers requiring utilization review.

Carrier Type Code	Description	Display Order	HI7v3 Value Set Oid	HI7v3 Value Set Code	Last Up
Contains: ▾	Contains: ▾	Equals: ▾	Contains: ▾	Contains: ▾	Equals
✳ Click here to add a new row					
▶ CAP	Capitated Contract	1			09-13-2

Figure 5.90 – New carrier type code

Utilization Management – Mapping Carriers to Medical Groups

From within the Carrier lookup table there is a new column titled Medical Group Code. If the “UM Required Flag” is enabled, then the Medical Group Code field is required. The user will be prompted with "medical group is required for utilization management" if the Medical Group Code is not specified and the UM Required Flag is enabled.

Carrier Type Code	Policy Number Mask	Self Pay Flag	Eligibility Payer Id	Um Required Flag	Medical Group Code	Collect Deductible Flag
Contains: ▾	Contains: ▾	Contains: ▾	Contains: ▾	Contains: ▾	Contains: ▾	Contains: ▾
CAP (Captiated Cont...		N		Y	<input type="text"/>	Y
CAP (Captiated Cont...		N		Y	RPN (Riverside Ph...	Y
CAP (Captiated Cont...		N		Y	SeaView (SeaView...	Y
CAP (Captiated Cont...		N		Y	Vantage (Vantage...	Y
MC (Medi - Cal)		N	00431	N		Y

Figure 5.91 – Specifying Medical Group Code for Carrier

Utilization Management – Addition of Utilization Management User Group

This can be done via configuration. A new user group called “Utilization Management” was added to the UserGroup lookup. All utilization review access strings will be mapped to this group.

Group Name	Description	Display Order	Maximum Open Tabs	Last Updated	Active
Contains: ▾	Contains: ▾	Equals: ▾	Equals: ▾	Equals: ▾	Contains: ▾
Click here to add a new row					
UtilizationManagement	Utilization Management	1	40	01-14-2014 1:...	Y

Figure 5.92 – User Group with new group of UtilizationManagement

Meaningful Use – Site Level MU Override

Currently the MU Required flag is set at the Practice level the sites that fall under that practice will also be MU Required. It has been requested that we allow for a site to disengage from collecting MU data. For this we have added an MU Required check box at the site level so an Administrator can remove the site. This however doesn't work the opposite way. You can't have a site that MU Required when the practice is not.

The screenshot shows a software window titled "Edit Site" with a tab labeled "Baltimore, MU". The window is divided into three main sections: "Site", "Contact", and "Address".

- Site Section:** Contains fields for "Site code *" (PEI_TEST1), "Description*" (PEI TEST 1), "Phone #" ((902) 724-3314), "Fax #" (() -), and "PACS Child Server". There are also "Site notes" and "Report template path" fields. Checkboxes include "Active" (checked), "Mammography Tracking Enabled" (checked), "Disable BI-RADS Controls", "Outside Read Location", "Insurance required", and "MU Required" (unchecked).
- Contact Section:** Contains fields for "Contact name", "Phone #", "Mobile #", "Fax #", and "Email". There is also a "Contact notes" field.
- Address Section:** Contains fields for "Address 1", "Address 2", "City", "State", "Zip code", and "Country". There are icons for adding a folder and deleting an entry.

At the bottom right of the window are "Save" and "Close" buttons.

Figure 5.93 – Site with MU Required flag

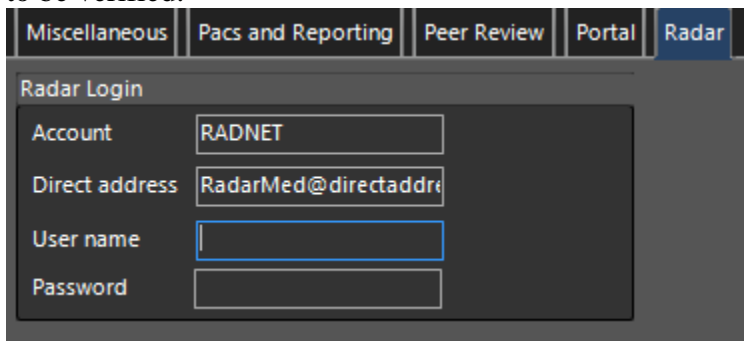
Meaningful Use – Direct Messaging

Worked with RADAR, to create an API call to secure exchange (Direct Message) email provider.

During the configuration of each practice a radar login information will need to be provided, it is intended currently for each box to have a RADAR account, with the same info on every practice, but will allow for a practice to have their own RADAR account and direct message address.

The RADAR account is the same account that would be used for Appointment Reminder and CTRM.

Direct Email Address can be requested through RADAR and Secure exchange, which will have to be verified.



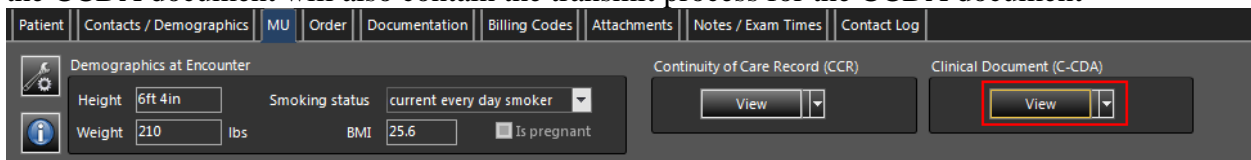
The screenshot shows a web interface with a navigation bar at the top containing tabs: Miscellaneous, Pacs and Reporting, Peer Review, Portal, and Radar. The Radar tab is selected. Below the navigation bar is a section titled "Radar Login" with four input fields: "Account" (containing "RADNET"), "Direct address" (containing "RadarMed@directaddre"), "User name" (empty), and "Password" (empty).

Figure 5.94 – Practice Radar tab

This Direct message address and RADAR login is used for sending messages from the Patient Portal as well as sending and receiving Direct message from RIS. When sending a Message the system will first check for a provided value in the practice specific “Direct address” (which does need to be a qualified direct message address), if there is no value specified then we will look at the configuration variable "DirectMessageFromAddress".

Sending RIS Direct Messages

From within the RIS you are able to send a direct message that will contain the CCDA document by means of opening a patients study through View/Edit, under the MU tab, the process to view the CCDA document will also contain the transmit process for the CCDA document



The screenshot shows a web interface with a navigation bar at the top containing tabs: Patient, Contacts / Demographics, MU, Order, Documentation, Billing Codes, Attachments, Notes / Exam Times, and Contact Log. The MU tab is selected. Below the navigation bar is a section titled "Demographics at Encounter" with fields for Height (6ft 4in), Weight (210 lbs), Smoking status (current every day smoker), BMI (25.6), and Is pregnant. To the right of this section are two buttons: "View" under "Continuity of Care Record (CCR)" and "View" under "Clinical Document (C-CDA)". The "View" button under "Clinical Document (C-CDA)" is highlighted with a red box.

Figure 5.95 – MU tab Clinical Document access

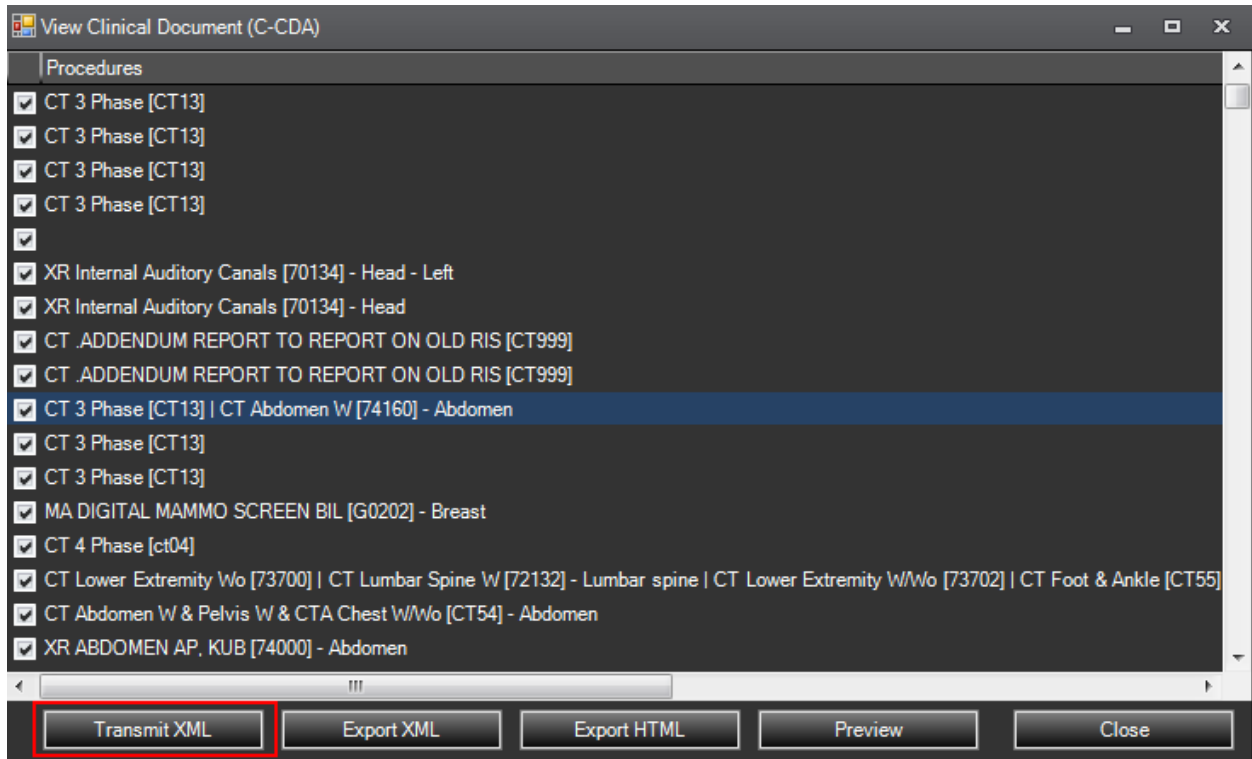


Figure 5.96 – View Clinical Document

Transmitting (sending) the CCDA document will allow two version of the document HTML and system(xml) format, where the user will be required to provide a valid Direct message address.

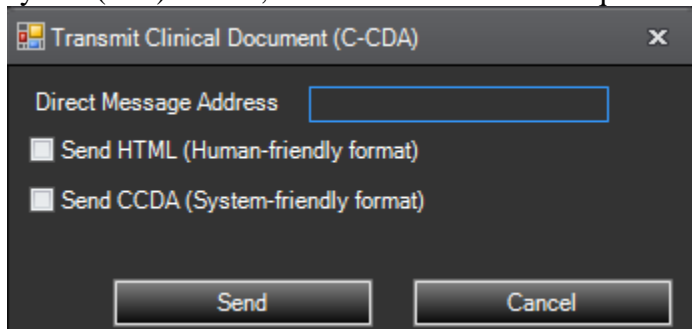


Figure 5.97 – Transmit Clinical Document

Sending Portal Direct Messages

From within the Patient portal, the patient has the ability to send there CCDA document through Direct Message to any desired Direct Message address. When the user has successfully logged

into the portal, when there CCDA document is available, the tab will be visible, opening this tab will enable the send button.

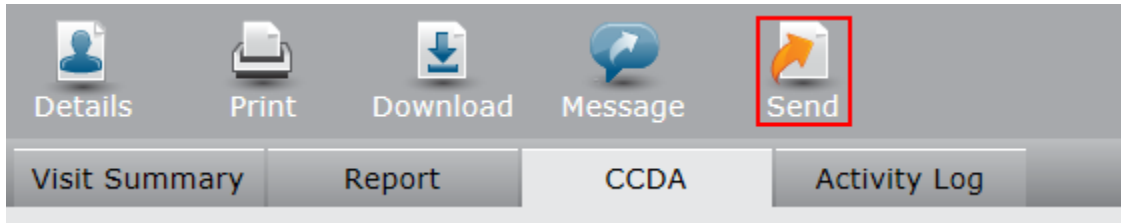


Figure 5.99 – Sending via Patient Portal

Click on this will allow for a similar process to the RIS transmit process, where the patient will be prompted for a direct message address, the patient will be required to confirm the address, and then be able to choose what version of the document they would like to send.

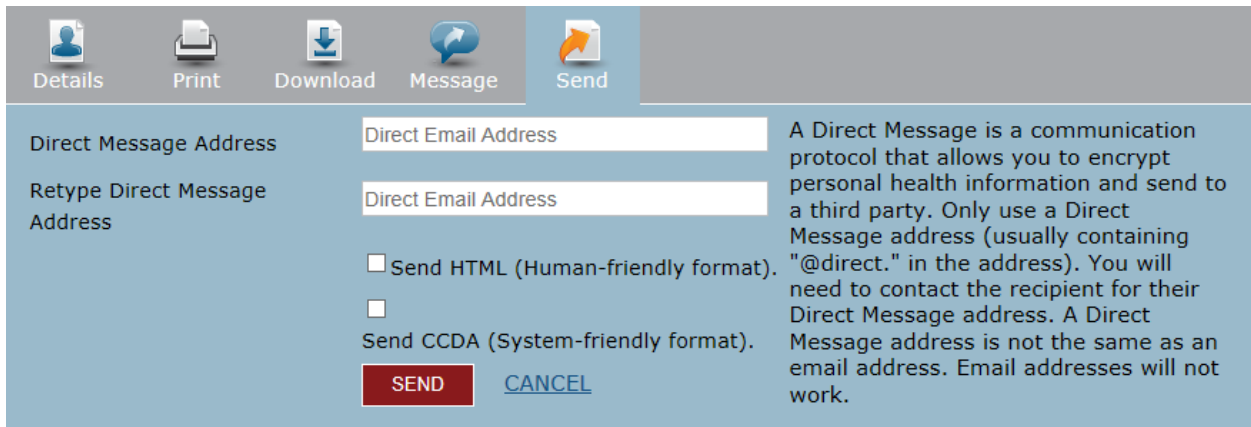


Figure 5.100 – Entering sender information

Receiving Direct Messages

RIS is the only location that is able to receive messages (outside the Direct message provider controlled tools).

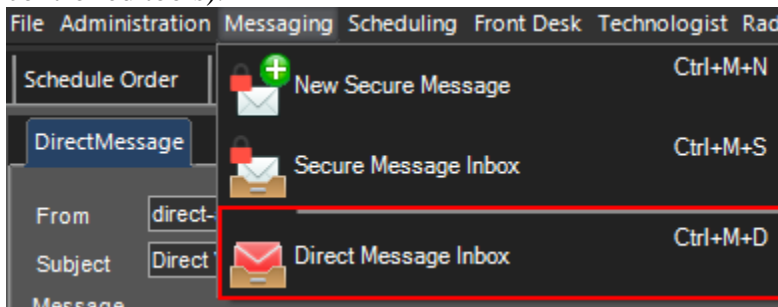
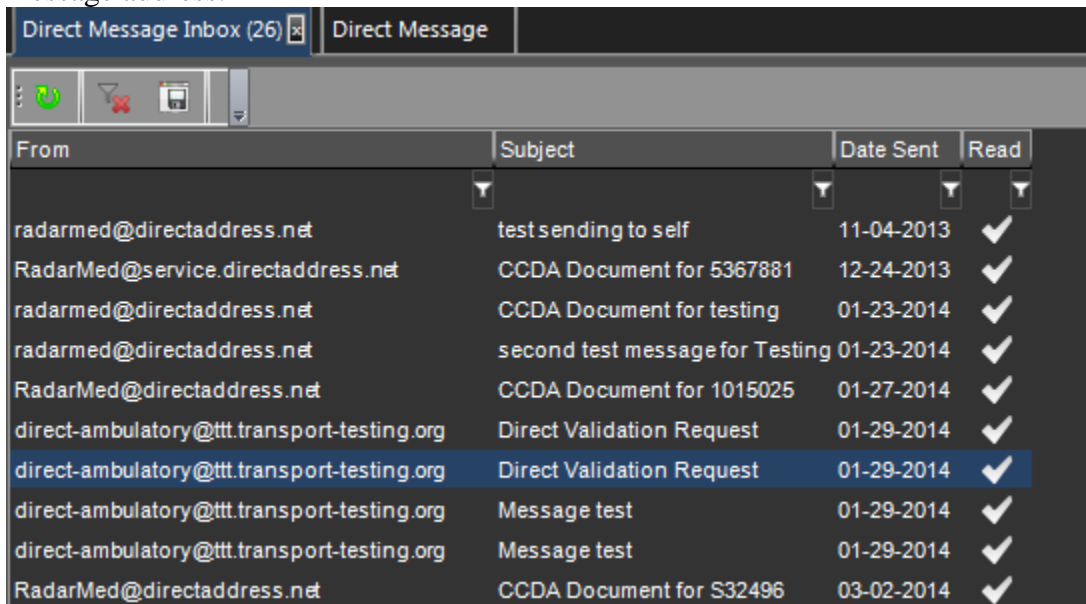


Figure 5.101 – Access direct messages work list in eRAD RIS

From the direct message inbox will list all non-archived messages that for the practices Direct message address.



From	Subject	Date Sent	Read
radarmed@directaddress.net	test sending to self	11-04-2013	✓
RadarMed@service.directaddress.net	CCDA Document for 5367881	12-24-2013	✓
radarmed@directaddress.net	CCDA Document for testing	01-23-2014	✓
radarmed@directaddress.net	second test message for Testing	01-23-2014	✓
RadarMed@directaddress.net	CCDA Document for 1015025	01-27-2014	✓
direct-ambulatory@ttt.transport-testing.org	Direct Validation Request	01-29-2014	✓
direct-ambulatory@ttt.transport-testing.org	Direct Validation Request	01-29-2014	✓
direct-ambulatory@ttt.transport-testing.org	Message test	01-29-2014	✓
direct-ambulatory@ttt.transport-testing.org	Message test	01-29-2014	✓
RadarMed@directaddress.net	CCDA Document for S32496	03-02-2014	✓

Figure 5.102 – Direct Message inbox

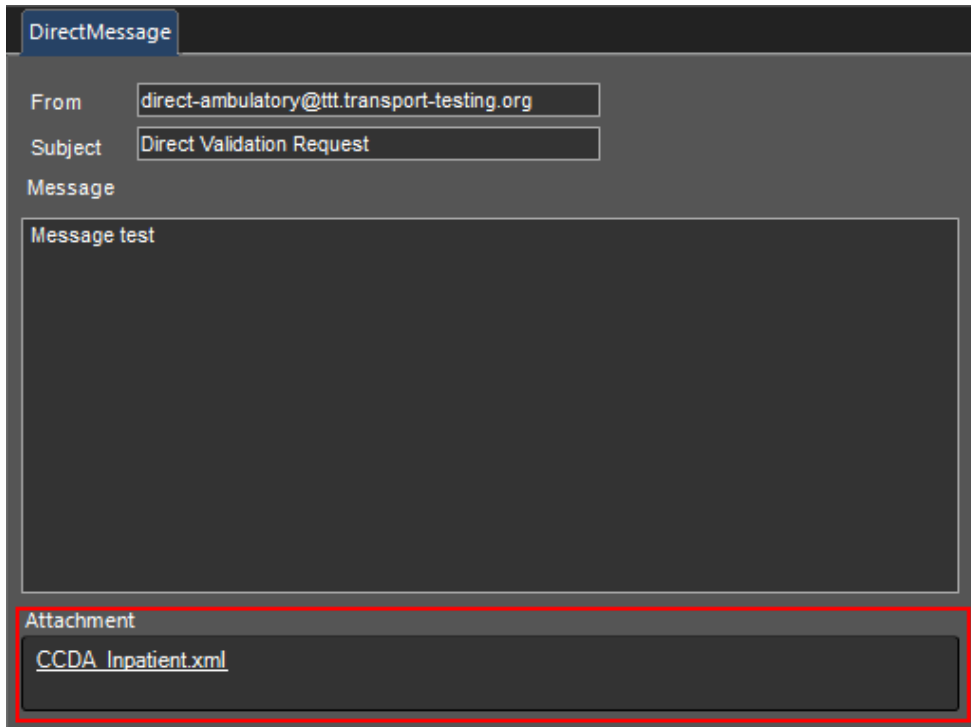


Figure 5.103 – Accessing direct message

Depending of the file type will dictate on how the attachment will handled, if the file is an xml or html we will try to display the attachment, otherwise we will just prompt the user to download the file.

When display the attachment, if it is an xml document type, and we detect that it is a CCDA document we will also provide the user with the ability to link the information from the CCFA document to a desired patient;

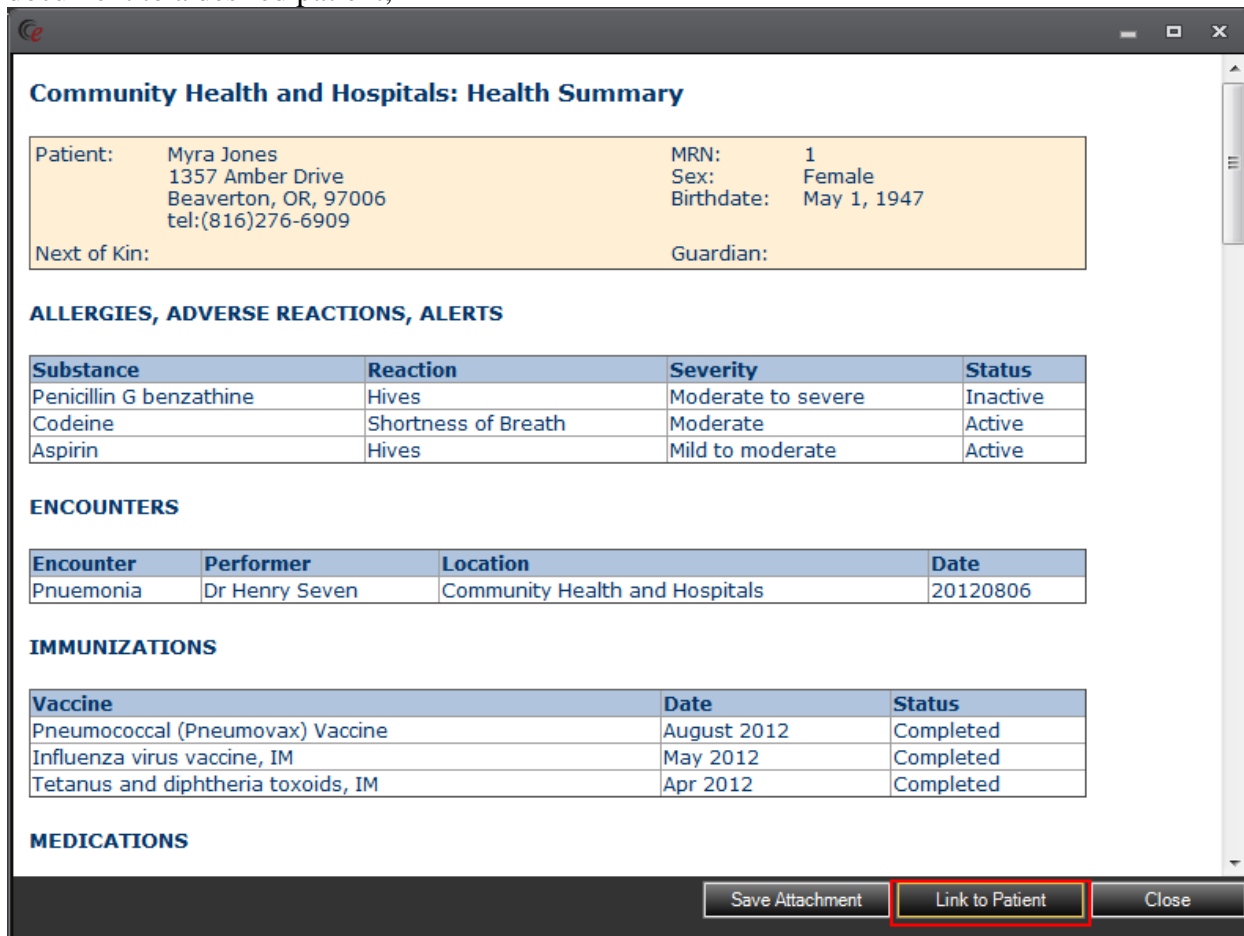


Figure 5.104 – Viewing CCDA document from link in direct message

Clicking the link to patient, we will do an initial patient search based on the information we are able to extract from the document, the user is able to modify the search criteria if need be.

Upon selecting a patient, all information from the CCDA document will be merged into the desired patient, and a new patient tab will be added.

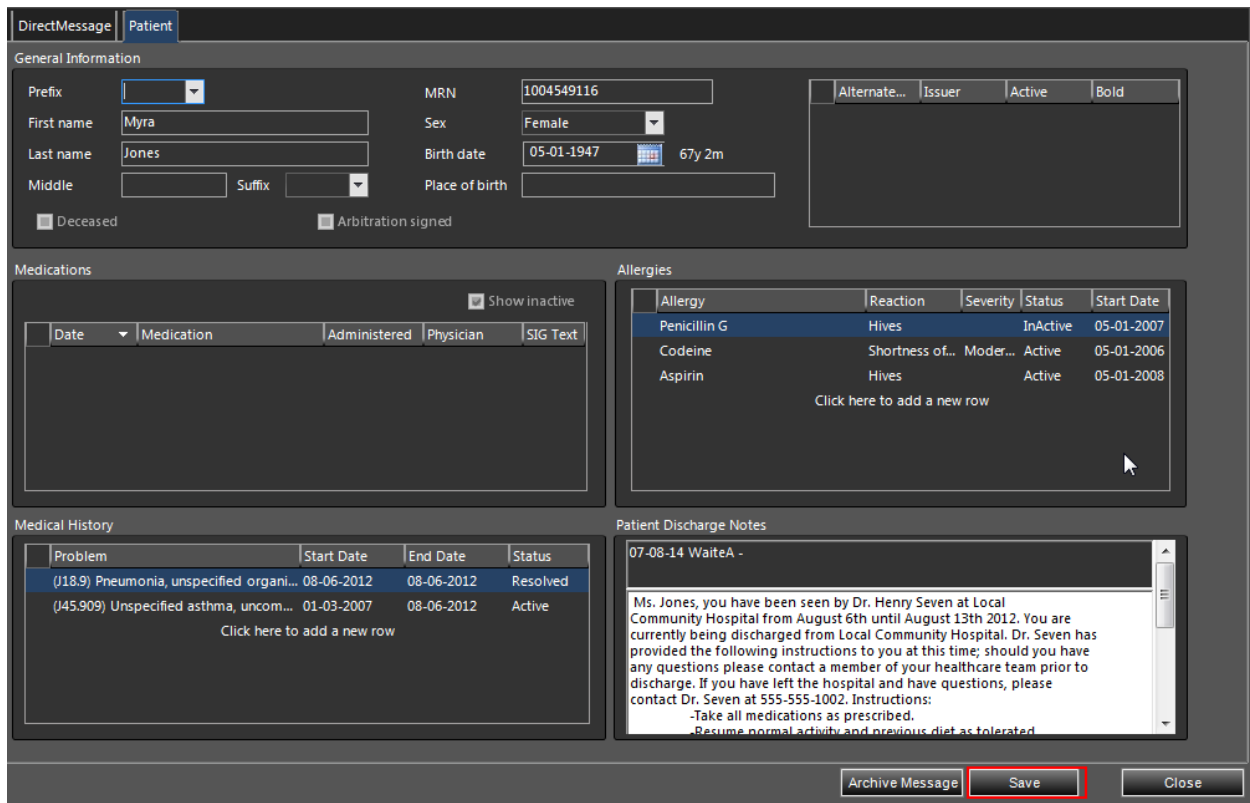


Figure 5.105 – Patient tab created

Once all information is imported and confirmed saving will save all imported data. Clicking the archive message is used for once a messages has been completed with, it will remove the message from the direct message inbox WL.

Meaningful Use – Additional Options for MU Fields

On the patient tab the field for Race type, Ethnic origin and Language now have a value of “Declined to Specify”.

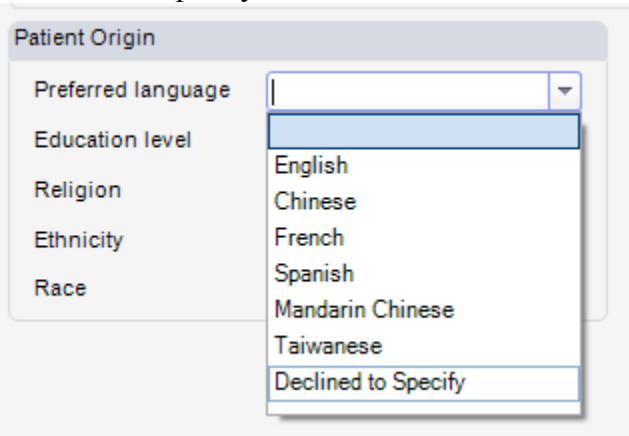


Figure 5.106 – Declined to specify option

The Smoking status field on the MU tab also has 2 additional options of Heavy tobacco smoker and Light tobacco smoker.

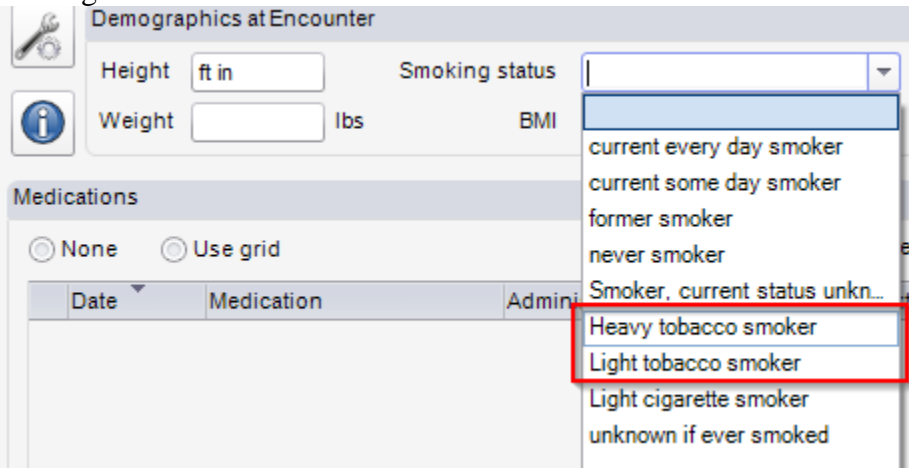


Figure 5.107 – New smoking status options

Meaningful Use – Additional Medications for Quick Add Edit Window

On the MU quick Add/Edit form we modified the code to add the two requested medications (Glycomet and Kombiglzexr).

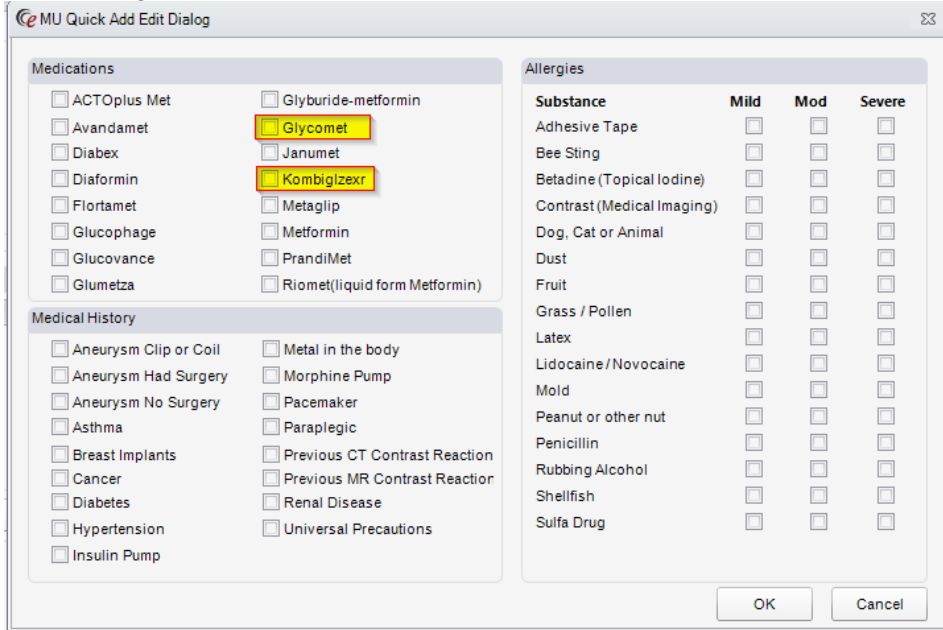


Figure 5.108 – MU Quick Add Edit window

Note, in order for these to show enabled on the mu quick add/edit form these two codes will have to be added to the Medication lookup table.

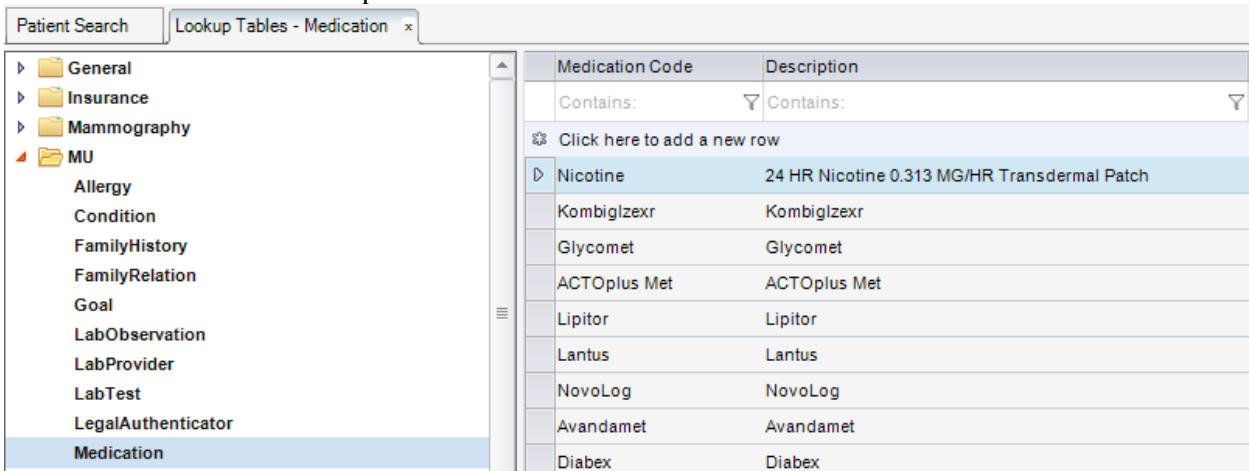


Figure 5.109 – Medication lookup with new additions

Meaningful Use – Laboratory Tests and Values / Results

In order to incorporate MU2 laboratory test results we needed to modify the lab value framework and separated the lab order from the lab results. The screen shot below shows the newly designed form. The User has the ability to add lab order information in the top part of the form and the results will be completed in the results grid. A new button was added that allows the user the ability to add child labs to the lab entry.

The screenshot shows a 'Lab Results' window with the following components:

- Form Fields:**
 - Order status *: Completed (dropdown)
 - Requested by: (text field)
 - Test name: (text field)
 - Lab name / address: (text field)
 - Clinical information: (text area)
 - Notes: (text area)
 - Specimen type: (dropdown)
 - Specimen condition: (dropdown)
 - Specimen action: (dropdown)
 - Draw date: 05-08-2014 (calendar icon)
 - Specimen quality: (dropdown)
- Results Grid:**

Observation	Value	Units	Reference Range	Date	Abnormal...	note
- Buttons:** Delete, Child Labs (dropdown), OK, Cancel

Figure 5.110 – Lab results window from MU tab

We created a script (Lab_value_changes.sql) to the build process to migrate over MU values into the new lab framework.

Meaningful Use – Office Visit

The Billing Code table has a new column titled MU Office Visit Flag. It will be used by the automated measures management report when applicable to determine if the mu measure is an office visit and calculate the numerator and denominator based on the performed procedure being an office visit. By default the value is set to N.

Billing Code	Description	Version	Display Order	Billing Modality Type Code	Technical Rvu	Profession Rvu	Mu Office Visit Flag
Co... 99201	Contains:	Contains:	Equals:	Contains:	Equals:	Equals:	Contains:
99201	OFFICE OR OTHER OUTPATIENT VISIT FOR THE EVALUATION AND MANA...	1	1	EM (Evaluation and Manage...			Y

Figure 5.111 – Billing code table

Meaningful Use – Clinical Summaries

Added to the MU tab is a new section called Clinical Documentation (C-CDA). The button contains 2 new options of “View” which will view all exams for the patient and “View Current Exam” which will only view the current exam. Normally for Clinical Summary we will select “View Current Exam” to generate the CCDA/human readable format since we are mainly concerned about the current visit.

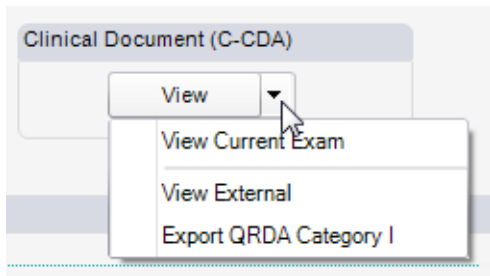


Figure 5.112 – New options for C-CDA button

Clicking the View Current Exam will launch a new dialog which will allow the user the ability to customize data. The user will have the option to removed sections for example uncheck Medications will remove medications from both the CCDA and human readable. The user also will have the ability to uncheck specific items they wish not to appear in either the CCDA or human readable format. To generate the CCDA the file format the user will click the Export XML, while the human readable is generated by clicking the Export HTML.

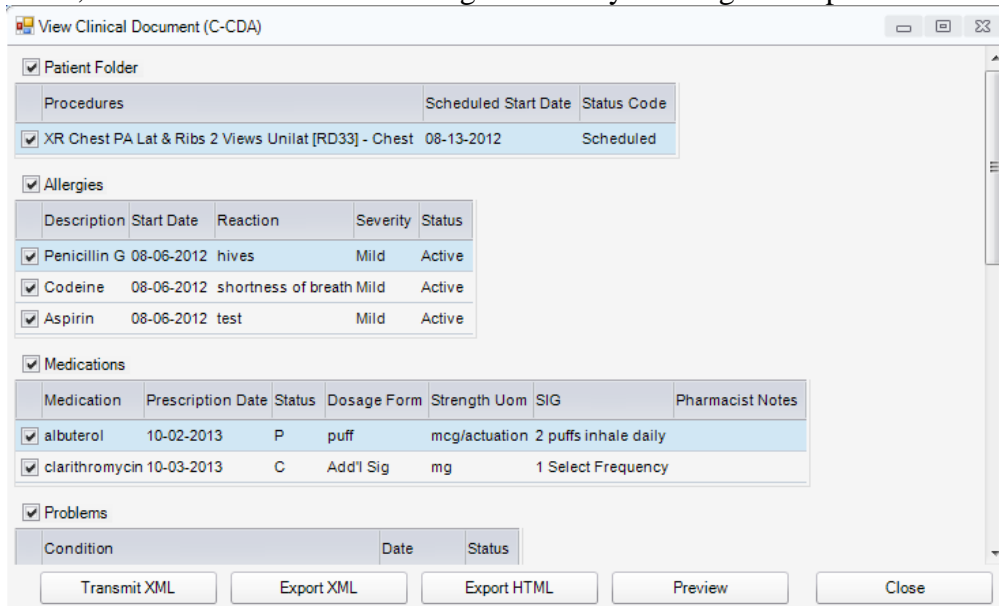


Figure 5.113 – View Clinical Document (C-CDA)

Meaningful Use – Data Portability

The data portability feature is really the ability to export all CCDA patient records and therefore this story will be referred to as the MUEXportAll feature.

When exported the results will be written to the location specified by the system configuration setting “**MUEXportAllPath**”. This setting doesn’t have a default value. When complete the file will be updated with the date it was completed. If an error occurs the error details are captured.

The UI’s Meaningful use form under “Administration / Meaningful Use” shows the progress of the current or previous export operation. It shows how many records have been exported and how many in total are to be processed. It also allows the user to start a new export and gives them the option to suspend or resume the latest export.

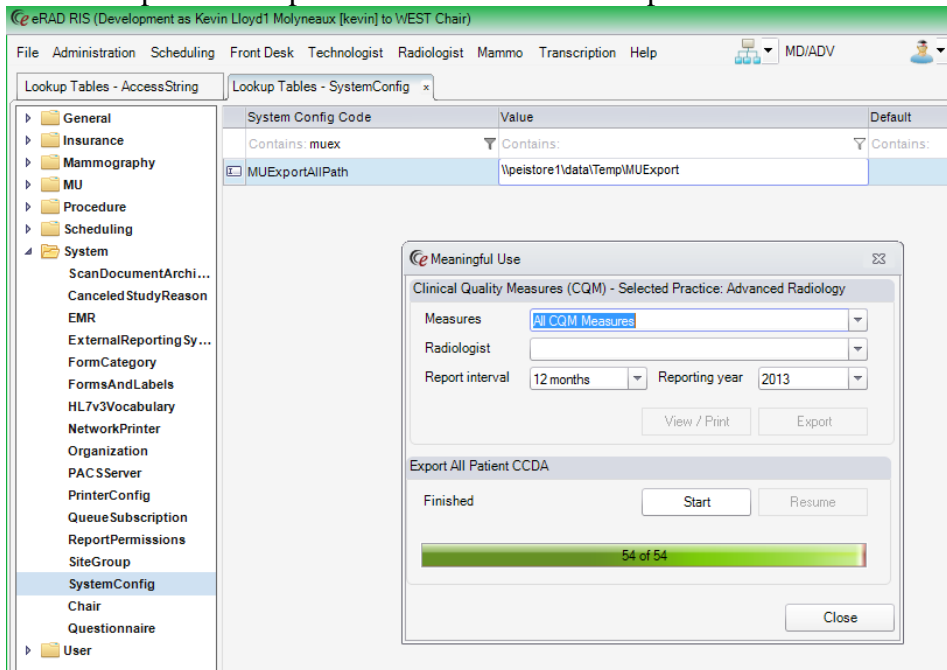


Figure 5.114 – System config setting and Meaningful Use window display progress

When clicking the start button the user is asked to confirm the export operations.

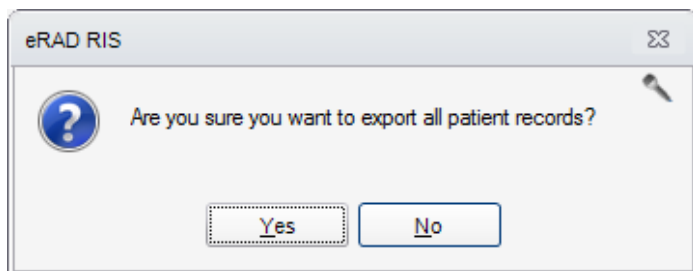


Figure 5.115 – Confirmatory message

Choosing Yes will export **all patient** records to the MUEXPORTPATH and will overwrite any pre-existing exports at that location. The files are written to the MUEXPORTPATH in the format

Birthyear\birthmonth\birthday\<patient_id>_<issuer_of_id>_<first_name>_<last_name>.xml

If there is less than 1 GB available at the MUEXPORTPATH the status of the export will change to “InsufficientSpace” and after space is made available the user can restart the process by clicking the “Resume” button.

The export progress is completely asynchronous and is executed on the server. There is only one export processing thread per server instances, which on our test instance was exporting about 1 million patients in a week. If you need to process 2 million in a week all you have to do is scale the solution by adding additional WS instances.

Access to this feature is control via the access string “**MU.ExportAll**” with a default of none.

When an export is started, the Start button then becomes the Stop button. If the Stop button is selected the current job will be put in a status of stopped, which in turn will change the stop button to start again. Stopping or suspended the job will terminate the existing export thread (which will take a few seconds to terminate). The count will be refreshed when you decide to Start the export process again which is only available when in stopped state.

Meaningful Use – Alerts and Clinical Decision Support

The MU alerts we have provided to meet these MU requirements are as follows:

- MRI65PlusHeartDiseaseLipitorAndLDL100Plus
- LabOrderWithEmptyValue
- HasAllergy (*allergy_code, contrast_procedure_flag)
- HasProblem (*indication_code, contrast_procedure_flag)
- OnMedication (*drug_name, contrast_procedure_flag)
- ProcedureXAndHighBP (procedure_code, BP) // we will allow * from procedure_code
- AgeGreaterThan (age, contrast_procedure_flag)

Alert Configuration Code	Description	Alert Generator	Al Int Display Order	Audit Flag	Cds Resource Source	Cds Funding Source	Cds Au
CDS_01	Discuss follow up with physician regarding blood pressure. (CDS_01)	CDS_01_HighBP	0	Y	National Committee for Quality Assurance		Erin W
CDS_02	Discuss follow up with physician regarding cholesterol. (CDS_02)	CDS_02_HighCholesterol	1	Y	The American College of Physicians	ACP operating budget	Amir Q
CDS_03	Patient has possible allergic reaction to contrast because they have asthma and a prior reaction to asthma. (CDS_03)	CDS_03_PossibleReaction	2	Y	American Family Physician		THOM
CDS_04	Discuss preventative care and screening tobacco use. (CDS_04)	CDS_04_TobaccoUser	3	Y	American Heart Association		Joseph
CDS_05	Remind patient about pneumonia booster (CDS_05)	CDS_05_PneumoniaBooster	4	Y	National Committee for quality Assurance		Akin I, I

Figure 5.116 – Alert configuration table

contrast_procedure_flag is either a Y or N value. if Y, then the alert only fires if the procedure requires contrast. * are parameters that can be more than one separated by a comma.

To deal with **Clinical Decision Support** the alert text for several of these entries is customizable via the AlertConfiguration lookup table and supports links to external web sites via the a href syntax such as:

```
<a href='http://www.med.unc.edu/...'>Heart Disease</a>
```

With the above, when the user clicks on the “Heart Disease” link, the web page www.med.unc.edu will be displayed in a web browser form. The form will be model and when they close the form they will return to the RIS.

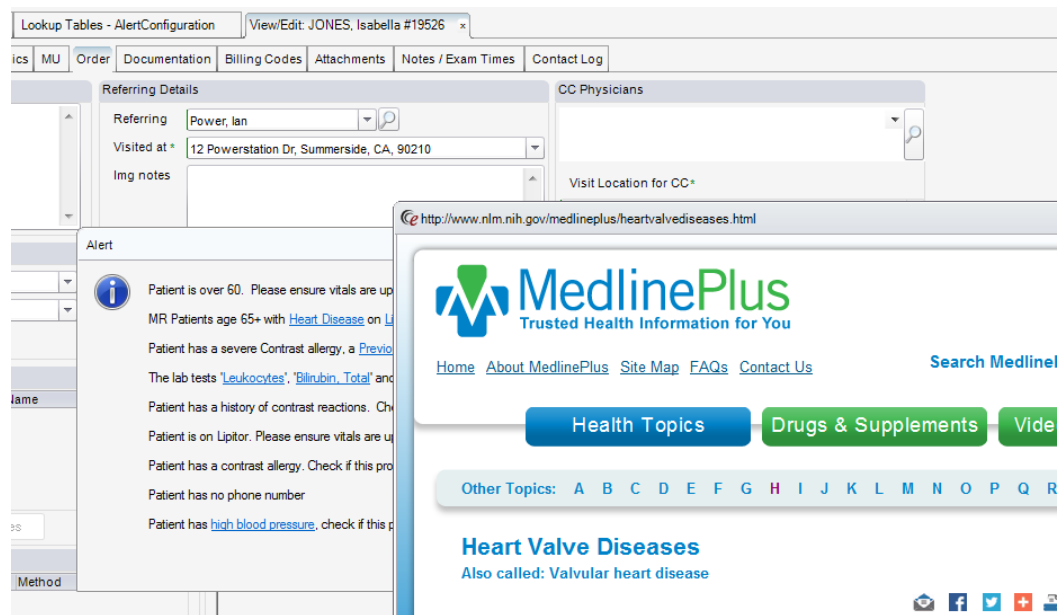


Figure 5.117 – Clinical decision support

If the LINK is prefixed with #MUProvidedEducation# and the patient hasn't been provided with CDS information for the current visit, the user will get prompted when they close the web info window with a dialog such as:

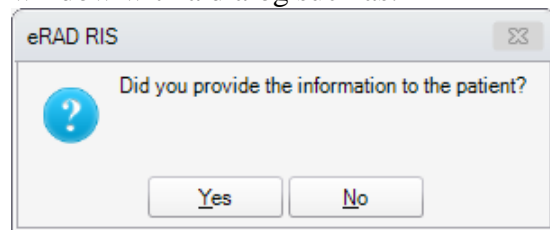


Figure 5.118 – Confirmatory message for CDS

If they choose Yes, it will be marked as “provided educational resources” for the visit.

Here is another example of an alert description, which is set to provide CDS information and record if we provided education resources to the patient:

Patient has [high blood pressure](#), check if this procedure should be done in an imaging center.

Then in our first round of MU certification testing we realized we needed Clinical Resource Sourced rules for CDS such as the American Family Physician backed rules for our MU alerts. Based on this we produced the following MU rules:

#1 Alert patient to follow up with physician regarding BP

- 1) Condition that triggers the alert
 - High BP age 18-85
 - Noted hypertension
 - BP is over 140/90
- 2) The Clinical resource source
 - National Committee for Quality Assurance
- 3) The funding source
- 4) The author of the CDS
 - **Erin Weireter**, Released January 17,2012
- 5) The link to the clinical resource
 - http://www.qualityforum.org/News_And_Resources/Press_Releases/2012/NQF_Endorses_Cardiovascular_Measures.aspx

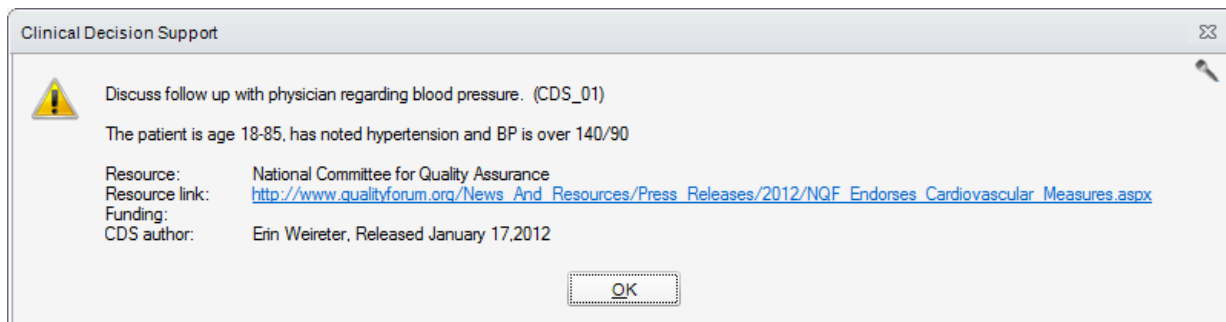


Figure 5.119 – Alert 1

#2 Alert patient to follow up with physician regarding cholesterol

- 1) Conditions that triggers the alert
 - Patient over 65
 - On Lipitor
 - Cholesterol reading over 100
- 2) The Clinical resource source
 - The American College of Physicians
- 3) The funding source

- Financial support for the Performance Measurement Committee comes exclusively from the ACP operating budget
- 4) The author of the CDS
 - Amir Qaseem, MD, Robert Centor, MD and Andrew Dunn, MD
- 5) The link to the clinical resource:

http://www.acponline.org/clinical_information/performance_measurement/ckd.htm

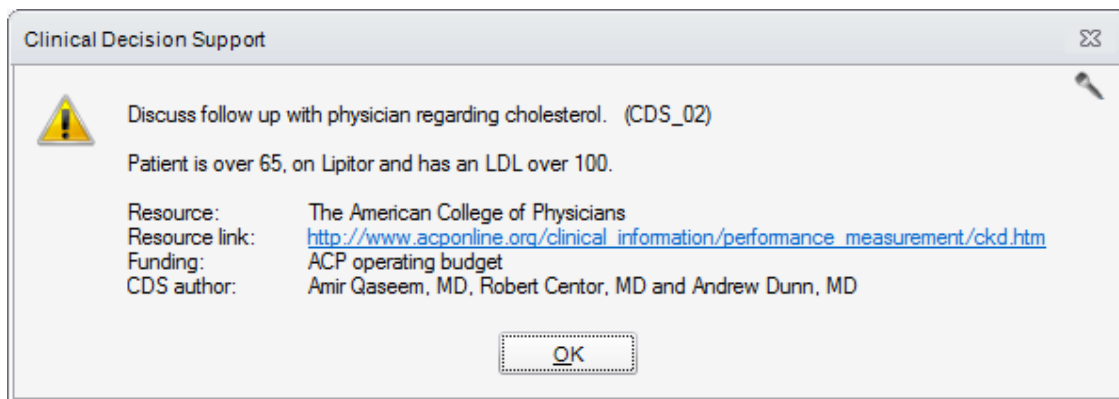


Figure 5.120 – Alert 2

- #3 Alert patient as to possible allergic reaction to contrast
- 1) Conditions that triggers the alert
 - a. Patient has asthma
 - b. Prior reaction to contrast
 - 2) The clinical Resource Source
 - a. American Family Physician
 - 3) Financial Source
 - a. n/a
 - 4) The author of the CDS
 - a. THOMAS G. MADDOX, M.D.,
 - 5) The link to the clinical resource:
 - a. <http://www.aafp.org/afp/2002/1001/p1229.html>

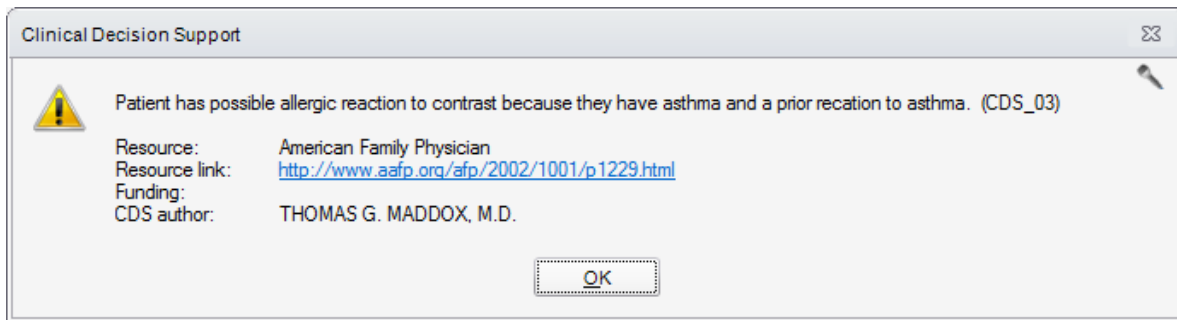


Figure 5.121 – Alert 3

- #4 Discuss Preventative Care and Screening Tobacco Use
 - 1) Conditions that triggers the alert
 - a. Aneurysm /no surgery/smoker
 - b. Men over 50 years old higher risk of infection
 - 2) The Clinical Resource Source
 - a. American Heart Association
 - 3) Financial Source
 - a. n/a
 - 4) The Author of the CDS
 - a. Joseph P. Broderick, M.D.,
 - 5) The link to the clinical resource

www.sciencedaily.com/releases/2010/02/100226093207.htm

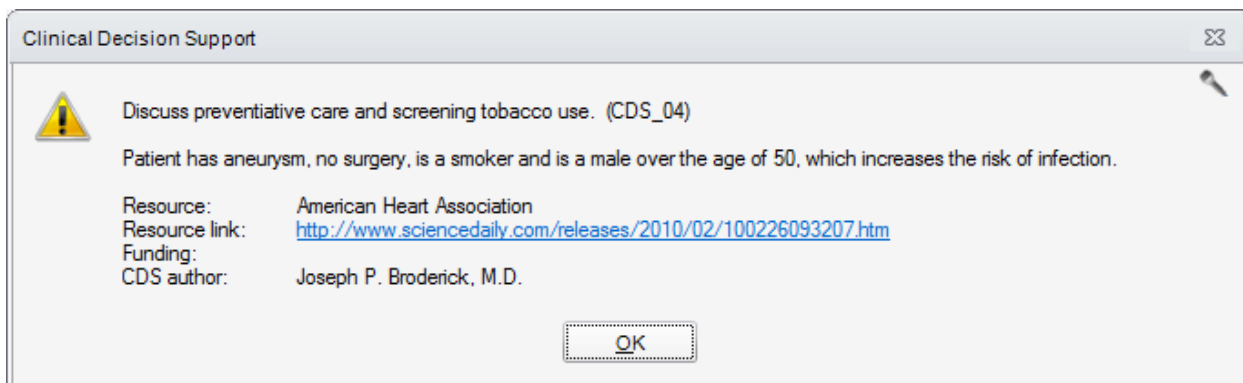


Figure 5.122 – Alert 4

- #5 Patient Reminder for Pneumonia Booster if Criteria is met
 - 1) Conditions that trigger alert:
 - a. Pneumonia Vaccination (PPV23)
 - b. Adults 65 and older
 - c. Smoke, asthma, heart disease

- 2) The Clinical Resource Source
 - a. National Committee for quality Assurance
- 3) Financial Resource
 - a. n/a
- 4) The author of the CDS
 - a. Akin I, Kaya M. Altinel S. & Durand L.
- 5) The link to the clinical resource
 - a. www.qualityforum.org/WorkArea/linkit.aspx?LinkIdentifier=id...

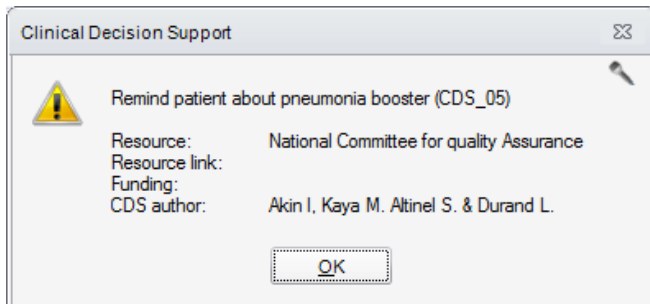


Figure 5.123 – Alert 5

Configuration for new Alerts:

Alert access strings have been created in the application and can be configured so users whose clinical role allows or does not allow them to see clinical decision support interventions rules. By default the alerts in the system will be set to **Full** access so they will fire for all users. In order to not fire the CDS rule an admin user that has the rights to configure user’s rights would have to set the user group to NONE.

Alert #1 is controlled by the access string **“Alert.CDS_01_HighBP”**

Alert #2 is controlled by the access string **“Alert.CDS_02_HighCholesterol”**

Alert #3 is controlled by the access string **“Alert.CDS_03_PossibleReaction”**

Alert #4 is controlled by the access string **“Alert.CDS_04_TobaccoUser”**

Alert #5 is controlled by the access string **“Alert.CDS_05_PneumoniaBooster”**

Meaningful Use – Clinical Quality Measures

To resolve this feature we need to use the cypress tool [v2.4.1]. Radnet has selected the following CQMs measures for Meaningful Use stage 2. Documentation to generate QRDA Category I and III use **CDAR2_QRDA_DSTUR2_2012JUL.docx** which can be downloaded from HL7 Implementation website.

Radnet 9 CQMs measures

- CMS50** - Closing the referral loop: receipt of specialist report
- CMS65** - Hypertension: Improvement in blood pressure
- CMS69** - Preventive Care and Screening: Body Mass Index Screening and Follow-Up
- CMS117**- Childhood Immunization Status
- CMS125**- Breast Cancer Screening
- CMS138**- Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention
- CMS147**- Preventive Care and Screening: Influenza Immunization
- CMS155**- Weight Assessment and Counseling for Nutrition and Physical Activity for Children and Adolescents
- CMS165**- Controlling High Blood Pressure

- 1) Clinical Quality Measures – capture and export.
 - Retrieve the patient data from Cypress based on the chosen CQMs
HTML FILE - G:\Documents\RADNet\rRis Product Requirements\Meaningful Use\2014\CQM\QRDA\Samples\NewFolks
 - Create the QRDA Category I output data for evaluation.

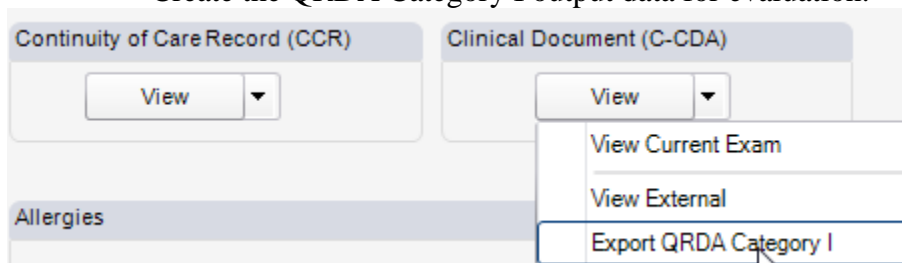


Figure 5.124 – Capture and export

User must select the legal authenticator which is used in the QRDA file. (These values are populated from a lookup legal authenticator).

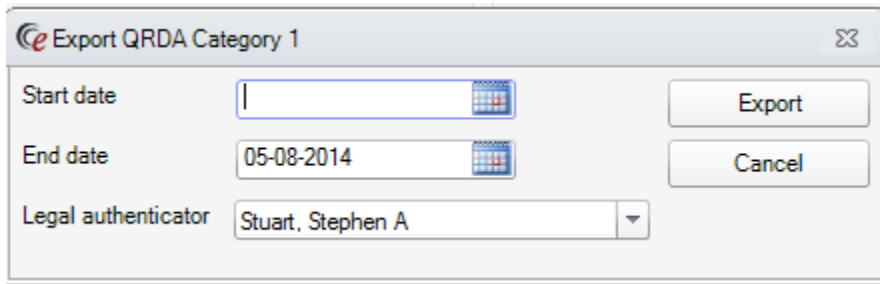


Figure 5.125 – Export QRDA Category 1

- 2) Clinical Quality Measures – Import and calculate
 - Create the patient test deck from Cypress using the specific CQMs selected.
 - Proctor will instruct the Vendor to use the EHR functions to perform the CQM calculations and evaluate them against the expected results.

- 3) Clinical Quality Measures – electronic submission
 - The CQM calculation results in both QRDA Category I and III format.
 - In order to upload the QRDA Category III results into Cypress for evaluation we added the Quality Reporting Document (QRDA) to the Meaningful Use form for users to generate QRDA Category III results.

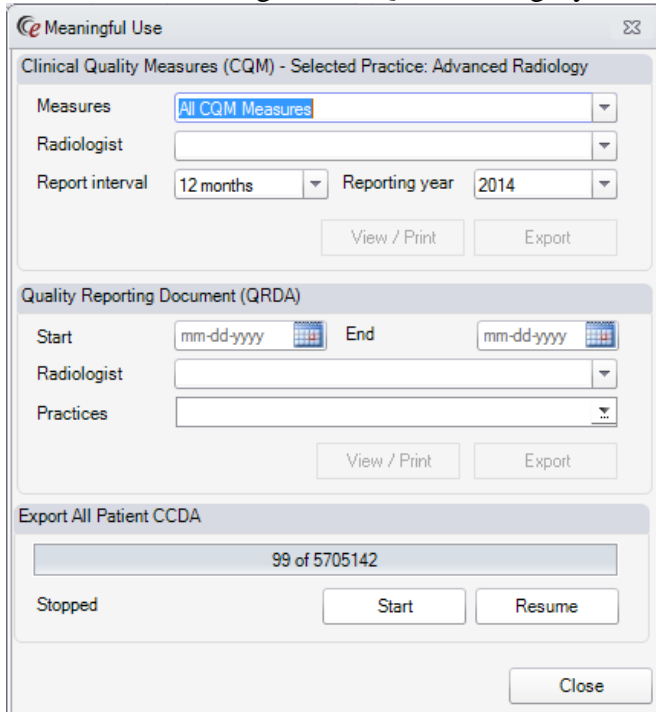


Figure 5.126 – Meaningful use window

Meaningful Use – Preventative Care

A new option has been added to the Contact Method of “Declined” has been added to the ContactMethod lookup table.

Contact Method Type Code	Display Order	Description	HI7v3 Value Set OID	HI7v3 Value Set Code	Last Updated
Contains: ▾	Equals: ▾	Contains: ▾	Contains: ▾	Contains: ▾	Equals: ▾
Click here to add a new row					
Declined	99	Declined			07-03-2014 11.
Pony Express	5	Pony Express			04-09-2013 4..

Figure 5.127 – Declined added to the ContactMethod lookup

This value will appear in the Preferred Contact Method list box of the Patient tab.

The screenshot shows a patient record for 'Walk-in: HOUGH, Charlie #20261PE *'. The 'Patient' tab is active. Under 'Contact Information', the 'Preferred contact method' dropdown menu is open, showing options: Phone, Mail, EMail, SMS, and Declined. The 'Declined' option is highlighted in yellow. Other fields include: Prefix (dropdown), First name (Charlie), Last name (Hough), Middle (dropdown), Suffix (dropdown), Deceased (checkbox), Claustrophobic (checkbox), Arbit (checkbox), Address 1 (8 Tenth Ave), Address 2 (empty), City (Hermosa Beach), State (California), Preferred language (English), Education level (dropdown), and Religion (dropdown).

Figure 5.128 – New preferred contact method

Also a new system configuration setting of “**CallbackDeclinedValue**” has been added. This value references the item in the ContactMethod lookup that is used to trigger whether the order’s last_letter field should be flagged as ‘Declined Callback’ in the web services. **There is no default value set for this config setting.**

If contact method is set to decline value, we will set the order’s last letter to ‘*Declined Callback*’ and set the order’s last letter date to now when a follow-up order is about to be created.

When configuring this setting, users must take a precaution when selecting the value of Declined as the Preferred Contact Method when the System Configuration setting of “CallbackDeclinedValue” is set to Declined or any other value from the ContactMethod lookup.

For example, a patient that has the Preferred Contact Method of Declined and the System Configuration setting has a value of Declined. If this study is a Mammo study in which a follow up letter will be sent, the letter would not appear on the Mammo Letters WL as the contact method of Declined will be filtered out of the work list.

Meaningful Use – Automated Measures Management Report

Automated Measures – A management report that can accurately adjust the reporting period for all the required types and that the numerator and denominator information are accurate and complete for each reporting period and meaningful use stage for a specific Radiologist.

Automated Measures - Stage 1

Radiologist: Power MD, Ian

Date Range: 1/1/2014 - 12/31/2014

Practice(s): Get Well Clinic

Description: This report displays the percentage of patients where the mu requirement was recorded.

*Click [here](#) to get the details.

Description	Numerator	Denominator	MU measure	Percentage
Demographics	5	8	50	62.50 %
Patient reminders	5	14	20	35.71 %
Medication reconciliation	4	8	50	50.00 %
Problem list	6	8	80	75.00 %
Medication list	7	8	80	87.50 %
Allergy list	6	8	80	75.00 %
Vitals and BMI	4	7	50	57.14 %
Vitals and BMI (alt)	5	8	50	62.50 %
Vitals - BP Out of Scope	6	8	50	75.00 %
Vitals - Ht/Wt Out of Scope	4	7	50	57.14 %
Smoking status	5	7	50	71.43 %
CPOE med	6	7	30	85.71 %
CPOE med (alt)	9	19	30	47.37 %
eHealth	0	0	50	0.00 %
eRx	0	10	40	0.00 %
Lab results	10	17	40	58.82 %
Patient education	6	8	10	75.00 %
Clinical summary	6	9	50	66.67 %
Summary of care	5	8	50	62.50 %
VDT (timely access)	7	8	10	87.50 %
VDT (patient use)	6	8	5	75.00 %



Confidential and Proprietary

Page 1 of 1

Date Run: 5/8/2014 2:15 PM

RMIS\Forms\GuestUser

Figure 5.129 – Automated measures management report stage 1

Automated Measures Details - we created to help troubleshoot MU measure problems in the field a new report that will be used to display summary details which make up the numerators and denominators found in the Automated Measures Report. This report can be found in the “SubReport” folder.

Automated Measures Details
 Radiologist: Power MD, Ian
 Date Range: 1/1/2014 - 12/31/2014
 Practice(s): Get Well Clinic
 Description: This report displays the patient specific details used to generate the MU automated measures report.

patient name	patient id	accession#	practice code	scheduled date	signed date	office visit	status code	demographics	birth date	sex
Abraham, Abe	MU20366	5607330	GWC	01-15-2014	04-02-2014	Y	Signed1	Y	08-27-1930	M
		5607483	GWC	01-20-2014	04-17-2014	Y	Signed1	Y	08-27-1930	M
Beats, Betty	MU20367	5607368	GWC	01-15-2014	04-11-2014	Y	Signed1	Y	09-08-1939	F
Cobb, Christy	MU20368	5607379	GWC	01-15-2014	04-14-2014	Y	Signed1	Y	07-21-1940	F
Downs, Danielle	MU20369	5607383	GWC	01-15-2014	04-17-2014	Y	Signed1	Y	11-15-1943	F
English, Eric	MU20370	5607478	GWC	01-15-2014	04-17-2014	Y	Signed1	N	08-19-2012	M
French, Frank	MU20371	5607486	GWC	01-15-2014	04-17-2014	Y	Signed1	Y	06-14-1930	M
Gaither, Greg	MU20372	5607492	GWC	01-15-2014	04-24-2014	Y	ExtReportVerified	N	12-13-1945	M
Irving, Iv	MU20374	5607490	GWC	01-15-2014	04-17-2014	Y	ExtReportVerified	N	08-19-1998	M

Figure 5.130 – Automated measures details

Automated Measures Raw Data - A management report that can accurately adjust the reporting period for all the required types and that the numerator and denominator information are accurate and complete for each reporting period and meaningful use stage for multiple Radiologist. The main purpose of this report will be used to export results to csv or excel so administrators can monitor the progress of individual Radiologist with regards to MU measures.

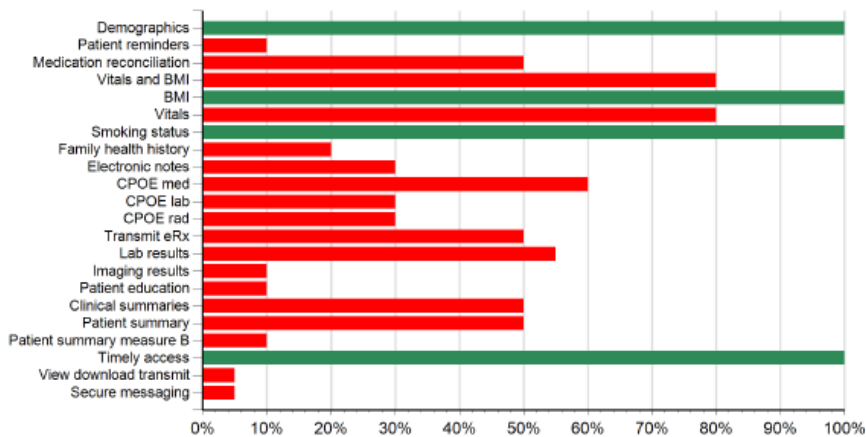
Description	Numerator	Denominator	%	MU measure	Signed by user id	User Name
Demographics	5	8	62.50%	80%	ian	Power MD, lan
Patient reminders	1	6	16.67%	10%	ian	Power MD, lan
Medication reconciliation	4	8	50.00%	50%	ian	Power MD, lan
Vitals and BMI	5	8	62.50%	80%	ian	Power MD, lan
Vitals - BP Out of Scope	6	8	75.00%	80%	ian	Power MD, lan
Vitals - Ht/Wt Out of Scope	4	7	57.14%	80%	ian	Power MD, lan
Smoking status	5	7	71.43%	80%	ian	Power MD, lan
Family health history	6	8	75.00%	20%	ian	Power MD, lan
Electronic notes	6	8	75.00%	30%	ian	Power MD, lan
CPOE med	9	19	47.37%	60%	ian	Power MD, lan
CPOE lab	10	17	58.82%	30%	ian	Power MD, lan
CPOE rad	11	11	100.00%	30%	ian	Power MD, lan
eRx	0	10	0.00%	50%	ian	Power MD, lan
Lab results	10	17	58.82%	55%	ian	Power MD, lan
Imaging	8	17	47.06%	10%	ian	Power MD, lan
Patient education	6	8	75.00%	10%	ian	Power MD, lan
Clinical summary	5	9	55.56%	50%	ian	Power MD, lan
Summary of care A	5	8	62.50%	50%	ian	Power MD, lan
Summary of care B	4	8	50.00%	10%	ian	Power MD, lan
VDT (timely access)	7	8	87.50%	50%	ian	Power MD, lan
VDT (patient use)	6	8	75.00%	5%	ian	Power MD, lan
Secure messaging	5	8	62.50%	5%	ian	Power MD, lan

Figure 5.131 – Automated measures rad data stage 2

Meaningful Use – Reports by Radiologist Management Report

Created a new management report that will allow the user to select a specific reporting period as well will allow the user the ability to select either stage 1 or stage 2 MU stats to show for a practice or multiple practices.

1dd88bbf-d70b-4593-8d11-e6241defb297 Stage 2
 Radiologist: County, Mister
 Reporting Period: Jan-01-2014 - Dec-31-2014



Meaningful Use Measure	Numerator	Denominator	%	Goal	Pass/Fail
Demographics	2	2	100.00%	80%	Pass
Patient reminders	0	0	0.00%	10%	Fail
Medication reconciliation	0	0	0.00%	50%	Fail
Vitals and BMI	0	2	0.00%	80%	Fail
BMI	2	2	100.00%	80%	Pass
Vitals	0	2	0.00%	80%	Fail
Smoking status	2	2	100.00%	80%	Pass
Family health history	0	2	0.00%	20%	Fail
Electronic notes	0	2	0.00%	30%	Fail
CPOE med	0	0	0.00%	60%	Fail
CPOE lab	0	0	0.00%	30%	Fail
CPOE rad	0	0	0.00%	30%	Fail
Transmit eRx	0	0	0.00%	50%	Fail
Lab results	0	0	0.00%	55%	Fail
Imaging results	0	0	0.00%	10%	Fail
Patient education	0	0	0.00%	10%	Fail
Clinical summaries	0	0	0.00%	50%	Fail
Patient summary	0	0	0.00%	50%	Fail
Patient summary measure B	0	0	0.00%	10%	Fail
Timely access	2	2	100.00%	50%	Pass
View download transmit	0	2	0.00%	5%	Fail
Secure messaging	0	2	0.00%	5%	Fail

Figure 5.132 – Reports by Radiologist management report

Meaningful Use – Stage 2 Management Reports

MU 2014 requires that the automated measures report be capable of selecting either stage 1(2011) or stage 2(2014) MU statistics; and be able to select date ranges for 90 continuous days within a calendar year, including 90 day periods that span across more than 3 months (e.g. Beginning May 12th); or be able to select a specific calendar year quarter (first, second, third, fourth); and finally be able to select the entire calendar year.

MU 2014 requires a management report(Patient Lists) that will generate a list of patients that can be selected by date and time and based on each data element including: Problems, Medications, Medication Allergy, Demographics, Lab tests and values/results, and Patient communication preference.

To resolve we archived the following MU 2011 management reports.

- Automated Measures.rdl
- CQM Measures.rdl
- MU Automated Measures Details.rdl
- MU Scorecard.rdl
- Patient Lists.rdl
- Patient Reminder List.rdl

We moved all of these reports to a newly created folder “Archive” under Meaningful use on the reporting server. These reports will be used for auditing purposes for previously submitted attestation reports. To ensure these reports are deployed correctly we modified the script for deploying management reports to include the Archive folder structure and reports.

For MU 2014 we created three new management reports and a new SubReport.

- 1) **Automated Measures** – A management report that can accurately adjust the reporting period for all the required types and that the numerator and denominator information are accurate and complete for each reporting period and meaningful use stage for a specific Radiologist.
 - Automated Measures Details - we created to help troubleshoot MU measure problems in the field a new report that will be used to display summary details which make up the numerators and denominators found in the Automated Measures Report. This report can be found in the “SubReport” folder.

- 2) **Automated Measures Raw Data** - A management report that can accurately adjust the reporting period for all the required types and that the numerator and denominator information are accurate and complete for each reporting period and meaningful use stage for multiple Radiologist. The main purpose of this report will be used to export results to csv or excel so administrators can monitor the progress of individual Radiologist with regards to MU measures.

- 3) **Patient Lists** - Lists of patients are selected by date and time and based on each data element including: Problems, Medications, Medication Allergy, Demographics, Lab tests and values/results, and Patient communication preference

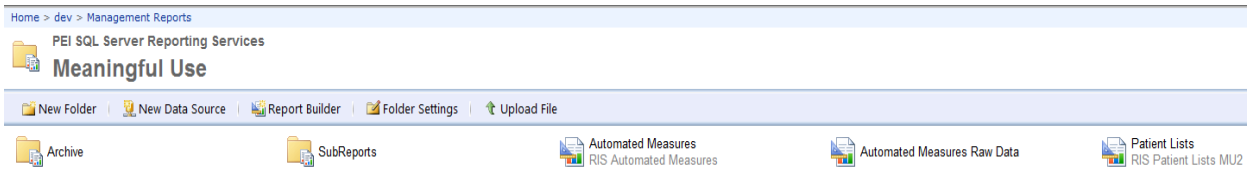
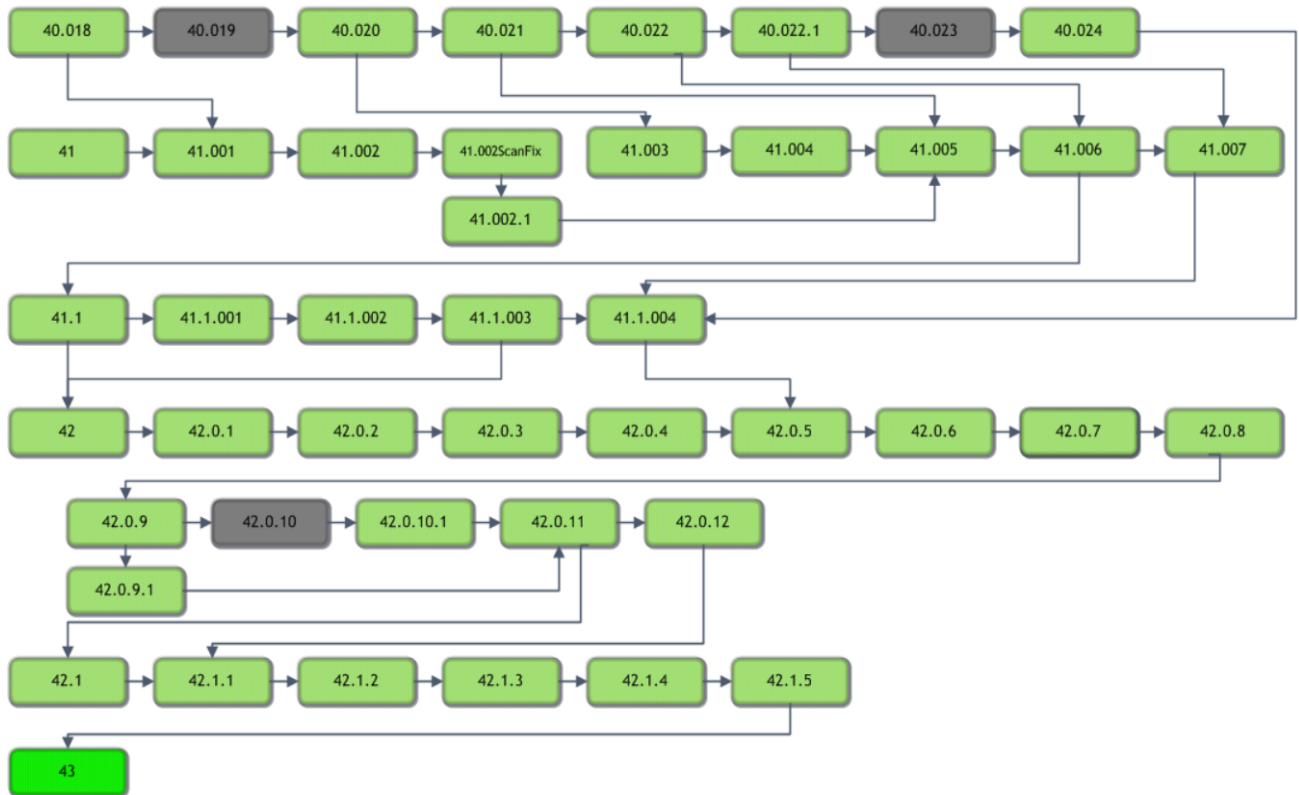


Figure 5.133 – Meaning Use Stage management reports

6. Code Stream

eRAD RIS - Source Code Evolution



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

7. RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
41.1	-	1.3.41.20918(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip, Core install, Web Service and DB updates, Help files
41.1	1	1.3.41.20987(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip
41.1	2	1.3.41.21162(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip, Web Service and DB updates,
41.1	3	1.3.41.21264(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
42	1	2.42.0.1.21597	2.42.0.0.21261	2.42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates
42	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates
42	3	2.42.0.2.21806	2.42.0.0.21261	2.42.0.2.21806	2.42.0.0.21187	GUI and Web Service updates
42	4	2.42.0.2.21862	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI and Database updates
42	5	2.42.0.5.21924	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI
42	6	2.42.0.5.22009	2.42.0.0.21261	2.42.0.5.22009	2.42.0.4.21870	GUI and Web Service updates
42	7	2.42.0.7.22090	2.42.0.0.21261	2.42.0.6.22009	2.42.0.4.21870	GUI.zip updates
42	8	2.42.0.7.22090	2.42.0.7.22150	2.42.0.6.22009	2.42.0.4.21870	Web Service updates
42	9	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI and Web Service updates
42	9.1	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	Web Service updates
42	10	2.42.0.10.22232	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip
42	10.1	2.42.0.10.22420	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip updates
42	11	2.42.0.11.22495a	2.42.0.0.21261	2.42.0.11.22471	2.42.0.11.22527	GUI.zip, Web Service, Database updates. Management Report Deployment
42	12	2.42.0.12.22982	2.42.0.0.21261	2.42.0.12.22982	2.42.0.12.22911	GUI.zip, Web Service, Database updates.
42.1	-	2.42.1.0.22744(3GB)	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.2296(3GB)	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates
42.1	2	2.42.1.2.23007(3GB)	2.42.0.0.21261	2.42.1.2.23007	2.42.1.2.23007	GUI.zip, Web Service, DB updates
42.1	3	2.42.1.2.23237(3GB)	2.42.0.0.21261	2.42.1.2.23237	2.42.1.2.23007	GUI.zip, Web Services
42.1	4	2.42.1.4.23348(3GB)	2.42.0.0.21261	2.42.1.4.23348	2.42.1.2.23007	GUI.zip, Web Services
42.1	5	2.42.1.5.23406(3GB)	2.42.0.0.21261	2.42.1.5.23406	2.42.1.2.23007	GUI.zip, Web Services
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

8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.43. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.43.

Bug #	Priority	Subject	Category	Found Version
6701	Urgent	When a popup window is open in RIS and user actions a report in PS360, Ris crashes.	Powerscribe Integration	2.42.1
6678	Urgent	PAC IW Out of sync problem	PACS Integration	2.42.0.9
6534	Urgent	original_interpretation_version should be stamped on dictated (currently just on signed reports)	Web Services/DB	2.42.0.11
6436	Urgent	Potential for studies to be orphaned in a way as they won't appear on worklists	Thick Client GUI	2.42.0
6255	Urgent	Slow Mammo Letters WL is impacting DB query times	Worklists	1.42
7061	High	MQSA Outcome Report + and - title values should be reversed	Mgt Reports	42
6993	High	RRR - Orders to Schedule Worklist and Procedure Plans	Thick Client GUI	42.0.9
6938	High	Reporting - insert report template with automacros will remove the technique section	Embedded Reporting	2.42.1
6926	High	paitnet folder for previously unlinked external patient does not get reassociated when the patient is mapped.	EMR	1.4
6823	High	Multiple scanned images do not get sent to PACS	Thick Client GUI	42.02
6774	High	Callback reminder letters print as diagnostic reports instead of using the proper reminder letter	Document Distribution	2.42.2
6700	High	PS360 integration is opening when it doesn't need to causing unnecessary delays and flicker.	Powerscribe Integration	2.42.1
6685	High	Object reference error when opening transcription screens in read only mode	Radiology Reporting	2.42.1
6683	High	Verbal order is hard-coded to associate to a known scan document type - this should be	Thick Client GUI	1.4

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		configurable		
6681	High	bi-rads info not reset when using screen re-use on dictate screen.	Mammography	2.42.11
6680	High	ReportTemplateEditor not being cleaned up when ReportingRadiologist closes	Radiology Reporting	2.42.09
6679	High	referring physician "visited at" drop down list contains only numbers, not human readable addresses	Thick Client GUI	2.42.0.11
6517	High	excessive network traffic generated by transfer of dictations and other data	Web Services/DB	2.42
6479	High	BI-RADS 0 and BI-RADS 4/5 stored procedure causes issues with an implicit conversion of birad_code to an integer	DB	2.42
6463	High	Reschedule - Can reschedule studies in exam done status and outside reads	Scheduling	2.42.0.11
6462	High	Order level IVT - billing codes inactive on reschedule save as order	IVT / Precert	1.41.1
6447	High	_max_interpretation_version does not update when an addendum is deleted	Radiology Reporting	2.42
6432	High	Tech screen - procedures list is not alphabetical	Technologist	1.42
6189	High	Hidden text in editor counts as text when validating fields and section.	Radiology Reporting	1.4
6106	High	error opening merge suggestions due to patient search results	Web Services/DB	1.41
5963	High	MU - Medical History grid, cannot delete a row	Thick Client GUI	1.42
5950	High	MU - CCDA preview - the Allergies (Medications) section is messed up.	Thick Client GUI	1.42
5847	High	Dark mode - BMI on MU tab is white on white and unreadable	Thick Client GUI	1.42
5800	High	parameter is not valid and/or out of memory error while viewing thumbnails	Thick Client GUI	1.42
5787	High	RadNet - Western Operations - Breast Density dropdown order not consistent with the config table settings	Thick Client GUI	41.1

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5783	High	Dark mode login box impossible to see	PACS Integration	1.42
5732	High	issues with sorting exam search results when max row count is reached	Thick Client GUI	1.42
5720	High	referring practice address patern has many issues when migrating referring legacy data.	Thick Client GUI	1.4
5711	High	Using two procedures at scheduling, and patient is claustro - it is showing an option for a closed modality when it should not		1.42
5664	High	When dictating, losing your lock, and save failed with screen recovered, you won't be able to save	Radiology Reporting	1.42
5513	High	index outside the bounds of the array when saving scan documents	Thick Client GUI	1.41.002.1
5496	High	Scanning - Document Viewer Quick Key Issue		1.41
5459	High	right click change status to cancel does not refresh worklist afterwards	Thick Client GUI	1.42
5447	High	Reporting - RIS allows the addendum workflow on Legacy PDF reports.		1.41
5420	High	some messageboxes improperly sized	Thick Client GUI	1.42
5406	High	concurrency violation on save of UserPrefs can crash RIS	Thick Client GUI	1.42
5393	High	confirmation screen does not save scan documents	Thick Client GUI	1.42
5335	High	If a study is in a closed room, it should not appear on the confirmation WL	Thick Client GUI	1.41
5291	High	Operational Management Report - Payments Details	Mgt Reports	1.4
5289	High	Operational Management Report - Performed Procedures Count	Mgt Reports	1.4
5287	High	Operational Management Report - Front Desk Activity	Mgt Reports	1.4
5258	High	Multi-type ahead: control is too tall		1.42

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5257	High	Multi-type ahead: Dropdown button should have a ... in the icon		1.42
5234	High	Outside Read screen will not open		1.4
5232	High	For Truxtun DataMigration only, we need a tool to extract diagnostic report from the Intergy DB	DB	1.41
5230	High	Need to enhance our ImportLegacy utility to include diagnostic reports formatted as MS-Word and WordPerfect	DB	1.41
5192	High	Outside Read - requires "Reason for Exam" field to be completed in view edit window`	Thick Client GUI	1.41.003
4980	High	Unknown CC flag never re-set if CC referring is removed from the order. (RRR)		40.17
4936	High	Default lock workstation value should be 60 minutes.	Thick Client GUI	1.41
4928	High	Darkmode misses		1.41
4843	High	RRR - Scheduling/Front Desk - Verbal Offer - child row has multiple parents	Thick Client GUI	1.4
4840	High	IVT - PreCert Status Update - PreCert Field Changing	Thick Client GUI	1.4
4838	High	RIS Admin - HL7	HL7	1.4
4836	High	IVT - IVT Worklist - Error retrieving the IVT worklist	Thick Client GUI	1.4
4830	High	Carrier search error if carrier name is not found	Thick Client GUI	1.42
4755	High	HL7 ReportSigned could produce duplicate addendum	HL7	1.41.001
4742	High	scan document documents are saved in the db as null	Thick Client GUI	1.4
4658	High	Scheduling --> modality restriction = no warning	Thick Client GUI	40.17
4620	High	Referring without a first name, erroring when multiple orders are available for patient in reception worklist.	Thick Client GUI	1.1.3.41.19052

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4598	High	RRR - Prep Instructions - when prep instructions exceed maximum visible space, scroll bars do not appear as they should, and user cannot read the bottom of the page of instructions.	Thick Client GUI	40.18127
4593	High	WPR - Send To button causes error	Thick Client GUI	1.42
4576	High	Personnel - Internal person notes	Admin Tools	1.41
4548	High	CTRM - Notes field isn't read only	Thick Client GUI	1.41
4464	High	RRR - IVT - when user adds "-01" to the end of the policy number for a patient, upon saving the change to the policy, the billing code exam information disappears.	Thick Client GUI	40.18127
4450	High	Auto-open worklist won't open if you cancel the chair selection prompt		1.41
4412	High	WL Filter filtering out all rows when no filter value is specified	Thick Client GUI	1.4
4356	High	Critical Result - CTRN - Unknown referrers added in critical result window display as invalid	Thick Client GUI	1.41
4349	High	Worklist filters ending with a pipe " " symbol causes error	Thick Client GUI	1.40.015
4284	High	Mammo - generated followup order not setting default patient type	Thick Client GUI	40.15
4278	High	RRR - Responsible party - "Same As Patient" flag not recognized, and orders are hitting the BEWL that should not be there.	Thick Client GUI	40.16
4241	High	Printer Config - Display Order should have a default	Thick Client GUI	1.4
4095	High	Selected report pane showing "Legacy Report" that doesn't work	Thick Client GUI	40.14
4035	High	RIS Client --> Login Failed	Thick Client GUI	40.12
3904	High	removing alternate MRN does not remove all references	Web Services/DB	1.4
3877	High	Walk In - Object Reference Error	Thick Client GUI	40.1

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3852	High	IVT : ?The ?IV required? flag on the worklist said IV was not required, but when I opened it, it says Verification is required? (it was correctly on the worklist as pre-cert was required however)	Thick Client GUI	1.40.008
3847	High	ConfigFile upload everytime a screen is closed.	Thick Client GUI	1.4
3798	High	Worklist refreshes at different scroll positions (Fisher site visit)	Thick Client GUI	40.006
3749	High	RadNet - ADV Call Centre - can not type in order notes field.	Thick Client GUI	1.40.006
3738	High	Perform exam - perform exam completed time is not be saved if Exam Times tab is accessed	Thick Client GUI	1.40.008
3688	High	wsnocertificate Endpoint does not require authentication	Web Services/DB	1.4
3661	High	Availability template lookup table usability	Admin Tools	1.4
3644	High	Removing procedure then procedure row at arriving throws exception	Thick Client GUI	1.40.006
3431	High	RRR - When you choose 'Self' from responsible party dropdown, then update the patient's address information, you have to uncheck then recheck the 'Same as Patient' check box to get the information to update		39.1
3375	High	RRR Image Request WL - When status is 'Hold Code Completed' and user presses 'Edit' RIS is throwing an error		39.1
2999	High	When report is viewed from the Billing Exceptions Work List, via Edit Billing it is showing an Addendum line, even though no addendum exists for the exam	Thick Client GUI	38
2982	High	inactive CPT codes are showing up when you check 'Show Previous Pre-cert CPT codes' option.		38
2230	High	Cannot create Alternate MRN when creating new patient	Thick Client GUI	1.2.38.14486
2142	High	Reschedule permission does not make 'reschedule' appear in context menu		1.38

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1225	High	Scheduling - Image Request WL --> Edit Image request (new patient icon)	Thick Client GUI	1.36
6986	Normal	Reporting - going from a non BIRADS enabled study to a BIRADS enabled study will throw an exception	Radiology Reporting	2.42.1
6939	Normal	Reporting - create template from when the current template has automacros will raise an exception	Embedded Reporting	2.42.1
6924	Normal	scheduling using external MRN (does not consistently display alternate MRN in grid)	EMR	42.1
6923	Normal	Appointment book cannot be accessed if user doesn't have scheduling group assigned.	Appointment book	2.42.1
6922	Normal	There is no way to register individual studies at different sites that are on one order.		2.42.2
6846	Normal	When tentative sign is disabled through access string, user preference is half visible	Radiology Reporting	2.42.0.9
6839	Normal	Mgmt Report - IVT Canceled (deprecated report)	Mgt Reports	2.42
6806	Normal	A user/person can be cloned even if they have an address with no cc delivery preference.	Administration	2.42.0
6773	Normal	Using PS360: An exam is assigned to a resident and that resident assign a supervising rad, once the exam in in transcribed status, it is not in the supervising rad's Pending Signature WL	Powerscribe Integration	2.42.1.2
6751	Normal	Error on multi procedure schedule after one study is removed	Scheduling	2.42.1.2
6735	Normal	Management Report Deployment - Radnet specific reports deploying to eRAD	Mgt Reports	2.42
6711	Normal	Clicking the close or skip button on the eRAD RIS window doesn't save the values in Assigned to window	Powerscribe Integration	42.1.1
6689	Normal	RadNet - Monthly Variance Raw Data reports needs to be modified to use cpt_Radnet_counts as well add referring practice functionality	Mgt Reports	2.42
6688	Normal	Error: "Deleted row information cannot be accessed through the row" when updating	Thick Client GUI	2.42.09

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		insurances		
6686	Normal	Scanner - users are having to re-scan documents		1.42
6682	Normal	Reporting - screen reuse and pending save items may hang around on the worklist	Radiology Reporting	2.42.0.11
6675	Normal	PACS Caching - The RIS is failing to clear out the cache field properly when it is to no longer be cached.	PACS Integration	2.42.0
6611	Normal	Mgmt Report - Marketing numbers skewed when c_study_item_certification.units is null	Mgt Reports	2.42.0.11
6582	Normal	Unable to create unknown referring	Scheduling	42.1
6547	Normal	Document distribution does not recover InProgress jobs that do not have a job id when it starts up	Document Distribution	0
6546	Normal	Fax Console Outbox grows too large over time and slows faxing down significantly	Document Distribution	0
6545	Normal	Reporting - Access string PowerScribe360.AllowAutofeed doesn't control user preference	Powerscribe Integration	2.42.1
6531	Normal	PACS images are loaded even if reporting window ultimately does not open.	PACS Integration	2.42
6526	Normal	CD Import - Duplicate MRNs resulting in missing images after the import	Patient Search	1.42
6525	Normal	CD Import - null exception opening a CD, which has a empty patient record	PACS Integration	1.42
6516	Normal	c_frm_core_view - cleanup the view	Web Services/DB	2.42
6473	Normal	Print Forms dialog does not appear when checking-in/arriving patients after removing insurance policy	Thick Client GUI	2.42.09
6464	Normal	MU Clinical Summary Form Needs modified to look at the new c_patient_problem_list2 and the new l_indication tables for handling MU problems(medical history).	Meaningful Use	42
6452	Normal	service throttling is not sufficient for large implementations	Web Services/DB	2.42

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6331	Normal	detailed chair selector does not display - print an error message indicating dataset is incorrect.	DB	2.42
6330	Normal	Re-deployment of reports loses folder specific permission	Mgt Reports	2.42
6296	Normal	CD Import - Everything is sent but study can't be found in PACS.	PACS Integration	1.42
6268	Normal	PACS Server lookup the URL can have new line characters which will cause CD Imports to fail	PACS Integration	1.42
6251	Normal	RIS service "Server" garbage collection	Web Services/DB	1.42
6242	Normal	RIS Service Installation document is out of date	Documentation	42.0.6
6239	Normal	RADNET - MU - Problem list - problem with no start date can be added again via Meaningful Use Quick Add Edit window	Thick Client GUI	2.42.0.6
6233	Normal	RADNET - Reporting - Pregnant field displayed in Exam Details for all patients	Radiology Reporting	2.42.0.6
6194	Normal	Report history and dark mode have some visual issues	Radiology Reporting	1.42
6187	Normal	CDS Service does not start in x64 mode	Documentation	42.003
6185	Normal	RRR - Error when creating outside reads	Thick Client GUI	42.02
6126	Normal	Scheduling - Calendar view does not display business hours or device availability template	Thick Client GUI	2.42
6115	Normal	Vague descriptions on Referral reports	Mgt Reports	1.41
6113	Normal	Referring Physician Volumes - missing description	Mgt Reports	1.41
6109	Normal	Language, Race and Ethnicity not in the core view for forms	Mgt Reports	1.42
6107	Normal	MU changed Provided Clinical Summaries to Offered Clinical Summary to patient	Meaningful Use	2.42
6091	Normal	Management reports - IVT Turnaround - Total turnaround time is incorrect	Mgt Reports	2.42

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6087	Normal	Management reports - IVT management reports looking for Approved, but status is now Verified	Mgt Reports	42.0.1
6080	Normal	CD Import via patient folder can match with the wrong patient.	Thick Client GUI	1.42
6077	Normal	Relevance Override does not allow assignment of inactive procedures		1.42
6064	Normal	Scheduling - Procedure Plans Error	Thick Client GUI	42.0.0.21577
6052	Normal	RadNet - Patient Folder - column missing	Thick Client GUI	1.42
6051	Normal	RadNet - Schedule Existing Order - uncheck not working	Thick Client GUI	1.42
6015	Normal	create a function to coalesce site and practice logo	Web Services/DB	1.42
6003	Normal	Management Reports - Automatic Measures - Missing Parameter	Mgt Reports	2.42.0.0.21410
5988	Normal	re-selecting and blanking out the Referring combo box		42
5984	Normal	Deleted row error saving attachments		1.42
5982	Normal	Negative values in Dictated to Drafted on the RTAT portion of the Transcription Dashboards.	Mgt Reports	1.41
5944	Normal	Cloning a person "may" impact original person being cloned	Thick Client GUI	1.41
5861	Normal	unhandled exception logging in as a rad but without permission to some WL.	Thick Client GUI	1.42
5843	Normal	MU - When editing the date in Lab results get error.	Thick Client GUI	1.42
5837	Normal	Reporting - Open study in dictate window and get C++ Exception	Radiology Reporting	2.42
5814	Normal	If lab test code matching systemconfig's CPOELabTestCode value doesn't exist for procedure who's CPOE Pathology flag is set, misleading exception occurs	Thin Client GUI	1.42
5735	Normal	The query to get radiologist and transcriptionist statistics in taking over 5	DB	1.4

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		second on SE		
5603	Normal	recent activity message list shows Assign To as Dictated	Radiology Reporting	1.42
5495	Normal	Scanning - "Scanner is not responding" can lock up RIS for about 1 minute		1.41
5450	Normal	RRR - Confirmed Appointments Report Customization	Mgt Reports	2.41
5422	Normal	Scheduling - Assign to Rad is first name, last name	Thick Client GUI	1.41.002
5252	Normal	Reporting - Verify edits context menu option from All Edits Pending QA opens Create Edit report window	Radiology Reporting	1.41
5156	Normal	can't update performed modality (RRR)	Thin Client GUI	40.17
4950	Normal	Race type code	DB	1.41.002
4555	Normal	When opening a study in read only, user should get a prompt	Radiology Reporting	1.41
4326	Normal	Reporting - Multiple Pending Signature notifications raised	Radiology Reporting	1.41
4308	Normal	Patient Folder - Selected Summary not resizing properly when dragging the pane	Radiology Reporting	1.41
4116	Normal	Error on Sign Next or Submit Next in the field	Thick Client GUI	1.3.40.18063
3878	Normal	GUI - procedure code lookup (laterality dropdown display)	Thick Client GUI	40.1
3814	Normal	Already Transcribed prompt when in signing workflow (Fisher site visit)	Thick Client GUI	40.006
3639	Normal	Reporting - Index out of range		1.4
3521	Normal	MU - Calculating MU statistics of Void Exams	Meaningful Use	1.4
3273	Normal	Patient Folder Worklist - Default filter applied results in side scrolled WL on open	Radiology Reporting	1.4
3099	Normal	Documentation window - futuristic menstrual periods....	Thick Client GUI	1.4

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2759	Normal	Distribution WL - Message box should display in the center of the screen	Thick Client GUI	1.39
2635	Normal	Unchecking No Longer Menstruating doesnt enable pregnancy fields	Thick Client GUI	1.39
665	Normal	fk error when adding new order	Thick Client GUI	1.25
357	Normal	Lookup table filters with dropdown datatype don't work		1.13
6940	Low	Reporting - apply style formatting to automacro inserted text will break create template from	Embedded Reporting	2.42.1
4733	Low	Spelling mistake in details message (Cannot "adden" an interpretation when previous interpretation is not signed off.)	Thick Client GUI	1.41
3991	Low	Reporting - Exam Details and Summary panes - Text can be entered in notes' fields, but does not save.	Thick Client GUI	1.40.013

9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.43. Bugs reported in previous versions are not captured as Known Limitation in this document.

#	Status	Priority	Subject
7065	New	High	ICD button is overlaid by the stat button in minimized dictation mode
7195	New	High	System config setting RadMustProvideIcdCode doesn't force rad to enter ICD code
7196	New	Normal	When registering a patient with multiple procedures, and then deselecting the procedure checkbox, an error is produced
7186	New	Normal	Transportation req'd validation issue
7160	New	Normal	IVT - Issue with "Parent Procedure" on billing code grid
7153	New	Normal	ICD Codes - Issue removing codes
7086	New	Normal	Internal Person search doesn't have default field
7029	New	Normal	AccessionXMLDrop button showing up all the time if configured, regardless of reporting mode
6991	New	Normal	Reporting - Exam details data pane can open with scroll bar hidden and window can be resized to have scroll bar hidden
6989	New	Normal	Secure Messaging - Able to send an empty message
6863	New	Normal	Inconsistent grid behaviour with new ICD functionality.
6840	New	Normal	Holiday Lookup missing practice code required field check
6807	In Progress	Normal	Create template causes Object Reference Not set error
6793	New	Normal	distribution wl - Activity log column is crowded
6790	New	Normal	Personel Merge - reject takes user to a blank page
6785	New	Normal	Administration - Patient search window on patient merge, 'New Pt +Apt' button does nothing
6784	New	Normal	tech screen - able to complete an exam on a body part different than defined by procedure
6726	New	Normal	View menu not disabled after Report on Accession #
6592	New	Normal	Required Notes Fields accept whitespace as input
6908	In Progress	Normal	MU Quick Add Edit Dialog makes 30 consecutive service calls each time it is opened

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7182	New	Normal	Menu item Messaging doesn't have an access string
7172	New	Normal	Reconcile Form - Issue with layout of Order and Scheduling Notes
7164	New	Normal	Cannot delete indication codes from the Indication lookup table via GUI
7023	New	Normal	Selected attachments navigating when user selects text.
6972	New	Normal	BI-RADS picker set tissue density to inactive value
6834	New	Normal	QA workflow, error when saving opens the wrong screen.
6821	New	Normal	Reschedule can show incorrect procedure if procedure was changed in Register window
6750	New	Normal	MU - CCDA Error when generating XML when Allergy is NULL
6671	New	Normal	Right-click "Confirmation" in Patient Folder for Follow up order throws multiple exceptions
7127	New	Normal	MT polling when waiting for jobs and none exist, can't close tab or visit another tab.
6987	New	Normal	Fields in scheduling screen not showing as required until you try to save, or tab out of the control.
6792	New	Normal	Filtering work lists
6081	New	Normal	If patient has multiple orders on same day (procedure changed) --> registration confirmation does not reflect it
7188	New	Normal	County selection screen requires user to click or tab to county field.
7181	New	Normal	County/ZIP - county getting saved with data but dialog doesn't show one selected
7179	New	Normal	County/ZIP - possible wrong county selecting automatically. County drop down changing when nulling out ZIP textbox
7165	New	Normal	Special characters in custom fields for templates can cause the report to not be openable.
7159	New	Normal	Reporting - PACS integration
7138	New	Normal	Mammo letter config save button doesn't save changes
7015	New	Low	MU - A requested lab order can be entered with a blank observation and return an error
6865	New	Low	Personnel - Referring addresses - Address open double clicking on scroll bar arrows

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7178	New	Low	County/ZIP allows typing in County but doesn't change value when clicking ok
7177	New	Low	County/ZIP textbox persists invalid data

User Release Notes

for eRAD RIS
Version 2
Build 44

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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 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.44

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 is considered a new core release of the application and will require a reinstallation of eRAD RIS. 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. New Access Strings and Configuration Settings 44

Setting Placeholder	Setting	Default	Purpose / Controls Access to
Access string / User Group Permission tables	Clinical.AllowPeerReviewChanges	None	Allows the user to make modifications to peer reviews
Access string / User Group Permission tables	View.Preset.Administration.PresetPeerReview	None	Access to preset layout administration for Peer Review
Access string / User Group Permission tables	View.PresetPeerReview	Full	Access to see the main menu item "View/LoadLayout.../Peer Review" (on dictation screens)
Access string / User Group Permission tables	View.BreastDrawing	Full	Access to see the Breast Drawing menu item from View menu (visible when dictate window is open on a mammo study)
Access string / User Group Permission tables	View.SelectedBreastDrawing	Full	Access to see the Selected Breast Drawing menu item from View menu (visible when dictate window is open on a mammo study)
Access string / User Group Permission tables	Config.TechSupportChangePassword	None	Allows the user to change other user's password. Intended for helpdesk users who do not require full access to the Personnel Editor
Access string / User Group Permission tables	Config.LookupEditor.ProcedureExamTitle	None	Controls access to the ProcedureExamTitle lookup table
Access string / User Group Permission tables	Config.LookupEditor.ProcedureTechnique	None	Controls access to the ProcedureTechnique lookup table
Access string / User Group Permission tables	Config.LookupEditor.Personnel.EmailPassword	None	full access to this enables users to view personnel address distribution email passwords
Access string / User Group Permission tables	Config.LookupEditor.Contrast	None	Controls access to the Contrast lookup table

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Access string / User Group Permission tables	Config.LookupEditor.DosageUnit	None	Controls access to the DosageUnit lookup table
Access string / User Group Permission tables	Config.LookupEditor.Sedative	None	Controls access to the Sedative lookup table
Access string / User Group Permission tables	NOTE: Change to Access String Name Clinical.ReportingTranscription IS NOW Clinical.ReportingEditor	None	Access to the Create/Edit Reporting window
Access string / User Group Permission tables	NOTE: Change to Access String Name Menu.Transcription IS NOW Menu.Editor	None	Controls access to the Editor Menu
Access string / User Group Permission tables	NOTE: Change to Access String Name Clinical.AssignTranscriptionist IS NOW Clinical.AssignEditor	None	Assign To Editor context menu option for work lists in which the option is available
Access string / User Group Permission tables	NOTE: Change to Access String Name Clinical.UserPreferences.TranscriptionPolling IS NOW Clinical.UserPreferences.EditorPolling	None	Enables access to the User Preferences Editor Polling User Preferences
Access string / User Group Permission tables	The following access string has been removed as it wasn't being used. Config.LookupEditor.Macro	N/A	The access string Config.LookupEditor.TemplateMacro will provide access to the TemplateMacro lookup table.
SystemConfig lookup	AllowedPasswordFailAttempts	-1	Number of allowed failed consecutive attempts

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			before locking account. 0 or less disables feature and will never lock out a user."
SystemConfig lookup	EmailPDFPasswordRegex	(?=^.{6,10}\$)^\S*(?=[a-z])\S*(?=[A-Z])(?=[0-9])(?!./s*)\S*\$	(value = string) Used to configure the regex for detecting what is a strong password for email PDF
SystemConfig lookup	EmailPDFPasswordRegexHint	6-10 characters including 1 uppercase letter, 1 lowercase letter and one number	6-10 characters including 1 uppercase letter, 1 lowercase letter and one number
SystemConfig lookup	EnableContrastBillingRelation	True	True enables billing and contrast code syncing in the tech window
SystemConfig lookup	EnableNotRegisteredInPECOSWarning	False	(value = True/False) Determines if the system will warn scheduler if referring physician is not in PECOS and patient is using Medicare.
SystemConfig lookup	ExpirePasswordInDays	-1	Number of days before you must change your password. 0 or less disables feature and passwords do not expire.
SystemConfig lookup	LMPEndingAge	56	When the patient reaches this age, the LMP checker will no longer be enabled on the technologist screen.
SystemConfig lookup	LMPStartingAge	12	When the patient reaches this age, the LMP checker will be enabled on the technologist screen.

SystemConfig lookup		"Account locked. Please contact your administrator."	Message to display to users who have had their accounts locked out."
	PasswordLockedMessage		
SystemConfig lookup			Number of times you have to change a password before you can reuse an old password. 0 or less disables feature and password history is not saved
	RecentPasswordRestrictionCount	-1	
SystemConfig lookup			True to require a preferred site and attempt to pre-select preferred site on schedule search.
	ScheduleUsePreferredSite	True	
SystemConfig lookup			Verification account for billing.
	InsuranceEligibleAPIString		
Applicationsettings.config	<setting name="StartInboundDocumentService" serializeAs="String"> <value>>false</value> </setting>	False	
Applicationsettings.config	<setting name="InboundDocumentFolderLocation" serializeAs="String"> <value>C:\InBoundDocuments</value> </setting>	C:\InBoundDocuments	

Changes to RIS.exe.config file

The section <listeners> in the ris.exe.config file has been changed in this release. Below you will see the before and after. In the “before” section, if the text is highlight grey, it is to indicate that it has been removed. Text highlight green in the “after” section will indicate new configuration. Any text in Yellow in before section will indicate values that have changed. The corresponding value will be highlighted Yellow in the After section

Before	After
<loggingConfiguration name="" tracingEnabled="true"	<loggingConfiguration name="" tracingEnabled="true"

<pre>defaultCategory="General"> <listeners> <add name="Event Log Listener" type="Microsoft.Practices.EnterpriseLibrary.L ogging.TraceListeners.FormattedEventLogTra ceListener, Microsoft.Practices.EnterpriseLibrary.Logging, Version=5.0.414.0, Culture=neutral" listenerDataType="Microsoft.Practices.Enterpr iseLibrary.Logging.Configuration.FormattedE ventLogTraceListenerData, Microsoft.Practices.EnterpriseLibrary.Logging, Version=5.0.414.0, Culture=neutral" source="rRIS" formatter="Text Formatter" log="" machineName="." traceOutputOptions="None" /> <add name="Flat File Trace Listener" type="Microsoft.Practices.EnterpriseLibrary.L ogging.TraceListeners.FlatFileTraceListener, Microsoft.Practices.EnterpriseLibrary.Logging, Version=5.0.414.0, Culture=neutral" listenerDataType="Microsoft.Practices.Enterpr iseLibrary.Logging.Configuration.FlatFileTrac eListenerData, Microsoft.Practices.EnterpriseLibrary.Logging, Version=5.0.414.0, Culture=neutral" fileName="trace.log" formatter="Text Formatter" /> <add name="Rolling Flat File Trace Listener" type="Microsoft.Practices.EnterpriseLibrary.L ogging.TraceListeners.RollingFlatFileTraceLis tener, Microsoft.Practices.EnterpriseLibrary.Logging, Version=5.0.414.0, Culture=neutral" listenerDataType="Microsoft.Practices.Enterpr iseLibrary.Logging.Configuration.RollingFlatF ileTraceListenerData, Microsoft.Practices.EnterpriseLibrary.Logging, Version=5.0.414.0, Culture=neutral"</pre>	<pre>defaultCategory="General"> <listeners> <add name="Event Log Listener" type="Microsoft.Practices.EnterpriseLibrary.L ogging.TraceListeners.FormattedEventLogTra ceListener, Microsoft.Practices.EnterpriseLibrary.Logging, Version=5.0.414.0, Culture=neutral" listenerDataType="Microsoft.Practices.Enterpr iseLibrary.Logging.Configuration.FormattedE ventLogTraceListenerData, Microsoft.Practices.EnterpriseLibrary.Logging, Version=5.0.414.0, Culture=neutral" source="rRIS" formatter="Text Formatter" log="" machineName="." traceOutputOptions="None" /> <add name="Rolling Flat File Trace Listener" type="Microsoft.Practices.EnterpriseLibrary.L ogging.TraceListeners.RollingFlatFileTraceLis tener, Microsoft.Practices.EnterpriseLibrary.Logging, Version=5.0.414.0, Culture=neutral" listenerDataType="Microsoft.Practices.Enterpr iseLibrary.Logging.Configuration.RollingFlatF ileTraceListenerData, Microsoft.Practices.EnterpriseLibrary.Logging, Version=5.0.414.0, Culture=neutral"</pre>
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<pre> rollFileExistsBehavior="Increment" rollInterval="Hour" header="" footer="" fileName="verbose_log/trace.log" formatter="SimpleTextFormatter" /> </listeners> <formatters> <add type="Microsoft.Practices.EnterpriseLibrary.L ogging.Formatters.TextFormatter, Microsoft.Practices.EnterpriseLibrary.Logging, Version=5.0.414.0, Culture=neutral" template="Timestamp: {timestamp(MM/dd/yyyy HH:mm:ss.ffffff)} {newline}&#xA;Message: {message} {newline}&#xA;Priority: {priority} {newline}&#xA;Severity: {severity} {newline}&#xA;Title: {title} {newlin e}&#xA;Machine: {localMachine} {newline}&#xA;Extended Properties: {dictionary({key} - {value} {newline})}" name="Text Formatter" /> <add type="Microsoft.Practices.EnterpriseLibrary.L ogging.Formatters.TextFormatter, Microsoft.Practices.EnterpriseLibrary.Logging, Version=5.0.414.0, Culture=neutral" template="{timestamp(MM/dd/yyyy HH:mm:ss.fff)} {tab} {severity} {tab} Message: {message}" name="SimpleTextFormatter" /> </formatters> <categorySources> <add switchValue="Warning" name="General"> <listeners> <add name="Event Log Listener" /> </listeners> </add> </pre>	<pre> rollFileExistsBehavior="Increment" rollInterval="Hour" header="" footer="" fileName="verbose_log/trace.log" formatter="SimpleTextFormatter" /> </listeners> <formatters> <add type="Microsoft.Practices.EnterpriseLibrary.L ogging.Formatters.TextFormatter, Microsoft.Practices.EnterpriseLibrary.Logging, Version=5.0.414.0, Culture=neutral" template="Timestamp: {timestamp(MM/dd/yyyy HH:mm:ss.ffffff)} {newline}&#xA;Message: {message} {newline}&#xA;Priority: {priority} {newline}&#xA;Severity: {severity} {newline}&#xA;Title: {title} {newlin e}&#xA;Machine: {localMachine} {newline}&#xA;Extended Properties: {dictionary({key} - {value} {newline})}" name="Text Formatter" /> <add type="CommonLib.eRadLogFormatter, CommonLib, Version=1.0.0.0, Culture=neutral" template="{timestamp(MM/dd/yyyy HH:mm:ss.fff)} {tab} {category} {tab} {severity} {tab} Message: {message}" name="SimpleTextFormatter" /> </formatters> <categorySources> <add switchValue="Warning" name="General"> <listeners> <add name="Event Log Listener" /> </listeners> </add> </pre>
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<pre> </categorySources> <specialSources> <allEvents switchValue="Verbose" name="All Events"> <listeners> <add name="Rolling Flat File Trace Listener" /> </listeners> </allEvents> <notProcessed switchValue="Off" name="Unprocessed Category" /> <errors switchValue="All" name="Logging Errors & Warnings"> <listeners> <add name="Flat File Trace Listener" /> </listeners> </errors> </specialSources> </loggingConfiguration> </pre>	<pre> <add switchValue="All" name="General All"> <listeners> <add name="Rolling Flat File Trace Listener" /> </listeners> </add> </categorySources> <specialSources> <allEvents switchValue="All" name="All Events"> <listeners> <add name="Rolling Flat File Trace Listener" /> </listeners> </allEvents> <notProcessed switchValue="Off" name="Unprocessed Category" /> <errors switchValue="All" name="Errors"> <listeners> <add name="Rolling Flat File Trace Listener" /> </listeners> </errors> </specialSources> </loggingConfiguration> </pre>
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5. New Features and Enhancements

Mammo Drawing Tool

The technologist required a drawing tool for mammo studies to represent the existence and location of Moles, Pain, Palpable Masses, and Scars.

A new tab with the title Breast Diagram has been added to the Perform Exam and View/Edit screen. The Breast Diagram tab will only be visible for procedures with the “Birad Enabled Flag” set to “Y”.

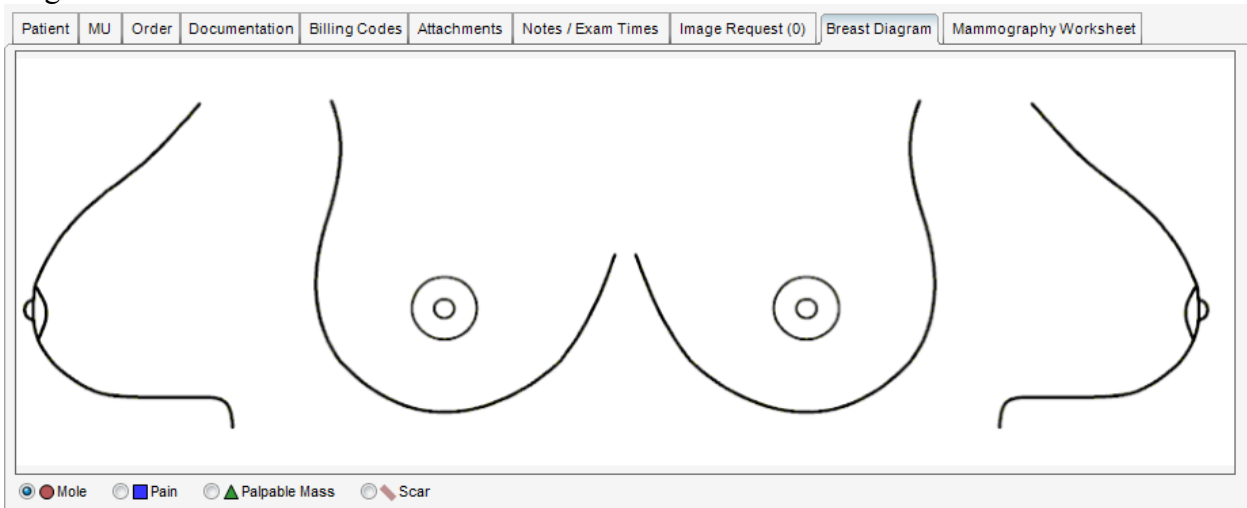


Figure 5.1 – Breast Diagram tab for female patients

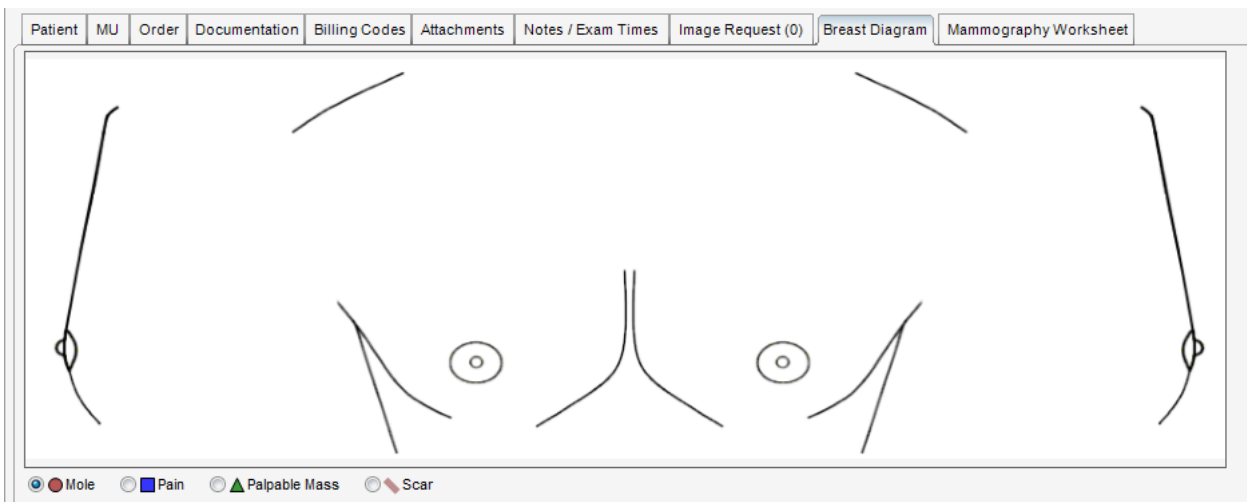


Figure 5.2 – Breast Diagram tab for male patients

The technologist can use the radio buttons along the bottom of the drawing tool to select a shape and then click on the image to place the shape.

Once placed, a circle (mole), square (pain), or triangle (palpable mass) can be moved by placing the mouse over the center of the shape and dragging the shape to a new location.

A cross style mouse pointer will appear if the user places the mouse pointer over the edge of a circle, square, or triangle and the user can then drag the mouse away from the shape's center to enlarge the shape, or closer to the center to make the shape smaller.

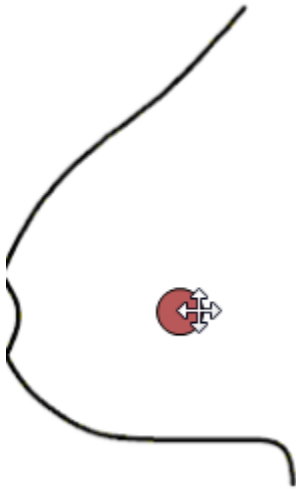


Figure 5.3 – Mouse pointer appearance for resizing shapes added to breast diagram

To delete a shape, the user can right click the center of the shape and then choose “Delete” from the context menu

To discard the shapes on the drawing, the user can right click the center of the shape and choose “Clear All”.

A breast drawing can be exported using right click -> Save Image and specifying a file name.

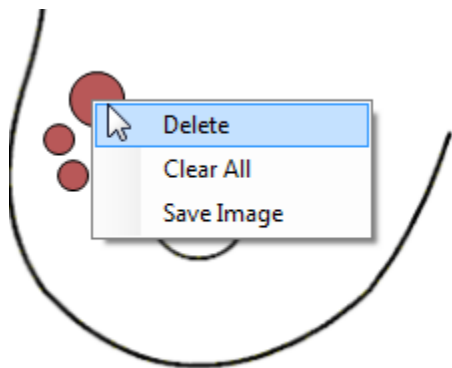


Figure 5.4 – Context menu options of Breast Diagram

The scar pen allows the user to draw a free form line across the breast drawing which will be decorated with cross hatches. The scar pen lines cannot be moved once placed so if changes are required, the user must right click the scar, choose delete, and then place a new scar in the appropriate place.

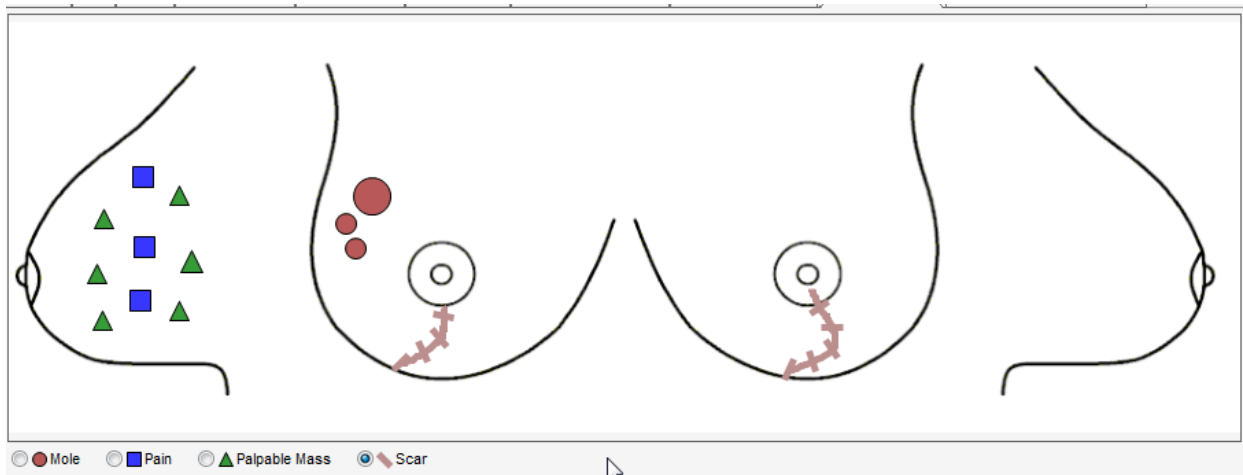


Figure 5.5 – Breast Diagram displaying all shapes that can be added

When saving the breast drawings to the database, we save information on the placement of each shape (type, size, and location on the drawing) and a rendered JPG of the background with the shapes on top. If a technologist creates a drawing, their changes can be edited at a later date from Perform Exam or ViewEdit (e.g. existing shapes can be deleted or resized, or the user can add more shapes).

Breast Drawing on the Reporting Windows

The breast drawing that is presented to the radiologist is a read only .jpg version of the drawing saved by the technologist.

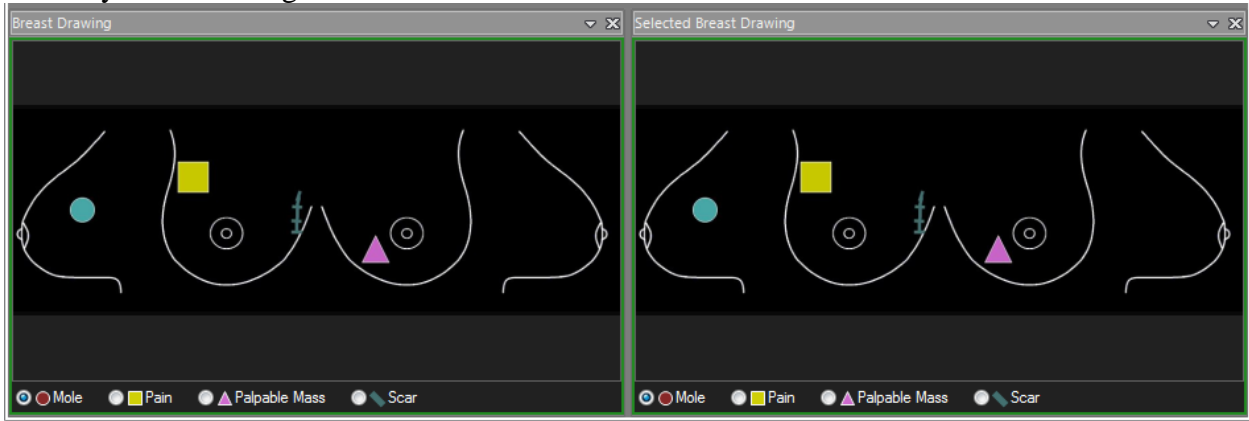


Figure 5.6 – Breast Drawing and Selected Breast Drawing data panes in reporting window

The radiologist can enable the Breast Drawing pane from the View menu when the Dictate screen is open on a BI-RADS enabled exam. The menu options are controlled by 2 new access strings titled “**View.BreastDrawing**” and “**View.SelectedBreastDrawing**” with defaults of Full.

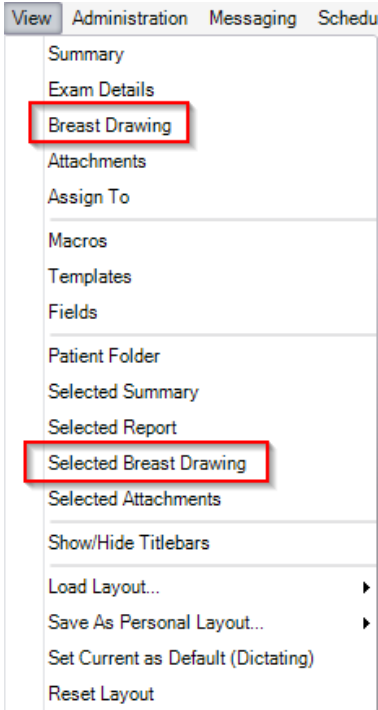


Figure 5.7 – View menu options to access breast drawing and selected breast drawing

Notes Field Added to Mammo Biopsy window

When performing a follow up from the ACR Category 0 or the ACR Category 4/5 follow up work lists, or accessing the View/Edit window on a mammo study, users can access the Mammo Biopsy window. In the biopsy window a new notes field has been added.

The screenshot displays the 'Mammo Biopsy' window, divided into two main sections: 'General' and 'Technical'. The 'General' section contains several fields and radio button options:

- Performing surgeon: Testa, Testling (dropdown)
- Biopsy location*: (empty text field with a red exclamation mark icon)
- Biopsy technique*: Stereotaxic Core Biopsy (dropdown)
- Date performed *: 01-16-2015 (calendar icon)
- Lesion classification: Benign, High Risk Benign, Malignant
- Breast side: Left, Both, Right
- Performed: Internal, External
- Additional surgery: Not Required, Required
- Follow up: Not required, Required
- Notes: A text area containing the text "This is the new notes field on the Mammo Biopsy window".

The 'Technical' section on the right lists various fields, including: Nipple involved, Tumor size, Nodes removed, Nodes positive, Estrogen receptor, Progesterone rece, Stage, S phase, Margin status, Pathology codes, and Differentiation.

Figure 5.8 – Mammo biopsy window with added notes field

User Friendly Names for Mammo Follow-Up Order Statuses

Mammo follow-up orders had 3 statuses of Callback, Short Term Follow Up and Invitation. These statuses will now be prefixed with Reminder with subtle changes to the order status names as well. They will now display as “Reminder – Callback”, “Reminder - Short Term” and “Reminder – Annual”.

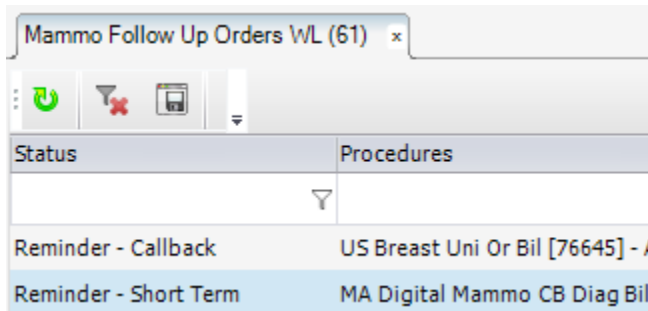


Figure 5.9 – New order status for Mammo Follow-Ups

The name changes will apply to the work lists, audit history and scheduling pop-ups.

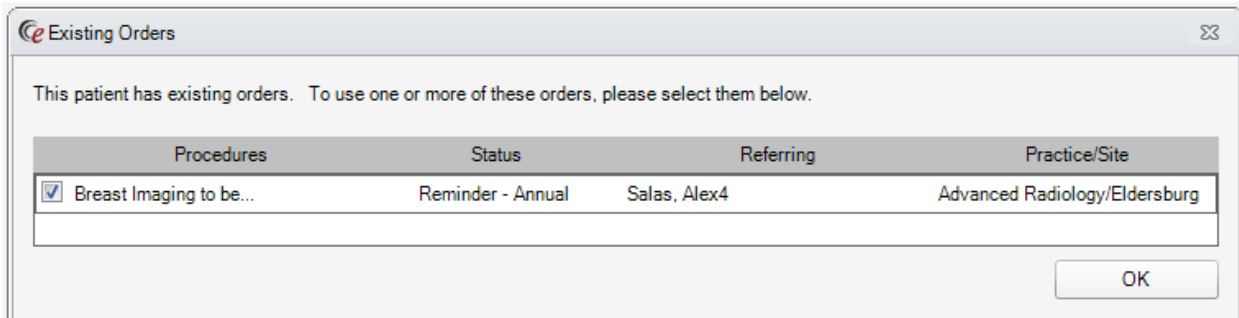


Figure 5.10 – Existing orders window

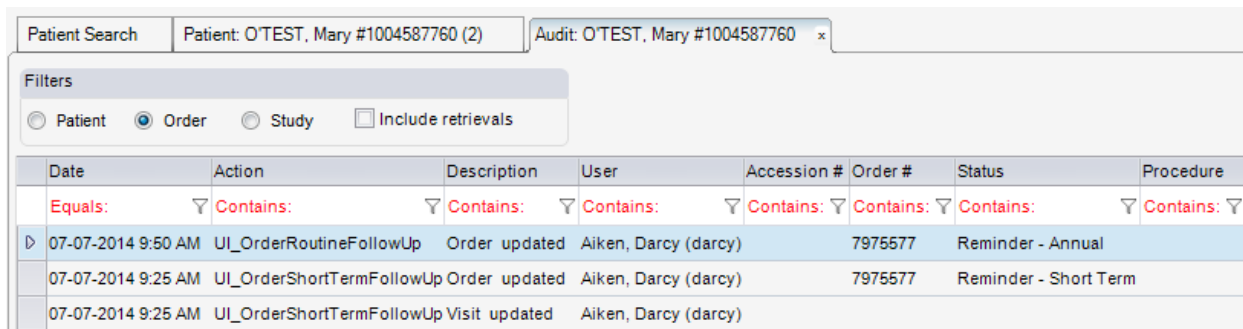


Figure 5.11 – Audit History window

The administration > Configure lookup tables will still be displaying the previous names. Example such as the MammoLetterConfig and SystemConfig values for default letters.

Lookup Tables - MammoLetterConfig x

Mammo Letter Config		
Practice	Site	Form Category
No filter: ▼	No filter: ▼	Contains:
Click here to add a new row		
(ALL)	(ALL)	Reminder Letter 1
(ALL)	(ALL)	Reminder Letter 2
(ALL)	(ALL)	Reminder Letter 3
(ALL)	(ALL)	Short Term Followup 1
(ALL)	(ALL)	Short Term Followup 2
(ALL)	(ALL)	Short Term Followup 3
(ALL)	(ALL)	Call Back Letter1

Figure 5.12 – Mammo letter config lookup will use the old names as well as other lookups

Mammography – Prior Report from Scheduling Window

In previous versions users accessing the prior report from within the scheduling window on mammo follow up studies would see the report open in a .pdf format. This was undesirable because text could not be copied from the report.

The viewing of the report has changed in Build 44. The user will now see the report open in a window that is similar to data nugget of the report accessed from the Patient Folder WL.

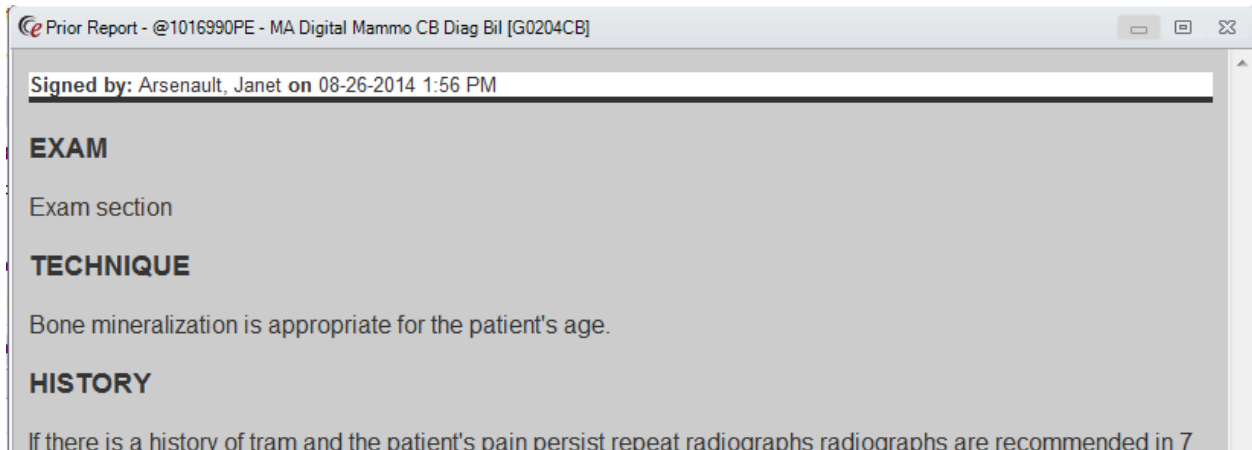


Figure 5.13 – Prior Report accessed from scheduling window

The Prior Report window will display the accession number, procedure name, laterality and procedure code in title bar.

Reporting – Mammography – Disable Scrolling Function on BI-RADs Picker

In the reporting window after a user chose a BI-RAD value from the list box, the control stayed active. The scroll wheel on the mouse has been deactivated from the BI-RAD list box. The user now must click and selected from the available options.

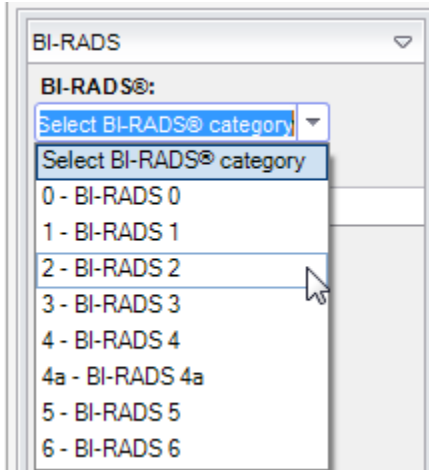


Figure 5.14 – Scrolling feature disabled on BI-RADs picker in Reporting window.

Reporting – PowerScribe 360 – Custom Exam Title and Technique

The Exam Title and Technique will now be able to be used with PowerScribe 360. Two new tables called “ProcedureExamTitle” and ProcedureTechnique” have been created and added to give users the ability to send a custom technique and exam title for the procedure being performed to PowerScribe 360 so that it can be populated automatically into the report. These new lookup tables live under the Procedure list of lookup tables where access to the lookup tables are controlled by access strings “**Config.LookupEditor.ProcedureExamTitle**” and “**Config.LookupEditor.ProcedureTechnique**” both with defaults of None.

Procedure Exam Title Code	Description	Last Updated
Contains:	Contains:	Contains:
Click here to add a new row		
EXAM-6488-Contrast	Exam Title for Contrast: {contrast}	01-14-2015 9:2...
EXAM-6488-laterality	Exam Title for Laterality: {laterality}	01-14-2015 9:2...
EXAM-6488-scanner	Exam Title for Scanner: {scanner}	01-14-2015 9:2...
ADV-JA6448	Exam Title for Feature 6488 {contrast}	01-12-2015 11:...
ADV-RA0001	Test March 6	03-06-2014 9:5...
ADV-CT27	ADV - CT Elbow Arthrogram	05-15-2013 2:1...
ADV-73070	ADV - XE Elbow 2 Views	05-15-2013 2:0...

Figure 5.15 – New lookup for ProcedureExamTitle

Procedure Technique Code	Description	Last Updated
Contains:	Contains:	Contains:
Click here to add a new row		
TECH-6488-contrast	Technique for Contrast: {contrast}	01-13-2015 4:
TECH-6488-laterality	Technique for Laterality: {laterality}	01-13-2015 4:
TECH-6488-scanner	Technique for Scanner: {scanner}	01-13-2015 4:

Figure 5.16 – New lookup for ProcedureTechnique

These fields will be coded within our custom field helper class in such a way that when the description contains {contrast}, {scanner} or {laterality} it will find those values and inject them into the field description. {scanner} looks at the report_description in the l_modality table for its value.

If the system currently has values in the ProcedureGeneralDescription lookup table these values will be automatically moved to the ProcedureExamTitle lookup table, but will also still remain the ProcedureGeneralDescription lookup table.

Once the ProcedureExamTitle and ProcedureTechnique have been added they will then need to be referenced on the procedure code.

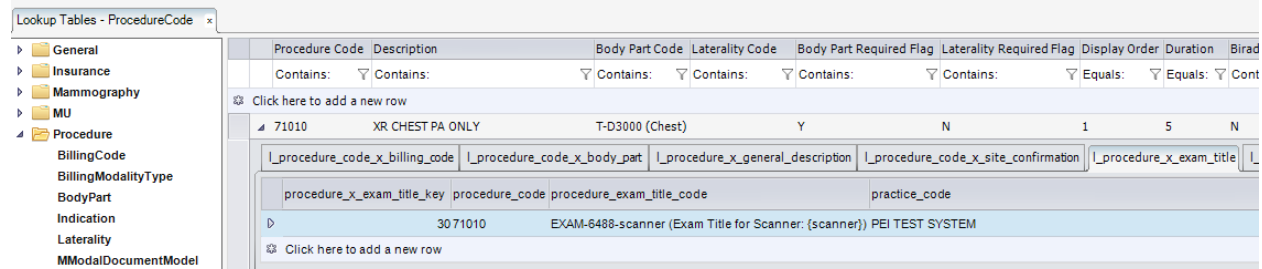


Figure 5.17 – Adding ProcedureExamTitle to procedure code

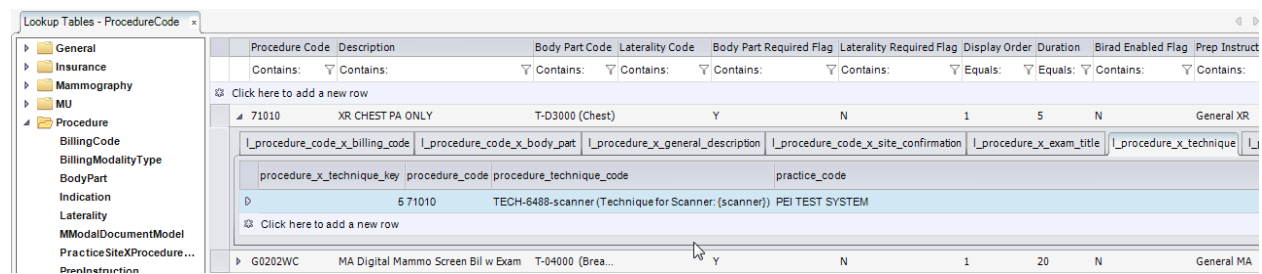


Figure 5.18 – Adding ProcedureTechnique to procedure code

Once the procedure exam title and procedure technique have been added to the procedure code To enable this feature a ris admin would have to populate the new tables with exam titles and techniques and link those to procedure codes. Then mirth will take care of sending these over to PowerScribe 360 once it's run some preprocessing on them to convert the inner fields with actual values ({contrast}, {scanner} or {laterality})

1. Make sure user has access to permission strings
 - a. Config.LookupEditor.ProcedureExamTitle
 - b. Config.LookupEditor.ProcedureTechnique
2. Open Configuration screen and open either ProcedureExamTitle or ProcedureTechnique lookup editor in the Procedure folder
 - a. Add entries to the table as required
3. Open the ProcedureCode lookup editor
 - a. Find the procedure code to link to exam title or technique
 - b. Expand the row using the little arrow on the left of the row
 - c. Find the tab for either l_procedure_exam_title or l_procedure_technique
 - d. Add rows here to link the procedure code to the exam title or technique
4. Open the macro editor and create fields that are custom fields and link them to either one of these new fields.

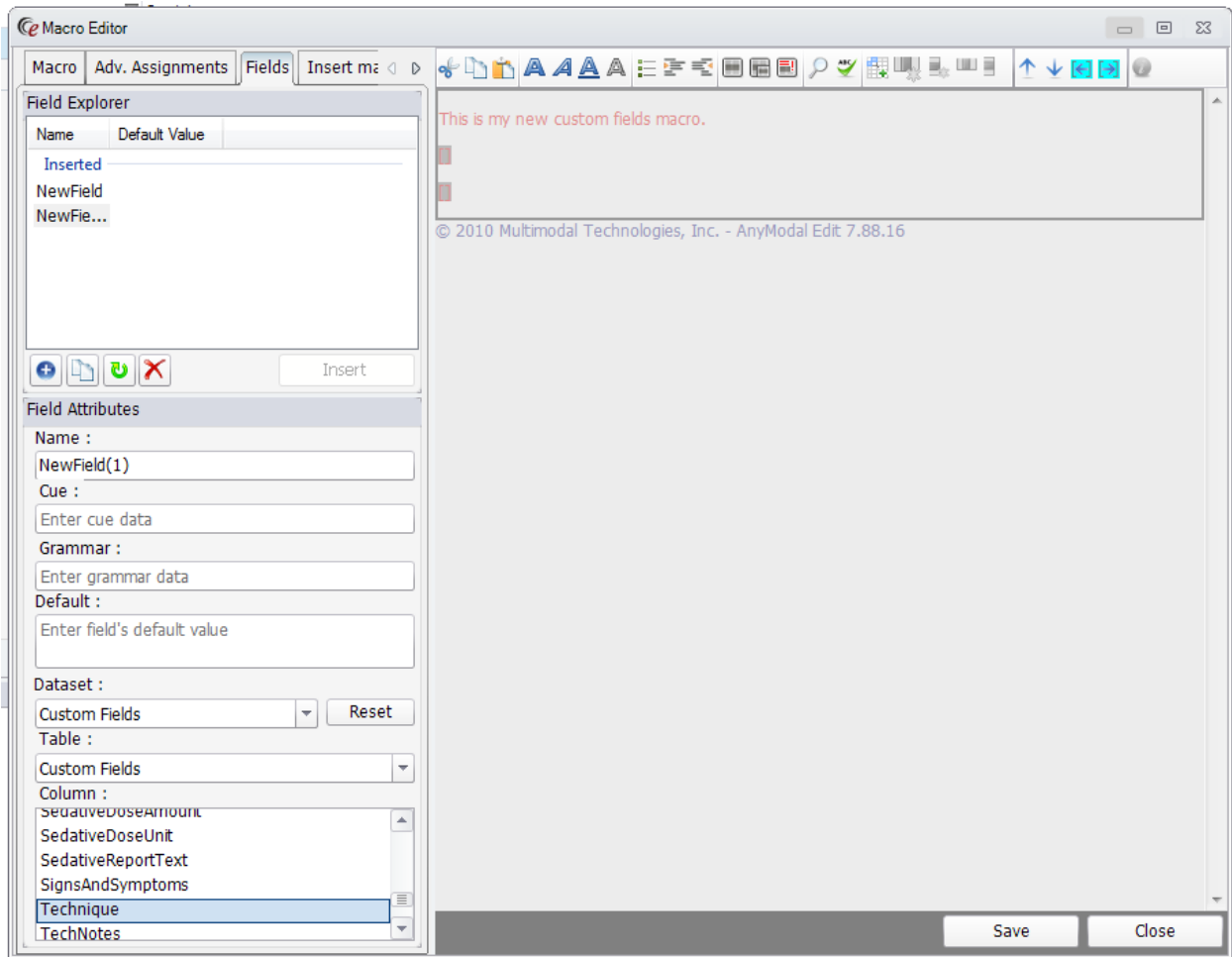


Figure 5.19 – Adding ProcedureTechnique and ProcedureExamTitle to Macros and Templates

Configurable Auto Close Delay for Work List Notifications

There is a new spin control on the user preferences screen. This is located under the feedback section of the radiologist tab.

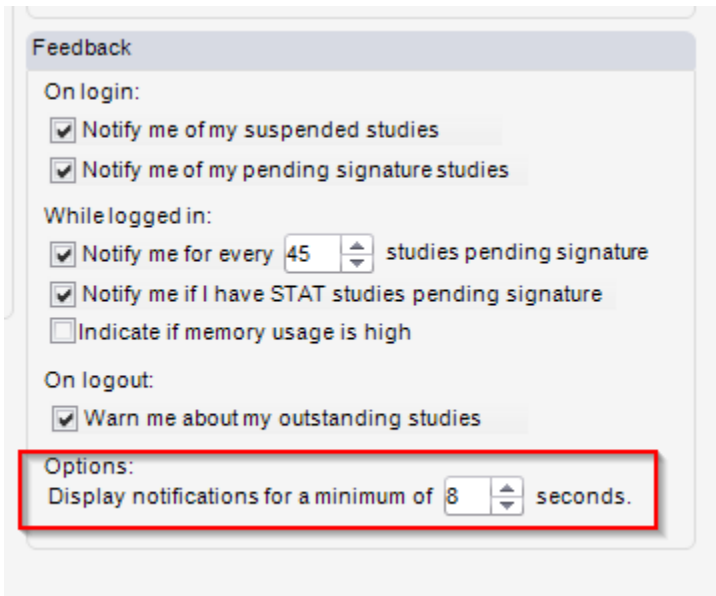


Figure 5.20 – New User Preference

“Display notifications for a minimum of ____ seconds” - Is there the user enters their preferred value.

The user can select between a range of 3 - 60 seconds. The value selected will be the amount of seconds the notification will display on the screen before it begins to fade out.

The default setting is 8 seconds. This matches the systems previous default functionality.

Ability to Change Status Tentatively Signed to Report Drafted

Users will now be able to change an exam with a status of Signed* to Report Drafted. The context menu option of Change Status to Report Drafted has been added to the Signed, Pending Release WL, All Signed, Pending Release WL, All Signed Pending QA WL and All Pending QA WL.

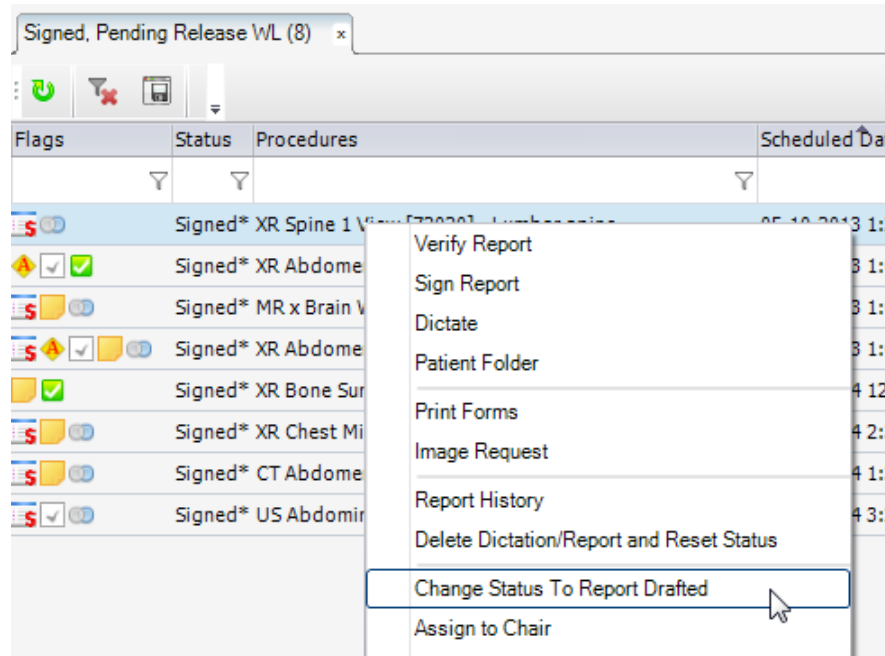


Figure 5.21 – Change Status To Report Drafted context menu item

The context menu option of Change Status To Report Drafted has been added to the sub menu of the context menu item of Change Status to... of the Patient Folder WL.

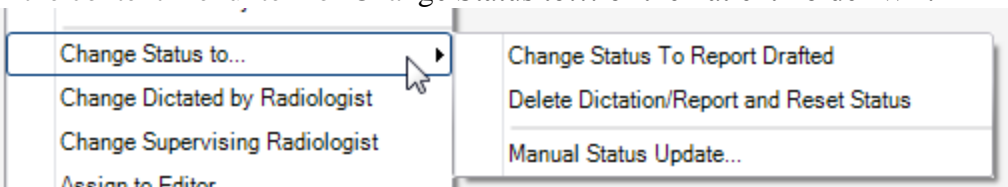


Figure 5.22 – Context menu item from Patient Folder WL

We set the tentatively signed by user id, tentatively signed date and the automatic sign date to null for the study being altered.

Reporting - Peer Review

The look, feel and usage of Peer Review has changed in Build 44. Previous versions would allow users to Peer Review a study; add a value and notes which would then go to the All Peer Review Pending Action WL. This is still true today. Once it is on this work list however, the action to complete has changed.

From the All Peer Review Pending Action WL a user will 2 Peer Review action options. The first is to Review the study and the other is to Mark as Completed. Selecting the Mark as Complete will remove the study from the work list as to “mark as complete”. The Review option will open the study in a Peer Review QA tab. This new tab will display the report in a read only HTML view similar to viewing Prior Reports.

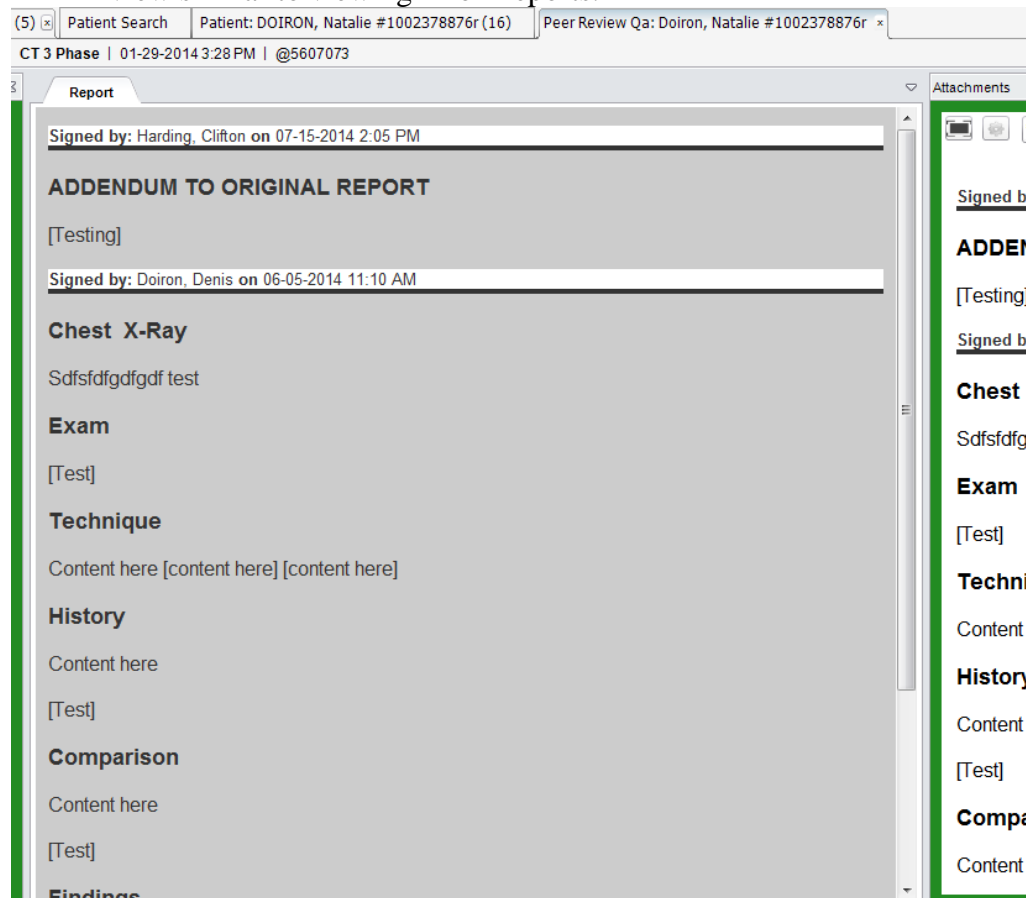


Figure 5.23 – Peer Review QA window displaying read only version of report

Reporting – Peer Review – Review and Override Peer Reviews

When reviewing a study from the All Peer Review Pending Action WL the user will also see the Peer Review data pane, which is the same as the Peer Review window the user would have been presented with in prior versions.

If the user agrees with the Peer Review they can select the Complete button and move on to the next study or close the Peer Review QA window. If there is a discrepancy and the reviewer wants “reject” the peer review they can do so in the Peer Review data pane. The user will select the “I disagree with this review” check box which will enable the Peer Review controls.

Peer Review

My peer review of this report is:

- 1 - Concur
- 2 - Discrepancy - understandable
- 3 - Discrepancy - should have been made
- 4 - Discrepancy - misinterpretation

Notes:

Enter notes

Likely to be clinically significant

1 - Concur with interpretation

I disagree with this review

Figure 5.24 – Peer Review control from Peer Review QA window

The radiologist will get to choose a score, and enter notes very much like he would if he was doing a normal peer review. At any time he can revert back and uncheck the box. While the box

is unchecked, any information entered in the peer review box will be ignored and will not be saved. Only when the box is checked, and the information is visible will it get saved.

Also the Complete button on the Peer Review QA window will be disabled. It will stay disabled until the criteria for the controls are met, meaning there must be notes entered if the score meets a predefined criteria as it would in the normal peer review control, which is based on the “**PeerReviewScoreToStartRequiringNotes**” setting. So whether the score meets this setting, notes will or will not be required, and once the peer review details passes validation, the complete button will be enable.

This control can also exist for transcriptions, since some sites might have them enter there peer reviews into another system. In this case they should not have the option to disagree with the peer review, the access string that controls this is “**Clinical.AllowPeerReviewChanges**”, this will hide the panel that contains the “I disagree with this review” checkbox.

Reporting – Peer Review – Request Addendum

Studies that have been peer reviewed can have an addendum requested from the All Peer Review Pending Action WL context menu. Alternatively if the study has an addendum request the context menu will have the option to Cancel Addendum Request.

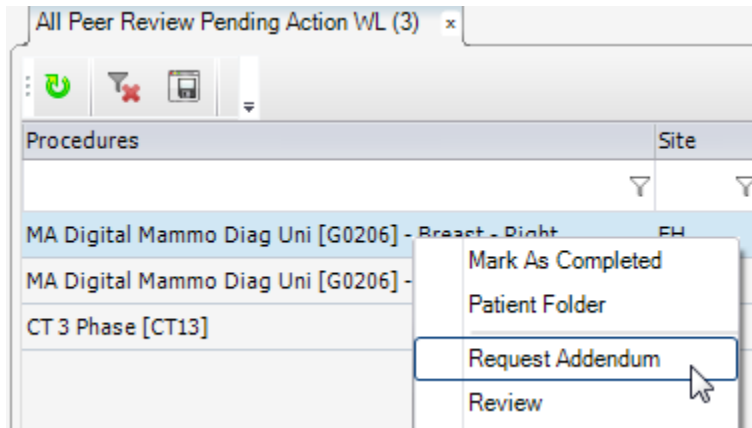


Figure 5.25 – Request Addendum from All Peer Review Pending Action WL

They can also have an addendum requested from within the Peer Review QA window. Another new data pane has been added with 2 options, Request Addendum and Create Addendum. Create Addendum will be discussed in the next feature description.

Notes are always required on addendum requests, so the button will only enable once notes are entered. The user also gets to choose who the addendum request should be assigned to, by default it will be the signing radiologist.

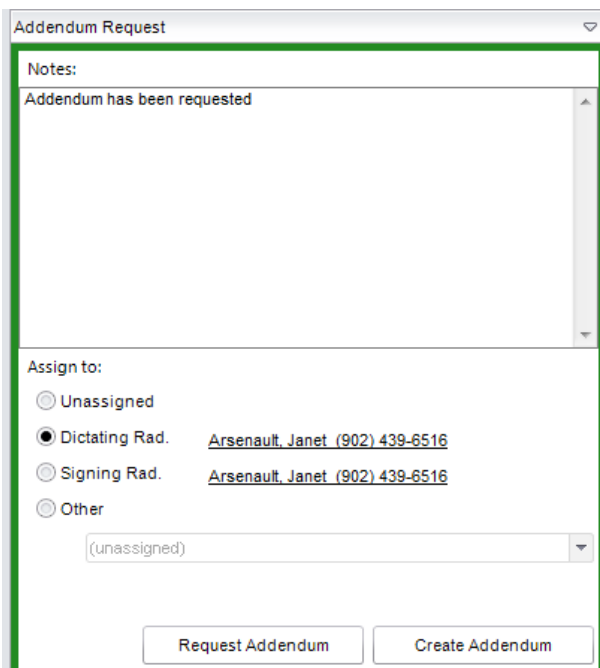


Figure 5.26 – Request Addendum from within Peer Review QA window

When the user clicks the “Request Addendum” button, the addendum request will be made immediately, without closing the screen, or completing the peer review. It is a separate action, run as if it was run from the worklist. When the user does this the screen will refresh to show that an addendum was requested.

In this mode it will show the notes for the addendum request, who it is assigned to and a button to cancel it. This is also the way it will open up on a peer review that has already had a addendum requested.

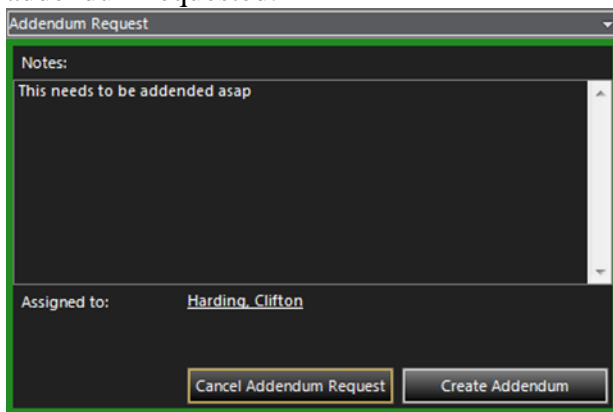


Figure 5.27 – Ability to Cancel Addendum Request from Peer Review QA window

Reporting – Peer Review – Create Addendum from Peer Review Window

As seen in the previous feature, the user will have the ability to create an addendum immediately from within the Peer Review QA window. The button to create an addendum is found in the Addendum Request data pane.

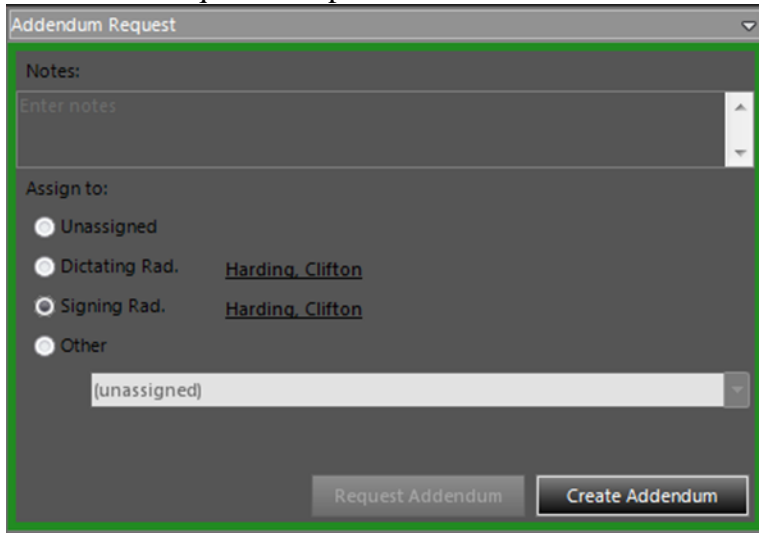


Figure 5.28 – Create Addendum from Peer Review QA window

When it is clicked, it will get disabled, and it will open a dictate screen in another tab, and leave the Peer Review screen as is. When the radiologist closed the create addendum screen, assuming he hasn't been bouncing back and forth between tabs, it will return him to the Peer Review screen where he can complete it and move on to the next one.

Reporting – Assign Radiologist Picker Redesign

We redesigned the existing user picker control and provided all existing functionality while adding some desirable functionality.

1. If you already have an assignment we will display this at the top of the dialog in the currently assigned label.
2. The OK button will save the selected assignment. It will enable when a valid item is selected.
3. We now inherit from the popup dialog base class now and display the icon on the form and in the windows tool bar.
4. We added functionality to save super rad as your preference. Previously if you want to change it you would have to open user preferences also. This option is only available when selecting a supervising rad. Not available for example when changing dictating rad or super rad in the summary screen.
5. When showing all we will load all practices and associated radiologists for each. If a radiologist is associated to more than one practice we will list that user in each practice.
6. Now using Telerik controls entirely.
7. When opening to select super rad users will first get the list of radiologists for their currently selected practice. Show all will show all practices, and only practices, they are associated with. Previously users could see a list of all practices even if they were not associated with them.

Contrast, Sedation and CT Dosage Tracking

Contrast

The ability to add contrast and sedation values and track CT dosage has been added to the Documentation tab of the Technologists Perform Exam window and also available on the same tab of the View/Edit and Billing Exception windows.

The screenshot displays the 'Documentation' tab for a 'Perform Exam: BOONES, Barbra #25098PE' window. The 'Tech Notes' section is active, showing fields for 'Primary tech', 'Assisting tech 1', and 'Assisting tech 2'. Below this, the 'Procedure' section includes 'Scanner' (CT1EL), 'Performed procedure' (CT Chest W & Abdomen W/Wo (CT42)), and 'Body part' (Chest). The 'Associated Radiologists' section has fields for 'Assigned radiologist', 'Performing radiologist', and 'Assistant radiologist'. The 'Signs & Symptoms' section is empty. The 'Contrast' and 'Sedation' sections are highlighted with a red box. The 'Contrast' table has columns for Name, Amount, Unit, and Vials, with one entry for Hypaque 50 (300 mL, 1 vial). The 'Sedation' table has columns for Name, Amount, and Unit, with one entry for Ativan (200 mg, 1 test). The 'CT dose (mGy)' field is located above the 'Contrast' table. 'Add' and 'Delete' buttons are present at the bottom of both tables.

Figure 5.29 – Contrast and Sedation fields and CT Dosage field

Contrast is tracked with a grid control that captures the contrast type, amount, units and vials. The controls to capture this data is in their own section on the screen and will be required for procedure codes that are flagged as requiring contrast.

The contrast grid will have records added and removed via Add and Delete buttons.

To add a Contrast to the grid, the user will click the Add button. Upon clicking, the user is presented with a pop up input box that contains a drop down list of available contrasts. The list will only contain available contrasts that are not already present in the grid.

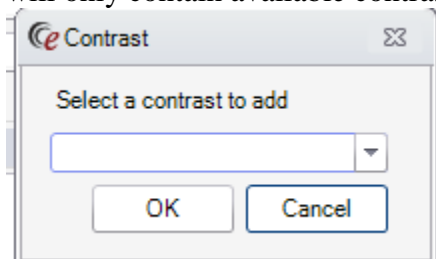


Figure 5.30 – Add contrast

Since inventory is not managed, the amount/dosage may not directly correlate to a vial size. Example: Site A may have small 10cc vials of Contrast XYZ while Site B may have 50 cc vials of Contrast XYZ. The default dosage may be 30ccs. At Site A we would have used 3 vials but Site B would have used just 1.

The value in the Vials column can have a direct relation to the billing codes. The system config setting of “**EnableContrastBillingRelation**” is true (true is the default), the values in the Vials column will populate in the Units column on the Billing Codes tab if the Billing Code has the Contrast Code assigned. As billing codes are billed based on unit count (in the case of contrast a vial is a unit) the system will make sure these two values match up. If you change one of these values the other will update. Think of vials and units as tied together or even one in the same. Also when “EnableContrastBillingRelation” is true, removing the contrast code will remove the associated billing code and vice versa.

If the relation is not enabled, the vials column is manually entered and does not affect anything else.

The contrast can also be pre-populated into the grid. The Billing Code can have a contrast type assigned. The Procedure Code will then have the Billing Code assigned to it. When performing exam on this procedure the contrast and its default values will pre-populate the Contrast grid.

Contrast Code	Display Order	Description	Default Dose Amount	Default Units	Report Text	Practice Code	Ndc Code	Max Dose	Last Updated	Active
Click here to add a new row										
Code 5	1	Hexabrix	30	g	grams of Hexabrix	Advanced Radiology	555	500	01-21-2015 1:5..	Y
Code 6	6	Omnipaque 350	35	mcg	Omnipaque is ionic	Advanced Radiology	350		01-19-2015 1:4..	Y
code4	4	Isopaque 370	75	cc	Isopaque is non ionic	Advanced Radiology	1221	300	01-19-2015 1:4..	Y
test2	3	Hypaque 50	300	mL	Iodine test	Advanced Radiology	7788	600	01-19-2015 1:4..	Y
test	2	First optioctest	6	test	test 123	Advanced Radiology	321	10	01-06-2015 11:..	Y
SIL	1	SIL contrast	10	DOS1	SIL contrast	Advanced Radiology	321	20	01-06-2015 11:..	Y

Figure 5.31 – Contrast lookup table

Contrast values will come from the Contrast lookup table. This table is controlled by access string “**Config.LookupEditor.Contrast**” that has a default of None. As mentioned the Contrast Code can have a default dose amount, default units and be associated to a practice. The description is what the user will see in the data windows. Report Text will be used when a field is mapped to a diagnostic report template. The Ndc code column will contain the National Drug Code value and the Max Dose column will provide an alert if this threshold is met.

Contrast data will be accessible to the radiologist report via fields. The value in the Report Text field in the screen capture above will be used in the report.

There is a master “ContrastField” field, which will concatenate the contrast record(s) for the study into a sentence. Also there are options to manually pull the contrast data items one at a time. However this manual option only pulls the first contrast record for each data item.

Example of ContrastField :: *Patient was administered 4g of Contrast Type A, 47cc of Contrast Brand X, 250ml of Contrast Type 5 and 8g of Contrast Brand XYZ.*

In this example, we are looking at “Patient was administered” + dose + unit + “of” + “contrast name”. This pattern repeats for each record. Contrast data will be packaged and sent to third party integrated applications as needed through configuration.

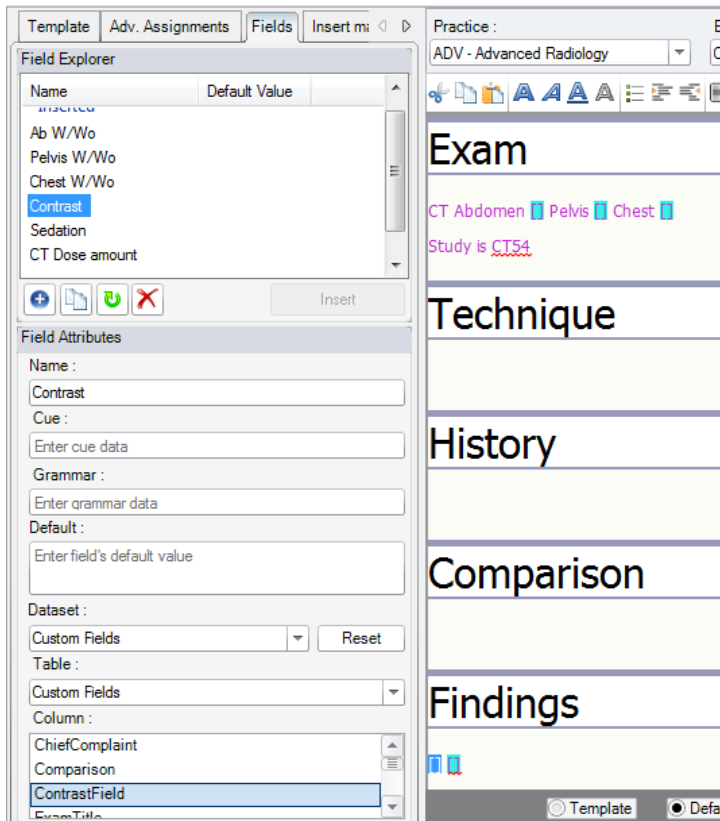


Figure 5.32 – Adding Contrast field to template

Sedation

Similar to contrast tracking, there will be defaults identified to be loaded for each sedative, amount administered and unit of measure. Sedatives will be associated to a practice.

The sedative grid will have records added and removed via Add and Delete buttons.

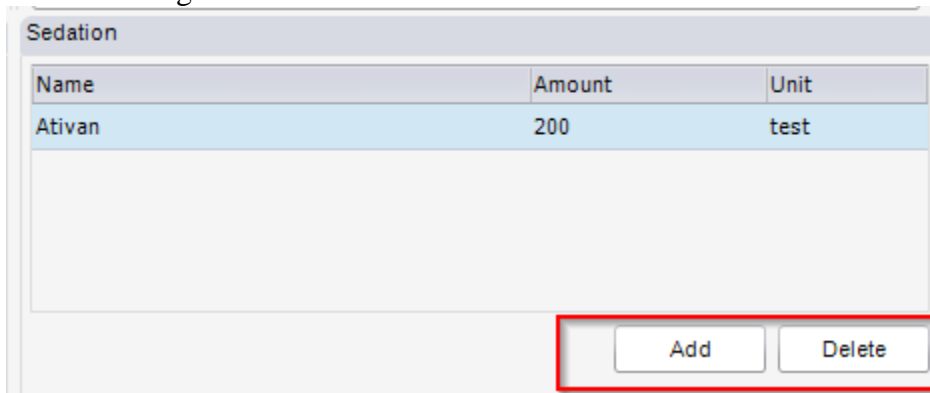


Figure 5.33 – Sedation grid

Selecting the Add button will open the Add Sedation window. The list of available option will come from the Sedative lookup and the options available will be those that are not already added to the grid.

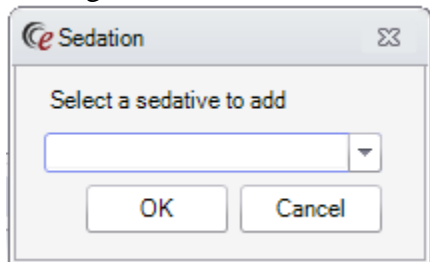


Figure 5.34 – Add Sedation grid

The new lookup table called Sedative is controlled by access string “**Config.LookupEditor.Sedative**” that has a default of None.

Sedative Code	Display Order	Description	Sedation Type Code	Default Dose Amount	Default Units	Report Text	Practice Code	Last Updated	Active
Click here to add a new row									
SedativeCode2	1	Ativan	T3 (Test 3)	200	test	Administered to patient during procedure	Advanced Radiology	01-12-2015 10:..	Y
SED1	1	SED1 desc	T1 (Test 1)	1232	D051	Enter text to be displayed in diagnostic report	Advanced Radiology	12-09-2014 10:..	Y

Figure 5.35 – Sedative lookup table

Sedative’s will be associated to a practice. The Description is what the user will see in the grid of the Perform Exam, View\Edit and Billing Exception windows. The default dose amount will auto populate the Amount column and the Default Units value will auto populate the Unit field. The Report Text field can be mapped to Template\Macros. This column allows for a 2nd description of the sedative for the intent of being included in the radiologists report (in case it is different than the main description which the tech sees in their screen).

There is a master “SedativeField” field, which will concatenate the sedation record(s) for the study into a sentence. Also there are options to manually pull the sedative data items one at a time. However this manual option only pulls the first contrast record for each data item.

Example of SedativeField:: *Patient was administered 4g of Sedative Type A, 47cc of Sedative Brand X, 250ml of Sedative Type 5 and 8g of Sedative Brand XYZ.*

In this example, we are looking at “Patient was administered” + dose + unit + “of” + “sedative name”. This pattern repeats for each record.

Sedation data will be packaged and sent to third party integrated applications as needed through configuration.

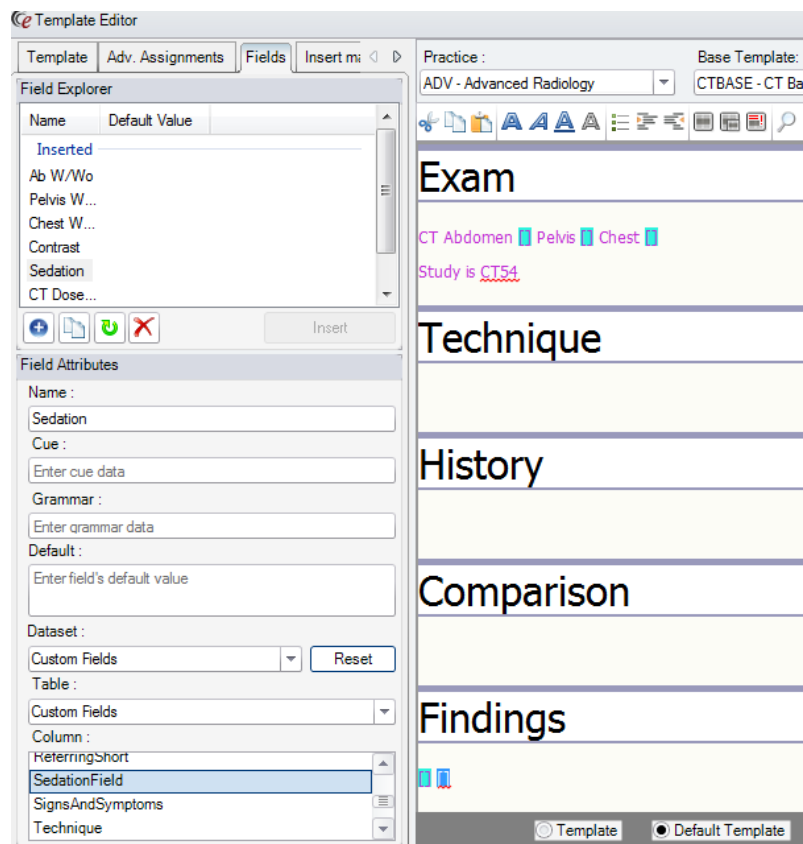


Figure 5.36 – SedationField for Template\Macros

In this example, we are looking at “Patient was administered” + dose + unit + “of” + “sedative name”. This pattern repeats for each record. Sedation data will be packaged and sent to third party integrated applications as needed through configuration.

In both the Contrast and Sedative lookup tables, the values available in the Default Units column will come from the lookup table Dosage Unit. Access to this lookup table is controlled by “**Config.LookupEditor.DosageUnit**” that has a default of None. The table will capture the Dosage Unit Code and Description, along with Display Order, Last Updated and Active columns.

<ul style="list-style-type: none"> General AbortedStudyReason AccessString AddressDescription AlertConfiguration ContactMethod Contrast CountryState CreditCardType DeliveryMethod DosageUnit EducationLevel 	<table border="1"> <thead> <tr> <th>DosageUnitCode</th> <th>Display Order</th> <th>Description</th> <th>Last Updated</th> <th>Active</th> </tr> </thead> <tbody> <tr> <td>Contains:</td> <td>Equals:</td> <td>Contains:</td> <td>Equals:</td> <td>Contains:</td> </tr> <tr> <td colspan="5">Click here to add a new row</td> </tr> <tr> <td>Dose5</td> <td>1</td> <td>g</td> <td>01-19-2015 1:35 PM</td> <td>Y</td> </tr> <tr> <td>Dose6</td> <td>6</td> <td>mcg</td> <td>01-19-2015 1:35 PM</td> <td>Y</td> </tr> <tr> <td>Dose7</td> <td>7</td> <td>mg</td> <td>01-19-2015 1:35 PM</td> <td>Y</td> </tr> <tr> <td>Dose4</td> <td>4</td> <td>cc</td> <td>01-16-2015 12:54 PM</td> <td>Y</td> </tr> <tr> <td>DosageUnit3</td> <td>3</td> <td>mL</td> <td>01-12-2015 10:36 AM</td> <td>Y</td> </tr> <tr> <td>test2</td> <td>1</td> <td>test</td> <td>12-16-2014 10:34 AM</td> <td>Y</td> </tr> <tr> <td>DOS1</td> <td>1</td> <td>DOS1</td> <td>12-09-2014 10:33 AM</td> <td>Y</td> </tr> </tbody> </table>	DosageUnitCode	Display Order	Description	Last Updated	Active	Contains:	Equals:	Contains:	Equals:	Contains:	Click here to add a new row					Dose5	1	g	01-19-2015 1:35 PM	Y	Dose6	6	mcg	01-19-2015 1:35 PM	Y	Dose7	7	mg	01-19-2015 1:35 PM	Y	Dose4	4	cc	01-16-2015 12:54 PM	Y	DosageUnit3	3	mL	01-12-2015 10:36 AM	Y	test2	1	test	12-16-2014 10:34 AM	Y	DOS1	1	DOS1	12-09-2014 10:33 AM	Y
DosageUnitCode	Display Order	Description	Last Updated	Active																																															
Contains:	Equals:	Contains:	Equals:	Contains:																																															
Click here to add a new row																																																			
Dose5	1	g	01-19-2015 1:35 PM	Y																																															
Dose6	6	mcg	01-19-2015 1:35 PM	Y																																															
Dose7	7	mg	01-19-2015 1:35 PM	Y																																															
Dose4	4	cc	01-16-2015 12:54 PM	Y																																															
DosageUnit3	3	mL	01-12-2015 10:36 AM	Y																																															
test2	1	test	12-16-2014 10:34 AM	Y																																															
DOS1	1	DOS1	12-09-2014 10:33 AM	Y																																															

Figure 5.37 – Dosage Unit lookup table

CT Dose

In the Perform Exam window, the View/Edit window and the Billing Exception window on the Documentation tab, a new field called CT dose (mGy) has been added.

CT dose (mGy)

Contrast

Name	Amount	Unit
Omipaque 350	5000	mGy

Figure 5.38 – CT dose field on documentation tab

Dosage tracking is enabled at the practice level and will be performed by entering the dosage amount into a text field on the tech screen. There would be no default values set for this. The tech will have to manually enter the amount.

Miscellaneous | PACS and Reporting | Peer Review | Portal | Radar

Appearance

Title color Gradient 13, 192, 52 ...

Dashboard primary color 7, 195, 44 ...

Other

Track CPOE pathology requests in Lab WL for days

Eligible customer ID

Chair workflow enabled **CT dosage tracking enabled**

MU Required

Figure 5.39 – Enabling CT dosage tracking for Practice

To determine what is a CT, there was a new system table added, s_dicom_modality_type. This table contains a list of dicom supported modality types:

<http://www.dicomlibrary.com/dicom/modality/>

These codes can be mapped to the procedure code table. If CT dosage tracking is enabled we check if the procedure code has that procedures dicom_modality_type set to ‘CT’, if so, then we require the tracking to be entered.

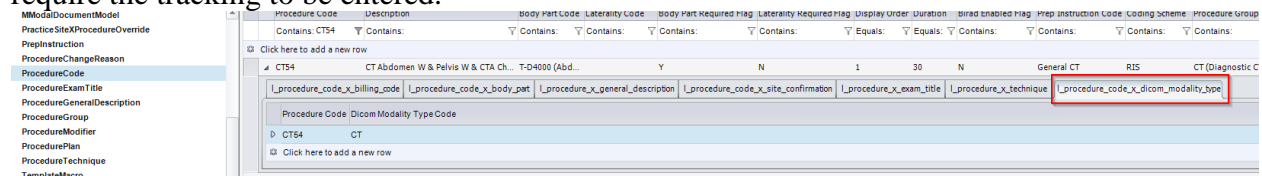


Figure 5.40 – Dicom Modality Type set on a procedure code

CT dosage data will be accessible in the radiologist report via fields. A system would be configured to have report template contain the ct_dose_amount field. Alternatively a radiologist could have macros created that use the field and they can then choose to include the data at will or leave it omitted.

CT dosage data will be packaged and sent to third party integrated applications as needed.

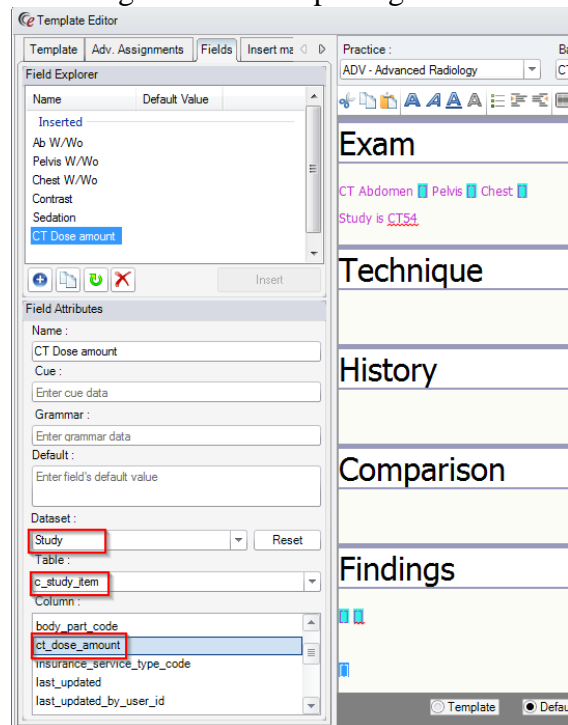


Figure 5.41 – Adding CT Dosage amount to Template\Macros

Send Copy of Diagnostic Report to Patient on Request

An option to send the diagnostic report to patient has been added in B44. First we have added a check box on the Order tab in the Referring Details section of the window. Selecting this check box will create a distribution print job on the Document Distribution WL when the report is signed. This checkbox will also be available for New Outside Reads.

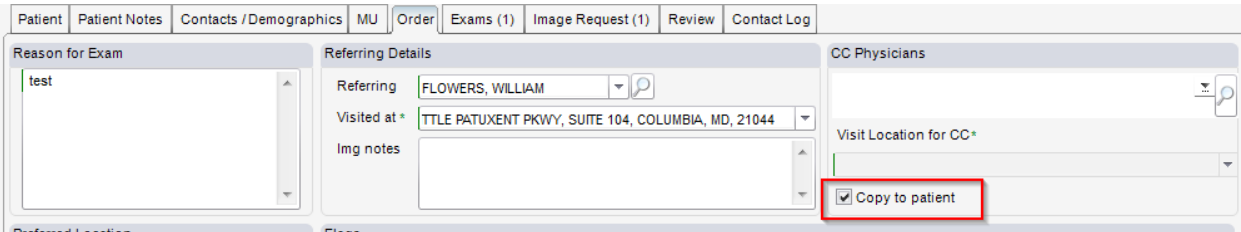


Figure 5.42 – Copy to patient check box on the Order tab

From the Document Distribution WL, the Distribution History By Date WL and Distribution History WL access from the Patient Folder WL will have the option to edit a job and select Patient

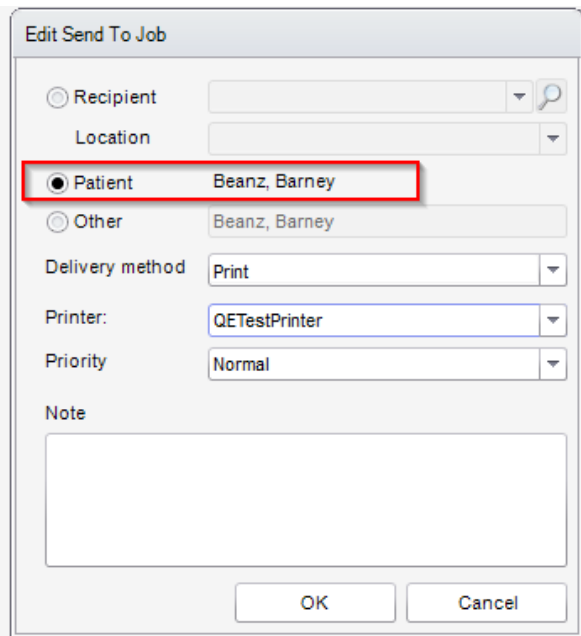


Figure 5.43 – Edit existing distribution job

Also from the Distribution History By Date WL and Distribution History WL access from the Patient Folder WL a user can create a new job and once again the Patient option can be selected to send report to patient.

The Patient Folder WL also has a context menu option of Send Report. This again will open the window displayed in Figure 5.43 and once again Patient is an option. This is also the same for the Send to button that is available from the Reporting windows such as the Dictate window, the Sign Reports window, etc...

When a distribution job is created for a patient, a new column on the Distribution WL titled Patient Copy will be populated with a check mark. This column also exists on the Distribution History By Date WL and Distribution History WL

Accession #	Available	Created on	Manual Job Flag	Patient Copy	Priority	Status	Document Type	BI-RADS@	Delivery Method	Deliver To	Destination
1069313	09-11-2014 4:08 PM	09-11-2014 4:08 PM		✓	1	Pending	INTERPRETATION		Print	Other test	KONICA MI
1069313	09-11-2014 4:44 PM	09-11-2014 4:44 PM	✓	✓	1	Pending	INTERPRETATION		Print	Other test	KONICA MI
1069309	09-12-2014 1:13 PM	09-12-2014 1:13 PM	✓	✓	0	Pending	INTERPRETATION		Print		KONICA MI
1069308	09-12-2014 1:16 PM	09-12-2014 1:16 PM	✓	✓	0	Pending	INTERPRETATION		Print		KONICA MI
1069308	09-12-2014 1:24 PM	09-12-2014 1:24 PM	✓	✓	0	Pending	INTERPRETATION		Print		KONICA MI
1069308	09-12-2014 1:25 PM	09-12-2014 1:25 PM	✓	✓	0	Pending	INTERPRETATION		Print		KONICA MI
1069308	09-12-2014 1:54 PM	09-12-2014 1:54 PM	✓	✓	0	Pending	INTERPRETATION		Print		KONICA MI
1069308	09-12-2014 1:58 PM	09-12-2014 1:58 PM	✓	✓	0	Pending	INTERPRETATION		Print		KONICA MI
1069309	09-12-2014 1:58 PM	09-12-2014 1:58 PM	✓	✓	0	Pending	INTERPRETATION		Print		KONICA MI
1069313	09-12-2014 1:58 PM	09-12-2014 1:58 PM	✓	✓	0	Pending	INTERPRETATION		Print		KONICA MI
1069313	09-10-2014 12:51 PM	09-10-2014 12:01 PM			0	Pending	INTERPRETATION		Print	Aiken, Darcy J	Lexmark X7
5611763	09-10-2014 1:16 PM	09-10-2014 1:16 PM			0	Hold	LAYLETTER	1	Print	Simmons, Sarah Grace	KONICA MI
5611763	09-10-2014 1:16 PM	09-10-2014 1:16 PM			1	Pending	INTERPRETATION		Fav	Power Tan	

Figure 5.44 – Patient Copy column on the Distribution WL

The diagnostic template(s) will require changes to accommodate this feature. To implement the logic for adding patient “send to” information to the template see document eRAD RIS Build 44 Upgrade Instructions.docx

STAT Read changes

The ‘stat read’ flag had many different labels and icons. We have made some changes to have one consistent format. ‘STAT Read’ and ‘STAT read’ (where sentence case is required) and the icon will be a red triangle with an exclamation mark.

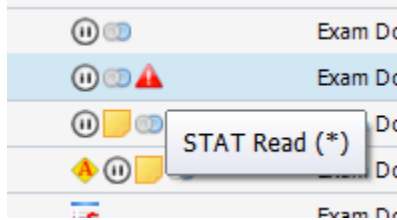


Figure 5.44 – STAT Read flag icon

The context menu to add flag has been changed to be “Set STAT Read” and “Remove STAT Read” when it has been already set.

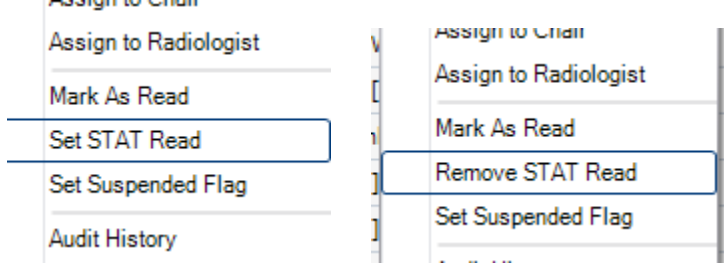


Figure 5.45 – Context menu items to set and remove STAT read flag

The Column title has also been updated

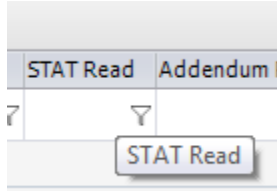


Figure 5.46 – STAT Read work list column title

Finally, when opening a study that has the STAT Read flag we have changed the verbal notification to say STAT Read as opposed to STAT Exam.

PACS Server Override From PACS Menu

This was originally introduced in patch build 43.0.6. Adding as a refresher. The menu item of PACS Server Override located under the PACS menu is controlled by the access string “**PACSIntegration.Override**” with a default access level of Full. We have given it full access so users who have access to the Menu.PACS access string which has a default of None will be given automatic access to it.

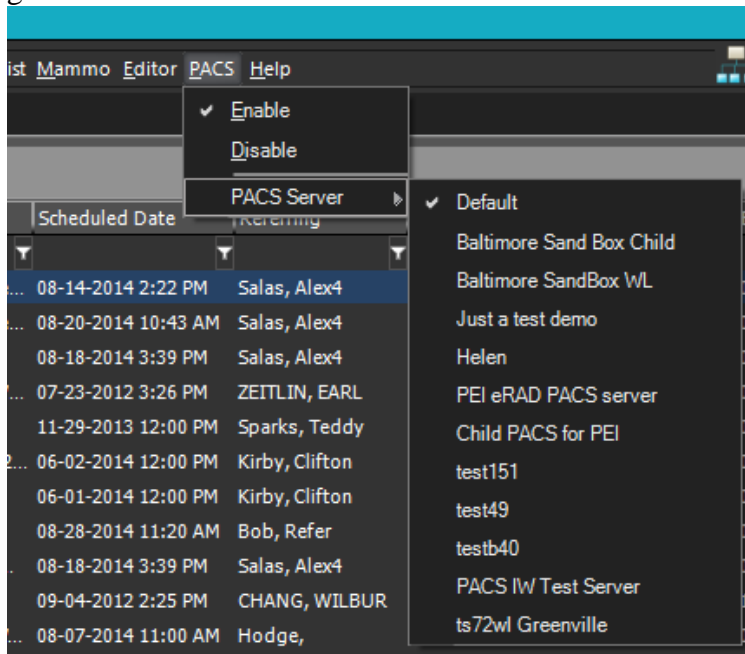


Figure 5.47 – PACS Server menu option

Before when a workstation didn't have the configuration for the selected Pacs server, the menu would disappear, now it does not, access string determines if the user sees the menu. If the Pacs server isn't configured on the workstation, the Enable/Disable items will be disabled.

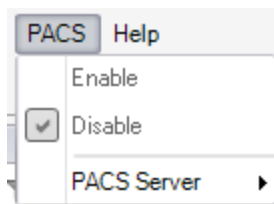


Figure 5.48 – Enable/Disable menu options disabled

Hologic Integration Changes

When integration with a Hologic Workstation was initially developed in Build 43.0.6, it required the user to select “Hologic” from the PACS Override menu every time they logged in. This was painful for the radiologists who work only with Hologic from a particular workstation.

Now if the Hologic integration is available on the workstation it is now selected by default in the PACS override menu. This means that the user needs to have the *PACSIntegration.Override* permission.

Also in the original release of this feature, the Hologic Integration was user specific. The HologicConfig.xml file was added to the %appdata% directory (a user’s roaming profile) Now this file is put in c:\ProgramData\Radnet\eRad RIS to make the configuration available to all users on the workstation.

Track Registered in PECOS

PECOS (Provider Enrollment, Chain, and Ownership System) is used with Medicare to support the Medicare Provider and Supplier enrollment process. A new checkbox has been added to the Personnel Editor that is enabled when the Resource Flags of Referrer or Radiologist are selected.

The screenshot shows the 'Personnel Editor' form with several tabs: General, Resource, Account, Notes, Attachments, Preferences, and Referring Preferences. The 'Resource' tab is active. Under 'Resource Type', there are checkboxes for 'Referring physician', 'Editor', 'UM Reviewer', 'Radiologist', 'Technologist', 'Surgeon', and 'Unknown referring'. Under 'Referring Flags', there are checkboxes for 'Direct referral program', 'Pre-auth program', and 'Gold card'. The 'Resource Information' section includes fields for 'NPI+', 'UPIN', 'License #', 'Specialties', and 'Medical groups'. It also has checkboxes for 'Unknown NPI' and 'Registered in PECOS' (highlighted with a red box). Other fields include 'DEA' (with value 12474), 'Primary state license', 'Sign level' (set to 'Final'), and 'Contact type*'. There are also dropdown menus for 'NPI+', 'Specialties', and 'Contact type*'.

Figure 5.49 – Registered in PECOS checkbox in Personnel Editor

The Carrier Type lookup table has an additional column added with a title of Medicare Type Flag. This column is to be set to Y for all Carrier Types that are Medicare.

The screenshot shows a table with the following columns: Carrier Type Code, Description, Display Order, H17v3 Value Set Old, H17v3 Value Set Code, Medicare Type Flag (highlighted in red), Eligibility Flag, Last Updated, and Active. The table contains three rows of data:

Carrier Type Code	Description	Display Order	H17v3 Value Set Old	H17v3 Value Set Code	Medicare Type Flag	Eligibility Flag	Last Updated	Active
C	Medicare	17			Y	Y	12-16-2014 11:5...	Y
1	Other Non-Federal Programs	22			N	Y	05-02-2011 9:2...	Y
2	Preferred Provider Organization	24			N	Y	05-02-2011 9:2...	Y

Figure 5.50 – Medicare Type Flag column added to Carrier Type lookup table

When a study is scheduled with an Insurance Carrier that is a Medicare provider, the referring physician that does not have the check box selected on their user profile will receive a message informing that they are not registered in PECOS. The message prompt will be determined by the system configuration setting of “**EnableNotRegisteredInPECOSWarning**” that has a default value of False.

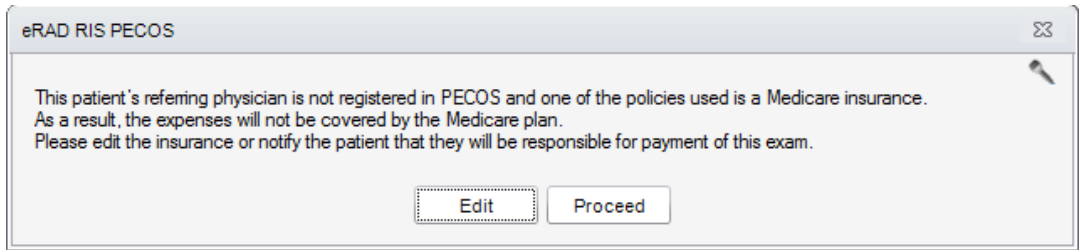


Figure 5.51 – Not registered in PECOS message

Preferred Location Site Field on Order Tab Configurable

The Preferred Location Site field on the Order tab has always been required when saving a New Appointment as an Order. Build 44 will see this field as an optional field dependant on the system configuration setting of “**ScheduleUsePreferredSite**” that has a default of True to keep the current configuration as the default.

Customer wishing to have the Preferred Location field as not required when saving as an order will need to add a value of False

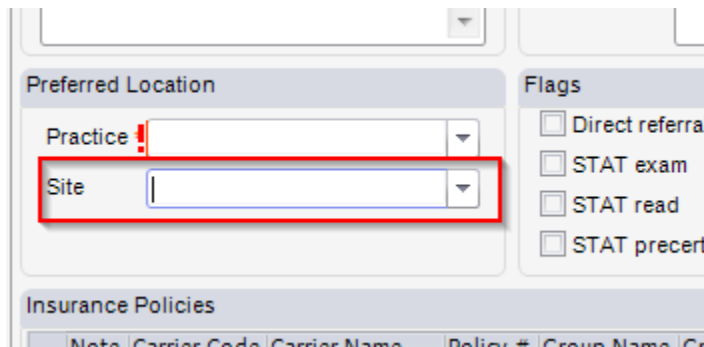


Figure 5.52 – Optional Preferred Location Site field

MRN for Responsible Party

Two new fields have been added to the Responsible Party section on the Contacts Demographics tab. The Relation's ID field is a text field that will accept alphanumeric characters. The ID Issuer field is a list box in which the values come from the Issuer lookup table. Neither field is required to be completed.

Patient	Patient Notes	Contacts / Demographics	Order	MU	Schedule	Image Reque
Responsible Party						
Relation	Parent					
First name	stock	Last name	stock			
	<input type="checkbox"/> Same as patient					
Address 1	1510 Cotner Avenue	State	CA			
Address 2		Zip	90025			
City	Los Angeles	Phone	(123) 321-2333			
Relation's ID	12321	ID Issuer	test			

Figure 5.53 – MRN fields added to Responsible Party

Patient Weight Added to Review Tab

Patient weight has been added to the Review Tab and Review window that is presented when completing a New Appointment. The Review tab is also available from the Confirmation window which also displays the patient’s weight. The verbiage that has been added will read as “The patient reports their weight to be: <XXX>lbs

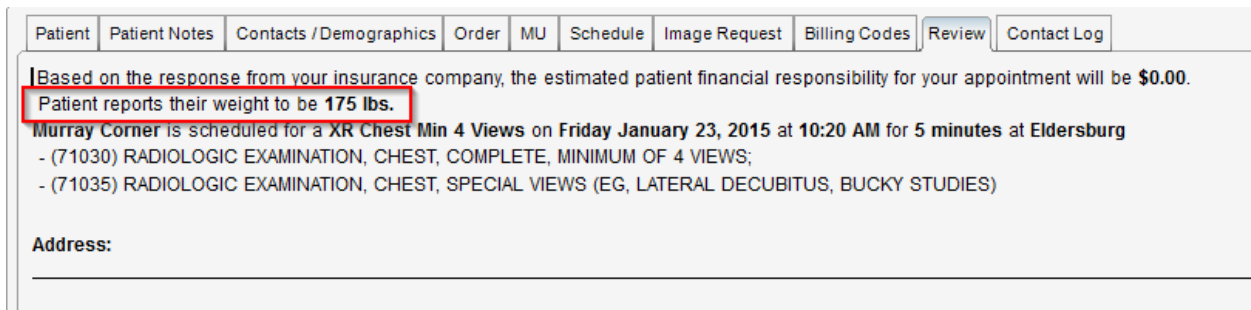


Figure 5.54 – Patient weight added to Review tab\window

Meaningful Use Tab Available in Confirmation

The Confirmation window and workflow was missing the MU tab. This has been added as the second tab in the Confirmation window.

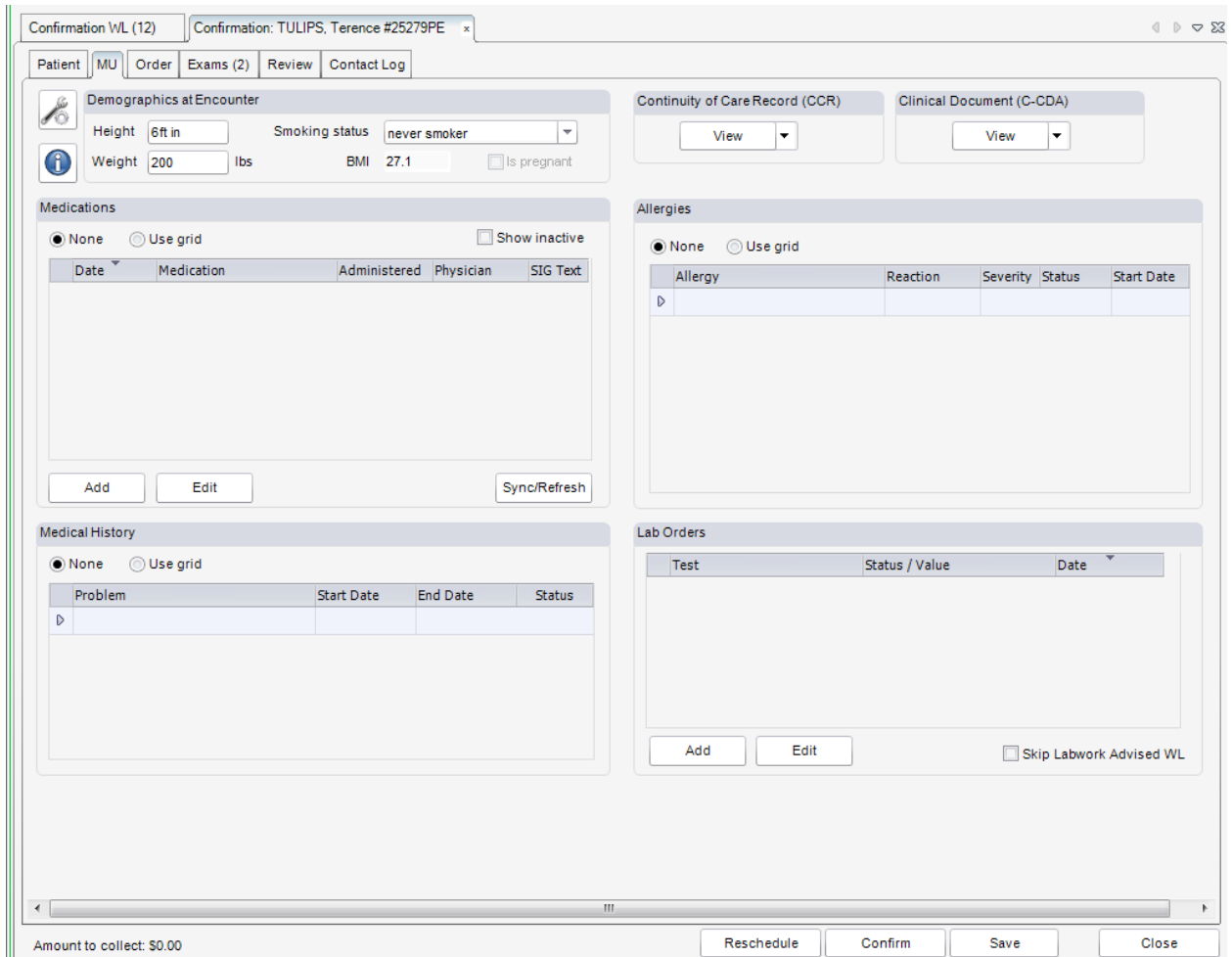

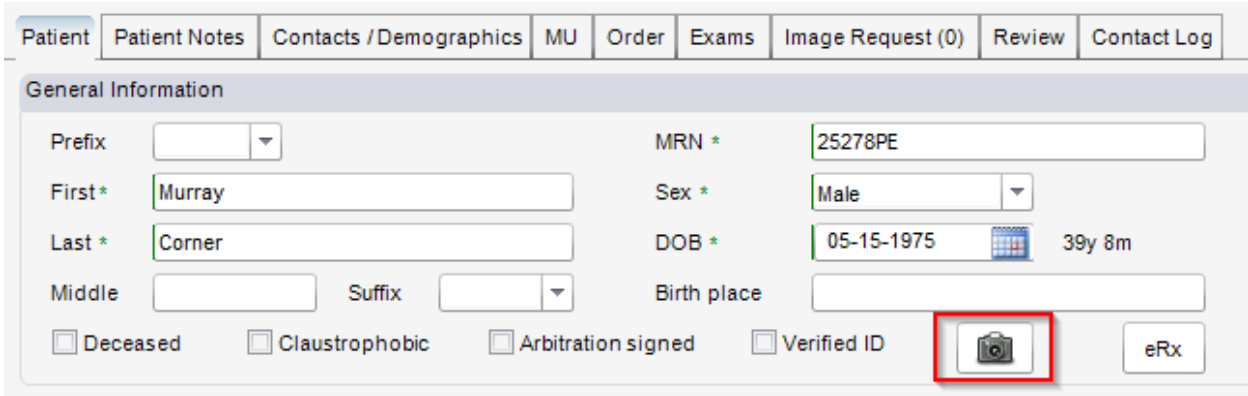


Figure 5.55 – MU tab added to Confirmation window

Registration – Hyperlink to Scanned ID Card

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The Patient tab in the Registration window will now have a hyperlink to the scanned id for Drivers License scan type. The icon of a camera  will appear next to the verified ID check box within the General Information section of the Patient tab. Selecting the ICON will open the Patient ID window to show the scanned image of the patients ID



The screenshot shows the 'Patient' tab selected in a registration window. The 'General Information' section contains the following fields and controls:


- Prefix: dropdown menu
- MRN *: 25278PE
- First *: Murray
- Sex *: Male
- Last *: Corner
- DOB *: 05-15-1975 (with calendar icon) 39y 8m
- Middle: text field
- Suffix: dropdown menu
- Birth place: text field
- Deceased:
- Claustrophobic:
- Arbitration signed:
- Verified ID: 
- eRx: button

Figure 5.56 – Hyperlink to patients scanned ID

The pre-existing configuration setting of “**PhotoIDScanDocumentType**” with a default of License is used to determine which scan document type should show when the user selects the camera icon. This is the same functionality that is used in Patient Merge window.

Improved Error Messages for Payments

When adding payments in eRAD RIS we used to return a generic message that something was missing. We will now provide the following messages.

If the payment amount is missing

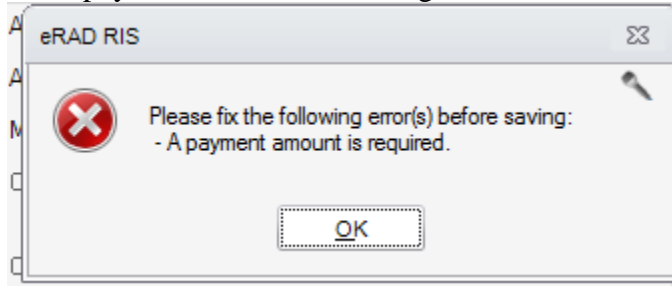


Figure 5.57 – Missing payment amount message

Making credit card payments, messages for credit card type, last 4 digits of credit card are required, payee name required and card expiry required. These messages can be appear all in one message or individual, depending on the details missing.

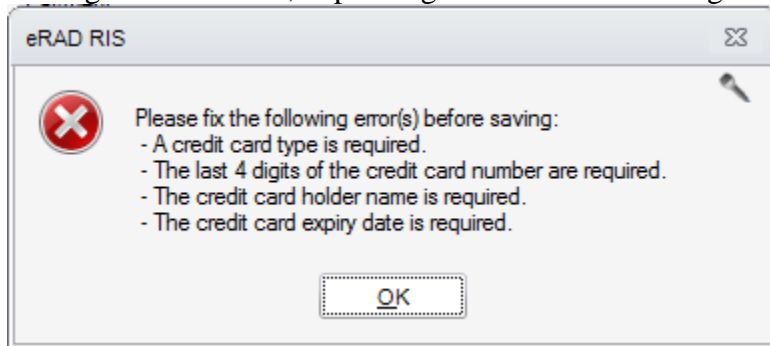


Figure 5.58 – Missing credit card information message

Lastly if payment is by check, the user will be notified if the Check Number field has not been completed

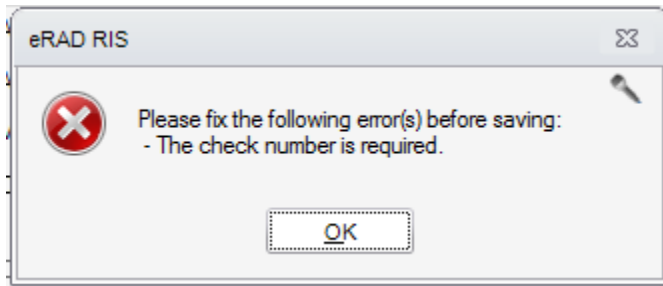


Figure 5.59 – Missing check number message

Insurance Policies Enhancements

When an Insurance Policy was marked as expired we didn't provide a visual representation to aid the user to quickly determine that it had expired. Now when the Expired check box is selected the rows text will become grey. When Expired check box is unselected it will return to the original text state.

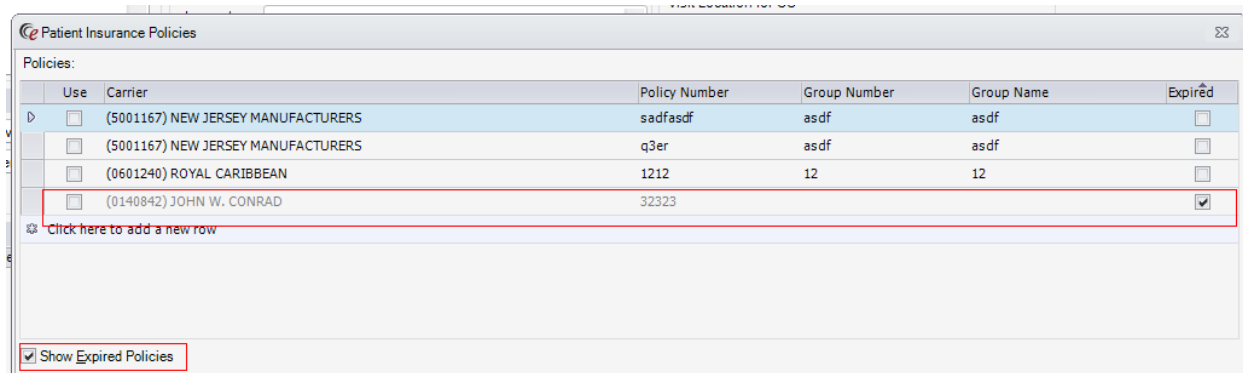


Figure 5.60 – Displaying expired insurances

The Show Expired Policies check box will now be selected by default. If the “Use” check box is selected for an expired insurance the user will be presented with a message “You cannot use and expired policy”.

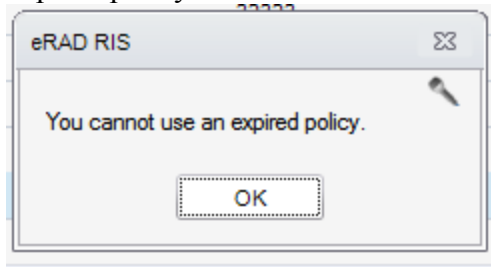


Figure 5.61 – Attempting to use and expired policy message

In addition, if you have a policy that has the Use checkbox selected and you try to expire it, the Use check box will automatically be deselected.

If a patient has an Insurance Policy that has been marked as inactive in the lookup table the Insurance Policies grid will display the inactive carrier in red font.

The screenshot displays the 'Insurance Policies' section of the eRAD RIS interface. At the top, there are navigation tabs: 'Patient Search', 'Patient: HH, hh #1004591712 (1)', 'Lookup Tables - Carrier', and 'Register: HH, hh #10045...'. Below these are more tabs: 'Patient', 'Patient Notes', 'Contacts / Demographics', 'MU', 'Order', 'Exams', 'Image Request (0)', 'Review', 'Contact Log', and 'CT Worksheet'. The main area is divided into several sections: 'Reason for Exam' (containing a text box with 'test'), 'Referring Details' (with fields for 'Referring' (Salas, Alex194 6), 'Visited at *' (36 North Green New Avenue, Minneapolis, Michigan, 25114), and 'Img notes'), 'CC Physicians', 'Preferred Location' (with 'Practice *' set to '(ADV) Advanced Radiology' and 'Site' set to '(FH) Fisher'), and 'Flags' (with checkboxes for 'Direct referral', 'STAT exam', 'STAT read', 'STAT precert', and 'Transportation req'd', and a 'Special accommodations' dropdown set to 'No'). The 'Insurance Policies' table is as follows:

Note	Carrier Code	Carrier Name	Policy #	Group Name	Group Number	Phone	Priority	Eligibility
▶	0140852	JEFFREY L KOMIN	321			4106368004	Primary	
	050135	PROGRESSIVE INSURANCE AUTO	111			8009373352	Secondary	
	051102	NATIONWIDE AUTO	322			(800)421-4243	Tertiary	

Below the table are buttons for 'Manage Policies', 'IVT Notes', and 'Verify'. A status bar indicates 'Verification REQUIRED' and 'Insurance verified' (unchecked). At the bottom, there are sections for 'Payments', 'Order Notes' (containing '09-16-14 PowellIS -'), and 'Scheduling Note:' (containing '09-16-14 Powel').

Figure 5.62 – Inactive carriers

When a user goes into Manage Policies, there is a prompt that the RIS will now mark this policy as expired, and will remove the Use checkbox.

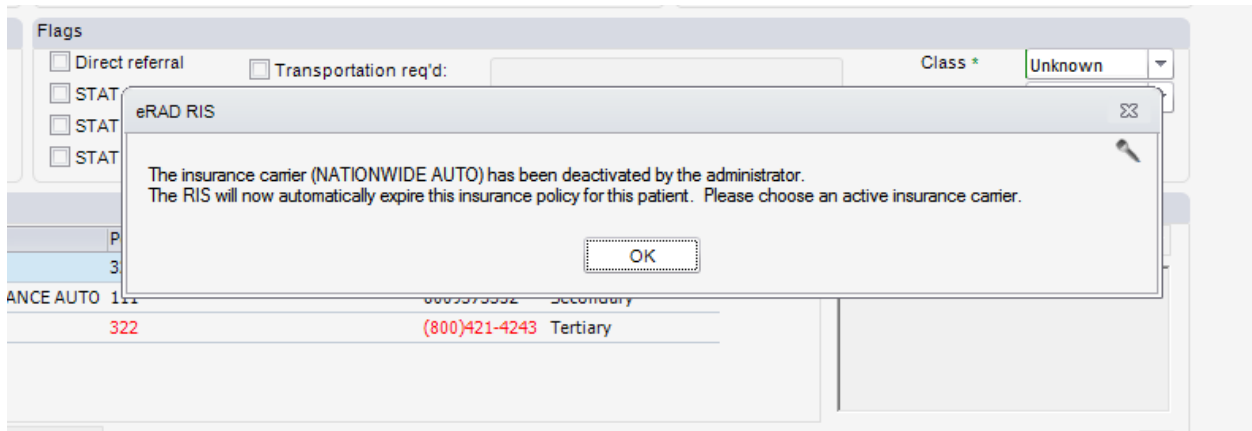


Figure 5.63 – Message prompt for inactive insurance carrier

Once they select the OK button the Expiry check box will be automatically selected and the Use check box will be deselected. The carrier row that has been deactivated will have text marked with strikethrough. The strikethrough equates to a carrier that has been de-activated. (does not equate to Expired... I will show that further below).

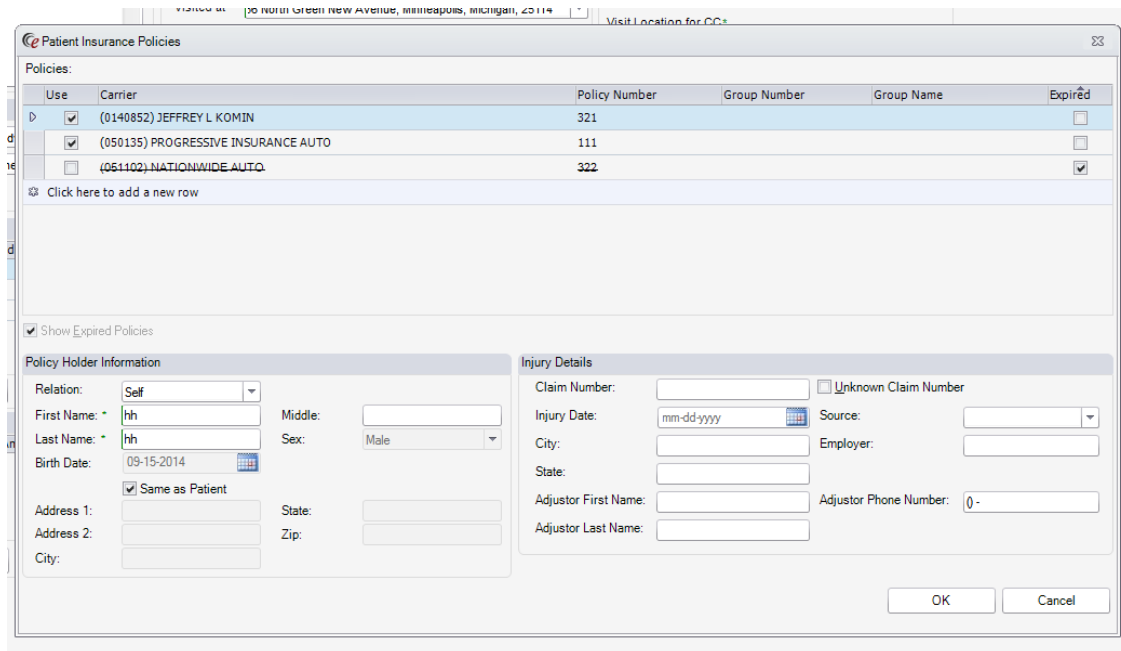


Figure 5.64 – Insurance carrier that has been marked as inactive via lookup table

If the user attempts to re-add the Use check box they will be prompted with a message informing that they cannot because it has been deactivated.

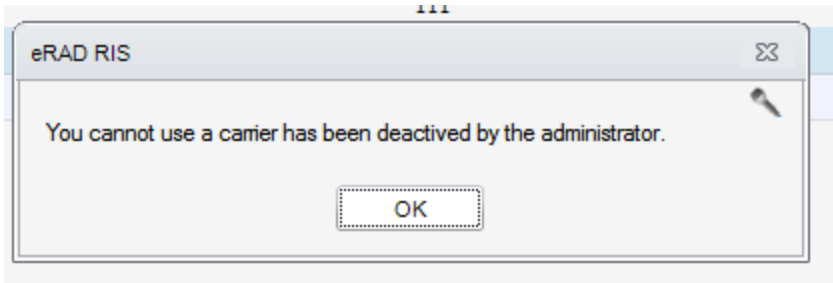


Figure 5.65 – Message prompt attempting to Use deactivated insurance

When the deactivated carrier is marked expired and has the strikethrough added and the Manage Policies window is closed the Insurance Policies grid will not display this carrier. If you remember, before it was accessed the first time, the carrier was displayed in red font

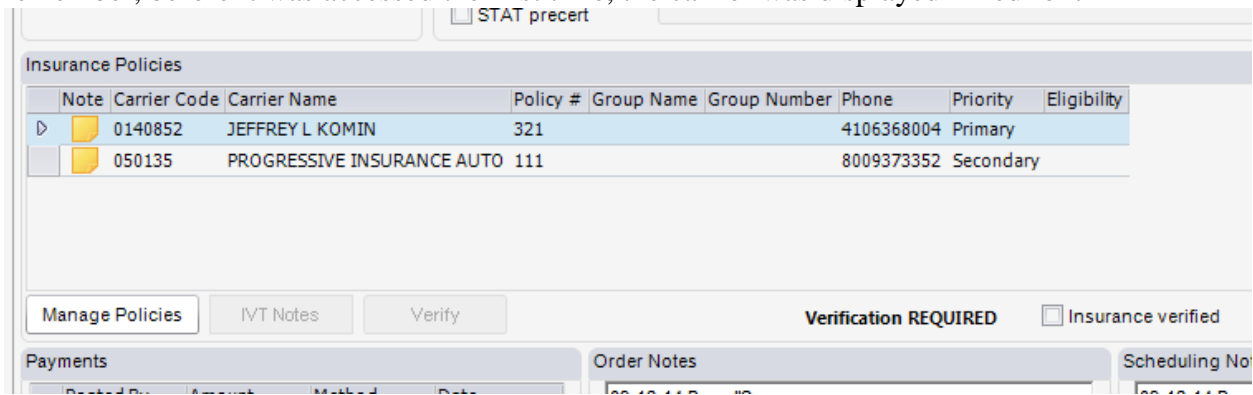


Figure 5.66 – Deactivated insurance removed from Insurance Policies grid

Now if the Manage Policies window is opened again, the deactivated carrier will be displayed in strikethrough grey font.

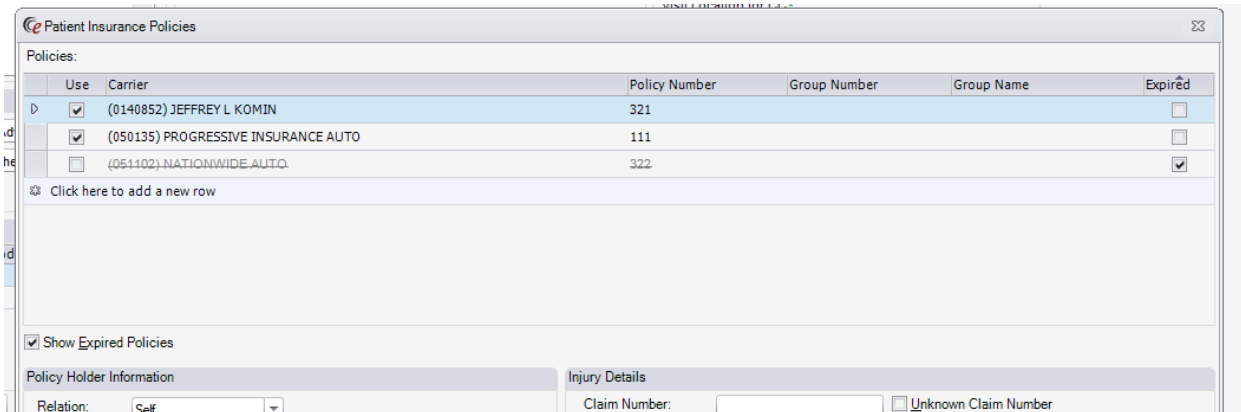


Figure 5.67 – Deactivated insurance in Manage Policies window

If an Administrator later re-activates this carrier, the next time a user opens the Manage Policies window, the strikethrough will be gone and the policy can be select for “Use” again.

NOTE: If the patient has a policy attached to their profile, and the administrator disables it, and then the patient is scheduled for a new procedure (ie, it did not already have a USE checkbox for this policy), the RIS will mark this policy expired without a notification to the user.

Perform Exam – LMP Start and End Age Configurable

In current version of eRAD RIS the Last Menstrual Period date is required for female patients between the ages of 12 and 56. In Build 44 we have introduced two new system configuration settings to make the start and end age configurable.

The system configuration setting of “**LMPStartingAge**” will determine the starting age to have the Last menstrual period date and pregnancy fields enabled. The default value is 12 years of age.

The system configuration setting of “**LMPEndingAge**” will determine the end age to have the Last menstrual period date and pregnancy fields enabled. The default value is 56 years of age.

System Config Code	Value	Default	Description
▷ [.a.]: Imp	▽ [.a.]:	▽ [.a.]:	▽ [.a.]:
LMPStartingAge	12	12	(value = int) When the patient reaches this age, the LMP checker will be enabled on the technologist screen.
LMPEndingAge	56	56	(value = int) When the patient reaches this age, the LMP checker will no longer be enabled on the technologist screen.

Figure 5.68 – New system configuration setting to determine LMP start and end ages

Perform Exam – Additional Copy Paste options

The Perform Exam window has a copy paste function that can be used when a user wants to copy key fields from one study to another of the same order. The fields of Assigned Radiologist and Performing Radiologist have been added to the Items to copy list.

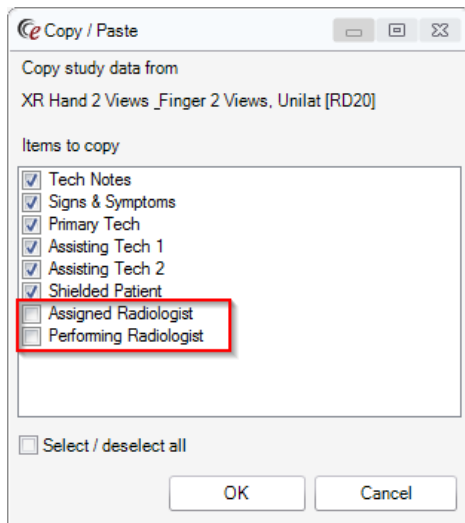


Figure 5.69 – Additional options for copy / paste function

Retain Pre-Cert Approval on Reschedule

During the point of reschedule, after the desired studies have been selected to be rescheduled but the scheduled studies do not change, all existing Pre-cert information will be copied up to the new study item. If the Pre-cert has been approved and the expiration date has not been reached yet, then the Pre-cert status will remain as approved.

User Management – Internal Person Search

When searching for an internal person using the Quick Search in the upper right of eRAD RIS we have added the ability to search on username. To search on username, prefix your search with a colon :

Example, my username is darcyn. To perform an internal person search on that username enter

:darcyn in the search field.

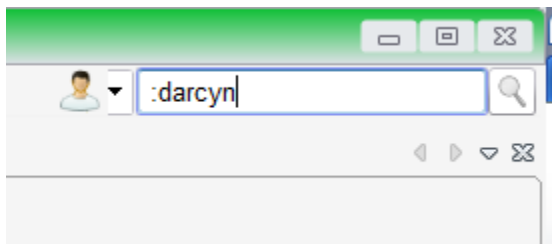


Figure 5.70 – person search on username

User Management – Helpdesk Reset Password

We have added a method for users who don't have Personnel access to assist users who require a password change, forgotten passwords, etc...

This feature is enabled with the access string “**Config.TechSupportChangePassword**” that has a default of None. From the Internal Person Search window a user with this permission can right click on the users account and select the Reset Password option

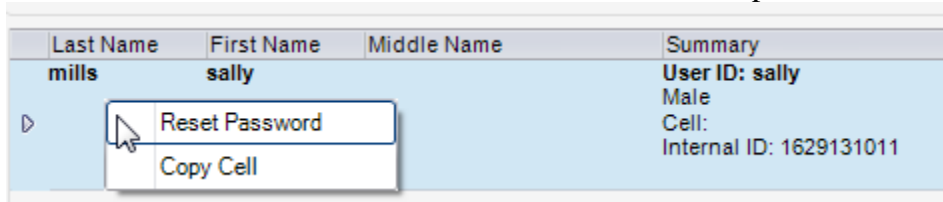


Figure 5.71 – Reset Password from Internal Person Search

The Reset Password dialog supports 3 use cases:

1. Modify the RIS password for a user who is using RIS authentication
2. Modify a RIS user so that they begin using their domain password instead of their current password
3. Modify a user who is using domain authentication so that they begin using RIS authentication

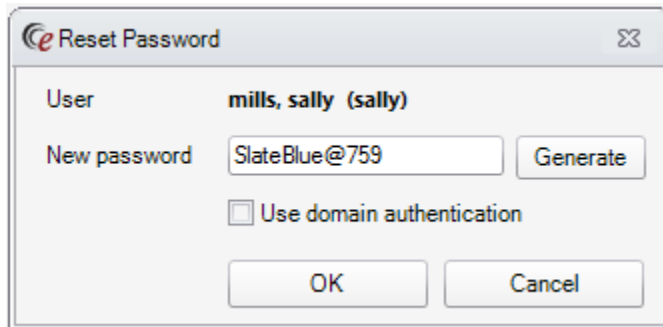


Figure 5.72 – Reset password window

The Reset Password dialog box generates a new password automatically for users who are using custom authentication although the help desk user may choose to generate a new password instead by pressing the “Generate” button or by typing in a password of their choosing.

An entry is generated in the audit table whenever a user changes either the domain_auth_flag or the password (either for their own account or for another user).

Upon selecting the OK button the user will be presented with a confirmatory message

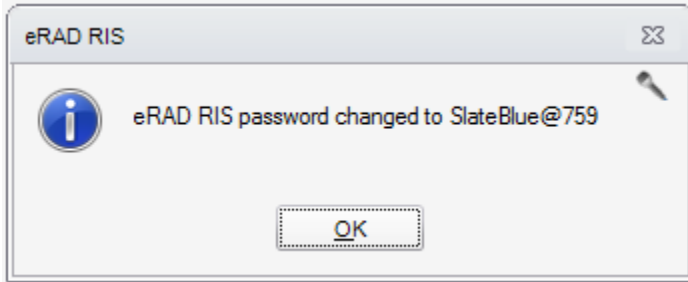


Figure 5.73 – Confirmatory message informing password has changed for RIS Authentication user

If the user chooses to select “Use domain authentication” the New Password field and Generate button will be disabled and the the confirmatory message will be slightly different.



Figure 5.74 – Changing user to be Domain Authenticated

If the user is switched from to RIS Authentication from Domain Authentication the confirmatory message will inform the user of the change.



Figure 5.75 – Confirmatory message when changing from Domain to RIS authentication

As a security feature, a user who is not a RIS Administrator or does not have permission to access the full Personnel editor (“Config.LookupEditor.Personnel”) is not allowed to change the credentials of a user that has these elevated permissions. This constraint is designed to prevent a user that is not allowed to access the personnel editor from hijacking an administrative account.

If they attempt to change the password of a said person they will receive an error message

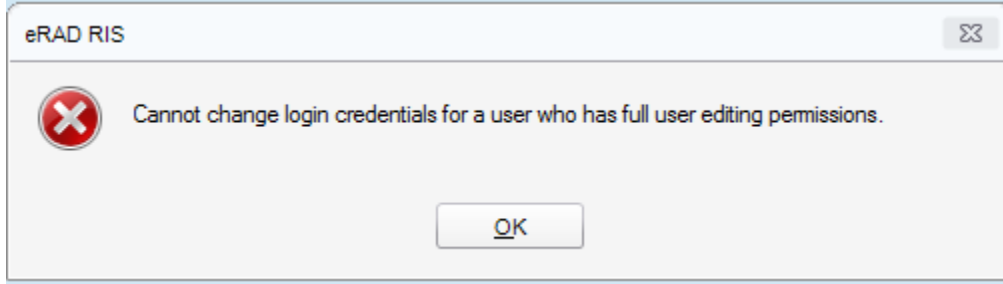


Figure 5.75 – Cannot change password for user with personnel editor permissions

Random Password Generation

Passwords are generated using a random color from the KnownColor enumerated type, adding a random symbol from the following list: { "!", "@", "#", "\$", ".", "-", "+", "=" }, and then adding a random number less than 1000.

IF the password criteria has not been met, the user attempting to reset the password will be informed with the following message.

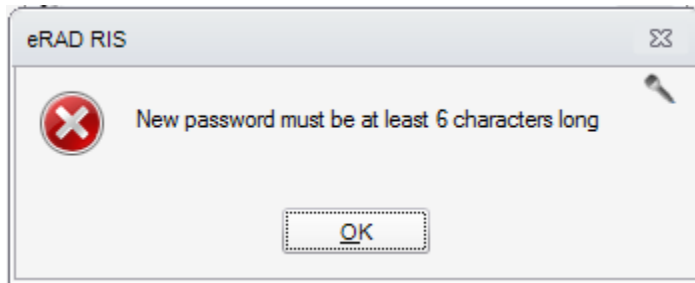


Figure 5.76 – Password doesn't meet password criteria

User Management – Enhanced Password Requirements

At the user management level, eRAD RIS will no longer allow a user to set a password that doesn't meet the minimum length, is not considered "strong" or has been used by this user recently.

The "strong" password and minimum length are already defined in system config. As such we will leave that functionality in place. Strong passwords are forced on users resetting their own passwords. However in the administration section, both the personnel look up and reset password utility bypass the strong password requirement. This allows an admin to set a password to whatever they decide. There is one restriction; the password being set cannot be in the user's recent password history.

Recent passwords are stored in the database, as long as they persist; the user cannot have their password reset to one from their history. A system configuration setting of "**RecentPasswordRestrictionCount**" will determine how many passwords we store in the history for each user until they can re-use a previous password. The default value for this setting is -1. A value of zero or less disables the setting.

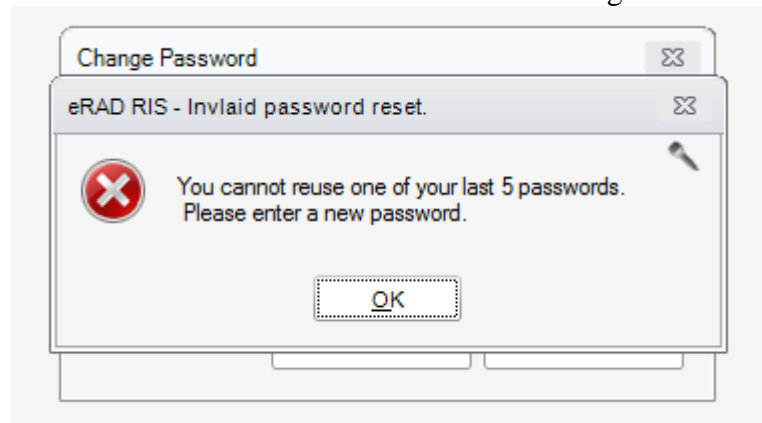


Figure 5.77 – Message informing a recent password cannot be used

Passwords will also now expire after a defined amount of time in days. The system configuration setting of "**ExpirePasswordInDays**" controls this feature. A default of -1 is applied to this setting. A value of zero or less will disable this setting. Once expired, the user will be able to login one more time. At this time, they are presented with a reset password screen and notified that their password has expired and must be reset. If they manage to bypass this, the user will be locked out upon next login attempt.

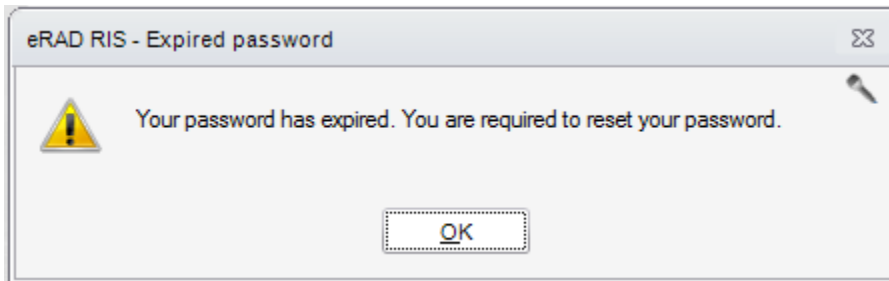


Figure 5.78 – Password reset message

Users will be locked out if they try to login with an incorrect password more than a system configuration defined set amount of attempts. The setting that controls this feature is “**AllowedPasswordFailAttempts**” that has a default value of -1. Values of zero or less will disable this setting.

Locked out users will need to contact their administrator to be unlocked/reset. To unlock the account, and administrator simply sets a new password, this updates/resets the users failed attempts and change date.



Figure 5.79 – user account locked message on login in attempt

Passwords reset in the personnel editor and the tech support reset password utility will set the passwords as expired. This will force the user to reset their password upon login.

Track Viewing of Audit Log

We will now capture in the audit log the user activity when the audit log is accessed and when a eRAD RIS based audit log management report is accessed.

Date	Action	Description	User	Accession #	Order #	Status	Procedure
08-11-2014 9:52 PM	Accessed audit history		Aiken, Darcy (darcy)				
08-11-2014 9:46 PM	Accessed audit history		Aiken, Darcy (darcy)				

Figure 5.80 – Audit log entry of a user accessing audit log

Log Date	Log Time	User ID	Username	description	Audit Actions
08-11-2014	09:30 PM	darcy	Aiken, Darcy J	Accessed audit history	Accessed audit history
	09:27 PM	darcy	Aiken, Darcy J	Accessed audit history	Accessed audit history

Figure 5.81 – new entry displayed in the audit management report (running the report adds a new entry)

Work List Context Menu Re-Organization

Context menu organization for worklist context menus.

Group 1: Workflow/data entry screens – These are status dependent. They are in reverse workflow order, therefore, the ‘latest’ and most likely option will always be on top.

- VerifySignedReport
- SignReports
- VerifyExternalReport
- VerifyTranscribedReports
- TranscribeReports
- Dictate
- MarkAsCompleted
- PerformExam
- Registration
- ScheduleOrderWithContext
- EditSchedule
- IVT
- PatientModeWL // ALWAYS AT THE END OF THIS BLOCK

Group 2: Workflow/data entry screens – These ones are essentially stateless - They can occur almost anywhere during the workflow

- UtilizationManagement
- Confirmation
- EditPatient
- PatientMerge
- BillingConfirmation
- Reconcile
- ViewEdit // ALWAYS AT THE END OF THIS BLOCK

Group 3: ACTIONS performed on this study/row – Group with same if there appear to be a logical neighbor. If unsure, check with Stick

- LabelsAndForms
- Attachments
- RequestImageCopy
- EditImageRequest
- ExportDICOMImages
- CreateTechnicalRepeatAction
- FollowupRescheduledRoot
- CalculateRelevance
- ViewImages // ALWAYS AT THE END OF THIS BLOCK

Group 4: REPORT related items

Report Submenu - PreviewReport
Report SubMenu - PrintReport
ReportPrintingMenu
ReportHistory
ReleaseTentativelySignedReport
DDNewJob
DDHistoryByStudyWL
DDEEditJob
DDEPauseJob
DDECancelJob
DDERetryJob
DDEPreview
RequestAddendum
CancelAddendumRequest
PeerReviewOpen
PeerReview
Review
ResendDictationForRecognition
CacheStudy
Ctrn
DeleteDictationReportResetStatus // ALWAYS AT THE END OF THIS BLOCK

Group 5: Change Status

ChangeStatusTo
ChangeStatusToReportDrafted
ClosedRoomChangeStatusTo
ReceptionChangeStatusTo
TechChangeStatusTo
ChangeStatusToMammoFup
CancelOrder

Group 6: Person assignments

AssignToChair
AssignToRadiologist
ChangeDictateByRadiologist
ChangeSupervisingRadiologist
AssignToTranscriptionist

Group 7: FLAGS

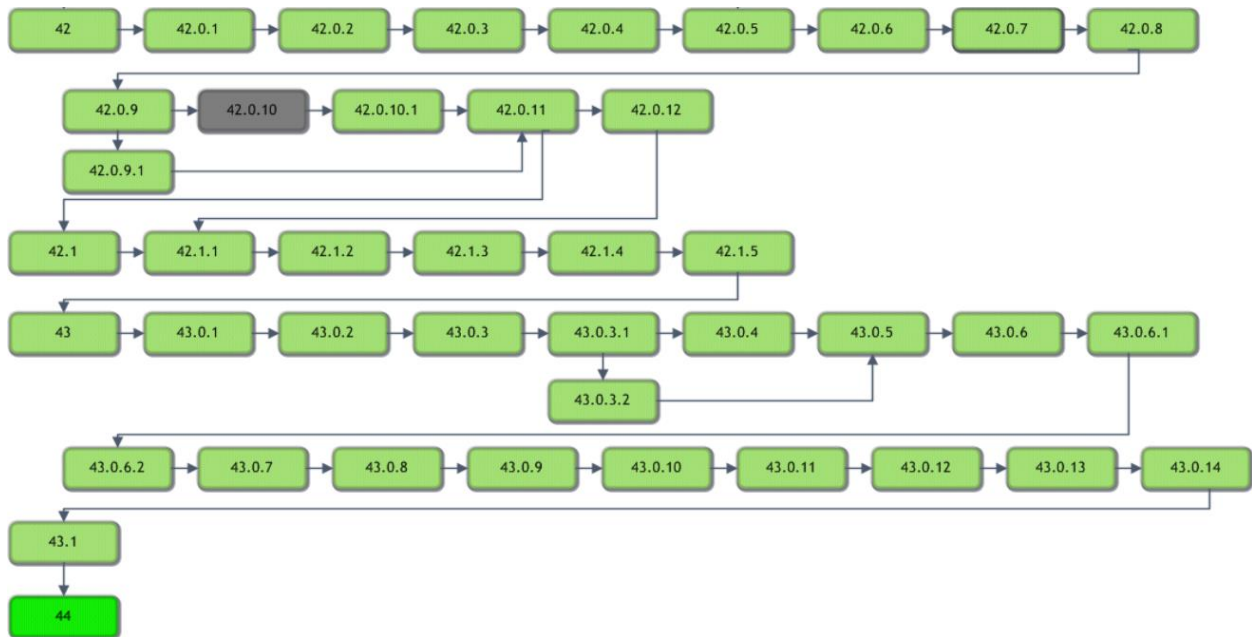
SetProblemFlag
RemoveProblemFlag
ResolveProblem
SetQaFlag

RemoveQaFlag
SetReadFlag
RemoveReadFlag
SetStatFlag
RemoveStatFlag
SetSuspendedFlag
RemoveSuspendedFlag
ForcePACSCorrection
ForceUnPACSCorrection

Group 8+9: Audit history and copy cell - always alone and separated

AuditHistory
CopyCellAction

6. Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

7. RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
42.1	-	2.42.1.0.22744	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.22963	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates
42.1	2	2.42.1.2.23007(3GB)	2.42.0.0.21261	2.42.1.2.23007	2.42.1.1.23007	GUI.zip, Web Service, DB updates
42.1	3	2.42.1.3.23237(3GB)	2.42.0.0.21261	2.42.1.3.23237	2.42.1.1.23007	GUI.zip, Web Services
42.1	4	2.42.1.4.23348(3GB)	2.42.0.0.21261	2.42.1.4.23348	2.42.1.1.23007	GUI.zip, Web Services
42.1	5	2.42.1.5.23406(3GB)	2.42.0.0.21261	2.42.1.5.23406	2.42.1.1.23007	GUI.zip, Web Services
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
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

8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.44. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.44.

Bug #	Priority	Subject	Category	Found Version
6954	Immediate	Reporting - Batch dictation files are not cleaned up if user closes the screen	Embedded Reporting	2.42.09
8539	Urgent	Laterality for scheduled procedure is not being initialized as expected.		43.1
8396	Urgent	Patient Name to be included in Email message to RADAR	Document Distribution	2.43.1
8085	Urgent	CD Import - Windows 7 CD Burning via Explorer prevents us from scanning CD without DICOMDIR	CD Burning	43
8038	Urgent	Lab Results - have to change the date twice in order for it to save	Meaningful Use	43.0.11
8014	Urgent	Carestream PACS integration Read Only mode issue (Copy of #8011 for 43.0.14)	PACS (Non - eRAD) Integration	43.0.12
7875	Urgent	Insurance Eligibility - Amount to collect in View Edit	Insurance Eligibility	43.0.6
7826	Urgent	PACS IW - Infinite loop trying to open study with invalid external id	PACS (Non - eRAD) Integration	2.43.1
7589	Urgent	patient insurance group name is limited to 20 characters	DB	2.42
7574	Urgent	c_frm_core_view - joining site based on scheduled_modality_code, should join on study table _site_code	Web Services/DB	42.1.2
4228	Urgent	RadNet - Mammo - Add BIRADS trademark	Thick Client GUI	2.43.0.0
8465	High	Zotec TOS Integration - Print Receipt is displaying previous patient's data		43.1
8146	High	Study not on Labwork Advised WL	Meaningful Use	2.43.0.14
8128	High	Insurance Eligibility - Schedule Order Screen Lockup	Insurance Eligibility	43.0.14
8111	High	Hologic integration configuration file needs to be configured individually for each user account	PACS (Non - eRAD) Integration	2.43.0.14

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7968	High	MU Medications, Medical History and Allergies grids are not refreshing for a new patient	Meaningful Use	43.1
7908	High	Powerscribe - discard an addendum may delete original report if HL7 not received	Powerscribe Integration	2.43.0.11
7805	High	object reference error when scheduling from the Follow Up screen from BI-RADS 4/5 worklist	Web Services/DB	2.43.0.6
7682	High	Patient folder does not display the Signing Radiologist column	Patient Folder	43.0.6.2
7577	High	c_frm_core_view - expects referring to have an address	Web Services/DB	43.0.2
7575	High	Transportation Report - Should have a date range, site selector and DOS grouping	Mgt Reports	42.1
7277	High	Cannot access a disposed object. Object Name: RadGridView	Performance	43.0.1
7126	High	Dictated by user id changes to editor's id in PowerScribe 360	Powerscribe Integration	42.1
6958	High	Scheduling -- start date for search criteria not set for mammo follow-up orders	Scheduling	2.42
6610	High	Ris is hanging after mt's make edits to a report	Embedded Reporting	42.0.9
6504	High	Reschedule with more than one procedure, the RIS sometimes invert the order		1.4
6345	High	Poor usability around canceling adding new address to referring	Admin-Other	1.42
5685	High	Logout - after entering username and PWD error saying eRAD RIS is already running	Thick Client GUI	1.42
5657	High	Cannot click 'OK' or 'Cancel' in PACSLoginDialog when running in 'Minimized' recording control mode	Thick Client GUI	1.42
5476	High	Scheduling - Inactivity message displaying at incorrect time	Thin Client GUI	1.41.005
4571	High	Document Distribution eventually jams if a fax job gets stuck in Transmitting	Document Distribution	1.40.16
4538	High	IVT WL slow if user filters on both site and practice	Web Services/DB	1.4

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4503	High	Perform Exam - Complete / Start can advance a study when it shouldn't	Technologist	1.41
4049	High	Hold codes - update status appropriately when Hold codes are changed to real codes	Thick Client GUI	2.42
3757	High	IVT pre-cert notes disappearing randomly	Thick Client GUI	1.40.006
3751	High	Modifying insurance can cause the study to fall off the IVT Worklist	Thick Client GUI	1.40.006
2304	High	A study in a "Pending" IVT status does not show the IVT flag on the worklist	Thick Client GUI	1.38
1805	High	visited location not filtered for cc physicians	Thick Client GUI	1.38
8570	Normal	Zotec TOS Integration - 401 Error		43.1
8300	Normal	GetExamCountsByChair takes a rather long time to execute	Radiology Reporting	2.43
8250	Normal	IVT WL slow when query for practice	Worklists	2.43.1
8220	Normal	there are unused, overlapping (duplicate indexes) and missing on the db that may be contributing to excessive resource use	DB	2.43
8201	Normal	person address editor - using StrongPasswordRegex instead of EmailPDFPasswordRegex		2.43.1
8193	Normal	c_frm_reminder_letter - view cleanup	Web Services/DB	2.43.1
8159	Normal	CD Import - 3rd Party DLL missing dependency		43.1
8148	Normal	Powerscribe closing open report in eRAD RIS with autofeed turned off	Powerscribe Integration	2.43.1
8143	Normal	Radiology Reporting - Multitab reporting with Powerscribe 360 will cause tabs to close and save	Powerscribe Integration	2.43.0.6
8126	Normal	MU - CQM Measures Report is hanging on the SouthEast DB	Meaningful Use	2.43
8125	Normal	The scheduled DB job rRIS_California : Update Mammo Letters WL Reason was taking 25 minutes to run	Mammography	2.43

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8121	Normal	Trace Data database logic includes needless refresh logic that generates needless CPU load	Web Services/DB	2.43.0.14
8096	Normal	Error when scheduling procedure plans and image requests	Image request	43.0.14
8090	Normal	Epson Discproducer problem does not write DVDs		43.0.13
8089	Normal	Carestream PACS Integration - Accession Number being used instead of External Study Identifier	PACS (Non - eRAD) Integration	2.43.0.12
8088	Normal	Carestream PACS Integration - Password is stored in log file	PACS (Non - eRAD) Integration	2.43.0.12
8087	Normal	Insurance Eligibility - Zotec TOS not returning payment amounts back to RIS		43.0.12
8086	Normal	Timeout error while burning images to CD	CD Burning	2.43.0.11
8083	Normal	Incoming EMR orders not matched to internal patient because of phone number formatting	EMR	2.43.0.14
8068	Normal	Create rRIS User SQL Script tries to insert RIS Administrators group but the group is already inserted as part of the B43 Base Schema	DB	2.43.0
8022	Normal	User Preferences - Integration Tab - Out bound reporting verbiage change	Radiology Reporting	2.43.1
8020	Normal	User Preferences - Input Device barcode event action patient search verbiage change	Radiology Reporting	2.43.1
7974	Normal	error during rescheduling process: The INSERT statement conflicted with the FOREIGN KEY constraint "FK_c_scan_document_association_c_study"	Scheduling	2.43.0.12
7962	Normal	Cannot match external patient during walk-in/scheduling after including "Existing Orders"	EMR	2.43.0.12
7931	Normal	Exams cannot leave HoldCodeCompleted status via Change Status -> Manual Status Update	Web Services/DB	2.43.0.12
7838	Normal	Creating an addendum - when you submit it , the status stays as SIGNED, Cannot sign off this addendum	Radiology Reporting	43.0.7

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7819	Normal	Reporting Custom Fields - Magnet strength shows NOT AVAILABLE when table value is null or empty	Radiology Reporting	2.42.1
7816	Normal	CQM Measures Stage 2 will fail if the combined practice codes selected are more than 20 characters	Mgt Reports	2.43.0.8
7775	Normal	Peer Review - Signed by is showing user_id only not user id and name as per convention	Radiology Reporting	2.43.1
7769	Normal	run RIS services in console shows "unrecognized command line argument" on console screen	Web Services/DB	2.43
7706	Normal	MU CQM	Meaningful Use	2.43
7652	Normal	B43 base new install scripts cause an error.	DB	2.43
7621	Normal	Insurance Verified Checkbox disappears		43.0.5
7610	Normal	Radiology Reporting - M*Modal remove unwanted events from interactive dictation	Radiology Reporting	2.43.1
7609	Normal	Radiologist Reporting - eRAD RIS log entered into capture log	Radiology Reporting	2.43.1
7588	Normal	Grids - All grids are missing the left hand border on the header row (in light mode)	UI Look and feel	2.43
7507	Normal	Clean up current editor control code in preparation for new interface implementation	Radiology Reporting	2.43.0
7497	Normal	biopsy surgeon selection shows referring's and other personnel that are not surgeons	Mammography	2.43.0.5
7489	Normal	Disabled menu items in dark mode aren't visually identifiable.	UI Look and feel	43.1
7483	Normal	Preferred Radiologist - may show radiologist from another practice	Radiology Reporting	2.42
7470	Normal	Scheduling- Error when choosing time from the Calendar view if modality room does not match procedure.	Scheduling	2.43.05
7464	Normal	Mgt Reports - Mammo Annual Radiologist Summary - the format of the values in the dropdown for the technologist is not the same as user dropdowns in other reports	Mgt Reports	43.0.4

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7447	Normal	jif file type and possible additional files extensions jif, .jpe, .jfi could cause rendering issues for browsers IE8 and earlier.		2.42
7445	Normal	Light mode - Buttons sometimes appear white and super white (should all be super white)	UI Look and feel	2.43
7444	Normal	User preference for pending signature notification is worded poorly	Radiology Reporting	43.1
7433	Normal	Request Addendum - exception when performed modality is null	Radiology Reporting	2.43.1
7431	Normal	Peer Review Workflow - verbiage case	Radiology Reporting	2.43.1
7411	Normal	Notification for STAT cases pending signature count can be wrong	Radiology Reporting	2.43.0
7409	Normal	Reporting - able to edit read-only reports and sign off on studies dictated by other users	Radiology Reporting	2.43.1
7407	Normal	Peer Review Workflow - Unable to open or review locked studies from the All Peer Review Pending Action WL	Radiology Reporting	2.43.1
7358	Normal	Reporting - Layout not displaying tool windows properly when switching reporting modes or loading layouts	Radiology Reporting	2.43
7351	Normal	Assign to radiologist in scheduling screen doesn't use common radiologist picker control	Radiology Reporting	2.43.1
7350	Normal	User (Radiologist or Transcriptionist) picker undesirable highlighting when opening	Radiology Reporting	2.43.1
7334	Normal	Canceled Exams - add canceled date to details	Mgt Reports	42.0.1
7330	Normal	cancelling a completed study is getting error do to the I-Code Reference		2.43.0.2
7325	Normal	Emergency access stays disabled after using it and doing next workflow	Radiology Reporting	2.43
7315	Normal	there is a chance that the arrive multiple study dialog box will open and then close by itself based on the existing of studies in specific status		2.43
7311	Normal	Manual change status Dialog screen Ok button doesn't always appear on the screen	Thick Client GUI	2.43

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7304	Normal	Medical History - Date Ranges cannot overlap	Meaningful Use	2.43.0.1
7297	Normal	Smoking Status, 'never smoker', is interpreted by Clinical Decision Support that the patient is a smoker	Meaningful Use	2.43
7296	Normal	Edit Availability template Date Range will not allow the start date to be moved to be 5 days before the currently set Start Date	Scheduling	2.43.2
7286	Normal	QA workflow changes back to editing workflow after breaking glass	Radiology Reporting	2.43
7284	Normal	Error assigning radiologist on a study with a null performed modality	Radiology Reporting	2.43
7278	Normal	Practice code is not required for Authorization Rules	Utilization Management	2.43
7273	Normal	CDS_03_PossibleReaction alert giving errors on deleted row	Meaningful Use	43.0.1
7272	Normal	CDS_03_PossibleReaction alert giving errors on null column	Meaningful Use	43.0.1
7257	Normal	MU Allergy Severity Should be using the active lookup values	Meaningful Use	2.43
7253	Normal	able to "use" an insurance where the carrier was inactive		2.43
7248	Normal	Error on GetData/DisplayData	Technologist	2.43
7232	Normal	Reporting - Create/Edit a report in exam done (bad data perhaps) will result in poorly worded message	Radiology Reporting	2.43
7221	Normal	User preference wording on integration tab state we drop an xml file and write another	Radiology Reporting	2.43
7201	Normal	CommonLib Config class uses non thread safe dictionaries for storing system and user configuration	Infrastructure	1.43
7200	Normal	DataStoreBase uses non thread safe dictionaries for storing credentials and connections	Infrastructure	1.43
7199	Normal	dbnull error on person first name when opening reporting screen	Radiology Reporting	2.43
7197	Normal	When registering a patient with multiple procedures, and then deselecting the	Reception	2.43

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		procedure checkbox, an error is produced		
7180	Normal	Inactive study items, study item certs are still be used to validation if precert is still required	Thick Client GUI	2.42.09
7163	Normal	Import ICD code window needs clean up	Admin-Other	2.43
7143	Normal	SAPS - mays stop processing jobs if a PowerScribe 360 encountered	Web Services/DB	2.42.1
7142	Normal	SAPS - service will not recover and process remaining jobs on signing failure	Web Services/DB	2.42.1
7138	Normal	Mammo letter config save button appears to not save changes	Admin-Other	2.43
7086	Normal	Internal Person search doesn't have default field	Admin-Other	2.43
7077	Normal	Nuggets - Scanned document nugget does not show print button unless screen is expanded	Worklists	2.42
7068	Normal	Flags - STAT READ has many different explanations and icons	UI Look and feel	2.42
7060	Normal	Null policy number causes failure in StudyDataset rules when signing reports	Billing	2.42.0.2
7040	Normal	Context menu on Patient folder (and likely other worklists) needs re-organization.	UI Look and feel	2.43
7012	Normal	Labels cut off in Modality lookup editor.	UI Look and feel	2.43
6999	Normal	There is no row at position 0 exception when trying to view C-CDA document	Thick Client GUI	2.43
6977	Normal	Radiologist Pending Edit worklist doesn't have the dictate button	Radiology Reporting	2.43
6972	Normal	BI-RADS picker set tissue density to inactive value	Mammography	2.43
6947	Normal	Patient search on external patient has split button active with on option that isn't available.	Patient Search	2.43
6944	Normal	MU - Lab results - the results date field has slashes rather than dashes	UI Look and feel	2.43

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6919	Normal	Can't log in to RIS if time on client differs from server	Web Services/DB	2.42
6898	Normal	"ReportingEvent: contribute report" showing in verbose log when signing	Radiology Reporting	2.42.1
6897	Normal	"Starting open report in PowerScribe 360" is logged when not in PowerScribe 360 mode	Powerscribe Integration	2.42.1
6859	Normal	All Problem WL - the context menu is not highlighting the assigned radiologist	Worklists	2.43
6858	Normal	STAT UM Priority is not required	Utilization Management	2.43
6841	Normal	Details for rRISServices.exe and rRISServicesX64.exe should contain the proper version information	Documentation	43
6834	Normal	QA workflow, error when saving opens the wrong screen.	Radiology Reporting	2.43
6833	Normal	Enhance stored procedures to parameterize the queries	DB	2.43
6826	Normal	Dark mode - Person hyperlinks are black text on (usually) dark grey background.	Dark Mode/Theming	2.42
6821	Normal	Reschedule can show incorrect procedure if procedure was changed in Register window	Scheduling	2.43
6771	Normal	Error, clicking Post on Billing Exception WL	Billing	42.1.2
6768	Normal	RIS Upgrade Process consumes large amount of disk space on client machines over time	Client Install	2.42
6750	Normal	MU - CCDA Error when generating XML when Allergy is NULL	Meaningful Use	2.43
6715	Normal	Radiologist daily counts control opens wrong worklist when clicking Signed Pending Release item	Radiology Reporting	2.42.09
6706	Normal	Technique and TechNotes custom field show as "Not Implemented"	Embedded Reporting	1.4
6705	Normal	Selected Summary doesn't redraw properly when resizing the control	Radiology Reporting	1.39
6704	Normal	RTF to CDA converter doesn't handle \line rtf formatting	Powerscribe Integration	2.42.1

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6699	Normal	Report data nugget not displaying line breaks properly	Radiology Reporting	2.42.1
6698	Normal	Reject addendum request button on addendums in progress	Radiology Reporting	2.43.0.0
6690	Normal	On login if incorrect password, focus is set to user name textbox, not password textbox	Thick Client GUI	2.43
6671	Normal	Right-click "Confirmation" in Patient Folder for Follow up order throws multiple exceptions	Mammography	2.43
6666	Normal	Creating addendum in PS360 and setting problem flag fails to save.	Powerscribe Integration	2.42.1
6574	Normal	Worklist Notifications memory leak	Radiology Reporting	2.42.1
6563	Normal	Radiologist stats should update on a timer not just on report save	Radiology Reporting	2.42.0.9
6562	Normal	Radiologist stats on the tool bar are filtered base on org picker	Radiology Reporting	2.42.0.9
6532	Normal	Close PowerScribe 360 client and receive an error	Powerscribe Integration	2.42.1
6527	Normal	Reporting - report nugget preview is ordered by last updated instead of version	Radiology Reporting	2.42.0.9
6519	Normal	Unable to move items off the IVT Worklist	IVT / Precert	1.42
6410	Normal	Insurance: Expired policy can still be 'used' in a current study.	Insurance Managment	1.42
6312	Normal	BulkWritable column function locks on order, not on study	Radiology Reporting	2.42.0
6253	Normal	Automacros that start with a field cause problems in editor	Radiology Reporting	2.42.0.6
6111	Normal	RIS Clean install --> SQL scripts do not create default jobs	DB	2.43.0.14
6053	Normal	Multi Proc Order - procedures re-ordering	Thick Client GUI	1.42
5990	Normal	Transcription dashboard - Need to exclude outside reads from the report turnaround times	Web Services/DB	1.41

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5983	Normal	Patient Folder Panel doesn't display data when dictating	Thick Client GUI	1.42
5822	Normal	'Assign' functionality throws error on report addendum	Embedded Reporting	2.42
5808	Normal	Dark mode, very hard to read text in Recording and Playback settings	Embedded Reporting	1.42
5789	Normal	Signed Pending QA studies can be assigned to transcription and remain in signed status in QA workflow.	Radiology Reporting	1.41.1
5465	Normal	Unable to suspend an addendum	Radiology Reporting	1.4
4615	Normal	CTRM - Issue with Resolve button	Thick Client GUI	1.41
4436	Normal	Notification wording/layout	Radiology Reporting	1.41
4066	Normal	Transcription Summary/Exam Detail pane not showing requested_by if address_key not populated	Thick Client GUI	1.4
3457	Normal	Reporting - Removing subsection can add another subsection	Thick Client GUI	1.4
3359	Normal	Referring not displaying in VR2 (Beverly)	Radiology Reporting	1.38
2236	Normal	All grids (worklist and other grids) font does not resize	Worklists	1.2
1379	Normal	Address 1 box on Patient Insurance Policies screen partially obscured by another control	Thick Client GUI	1.37
1112	Normal	New Appointment > Patient tab > Contact Information tab order	Thick Client GUI	1.35
7496	Low	Mgt Report where the format of the role dropdown parameter is not consistent	Mgt Reports	2.43.0.5
7356	Low	Personnel Search - Type selection continuously grows	Thick Client GUI	2.43
7227	Low	Registration - 'Arrive' window on different date. Default should be "now"	Reception	1.43
7210	Low	Label alignment when displaying both chair and county not left aligned	UI Look and feel	2.43

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7178	Low	County/ZIP allows typing in County but doesn't changes value when clicking ok	UI Look and feel	2.43
7161	Low	Non M*Modal reporting mode allows users to open hidden tool windows with shortcuts	Radiology Reporting	2.43
7159	Low	Reporting - PACS integration warn when relevant prior not loaded in PACS	PACS (eRAD) Int - RIS only	2.43
7081	Low	Payment screen: Rename buttons to reduce confusion	Thick Client GUI	2.42
7045	Low	MU Phase 2 - QRDA Cat 1 error when HCPCS code is loaded	Meaningful Use	2.43
7004	Low	Pregnant button automatically selected for female patients not included in age range 12-55	Scheduling	2.43
6824	Low	Reporting - Opening rad reporting window in read only will still have Sign Button visually enhanced	Radiology Reporting	2.43
6232	Low	Reporting - studies that have requested addendum flag cannot be assigned to problem queue	Radiology Reporting	2.42.0.2
5672	Low	Next Workflow on All_____worklists, locked studies break work flow.	Thick Client GUI	1.42
4927	Low	Radiologist name is Firstname Lastname in Assign To Radiologist window	Thick Client GUI	1.41
4675	Low	Reporting - assign to panel stays open when going through reports if it opens once.	Radiology Reporting	1.41
4394	Low	Signed pending release WL context menu item missing.	Radiology Reporting	1.4
4082	Low	Previewing unsaved addendums from the reporting screen.	Embedded Reporting	1.41
2432	Low	DataNugget Windows, refresh Icon is not consistent	Thick Client GUI	38.1

9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.44. Bugs reported in previous versions are not captured as Known Limitation in this document.

#	Status	Priority	Subject
8647	New	Normal	Dictated By Date WL missing context menu items
8635	New	Normal	CT Dosage is not displayed with three decimal places in Perform Exam window
8605	New	Normal	MU tab- Medications - Switching from "Use grid" to "None" and saving deletes the current medication list.
8594	New	Normal	IVT WL, Pre-cert status stays the same when changing insurance at arriving/checking stage.
8593	New	Normal	Confirmation window thinks there are 2 exams on a rescheduled study
8592	New	Normal	Error upon trying to add new row in lookup tables
8591	New	Normal	Switching Insurance during reschedule makes the "Insurance verified" checkbox disappear.
8587	New	Normal	Contrast amounts that exceed Max Value are acceptable upon Saving in Perform Exam window
8586	New	Normal	Contrast alert prompt for exceeding max dose only displays one contrast name at a time if there is greater than one that exceeds.
8581	New	Normal	Template editor - opening an existing template in template editor, change the Practice, and then close, saying no to save changes will save the practice change.
8571	New	Normal	Add alternate MRN is using Issuer Code and Responsible Party is using Description from Issuer table
8569	New	Normal	Mammo drawing tool - Breast diagram does not change between male and female templates if the sex is altered after viewing template
8568	New	Normal	When logged in as a user with Admin or RIS Admin usergroup only, when you try to sign a report get an incorrect message.
8565	New	Normal	Mammo drawing tool - Unintentional lines can be added to a scar
8562	New	Normal	Image Request Status column on Patient Folder WL doesn't display status, stays empty
8560	New	Normal	Switching from Powerscibe360 to M*Modal with dictation window still open then click skip & continue will cause an error.
8557	New	Normal	Peer Review QA window - no scrolling action added to

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			addendum request and peer review windows
8545	New	Normal	When an exam is aborted by a tech in the perform exam window, it is removed from the PACS WL, it can be set back to started then completed (exam done) but the exam is not recreated in PACS.
8527	Resolved	Normal	Error when trying to create a new template for dictation
8490	New	Normal	Access string WL.MT.ReportDraftedQaAll no longer used
8473	New	Normal	The "View Images" icon in the reporting window doesn't appear to work correctly.
8471	New	Normal	Walk-In not responding when Checking In multiple studies with multiple CC Physicians
8467	New	Normal	Walk-in removing first exam not refreshing scheduled date
8466	New	Normal	Mammo follow up orders can be opened in Register window
8451	New	Normal	Arrive/Checking In date field not auto-formatting resulting in error
8449	New	Normal	Null reference error closing "New Schedule" dialog from Appointment Book
8448	New	Normal	Attempt to alter Group Number or Group Name of Insurance Carriers causes a shift in the list and potential incorrect changes
8443	New	Normal	PreferredSite not auto-selected in search options under schedule tab when scheduling an order.
8414	New	Normal	removed former referring practice address references
8408	New	Normal	Inactive rooms showing in calendar view.
8404	Resolved	Normal	New Walk-in Button from Patient Search results does not trigger the existing orders prompt
8392	New	Normal	Error when scheduling and responsible party and emergency contact are the same
8387	New	Normal	Signing and Dictation context menu item behaviour is inconsistent
8379	Resolved	Normal	Title of a Peer Review Report and the title from the folder do not match
8378	Resolved	Normal	Peer Review Reports are not displaying today's data unless tomorrow's date is included in the date range
8374	New	Normal	Error when trying to edit an Image Request if the Deliver To/Pickup By section did not have a name included.
8302	New	Normal	Assigned Radiologist is not recognized as assigned in the Assign to Radiologist window

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8289	New	Normal	Mammo breast diagram in reporting window has option to clear all images
8285	New	Normal	Dark mode in personnel editor -> account tab, cannot see values
8282	New	Normal	Dictation Control - Form that is already visible cannot be displayed as a modal dialog box.
8278	New	Normal	Close button appears to be disabled after selecting OK for ?no phone number? alert
8273	Resolved	Normal	Burn CD - Destination path label doesn't display path if Auto Select is used
8262	New	Normal	Mgmt Report: Audit Log by Patient
8249	New	Normal	Diagnose Reporting Screen Layout - show BI-RADS trademark
8247	New	Normal	Save as Order - Column 'visit_key' is read only
8232	New	Normal	Dark Mode - Theming - Recommendation dropdown in the BIRADS picker control not styling properly
8230	New	Normal	able to open the same accession twice in rad window
8175	New	Normal	Creating an addendum from "All signed by Date WL" using Powerscribe360 with auto feed next from worklist turned on, will not let you exit the exam if selecting No to creating an addendum prompt.
8168	New	Normal	Checking "Show Expired Policies" checkbox will undo changes made to a policy expired checkbox status
8030	New	Normal	Using the tab while adding an insurance policy causes another policy row to be started which causes an alert to user.
8455	New	Normal	Error produced if contrast amount is deleted and then the Start or Complete button is selected

User Release Notes

for eRAD RIS
Version 2
Build 44.1

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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 44.1 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.44.1

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 2.44.1 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. New Access Strings and Configuration Settings 44.1

Setting Placeholder	Setting	Default	Purpose / Controls Access to
Access string / User Group Permission tables	Clinical.RepostToBilling	None	Enables access to the billing confirmation / Repost context menu action
Access string / User Group Permission tables	WL.BillingConfirmation	None	WL access for Billing Confirmation work list under Administration menu
Access string / User Group Permission tables	Clinical.Billing.ShowCodingColumns	None	Controls the ability to see the billing confirmation coding columns in the Billing Codes grid. See the view edit screen, for an example of the Billing Codes grid.
SystemConfig lookup	BillingConfirmationWLLag	60	The number of minutes Lag after which the billing code(s) that has not been finalized will display in the Billing Confirmation WL.
SystemConfig lookup	RISOrderSourceDescription	RIS	Describes RIS generated orders
SystemConfig lookup	ICodeExpirationDays	5	The number of days from the time an ICode is created to when it will expire, negative value will provide no expiry date.
SystemConfig lookup	TechContrastRequired	False	Disables the Contrast Required feature. The Contrast grid on the Perform Exam window and also on the View/Edit window will not require an entry.

5. New Features and Enhancements

Billing Integrity

The eRAD RIS sends “billing” messages to Zotec when an exam reaches a final state. A final state occurs when either the diagnostic report for the exam is signed (identified with a status of “Signed”) or when only the technical component (acquisition) of an exam is to be performed (identified with a status of “ExamDoneTechOnly”). Once either of these states is reached a final validation is done on the exam’s data, such as insurance details, referring physician details, etc. If the validation passes the study’s billing status is changed to “Billed”. If not the study is put on the Billing Exception WL. A RIS user can work this work list to correct the failed edits and subsequently push the study to a “Billed” status. Once the study reaches “Billed” status then eRAD RIS will send a “StudyBilled” message to Mirth. Mirth will then encode the message to appropriate format, likely HL7, and send it to the desired billing system for processing.

Although the eRAD RIS status suggests the study has been “Billed” the truth is RIS actually does not know if it has been billed or not. This status actually means the study has been pushed to an external billing system for post billing activity. eRAD RIS currently does not get any feedback from external billing systems to indicate the status of post billing activity. Without this it is very difficult to identify studies that have been reimbursed compared to those studies that still need reimbursement.

In build 44.1 a new work list titled Billing Confirmation WL has been added. Access to this work list is controlled by access string “**WL.BillingConfirmation**” which has a default of None. The work list is available under the Administration menu. This work list shows studies that have a billing code with the coding status of *Not Understood, Not Sufficient, Tentative*.

In addition to the coding status, the study won’t display until the Lag in the work list exceeds the system configured value for “**BillingConfirmationWLLag**” which is set in minutes. This is a new system configuration setting for this feature. It has a default value of 60 minutes.

The screenshot shows a window titled "Lookup Tables - SystemConfig" with a table containing system configuration settings. The table has columns for System Config Code, Value, and Default. The row for "BillingConfirmationWLLag" is highlighted, showing a value of 0 and a default of 60.

System Config Code	Value	Default
Contains: lag	Contains:	Contains:
BillingConfirmationWLLag	0	60

Figure 5.1 – New system configuration setting BillingConfirmationWLLag

The following is an example of the work list. Lag is a calculation of the minutes between <now> and coding_submitted_date. You can see the new columns of Coding Status, Coding Submitted

Date, Coding Last Action Date and Lag that have been created and included on this work list. All new columns are list further in this document

Flags	Coding Status	Coding Submitted Date	Coding Last Action Date	Lag	Status	Procedures
	Not Sufficient	01-27-2015 7:08 PM	01-27-2015 7:08 PM	3745	Signed	CT 4 Phase [ct0
	Not Sufficient	01-27-2015 7:08 PM	01-27-2015 7:08 PM	3745	Signed	CT Abdomen Wc
	Tentative Not Sufficient	2015 7:08 PM	01-27-2015 7:08 PM	3745	Signed	CT 3 Phase [CT1

Figure 5.2 – Billing Confirmation WL

From the billing confirmation you can open the study in View Edit, then on the Billing Codes tab you can change the coding status to “not remitting” and document the reason in the coding_notes field.

AEN	Units	PreCert #	Expiry Date	Billing Code	PreCert Status	BISN	Coding Status	Coding Notes	Added by Billing	Submitted	Last Coding
Parent Procedure : CT 3 Phase (CT13)											
	50			74170 (COMPUTED TOMOGRAPHY, ABDOMEN; WITHOUT CONTRAST...	Not Required	29	Final	N		01-26-2015 8:20 AM	01-26-2015 8:20 AM
	5			70482 (CT ORBIT SELLA/POST FOSSA/EAR C-/C+)	Not Required	28	Tentative	N		01-26-2015 8:20 AM	01-26-2015 8:20 AM

Figure 5.3 – View/edit window access from Billing Confirmation displaying Billing Codes tab

Looking at the Billing Codes tab above there are new columns added. The columns of BISN, Coding Status, Coding Notes, Added by Billing, Change Reason, Submitted, Last Coding and Downcoded Procedure (which is not displayed by default but can be added via column chooser. To access the column chooser right click on a column header)

From the billing confirmation you can also Repost items back to billing. This feature supports multi select and is accessible from the right-click “Repost” context menu.

Flags	Coding Status	Coding Last Action Date	Lag	Status	Procedures
	StartsWith: ten				
	Tentative	01-25-2015 3:49 PM	3	Signed	MA Digital Mammo CB Di
	Tentative		3	Signed	CT 3 Phase [CT13]

Figure 5.4 – Repost from Billing Confirmation WL

The following is the list of new columns added that appear on the Billing Confirmation WL or on the Billing Codes tab of View/Edit

bisn – (billing item serial number)

Identity column, generated upon saving a billing code. It is required to have a value in the DB. It should be unique for the entire database. Its purpose is to uniquely identify a billing item. To be used with in the interface with an external billing system.

coding_status

Billing code's coding status, which defaults to null. The external billing system will send messages to update the status. The coding status will be one of the following values:

- Submitted
- Not Understood
- Not Sufficient
- Tentative
- Final
- Not Remitting

If 'Not Understood' or 'Not Sufficient' the coding_notes field will contain an explanation. If the status is 'Final' and it is a new billing code the coding_notes field will contain an explanation

coding_notes

A general notes field to be used by eRAD RIS to add comments regarding billing items that needed an action.

added_by_billing_flag

A flag to indicate that the diagnosis code was "downcoded"

downcoded_procedure_code

A procedure code assigned by the external billing/coding system

coding_submitted_date

A date time to indicate when the coding was sent to the billing system

coding_recieved_date

A date time to indicate when the coding was received in the billing system

coding_last_action_date

A date time to indicate last processing action by the external billing system, which will be used to calculate the lag column in the billing confirmation worklist.

Insurance Eligibility – Tier 2 and Advanced and Complex Parsing

If the insurance return’s Xray section contains line items with “TIER 2” or “TIER TWO” we will move those line items so they only exist in the CT/MRI section of the return. For “TIER 2” and “TIER TWO”, this is the default functionality. We have seen several cases where this is necessary.

For additional cases, where there is a need to move line items between service sections, we have introduced configuration via the `c_eligibility_special_conditions` as shown in the following.

Code	Matching String	Exclude Line Item Flag	Description
ns:	Contains:	Contains:	Contains:
ere to add a new row			
	{MOVE 4-62: PET SCAN PCP OP FACILITY}	Y	Moves line items with the ... PET SCAN PCP OP FACILITY from the "XRAY" section to the "CT/MRI" section

Figure 5.5 – Configuring Eligibility Special Condition

To meet the other requirements, customers can create new rules such as:

- <move 4-62: Radiology Advanced>
- <move 4-62: Complex Imaging >

Insurance Eligibility – Store Carrier User and Pin for Eligible

Eligible now requires eRAD RIS to store and forward a user and pin to connect to a particular carrier. Although it is only for one carrier today, the number of carriers that eligible will require this for will increase in the future.

The EligibleConfig lookup table has 2 new columns added titled Portal User and Provider Pin. The Portal User will store the username required for Eligible to connect to the carrier and the Provider Pin is similar to a password that the Carrier will also require to be passed over.

Practice Code	Site Code	Carrier Code	Eligible Api String	Group Npi	Provider Pin	Portal User
Contains: ▾	Contains: ▾	Contains: ▾	Contains: ▾	Contains: ▾	Contains: ▾	Contains: ▾
Click here to add a new row						
Advanced Radiology	EL ((EL) Eldersburg)	0100Kern1 - Kern 1	21067474-	.36082ab	1548265036 181	j#1 gl r

Figure 5.6 – EligibleConfig lookup displaying new columns

CD Burning Enhancements

Improved Detection of Not Enough Disk Space

In previous builds in which we supported CD Exporting (or CD Burning) from the RIS we would gather an estimated size of the images to be burned. The estimated sizes could vary greatly and the end result could be a significant size difference. This made it difficult to determine what media type to use (CD or DVD).

To improve the Burn CD process we will no longer use the estimated size and will no longer present message at beginning of burn process informing that you might want to consider using DVD. Instead we will now wait until 2/3 of the burn process (around 66%) is complete and we have an actual size of the image(s) that have been requested to be copied.

If the size of the image(s) exceeds 650MB we will present the user with a message "There are too many studies to fit on a CD. Would you like to burn these studies to a DVD?"

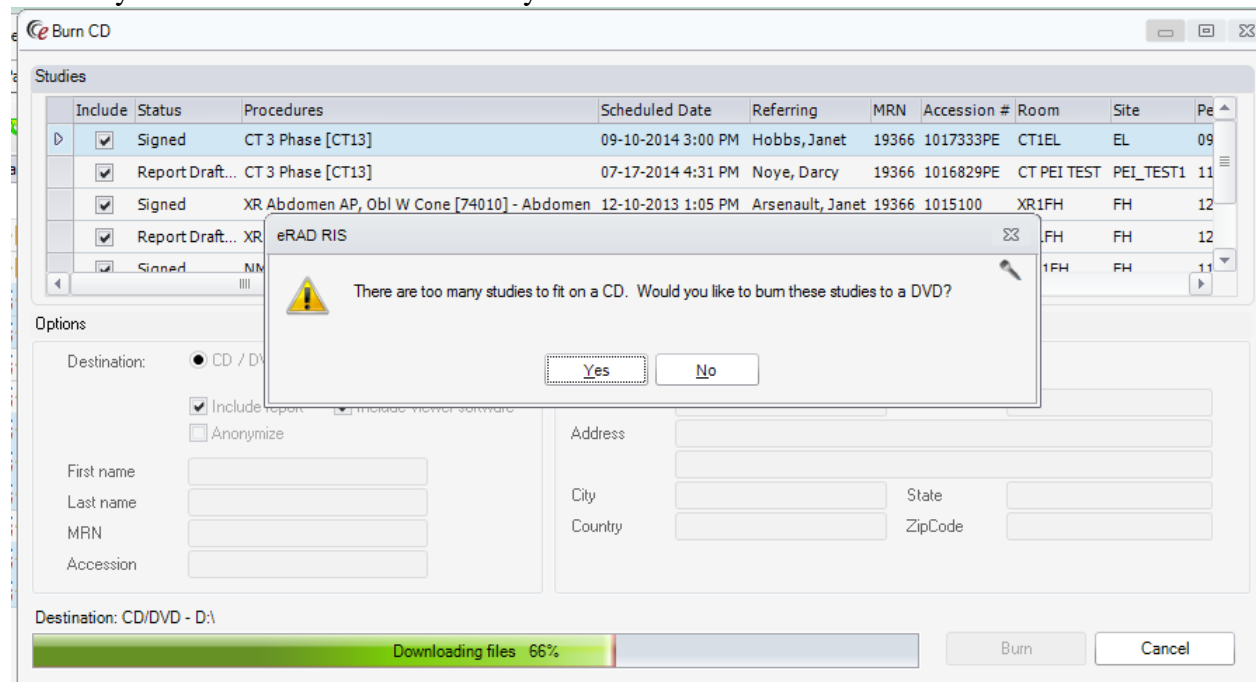


Figure 5.7 – Burn CD prompt for too many studies for a CD

With the message presented the user must change the media before selecting Yes. If they leave the CD in and select Yes they will immediately get an error of Not enough space and the Burn process will not resume. The user will need to start again.

Selecting No will abort the Burn CD process and close the window.

Remember Previous Destination

Another enhancement is the Burn CD window will remember the user previous destination selection. If you are a user that uses Disc Producer only, that destination radio button will be selected the next time you open the Burn CD window. Also if there happens to be multiple Disc Producers, the last one selected will also be remembered.

CD Burner User Profile

Lastly a new field was added on the Practice table that will allow for a “CD burner user profile” to be added and will be the default layout used when burning CDs.

A user account is created in eRAD PACS with a defined hanging protocol that will be the default layout of images displayed from burned CD will be presented. The username of the eRAD PACS account is then added to the CD burner user profile field. This is accessed under the Administration > Configure > System > Organization, select the practice that you want to have the profile associated with and open for edit. On the PACS and Reporting tab enter in the User ID that was created in the PACS in the CD burner user profile field. Save the Organization lookup table.

The screenshot shows the 'Add/Edit Practice' form with several sections: Details, Contact, Address, Logo, PACS, and Reporting. The 'CD burner user profile' field in the PACS section is highlighted with a red box. The field contains the value 'darcyn'. Other fields include Practice code (ADV), Description (Advanced Imaging), Phone #, Fax #, Time zone, Contact name, Phone #, Mobile #, Fax #, Email, Contact notes (jim@mail.com), Address 1, Address 2, City, State, Zip code, Country (US), PACS server (PEI eRAD PACS), and CDS object ID.

Figure 5.7 – CD burner user profile field on Practice lookup table

Show Patient Notes of Merged Patients

In previous versions of eRAD RIS, when a patient was merged with another, the source patients, patient notes didn't display on the destination patients, patient notes. In Build 44.1 a new hyperlink has been added to the Patient Notes tab. When looking at the figure below the Previous patient notes hyperlink will open a new Previous Patient Notes window and display the notes for all of the patients that have been merged to the current patient.

The notes will be grouped under a header that shows the previous patient name, MRN, and the date of the merge. The user can then use the mouse to highlight the text they want to extract and press Control+C to copy the text to the clipboard so that it can be pasted into the notes section and saved.

All screens that allow the user to add patient notes have had the Previous Patient Notes added.

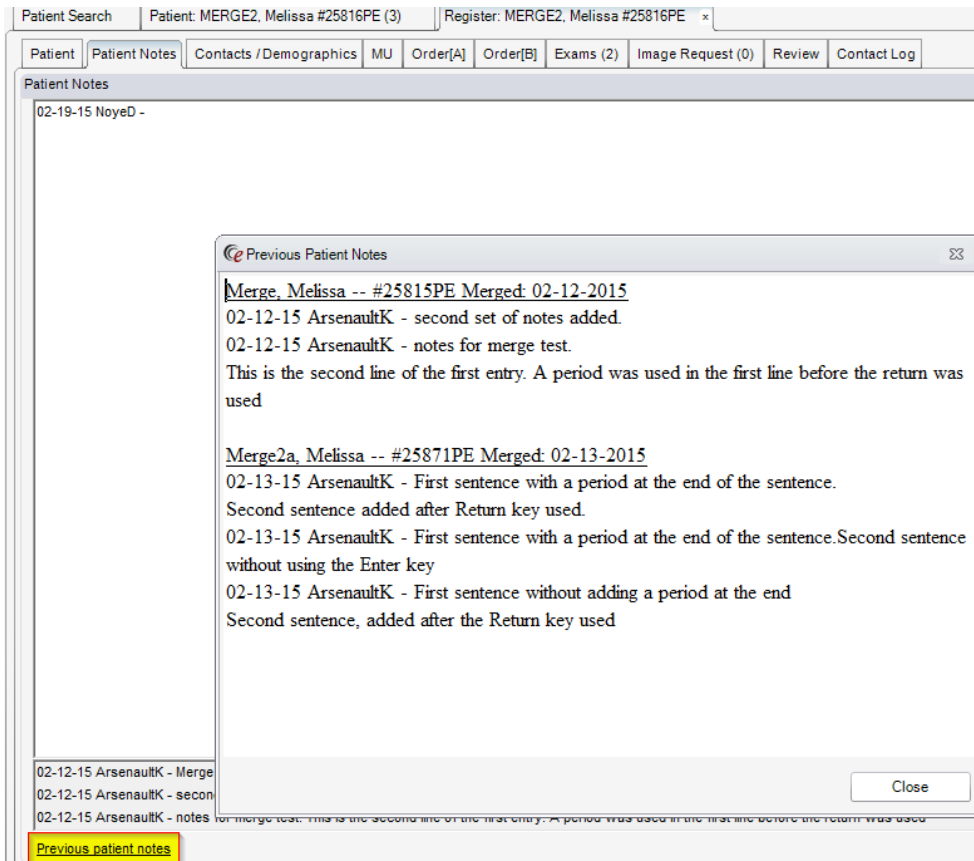


Figure 5.8 – Displaying previous patient notes of merged patients

Display Issuer of Order on Existing Orders Pop-Up Window

A new column titled Order Source has been added to the Existing Orders window prompt that will display the Issuer of the Order.

The Existing Orders prompt is displayed when creating a New Appointment or Walk-In for a patient that has pre-existing orders in the system.

IT will show either the value of the “issuer_of_placer_order_number” column in the order (when specified, this is generally the emr code), or the value from the new system configuration setting of “**RISOrderSourceDescription**” that has a default of “RIS” for an internally generated order.

If the “issuer_of_placer_order_number” matches an EMR code in the EMR lookup table, the tooltip for the Order Source column will show the full description of the EMR as well as the EMR code.

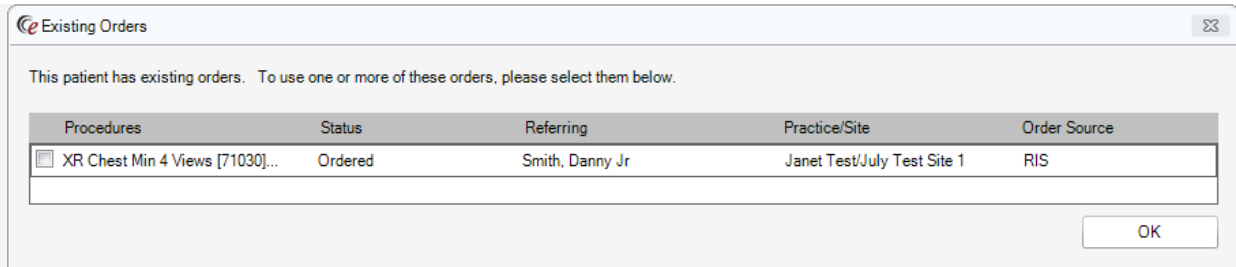


Figure 5.9 – Issuer of Order “Order Source” added to Existing Orders window

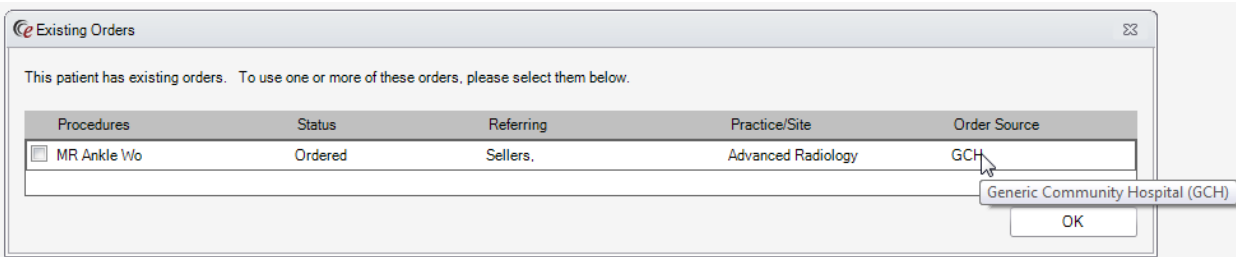
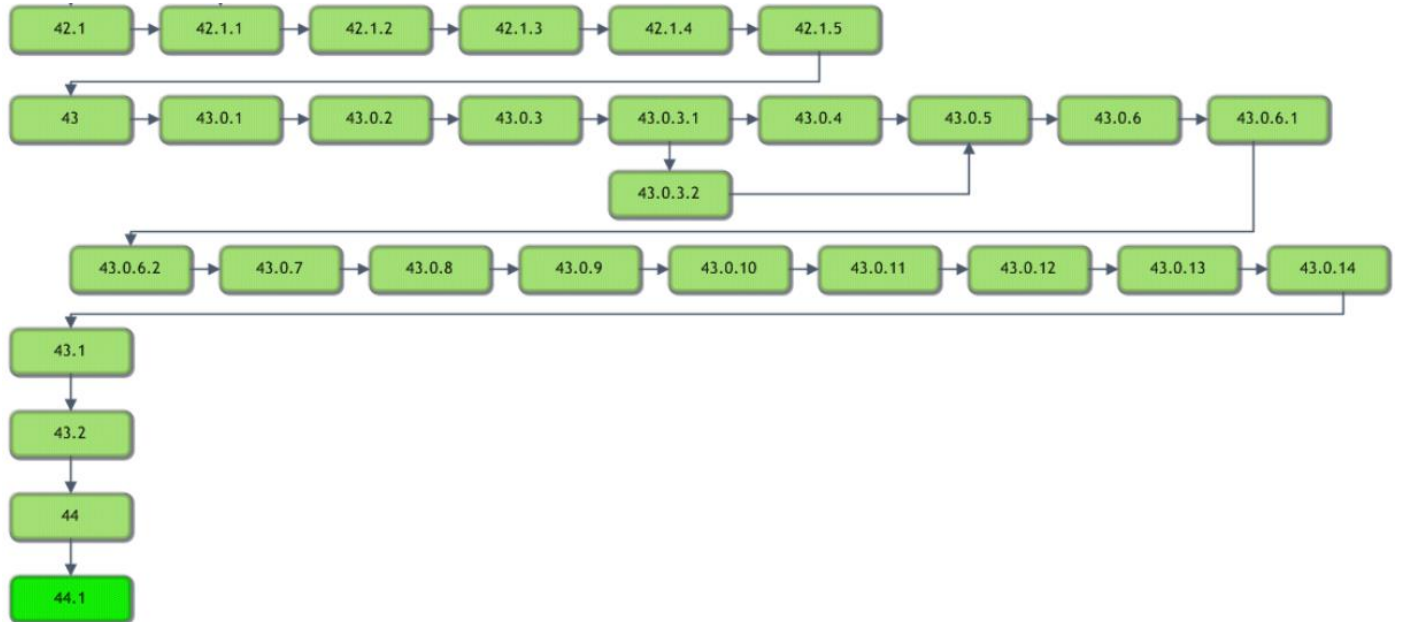


Figure 5.10 – Order Source with tooltip displayed

Disable Contrast Required

The feature of Contrast, Sedation and CT Dosage Tracking was included with Build 44. The means to turn this feature off was on each individual procedure code using the Requires Contrast Flag. In Build 44.1 we have added a global configuration setting of “**TechContrastRequired**” which has a default of False. When using the default the Contrast grid will still be present in the Perform Exam and View/Edit windows but the user will not be required to enter a contrast to save the study. When a value of True is added, the feature will work as intended when released with Build 44.

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
42.1	-	2.42.1.0.22744	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.22963	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates
42.1	2	2.42.1.2.23007(3GB)	2.42.0.0.21261	2.42.1.2.23007	2.42.1.1.23007	GUI.zip, Web Service, DB updates
42.1	3	2.42.1.3.23237(3GB)	2.42.0.0.21261	2.42.1.3.23237	2.42.1.1.23007	GUI.zip, Web Services
42.1	4	2.42.1.4.23348(3GB)	2.42.0.0.21261	2.42.1.4.23348	2.42.1.1.23007	GUI.zip, Web Services
42.1	5	2.42.1.5.23406(3GB)	2.42.0.0.21261	2.42.1.5.23406	2.42.1.1.23007	GUI.zip, Web Services
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	2.44.0.0.27145	Gui.zip, Web Service, and DB

8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.44.1. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.44.1.

Bug #	Priority	Subject	Category	Found Version
9269	Immediate	B44.1 upgrade scripts are taking too long to run on large database	DB	2.44.1
9012	Immediate	missing reply to information for the secure message	Connect Patient Portal 1.x	2.44
8223	Urgent	IVT WL queries are terribly slow for a 3 Radnet data centers	IVT / Precert	2.43
8759	Urgent	Pending Dictation WL is taking a long time to process results.	Worklists	2.43.1
9010	Urgent	Insurance Eligibility - NPD pricing is missing some billing codes	Insurance Eligibility	44
7256	High	CD Burning - Improve detection of "not enough space"	CD Burning	2.43
8463	High	Insurance Eligibility - Eligibility is preventing scheduling of follow-up	Insurance Eligibility	43.1
8653	High	Insurance Eligibility - update on the order resulting in wrong IVT Intervention flag on the order table.	Insurance Eligibility	43.1
8659	High	All signed pending QA context menu option for verify reports doesn't open proper action and report can be released	Radiology Reporting	2.44
8761	High	QA flag is not removed after verifying edit	Radiology Reporting	2.44
9023	High	Activation issue when using next workflow in dictation screen with reuse on.	Radiology Reporting	2.44
9024	High	Possibility that when you open a reporting screen, RIS get relocated to cursor position.	Radiology Reporting	2.44
3538	Normal	Reception / Technologist wl Precert required column not updated correctly	Worklists	1.4
4394	Normal	Signed pending release WL context menu item missing.	Radiology Reporting	1.4
7917	Normal	CD Burning generate may generate http requests for status updates every second	CD Burning	2.43.0.11

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7967	Normal	Insurance Eligibility - Tier 2 and advanced / complex parsing.	Insurance Eligibility	43.0.6
8025	Normal	Insurance Eligibility - Remaining Copay is incorrectly taken as co-payment amount	Insurance Eligibility	43.0.12
8116	Normal	CD Burning - remember users previous destination preference	CD Burning	43.1
8273	Normal	Burn CD - Destination path label doesn't display path if Auto Select is used	CD Burning	2.44
8680	Normal	MU - Generating of the Icode code needs to be expanded to generate the Icode code at Check-In Status	Meaningful Use	2.43
8760	Normal	ICode expiration date is currently hard codes to 5 days needs to be changed	Connect Patient Portal 1.x	2.44
9157	Normal	Unable to make contrast not required for techs without affecting MU contrast alerts	Technologist	2.44
4617	Low	Expired Insurances	Insurance Management	1.41

9. Additional Defects Resolved

The following list of defects was reviewed\retested in 2.44.1 and could no longer be reproduced. These defects may have been resolved with a duplicate defect logged in Redmine, resolved inadvertently with the resolution of another defect or work flow has changed so that the logged defect is no longer an issue or a defect was logged against a workflow that no longer is supported (Example – Bug 2124 – We no longer allow orders to be opened in registration window)

Bug #	Priority	Subject	Found Version
4574	High	Outside Reads - history field changed to signs and symptoms	1.41
4731	High	Should not have the ability to click sign twice on a Laterality check message box	1.41
5333	High	Reporting - Attachment viewer "Show More" option doesn't display attachment	1.41.1
2124	Normal	procedure picker does not refresh after checkin	1.1.2.37.14326
2764	Normal	Scheduling - No warning on deleting studies with assigned attachments	1.1.3.39.15389
2880	Normal	Notification for pending signature not displaying when study count is met.	1.39
3065	Normal	Carrier search - Object reference error if search performed more than once	1.4
3135	Normal	Procedure code description in new appointment truncates (the display) of some procedure codes	1.4
3175	Normal	Pending Pacs Correction message needs clean up	1.4
3361	Normal	When cloning multiple Personnel, scrolling loses focus on what you select	1.1.3.39.16026
3524	Normal	Reschedule a multi study second time does not include second study	1.40.004
3537	Normal	@accession number search throws error if patient has cancelled orders	1.4
3582	Normal	Reporting - protect sections and delete table raising exceptions	1.4
3597	Normal	Laterality check message on transcribe	1.4

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3600	Normal	Audit log error when more then one patients audit history is opened	1.40.006
3682	Normal	Delete dictation on a study that was signed by contribute A (maybe b too)	1.40.007
3893	Normal	MT Transcribe & Continue/Close user preference not saving	1.40.010
4372	Normal	Creating a new appointment from the patient search window causes error.	1.41
4421	Normal	Shortcut for Tables not working in report editor (CTRL + T)	1.41
4645	Normal	Inactive procedure codes appear in the Procedure Plan table	1.41
4646	Normal	Schedule group lookup needs default column widths	1.41
4901	Normal	Scheduling - reservation needs to happen when picked	1.4
4941	Normal	Reporting - Autosave timing error	1.41.002
4967	Normal	Reporting - Submit audio in minimized mode throws error.	1.41.002
5275	Normal	Reporting - Adding empty space to field will allow user to sign	1.41.1
5319	Normal	Reporting - closing Attachment Viewer Preferences throws error in reporting window.	1.41.1
5320	Normal	Reporting - Attachment viewer in reporting window - double click to open the report will change to the next scan doc.	1.41.1
5502	Normal	Error when opening a patient merge suggestion: "Source patient not found"	1.41.002.1
5519	Normal	Reporting - pending signature on login and pending signature worklist notifications can be shown at the same time	1.42
6033	Normal	Scheduling - Holiday is not displayed in New Appointment Calendar view.	1.42
3886	Low	Reporting - Default button action on Skip/ Close button	1.40.010

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4027	Low	Image request - Remove image request, select edit throws error	1.40.013
4163	Low	Perform Exam - Cancelled studies in patient history list have buttons enabled	1.41.015

10. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.44.1. Bugs reported in previous versions are not captured as Known Limitation in this document.

#	Status	Priority	Subject
9166	New	High	Contrast is required on view/edit when contrast setting is set to true and is required
9181	New	High	Contrast - Perform Exam on non-contrast and contrast study copying contrast/billing codes to non-contrast study
9013	New	Normal	Preferred Site (c_orderRow.filler_site_code) not auto-populating on Scheduling/Walk-ins
9014	New	Normal	Preferred Site (c_orderRow.filler_site_code) isn't required when saving an order through "Schedule Later"
9100	New	Normal	Contrast - If a contrast is made inactive it still is available for selection and could be added to billing codes
9103	New	Normal	Contrast billing- if a BillingCode is not Active it will still be added to the billing code tab if the Contrast associated to it is added to Contrast grid
9106	New	Normal	Rescheduling- choosing Schedule Later from the Appointment Book will not change the status of the procedure in Reception WL or Patient folder
9122	New	Normal	EMR orders - the laterality is sent from external system but is not populated in scheduling window
9139	New	Normal	EMR order does not reflect correct information on Review tab.
9172	New	Normal	Contrast - Billing codes added on Perform Exam window don't get pre-cert status added.
9190	New	Normal	Contrast and Sedation - Manually delete default contrast will remove 2nd contrast code from grid
9117	In Progress	Normal	EMR order - attempt to schedule a 2nd time and schedule window has incorrect information.
9099	Peer Testing	Normal	Verify edits context menu option available from Report Drafted WL
8999	New	Low	Personnel - Domain authentication checkbox being auto-checked with no visual indication
9007	New	Low	IVT Window - Removing Insurance on exam/practice that doesn't require IV isn't adding exam to IVT WL
9158	New	Low	EMR order - the phone number is not displayed correctly in WL
9169	New	Low	System Config code - 'EnableContrastBillingRelation'

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			the default is set to True, should be set to False
9184	New	Low	Contrast - Perform Exam - Billing Codes added to empty Billing Code grid do not re-enable the Edit/Delete buttons
9185	New	Low	Outside Read - alert for no billing codes only appears after clicking save
9116	Resolved	Low	EMR orders - schedule - The Map Procedures to EMR order window has a double 'the' in the instructions
9009	Duplicate	Low	Preferred Site dropdown required on scheduling after clicking Save as Order button.

Server Update

For eRAD RIS
Version 2.0
Build 44.1
Update 44.1.1

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eRAD RIS Server Update

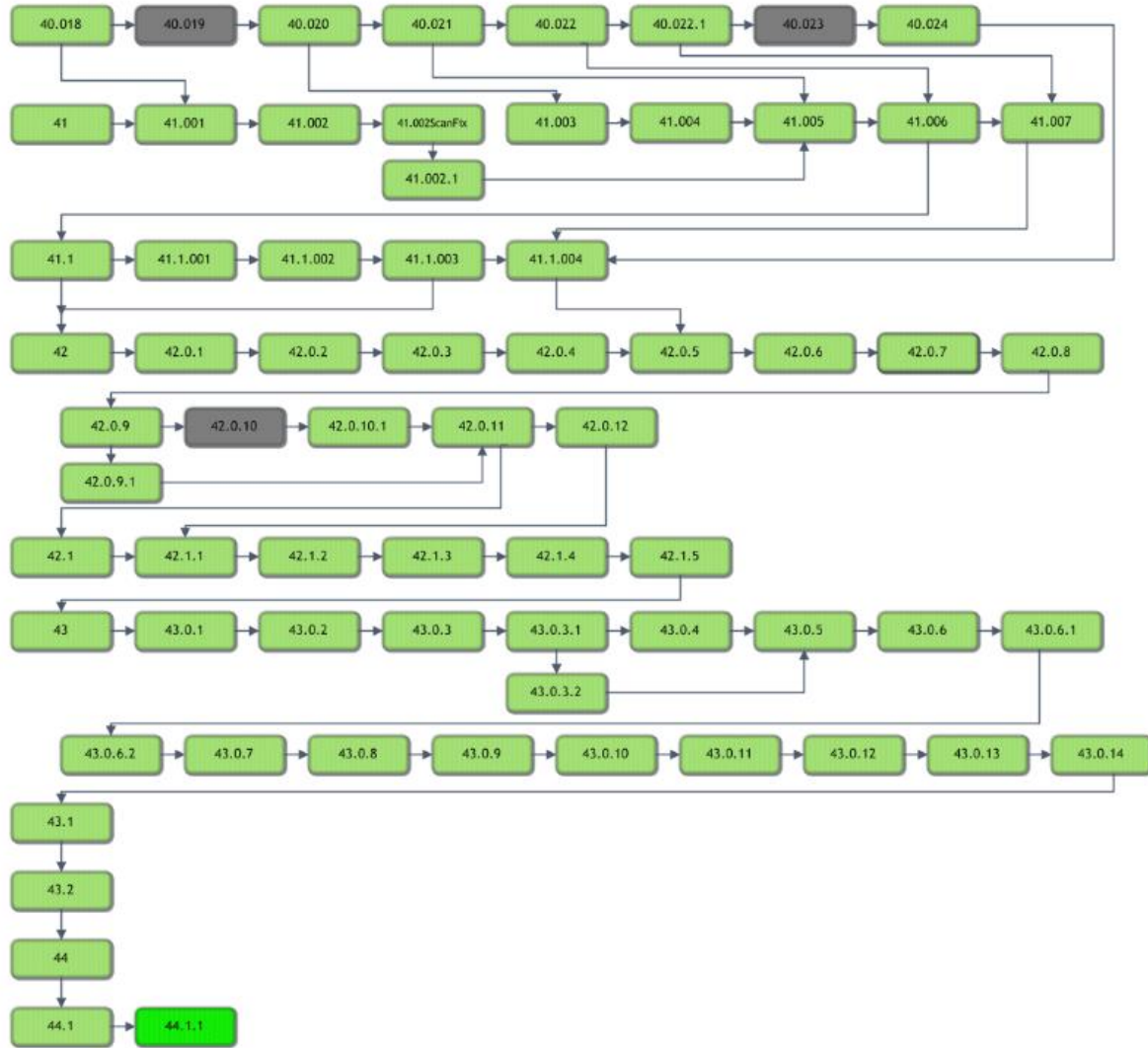
1. Defects Resolved

Redmine #	Tracker	Subject	Priority
9249	Bug	Reporting Radiology - Previous field "ProcedureDescription" not working after upgrading to 44.x	Urgent

eRAD RIS Server Update

2. Code Stream

eRAD RIS - Source Code Evolution



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

3. Package Contents

Files included for this server update:

- 1) GUI ZIP Updates folder contains:
 - rRIS_1.3.44.1.1.27093.zip

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

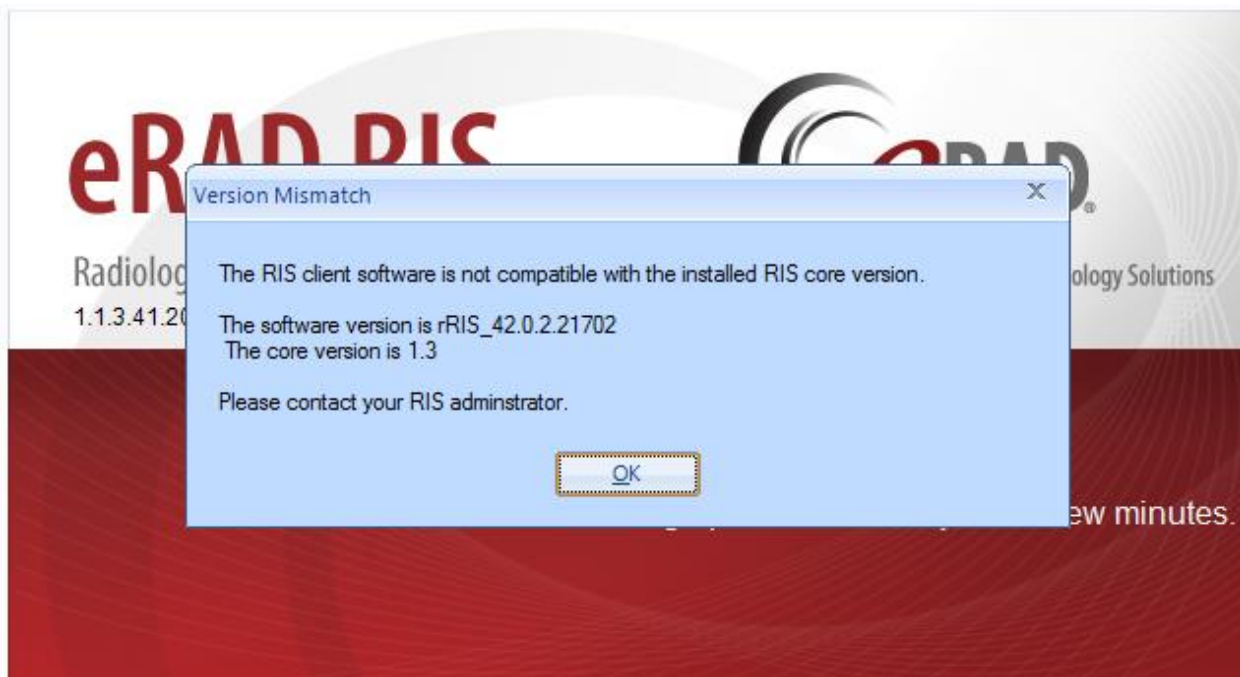
Build 44.1 installs. Server updates are not cumulative. This server update must be applied to 44.1.1

6. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
42.1	-	2.42.1.0.22744(3GB)	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.2296(3GB)	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates
42.1	2	2.42.1.2.23007(3GB)	2.42.0.0.21261	2.42.1.2.23007	2.42.1.2.23007	GUI.zip, Web Service, DB updates
42.1	3	2.42.1.2.23237(3GB)	2.42.0.0.21261	2.42.1.2.23237	2.42.1.2.23007	GUI.zip, Web Services
42.1	4	2.42.1.4.23348(3GB)	2.42.0.0.21261	2.42.1.4.23348	2.42.1.2.23007	GUI.zip, Web Services
42.1	5	2.42.1.5.23406(3GB)	2.42.0.0.21261	2.42.1.5.23406	2.42.1.2.23007	GUI.zip, Web Services
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	2.43.0.5.24632(3GB)	2.43.0.0.23171	2.43.0.5.24632	2.43.0.5.24560	GUI.zip, Web Service and DB updates
43	6	2.43.0.6.24914(3GB)	2.43.0.0.23171	2.43.0.6.24914	2.43.0.6.24914	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	2.43.0.13.25610(3GB)	2.43.0.0.23171	2.43.0.13.25610	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	-	2.44.1.0.26984(3GB)	2.44.0.0.26405	2.44.1.0.26984	2.44.1.0.26906	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

7. Installing

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.44.1.1.27093.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_44.1.1.27093 → rRIS_1.3.44.1.1.27093

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

User Release Notes

for eRAD RIS
Version 2
Build 44.1

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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 44.1 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.44.1

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 2.44.1 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. New Access Strings and Configuration Settings 44.1

Setting Placeholder	Setting	Default	Purpose / Controls Access to
Access string / User Group Permission tables	Clinical.RepostToBilling	None	Enables access to the billing confirmation / Repost context menu action
Access string / User Group Permission tables	WL.BillingConfirmation	None	WL access for Billing Confirmation work list under Administration menu
Access string / User Group Permission tables	Clinical.Billing.ShowCodingColumns	None	Controls the ability to see the billing confirmation coding columns in the Billing Codes grid. See the view edit screen, for an example of the Billing Codes grid.
SystemConfig lookup	BillingConfirmationWLLag	60	The number of minutes Lag after which the billing code(s) that has not been finalized will display in the Billing Confirmation WL.
SystemConfig lookup	RISOrderSourceDescription	RIS	Describes RIS generated orders
SystemConfig lookup	ICodeExpirationDays	5	The number of days from the time an ICode is created to when it will expire, negative value will provide no expiry date.
SystemConfig lookup	TechContrastRequired	False	Disables the Contrast Required feature. The Contrast grid on the Perform Exam window and also on the View/Edit window will not require an entry.

5. New Features and Enhancements

Billing Integrity

The eRAD RIS sends “billing” messages to Zotec when an exam reaches a final state. A final state occurs when either the diagnostic report for the exam is signed (identified with a status of “Signed”) or when only the technical component (acquisition) of an exam is to be performed (identified with a status of “ExamDoneTechOnly”). Once either of these states is reached a final validation is done on the exam’s data, such as insurance details, referring physician details, etc. If the validation passes the study’s billing status is changed to “Billed”. If not the study is put on the Billing Exception WL. A RIS user can work this work list to correct the failed edits and subsequently push the study to a “Billed” status. Once the study reaches “Billed” status then eRAD RIS will send a “StudyBilled” message to Mirth. Mirth will then encode the message to appropriate format, likely HL7, and send it to the desired billing system for processing.

Although the eRAD RIS status suggests the study has been “Billed” the truth is RIS actually does not know if it has been billed or not. This status actually means the study has been pushed to an external billing system for post billing activity. eRAD RIS currently does not get any feedback from external billing systems to indicate the status of post billing activity. Without this it is very difficult to identify studies that have been reimbursed compared to those studies that still need reimbursement.

In build 44.1 a new work list titled Billing Confirmation WL has been added. Access to this work list is controlled by access string “**WL.BillingConfirmation**” which has a default of None. The work list is available under the Administration menu. This work list shows studies that have a billing code with the coding status of *Not Understood, Not Sufficient, Tentative*.

In addition to the coding status, the study won’t display until the Lag in the work list exceeds the system configured value for “**BillingConfirmationWLLag**” which is set in minutes. This is a new system configuration setting for this feature. It has a default value of 60 minutes.

The screenshot shows a window titled "Lookup Tables - SystemConfig" with a table containing system configuration settings. The table has columns for System Config Code, Value, and Default. The row for "BillingConfirmationWLLag" is highlighted, showing a value of 0 and a default of 60.

System Config Code	Value	Default
Contains: lag	Contains:	Contains:
BillingConfirmationWLLag	0	60

Figure 5.1 – New system configuration setting BillingConfirmationWLLag

The following is an example of the work list. Lag is a calculation of the minutes between <now> and coding_submitted_date. You can see the new columns of Coding Status, Coding Submitted

Date, Coding Last Action Date and Lag that have been created and included on this work list. All new columns are list further in this document

Flags	Coding Status	Coding Submitted Date	Coding Last Action Date	Lag	Status	Procedures
	Not Sufficient	01-27-2015 7:08 PM	01-27-2015 7:08 PM	3745	Signed	CT 4 Phase [ct0
	Not Sufficient	01-27-2015 7:08 PM	01-27-2015 7:08 PM	3745	Signed	CT Abdomen Wc
	Tentative Not Sufficient	2015 7:08 PM	01-27-2015 7:08 PM	3745	Signed	CT 3 Phase [CT1

Figure 5.2 – Billing Confirmation WL

From the billing confirmation you can open the study in View Edit, then on the Billing Codes tab you can change the coding status to “not remitting” and document the reason in the coding_notes field.

AEN	Units	PreCert #	Expiry Date	Billing Code	PreCert Status	BISN	Coding Status	Coding Notes	Added by Billing	Submitted	Last Coding
Parent Procedure : CT 3 Phase (CT13)											
	50			74170 (COMPUTED TOMOGRAPHY, ABDOMEN; WITHOUT CONTRAST...	Not Required	29	Final	N		01-26-2015 8:20 AM	01-26-2015 8:20 AM
	5			70482 (CT ORBIT SELLA/POST FOSSA/EAR C-/C+)	Not Required	28	Tentative	N		01-26-2015 8:20 AM	01-26-2015 8:20 AM

Figure 5.3 – View/edit window access from Billing Confirmation displaying Billing Codes tab

Looking at the Billing Codes tab above there are new columns added. The columns of BISN, Coding Status, Coding Notes, Added by Billing, Change Reason, Submitted, Last Coding and Downcoded Procedure (which is not displayed by default but can be added via column chooser. To access the column chooser right click on a column header)

From the billing confirmation you can also Repost items back to billing. This feature supports multi select and is accessible from the right-click “Repost” context menu.

Flags	Coding Status	Coding Last Action Date	Lag	Status	Procedures
	StartsWith: ten				
	Tentative	01-25-2015 3:49 PM	3	Signed	MA Digital Mammo CB Di
	Tentative		3	Signed	CT 3 Phase [CT13]

Figure 5.4 – Repost from Billing Confirmation WL

The following is the list of new columns added that appear on the Billing Confirmation WL or on the Billing Codes tab of View/Edit

bisn – (billing item serial number)

Identity column, generated upon saving a billing code. It is required to have a value in the DB. It should be unique for the entire database. Its purpose is to uniquely identify a billing item. To be used with in the interface with an external billing system.

coding_status

Billing code's coding status, which defaults to null. The external billing system will send messages to update the status. The coding status will be one of the following values:

- Submitted
- Not Understood
- Not Sufficient
- Tentative
- Final
- Not Remitting

If 'Not Understood' or 'Not Sufficient' the coding_notes field will contain an explanation. If the status is 'Final' and it is a new billing code the coding_notes field will contain an explanation

coding_notes

A general notes field to be used by eRAD RIS to add comments regarding billing items that needed an action.

added_by_billing_flag

A flag to indicate that the diagnosis code was "downcoded"

downcoded_procedure_code

A procedure code assigned by the external billing/coding system

coding_submitted_date

A date time to indicate when the coding was sent to the billing system

coding_recieved_date

A date time to indicate when the coding was received in the billing system

coding_last_action_date

A date time to indicate last processing action by the external billing system, which will be used to calculate the lag column in the billing confirmation worklist.

Insurance Eligibility – Tier 2 and Advanced and Complex Parsing

If the insurance return’s Xray section contains line items with “TIER 2” or “TIER TWO” we will move those line items so they only exist in the CT/MRI section of the return. For “TIER 2” and “TIER TWO”, this is the default functionality. We have seen several cases where this is necessary.

For additional cases, where there is a need to move line items between service sections, we have introduced configuration via the c_eligibility_special_conditions as shown in the following.

Figure 5.5 – Configuring Eligibility Special Condition

To meet the other requirements, customers can create new rules such as:

- <move 4-62: Radiology Advanced>
- <move 4-62: Complex Imaging >

Insurance Eligibility – Store Carrier User and Pin for Eligible

Eligible now requires eRAD RIS to store and forward a user and pin to connect to a particular carrier. Although it is only for one carrier today, the number of carriers that eligible will require this for will increase in the future.

The EligibleConfig lookup table has 2 new columns added titled Portal User and Provider Pin. The Portal User will store the username required for Eligible to connect to the carrier and the Provider Pin is similar to a password that the Carrier will also require to be passed over.

Practice Code	Site Code	Carrier Code	Eligible Api String	Group Npi	Provider Pin	Portal User
Contains: ▾	Contains: ▾	Contains: ▾	Contains: ▾	Contains: ▾	Contains: ▾	Contains: ▾
Click here to add a new row						
Advanced Radiology	EL ((EL) Eldersburg)	0100Kern1 - Kern 1	21067474-	.36082ab	1548265036 181	j#1 gl r

Figure 5.6 – EligibleConfig lookup displaying new columns

CD Burning Enhancements

Improved Detection of Not Enough Disk Space

In previous builds in which we supported CD Exporting (or CD Burning) from the RIS we would gather an estimated size of the images to be burned. The estimated sizes could vary greatly and the end result could be a significant size difference. This made it difficult to determine what media type to use (CD or DVD).

To improve the Burn CD process we will no longer use the estimated size and will no longer present message at beginning of burn process informing that you might want to consider using DVD. Instead we will now wait until 2/3 of the burn process (around 66%) is complete and we have an actual size of the image(s) that have been requested to be copied.

If the size of the image(s) exceeds 650MB we will present the user with a message "There are too many studies to fit on a CD. Would you like to burn these studies to a DVD?"

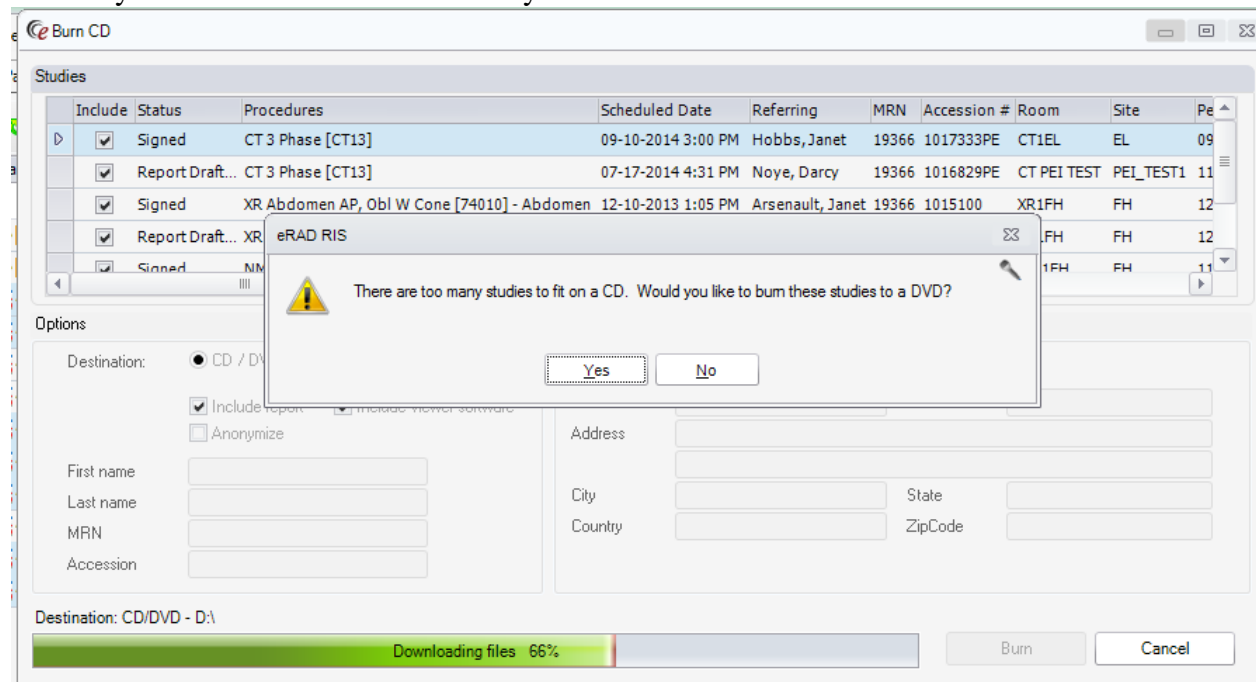


Figure 5.7 – Burn CD prompt for too many studies for a CD

With the message presented the user must change the media before selecting Yes. If they leave the CD in and select Yes they will immediately get an error of Not enough space and the Burn process will not resume. The user will need to start again.

Selecting No will abort the Burn CD process and close the window.

Remember Previous Destination

Another enhancement is the Burn CD window will remember the user previous destination selection. If you are a user that uses Disc Producer only, that destination radio button will be selected the next time you open the Burn CD window. Also if there happens to be multiple Disc Producers, the last one selected will also be remembered.

CD Burner User Profile

Lastly a new field was added on the Practice table that will allow for a “CD burner user profile” to be added and will be the default layout used when burning CDs.

A user account is created in eRAD PACS with a defined hanging protocol that will be the default layout of images displayed from burned CD will be presented. The username of the eRAD PACS account is then added to the CD burner user profile field. This is accessed under the Administration > Configure > System > Organization, select the practice that you want to have the profile associated with and open for edit. On the PACS and Reporting tab enter in the User ID that was created in the PACS in the CD burner user profile field. Save the Organization lookup table.

The screenshot shows the 'Add/Edit Practice' form with several sections: Details, Contact, Address, Logo, PACS, and Reporting. The 'CD burner user profile' field in the PACS section is highlighted with a red box. The field contains the value 'darcyn'. Other fields include Practice code (ADV), Description (Advanced Imaging), Phone #, Fax #, Time zone, Contact name, Phone #, Mobile #, Fax #, Email, Contact notes (jim@mail.com), Address 1, Address 2, City, State, Zip code, Country (US), PACS server (PEI eRAD PACS), and CDS object ID.

Figure 5.7 – CD burner user profile field on Practice lookup table

Show Patient Notes of Merged Patients

In previous versions of eRAD RIS, when a patient was merged with another, the source patients, patient notes didn't display on the destination patients, patient notes. In Build 44.1 a new hyperlink has been added to the Patient Notes tab. When looking at the figure below the Previous patient notes hyperlink will open a new Previous Patient Notes window and display the notes for all of the patients that have been merged to the current patient.

The notes will be grouped under a header that shows the previous patient name, MRN, and the date of the merge. The user can then use the mouse to highlight the text they want to extract and press Control+C to copy the text to the clipboard so that it can be pasted into the notes section and saved.

All screens that allow the user to add patient notes have had the Previous Patient Notes added.

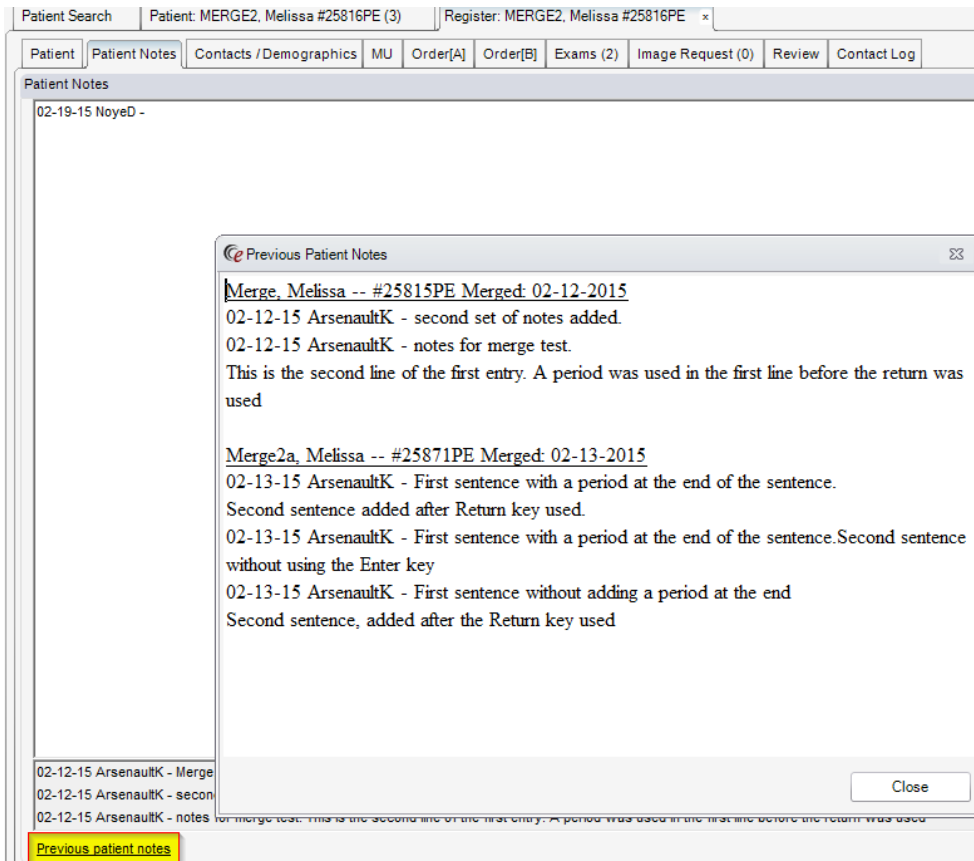


Figure 5.8 – Displaying previous patient notes of merged patients

Display Issuer of Order on Existing Orders Pop-Up Window

A new column titled Order Source has been added to the Existing Orders window prompt that will display the Issuer of the Order.

The Existing Orders prompt is displayed when creating a New Appointment or Walk-In for a patient that has pre-existing orders in the system.

IT will show either the value of the “issuer_of_placer_order_number” column in the order (when specified, this is generally the emr code), or the value from the new system configuration setting of “**RISOrderSourceDescription**” that has a default of “RIS” for an internally generated order.

If the “issuer_of_placer_order_number” matches an EMR code in the EMR lookup table, the tooltip for the Order Source column will show the full description of the EMR as well as the EMR code.

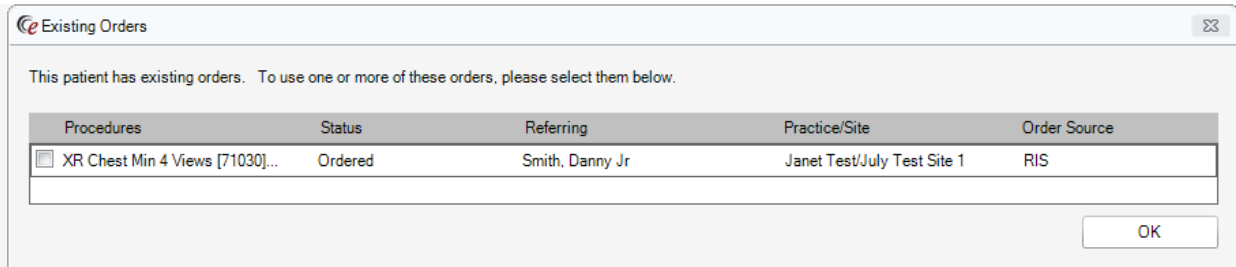


Figure 5.9 – Issuer of Order “Order Source” added to Existing Orders window

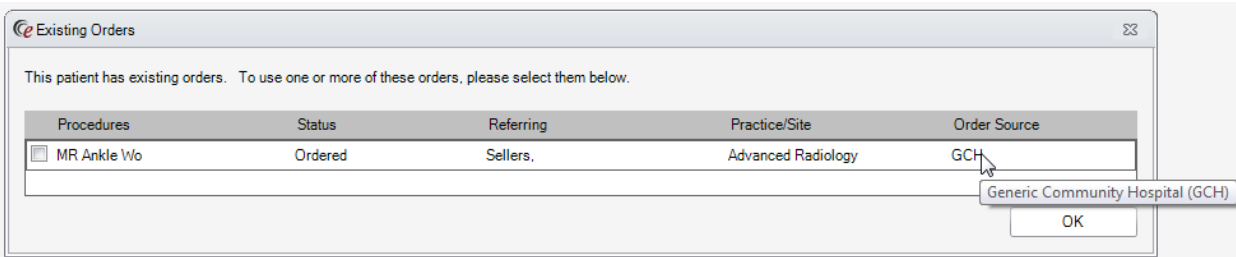
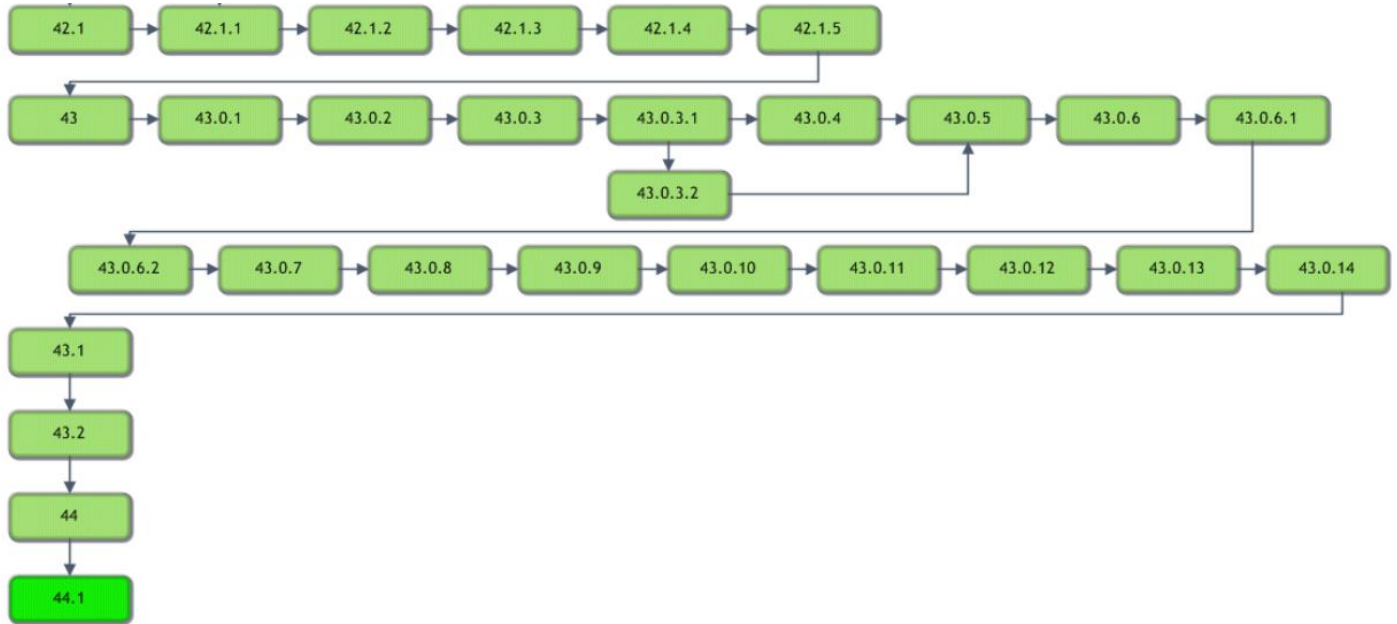


Figure 5.10 – Order Source with tooltip displayed

Disable Contrast Required

The feature of Contrast, Sedation and CT Dosage Tracking was included with Build 44. The means to turn this feature off was on each individual procedure code using the Requires Contrast Flag. In Build 44.1 we have added a global configuration setting of “**TechContrastRequired**” which has a default of False. When using the default the Contrast grid will still be present in the Perform Exam and View/Edit windows but the user will not be required to enter a contrast to save the study. When a value of True is added, the feature will work as intended when released with Build 44.

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
42.1	-	2.42.1.0.22744	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.22963	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates
42.1	2	2.42.1.2.23007(3GB)	2.42.0.0.21261	2.42.1.2.23007	2.42.1.1.23007	GUI.zip, Web Service, DB updates
42.1	3	2.42.1.3.23237(3GB)	2.42.0.0.21261	2.42.1.3.23237	2.42.1.1.23007	GUI.zip, Web Services
42.1	4	2.42.1.4.23348(3GB)	2.42.0.0.21261	2.42.1.4.23348	2.42.1.1.23007	GUI.zip, Web Services
42.1	5	2.42.1.5.23406(3GB)	2.42.0.0.21261	2.42.1.5.23406	2.42.1.1.23007	GUI.zip, Web Services
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	2.44.0.0.27145	Gui.zip, Web Service, and DB

8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.44.1. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.44.1.

Bug #	Priority	Subject	Category	Found Version
9269	Immediate	B44.1 upgrade scripts are taking too long to run on large database	DB	2.44.1
9012	Immediate	missing reply to information for the secure message	Connect Patient Portal 1.x	2.44
8223	Urgent	IVT WL queries are terribly slow for a 3 Radnet data centers	IVT / Precert	2.43
8759	Urgent	Pending Dictation WL is taking a long time to process results.	Worklists	2.43.1
9010	Urgent	Insurance Eligibility - NPD pricing is missing some billing codes	Insurance Eligibility	44
7256	High	CD Burning - Improve detection of "not enough space"	CD Burning	2.43
8463	High	Insurance Eligibility - Eligibility is preventing scheduling of follow-up	Insurance Eligibility	43.1
8653	High	Insurance Eligibility - update on the order resulting in wrong IVT Intervention flag on the order table.	Insurance Eligibility	43.1
8659	High	All signed pending QA context menu option for verify reports doesn't open proper action and report can be released	Radiology Reporting	2.44
8761	High	QA flag is not removed after verifying edit	Radiology Reporting	2.44
9023	High	Activation issue when using next workflow in dictation screen with reuse on.	Radiology Reporting	2.44
9024	High	Possibility that when you open a reporting screen, RIS get relocated to cursor position.	Radiology Reporting	2.44
3538	Normal	Reception / Technologist wl Precert required column not updated correctly	Worklists	1.4
4394	Normal	Signed pending release WL context menu item missing.	Radiology Reporting	1.4
7917	Normal	CD Burning generate may generate http requests for status updates every second	CD Burning	2.43.0.11

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7967	Normal	Insurance Eligibility - Tier 2 and advanced / complex parsing.	Insurance Eligibility	43.0.6
8025	Normal	Insurance Eligibility - Remaining Copay is incorrectly taken as co-payment amount	Insurance Eligibility	43.0.12
8116	Normal	CD Burning - remember users previous destination preference	CD Burning	43.1
8273	Normal	Burn CD - Destination path label doesn't display path if Auto Select is used	CD Burning	2.44
8680	Normal	MU - Generating of the Icode code needs to be expanded to generate the Icode code at Check-In Status	Meaningful Use	2.43
8760	Normal	ICode expiration date is currently hard codes to 5 days needs to be changed	Connect Patient Portal 1.x	2.44
9157	Normal	Unable to make contrast not required for techs without affecting MU contrast alerts	Technologist	2.44
4617	Low	Expired Insurances	Insurance Managment	1.41

9. Additional Defects Resolved

The following list of defects was reviewed\retested in 2.44.1 and could no longer be reproduced. These defects may have been resolved with a duplicate defect logged in Redmine, resolved inadvertently with the resolution of another defect or work flow has changed so that the logged defect is no longer an issue or a defect was logged against a workflow that no longer is supported (Example – Bug 2124 – We no longer allow orders to be opened in registration window)

Bug #	Priority	Subject	Found Version
4574	High	Outside Reads - history field changed to signs and symptoms	1.41
4731	High	Should not have the ability to click sign twice on a Laterality check message box	1.41
5333	High	Reporting - Attachment viewer "Show More" option doesn't display attachment	1.41.1
2124	Normal	procedure picker does not refresh after checkin	1.1.2.37.14326
2764	Normal	Scheduling - No warning on deleting studies with assigned attachments	1.1.3.39.15389
2880	Normal	Notification for pending signature not displaying when study count is met.	1.39
3065	Normal	Carrier search - Object reference error if search performed more than once	1.4
3135	Normal	Procedure code description in new appointment truncates (the display) of some procedure codes	1.4
3175	Normal	Pending Pacs Correction message needs clean up	1.4
3361	Normal	When cloning multiple Personnel, scrolling loses focus on what you select	1.1.3.39.16026
3524	Normal	Reschedule a multi study second time does not include second study	1.40.004
3537	Normal	@accession number search throws error if patient has cancelled orders	1.4
3582	Normal	Reporting - protect sections and delete table raising exceptions	1.4
3597	Normal	Laterality check message on transcribe	1.4

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3600	Normal	Audit log error when more then one patients audit history is opened	1.40.006
3682	Normal	Delete dictation on a study that was signed by contribute A (maybe b too)	1.40.007
3893	Normal	MT Transcribe & Continue/Close user preference not saving	1.40.010
4372	Normal	Creating a new appointment from the patient search window causes error.	1.41
4421	Normal	Shortcut for Tables not working in report editor (CTRL + T)	1.41
4645	Normal	Inactive procedure codes appear in the Procedure Plan table	1.41
4646	Normal	Schedule group lookup needs default column widths	1.41
4901	Normal	Scheduling - reservation needs to happen when picked	1.4
4941	Normal	Reporting - Autosave timing error	1.41.002
4967	Normal	Reporting - Submit audio in minimized mode throws error.	1.41.002
5275	Normal	Reporting - Adding empty space to field will allow user to sign	1.41.1
5319	Normal	Reporting - closing Attachment Viewer Preferences throws error in reporting window.	1.41.1
5320	Normal	Reporting - Attachment viewer in reporting window - double click to open the report will change to the next scan doc.	1.41.1
5502	Normal	Error when opening a patient merge suggestion: "Source patient not found"	1.41.002.1
5519	Normal	Reporting - pending signature on login and pending signature worklist notifications can be shown at the same time	1.42
6033	Normal	Scheduling - Holiday is not displayed in New Appointment Calendar view.	1.42
3886	Low	Reporting - Default button action on Skip/ Close button	1.40.010

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4027	Low	Image request - Remove image request, select edit throws error	1.40.013
4163	Low	Perform Exam - Cancelled studies in patient history list have buttons enabled	1.41.015

10. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.44.1. Bugs reported in previous versions are not captured as Known Limitation in this document.

#	Status	Priority	Subject
9166	New	High	Contrast is required on view/edit when contrast setting is set to true and is required
9181	New	High	Contrast - Perform Exam on non-contrast and contrast study copying contrast/billing codes to non-contrast study
9013	New	Normal	Preferred Site (c_orderRow.filler_site_code) not auto-populating on Scheduling/Walk-ins
9014	New	Normal	Preferred Site (c_orderRow.filler_site_code) isn't required when saving an order through "Schedule Later"
9100	New	Normal	Contrast - If a contrast is made inactive it still is available for selection and could be added to billing codes
9103	New	Normal	Contrast billing- if a BillingCode is not Active it will still be added to the billing code tab if the Contrast associated to it is added to Contrast grid
9106	New	Normal	Rescheduling- choosing Schedule Later from the Appointment Book will not change the status of the procedure in Reception WL or Patient folder
9122	New	Normal	EMR orders - the laterality is sent from external system but is not populated in scheduling window
9139	New	Normal	EMR order does not reflect correct information on Review tab.
9172	New	Normal	Contrast - Billing codes added on Perform Exam window don't get pre-cert status added.
9190	New	Normal	Contrast and Sedation - Manually delete default contrast will remove 2nd contrast code from grid
9117	In Progress	Normal	EMR order - attempt to schedule a 2nd time and schedule window has incorrect information.
9099	Peer Testing	Normal	Verify edits context menu option available from Report Drafted WL
8999	New	Low	Personnel - Domain authentication checkbox being auto-checked with no visual indication
9007	New	Low	IVT Window - Removing Insurance on exam/practice that doesn't require IV isn't adding exam to IVT WL
9158	New	Low	EMR order - the phone number is not displayed correctly in WL
9169	New	Low	System Config code - 'EnableContrastBillingRelation'

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			the default is set to True, should be set to False
9184	New	Low	Contrast - Perform Exam - Billing Codes added to empty Billing Code grid do not re-enable the Edit/Delete buttons
9185	New	Low	Outside Read - alert for no billing codes only appears after clicking save
9116	Resolved	Low	EMR orders - schedule - The Map Procedures to EMR order window has a double 'the' in the instructions
9009	Duplicate	Low	Preferred Site dropdown required on scheduling after clicking Save as Order button.

User Release Notes

for eRAD RIS
Version 2
Build 44.2

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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 44.2 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.44.2

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 2.44.2 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 B2.44.2

Setting Placeholder	Setting	Default	Purpose / Controls Access to
Access string / User Group Permission tables	Clinical.VoidStudy	None	Gives access be able to change a signed study to void from the view edit screen
Access string / User Group Permission tables	Clinical.RISAdminChangeStatus	None	Allows a RIS administrator to make changes to the status of an exam that might not be possible otherwise

5. New Features and Enhancements

Delete Signed Report Workflow

Occasionally there is a reason for a report to be deleted from a study. This may occur if eRAD RIS receives a blank report that was signed in another system. To assist RIS Administrator's with this task a series of steps can be performed to get the study back to Exam Done with no report or dictation. It must be noted that there is no **“Undo” or “Undelete”** option with this feature. Once the dictation/report is deleted, they cannot be retrieved.

Once a study is in Signed status and the dictation/report needs to be removed from this study RIS Administrators can use a 3 step process to get the Signed study back to Exam Done status without a dictation or report associated.

- 1.) From the Patient Folder work list open the Signed study in the View/Edit window. In this window there is an option to “Void” the study. Access to the Void button is controlled by pre-existing access string **“Clinical.VoidStudy”** which has a default of None. Clicking on this button will present the user with a confirmatory message. Selecting Yes will close the message and View/Edit window and status of the study will now be in Voided status.

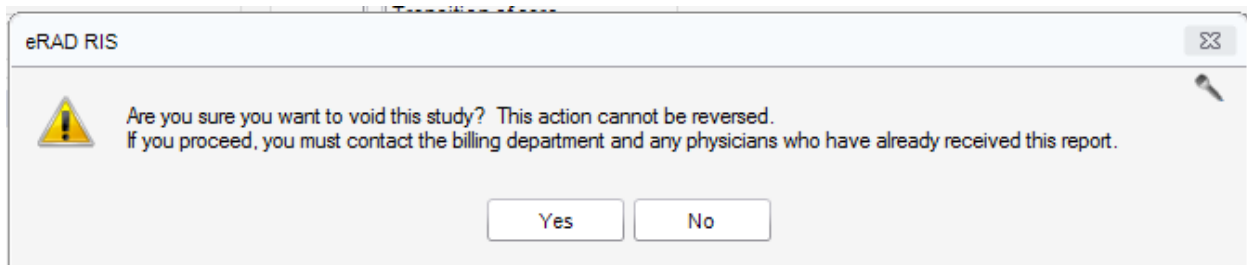


Figure 5.1 – Void study confirmatory message

- 2.) Right click on the “Voided” study to open the context menu. In the menu list select “Change Status to...” which will present a sub menu option of “Manual Status Update...”.

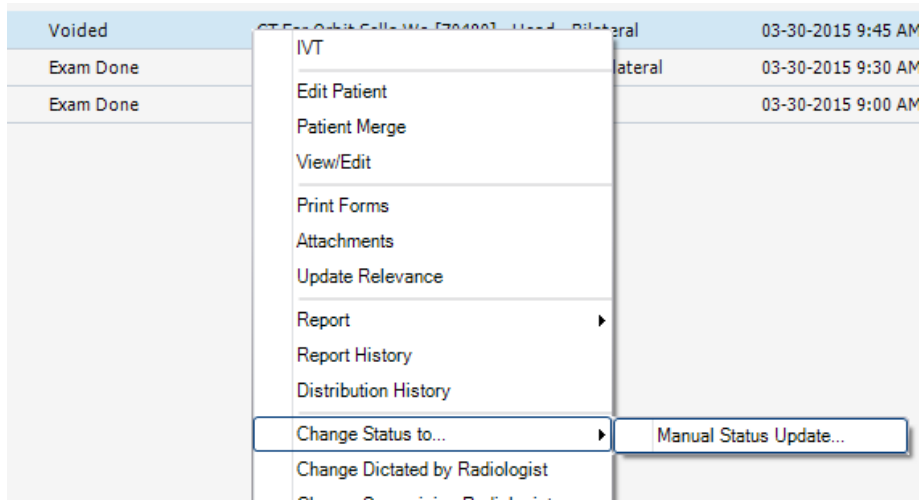


Figure 5.2 – Manual Status Update menu option

This will open the Manual Status Update window. In the Move to Status field select Exam Done (the only option).

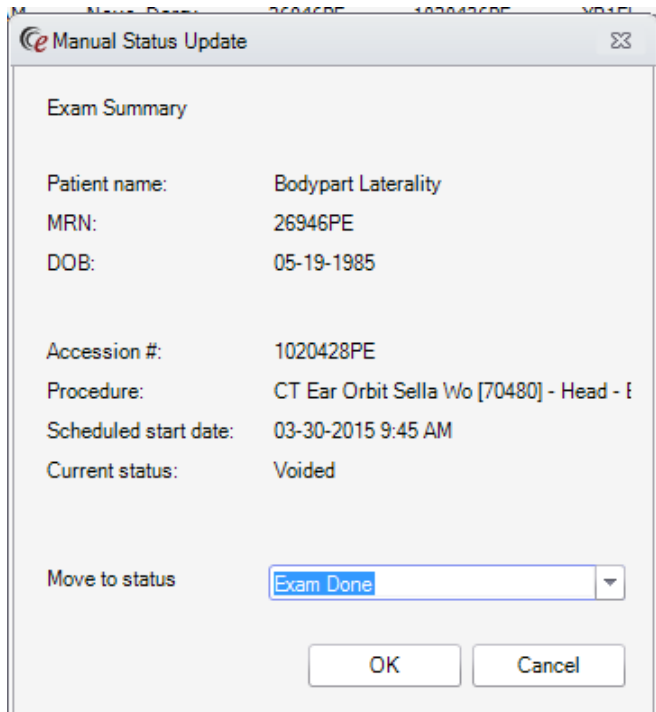


Figure 5.3 – Manual Status Update window

Selecting the OK button will present the user with another confirmatory message as seen in the figure below.

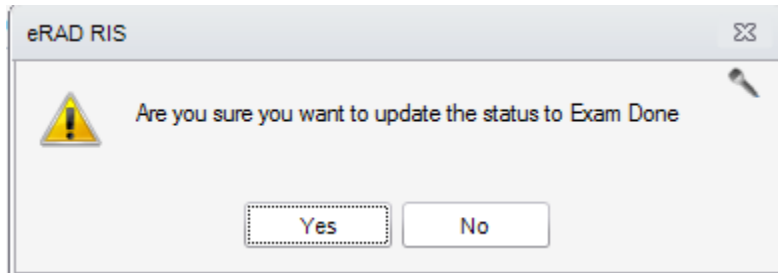


Figure 5.4 – Manual Status Update confirmatory message

The status of the study will now be in Exam Done on the work list. At this point the Dictation and or Report will still be available on this study. The report can be viewed from the context menu Report>Preview Report and can also be viewed in Report History and also from within the View/Edit window on the Report tab.

- 3.) The last step is to access the context menu once more and again select the Change Status to... menu. This time select the “Delete Dictation/Report and Reset Status” sub menu option. The status of the study will remain Exam Done

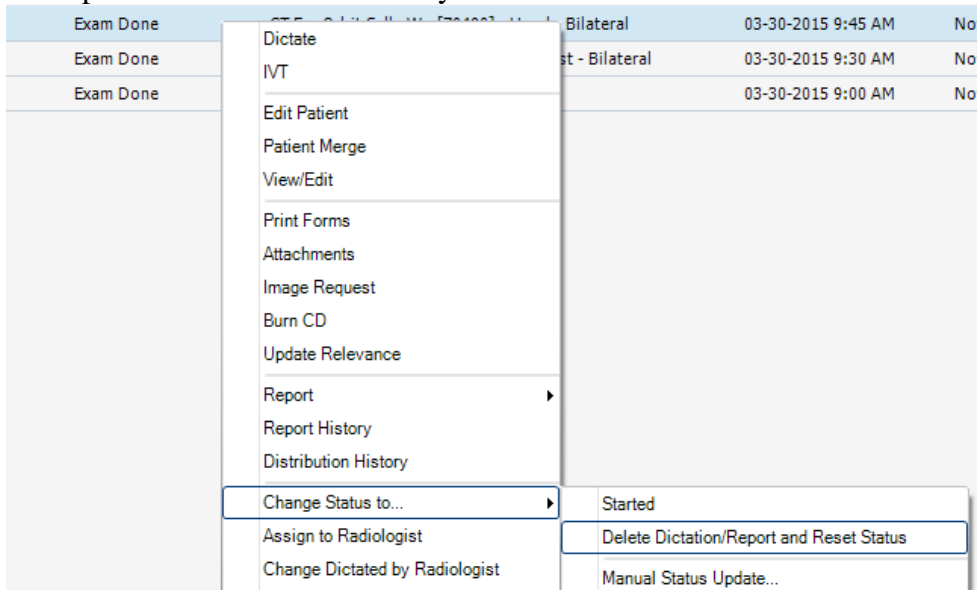


Figure 5.5 – Deleting Dictation and Report

Selecting this option will once again present the user with a confirmatory message informing them that this cannot be undone

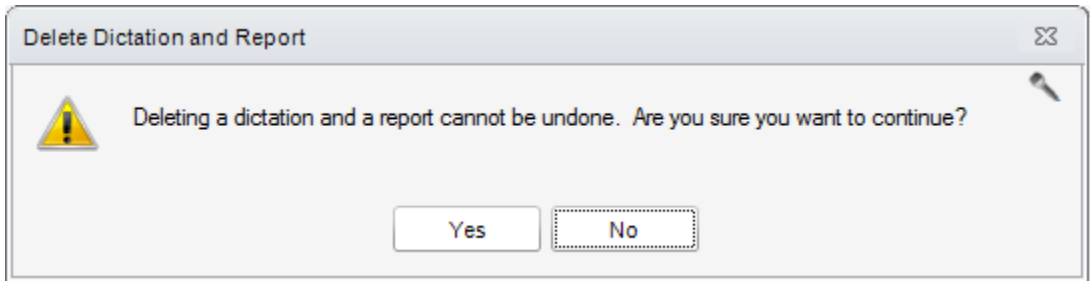


Figure 5.6 – Delete dictation and report confirmatory message

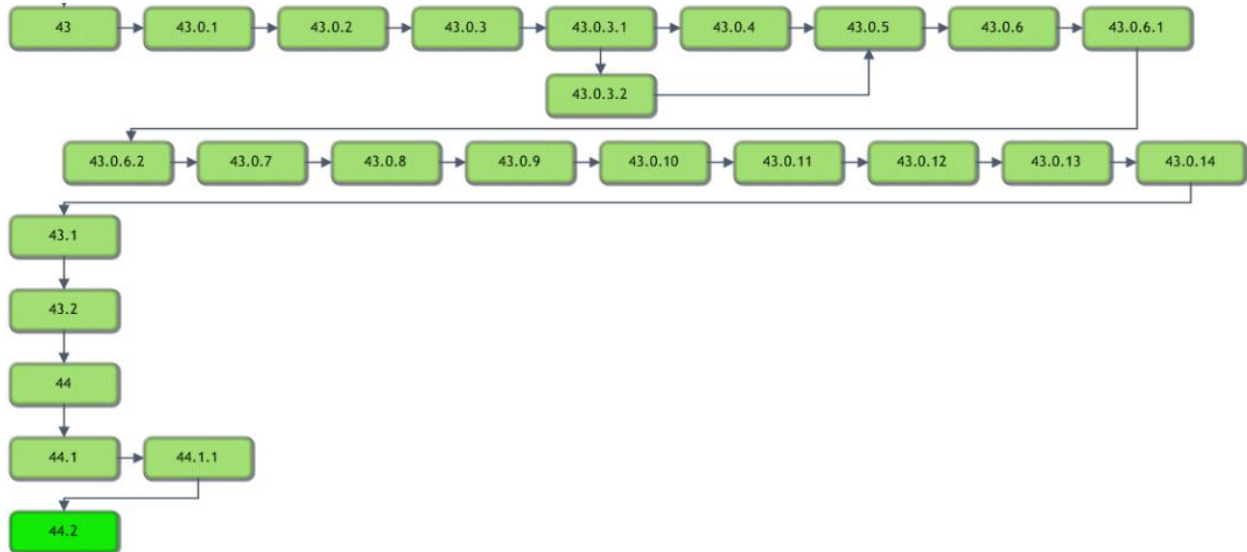
Selecting “Yes” will then proceed to delete the dictation and report. The user can then proceed to create a new dictation and report on this study.

The audit History captures the events of deleting a signed report.

Date	Action	Description
Equals: ▾	Contains: ▾	Contains: ▾
03-25-2015 4:52 PM	Dictation/ReportDeleted	Deleted current dictation/report and reset status for addendum key = 0
03-25-2015 4:47 PM	Patient study data updated	Study updated
03-25-2015 4:42 PM	UI_StudyVoided	Study updated

Figure 5.6 – Audit history captures the workflow steps of deleting a signed report

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

8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.44.2. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.44.2.

Bug #	Priority	Subject	Category	Found Version
9313	Urgent	Possible to set side code for outside reads to null via IVT. ***Study will disappear from patient folder.	DB	2.43.1
9181	High	Contrast - Perform Exam on non-contrast and contrast study copying contrast/billing codes to non-contrast study	Technologist	2.44.1
9294	High	Scheduling - Body part list is not filtered down when possible list of values exists	Scheduling	2.44
9337	High	Details result set dates are not correct, versus the review tab and timeslot search	Scheduling	2.43
9312	Normal	IVT screen does not show correct site code for outside reads	IVT / Precert	2.43.1
8706	High	My Pending Dictation Worklist row counts include chair workflow logic, even for regions/practices that are not chair workflow enabled	Worklists	2.43.1

9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.44.2. Bugs reported in previous versions are not captured as Known Limitation in this document.

#	Status	Priority	Subject
9361	New	High	Reconcile screen does not show correct site code for outside reads
9366	New	Normal	Addendum Requested flag is not cleared when study is voided
9380	New	Normal	Error upon selecting "add new row" in BillingCode table
9386	New	Normal	Edit to Units of Contrast in Billing Codes tab does not immediately reflect the change in the Contrast grid
9388	New	Normal	Contrast can be saved with Zero saving in the Vials column.
9390	New	Normal	Contrast is required to be entered by Scheduler if edits are made in View/Edit before patient even arrives.

Server Update

For eRAD RIS
Version 2.0
Build 44.2
Update 44.2.1

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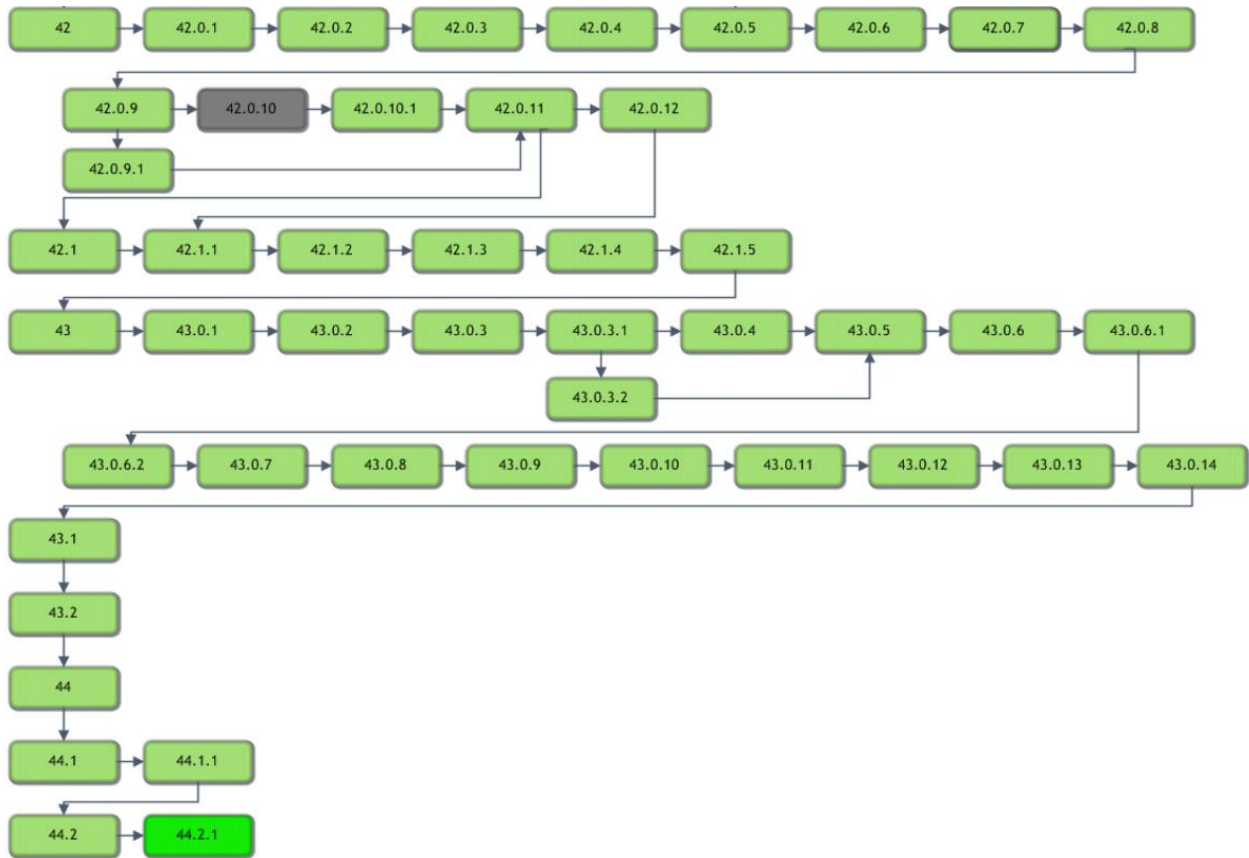
eRAD RIS Server Update

1. Defects Resolved

Redmine #	Tracker	Subject	Priority
9503	Bug	Old layout for dictation/editing are not maintained into the 44 upgrade.	Urgent
9504	Bug	Bacode scanner not opening PS360 report when set to Diagnose on accession number	Urgent
9512	Bug	Reporting Radiologist - M*Modal interactive dictation performance issues when using encrypt audio method	High
9519	Bug	Error arriving studies from same order	High
9549	Bug	the wedge should not expand the virtual table c_order_ref_addresses	High
9505	Bug	Assigned Radiologist is not recognized as assigned in the Assign to Radiologist window	Normal
9507	Bug	AppointmentBook is showing cancelled studies	Normal
9509	Bug	error changing pre-cert info on registration	Normal
9518	Bug	CD Burning - HasStudiesChanged incorrectly sums the Images/Sizes when there are multiple studyInstanceUIDs	Normal

eRAD RIS Server Update

2. Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

3. Package Contents

Files included for this server update:

1. **GUI_ZIP_Updates** contains 1 file:

1.1. rRIS_1.3.44.2.1.27959

2. **rRISService** folder contains:

- 2.1. ABCpdf.dll
- 2.2. ABCpdf9-32.dll
- 2.3. ABCpdf9-64.dll
- 2.4. Antlr3.Runtime.dll
- 2.5. CDSJobManager.dll
- 2.6. CDSJobManager.pdb
- 2.7. CdsLib.dll
- 2.8. CdsLib.xml
- 2.9. CdsLib.XmlSerializers.dll
- 2.10. CommonLib.dll
- 2.11. CommonLib.pdb
- 2.12. DDEngine.dll
- 2.13. DDEngine.pdb
- 2.14. DiffPlex.dll
- 2.15. Interop.FAXCOMEXLib.dll
- 2.16. Microsoft.Practices.EnterpriseLibrary.Caching.dll
- 2.17. Microsoft.Practices.EnterpriseLibrary.Caching.pdb
- 2.18. Microsoft.Practices.EnterpriseLibrary.Common.dll
- 2.19. Microsoft.Practices.EnterpriseLibrary.Common.pdb
- 2.20. Microsoft.Practices.EnterpriseLibrary.Logging.dll
- 2.21. Microsoft.Practices.EnterpriseLibrary.Logging.pdb
- 2.22. Microsoft.Practices.ServiceLocation.dll
- 2.23. Microsoft.Practices.ServiceLocation.pdb
- 2.24. Microsoft.Practices.Unity.dll
- 2.25. Microsoft.Practices.Unity.Interception.dll
- 2.26. Microsoft.Practices.Unity.Interception.pdb
- 2.27. Microsoft.Practices.Unity.pdb
- 2.28. Microsoft.ReportViewer.Common.dll
- 2.29. Microsoft.ReportViewer.WinForms.dll
- 2.30. Microsoft.ReportViewer.WinForms.xml
- 2.31. Newtonsoft.Json.dll
- 2.32. Newtonsoft.Json.xml
- 2.33. NLog.dll
- 2.34. O2S.Components.PDFRender4NET.dll
- 2.35. PdfSharp.dll
- 2.36. PDFToImages.exe
- 2.37. Radar.Api.Client.dll
- 2.38. Radar.Api.Client.pdb
- 2.39. Radar.Api.Model.dll
- 2.40. Radar.Api.Model.pdb
- 2.41. Radar.Common.dll
- 2.42. Radar.Common.pdb
- 2.43. Radar.Common.WebClient.dll
- 2.44. Radar.Common.WebClient.pdb
- 2.45. Radar.DirectMessaging.Client.dll
- 2.46. Radar.DirectMessaging.Client.pdb
- 2.47. Radar.DirectMessaging.Model.dll
- 2.48. Radar.DirectMessaging.Model.pdb
- 2.49. rRISServices.exe
- 2.50. rRISServices.pdb
- 2.51. rRISServicesx64.exe
- 2.52. ScheduledTaskManager.dll
- 2.53. ScheduledTaskManager.pdb
- 2.54. ServicesConfigWizard.exe
- 2.55. ServicesConfigWizard.pdb
- 2.56. SignatureApprovalService.exe
- 2.57. SignatureApprovalService.pdb
- 2.58. System.Net.Http.dll
- 2.59. System.Net.Http.Formatting.dll
- 2.60. System.Web.Http.dll
- 2.61. System.Web.Http.SelfHost.dll
- 2.62. System.Web.Http.SelfHost.xml
- 2.63. System.Web.Http.WebHost.dll
- 2.64. System.Web.Http.WebHost.xml
- 2.65. System.Web.Http.xml
- 2.66. System.Web.Mvc.dll
- 2.67. System.Web.Mvc.xml
- 2.68. System.Web.Optimization.dll
- 2.69. System.Web.Razor.dll
- 2.70. System.Web.Razor.xml
- 2.71. System.Web.WebPages.Deployment.dll
- 2.72. System.Web.WebPages.Deployment.xml
- 2.73. System.Web.WebPages.dll
- 2.74. System.Web.WebPages.Razor.dll
- 2.75. System.Web.WebPages.Razor.xml
- 2.76. System.Web.WebPages.xml
- 2.77. Tourreau.Gilles.FaxDotNet.dll
- 2.78. Tourreau.Gilles.FaxDotNet.pdb
- 2.79. Tourreau.Gilles.FaxDotNet.xml
- 2.80. WCFService.dll
- 2.81. WCFService.pdb
- 2.82. WCFServiceTests.dll
- 2.83. WCFServiceTests.pdb
- 2.84. WebApi.dll
- 2.85. WebApi.pdb
- 2.86. WebGrease.dll
- 2.87. Wedge.exe
- 2.88. Wedge.pdb

eRAD RIS Server Update

2.1.1 **XSL** folder contains:

2.1.1.1. **Stylesheets** folder contains:

- A. CDAToHTMLCompleteReport.xslt
- B. CDAToHTMLCompleteReportDark.xslt
- C. CDAToHTMLImpressionSection.xslt
- D. CDAToRIS.xslt
- E. CDAToTxt.xslt
- F. DocumentModelReport.xslt
- G. DocumentModelReportAsXml.xslt
- H. **CDA** folder contains:
 - i. C-CDA.xsl
 - ii. eRadStylesheet.xsl
 - iii. generalTemplates.xsl
 - iv. header.xsl
 - v. QRDA.xsl
 - vi. QrdaLevel3_Cypress2.4.0.xsl
 - vii. QrdaLevel3_ViewHtml.xsl
 - viii. sectionAdministeredMedications.xsl
 - ix. sectionAllergies.xsl
 - x. sectionEncounters.xsl
 - xi. sectionFindings.xsl
 - xii. sectionFuncCogStatus.xsl
 - xiii. sectionImmunizations.xsl
 - xiv. sectionInstructions.xsl
 - xv. sectionMedications.xsl
 - xvi. sectionPlanOfCare.xsl
 - xvii. sectionProblemList.xsl
 - xviii. sectionProcedures.xsl
 - xix. sectionQRDAMeasures.xsl
 - xx. sectionQRDAPatientData.xsl
 - xxi. sectionQRDAREporting.xsl
 - xxii. sectionReasonForVisit.xsl
 - xxiii. sectionResults.xsl
 - xxiv. sectionSocialHistory.xsl
 - xxv. sectionVitalSigns.xsl

2.1.2 **Deploy** folder contains 4 files:

- 2.1.2.1. applicationsettings.config
- 2.1.2.2. releaseVersion-connectionstrings.config
- 2.1.2.3. rRISServices.exe.config
- 2.1.2.4. rRISServicesx64.exe.config
- 2.1.2.5. services.config

eRAD RIS Server Update

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

Build 44 – 44.2 installs. Server updates are not cumulative. This server update must be applied to 44.2

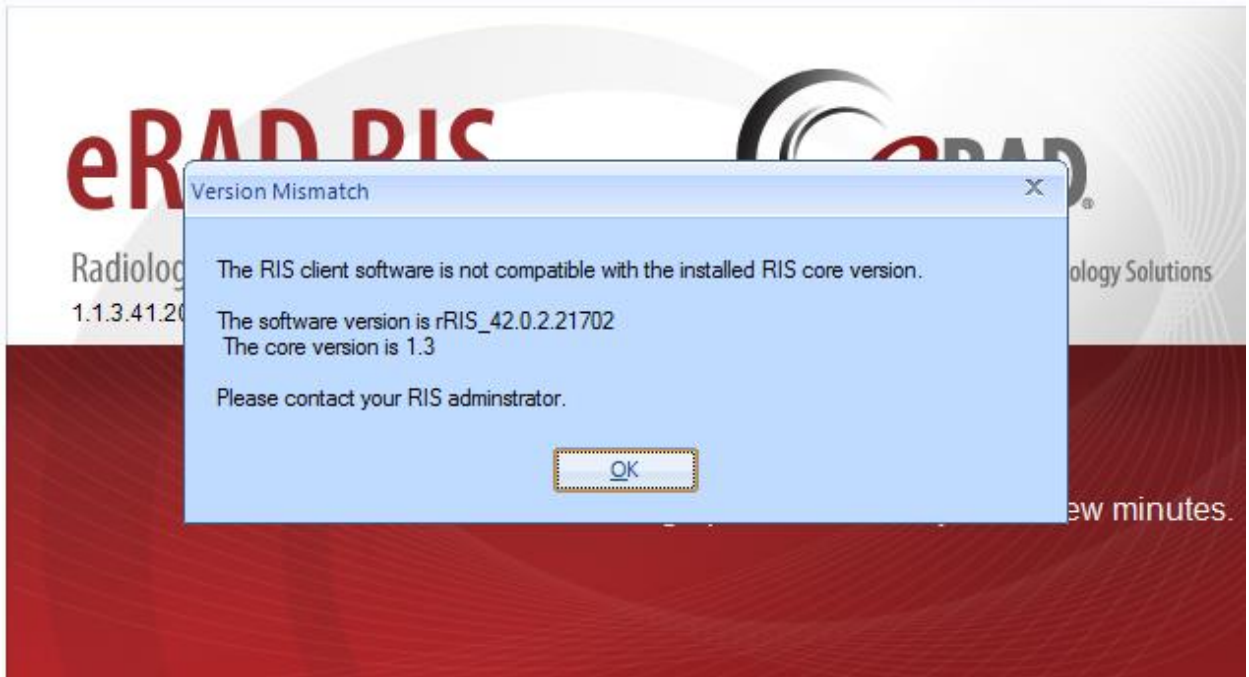
6. eRAD RIS Release Version Numbers

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

7. Installing

Client/GUI

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.44.2.1.27959.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_44.2.1.27959→ rRIS_1.3.44.2.1.27959

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

Web Service

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 90 files in the rRISService folder and 2 sub folders. Of those folders, 1 is a folder titled “XSL” that contains a sub folder and files within the subfolder. Another folder is titled “**deploy**” that contains the new .config files that will be deployed with the user of the file called “ServicesConfigWizard.exe” (see instructions below).

Services Configuration Wizard

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a “deploy” folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

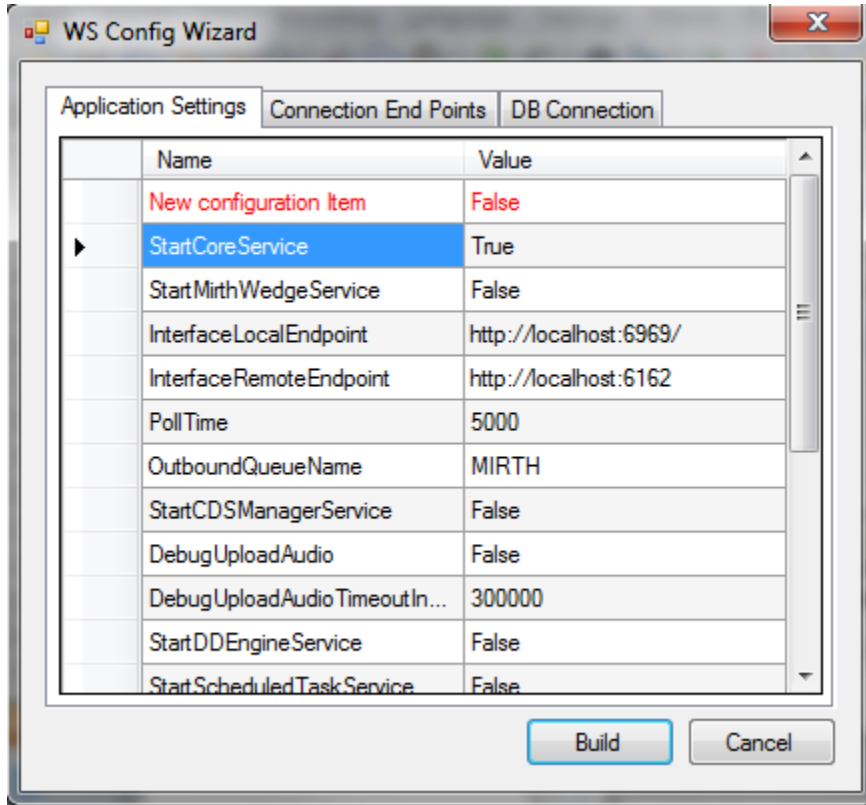
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application “ServicesConfigWizard.exe”

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

Application Settings: all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

NOTE: the rRISServices.exe.config file is also included in the deploy folder. If this file has changes it **will not** update your current file in the Web Service directory. Any changes to this file will require a manual update of the rRISServices.exe.config and rRISServicesx64.exe.config files.

eRAD RIS Server Update



eRAD RIS Server Update

Connection End Points: will display the existing configuration, if the value is left blank then that entry will not be created, in the case of “Study Service” or “CDS Service” if both http and net.tcp were not provided then that endpoint will not be created at all.

WS Config Wizard

Application Settings | **Connection End Points** | DB Connection

Study Service

http:// localhost:8040 /rRIS/

net.tcp:// localhost:8041 /rRIS/

Notify Service

net.tcp:// localhost:7095 /rRIS/

CDS Service

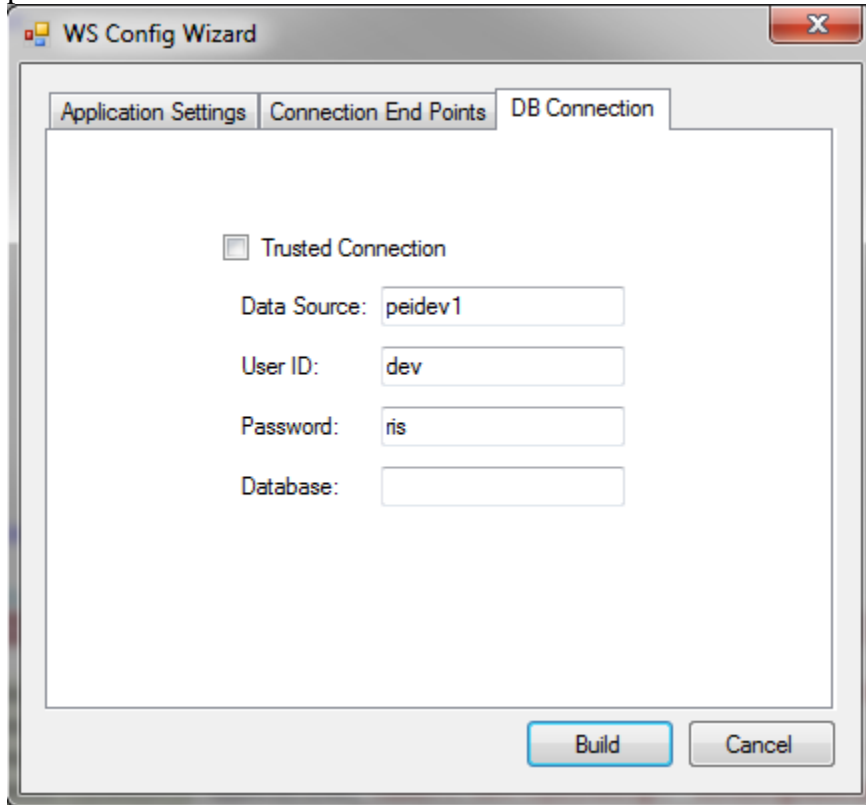
http:// localhost:7092 /rRIS/

net.tcp:// localhost:7093 /rRIS/

Build Cancel

eRAD RIS Server Update

DB Connection: will display the existing configuration, if the Connection is to be used as a trusted connection, then the user ID and password will become disabled and will not be used, and will rely on the provided database value, When not using the trusted connection, The Database value is not needed but can be used to force a specific database connection as long as the provided user has access to that database.



It is always good practice to do a compare of the .config files.

- 1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

eRAD RIS Server Update

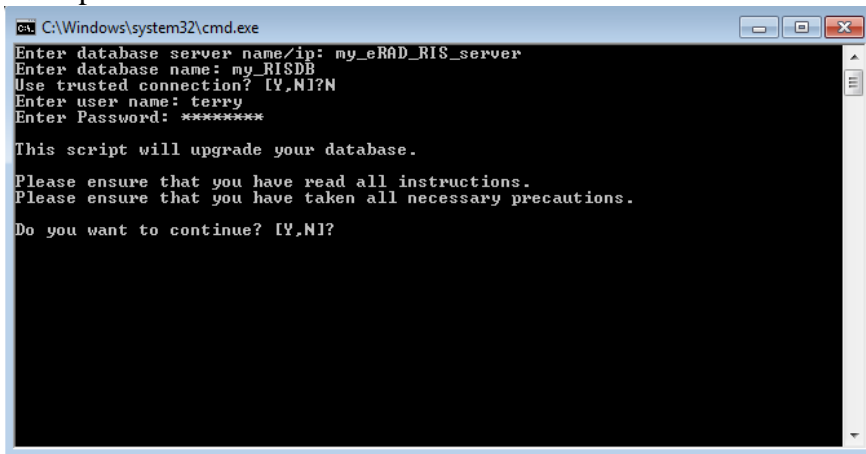
Database Updates

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.

- 1) From the upgrade folder, double click the "RunUpgrade.bat" command file.
- 2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.
- 3) You can choose to use "Trusted connection". Using this option will pass the identity of the currently logged on user. If this user has "db_owner" access to the eRAD RIS database then feel free to use this options.
- 4) If you decide not to use "Trusted connection" then you will be prompted for user id and password.

Example:



```
C:\Windows\system32\cmd.exe
Enter database server name/ip: my_eRAD_RIS_server
Enter database name: my_RISDB
Use trusted connection? [Y,N]?N
Enter user name: ferryy
Enter Password: *****

This script will upgrade your database.

Please ensure that you have read all instructions.
Please ensure that you have taken all necessary precautions.

Do you want to continue? [Y,N]?
```

- 5) After the upgrade program has finished you can find the upgrade logs in the "log" folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team
- 6) In the Common folder there is a subfolder of MU. The MU folder contains updates to lookups relevant for MU as well as updates for Zip Code table to add the County. Copy the

eRAD RIS Server Update

MU folder to the database server before running the batch file. There is a readme file contained in the MU folder. The details have also been included below

- a) The mu bulk install process must be run from a path on the database server!
 - b) Copy Files ImportDataFileUpgradeDB.bat and ImportDataFileUpgradeDB.sql from upgrade folder to a location on the database server(This location will be referred to as the "Script Folder Path".)
 - c) Copy Folder scripts and Source files from the upgrade folder to "Script Folder Path"Note source files must be inside the scripts folder
 - d) Run bat file
 - i) Enter Script Folder path [C:\Temp\SNOMED]:
 - ii) Enter database server name/ip: [ie peidev1]
 - iii) Enter database name: [ie rRIS_MU]
 - iv) Use a trusted connection to log on to SQL Server:
"N" means you will have to enter db [username] [password]
"Y" means you have a trusted connection and will not have to enter [username][password]
 - v) Do you wish to load SNOMED concept codes?
"N" no files will be loaded into the l_snomed_concept table
"Y" yes means l_snomed_concept table will be truncated and reloaded with the latest US concept codes
Source File [sct2_Concept_Snapshot_US1000124_20140301.txt]
 - vi) Do you wish to load SNOMED descriptions codes?
"N" no files will be loaded into the l_snomed_description table
"Y" yes means the l_snomed_description table will be truncated and reloaded with the latest US description codes
Source File [sct2_Description_Snapshot-en_US1000124_20140301.txt]
 - vii) Do you wish to load ICD9 to SNOMED mappings codes?
"N" no files will be loaded into the l_snomed_icd9_map table
"Y" yes means the l_snomed_icd9_map table will be truncated and reloaded with the latest US ICD9 to SNOMED mapping codes
Source File [ICD9CM_SNOMED_MAP_1TO1_201312.txt and ICD9CM_SNOMED_MAP_1TOM_201312.txt]
 - viii) Do you wish to load ICD10 to SNOMED mappings codes?
"N" no files will be loaded into the l_snomed_icd10_map table
"Y" yes means the l_snomed_icd10_map table will be truncated and reloaded with the latest US ICD10 to SNOMED mapping codes
Source File [xder2_iissscRefset_ExtendedMapSnapshot_US1000124_20131220.txt]
 - ix) Do you wish to load US zip codes?
"N" no files will be loaded into the z_zipCodesWithCounty table
"Y" yes means the z_zipCodesWithCounty table will be truncated and reloaded with the latest US zip codes
Source File [5-digit Commercial.csv]
-

eRAD RIS Server Update

Note: the following files should be loaded once only with B43!

- x) Do you wish to load CMS codes?
 - "N" no files will be loaded into the s_mu_code table
 - "Y" yes means the s_mu_code table will be truncated and reloaded with the latest CMS codes
 - Source File [s_mu_code.txt]
- xi) Do you wish to load HL7 support sets for CCDA?
 - "N" no files will be loaded into the l_hl7v3_voc_value_set table
 - "Y" yes means the l_hl7v3_voc_value_set table will be truncated and reloaded with the latest hl7v3_voc_value_set codes
 - Source File [l_hl7_voc_value_set.txt]
- xii) Do you wish to load HL7 support codes for CCDA?
 - "N" no files will be loaded into the l_hl7v3_voc_value_code table
 - "Y" yes means the l_hl7v3_voc_value_code table will be truncated and reloaded with the latest l_hl7v3_voc_value_code codes
 - Source File [l_hl7_voc_value_code.txt]

Server Update

For eRAD RIS
Version 2.0
Build 44.2
Update 44.2.2

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eRAD RIS Server Update

1. Resolved Items

Redmine #	Subject	Priority
9594	Interface with the configurability create internal patient for external id if match not found	Normal

The RIS Services were updated so that if the c_child_patient node has an attribute called create_internal set to Y then if no internal patient is found or is already associated to the external MRN, a new row will be created.

The MIRTH mapping line required to create the attribute looks like:

```
tmp['Patient']['c_child_patient'].@create_internal = 'Y';
```

With this attribute on (Y), and the message sent to RIS with only the external identifier and a match is not found we will create an internal MRN for this patient. Alternatively if the attribute is “N” it will behave as it does today, sending the message to RIS and an internal ID will not be created.

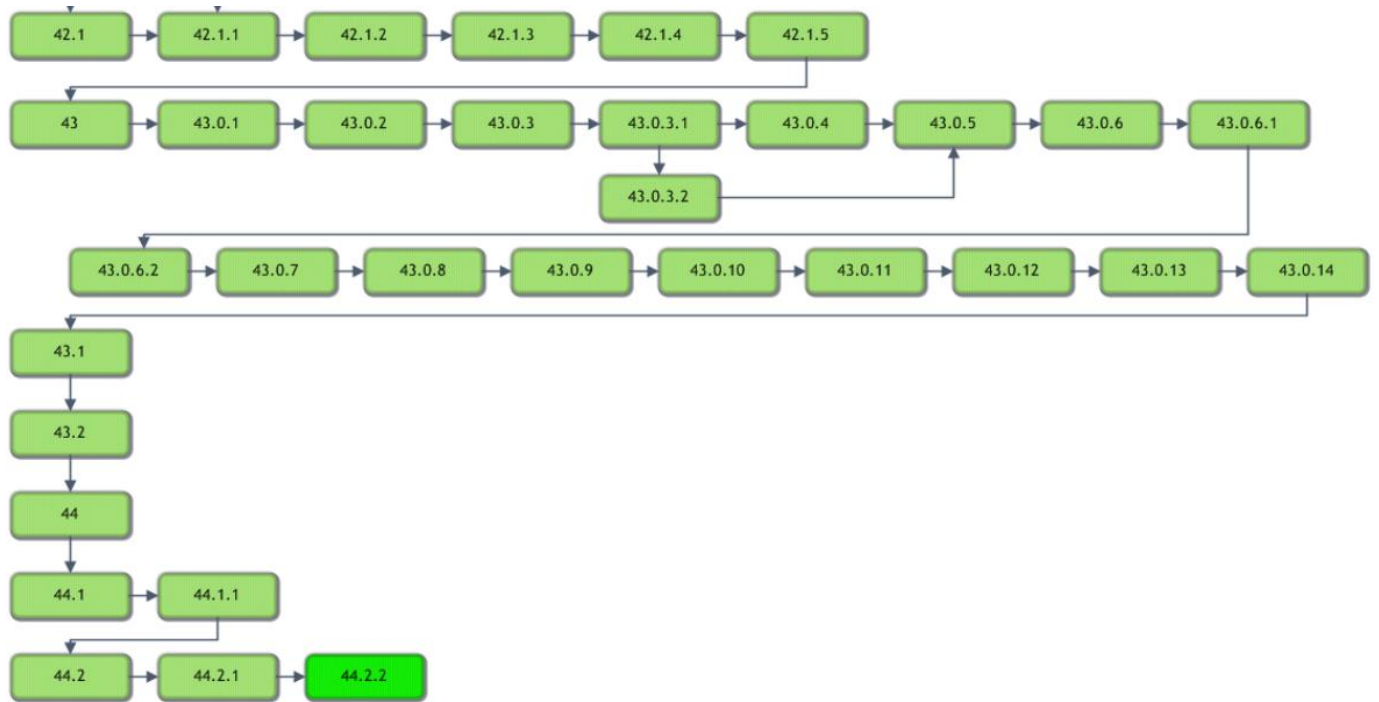
In addition to the create_internal attribute, we also included the attributes of require_phone_match and require_gender_match, both valued with 'N'.

Examples:

```
tmp['Patient']['c_child_patient'].@require_phone_match = 'N';  
tmp['Patient']['c_child_patient'].@require_gender_match = 'N';
```

eRAD RIS Server Update

2. Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

3. Package Contents

1. rRISService folder contains:

- 1.1. ABCpdf.dll
- 1.2. ABCpdf9-32.dll
- 1.3. ABCpdf9-64.dll
- 1.4. Antlr3.Runtime.dll
- 1.5. CDSJobManager.dll
- 1.6. CDSJobManager.pdb
- 1.7. CdsLib.dll
- 1.8. CdsLib.xml
- 1.9. CdsLib.XmlSerializers.dll
- 1.10. CommonLib.dll
- 1.11. CommonLib.pdb
- 1.12. DDEngine.dll
- 1.13. DDEngine.pdb
- 1.14. DiffPlex.dll
- 1.15. Interop.FAXCOMEXLib.dll
- 1.16. Microsoft.Practices.EnterpriseLibrary.Caching.dll
- 1.17. Microsoft.Practices.EnterpriseLibrary.Caching.pdb
- 1.18. Microsoft.Practices.EnterpriseLibrary.Common.dll
- 1.19. Microsoft.Practices.EnterpriseLibrary.Common.pdb
- 1.20. Microsoft.Practices.EnterpriseLibrary.Logging.dll
- 1.21. Microsoft.Practices.EnterpriseLibrary.Logging.pdb
- 1.22. Microsoft.Practices.ServiceLocation.dll
- 1.23. Microsoft.Practices.ServiceLocation.pdb
- 1.24. Microsoft.Practices.Unity.dll
- 1.25. Microsoft.Practices.Unity.Interception.dll
- 1.26. Microsoft.Practices.Unity.Interception.pdb
- 1.27. Microsoft.Practices.Unity.pdb
- 1.28. Microsoft.ReportViewer.Common.dll
- 1.29. Microsoft.ReportViewer.WinForms.dll
- 1.30. Microsoft.ReportViewer.WinForms.xml
- 1.31. Newtonsoft.Json.dll
- 1.32. Newtonsoft.Json.xml
- 1.33. NLog.dll
- 1.34. O2S.Components.PDFRender4NET.dll
- 1.35. PdfSharp.dll
- 1.36. PDFToImages.exe
- 1.37. Radar.Api.Client.dll
- 1.38. Radar.Api.Client.pdb
- 1.39. Radar.Api.Model.dll
- 1.40. Radar.Api.Model.pdb
- 1.41. Radar.Common.dll
- 1.42. Radar.Common.pdb
- 1.43. Radar.Common.WebClient.dll
- 1.44. Radar.Common.WebClient.pdb
- 1.45. Radar.DirectMessaging.Client.dll
- 1.46. Radar.DirectMessaging.Client.pdb
- 1.47. Radar.DirectMessaging.Model.dll
- 1.48. Radar.DirectMessaging.Model.pdb
- 1.49. rRISServices.exe
- 1.50. rRISServices.pdb
- 1.51. rRISServicesx64.exe
- 1.52. ScheduledTaskManager.dll
- 1.53. ScheduledTaskManager.pdb
- 1.54. ServicesConfigWizard.exe
- 1.55. ServicesConfigWizard.pdb
- 1.56. SignatureApprovalService.exe
- 1.57. SignatureApprovalService.pdb
- 1.58. System.Net.Http.dll
- 1.59. System.Net.Http.Formatting.dll
- 1.60. System.Web.Http.dll
- 1.61. System.Web.Http.SelfHost.dll
- 1.62. System.Web.Http.SelfHost.xml
- 1.63. System.Web.Http.WebHost.dll
- 1.64. System.Web.Http.WebHost.xml
- 1.65. System.Web.Http.xml
- 1.66. System.Web.Mvc.dll
- 1.67. System.Web.Mvc.xml
- 1.68. System.Web.Optimization.dll
- 1.69. System.Web.Razor.dll
- 1.70. System.Web.Razor.xml
- 1.71. System.Web.WebPages.Deployment.dll
- 1.72. System.Web.WebPages.Deployment.xml
- 1.73. System.Web.WebPages.dll
- 1.74. System.Web.WebPages.Razor.dll
- 1.75. System.Web.WebPages.Razor.xml
- 1.76. System.Web.WebPages.xml
- 1.77. Tourreau.Gilles.FaxDotNet.dll
- 1.78. Tourreau.Gilles.FaxDotNet.pdb
- 1.79. Tourreau.Gilles.FaxDotNet.xml
- 1.80. WCFService.dll
- 1.81. WCFService.pdb
- 1.82. WCFServiceTests.dll
- 1.83. WCFServiceTests.pdb
- 1.84. WebApi.dll
- 1.85. WebApi.pdb
- 1.86. WebGrease.dll
- 1.87. Wedge.exe
- 1.88. Wedge.pdb

2.1.1 XSL folder contains:

2.1.1.1. Stylesheets folder contains:

- A. CDAToHTMLCompleteReport.xslt

eRAD RIS Server Update

- B. CDAToHTMLCompleteReportDark.xslt
- C. CDAToHTMLImpressionSection.xslt
- D. CDAToRIS.xslt
- E. CDAToTxt.xslt
- F. DocumentModelReport.xslt
- G. DocumentModelReportAsXml.xslt
- H. **CDA** folder contains:
 - i. C-CDA.xsl
 - ii. eRadStylesheet.xsl
 - iii. generalTemplates.xsl
 - iv. header.xsl
 - v. QRDA.xsl
 - vi. QrdaLevel3_Cypress2.4.0.xsl
 - vii. QrdaLevel3_ViewHtml.xsl
 - viii. sectionAdministeredMedications.xsl
 - ix. sectionAllergies.xsl
 - x. sectionEncounters.xsl
 - xi. sectionFindings.xsl
 - xii. sectionFuncCogStatus.xsl
 - xiii. sectionImmunizations.xsl
 - xiv. sectionInstructions.xsl
 - xv. sectionMedications.xsl
 - xvi. sectionPlanOfCare.xsl
 - xvii. sectionProblemList.xsl
 - xviii. sectionProcedures.xsl
 - xix. sectionQRDAMEasures.xsl
 - xx. sectionQRDAPatientData.xsl
 - xxi. sectionQRDAREporting.xsl
 - xxii. sectionReasonForVisit.xsl
 - xxiii. sectionResults.xsl
 - xxiv. sectionSocialHistory.xsl
 - xxv. sectionVitalSigns.xsl

- 2.1.2 **Deploy** folder contains 4 files:
 - 2.1.2.1. applicationsettings.config
 - 2.1.2.2. releaseVersion-connectionstrings.config
 - 2.1.2.3. rRISServices.exe.config
 - 2.1.2.4. rRISServicesx64.exe.config
 - 2.1.2.5. services.config

eRAD RIS Server Update

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

Build 44 – 44.2 installs. Server updates are not cumulative. This server update must be applied to 44.2.1

6. 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

7. Installing

Web Service

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 90 files in the rRISService folder and 2 sub folders. Of those folders, 1 is a folder titled “XSL” that contains a sub folder and files within the subfolder. Another folder is titled “**deploy**” that contains the new .config files that will be deployed with the user of the file called “ServicesConfigWizard.exe” (see instructions below).

Services Configuration Wizard

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a “deploy” folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

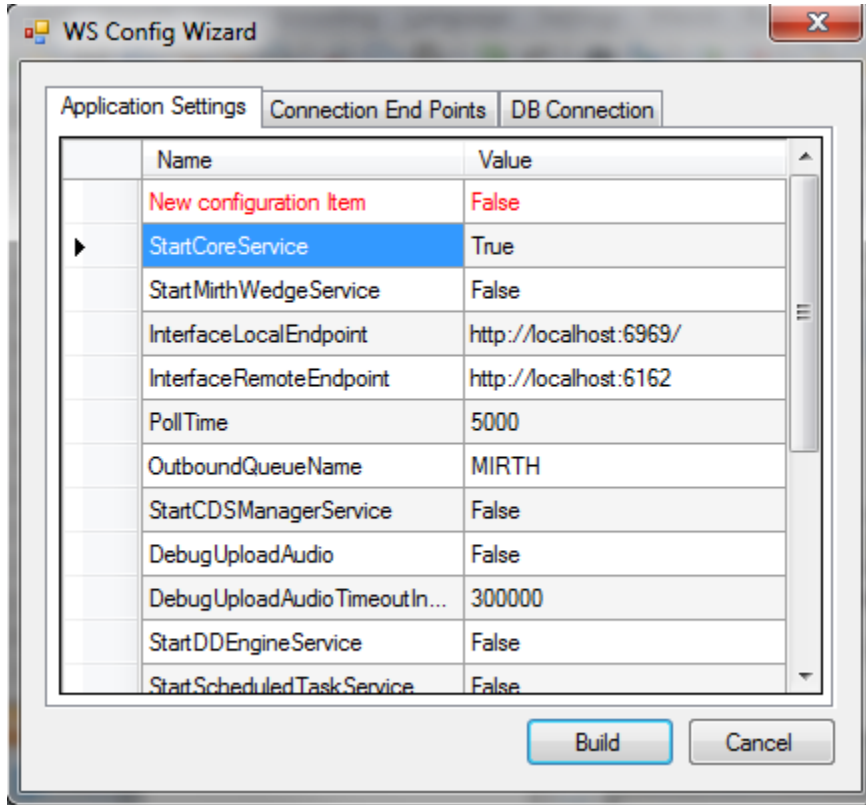
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application “ServicesConfigWizard.exe”

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

Application Settings: all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

NOTE: the rRISServices.exe.config file is also included in the deploy folder. If this file has changes it **will not** update your current file in the Web Service directory. Any changes to this file will require a manual update of the rRISServices.exe.config and rRISServicesx64.exe.config files.

eRAD RIS Server Update



eRAD RIS Server Update

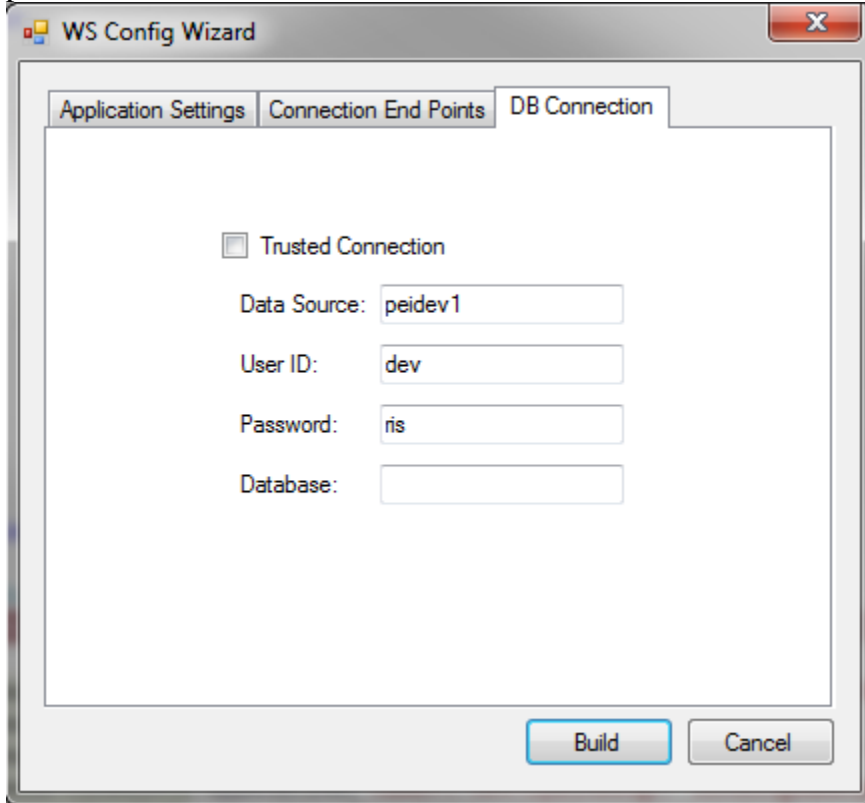
Connection End Points: will display the existing configuration, if the value is left blank then that entry will not be created, in the case of “Study Service” or “CDS Service” if both http and net.tcp were not provided then that endpoint will not be created at all.

The screenshot shows a 'WS Config Wizard' dialog box with the 'Connection End Points' tab selected. The dialog is divided into three sections: 'Study Service', 'Notify Service', and 'CDS Service'. Each section contains two rows of input fields for endpoints. The 'Study Service' section has 'http://' with 'localhost:8040' and 'net.tcp://' with 'localhost:8041', both pointing to '/rRIS/'. The 'Notify Service' section has 'net.tcp://' with 'localhost:7095' pointing to '/rRIS/'. The 'CDS Service' section has 'http://' with 'localhost:7092' and 'net.tcp://' with 'localhost:7093', both pointing to '/rRIS/'. At the bottom right, there are 'Build' and 'Cancel' buttons.

Service	Protocol	Host:Port	Path
Study Service	http://	localhost:8040	/rRIS/
	net.tcp://	localhost:8041	/rRIS/
Notify Service	net.tcp://	localhost:7095	/rRIS/
CDS Service	http://	localhost:7092	/rRIS/
	net.tcp://	localhost:7093	/rRIS/

eRAD RIS Server Update

DB Connection: will display the existing configuration, if the Connection is to be used as a trusted connection, then the user ID and password will become disabled and will not be used, and will rely on the provided database value, When not using the trusted connection, The Database value is not needed but can be used to force a specific database connection as long as the provided user has access to that database.



It is always good practice to do a compare of the .config files.

- 1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
rRISService directories include:
 - a) *rRISService*
 - b) *CDS rRISService*
 - c) *Wedge rRISService*
 - d) *DDE rRISService*

Restart each service.

User Release Notes

for eRAD RIS
Version 2
Build 44.2

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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 44.2 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.44.2

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 2.44.2 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 B2.44.2

Setting Placeholder	Setting	Default	Purpose / Controls Access to
Access string / User Group Permission tables	Clinical.VoidStudy	None	Gives access be able to change a signed study to void from the view edit screen
Access string / User Group Permission tables	Clinical.RISAdminChangeStatus	None	Allows a RIS administrator to make changes to the status of an exam that might not be possible otherwise

5. New Features and Enhancements

Delete Signed Report Workflow

Occasionally there is a reason for a report to be deleted from a study. This may occur if eRAD RIS receives a blank report that was signed in another system. To assist RIS Administrator's with this task a series of steps can be performed to get the study back to Exam Done with no report or dictation. It must be noted that there is no **“Undo” or “Undelete”** option with this feature. Once the dictation/report is deleted, they cannot be retrieved.

Once a study is in Signed status and the dictation/report needs to be removed from this study RIS Administrators can use a 3 step process to get the Signed study back to Exam Done status without a dictation or report associated.

- 1.) From the Patient Folder work list open the Signed study in the View/Edit window. In this window there is an option to “Void” the study. Access to the Void button is controlled by pre-existing access string **“Clinical.VoidStudy”** which has a default of None. Clicking on this button will present the user with a confirmatory message. Selecting Yes will close the message and View/Edit window and status of the study will now be in Voided status.

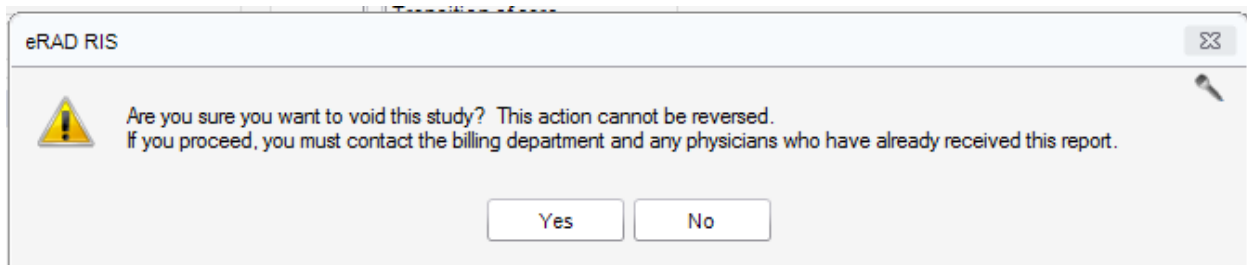


Figure 5.1 – Void study confirmatory message

- 2.) Right click on the “Voided” study to open the context menu. In the menu list select “Change Status to...” which will present a sub menu option of “Manual Status Update...”.

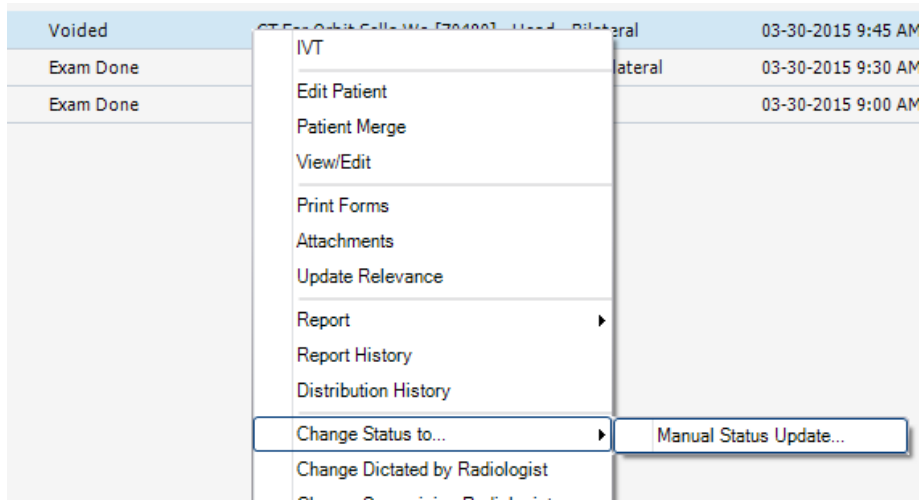


Figure 5.2 – Manual Status Update menu option

This will open the Manual Status Update window. In the Move to Status field select Exam Done (the only option).

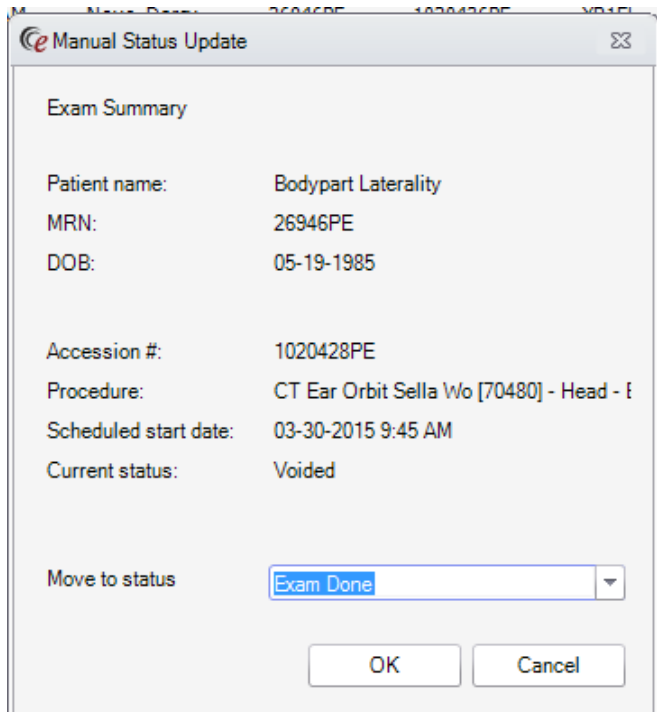


Figure 5.3 – Manual Status Update window

Selecting the OK button will present the user with another confirmatory message as seen in the figure below.

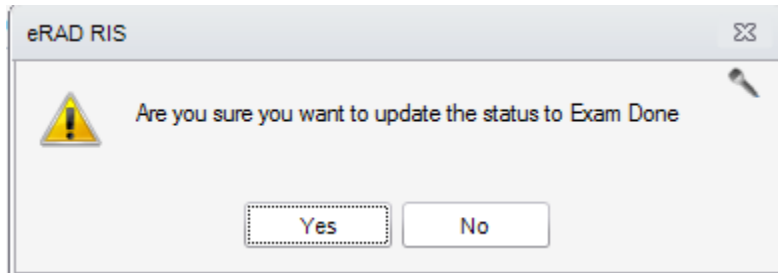


Figure 5.4 – Manual Status Update confirmatory message

The status of the study will now be in Exam Done on the work list. At this point the Dictation and or Report will still be available on this study. The report can be viewed from the context menu Report>Preview Report and can also be viewed in Report History and also from within the View/Edit window on the Report tab.

- 3.) The last step is to access the context menu once more and again select the Change Status to... menu. This time select the “Delete Dictation/Report and Reset Status” sub menu option. The status of the study will remain Exam Done

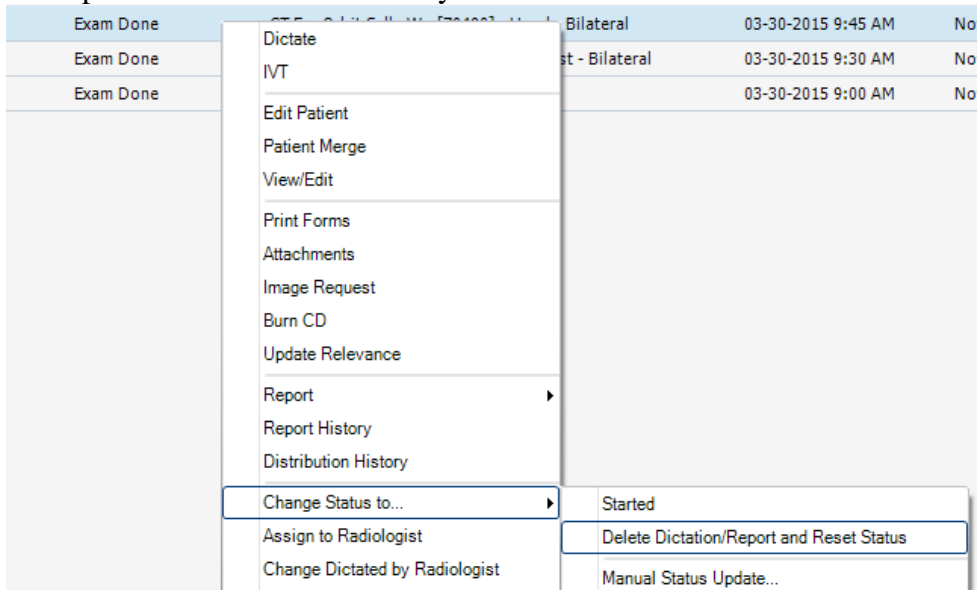


Figure 5.5 – Deleting Dictation and Report

Selecting this option will once again present the user with a confirmatory message informing them that this cannot be undone

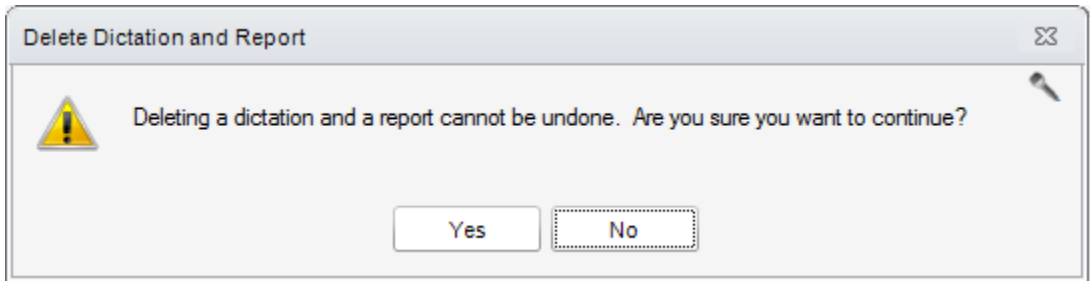


Figure 5.6 – Delete dictation and report confirmatory message

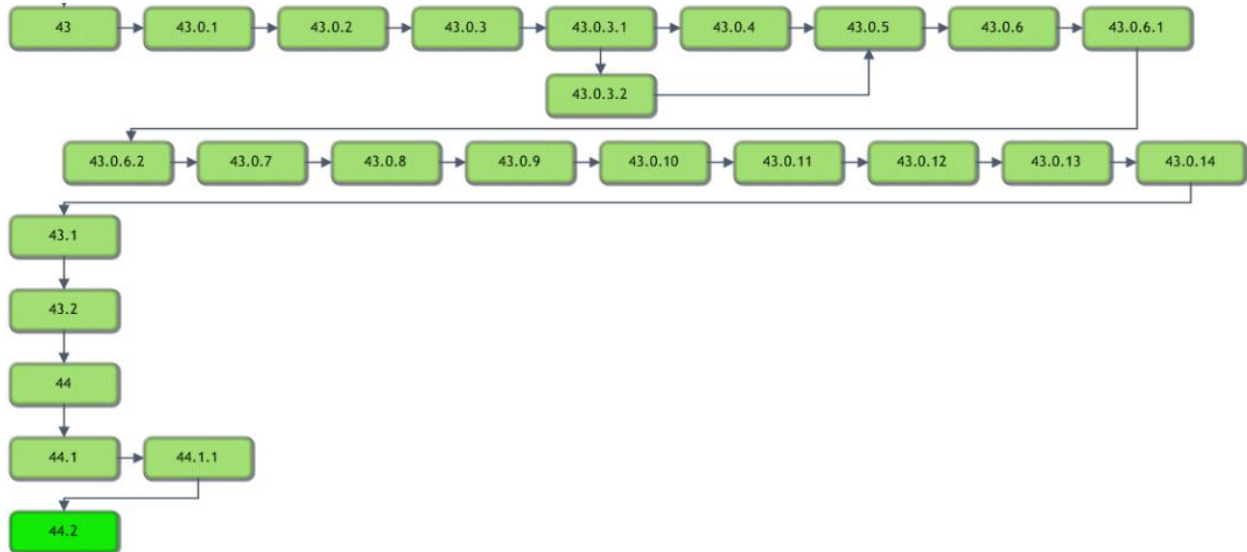
Selecting “Yes” will then proceed to delete the dictation and report. The user can then proceed to create a new dictation and report on this study.

The audit History captures the events of deleting a signed report.

Date	Action	Description
Equals: ▾	Contains: ▾	Contains: ▾
03-25-2015 4:52 PM	Dictation/ReportDeleted	Deleted current dictation/report and reset status for addendum key = 0
03-25-2015 4:47 PM	Patient study data updated	Study updated
03-25-2015 4:42 PM	UI_StudyVoided	Study updated

Figure 5.6 – Audit history captures the workflow steps of deleting a signed report

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

8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.44.2. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.44.2.

Bug #	Priority	Subject	Category	Found Version
9313	Urgent	Possible to set side code for outside reads to null via IVT. ***Study will disappear from patient folder.	DB	2.43.1
9181	High	Contrast - Perform Exam on non-contrast and contrast study copying contrast/billing codes to non-contrast study	Technologist	2.44.1
9294	High	Scheduling - Body part list is not filtered down when possible list of values exists	Scheduling	2.44
9337	High	Details result set dates are not correct, versus the review tab and timeslot search	Scheduling	2.43
9312	Normal	IVT screen does not show correct site code for outside reads	IVT / Precert	2.43.1
8706	High	My Pending Dictation Worklist row counts include chair workflow logic, even for regions/practices that are not chair workflow enabled	Worklists	2.43.1

9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.44.2. Bugs reported in previous versions are not captured as Known Limitation in this document.

#	Status	Priority	Subject
9361	New	High	Reconcile screen does not show correct site code for outside reads
9366	New	Normal	Addendum Requested flag is not cleared when study is voided
9380	New	Normal	Error upon selecting "add new row" in BillingCode table
9386	New	Normal	Edit to Units of Contrast in Billing Codes tab does not immediately reflect the change in the Contrast grid
9388	New	Normal	Contrast can be saved with Zero saving in the Vials column.
9390	New	Normal	Contrast is required to be entered by Scheduler if edits are made in View/Edit before patient even arrives.

User Release Notes

for eRAD RIS
Version 2
Build 44.3

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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 44.3 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.44.3

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 2.44.3 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 B2.44.3

Setting Placeholder	Setting	Default	Purpose / Controls Access to
System Configuration	EligibilityReceiptPath	None	(value = string) Determines the relative path on the report server for eligibility payment receipts
System Configuration	MaxPaymentAboveAmountToCollect	999	(value = int) Max \$ above the amount to collect that will be allowed.
System Configuration	MaxPaymentAmount	6000	(value = int) Max \$ amount that can be paid in a single payment.
System Configuration	ShowKeepSelfPayPrivate	False	(value = bool) Determines if RIS will present the 'Do not share with insurance provider' option in the case of self-pay.
System Configuration	UsualAndCustomaryInsuranceNumber	None	Insurance number to use when looking up the usual and customary rate, which is displayed on the patient's receipt.

5. New Features and Enhancements

Insurance Eligibility – Payment Receipt Showing Insurance and Pricing

It can be difficult explaining charges to the patient. A report showing the breakdown of the amount to collect is required.

For payment made on visits, where RIS had used eligibility to calculate an amount to collect, RIS will display an alternate receipt. The receipt will list the CPTs and their Usual & Customary rates and the eligibility verified co-insurance, co-pay and deductible portions, plus payment information such as total payments and estimated balance. The receipt creation process archives all this information, so that when we re-print the receipt, it prints exactly the same.

To get the Usual & Customary amount, the new system configuration setting of **“UsualAndCustomaryInsuranceNumber”** (no default value) must be set to the NPD’s insurance company for the usual rate fee schedule. If this is not set, then the costs in the report will display as blank. The usual rate is stored for every CPT, even those which do not have Eligibility enabled carrier.

To enable the auto printing and reprinting of the Eligibility Payment Receipt, set the new system configuration setting of **“EligibilityReceiptPath”** (no default value) to the new payment form as shown in the following.

System Config Code	Value	Default	Description
UsualAndCustomaryInsuranceNumber	100		Insurance number to use when looking up the usual and customary rate,
EligibilityReceiptPath	/kevin/Forms/Eligibility Payment Receipt		(value = string) Determines the relative path on the report server for eligi
ReceiptPath	/kevin/Forms/Payment Receipt		(value = string) Determines the relative path on the report server for paym

Figure 5.1 – Displaying new system configuration settings

The Eligibility Payment receipt will get printed after saving a screen such as Registration or View Edit when there was one or more payments made during the edit. Or receipts can be reprinted by right clicking on one of the payment and choosing “reprint” as shown in the following:

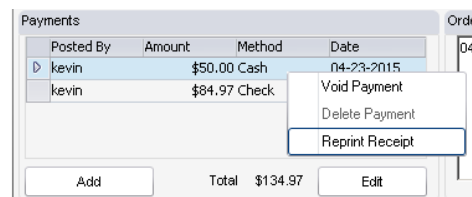


Figure 5.2 – Reprinting receipt

There are two variations on the Eligibility Payment Receipt.

- 1) A simple receipt where the patient paid for their services in full.
- 2) Payment estimate change, CPTs could have changed during the exam and patient either needs to be either refunded or pay an additional amount.

In these two cases the receipt will look similar but in the second case will have additional fields such as ‘**Current Payments**’ and ‘**Previous Payments for this Visit**’.

The following shows a simple receipt where the patient paid using both Cash and Cheque:

LOGO		RECEIPT		
		April 23, 2015 9:13 AM RECEIPT # EL-102-39110		
Insurance Payments are an Estimate Only Please write this number on your check: 39110 Make checks payable to: Advanced Radiology		Mol, Kevin 343 Central St Summerside, MD 90210 MRN #24742PE		
Service Date	Description	Units	Charge	Total
04/23/2015	CT ORBIT SELLA/POST FOSSAWEAR C-/IC+	1	\$ 430.17	\$ 430.17
				\$ 430.17
		Deductible Portion	Copay	Coinsurance
Estimated Patient Responsibility		\$ 100.00	\$ 10.00	\$ 24.97
				Total
				\$ 134.97
Method	Notes			Amount
Cash				\$ 50.00
Check #2123				\$ 84.97
Total Payments				\$ 134.97
Estimated Patient Balance				\$ 0.00

Thank you for your business!

Figure 5.3 – Payment receipt display different modes of payment

After the initial registration, additional CPTs were added and the patient had to return to pay the additional amount. The following is the second payment receipt for this visit:

RADNET Inc. – eRAD RIS Release Notes

Service Date	Description	Units	Charge	Total
04/23/2015	CT ORBIT SELLA/POST FOSSAE AR C-IC+	1	\$ 430.17	\$ 430.17
04/23/2015	RADIOLOGIC EXAMINATION, ABDOMEN; ANTEROPOSTERIOR AND ADDITIONAL OBLIQUE AND CONE VIEWS	1	\$ 47.13	\$ 47.13
04/23/2015	RADIOLOGIC EXAMINATION, ABDOMEN; SINGLE ANTEROPOSTERIOR VIEW	1	\$ 29.26	\$ 29.26
				\$ 506.56

	Deductible Portion	Copay	Coinsurance	Total
Estimated Patient Responsibility	\$ 100.00	\$ 10.00	\$ 31.96	\$ 141.96

Method	Notes	Amount
CreditCard MC 3322	XR ABDOMEN AP was added after inital registration. Patient paid remaining ESTIMATED balance.	\$ 6.99
Current Payments		\$ 6.99
Previous Payments for This Visit		\$ 134.97
Total Payments		\$ 141.96
Estimated Patient Balance		\$ 0.00

Figure 5.4 – Second payment required for additional services receipt

The Usual and Customary amount is often different from the contracted rate. To help our staff understand how the amount to collect was calculated, we have updated the “Amount to Collect – Details” popup to include a list of CPTs and their rates.

CPT	Units	Usual & Customary	Actual Rate	Total
70482 - CT ORBIT SELLA/POST FOSS...	1	430.17	359.70	359.70
74000 - RADIOLOGIC EXAMINATION,...	1	29.26	28.20	28.20
74010 - RADIOLOGIC EXAMINATION,...	1	47.13	41.74	41.74

Estimated visit cost	\$429.64		
Co-pay	\$10	Co-pay portion	\$10.00
Remaining Deductible	\$100	Deductible portion	\$100.00
Co-insurance	10%	Co-insurance portion	\$31.96
		Amount to collect	\$141.96

Figure 5.5 – Amount to Collect Details changes

A new column titled “Charge For Each Unit Flag” has been added to the Billing Code lookup table. By default we will not charge for multiple units. The RIS will only bill for multiple units if the billing_code lookup's field charge_for_each_unit_flag is set to 'Y'. If charge_for_each_unit_flag is 'N' then the visit cost will only include one charge for the CPT and the Eligibility Payment Receipt and the above Amount to Collect Details will only show that the CPT was charged once.

Billing Code	Description	Charge For Each Unit Flag	Version
74000	RADIOLOGIC EXAMINATION, ABDOMEN; SINGLE ANTEROPOS...	Y	1
77053	MAMMARY DUCTOGRAM OR GALACTOGRAM, SINGLE DUCT, R...	N	1
77055	MAMMOGRAPHY; UNILATERAL	N	1

Figure 5.6 – New column on the Billing Code tab

Administrators can update multiple billing code in a batch as outlined in the following steps:

1. Filter on the types of billing codes you would like to set to ‘Y’

Billing Code	Description	Charge For Each Unit Flag
74000	RADIOLOGIC EXAMINATION, ABDOMEN; SINGLE ANTEROPOS...	N
77053	MAMMARY DUCTOGRAM OR GALACTOGRAM, SINGLE DUCT, R...	N

Figure 5.7 –Filtering billing code table

2. Set one of the entries to ‘Y’
3. Press <CTRL>+A on the keyboard to select all rows
4. Right click on the cell that has the ‘Y’ from step 2 and select “Assign Cell To Selected Rows”

Billing Code	Description	Charge For Each Unit Flag	Version	Display
74000	RADIOLOGIC EXAMINATION, ABDOMEN; SINGLE ANTEROPOS...	Y	1	1
77053	MAMMARY DUCTOGRAM OR GALACTOGRAM, SINGLE DUCT, R...	N		
77055	MAMMOGRAPHY; UNILATERAL	N		
75571	COMPUTED TOMOGRAPHY, HEART, WITHOUT CONTRAST MAT...			
71260	COMPUTED TOMOGRAPHY, THORAX; WITH CONTRAST MATER...			

Figure 5.8 – Assigning multiple rows in billing code with attribute

Insurance Eligibility – Payments Exceeding Amount to Collect Warning

A popup warning is now displayed, if the amount entered is greater than the remaining amount to collect. The warning is displayed when the cursor focus moves away from the Amount textbox.

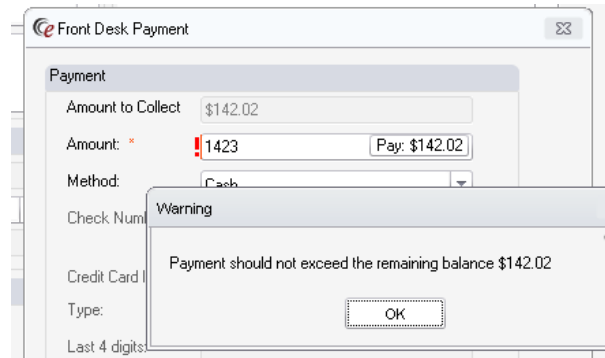


Figure 5.9 –Warning if payment exceeds amount to collect

To help users key in the correct remaining balance, we have introduced the “Pay” button. When clicked, the “Amount” text box will get set to the remaining balance. In the above example, clicking the “Pay: \$142.02” button sets the amount to 142.02.

Two new system configuration settings have also been introduced. The first is “**MaxPaymentAmount**” that has a default of 6000. This setting will limit the user’s ability to enter an amount more than the value set for this configuration setting.

System Config Code	Value	Default	Description
Contains: maxp	Contains:	Contains:	Contains:
MaxPaymentAboveAmountToCollect	99	999	(value = int) Max \$ above the amount to collect that will be allowed.
MaxPaymentAmount	4000	6000	(value = int) Max \$ amount that can be paid in a single payment.

Figure 5.10 – new configuration settings for payment amounts

In the example below the user tried to enter a payment amount of \$5000.00. The amount to collect is \$142.02. Because the value set above for MaxPaymentAmount is \$4000.00, we will display a message and inform the user they cannot enter this payment amount.

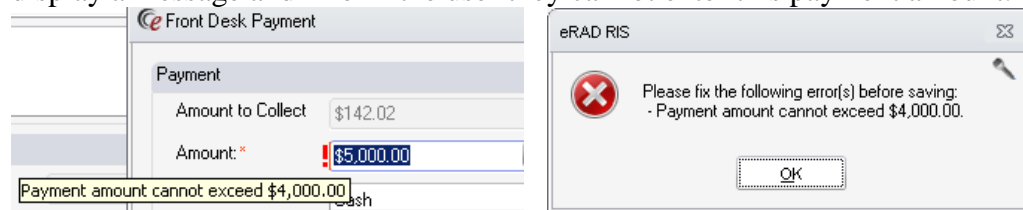


Figure 5.11 – Message displayed when Amount to Collect exceeds MaxPaymentAmount

In the next example the user is trying to enter a payment amount that exceeds the set value for the next new system configuration setting of “**MaxPaymentAboveAmountToCollect**” which has a default of 999. In figure 5.10 the value is set to \$99 and the amount to collect is \$142.02. Since the payment amount exceeds \$99 the user is prevented from entering that amount and the value displayed with these two values added together.

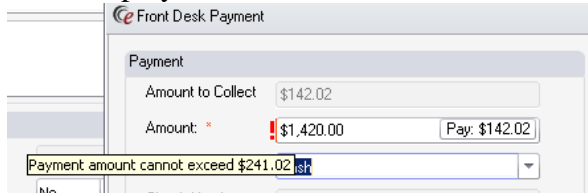


Figure 5.12 – Amount entered exceeds MaxPaymentAboveAmountToCollect

Insurance Eligibility – Collect Copay When it Exceeds Amount to Collect

If the amount to collect is less than the copay, the amount to collect will now be that of the copay amount. In the example below you can see that the amount to collect is \$56, but the Copay portion is \$99. The amount to collect will be \$99.

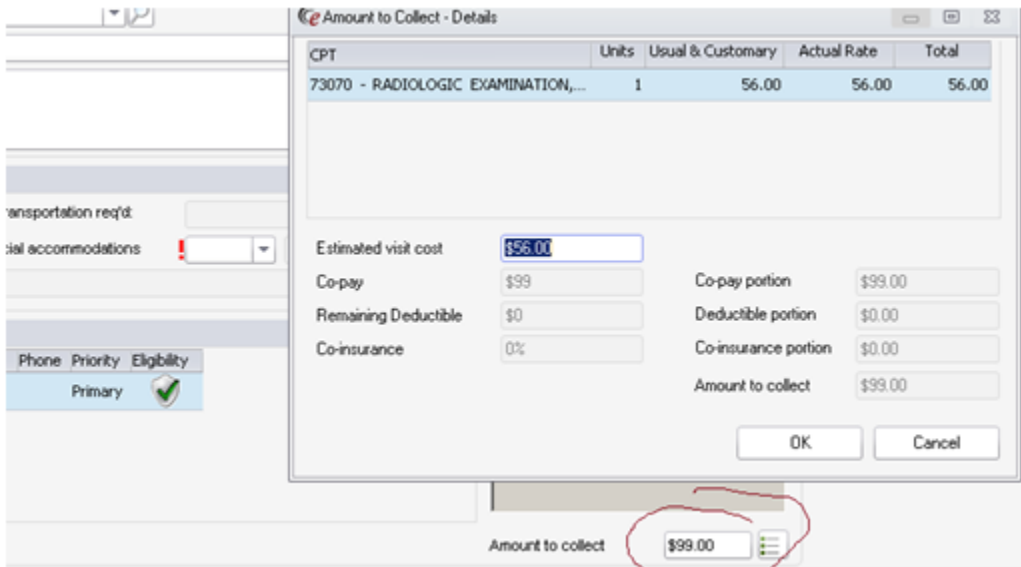


Figure 5.13 – Amount to Collect will now be the Copay amount.

Self-Pay Option “Do not share with insurance provider”

When the exam is to have a self-pay method selected from the Billing Method section on the Order tab a new check box will appear. This check box is labeled “Do not share with insurance provider”. Functionally in eRAD RIS, it will not affect anything. The flag is set to Y when selected, which is then passed to an external system that will share/not share data with the insurance company.

A new system configuration setting of “**ShowKeepSelfPayPrivate**” which has a default of false will control whether or not this check box will appear when selecting a self-pay option

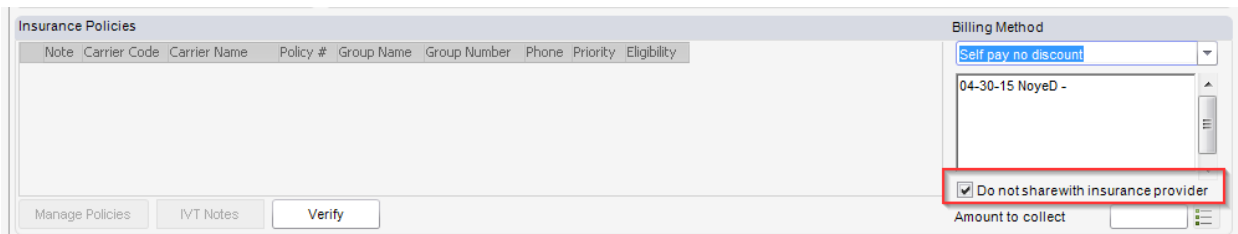


Figure 5.14 – Check box displayed when self-pay option used and config setting ShowKeepSelfPayPrivate=Y

Referring Doctor Affiliations Included With MIRTH Messages

Logic was added to the RIS outbound external interface to include identifiers for the doctors affiliations as part of the expanded study container sent to MIRTH.

The referring doctors affiliation will be included in the `c_order.requested_by_address_key.l_person_address` node within the study container. A new node called `affiliation_list` is now a child node of `l_person_address`. If there are no affiliations this node would be empty. If there 1 or more then a child node called `<affiliation_code>` node would repeat for each occurrence. See examples below.

```
<report_cc_delivery_emr_flag>N</report_cc_delivery_emr_flag>
<report_delivery_do_not_deliver_flag>N</report_delivery_do_not_deliver_flag>
<report_cc_delivery_do_not_deliver_flag>N</report_cc_delivery_do_not_deliver_flag>
<report_delivery_email_flag>N</report_delivery_email_flag>
<report_cc_delivery_email_flag>N</report_cc_delivery_email_flag>
  <affiliation_list />
</l_person_address>
</requested_by_address_key>
<indication>DAT</indication>
  <report_cc_delivery_emr_flag>N</report_cc_delivery_emr_flag>
  <report_delivery_do_not_deliver_flag>N</report_delivery_do_not_deliver_flag>
  <report_cc_delivery_do_not_deliver_flag>N</report_cc_delivery_do_not_deliver_flag>
  <report_delivery_email_flag>N</report_delivery_email_flag>
  <report_cc_delivery_email_flag>N</report_cc_delivery_email_flag>
  <affiliation_list>
    <affiliation_code>1</affiliation_code>
  </affiliation_list>
</l_person_address>
</requested_by_address_key>
  <report_cc_delivery_emr_flag>N</report_cc_delivery_emr_flag>
  <report_delivery_do_not_deliver_flag>N</report_delivery_do_not_deliver_flag>
  <report_cc_delivery_do_not_deliver_flag>N</report_cc_delivery_do_not_deliver_flag>
  <report_delivery_email_flag>N</report_delivery_email_flag>
  <report_cc_delivery_email_flag>N</report_cc_delivery_email_flag>
  <affiliation_list>
    <affiliation_code>1</affiliation_code>
    <affiliation_code>109</affiliation_code>
  </affiliation_list>
</l_person_address>
</requested_by_address_key>
<indication>DAT</indication>
```

Interface to Create Internal System ID for External ID via External System

The RIS Services were updated so that if the c_child_patient node has an attribute called create_internal set to Y then if no internal patient is found or is already associated to the external MRN, a new row will be created.

The MIRTH mapping line required to create the attribute looks like:

```
tmp['Patient']['c_child_patient'].@create_internal = 'Y';
```

With this attribute on (Y), and the message sent to RIS with only the external identifier and a match is not found we will create an internal MRN for this patient. Alternatively if the attribute is “N” it will behave as it does today, sending the message to RIS and an internal ID will not be created.

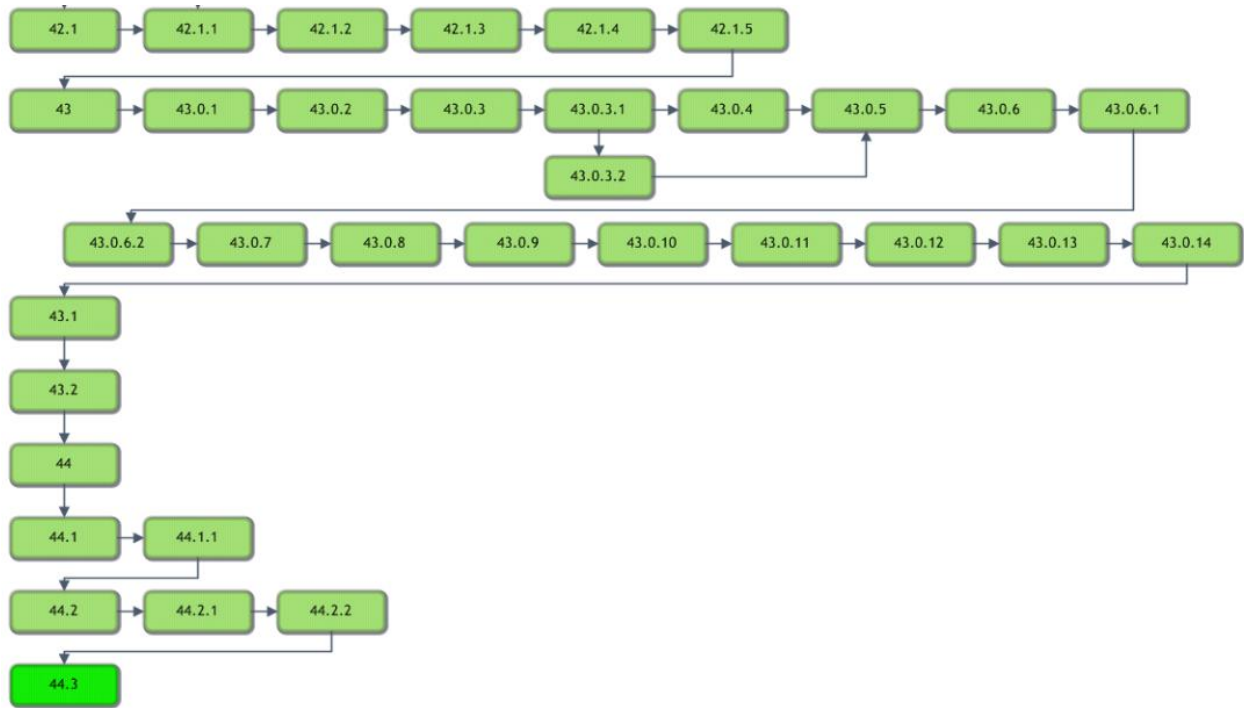
In addition to the create_internal attribute, we also included the attributes of require_phone_match and require_gender_match, both valued with 'N'.

Examples:

```
tmp['Patient']['c_child_patient'].@require_phone_match = 'N';
```

```
tmp['Patient']['c_child_patient'].@require_gender_match = 'N';
```

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

8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.44.3. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.44.3.

Bug #	Priority	Subject	Category	Found Version
6032	Normal	Scheduling - New Appointment Calendar - Selecting time on calendar does not check for room availability.	Thick Client GUI	1.42
7270	Normal	Note column in personel causing errors	Admin-Clinical Data	2.43
7497	Normal	biopsy surgeon selection shows referrals and other personnel that are not surgeons	Mammography	2.43.0.5
7932	Normal	An error in the image caching process can terminate RIS	PACS (eRAD) Int - RIS only	2.43.0.12
8428	High	Collection was modified error related to worklist views	Radiology Reporting	2.43.1
9150	High	Insurance Eligibility - CPT costs needed to be multiplied by units		43.1
9323	High	IVT - MRN isn't read-only on patient tab.	Thick Client GUI	2.43.2
9425	Normal	Amount to collect not updating on Schedule Order/Review screens when blanked out	Billing	2.44
9448	High	Review Tab - Estimated responsibilities when zero should be handled better	Billing	43.1
9471	Normal	Warning needed if selected insurance has a blank policy number	Insurance Eligibility	43.1
9480	Low	Reporting Radiologist - PowerScribe error and crash opening report with powerscribe integration	Radiology Reporting	2.43.1
9513	Normal	AppointmentBook is showing cancelled studies	Scheduling	2.44.2
9523	Urgent	Old layout for dictation/editing are not maintained into the 44 upgrade.	Radiology Reporting	44
9524	Urgent	Bacode scanner not opening PS360 report when set to Diagnose on accession number	Powerscribe Integration	2.44.2
9525	Normal	Assigned Radiologist is not recognized as assigned in the Assign to Radiologist window	Radiology Reporting	2.44

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9530	High	Error arriving studies from same order	Reception	2.44.2
9532	Normal	error changing pre-cert info on registration	Reception	2.44.2
9543	High	Reporting Radiologist - M*Modal interactive dictation performance issues when using encrypt audio method	Radiology Reporting	2.44.2
9554	High	the wedge should not expand the virtual table c_order_ref_addresses	Web Services/DB	2.44.2
9555	Urgent	Post message routine in RIS Services (wedge) fails	Web Services/DB	2.44.2
9559	Normal	validate MS-SQL Server 2008 R2 SP3	DB	2.44.2
9574	High	Insurance Eligibility - Performance issue as we add more eligibility configurations		44.2
9586	Normal	DD Engine updates pending lay letters to be cancelled is a causing database blocking	DB	2.44.2
9608	Normal	Reporting Radiologist - Exception on application exit using Powerscribe	Radiology Reporting	2.44.2
9632	Normal	Assigning an exam to a chair in Pending Dictation WL produced an error.	Chair/County workflow	2.44.3
9646	High	Insurance Eligibility - Amount to collect issue in "Perform Exam"		44.2

9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.44.3. Bugs reported in previous versions are not captured as Known Limitation in this document.

#	Status	Priority	Subject
9634	New	High	Contrast is being deleted when View/Edit is opened

Server Update

For eRAD RIS
Version 2.0
Build 44.3
Update 44.3.1

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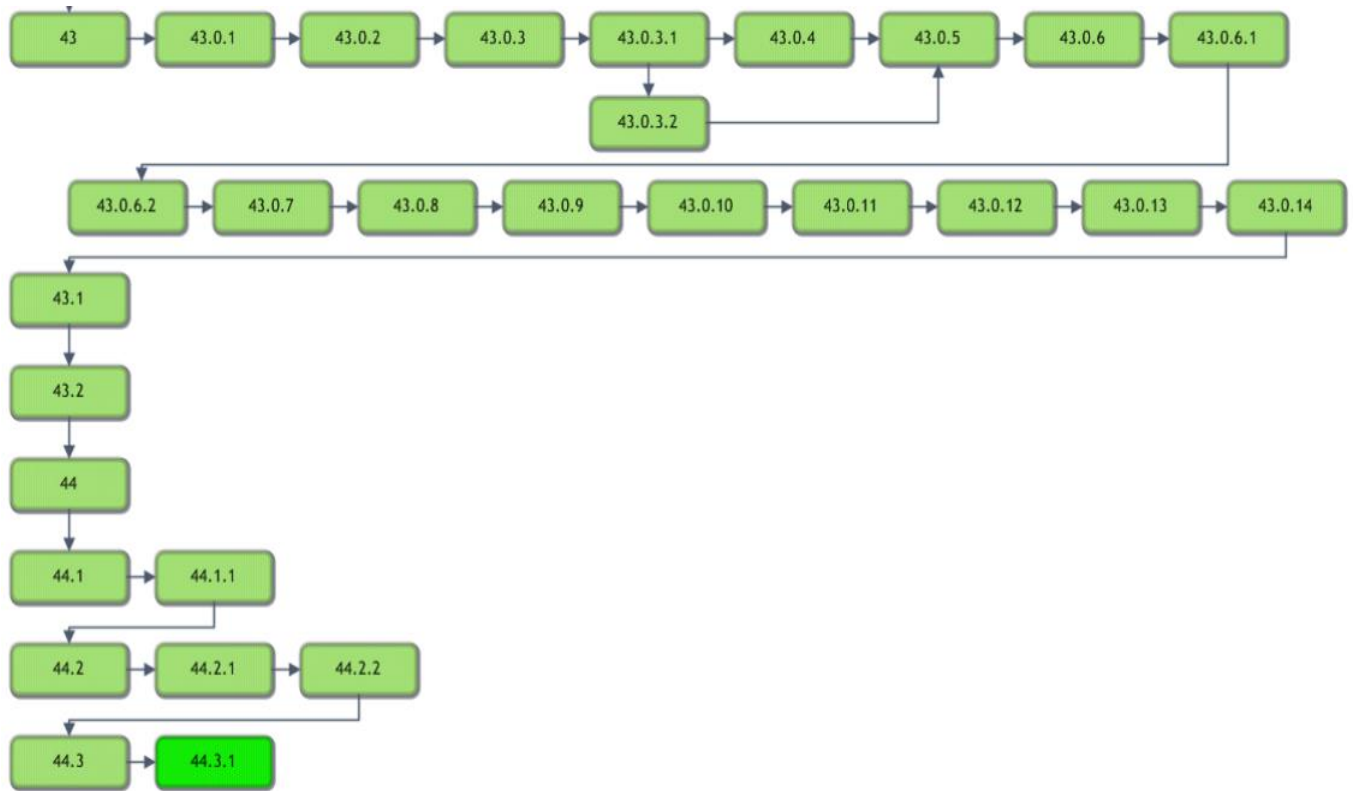
eRAD RIS Server Update

1. Resolved Items

Redmine #	Subject	Priority
10019	Error on Image Request worklist using custom "My Views" that have been grouped	Urgent
9726	Error when rescheduling a cancelled order.	Urgent
10303	Send to Patient can display incorrect information in GUI	High
10301	collection was modified error on scheduling / save as order	Normal
10020	Insurance Eligibility - Usual&Customary error is preventing View Edit from saving	Normal

eRAD RIS Server Update

2. Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

3. Package Contents

Files included for this server update:

1. **GUI_ZIP_Updates** contains 1 file:

rRIS_1.3.44.3.1.28535

2. **rRISService** folder contains:

- | | |
|---|--|
| 2.1. ABCpdf.dll | 2.43. Radar.Common.WebClient.dll |
| 2.2. ABCpdf9-32.dll | 2.44. Radar.Common.WebClient.pdb |
| 2.3. ABCpdf9-64.dll | 2.45. Radar.DirectMessaging.Client.dll |
| 2.4. Antlr3.Runtime.dll | 2.46. Radar.DirectMessaging.Client.pdb |
| 2.5. CDSJobManager.dll | 2.47. Radar.DirectMessaging.Model.dll |
| 2.6. CDSJobManager.pdb | 2.48. Radar.DirectMessaging.Model.pdb |
| 2.7. CdsLib.dll | 2.49. rRISServices.exe |
| 2.8. CdsLib.xml | 2.50. rRISServices.pdb |
| 2.9. CdsLib.XmlSerializers.dll | 2.51. rRISServicesx64.exe |
| 2.10. CommonLib.dll | 2.52. ScheduledTaskManager.dll |
| 2.11. CommonLib.pdb | 2.53. ScheduledTaskManager.pdb |
| 2.12. DDEngine.dll | 2.54. ServicesConfigWizard.exe |
| 2.13. DDEngine.pdb | 2.55. ServicesConfigWizard.pdb |
| 2.14. DiffPlex.dll | 2.56. SignatureApprovalService.exe |
| 2.15. Interop.FAXCOMEXLib.dll | 2.57. SignatureApprovalService.pdb |
| 2.16. Microsoft.Practices.EnterpriseLibrary.Caching.dll | 2.58. System.Net.Http.dll |
| 2.17. Microsoft.Practices.EnterpriseLibrary.Caching.pdb | 2.59. System.Net.Http.Formatting.dll |
| 2.18. Microsoft.Practices.EnterpriseLibrary.Common.dll | 2.60. System.Web.Http.dll |
| 2.19. Microsoft.Practices.EnterpriseLibrary.Common.pdb | 2.61. System.Web.Http.SelfHost.dll |
| 2.20. Microsoft.Practices.EnterpriseLibrary.Logging.dll | 2.62. System.Web.Http.SelfHost.xml |
| 2.21. Microsoft.Practices.EnterpriseLibrary.Logging.pdb | 2.63. System.Web.Http.WebHost.dll |
| 2.22. Microsoft.Practices.ServiceLocation.dll | 2.64. System.Web.Http.WebHost.xml |
| 2.23. Microsoft.Practices.ServiceLocation.pdb | 2.65. System.Web.Http.xml |
| 2.24. Microsoft.Practices.Unity.dll | 2.66. System.Web.Mvc.dll |
| 2.25. Microsoft.Practices.Unity.Interception.dll | 2.67. System.Web.Mvc.xml |
| 2.26. Microsoft.Practices.Unity.Interception.pdb | 2.68. System.Web.Optimization.dll |
| 2.27. Microsoft.Practices.Unity.pdb | 2.69. System.Web.Razor.dll |
| 2.28. Microsoft.ReportViewer.Common.dll | 2.70. System.Web.Razor.xml |
| 2.29. Microsoft.ReportViewer.WinForms.dll | 2.71. System.Web.WebPages.Deployment.dll |
| 2.30. Microsoft.ReportViewer.WinForms.xml | 2.72. System.Web.WebPages.Deployment.xml |
| 2.31. Newtonsoft.Json.dll | 2.73. System.Web.WebPages.dll |
| 2.32. Newtonsoft.Json.xml | 2.74. System.Web.WebPages.Razor.dll |
| 2.33. NLog.dll | 2.75. System.Web.WebPages.Razor.xml |
| 2.34. O2S.Components.PDFRender4NET.dll | 2.76. System.Web.WebPages.xml |
| 2.35. PdfSharp.dll | 2.77. Tourreau.Gilles.FaxDotNet.dll |
| 2.36. PDFToImages.exe | 2.78. Tourreau.Gilles.FaxDotNet.pdb |
| 2.37. Radar.Api.Client.dll | 2.79. Tourreau.Gilles.FaxDotNet.xml |
| 2.38. Radar.Api.Client.pdb | 2.80. WCFService.dll |
| 2.39. Radar.Api.Model.dll | 2.81. WCFService.pdb |
| 2.40. Radar.Api.Model.pdb | 2.82. WCFServiceTests.dll |
| 2.41. Radar.Common.dll | 2.83. WCFServiceTests.pdb |
| 2.42. Radar.Common.pdb | 2.84. WebApi.dll |

eRAD RIS Server Update

2.85. WebApi.pdb
2.86. WebGrease.dll

2.87. Wedge.exe
2.88. Wedge.pdb

2.1.1 XSL folder contains:

2.1.1.1. Stylesheets folder contains:

- A. CDAToHTMLCompleteReport.xslt
- B. CDAToHTMLCompleteReportDark.xslt
- C. CDAToHTMLImpressionSection.xslt
- D. CDAToRIS.xslt
- E. CDAToTxt.xslt
- F. DocumentModelReport.xslt
- G. DocumentModelReportAsXml.xslt
- H. CDA folder contains:
 - i. C-CDA.xsl
 - ii. eRadStylesheet.xsl
 - iii. generalTemplates.xsl
 - iv. header.xsl
 - v. QRDA.xsl
 - vi. QrdaLevel3_Cypress2.4.0.xsl
 - vii. QrdaLevel3_ViewHtml.xsl
 - viii. sectionAdministeredMedications.xsl
 - ix. sectionAllergies.xsl
 - x. sectionEncounters.xsl
 - xi. sectionFindings.xsl
 - xii. sectionFuncCogStatus.xsl
 - xiii. sectionImmunizations.xsl
 - xiv. sectionInstructions.xsl
 - xv. sectionMedications.xsl
 - xvi. sectionPlanOfCare.xsl
 - xvii. sectionProblemList.xsl
 - xviii. sectionProcedures.xsl
 - xix. sectionQRDAMeasures.xsl
 - xx. sectionQRDAPatientData.xsl
 - xxi. sectionQRDAREporting.xsl
 - xxii. sectionReasonForVisit.xsl
 - xxiii. sectionResults.xsl
 - xxiv. sectionSocialHistory.xsl
 - xxv. sectionVitalSigns.xsl

2.1.2 Deploy folder contains 4 files:

- 2.1.2.1. applicationsettings.config
- 2.1.2.2. releaseVersion-connectionstrings.config
- 2.1.2.3. rRISServices.exe.config
- 2.1.2.4. rRISServicesx64.exe.config
- 2.1.2.5. services.config

eRAD RIS Server Update

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

Build 44.2 – 44.3 installs. This server update must be applied to 44.3

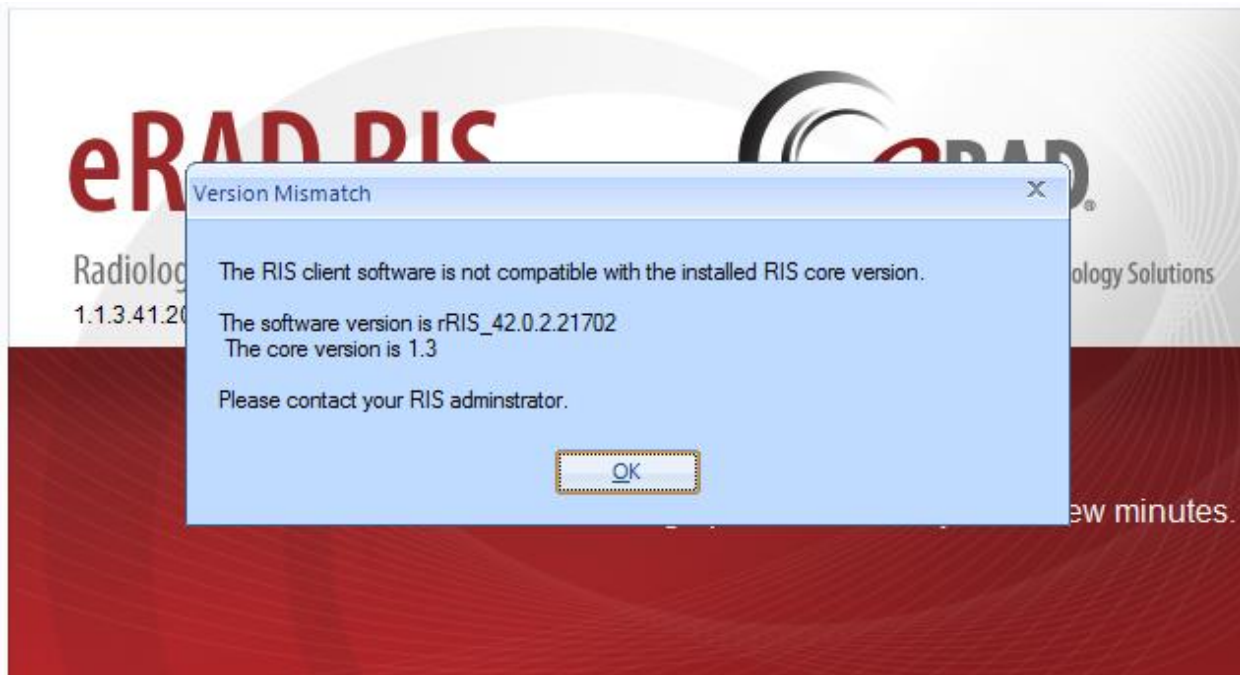
6. eRAD RIS Release Version Numbers

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

7. Installing

Client/GUI

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.44.3.1.28535.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_44.3.1.28535 → rRIS_1.3.44.3.1.28535

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

Web Service

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 88 files in the rRISService folder and 2 sub folders. Of those folders, 1 is a folder titled “XSL” that contains a sub folder and files within the subfolder. Another folder is titled “**deploy**” that contains the new .config files that will be deployed with the user of the file called “ServicesConfigWizard.exe” (see instructions below).

Services Configuration Wizard

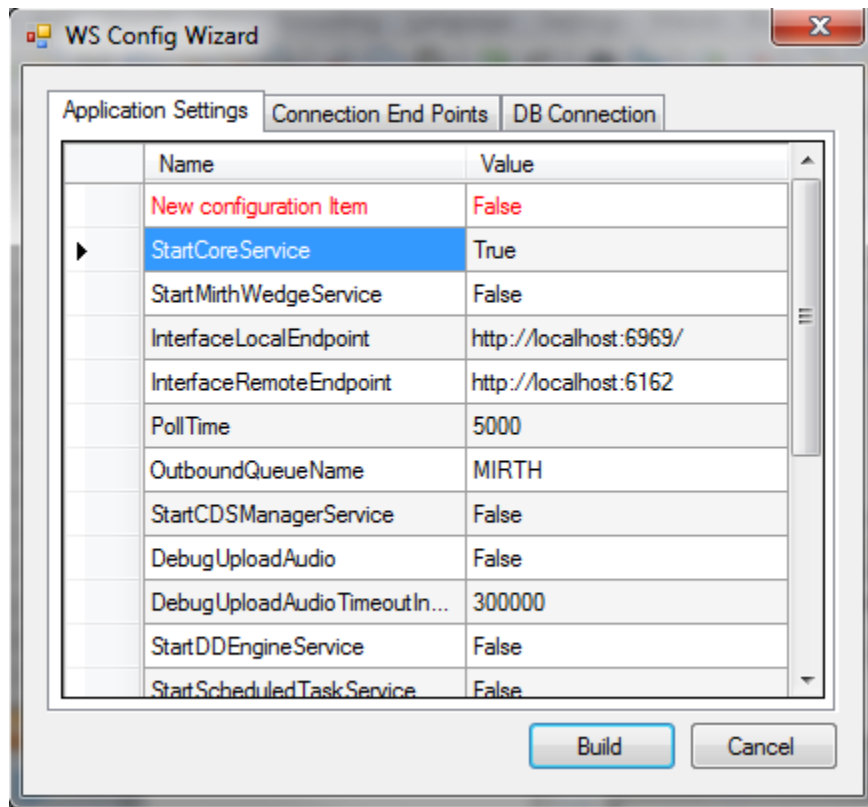
With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a “deploy” folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application “ServicesConfigWizard.exe”

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
Application Settings: all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

NOTE: the rRISServices.exe.config file is also included in the deploy folder. If this file has changes it **will not** update your current file in the Web Service directory. Any changes to this file will require a manual update of the rRISServices.exe.config and rRISServicesx64.exe.config files.

eRAD RIS Server Update



eRAD RIS Server Update

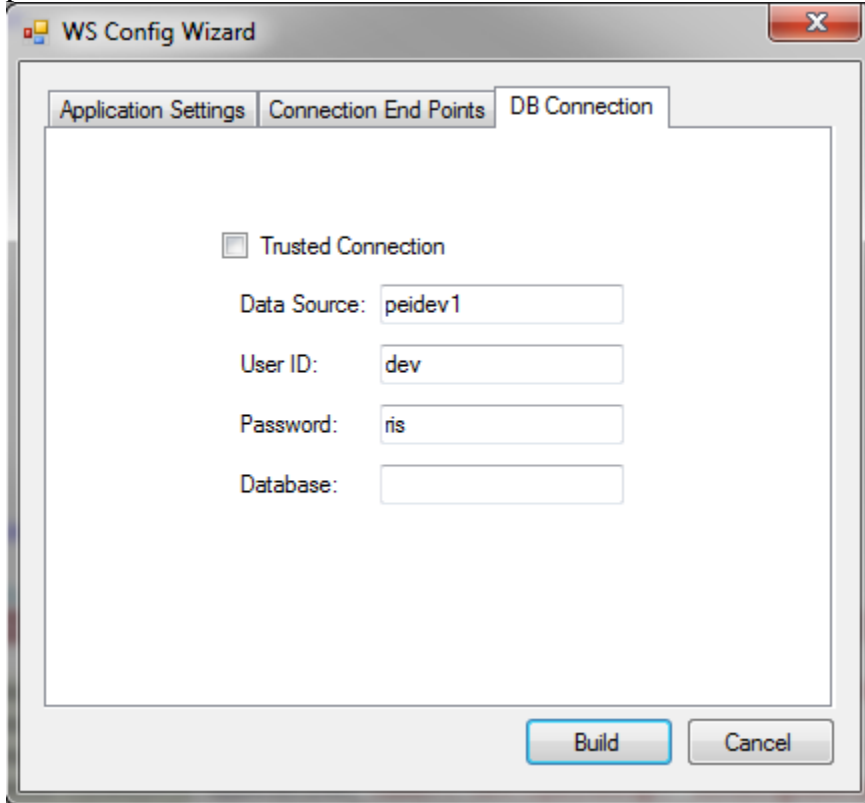
Connection End Points: will display the existing configuration, if the value is left blank then that entry will not be created, in the case of “Study Service” or “CDS Service” if both http and net.tcp were not provided then that endpoint will not be created at all.

The screenshot shows the 'WS Config Wizard' dialog box with the 'Connection End Points' tab selected. The dialog is divided into three sections: 'Study Service', 'Notify Service', and 'CDS Service'. Each section contains two rows of configuration fields. The 'Study Service' section has 'http://' with 'localhost:8040' and '/rRIS/' and 'net.tcp://' with 'localhost:8041' and '/rRIS/'. The 'Notify Service' section has 'net.tcp://' with 'localhost:7095' and '/rRIS/'. The 'CDS Service' section has 'http://' with 'localhost:7092' and '/rRIS/' and 'net.tcp://' with 'localhost:7093' and '/rRIS/'. At the bottom of the dialog are 'Build' and 'Cancel' buttons.

Service	Protocol	Host:Port	Path
Study Service	http://	localhost:8040	/rRIS/
	net.tcp://	localhost:8041	/rRIS/
Notify Service	net.tcp://	localhost:7095	/rRIS/
CDS Service	http://	localhost:7092	/rRIS/
	net.tcp://	localhost:7093	/rRIS/

eRAD RIS Server Update

DB Connection: will display the existing configuration, if the Connection is to be used as a trusted connection, then the user ID and password will become disabled and will not be used, and will rely on the provided database value, When not using the trusted connection, The Database value is not needed but can be used to force a specific database connection as long as the provided user has access to that database.



It is always good practice to do a compare of the .config files.

- 1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

User Release Notes

for eRAD RIS
Version 2
Build 44.3

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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 44.3 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.44.3

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 2.44.3 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 B2.44.3

Setting Placeholder	Setting	Default	Purpose / Controls Access to
System Configuration	EligibilityReceiptPath	None	(value = string) Determines the relative path on the report server for eligibility payment receipts
System Configuration	MaxPaymentAboveAmountToCollect	999	(value = int) Max \$ above the amount to collect that will be allowed.
System Configuration	MaxPaymentAmount	6000	(value = int) Max \$ amount that can be paid in a single payment.
System Configuration	ShowKeepSelfPayPrivate	False	(value = bool) Determines if RIS will present the 'Do not share with insurance provider' option in the case of self-pay.
System Configuration	UsualAndCustomaryInsuranceNumber	None	Insurance number to use when looking up the usual and customary rate, which is displayed on the patient's receipt.

5. New Features and Enhancements

Insurance Eligibility – Payment Receipt Showing Insurance and Pricing

It can be difficult explaining charges to the patient. A report showing the breakdown of the amount to collect is required.

For payment made on visits, where RIS had used eligibility to calculate an amount to collect, RIS will display an alternate receipt. The receipt will list the CPTs and their Usual & Customary rates and the eligibility verified co-insurance, co-pay and deductible portions, plus payment information such as total payments and estimated balance. The receipt creation process archives all this information, so that when we re-print the receipt, it prints exactly the same.

To get the Usual & Customary amount, the new system configuration setting of **“UsualAndCustomaryInsuranceNumber”** (no default value) must be set to the NPD’s insurance company for the usual rate fee schedule. If this is not set, then the costs in the report will display as blank. The usual rate is stored for every CPT, even those which do not have Eligibility enabled carrier.

To enable the auto printing and reprinting of the Eligibility Payment Receipt, set the new system configuration setting of **“EligibilityReceiptPath”** (no default value) to the new payment form as shown in the following.

System Config Code	Value	Default	Description
UsualAndCustomaryInsuranceNumber	100		Insurance number to use when looking up the usual and customary rate,
EligibilityReceiptPath	/kevin/Forms/Eligibility Payment Receipt		(value = string) Determines the relative path on the report server for eligi
ReceiptPath	/kevin/Forms/Payment Receipt		(value = string) Determines the relative path on the report server for paym

Figure 5.1 – Displaying new system configuration settings

The Eligibility Payment receipt will get printed after saving a screen such as Registration or View Edit when there was one or more payments made during the edit. Or receipts can be reprinted by right clicking on one of the payment and choosing “reprint” as shown in the following:

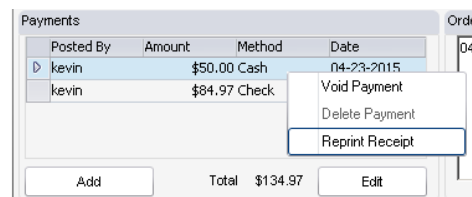


Figure 5.2 – Reprinting receipt

There are two variations on the Eligibility Payment Receipt.

- 1) A simple receipt where the patient paid for their services in full.
- 2) Payment estimate change, CPTs could have changed during the exam and patient either needs to be either refunded or pay an additional amount.

In these two cases the receipt will look similar but in the second case will have additional fields such as ‘**Current Payments**’ and ‘**Previous Payments for this Visit**’.

The following shows a simple receipt where the patient paid using both Cash and Cheque:

LOGO		RECEIPT		
		April 23, 2015 9:13 AM RECEIPT # EL-102-39110		
Insurance Payments are an Estimate Only Please write this number on your check: 39110 Make checks payable to: Advanced Radiology		Mol, Kevin 343 Central St Summerside, MD 90210 MRN #24742PE		
Service Date	Description	Units	Charge	Total
04/23/2015	CT ORBIT SELLA/POST FOSSAWEAR C-/IC+	1	\$ 430.17	\$ 430.17
				\$ 430.17
		Deductible Portion	Copay	Coinsurance
Estimated Patient Responsibility		\$ 100.00	\$ 10.00	\$ 24.97
				Total
				\$ 134.97
Method	Notes			Amount
Cash				\$ 50.00
Check #2123				\$ 84.97
Total Payments				\$ 134.97
Estimated Patient Balance				\$ 0.00

Thank you for your business!

Figure 5.3 – Payment receipt display different modes of payment

After the initial registration, additional CPTs were added and the patient had to return to pay the additional amount. The following is the second payment receipt for this visit:

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Service Date	Description	Units	Charge	Total
04/23/2015	CT ORBIT SELLA/POST FOSSAE AR C-IC+	1	\$ 430.17	\$ 430.17
04/23/2015	RADIOLOGIC EXAMINATION, ABDOMEN; ANTEROPOSTERIOR AND ADDITIONAL OBLIQUE AND CONE VIEWS	1	\$ 47.13	\$ 47.13
04/23/2015	RADIOLOGIC EXAMINATION, ABDOMEN; SINGLE ANTEROPOSTERIOR VIEW	1	\$ 29.26	\$ 29.26
				\$ 506.56

	Deductible Portion	Copay	Coinsurance	Total
Estimated Patient Responsibility	\$ 100.00	\$ 10.00	\$ 31.96	\$ 141.96

Method	Notes	Amount
CreditCard MC 3322	XR ABDOMEN AP was added after inital registration. Patient paid remaining ESTIMATED balance.	\$ 6.99
Current Payments		\$ 6.99
Previous Payments for This Visit		\$ 134.97
Total Payments		\$ 141.96
Estimated Patient Balance		\$ 0.00

Figure 5.4 – Second payment required for additional services receipt

The Usual and Customary amount is often different from the contracted rate. To help our staff understand how the amount to collect was calculated, we have updated the “Amount to Collect – Details” popup to include a list of CPTs and their rates.

CPT	Units	Usual & Customary	Actual Rate	Total
70482 - CT ORBIT SELLA/POST FOSS...	1	430.17	359.70	359.70
74000 - RADIOLOGIC EXAMINATION,...	1	29.26	28.20	28.20
74010 - RADIOLOGIC EXAMINATION,...	1	47.13	41.74	41.74

Estimated visit cost	<input type="text" value="\$429.64"/>		
Co-pay	<input type="text" value="\$10"/>	Co-pay portion	<input type="text" value="\$10.00"/>
Remaining Deductible	<input type="text" value="\$100"/>	Deductible portion	<input type="text" value="\$100.00"/>
Co-insurance	<input type="text" value="10%"/>	Co-insurance portion	<input type="text" value="\$31.96"/>
		Amount to collect	<input type="text" value="\$141.96"/>

Figure 5.5 – Amount to Collect Details changes

A new column titled “Charge For Each Unit Flag” has been added to the Billing Code lookup table. By default we will not charge for multiple units. The RIS will only bill for multiple units if the billing_code lookup's field charge_for_each_unit_flag is set to 'Y'. If charge_for_each_unit_flag is 'N' then the visit cost will only include one charge for the CPT and the Eligibility Payment Receipt and the above Amount to Collect Details will only show that the CPT was charged once.

Billing Code	Description	Charge For Each Unit Flag	Version
74000	RADIOLOGIC EXAMINATION, ABDOMEN; SINGLE ANTEROPOS...	Y	1
77053	MAMMARY DUCTOGRAM OR GALACTOGRAM, SINGLE DUCT, R...	N	1
77055	MAMMOGRAPHY; UNILATERAL	N	1

Figure 5.6 – New column on the Billing Code tab

Administrators can update multiple billing code in a batch as outlined in the following steps:

1. Filter on the types of billing codes you would like to set to ‘Y’

Billing Code	Description	Charge For Each Unit Flag
74000	RADIOLOGIC EXAMINATION, ABDOMEN; SINGLE ANTEROPOS...	N
77053	MAMMARY DUCTOGRAM OR GALACTOGRAM, SINGLE DUCT, R...	N

Figure 5.7 –Filtering billing code table

2. Set one of the entries to ‘Y’
3. Press <CTRL>+A on the keyboard to select all rows
4. Right click on the cell that has the ‘Y’ from step 2 and select “Assign Cell To Selected Rows”

Billing Code	Description	Charge For Each Unit Flag	Version	Display
74000	RADIOLOGIC EXAMINATION, ABDOMEN; SINGLE ANTEROPOS...	Y	1	1
77053	MAMMARY DUCTOGRAM OR GALACTOGRAM, SINGLE DUCT, R...	N		
77055	MAMMOGRAPHY; UNILATERAL	N		
75571	COMPUTED TOMOGRAPHY, HEART, WITHOUT CONTRAST MAT...			
71260	COMPUTED TOMOGRAPHY, THORAX; WITH CONTRAST MATER...			

Figure 5.8 – Assigning multiple rows in billing code with attribute

Insurance Eligibility – Payments Exceeding Amount to Collect Warning

A popup warning is now displayed, if the amount entered is greater than the remaining amount to collect. The warning is displayed when the cursor focus moves away from the Amount textbox.

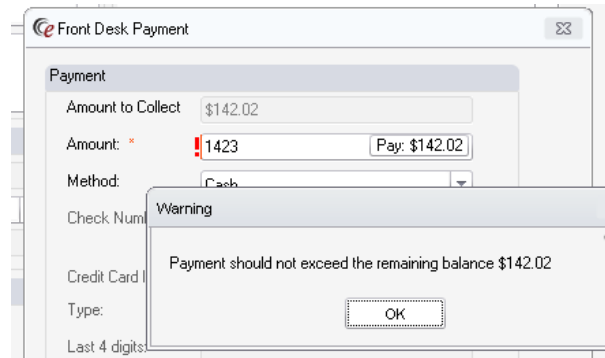


Figure 5.9 –Warning if payment exceeds amount to collect

To help users key in the correct remaining balance, we have introduced the “Pay” button. When clicked, the “Amount” text box will get set to the remaining balance. In the above example, clicking the “Pay: \$142.02” button sets the amount to 142.02.

Two new system configuration settings have also been introduced. The first is “**MaxPaymentAmount**” that has a default of 6000. This setting will limit the user’s ability to enter an amount more than the value set for this configuration setting.

System Config Code	Value	Default	Description
Contains: maxp	Contains:	Contains:	Contains:
MaxPaymentAboveAmountToCollect	99	999	(value = int) Max \$ above the amount to collect that will be allowed.
MaxPaymentAmount	4000	6000	(value = int) Max \$ amount that can be paid in a single payment.

Figure 5.10 – new configuration settings for payment amounts

In the example below the user tried to enter a payment amount of \$5000.00. The amount to collect is \$142.02. Because the value set above for MaxPaymentAmount is \$4000.00, we will display a message and inform the user they cannot enter this payment amount.



Figure 5.11 – Message displayed when Amount to Collect exceeds MaxPaymentAmount

In the next example the user is trying to enter a payment amount that exceeds the set value for the next new system configuration setting of “**MaxPaymentAboveAmountToCollect**” which has a default of 999. In figure 5.10 the value is set to \$99 and the amount to collect is \$142.02. Since the payment amount exceeds \$99 the user is prevented from entering that amount and the value displayed with these two values added together.

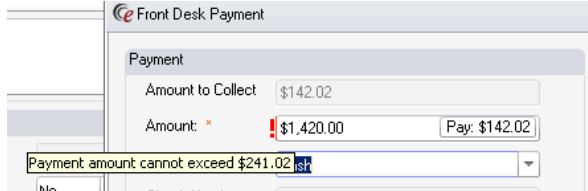


Figure 5.12 – Amount entered exceeds MaxPaymentAboveAmountToCollect

Insurance Eligibility – Collect Copay When it Exceeds Amount to Collect

If the amount to collect is less than the copay, the amount to collect will now be that of the copay amount. In the example below you can see that the amount to collect is \$56, but the Copay portion is \$99. The amount to collect will be \$99.

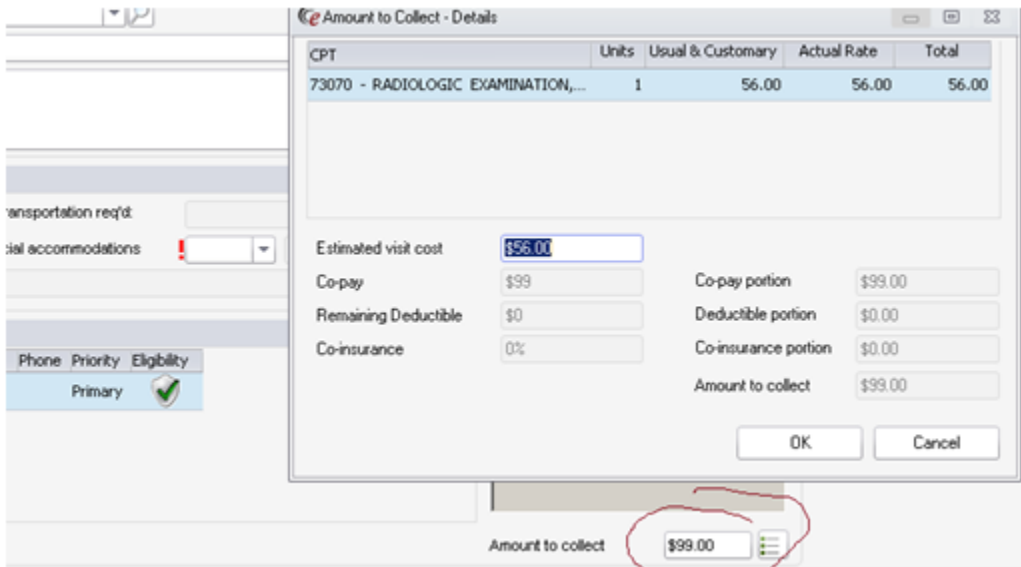


Figure 5.13 – Amount to Collect will now be the Copay amount.

Self-Pay Option “Do not share with insurance provider”

When the exam is to have a self-pay method selected from the Billing Method section on the Order tab a new check box will appear. This check box is labeled “Do not share with insurance provider”. Functionally in eRAD RIS, it will not affect anything. The flag is set to Y when selected, which is then passed to an external system that will share/not share data with the insurance company.

A new system configuration setting of “**ShowKeepSelfPayPrivate**” which has a default of false will control whether or not this check box will appear when selecting a self-pay option

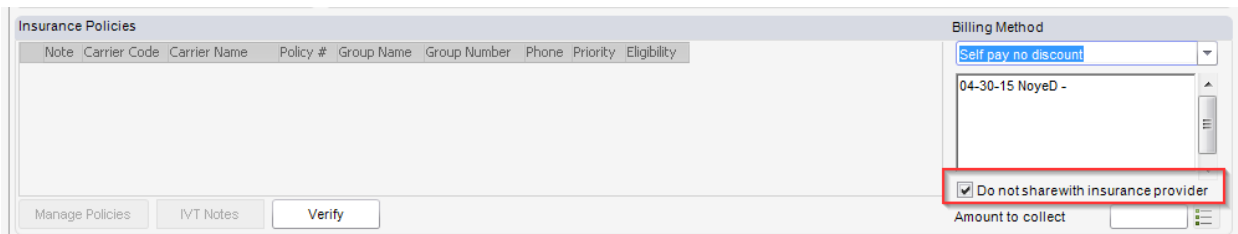


Figure 5.14 – Check box displayed when self-pay option used and config setting ShowKeepSelfPayPrivate=Y

Referring Doctor Affiliations Included With MIRTH Messages

Logic was added to the RIS outbound external interface to include identifiers for the doctors affiliations as part of the expanded study container sent to MIRTH.

The referring doctors affiliation will be included in the `c_order.requested_by_address_key.l_person_address` node within the study container. A new node called `affiliation_list` is now a child node of `l_person_address`. If there are no affiliations this node would be empty. If there 1 or more then a child node called `<affiliation_code>` node would repeat for each occurrence. See examples below.

```
<report_cc_delivery_emr_flag>N</report_cc_delivery_emr_flag>
<report_delivery_do_not_deliver_flag>N</report_delivery_do_not_deliver_flag>
<report_cc_delivery_do_not_deliver_flag>N</report_cc_delivery_do_not_deliver_flag>
<report_delivery_email_flag>N</report_delivery_email_flag>
<report_cc_delivery_email_flag>N</report_cc_delivery_email_flag>
  <affiliation_list />
</l_person_address>
</requested_by_address_key>
<indication>DAT</indication>
  <report_cc_delivery_emr_flag>N</report_cc_delivery_emr_flag>
  <report_delivery_do_not_deliver_flag>N</report_delivery_do_not_deliver_flag>
  <report_cc_delivery_do_not_deliver_flag>N</report_cc_delivery_do_not_deliver_flag>
  <report_delivery_email_flag>N</report_delivery_email_flag>
  <report_cc_delivery_email_flag>N</report_cc_delivery_email_flag>
  <affiliation_list>
    <affiliation_code>1</affiliation_code>
  </affiliation_list>
</l_person_address>
</requested_by_address_key>
  <report_cc_delivery_emr_flag>N</report_cc_delivery_emr_flag>
  <report_delivery_do_not_deliver_flag>N</report_delivery_do_not_deliver_flag>
  <report_cc_delivery_do_not_deliver_flag>N</report_cc_delivery_do_not_deliver_flag>
  <report_delivery_email_flag>N</report_delivery_email_flag>
  <report_cc_delivery_email_flag>N</report_cc_delivery_email_flag>
  <affiliation_list>
    <affiliation_code>1</affiliation_code>
    <affiliation_code>109</affiliation_code>
  </affiliation_list>
</l_person_address>
</requested_by_address_key>
<indication>DAT</indication>
```

Interface to Create Internal System ID for External ID via External System

The RIS Services were updated so that if the c_child_patient node has an attribute called create_internal set to Y then if no internal patient is found or is already associated to the external MRN, a new row will be created.

The MIRTH mapping line required to create the attribute looks like:

```
tmp['Patient']['c_child_patient'].@create_internal = 'Y';
```

With this attribute on (Y), and the message sent to RIS with only the external identifier and a match is not found we will create an internal MRN for this patient. Alternatively if the attribute is “N” it will behave as it does today, sending the message to RIS and an internal ID will not be created.

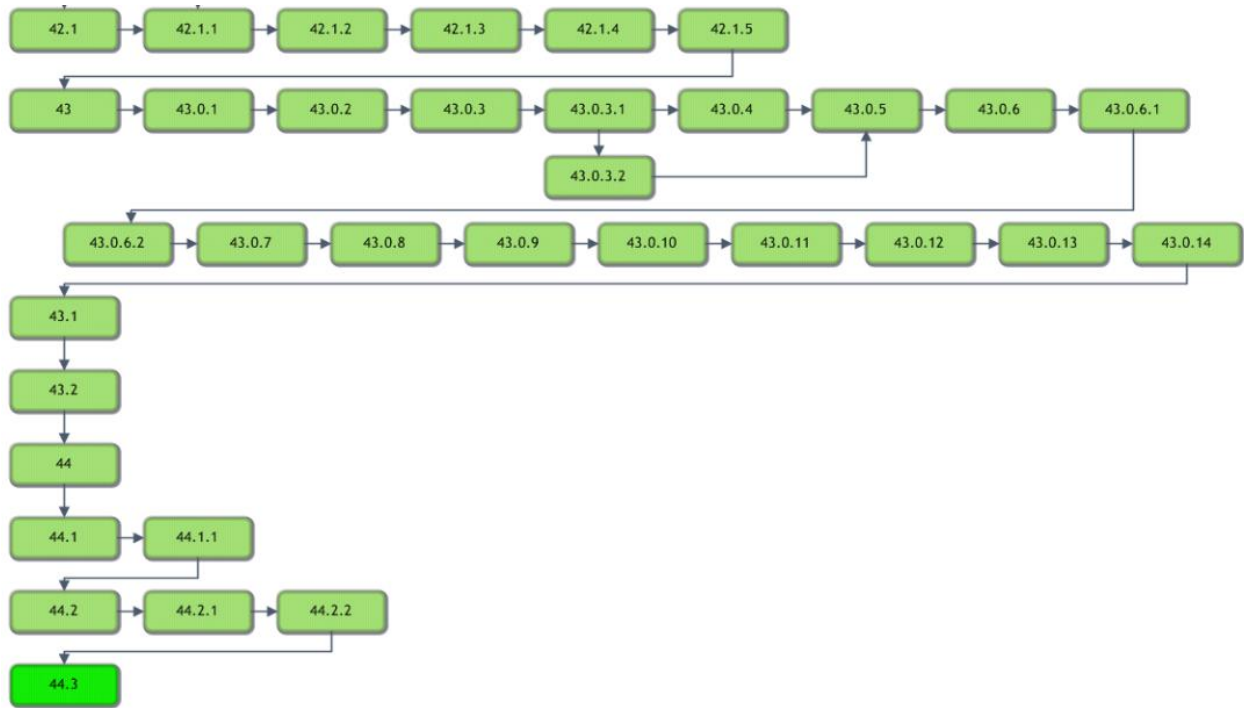
In addition to the create_internal attribute, we also included the attributes of require_phone_match and require_gender_match, both valued with 'N'.

Examples:

```
tmp['Patient']['c_child_patient'].@require_phone_match = 'N';
```

```
tmp['Patient']['c_child_patient'].@require_gender_match = 'N';
```

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

8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.44.3. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.44.3.

Bug #	Priority	Subject	Category	Found Version
6032	Normal	Scheduling - New Appointment Calendar - Selecting time on calendar does not check for room availability.	Thick Client GUI	1.42
7270	Normal	Note column in personel causing errors	Admin-Clinical Data	2.43
7497	Normal	biopsy surgeon selection shows referrals and other personnel that are not surgeons	Mammography	2.43.0.5
7932	Normal	An error in the image caching process can terminate RIS	PACS (eRAD) Int - RIS only	2.43.0.12
8428	High	Collection was modified error related to worklist views	Radiology Reporting	2.43.1
9150	High	Insurance Eligibility - CPT costs needed to be multiplied by units		43.1
9323	High	IVT - MRN isn't read-only on patient tab.	Thick Client GUI	2.43.2
9425	Normal	Amount to collect not updating on Schedule Order/Review screens when blanked out	Billing	2.44
9448	High	Review Tab - Estimated responsibilities when zero should be handled better	Billing	43.1
9471	Normal	Warning needed if selected insurance has a blank policy number	Insurance Eligibility	43.1
9480	Low	Reporting Radiologist - PowerScribe error and crash opening report with powerscribe integration	Radiology Reporting	2.43.1
9513	Normal	AppointmentBook is showing cancelled studies	Scheduling	2.44.2
9523	Urgent	Old layout for dictation/editing are not maintained into the 44 upgrade.	Radiology Reporting	44
9524	Urgent	Bacode scanner not opening PS360 report when set to Diagnose on accession number	Powerscribe Integration	2.44.2
9525	Normal	Assigned Radiologist is not recognized as assigned in the Assign to Radiologist window	Radiology Reporting	2.44

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9530	High	Error arriving studies from same order	Reception	2.44.2
9532	Normal	error changing pre-cert info on registration	Reception	2.44.2
9543	High	Reporting Radiologist - M*Modal interactive dictation performance issues when using encrypt audio method	Radiology Reporting	2.44.2
9554	High	the wedge should not expand the virtual table c_order_ref_addresses	Web Services/DB	2.44.2
9555	Urgent	Post message routine in RIS Services (wedge) fails	Web Services/DB	2.44.2
9559	Normal	validate MS-SQL Server 2008 R2 SP3	DB	2.44.2
9574	High	Insurance Eligibility - Performance issue as we add more eligibility configurations		44.2
9586	Normal	DD Engine updates pending lay letters to be cancelled is a causing database blocking	DB	2.44.2
9608	Normal	Reporting Radiologist - Exception on application exit using Powerscribe	Radiology Reporting	2.44.2
9632	Normal	Assigning an exam to a chair in Pending Dictation WL produced an error.	Chair/County workflow	2.44.3
9646	High	Insurance Eligibility - Amount to collect issue in "Perform Exam"		44.2

9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.44.3. Bugs reported in previous versions are not captured as Known Limitation in this document.

#	Status	Priority	Subject
9634	New	High	Contrast is being deleted when View/Edit is opened

User Release Notes

for eRAD RIS
Version 2
Build 44.4

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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 44.4 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.44.4

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 2.44.4 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 B2.44.4

Setting Placeholder	Setting	Default	Purpose / Controls Access to
System Configuration	PatientPortalImageHoldPeriodDays	3	The number of days from the time the study is performed to the date that the patient will be able to see the images.
System Configuration	PatientPortalReportHoldPeriodDays	3	The number of days from the time a report is signed to the date that the patient will be able to see it.

5. New Features and Enhancements

Update Patient Insurance via Interface

Patient insurance information needs to come in via the interface. This was previously disabled during development of EMR workflow. In the most common cases an insurance will need to be attached to a visit based on a given accession number.

The interface now allows the incoming message to contain `c_patient_insurance` and `c_visit_x_patient_insurance` rows. This allows inbound message to add or update multiple insurance policies and associate one or more of them to the visit referred to in the message. The interface tries to look up the given insurance policy based on the policy number and carrier code, which are considered to be the minimum amount of criteria given. If a row is found for this patient is used, otherwise a new row is added. In order to link to the current visit a `c_visit_x_patient_insurance` row needs to be included in the message, otherwise the `c_patient_insurance` is only attached to the patient and not the visit.

The following message will create or update an insurance belonging to the patient and associate that insurance to the visit to which the study identified by the accession number belongs. The `patient_insurance_key` nodes (in blue) identify that this insurance policy should be attached to this visit, meaning the “Use” checkbox will be selected. If multiple insurances are contained in the message and should be attached to the visit then each must have a unique `patient_insurance_key` and a corresponding `c_visit_x_patient_insurance` node.

```
<StudyContainer MainAction="HL7_StudyUpdated">
  <Patient>
    <c_patient_insurance>
      <patient_insurance_key>1</patient_insurance_key>
      <carrier_code>0601053</carrier_code>
      <policy_number>B-88968</policy_number>
      <group_number>123</group_number>
    </c_patient_insurance>
  </Patient>
  <Visit>
    <c_visit_x_patient_insurance>
      <patient_insurance_key>1</patient_insurance_key>
    </c_visit_x_patient_insurance>
  </Visit>
</Study>
<c_study>
```

```
                <accession_number>1000710</accession_number>
            </c_study>
        </Study>
</StudyContainer>
```

If the section of <Visit> doesn't exist or the node <c_visit_x_patient_insurance> doesn't exist the insurance policy will be added, but will not be used with the visit (Use checkbox will not be selected).

Note that the interface requires only policy_number and carrier_code nodes for the c_patient_insurance table, but it accepts all fields belonging to the c_patient_insurance table.

In addition to a specifying the accession number to associate the insurance other options exists, such as

- <patient_id> with <issuer_of_patient_id>
- <visit_number>

Ability to Cancel Outside Reads via Interface

eRAD RIS prevents some status changes via interface once the study is in ExamDone status. For outside reads received from another system we need to be able to cancel them.

The following HL7 main action will cancel a study in Exam Done, Exam Done (Tech Only) and Hold Code Complete status.

```
<StudyContainer MainAction="HL7_StudyCancelled">
  <Study>
    <c_study>
      <accession_number>1000853</accession_number>
    </c_study>
  </Study>
</StudyContainer>
```

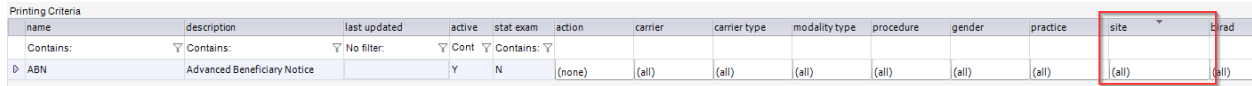
Ability to Specify Person Address Key via Interface

In previous versions when a message with a referring physician was received we couldn't specify which address (if multiple) to use. With the node displayed below, the `<requested_by_address_key>` will assign the correct address to the study based on the address key.

```
<StudyContainer MainAction="HL7_StudyUpdated">
  <Patient>
  </Patient>
  <Visit>
  </Visit>
  <Order>
    <c_order>
      <_patient_id>10686</_patient_id>
      <_issuer_of_patient_id>system</_issuer_of_patient_id>
      <requested_by_person_key>20180</requested_by_person_key>
      <requested_by_address_key>23752</requested_by_address_key>
    </c_order>
  </Order>
  <Study>
    <c_study>
      <accession_number>1009942</accession_number>
    </c_study>
  </Study>
</StudyContainer>
```

Forms and Labels – Site Code added to Printing Criteria

The ability to filter the printing criteria of a form by site has been added. The column “site” works in same manner as the existing columns. By default all sites will be included in the printing criteria. The user will need to manually edit to filter the form by site.



name	description	last updated	active	stat exam	action	carrier	carrier type	modality type	procedure	gender	practice	site	rad
Contains:	Contains:	No filter:	Cont	Contains:									
ABN	Advanced Beneficiary Notice		Y	N	(none)	(all)	(all)	(all)	(all)	(all)	(all)	(all)	(all)

Figure 5.1 – Site filter added to Forms and Labels Printing Criteria

Multiple printing criteria rows can be added for each form if the action or availability of the form is different.

Patient Portal – Configurable Time for Reports and Images Availability

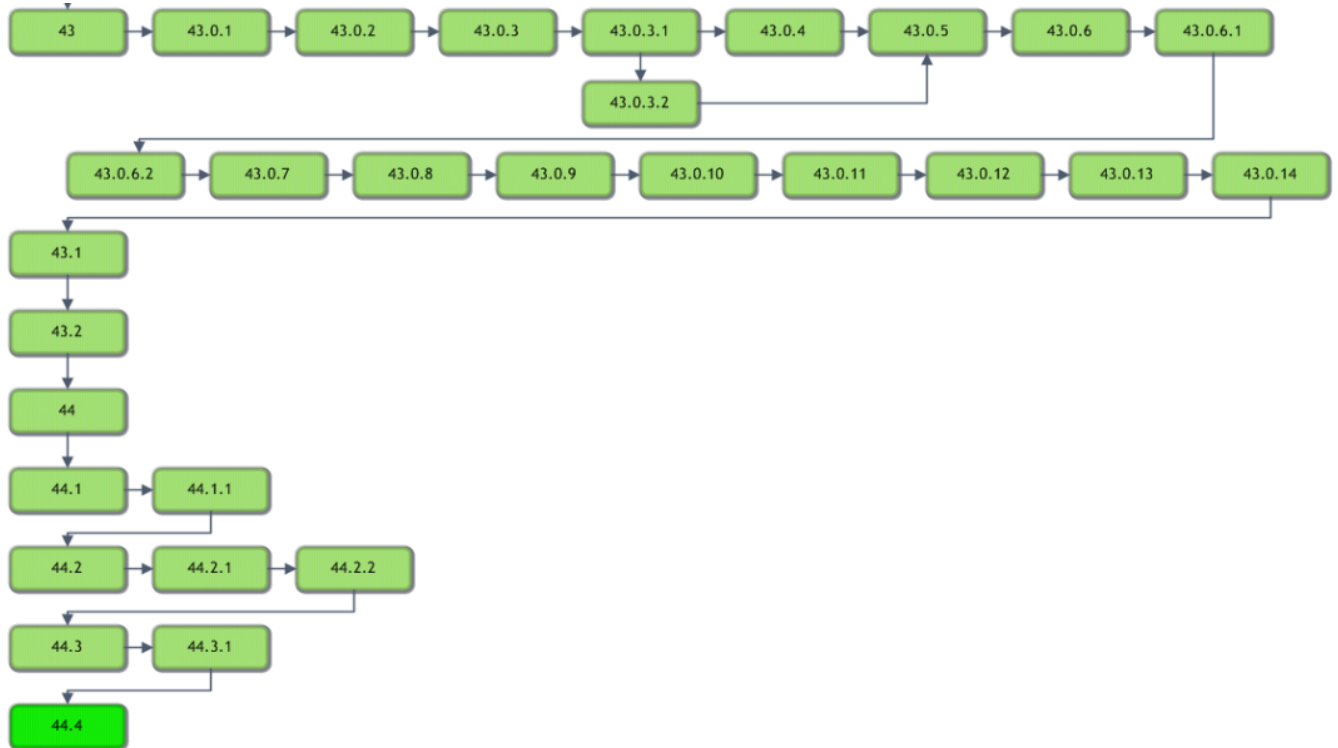
After a report is signed the report itself and the images associated with the report should be held from view for a specific time period via the Patient Portal.

We have introduced 2 new configuration settings to control how long the report and images will be withheld from view on the patient portal.

The system configuration setting of “**PatientPortalImageHoldPeriodDays**” with a default of 3 will determine the number in days from the time the study is performed that the patient will be able to view the images on the patient portal

The system configuration setting of “**PatientPortalReportHoldPeriodDays**” with a default of 3 will determine the number in days from the time the report is signed until the patient can view the report on the patient portal

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

8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.44.4. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.44.4.

Bug #	Priority	Subject	Category	Found Version
10407	Normal	Dictations by User Report - update column header	Mgt Reports	2.44
10372	High	DTC exception when attempting to manually change status	Web Services/DB	44.3
10351	High	Insurance Eligibility - ?Edit Image Request? is setting the amount to collect to zero		44.3
10343	Normal	should not be able to view report or images until a release period has passed	Connect Patient Portal 1.x	1.0.0.0
10319	Normal	Edit Send to Job does not perform a referring doctor search	Document Distribution	2.44.3
10312	High	Reporting Radiologist - View menu will not display for radiologists if not granted access to some menu items	Radiology Reporting	2.44.3
9698	Normal	Operations \ OTC QA Report - Potential OTC doubling up	Mgt Reports	2.43.1
9675	Normal	Person address key cannot be specified directly on an inbound message	Interfaces	2.44
9656	Normal	conversion failed error when posting payment for sites with a "-" in the site_code	Web Services/DB	2.43
9634	High	Contrast is being deleted when View/Edit is opened	Scheduling	2.44.3
4612	Normal	IVT - add logic to retain the pre-cert when an exam requires pre-cert and is rescheduled if an expire date is entered NOTE: This feature was released in B44. Corrected issue with expiry date in B44.4	Thick Client GUI	2.44.1

9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.44.4. Bugs reported in previous versions are not captured as Known Limitation in this document.

#	Status	Priority	Subject
10440	New	Normal	Error when adding a contrast to a Cancelled or Discontinued Procedure
10438	New	Normal	Error when deleting a contrast that has the Max Value exceeded

Server Update

For eRAD RIS
Version 2.0
Build 44.4
Update 44.4.1

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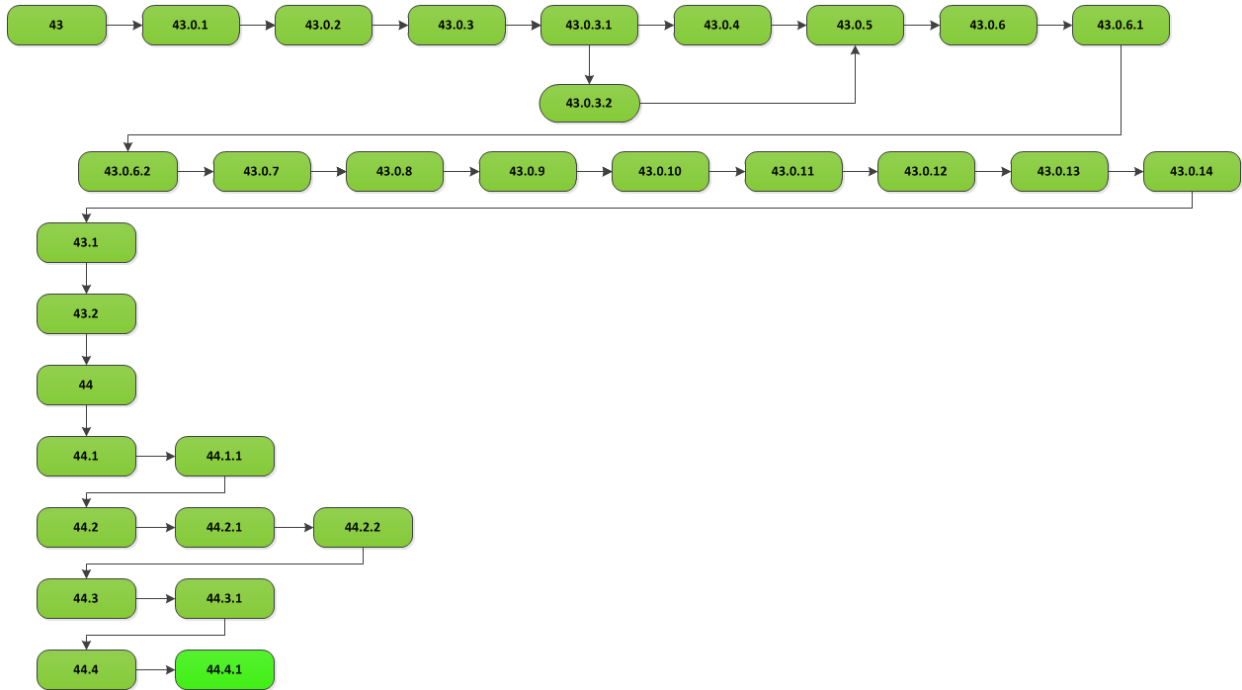
eRAD RIS Server Update

1. Resolved Items

Redmine #	Subject	Priority
10527	Inserts/updates to c_study_item via interface do not work	Immediate

eRAD RIS Server Update

2. Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

3. Package Contents

Files included for this server update:

1. **GUI_ZIP_Updates** contains 1 file:

rRIS_1.3.44.4.1.28953

2. **rRISService** folder contains:

- | | |
|---|--|
| 2.1. ABCpdf.dll | 2.43. Radar.Common.WebClient.dll |
| 2.2. ABCpdf9-32.dll | 2.44. Radar.Common.WebClient.pdb |
| 2.3. ABCpdf9-64.dll | 2.45. Radar.DirectMessaging.Client.dll |
| 2.4. Antlr3.Runtime.dll | 2.46. Radar.DirectMessaging.Client.pdb |
| 2.5. CDSJobManager.dll | 2.47. Radar.DirectMessaging.Model.dll |
| 2.6. CDSJobManager.pdb | 2.48. Radar.DirectMessaging.Model.pdb |
| 2.7. CdsLib.dll | 2.49. rRISServices.exe |
| 2.8. CdsLib.xml | 2.50. rRISServices.pdb |
| 2.9. CdsLib.XmlSerializers.dll | 2.51. rRISServicesx64.exe |
| 2.10. CommonLib.dll | 2.52. ScheduledTaskManager.dll |
| 2.11. CommonLib.pdb | 2.53. ScheduledTaskManager.pdb |
| 2.12. DDEngine.dll | 2.54. ServicesConfigWizard.exe |
| 2.13. DDEngine.pdb | 2.55. ServicesConfigWizard.pdb |
| 2.14. DiffPlex.dll | 2.56. SignatureApprovalService.exe |
| 2.15. Interop.FAXCOMEXLib.dll | 2.57. SignatureApprovalService.pdb |
| 2.16. Microsoft.Practices.EnterpriseLibrary.Caching.dll | 2.58. System.Net.Http.dll |
| 2.17. Microsoft.Practices.EnterpriseLibrary.Caching.pdb | 2.59. System.Net.Http.Formatting.dll |
| 2.18. Microsoft.Practices.EnterpriseLibrary.Common.dll | 2.60. System.Web.Http.dll |
| 2.19. Microsoft.Practices.EnterpriseLibrary.Common.pdb | 2.61. System.Web.Http.SelfHost.dll |
| 2.20. Microsoft.Practices.EnterpriseLibrary.Logging.dll | 2.62. System.Web.Http.SelfHost.xml |
| 2.21. Microsoft.Practices.EnterpriseLibrary.Logging.pdb | 2.63. System.Web.Http.WebHost.dll |
| 2.22. Microsoft.Practices.ServiceLocation.dll | 2.64. System.Web.Http.WebHost.xml |
| 2.23. Microsoft.Practices.ServiceLocation.pdb | 2.65. System.Web.Http.xml |
| 2.24. Microsoft.Practices.Unity.dll | 2.66. System.Web.Mvc.dll |
| 2.25. Microsoft.Practices.Unity.Interception.dll | 2.67. System.Web.Mvc.xml |
| 2.26. Microsoft.Practices.Unity.Interception.pdb | 2.68. System.Web.Optimization.dll |
| 2.27. Microsoft.Practices.Unity.pdb | 2.69. System.Web.Razor.dll |
| 2.28. Microsoft.ReportViewer.Common.dll | 2.70. System.Web.Razor.xml |
| 2.29. Microsoft.ReportViewer.WinForms.dll | 2.71. System.Web.WebPages.Deployment.dll |
| 2.30. Microsoft.ReportViewer.WinForms.xml | 2.72. System.Web.WebPages.Deployment.xml |
| 2.31. Newtonsoft.Json.dll | 2.73. System.Web.WebPages.dll |
| 2.32. Newtonsoft.Json.xml | 2.74. System.Web.WebPages.Razor.dll |
| 2.33. NLog.dll | 2.75. System.Web.WebPages.Razor.xml |
| 2.34. O2S.Components.PDFRender4NET.dll | 2.76. System.Web.WebPages.xml |
| 2.35. PdfSharp.dll | 2.77. Tourreau.Gilles.FaxDotNet.dll |
| 2.36. PDFToImages.exe | 2.78. Tourreau.Gilles.FaxDotNet.pdb |
| 2.37. Radar.Api.Client.dll | 2.79. Tourreau.Gilles.FaxDotNet.xml |
| 2.38. Radar.Api.Client.pdb | 2.80. WCFService.dll |
| 2.39. Radar.Api.Model.dll | 2.81. WCFService.pdb |
| 2.40. Radar.Api.Model.pdb | 2.82. WCFServiceTests.dll |
| 2.41. Radar.Common.dll | 2.83. WCFServiceTests.pdb |
| 2.42. Radar.Common.pdb | 2.84. WebApi.dll |

eRAD RIS Server Update

2.85. WebApi.pdb
2.86. WebGrease.dll

2.87. Wedge.exe
2.88. Wedge.pdb

2.1.1 XSL folder contains:

2.1.1.1. Stylesheets folder contains:

- A. CDAToHTMLCompleteReport.xslt
- B. CDAToHTMLCompleteReportDark.xslt
- C. CDAToHTMLImpressionSection.xslt
- D. CDAToRIS.xslt
- E. CDAToTxt.xslt
- F. DocumentModelReport.xslt
- G. DocumentModelReportAsXml.xslt
- H. CDA folder contains:
 - i. C-CDA.xsl
 - ii. eRadStylesheet.xsl
 - iii. generalTemplates.xsl
 - iv. header.xsl
 - v. QRDA.xsl
 - vi. QrdaLevel3_Cypress2.4.0.xsl
 - vii. QrdaLevel3_ViewHtml.xsl
 - viii. sectionAdministeredMedications.xsl
 - ix. sectionAllergies.xsl
 - x. sectionEncounters.xsl
 - xi. sectionFindings.xsl
 - xii. sectionFuncCogStatus.xsl
 - xiii. sectionImmunizations.xsl
 - xiv. sectionInstructions.xsl
 - xv. sectionMedications.xsl
 - xvi. sectionPlanOfCare.xsl
 - xvii. sectionProblemList.xsl
 - xviii. sectionProcedures.xsl
 - xix. sectionQRDAMeasures.xsl
 - xx. sectionQRDAPatientData.xsl
 - xxi. sectionQRDAREporting.xsl
 - xxii. sectionReasonForVisit.xsl
 - xxiii. sectionResults.xsl
 - xxiv. sectionSocialHistory.xsl
 - xxv. sectionVitalSigns.xsl

2.1.2 Deploy folder contains 3 files:

- 2.1.2.1. applicationsettings.config
- 2.1.2.2. releaseVersion-connectionstrings.config
- 2.1.2.3. services.config

eRAD RIS Server Update

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

Build 44.4 installs. This server update must be applied to 44.4

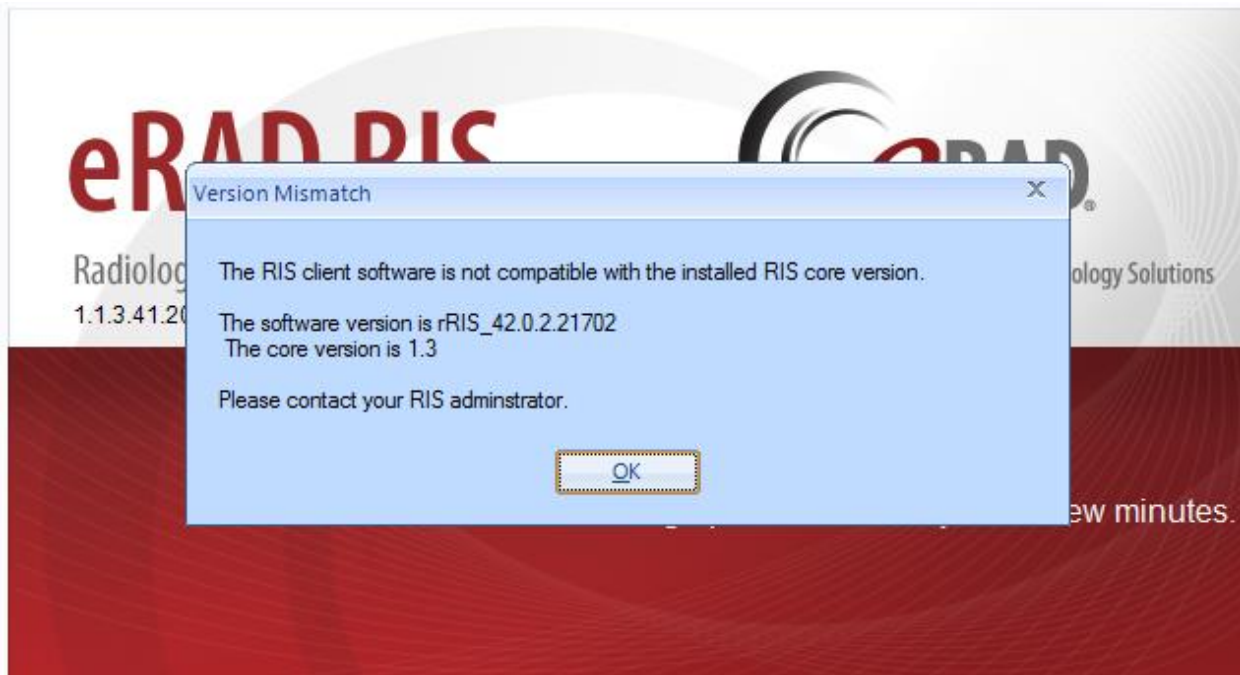
6. eRAD RIS Release Version Numbers

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 Server

7. Installing

Client/GUI

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.44.4.1.28953.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_44.4.1.28953 → rRIS_1.3.44.4.1.28953

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

Web Service

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 88 files in the rRISService folder and 2 sub folders. Of those folders, 1 is a folder titled “XSL” that contains a sub folder and files within the subfolder. Another folder is titled “**deploy**” that contains the new .config files that will be deployed with the user of the file called “ServicesConfigWizard.exe” (see instructions below).

Services Configuration Wizard

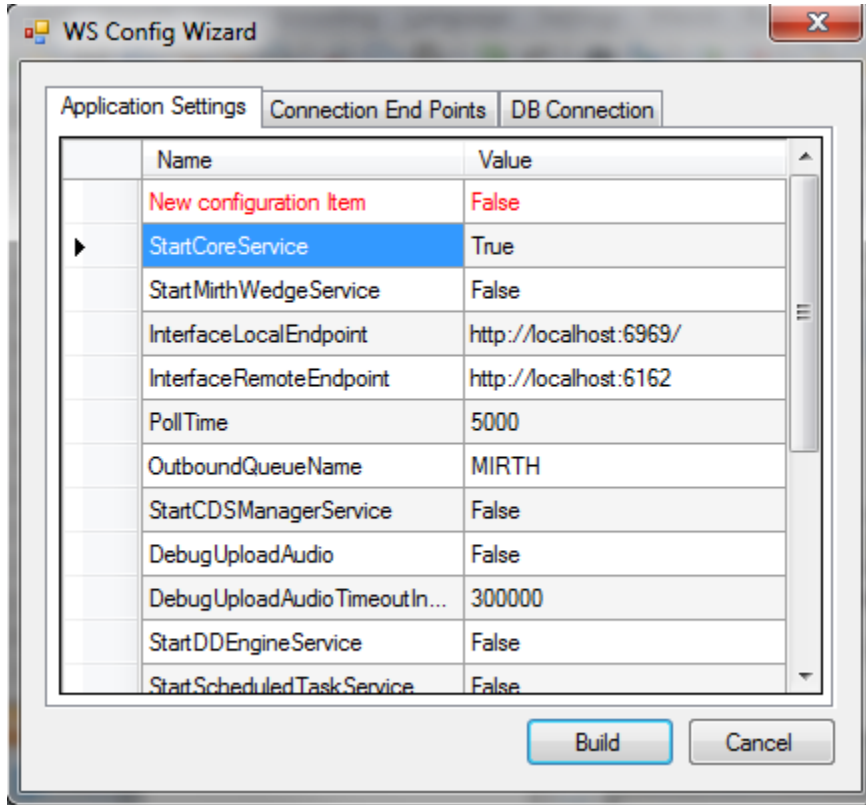
With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a “deploy” folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application “ServicesConfigWizard.exe”

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
Application Settings: all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

NOTE: the rRISServices.exe.config file is also included in the deploy folder. If this file has changes it **will not** update your current file in the Web Service directory. Any changes to this file will require a manual update of the rRISServices.exe.config and rRISServicesx64.exe.config files.

eRAD RIS Server Update



eRAD RIS Server Update

Connection End Points: will display the existing configuration, if the value is left blank then that entry will not be created, in the case of “Study Service” or “CDS Service” if both http and net.tcp were not provided then that endpoint will not be created at all.

WS Config Wizard

Application Settings | **Connection End Points** | DB Connection

Study Service

http:// localhost:8040 /rRIS/

net.tcp:// localhost:8041 /rRIS/

Notify Service

net.tcp:// localhost:7095 /rRIS/

CDS Service

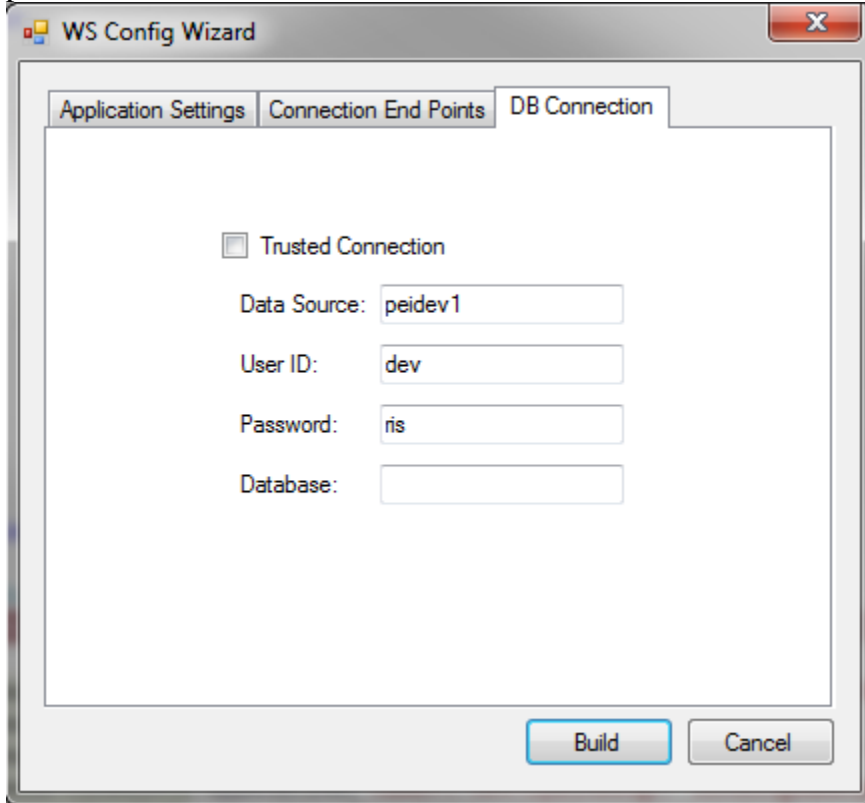
http:// localhost:7092 /rRIS/

net.tcp:// localhost:7093 /rRIS/

Build Cancel

eRAD RIS Server Update

DB Connection: will display the existing configuration, if the Connection is to be used as a trusted connection, then the user ID and password will become disabled and will not be used, and will rely on the provided database value, When not using the trusted connection, The Database value is not needed but can be used to force a specific database connection as long as the provided user has access to that database.



It is always good practice to do a compare of the .config files.

- 1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

Server Update

For eRAD RIS
Version 2.0
Build 44.4
Update 44.4.2

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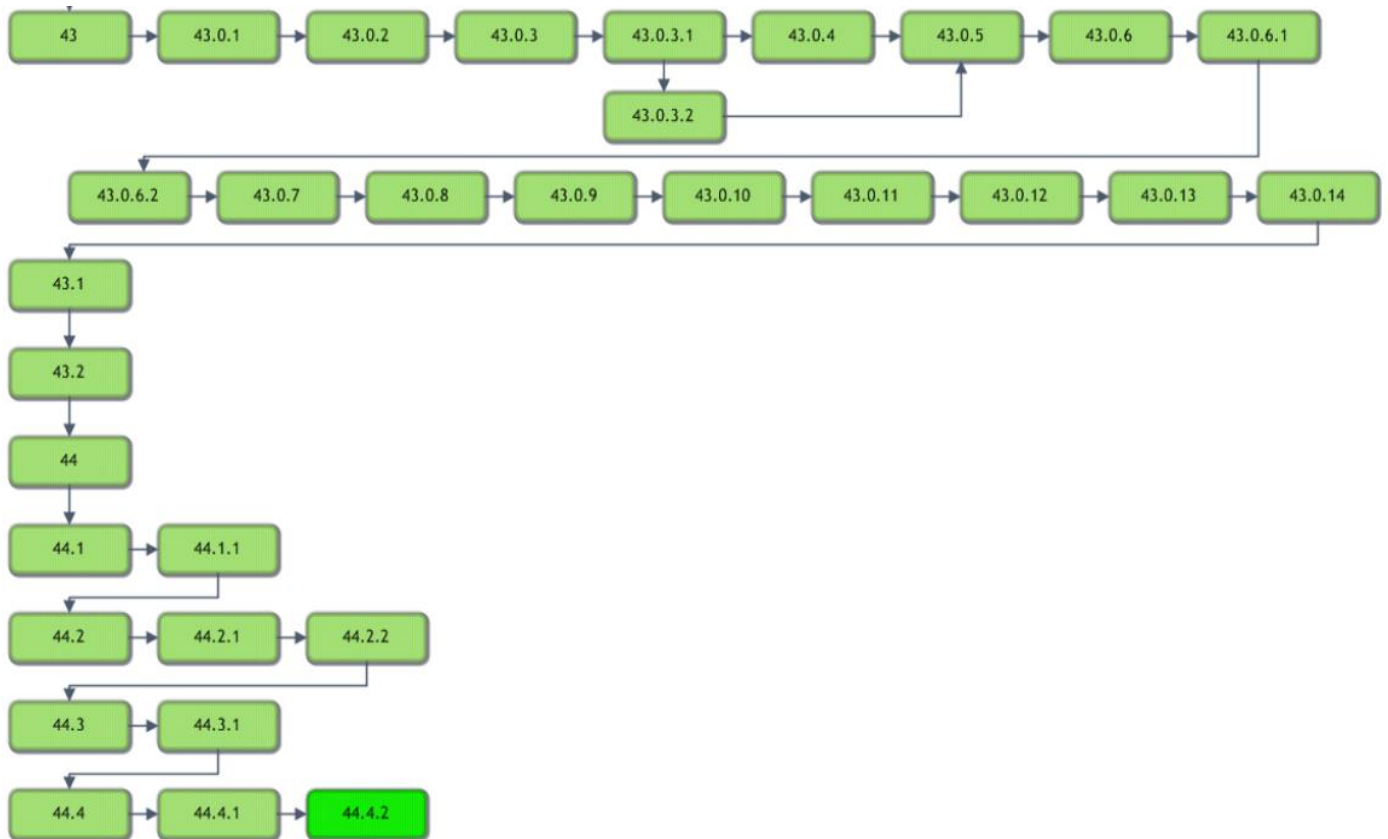
eRAD RIS Server Update

1. Resolved Items

Redmine #	Subject	Priority
10680	PACS Sync - Images being shown for incorrect study	Urgent
10734	PowerScribe Integration - When opening failure occur in PS we are not removing reference to the Reporting Screen.	High
9473	HL7 ReportSigned could produce duplicate addendum	Normal

eRAD RIS Server Update

2. Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

3. Package Contents

Files included for this server update:

1. **GUI_ZIP_Updates** contains 1 file:

rRIS_1.3.44.4.2.29327

2. **rRISService** folder contains:

- | | |
|---|--|
| 2.1. ABCpdf.dll | 2.43. Radar.Common.WebClient.dll |
| 2.2. ABCpdf9-32.dll | 2.44. Radar.Common.WebClient.pdb |
| 2.3. ABCpdf9-64.dll | 2.45. Radar.DirectMessaging.Client.dll |
| 2.4. Antlr3.Runtime.dll | 2.46. Radar.DirectMessaging.Client.pdb |
| 2.5. CDSJobManager.dll | 2.47. Radar.DirectMessaging.Model.dll |
| 2.6. CDSJobManager.pdb | 2.48. Radar.DirectMessaging.Model.pdb |
| 2.7. CdsLib.dll | 2.49. rRISServices.exe |
| 2.8. CdsLib.xml | 2.50. rRISServices.exe.config |
| 2.9. CdsLib.XmlSerializers.dll | 2.51. rRISServices.pdb |
| 2.10. CommonLib.dll | 2.52. rRISServicesx64.exe |
| 2.11. CommonLib.pdb | 2.53. rRISServicesx64.exe.config |
| 2.12. DDEngine.dll | 2.54. ScheduledTaskManager.dll |
| 2.13. DDEngine.pdb | 2.55. ScheduledTaskManager.pdb |
| 2.14. DiffPlex.dll | 2.56. ServicesConfigWizard.exe |
| 2.15. Interop.FAXCOMEXLib.dll | 2.57. ServicesConfigWizard.pdb |
| 2.16. Microsoft.Practices.EnterpriseLibrary.Caching.dll | 2.58. SignatureApprovalService.exe |
| 2.17. Microsoft.Practices.EnterpriseLibrary.Caching.pdb | 2.59. SignatureApprovalService.pdb |
| 2.18. Microsoft.Practices.EnterpriseLibrary.Common.dll | 2.60. System.Net.Http.dll |
| 2.19. Microsoft.Practices.EnterpriseLibrary.Common.pdb | 2.61. System.Net.Http.Formatting.dll |
| 2.20. Microsoft.Practices.EnterpriseLibrary.Logging.dll | 2.62. System.Web.Http.dll |
| 2.21. Microsoft.Practices.EnterpriseLibrary.Logging.pdb | 2.63. System.Web.Http.SelfHost.dll |
| 2.22. Microsoft.Practices.ServiceLocation.dll | 2.64. System.Web.Http.SelfHost.xml |
| 2.23. Microsoft.Practices.ServiceLocation.pdb | 2.65. System.Web.Http.WebHost.dll |
| 2.24. Microsoft.Practices.Unity.dll | 2.66. System.Web.Http.WebHost.xml |
| 2.25. Microsoft.Practices.Unity.Interception.dll | 2.67. System.Web.Http.xml |
| 2.26. Microsoft.Practices.Unity.Interception.pdb | 2.68. System.Web.Mvc.dll |
| 2.27. Microsoft.Practices.Unity.pdb | 2.69. System.Web.Mvc.xml |
| 2.28. Microsoft.ReportViewer.Common.dll | 2.70. System.Web.Optimization.dll |
| 2.29. Microsoft.ReportViewer.WinForms.dll | 2.71. System.Web.Razor.dll |
| 2.30. Microsoft.ReportViewer.WinForms.xml | 2.72. System.Web.Razor.xml |
| 2.31. Newtonsoft.Json.dll | 2.73. System.Web.WebPages.Deployment.dll |
| 2.32. Newtonsoft.Json.xml | 2.74. System.Web.WebPages.Deployment.xml |
| 2.33. NLog.dll | 2.75. System.Web.WebPages.dll |
| 2.34. O2S.Components.PDFRender4NET.dll | 2.76. System.Web.WebPages.Razor.dll |
| 2.35. PdfSharp.dll | 2.77. System.Web.WebPages.Razor.xml |
| 2.36. PDFToImages.exe | 2.78. System.Web.WebPages.xml |
| 2.37. Radar.Api.Client.dll | 2.79. Tourreau.Gilles.FaxDotNet.dll |
| 2.38. Radar.Api.Client.pdb | 2.80. Tourreau.Gilles.FaxDotNet.pdb |
| 2.39. Radar.Api.Model.dll | 2.81. Tourreau.Gilles.FaxDotNet.xml |
| 2.40. Radar.Api.Model.pdb | 2.82. WCFService.dll |
| 2.41. Radar.Common.dll | 2.83. WCFService.pdb |
| 2.42. Radar.Common.pdb | 2.84. WCFServiceTests.dll |

eRAD RIS Server Update

2.85. WCFServicesTests.pdb
2.86. WebApi.dll
2.87. WebApi.pdb

2.88. WebGrease.dll
2.89. Wedge.exe
2.90. Wedge.pdb

2.1.1 XSL folder contains:

2.1.1.1. Stylesheets folder contains:

- A. CDAToHTMLCompleteReport.xslt
- B. CDAToHTMLCompleteReportDark.xslt
- C. CDAToHTMLImpressionSection.xslt
- D. CDAToRIS.xslt
- E. CDAToTxt.xslt
- F. DocumentModelReport.xslt
- G. DocumentModelReportAsXml.xslt
- H. CDA folder contains:
 - i. C-CDA.xsl
 - ii. eRadStylesheet.xsl
 - iii. generalTemplates.xsl
 - iv. header.xsl
 - v. QRDA.xsl
 - vi. QrdaLevel3_Cypress2.4.0.xsl
 - vii. QrdaLevel3_ViewHtml.xsl
 - viii. sectionAdministeredMedications.xsl
 - ix. sectionAllergies.xsl
 - x. sectionEncounters.xsl
 - xi. sectionFindings.xsl
 - xii. sectionFuncCogStatus.xsl
 - xiii. sectionImmunizations.xsl
 - xiv. sectionInstructions.xsl
 - xv. sectionMedications.xsl
 - xvi. sectionPlanOfCare.xsl
 - xvii. sectionProblemList.xsl
 - xviii. sectionProcedures.xsl
 - xix. sectionQRDAMEasures.xsl
 - xx. sectionQRDAPatientData.xsl
 - xxi. sectionQRDAREporting.xsl
 - xxii. sectionReasonForVisit.xsl
 - xxiii. sectionResults.xsl
 - xxiv. sectionSocialHistory.xsl
 - xxv. sectionVitalSigns.xsl

2.1.2 Deploy folder contains 3 files:

- 2.1.2.1. applicationsettings.config
- 2.1.2.2. releaseVersion-connectionstrings.config
- 2.1.2.3. services.config

eRAD RIS Server Update

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

Build 44.4 installs. This server update must be applied to 44.4

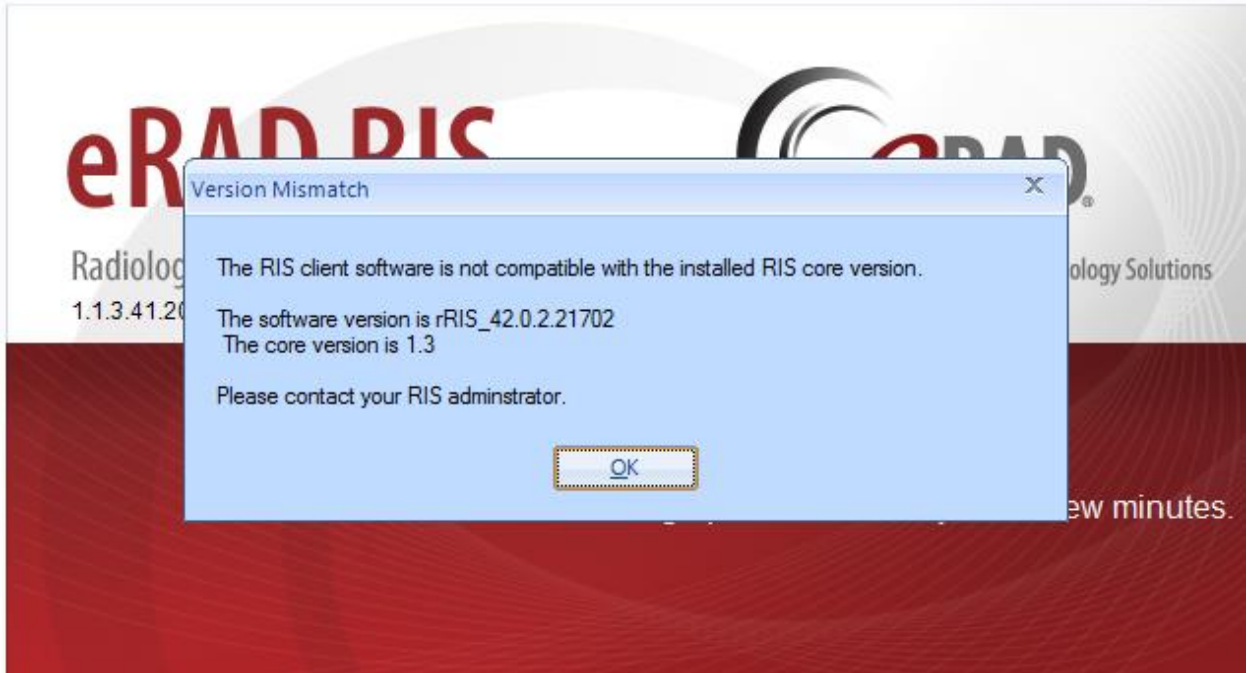
6. eRAD RIS Release Version Numbers

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 Server
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 Server

7. Installing

Client/GUI

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.44.4.2.29327.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_44.4.2.29327 → rRIS_1.3.44.4.2.29327

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

Web Service

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 88 files in the rRISService folder and 2 sub folders. Of those folders, 1 is a folder titled “XSL” that contains a sub folder and files within the subfolder. Another folder is titled “**deploy**” that contains the new .config files that will be deployed with the user of the file called “ServicesConfigWizard.exe” (see instructions below).

Services Configuration Wizard

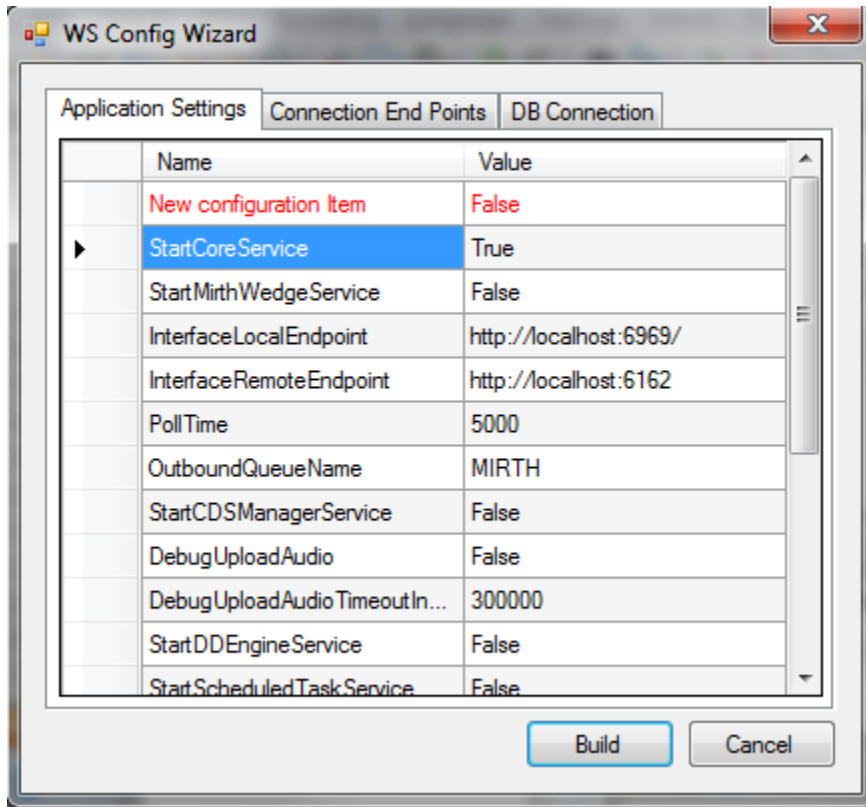
With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a “deploy” folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application “ServicesConfigWizard.exe”

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
Application Settings: all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

NOTE: the rRISServices.exe.config file is also included in the deploy folder. If this file has changes it **will not** update your current file in the Web Service directory. Any changes to this file will require a manual update of the rRISServices.exe.config and rRISServicesx64.exe.config files.

eRAD RIS Server Update



eRAD RIS Server Update

Connection End Points: will display the existing configuration, if the value is left blank then that entry will not be created, in the case of “Study Service” or “CDS Service” if both http and net.tcp were not provided then that endpoint will not be created at all.

WS Config Wizard

Application Settings | **Connection End Points** | DB Connection

Study Service

http:// localhost:8040 /rRIS/

net.tcp:// localhost:8041 /rRIS/

Notify Service

net.tcp:// localhost:7095 /rRIS/

CDS Service

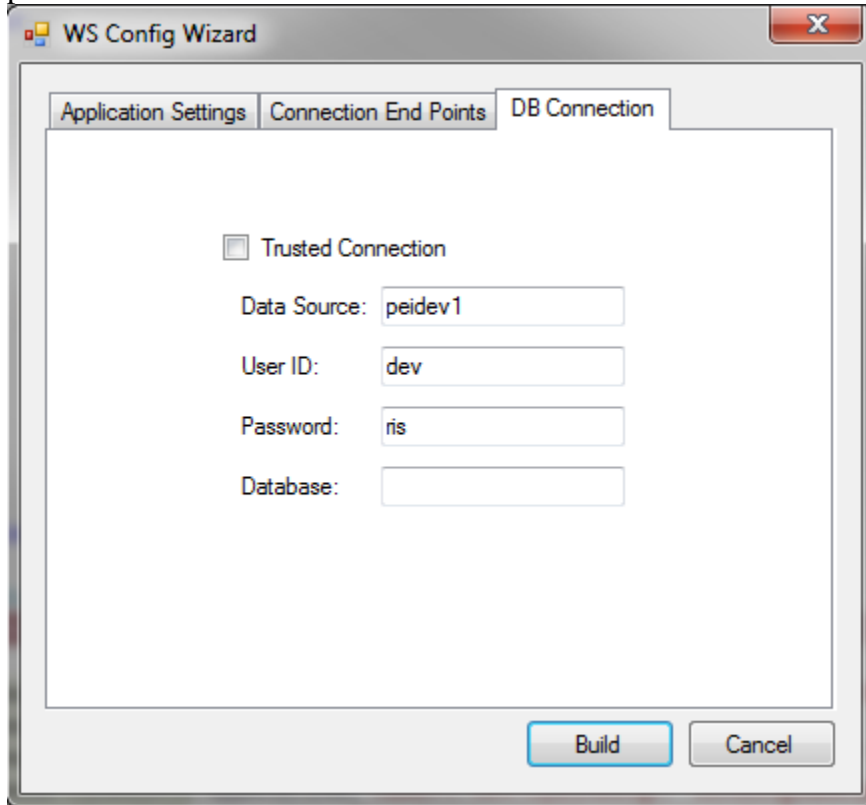
http:// localhost:7092 /rRIS/

net.tcp:// localhost:7093 /rRIS/

Build Cancel

eRAD RIS Server Update

DB Connection: will display the existing configuration, if the Connection is to be used as a trusted connection, then the user ID and password will become disabled and will not be used, and will rely on the provided database value, When not using the trusted connection, The Database value is not needed but can be used to force a specific database connection as long as the provided user has access to that database.



It is always good practice to do a compare of the .config files.

- 1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

Server Update

For eRAD RIS
Version 2.0
Build 44.4
Update 44.4.3

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eRAD RIS Server Update

1. Resolved Items

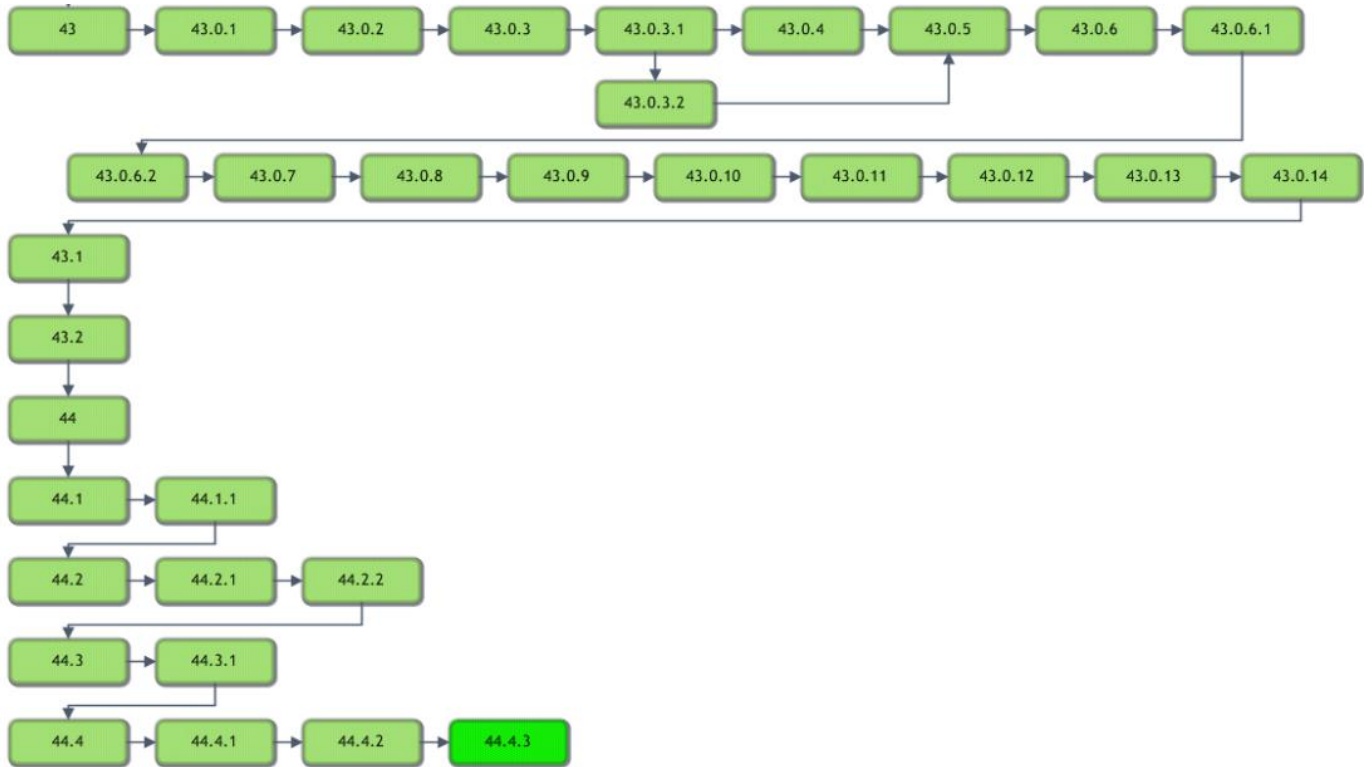
Redmine #	Subject	Priority
11018	Insurance Eligibility - Need to revert copay feature	High

Bug #11018 is to remove feature #8412 that was included with Version Release 2.44.3.

Feature #8412 - Collect Copay When it Exceeds Amount to Collect

eRAD RIS Server Update

2. Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

3. Package Contents

Files included for this server update:

1. **GUI_ZIP_Updates** contains 1 file:
rRIS_1.3.44.4.3.29722

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

Builds 44.3-44.4.2. This server update must be applied to 44.4.2

eRAD RIS Server Update

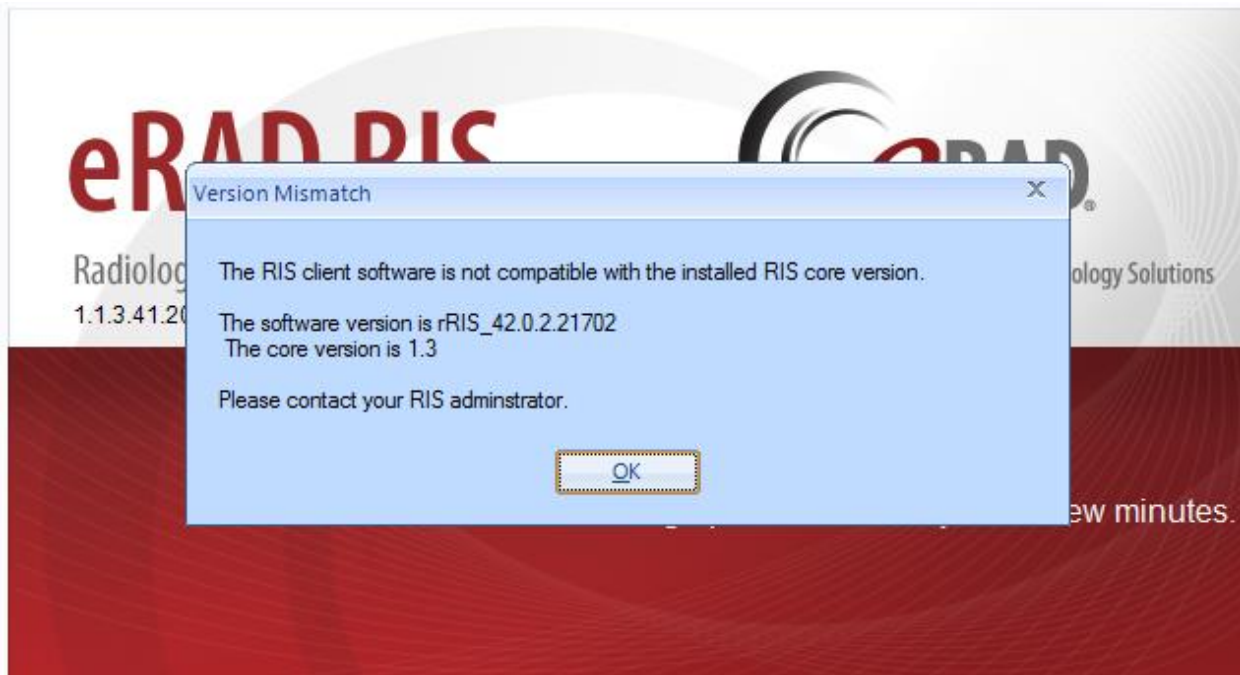
6. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
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

7. Installing

Client/GUI

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.44.4.2.29722.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_44.4.2.29722 → rRIS_1.3.44.4.2.29722

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

Server Update

For eRAD RIS
Version 2.0
Build 44.4
Update 44.4.999SA

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eRAD RIS Server Update

1. New Features

Special build requirements came in from our customers in South Africa. In future builds starting with Build 45 we will have the ability to create custom access string to hide fields, tabs, etc... Build 44.4.999 has been developed in the interim to remove tabs and fields requested.

The following has been removed from view in this build 44.4.999

1. Remove the Patient Origin group box from the Patient tab
2. Remove the Family History group box from the Patient tab
3. Remove Approved Medical Record Access from the Contacts/Demographics tab
4. Remove the MU tab
5. Remove the Image Request tab
6. Remove the Review tab
7. Remove the Contact Log tab
8. Make Special Accommodations a non-mandatory field
9. Make Reason for Exam a non-mandatory field
10. Change the text on the Manage Policies button to “Medical Aids”

Schedule Order: TEST, Sa #24847PE * x

Patient | Patient Notes | Contacts / Demographics | Order | Schedule | Billing Codes

General Information

Prefix: [] MRN: 24847PE Alternate MRN Issuer Active

First*: Sa Sex: Male

Last*: Test DOB: 10-10-1980 34y 7m

Middle: [] Suffix: [] Birth place: []

Deceased Claustrophobic eRx

Contact Information

Address 1: 4567 Duke Street Zip: 90210 Home phone: () - []

Address 2: Suite 567 Country: US No alternate phone

City: Beverly Hills Work phone: () - []

State: California Email: [] Cell phone: () - []

Preferred contact method: [] Preferred delivery method: []

Figure 1 – Patient Tab with Patient Origin and Family History Removed

eRAD RIS Server Update

Schedule Order: TEST, Sa #24847PE * x

Patient Patient Notes **Contacts / Demographics** Order Schedule Billing Codes

Responsible Party

Relation: Mother
First name: Mary Last name:
 Same as patient
Address 1: 4567 Duke Street State: CA
Address 2: Suite 567 Zip: 90210
City: Beverly Hills Phone: () -
Relation's ID: ID Issuer:

Emergency Contact

Relation:
First name: Last name:
 Same as patient
Address 1: State:
Address 2: Zip:
City: Phone: () -

Figure 2 – Contacts/Demographics Tab with Approved Medial Record Access Removed

Schedule Order: TEST, Sa #24847PE * x

Patient Patient Notes Contacts / Demographics **Order** Schedule Billing Codes

Reason for Exam

Referring Details

Referring:

Visited at:

Img notes:

CC Physicians

Visit Location for CC*:

Copy to patient

Preferred Location

Practice: (ADV) Advanced Radiology
Site:

Flags

Direct referral Transportation req'd:
 STAT exam Special accommodations:
 STAT read
 STAT precert

Class: Outpatient
Sedation:
 Transition of care
 Provided educational res.

Insurance Policies

Note	Carrier Code	Carrier Name	Policy #	Group Name	Group Number	Phone	Priority	Eligibility
------	--------------	--------------	----------	------------	--------------	-------	----------	-------------

Billing Method

(Bill to insurance)
06-03-15 MacDougallS -

Medical Aids

Order Notes

06-03-15 MacDougallS -

Scheduling Notes

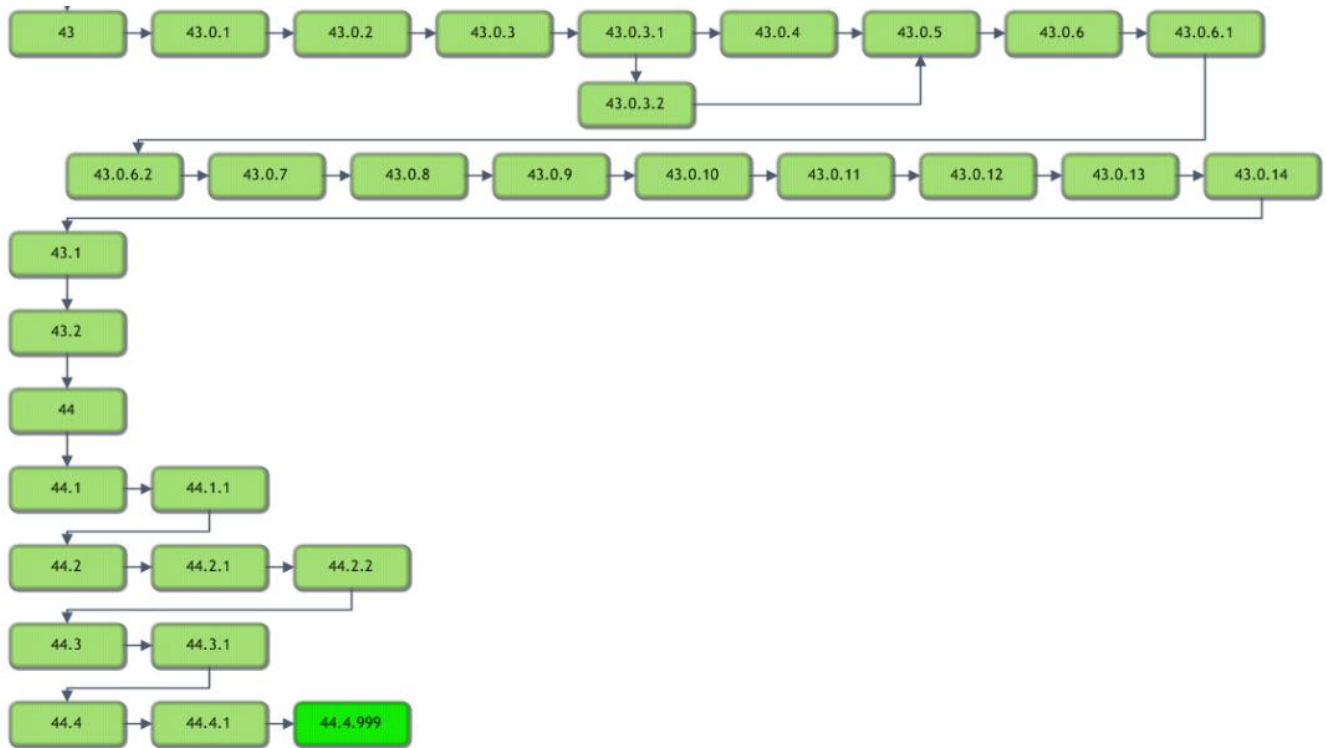
06-03-15 MacDougallS -

Amount to collect:

Figure 3 – Order Tab with Medical Aids Button and neither Reason for Exam or Special Accommodations are Required Fields

eRAD RIS Server Update

2. Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

3. Package Contents

Files included for this server update:

1. **GUI_ZIP_Updates** contains 1 file:
rRIS_1.3.44.4.999.29083

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. eRAD RIS Release Version Numbers

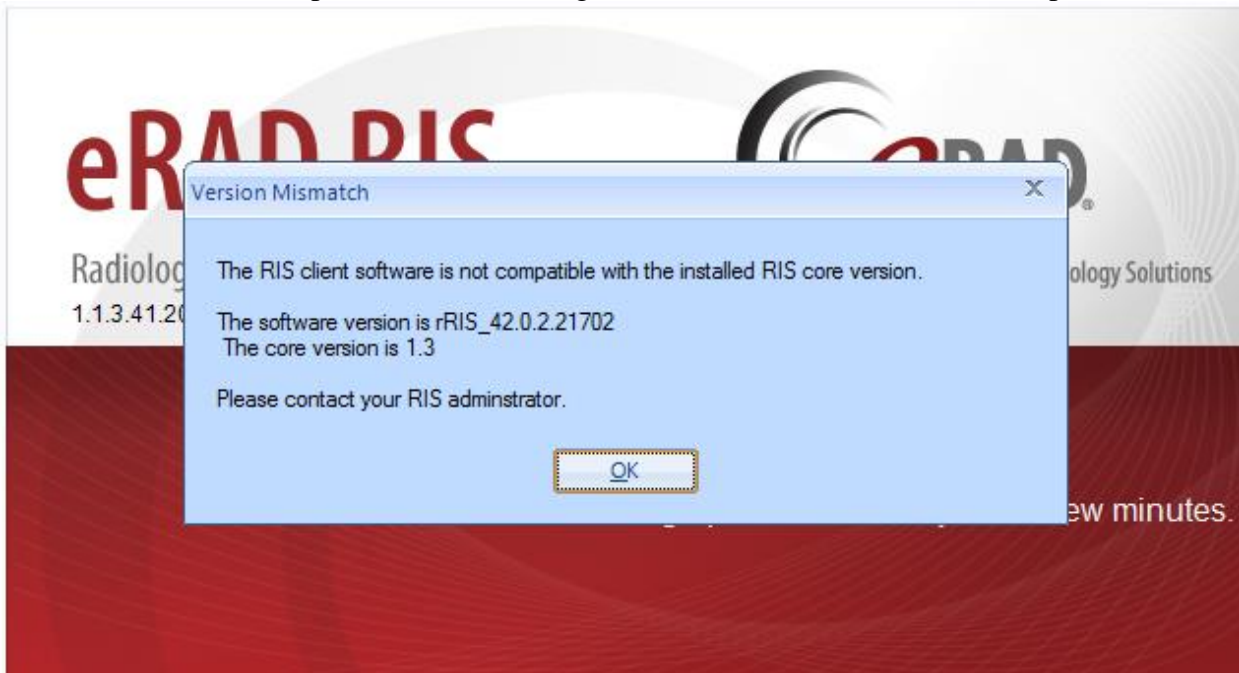
Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
43	-	2.43.0.0.23715(3GB)	2.43.0.0.23171	2.43.0.0.23715	2.43.0.0.23743	Full Version Release
43	1	2.43.0.1.23798(3GB)	2.43.0.0.23171	2.43.0.1.23798	2.43.0.1.23770	GUI.zip, Web Service, DB updates
43	2	2.43.0.2.24017(3GB)	2.43.0.0.23171	2.43.0.2.24017	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 Server
44.4	999	2.44.4.1.29083(3GB)	2.44.0.0.26405	2.44.4.1.28953	2.44.4.0.28676	Gui.zip

6. Installing

Client/GUI

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.44.4.999.29083.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_44.4.999.29083 → rRIS_1.3.44.4.999.29083

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

User Release Notes

for eRAD RIS
Version 2
Build 44.4

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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 44.4 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.44.4

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 2.44.4 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 B2.44.4

Setting Placeholder	Setting	Default	Purpose / Controls Access to
System Configuration	PatientPortalImageHoldPeriodDays	3	The number of days from the time the study is performed to the date that the patient will be able to see the images.
System Configuration	PatientPortalReportHoldPeriodDays	3	The number of days from the time a report is signed to the date that the patient will be able to see it.

5. New Features and Enhancements

Update Patient Insurance via Interface

Patient insurance information needs to come in via the interface. This was previously disabled during development of EMR workflow. In the most common cases an insurance will need to be attached to a visit based on a given accession number.

The interface now allows the incoming message to contain `c_patient_insurance` and `c_visit_x_patient_insurance` rows. This allows inbound message to add or update multiple insurance policies and associate one or more of them to the visit referred to in the message. The interface tries to look up the given insurance policy based on the policy number and carrier code, which are considered to be the minimum amount of criteria given. If a row is found for this patient is used, otherwise a new row is added. In order to link to the current visit a `c_visit_x_patient_insurance` row needs to be included in the message, otherwise the `c_patient_insurance` is only attached to the patient and not the visit.

The following message will create or update an insurance belonging to the patient and associate that insurance to the visit to which the study identified by the accession number belongs. The `patient_insurance_key` nodes (in blue) identify that this insurance policy should be attached to this visit, meaning the “Use” checkbox will be selected. If multiple insurances are contained in the message and should be attached to the visit then each must have a unique `patient_insurance_key` and a corresponding `c_visit_x_patient_insurance` node.

```
<StudyContainer MainAction="HL7_StudyUpdated">
  <Patient>
    <c_patient_insurance>
      <patient_insurance_key>1</patient_insurance_key>
      <carrier_code>0601053</carrier_code>
      <policy_number>B-88968</policy_number>
      <group_number>123</group_number>
    </c_patient_insurance>
  </Patient>
  <Visit>
    <c_visit_x_patient_insurance>
      <patient_insurance_key>1</patient_insurance_key>
    </c_visit_x_patient_insurance>
  </Visit>
</Study>
<c_study>
```

```
        <accession_number>1000710</accession_number>
    </c_study>
</Study>
</StudyContainer>
```

If the section of <Visit> doesn't exist or the node <c_visit_x_patient_insurance> doesn't exist the insurance policy will be added, but will not be used with the visit (Use checkbox will not be selected).

Note that the interface requires only policy_number and carrier_code nodes for the c_patient_insurance table, but it accepts all fields belonging to the c_patient_insurance table.

In addition to a specifying the accession number to associate the insurance other options exists, such as

- <patient_id> with <issuer_of_patient_id>
- <visit_number>

Ability to Cancel Outside Reads via Interface

eRAD RIS prevents some status changes via interface once the study is in ExamDone status. For outside reads received from another system we need to be able to cancel them.

The following HL7 main action will cancel a study in Exam Done, Exam Done (Tech Only) and Hold Code Complete status.

```
<StudyContainer MainAction="HL7_StudyCancelled">
  <Study>
    <c_study>
      <accession_number>1000853</accession_number>
    </c_study>
  </Study>
</StudyContainer>
```

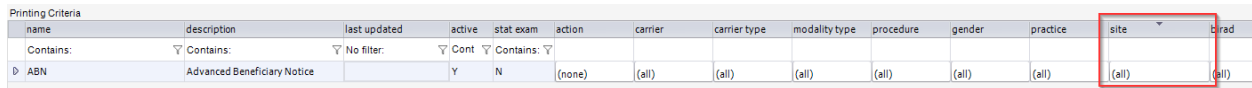
Ability to Specify Person Address Key via Interface

In previous versions when a message with a referring physician was received we couldn't specify which address (if multiple) to use. With the node displayed below, the `<requested_by_address_key>` will assign the correct address to the study based on the address key.

```
<StudyContainer MainAction="HL7_StudyUpdated">
  <Patient>
  </Patient>
  <Visit>
  </Visit>
  <Order>
    <c_order>
      <_patient_id>10686</_patient_id>
      <_issuer_of_patient_id>system</_issuer_of_patient_id>
      <requested_by_person_key>20180</requested_by_person_key>
      <requested_by_address_key>23752</requested_by_address_key>
    </c_order>
  </Order>
  <Study>
    <c_study>
      <accession_number>1009942</accession_number>
    </c_study>
  </Study>
</StudyContainer>
```

Forms and Labels – Site Code added to Printing Criteria

The ability to filter the printing criteria of a form by site has been added. The column “site” works in same manner as the existing columns. By default all sites will be included in the printing criteria. The user will need to manually edit to filter the form by site.



name	description	last updated	active	stat exam	action	carrier	carrier type	modality type	procedure	gender	practice	site	rad
Contains:	Contains:	No filter:	Cont	Contains:									
ABN	Advanced Beneficiary Notice		Y	N	(none)	(all)	(all)	(all)	(all)	(all)	(all)	(all)	(all)

Figure 5.1 – Site filter added to Forms and Labels Printing Criteria

Multiple printing criteria rows can be added for each form if the action or availability of the form is different.

Patient Portal – Configurable Time for Reports and Images Availability

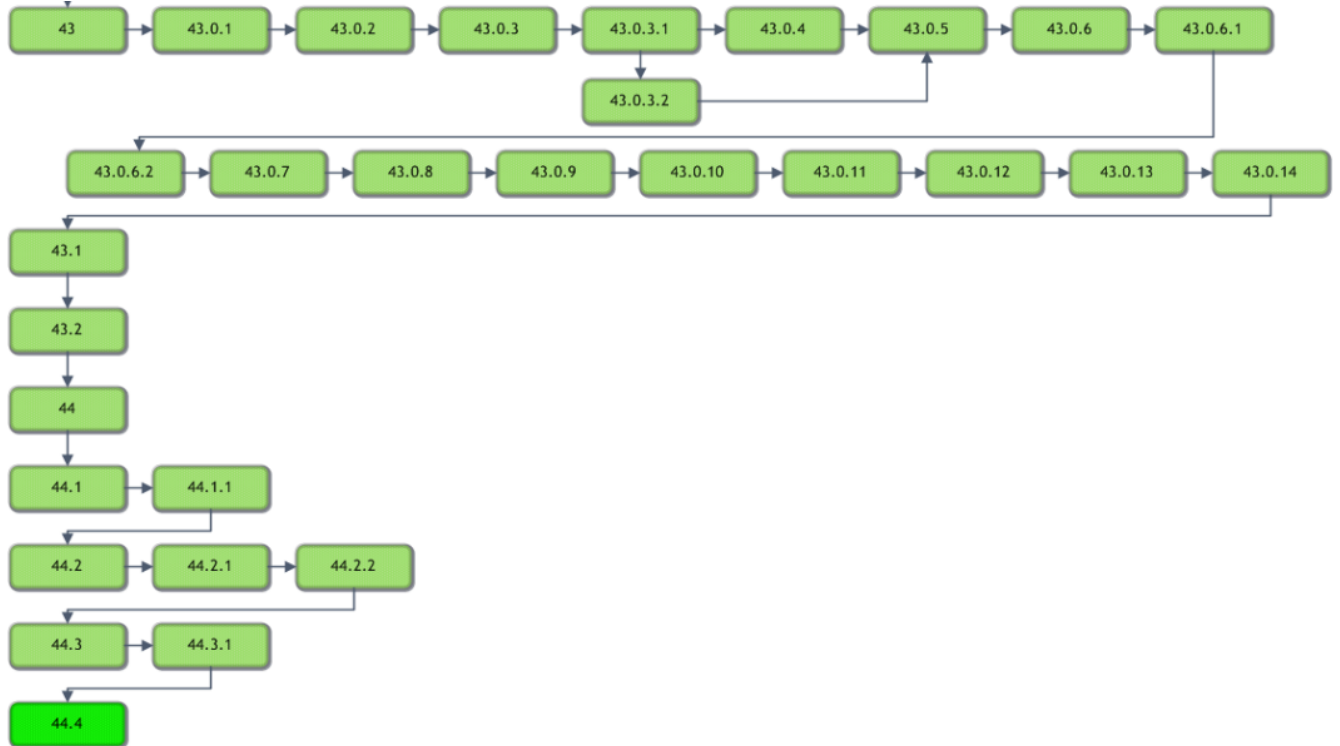
After a report is signed the report itself and the images associated with the report should be held from view for a specific time period via the Patient Portal.

We have introduced 2 new configuration settings to control how long the report and images will be withheld from view on the patient portal.

The system configuration setting of “**PatientPortalImageHoldPeriodDays**” with a default of 3 will determine the number in days from the time the study is performed that the patient will be able to view the images on the patient portal

The system configuration setting of “**PatientPortalReportHoldPeriodDays**” with a default of 3 will determine the number in days from the time the report is signed until the patient can view the report on the patient portal

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

8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.44.4. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.44.4.

Bug #	Priority	Subject	Category	Found Version
10407	Normal	Dictations by User Report - update column header	Mgt Reports	2.44
10372	High	DTC exception when attempting to manually change status	Web Services/DB	44.3
10351	High	Insurance Eligibility - ?Edit Image Request? is setting the amount to collect to zero		44.3
10343	Normal	should not be able to view report or images until a release period has passed	Connect Patient Portal 1.x	1.0.0.0
10319	Normal	Edit Send to Job does not perform a referring doctor search	Document Distribution	2.44.3
10312	High	Reporting Radiologist - View menu will not display for radiologists if not granted access to some menu items	Radiology Reporting	2.44.3
9698	Normal	Operations \ OTC QA Report - Potential OTC doubling up	Mgt Reports	2.43.1
9675	Normal	Person address key cannot be specified directly on an inbound message	Interfaces	2.44
9656	Normal	conversion failed error when posting payment for sites with a "-" in the site_code	Web Services/DB	2.43
9634	High	Contrast is being deleted when View/Edit is opened	Scheduling	2.44.3
4612	Normal	IVT - add logic to retain the pre-cert when an exam requires pre-cert and is rescheduled if an expire date is entered NOTE: This feature was released in B44. Corrected issue with expiry date in B44.4	Thick Client GUI	2.44.1

9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.44.4. Bugs reported in previous versions are not captured as Known Limitation in this document.

#	Status	Priority	Subject
10440	New	Normal	Error when adding a contrast to a Cancelled or Discontinued Procedure
10438	New	Normal	Error when deleting a contrast that has the Max Value exceeded

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.

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).

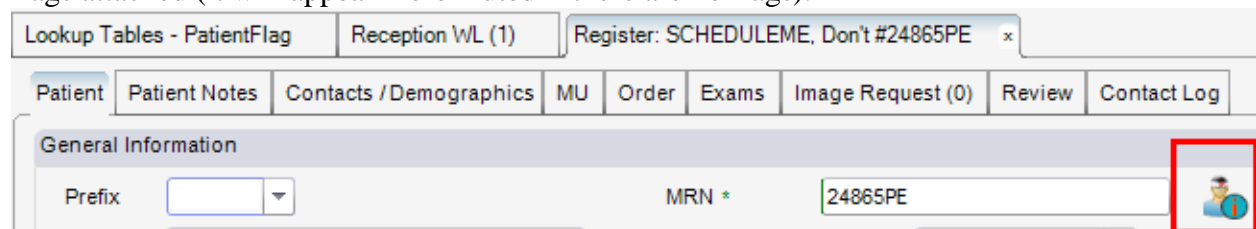


Figure 5.2 – Patient Flag button on patient tab that has flags attached

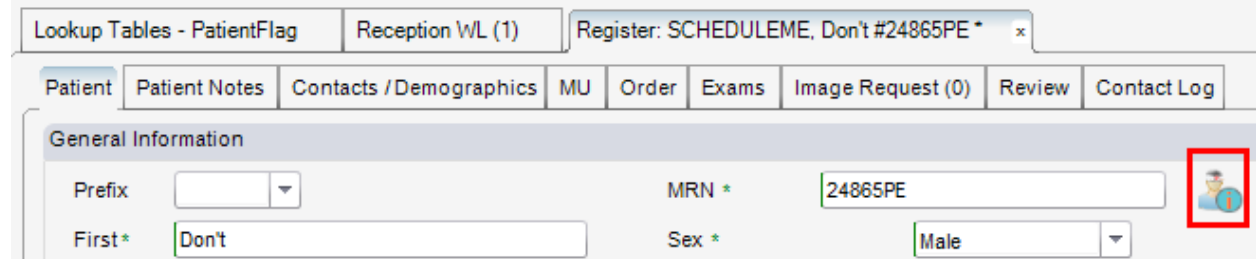


Figure 5.3 – Patient Flag button on patient tab that doesn’t have flags attached

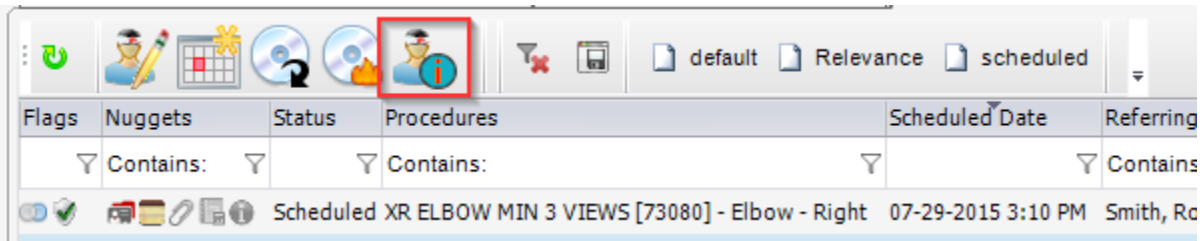


Figure 5.4 – Accessing/adding patient flags from Patient Folder WL

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.

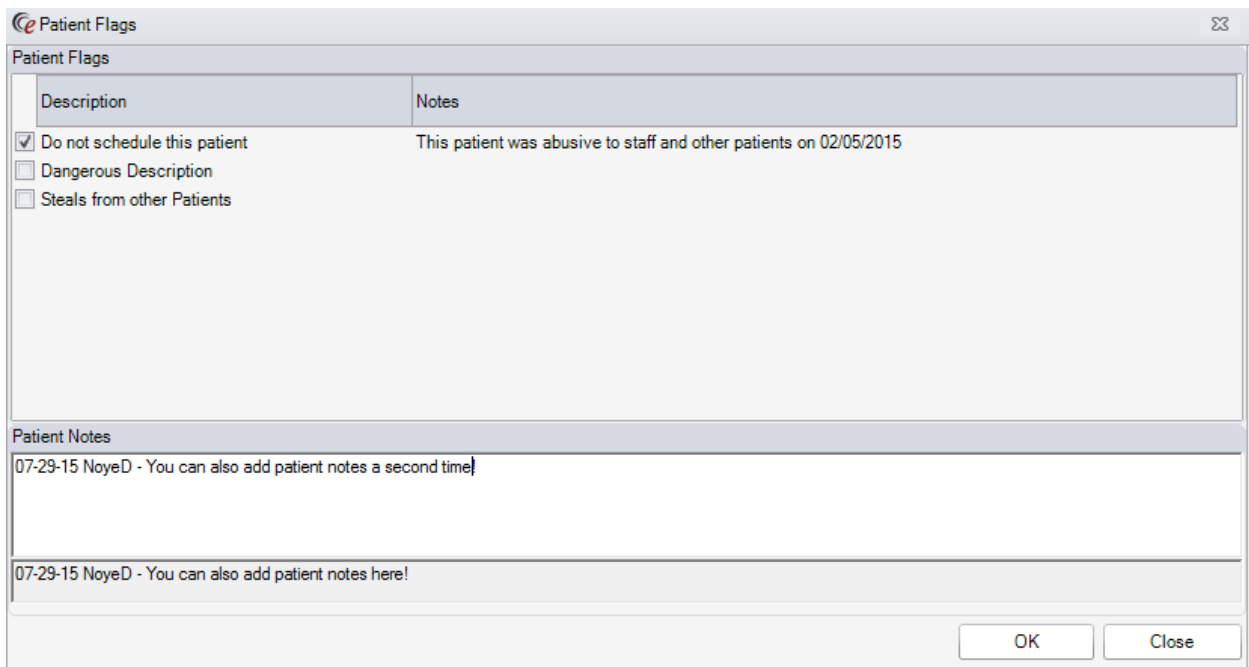


Figure 5.5 – Patient Flags window

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)

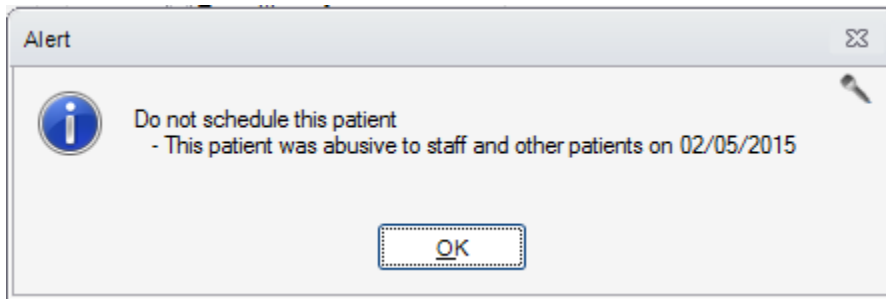


Figure 5.6 – Patient Flag alert

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

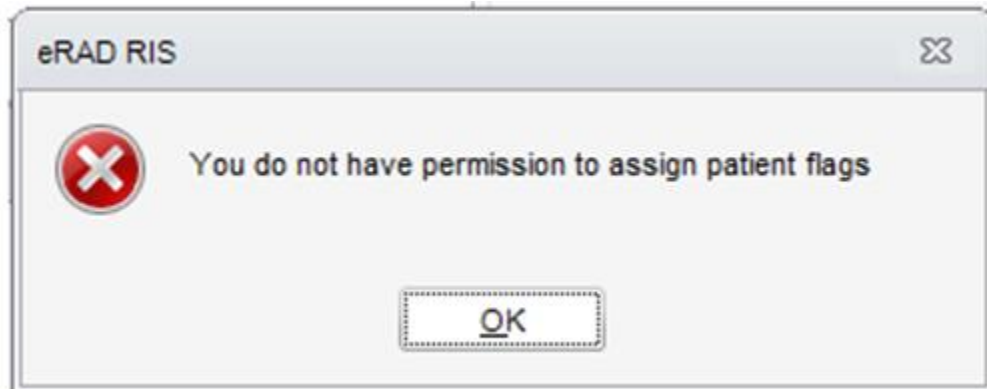


Figure 5.7 – Message presented to user that cannot assign patient flags

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.

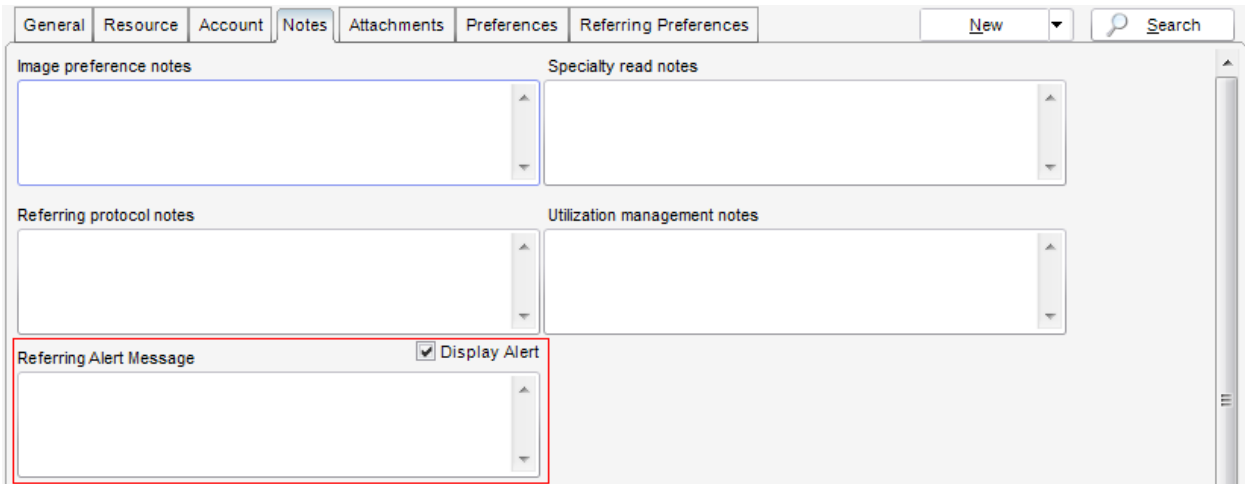


Figure 5.8 – Referring Alert Message notes field and Display Alert check box

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.

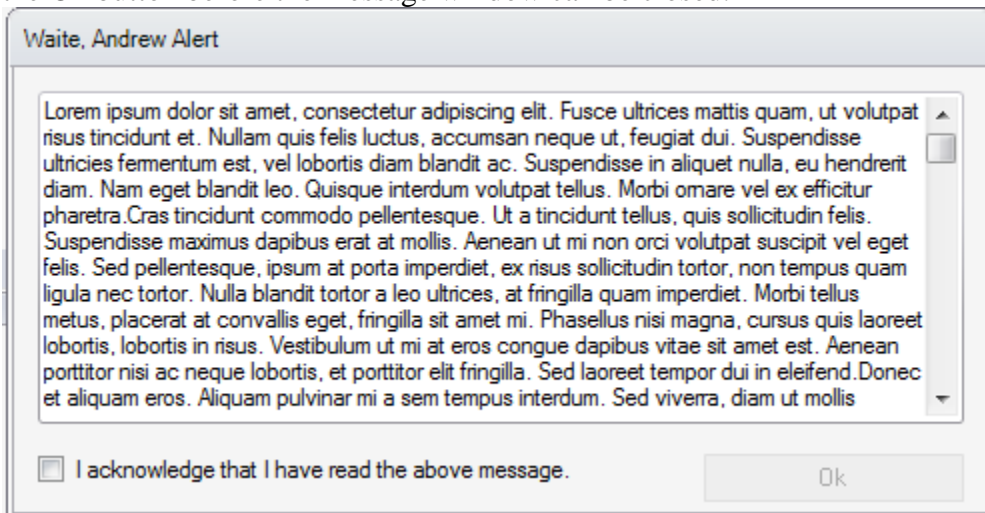


Figure 5.9 – Referring alert

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' configuration window. The 'Billing' section includes several fields: NPD client ID, NPD hospital group, NPD site code, Zotec client ID, Zotec location ID, Zotec server, Zotec activation (mm-dd-yyyy), and Eligible Customer ID. A red box highlights the field 'NPD insurance number to use when the price is not available' which contains the value '2905'. Other fields in the 'Billing' section include 'NPD insurance number to use when the price is not available' (2905), 'NPD hospital group', 'NPD site code', 'Zotec client ID', 'Zotec location ID', 'Zotec server', and 'Eligible Customer ID'. The 'Site' section includes 'Site code *' (EL), 'Description*' (Eldersburg), 'Phone #', 'Fax #', 'Discproducer path' (V:\), 'PACS Child Server' (PEI Child PACS 2), 'Mammography Tracking Enabled' (checked), 'Disable BI-RADS Controls' (unchecked), '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', 'Availability template' (Eldersburg), 'Outside Read Location' (unchecked), 'Insurance required' (unchecked), and 'MU Required' (checked).

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:	Contai
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
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.

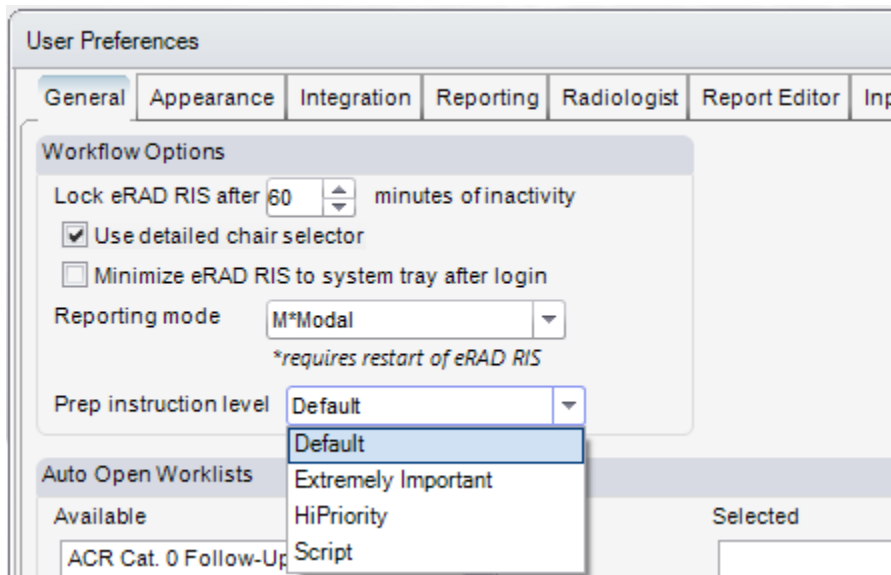


Figure 5.14 – Prep Instruction Level user preference

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.

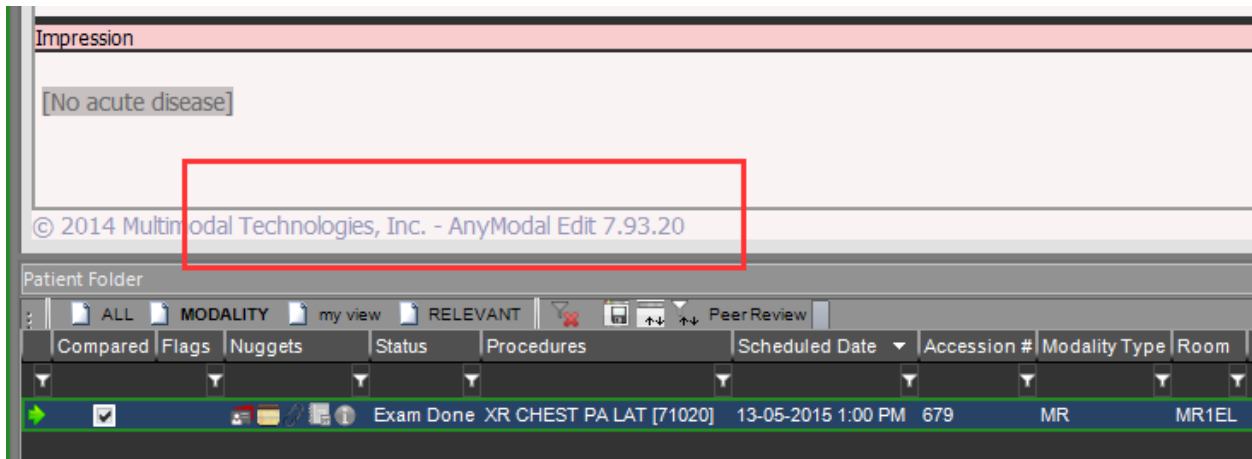
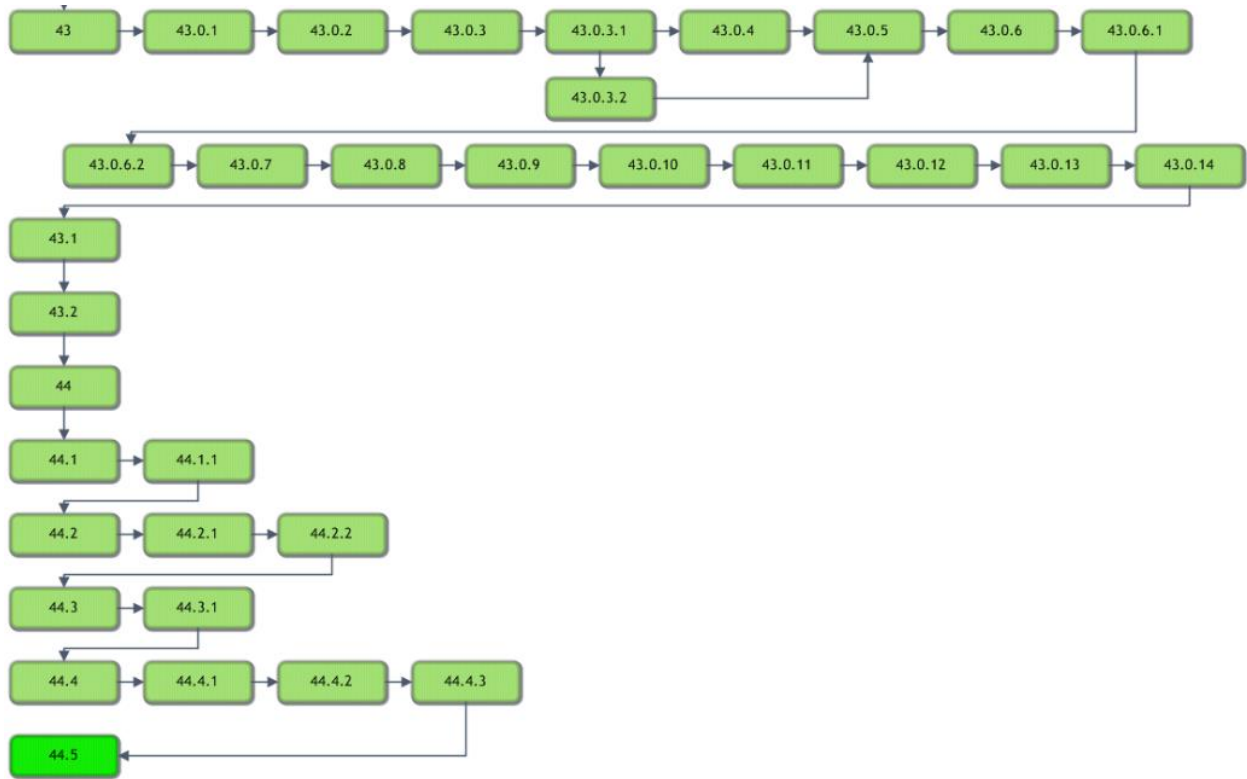


Figure 5.15 – Reporting window displaying version 7.93

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

Server Update

For eRAD RIS
Version 2.0
Build 44.5
Update 44.5.1

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eRAD RIS Server Update

1. New Features

Users would like to see how long a request has been in progress to cache PACS images for a study. The column should display in minutes since the cache request was made.

A new sortable column titled “Minutes since cache request” has been added to the Pending Dictation WL and the All Pending Dictation WL.

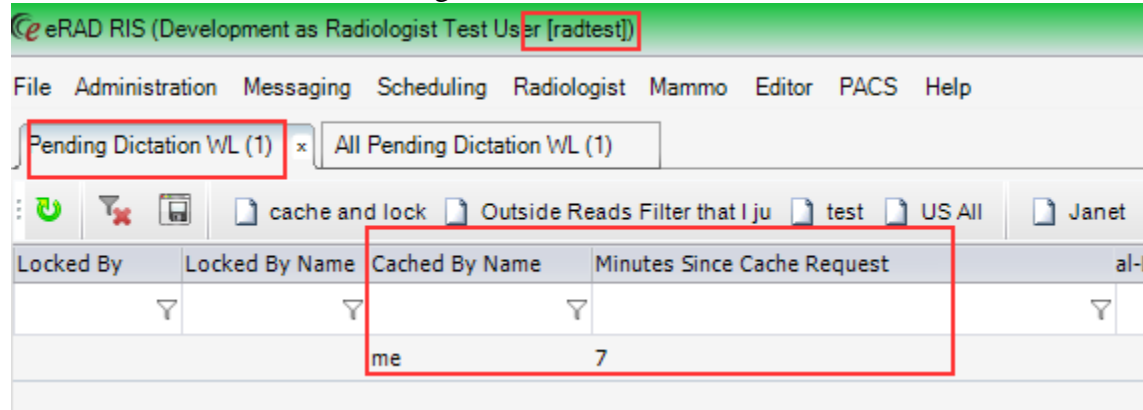


Figure 1 – Current User on the My Pending Dictation WL

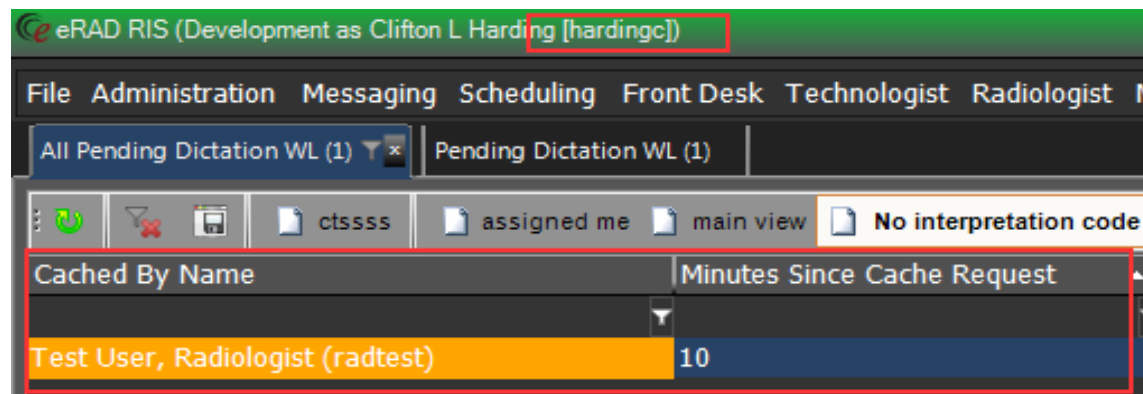


Figure 2 – Other user viewing All Pending Dictation WL

This information will allow a user to more accurately estimate if enough time has elapsed for the study to have cached. Conditional formatting can be applied to a Worklist View to visually distinguish when a cache request has surpassed a chosen length of time.

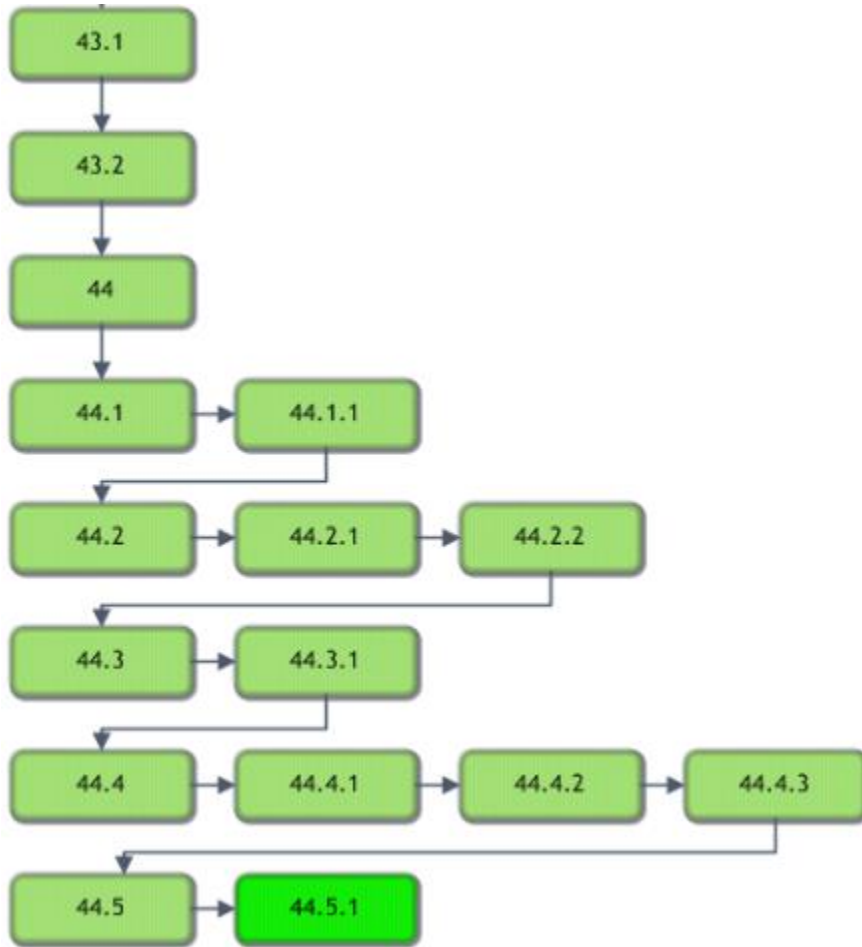
eRAD RIS Server Update

2. Resolved Items

Redmine #	Subject	Priority
11425	Changing priority in insurance policies grid may not adhere if Mange Policies is opened	High
11420	incorrect scanner displayed on ViewEdit and PerformExam for outside reads	High
10663	Patient Key / Insurance error when scheduling a new patient with insurance and multiple orders	Normal

eRAD RIS Server Update

3. Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

4. Package Contents

Files included for this server update:

1. **GUI_ZIP_Updates** contains 1 file:

rRIS_1.3.44.5.1.30451

2. **rRISService** folder contains:

- | | |
|---|--|
| 2.1. ABCpdf.dll | 2.43. Radar.Common.WebClient.dll |
| 2.2. ABCpdf9-32.dll | 2.44. Radar.Common.WebClient.pdb |
| 2.3. ABCpdf9-64.dll | 2.45. Radar.DirectMessaging.Client.dll |
| 2.4. Antlr3.Runtime.dll | 2.46. Radar.DirectMessaging.Client.pdb |
| 2.5. CDSJobManager.dll | 2.47. Radar.DirectMessaging.Model.dll |
| 2.6. CDSJobManager.pdb | 2.48. Radar.DirectMessaging.Model.pdb |
| 2.7. CdsLib.dll | 2.49. rRISServices.exe |
| 2.8. CdsLib.xml | 2.50. rRISServices.exe.config |
| 2.9. CdsLib.XmlSerializers.dll | 2.51. rRISServices.pdb |
| 2.10. CommonLib.dll | 2.52. rRISServicesx64.exe |
| 2.11. CommonLib.pdb | 2.53. rRISServicesx64.exe.config |
| 2.12. DDEngine.dll | 2.54. ScheduledTaskManager.dll |
| 2.13. DDEngine.pdb | 2.55. ScheduledTaskManager.pdb |
| 2.14. DiffPlex.dll | 2.56. ServicesConfigWizard.exe |
| 2.15. Interop.FAXCOMEXLib.dll | 2.57. ServicesConfigWizard.pdb |
| 2.16. Microsoft.Practices.EnterpriseLibrary.Caching.dll | 2.58. SignatureApprovalService.exe |
| 2.17. Microsoft.Practices.EnterpriseLibrary.Caching.pdb | 2.59. SignatureApprovalService.pdb |
| 2.18. Microsoft.Practices.EnterpriseLibrary.Common.dll | 2.60. System.Net.Http.dll |
| 2.19. Microsoft.Practices.EnterpriseLibrary.Common.pdb | 2.61. System.Net.Http.Formatting.dll |
| 2.20. Microsoft.Practices.EnterpriseLibrary.Logging.dll | 2.62. System.Web.Http.dll |
| 2.21. Microsoft.Practices.EnterpriseLibrary.Logging.pdb | 2.63. System.Web.Http.SelfHost.dll |
| 2.22. Microsoft.Practices.ServiceLocation.dll | 2.64. System.Web.Http.SelfHost.xml |
| 2.23. Microsoft.Practices.ServiceLocation.pdb | 2.65. System.Web.Http.WebHost.dll |
| 2.24. Microsoft.Practices.Unity.dll | 2.66. System.Web.Http.WebHost.xml |
| 2.25. Microsoft.Practices.Unity.Interception.dll | 2.67. System.Web.Http.xml |
| 2.26. Microsoft.Practices.Unity.Interception.pdb | 2.68. System.Web.Mvc.dll |
| 2.27. Microsoft.Practices.Unity.pdb | 2.69. System.Web.Mvc.xml |
| 2.28. Microsoft.ReportViewer.Common.dll | 2.70. System.Web.Optimization.dll |
| 2.29. Microsoft.ReportViewer.WinForms.dll | 2.71. System.Web.Razor.dll |
| 2.30. Microsoft.ReportViewer.WinForms.xml | 2.72. System.Web.Razor.xml |
| 2.31. Newtonsoft.Json.dll | 2.73. System.Web.WebPages.Deployment.dll |
| 2.32. Newtonsoft.Json.xml | 2.74. System.Web.WebPages.Deployment.xml |
| 2.33. NLog.dll | 2.75. System.Web.WebPages.dll |
| 2.34. O2S.Components.PDFRender4NET.dll | 2.76. System.Web.WebPages.Razor.dll |
| 2.35. PdfSharp.dll | 2.77. System.Web.WebPages.Razor.xml |
| 2.36. PDFToImages.exe | 2.78. System.Web.WebPages.xml |
| 2.37. Radar.Api.Client.dll | 2.79. Tourreau.Gilles.FaxDotNet.dll |
| 2.38. Radar.Api.Client.pdb | 2.80. Tourreau.Gilles.FaxDotNet.pdb |
| 2.39. Radar.Api.Model.dll | 2.81. Tourreau.Gilles.FaxDotNet.xml |
| 2.40. Radar.Api.Model.pdb | 2.82. WCFService.dll |
| 2.41. Radar.Common.dll | 2.83. WCFService.pdb |
| 2.42. Radar.Common.pdb | 2.84. WCFServiceTests.dll |

eRAD RIS Server Update

2.85. WCFServiceTests.pdb
2.86. WebApi.dll
2.87. WebApi.pdb

2.88. WebGrease.dll
2.89. Wedge.exe
2.90. Wedge.pdb

2.1.1 XSL folder contains:

2.1.1.1. Stylesheets folder contains:

- A. CDAToHTMLCompleteReport.xslt
- B. CDAToHTMLCompleteReportDark.xslt
- C. CDAToHTMLImpressionSection.xslt
- D. CDAToRIS.xslt
- E. CDAToTxt.xslt
- F. DocumentModelReport.xslt
- G. DocumentModelReportAsXml.xslt
- H. CDA folder contains:
 - i. C-CDA.xsl
 - ii. eRadStylesheet.xsl
 - iii. generalTemplates.xsl
 - iv. header.xsl
 - v. QRDA.xsl
 - vi. QrdaLevel3_Cypress2.4.0.xsl
 - vii. QrdaLevel3_ViewHtml.xsl
 - viii. sectionAdministeredMedications.xsl
 - ix. sectionAllergies.xsl
 - x. sectionEncounters.xsl
 - xi. sectionFindings.xsl
 - xii. sectionFuncCogStatus.xsl
 - xiii. sectionImmunizations.xsl
 - xiv. sectionInstructions.xsl
 - xv. sectionMedications.xsl
 - xvi. sectionPlanOfCare.xsl
 - xvii. sectionProblemList.xsl
 - xviii. sectionProcedures.xsl
 - xix. sectionQRDAMEasures.xsl
 - xx. sectionQRDAPatientData.xsl
 - xxi. sectionQRDAREporting.xsl
 - xxii. sectionReasonForVisit.xsl
 - xxiii. sectionResults.xsl
 - xxiv. sectionSocialHistory.xsl
 - xxv. sectionVitalSigns.xsl

2.1.2 Deploy folder contains 3 files:

- 2.1.2.1. applicationsettings.config
- 2.1.2.2. releaseVersion-connectionstrings.config
- 2.1.2.3. services.config

3. DB folder contains 3 subfolders and 1 .txt file:

3.1.1. Common folder contains MU folder and 2 .sql files

- 3.1.1.1. RISMaintenanceJobs.sql
- 3.1.1.2. rRISCoreData.sql
- 3.1.1.3. MU Folder contains 1 sub folder, 1 batch file, 1 .sql file and 1 text file
 - 3.1.1.3.1. ImportDataFileUpgradeDB.bat
 - 3.1.1.3.2. ImportDataFileUpgradeDB.sql
 - 3.1.1.3.3. MUreadme.txt
 - 3.1.1.3.4. Scripts folder contains 9 files
 - 3.1.1.3.4.1. 5-digit Commercial.csv
 - 3.1.1.3.4.2. ICD9CM_SNOMED_MAP_1TO1_201312.txt
 - 3.1.1.3.4.3. ICD9CM_SNOMED_MAP_1TOM_201312.txt
 - 3.1.1.3.4.4. l_hl7_voc_value_code.txt
 - 3.1.1.3.4.5. l_hl7_voc_value_set.txt

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- 3.1.1.3.4.6. s_mu_code.txt
- 3.1.1.3.4.7. sct2_Concept_Snapshot_US1000124_20140301.txt
- 3.1.1.3.4.8. sct2_Description_Snapshot-en_US1000124_20140301.txt
- 3.1.1.3.4.9. xder2_iissccRefset_ExtendedMapSnapshot_US1000124_20131220.txt

NOTE: Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

3.2. **NewInstall** folder contains 4 files

- 3.2.1. B44.0 Base Build.sql
- 3.2.2. Create rRIS User.sql
- 3.2.3. CreateDB.sql
- 3.2.4. LoadDefaultConfiguration.sql

3.3. **Upgrade** folder contains 2 subfolders and 1 batch file

- 3.3.1. RunUpgrade.bat
- 3.3.2. **Log** folder is empty
- 3.3.3. **Scripts** folder contains: 40 files
 - 3.3.3.1. _executeSQL.bat
 - 3.3.3.2. _getCurrentVersion.sql
 - 3.3.3.3. _run_scripts.bat
 - 3.3.3.4. B43.0.1.sql
 - 3.3.3.5. B43.0.12.sql
 - 3.3.3.6. b43.0.12_to_b43.1.0_Schema_Upgrade.sql
 - 3.3.3.7. B43.0.2.sql
 - 3.3.3.8. B43.0.3.0.sql
 - 3.3.3.9. B43.0.3.1.sql
 - 3.3.3.10. B43.0.3.2.sql
 - 3.3.3.11. B43.0.4.sql
 - 3.3.3.12. B43.0.5.sql
 - 3.3.3.13. B43.0.6.sql
 - 3.3.3.14. B43.0.7.sql
 - 3.3.3.15. B43.0.8.sql
 - 3.3.3.16. B43.1.0.sql
 - 3.3.3.17. B44.0.0.25942.sql
 - 3.3.3.18. B44.0.0.25974.sql
 - 3.3.3.19. B44.0.0.26019.sql
 - 3.3.3.20. B44.0.0.26037.sql
 - 3.3.3.21. B44.0.0.26158.sql
 - 3.3.3.22. B44.0.0.26207.sql
 - 3.3.3.23. B44.0.0.26321.sql
 - 3.3.3.24. B44.0.0.26384.sql
 - 3.3.3.25. B44.0.0.26412.sql
 - 3.3.3.26. B44.0.0.26475.sql
 - 3.3.3.27. B44.1.0.26906.sql
 - 3.3.3.28. B44.1.0.27145.sql
 - 3.3.3.29. B44.2.0.27365.sql
 - 3.3.3.30. B44.2.1.27909.sql
 - 3.3.3.31. B44.3.0.28076.sql
 - 3.3.3.32. B44.3.0.28111.sql
 - 3.3.3.33. B44.3.0.28127.sql
 - 3.3.3.34. B44.3.0.28138.sql
 - 3.3.3.35. B44.4.0.28609.sql
 - 3.3.3.36. B44.4.0.28676.sql
 - 3.3.3.37. B44.5.0.29775.sql
 - 3.3.3.38. B44.5.0.29835.sql
 - 3.3.3.39. B44.5.0.29935.sql
 - 3.3.3.40. B44.5.0.29976.sql
 - 3.3.3.41. B44.5.1.30449.sql

eRAD RIS Server Update

5. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

6. Who is affected

Build 44.5 installs. This server update must be applied to 44.5

eRAD RIS Server Update

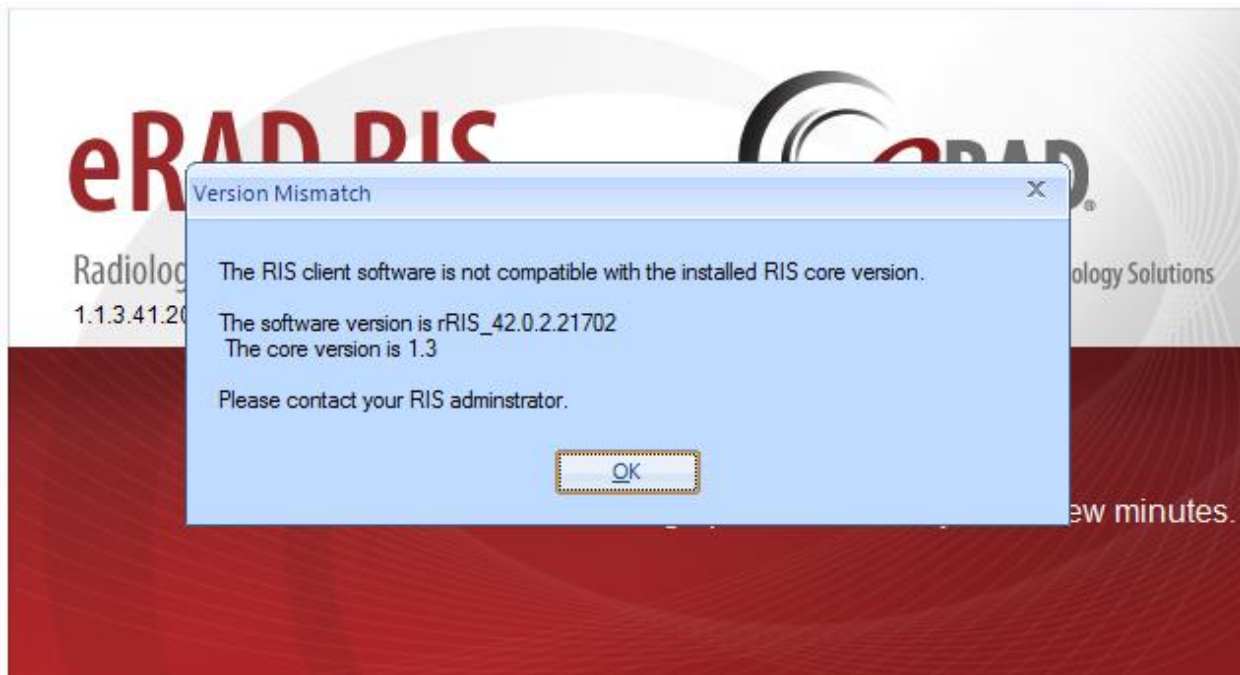
7. eRAD RIS Release Version Numbers

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
44.5		2.44.5.1.30451(3GB)	2.44.0.0.26405	2.44.5.1.30451	2.44.5.1.30449	Gui.zip, Web Server, DB

8. Installing

Client/GUI

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.44.5.1.30451.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_44.5.1.30451 → rRIS_1.3.44.5.1.30451

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

Web Service

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 88 files in the rRISService folder and 2 sub folders. Of those folders, 1 is a folder titled “XSL” that contains a sub folder and files within the subfolder. Another folder is titled “**deploy**” that contains the new .config files that will be deployed with the user of the file called “ServicesConfigWizard.exe” (see instructions below).

Services Configuration Wizard

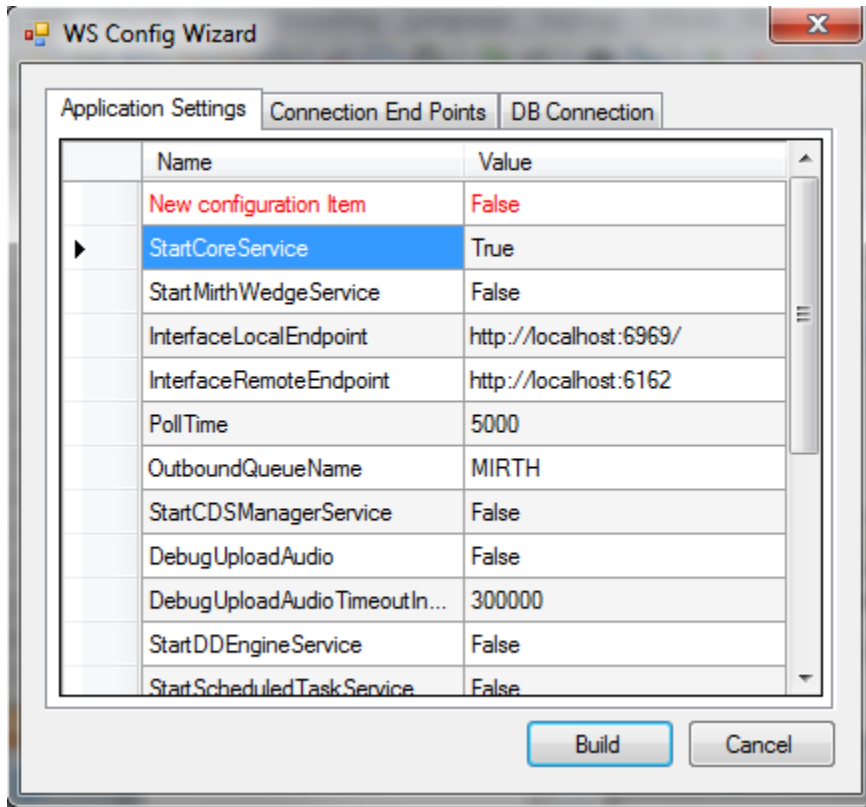
With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a “deploy” folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application “ServicesConfigWizard.exe”

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
Application Settings: all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

NOTE: the rRISServices.exe.config file is also included in the deploy folder. If this file has changes it **will not** update your current file in the Web Service directory. Any changes to this file will require a manual update of the rRISServices.exe.config and rRISServicesx64.exe.config files.

eRAD RIS Server Update



eRAD RIS Server Update

Connection End Points: will display the existing configuration, if the value is left blank then that entry will not be created, in the case of “Study Service” or “CDS Service” if both http and net.tcp were not provided then that endpoint will not be created at all.

WS Config Wizard

Application Settings | **Connection End Points** | DB Connection

Study Service

http:// localhost:8040 /rRIS/

net.tcp:// localhost:8041 /rRIS/

Notify Service

net.tcp:// localhost:7095 /rRIS/

CDS Service

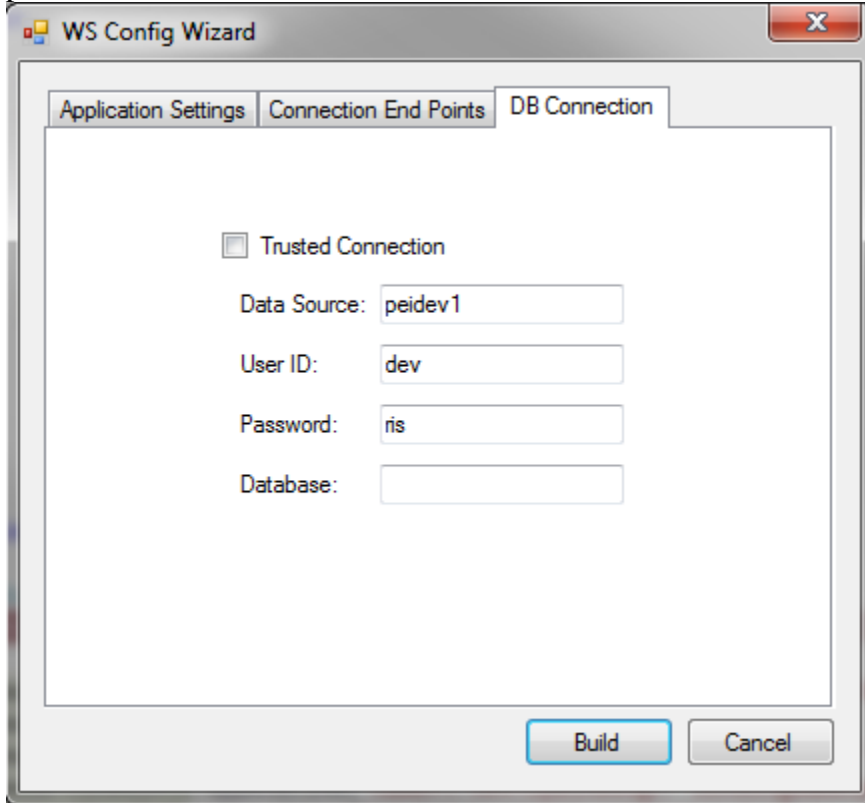
http:// localhost:7092 /rRIS/

net.tcp:// localhost:7093 /rRIS/

Build Cancel

eRAD RIS Server Update

DB Connection: will display the existing configuration, if the Connection is to be used as a trusted connection, then the user ID and password will become disabled and will not be used, and will rely on the provided database value, When not using the trusted connection, The Database value is not needed but can be used to force a specific database connection as long as the provided user has access to that database.



It is always good practice to do a compare of the .config files.

- 1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

eRAD RIS Server Update

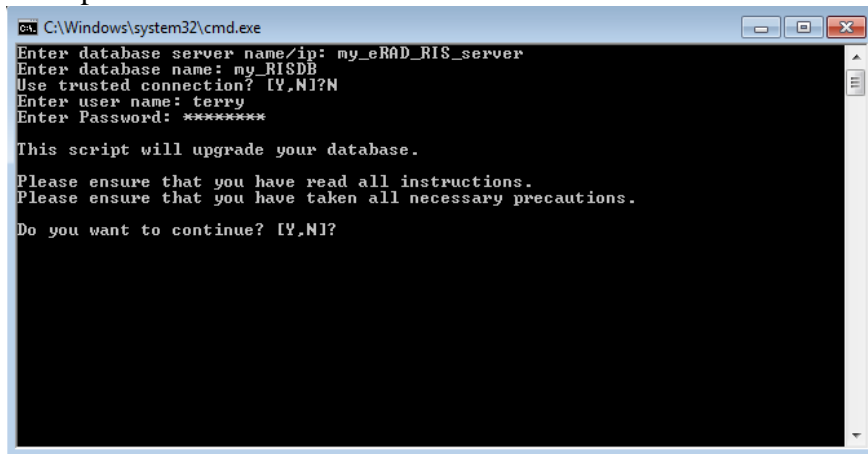
Database Updates

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.

- 1) From the upgrade folder, double click the "RunUpgrade.bat" command file.
- 2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.
- 3) You can choose to use "Trusted connection". Using this option will pass the identity of the currently logged on user. If this user has "db_owner" access to the eRAD RIS database then feel free to use this options.
- 4) If you decide not to use "Trusted connection" then you will be prompted for user id and password.

Example:



```
C:\Windows\system32\cmd.exe
Enter database server name/ip: my_eRAD_RIS_server
Enter database name: my_RISDB
Use trusted connection? [Y,N]?N
Enter user name: ferry
Enter Password: *****

This script will upgrade your database.

Please ensure that you have read all instructions.
Please ensure that you have taken all necessary precautions.

Do you want to continue? [Y,N]?
```

- 5) After the upgrade program has finished you can find the upgrade logs in the "log" folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team
- 6) In the Common folder there is a subfolder of MU. The MU folder contains updates to lookups relevant for MU as well as updates for Zip Code table to add the County. Copy the

eRAD RIS Server Update

MU folder to the database server before running the batch file. There is a readme file contained in the MU folder. The details have also been included below

- a) The mu bulk install process must be run from a path on the database server!
 - b) Copy Files ImportDataFileUpgradeDB.bat and ImportDataFileUpgradeDB.sql from upgrade folder to a location on the database server(This location will be referred to as the "Script Folder Path".)
 - c) Copy Folder scripts and Source files from the upgrade folder to "Script Folder Path"Note source files must be inside the scripts folder
 - d) Run bat file
 - i) Enter Script Folder path [C:\Temp\SNOMED]:
 - ii) Enter database server name/ip: [ie peidev1]
 - iii) Enter database name: [ie rRIS_MU]
 - iv) Use a trusted connection to log on to SQL Server:
"N" means you will have to enter db [username] [password]
"Y" means you have a trusted connection and will not have to enter [username][password]
 - v) Do you wish to load SNOMED concept codes?
"N" no files will be loaded into the l_snomed_concept table
"Y" yes means l_snomed_concept table will be truncated and reloaded with the latest US concept codes
Source File [sct2_Concept_Snapshot_US1000124_20140301.txt]
 - vi) Do you wish to load SNOMED descriptions codes?
"N" no files will be loaded into the l_snomed_description table
"Y" yes means the l_snomed_description table will be truncated and reloaded with the latest US description codes
Source File [sct2_Description_Snapshot-en_US1000124_20140301.txt]
 - vii) Do you wish to load ICD9 to SNOMED mappings codes?
"N" no files will be loaded into the l_snomed_icd9_map table
"Y" yes means the l_snomed_icd9_map table will be truncated and reloaded with the latest US ICD9 to SNOMED mapping codes
Source File [ICD9CM_SNOMED_MAP_1TO1_201312.txt and ICD9CM_SNOMED_MAP_1TOM_201312.txt]
 - viii) Do you wish to load ICD10 to SNOMED mappings codes?
"N" no files will be loaded into the l_snomed_icd10_map table
"Y" yes means the l_snomed_icd10_map table will be truncated and reloaded with the latest US ICD10 to SNOMED mapping codes
Source File [xder2_iissscRefset_ExtendedMapSnapshot_US1000124_20131220.txt]
 - ix) Do you wish to load US zip codes?
"N" no files will be loaded into the z_zipCodesWithCounty table
"Y" yes means the z_zipCodesWithCounty table will be truncated and reloaded with the latest US zip codes
Source File [5-digit Commercial.csv]
-

eRAD RIS Server Update

Note: the following files should be loaded once only with B43!

x) Do you wish to load CMS codes?

"N" no files will be loaded into the s_mu_code table

"Y" yes means the s_mu_code table will be truncated and reloaded with the latest CMS codes

Source File [s_mu_code.txt]

xi) Do you wish to load HL7 support sets for CCDA?

"N" no files will be loaded into the l_hl7v3_voc_value_set table

"Y" yes means the l_hl7v3_voc_value_set table will be truncated and reloaded with the latest hl7v3_voc_value_set codes

Source File [l_hl7_voc_value_set.txt]

xii) Do you wish to load HL7 support codes for CCDA?

"N" no files will be loaded into the l_hl7v3_voc_value_code table

"Y" yes means the l_hl7v3_voc_value_code table will be truncated and reloaded with the latest l_hl7v3_voc_value_code codes

Source File [l_hl7_voc_value_code.txt]

Server Update

For eRAD RIS
Version 2.0
Build 44.5
Update 44.5.2

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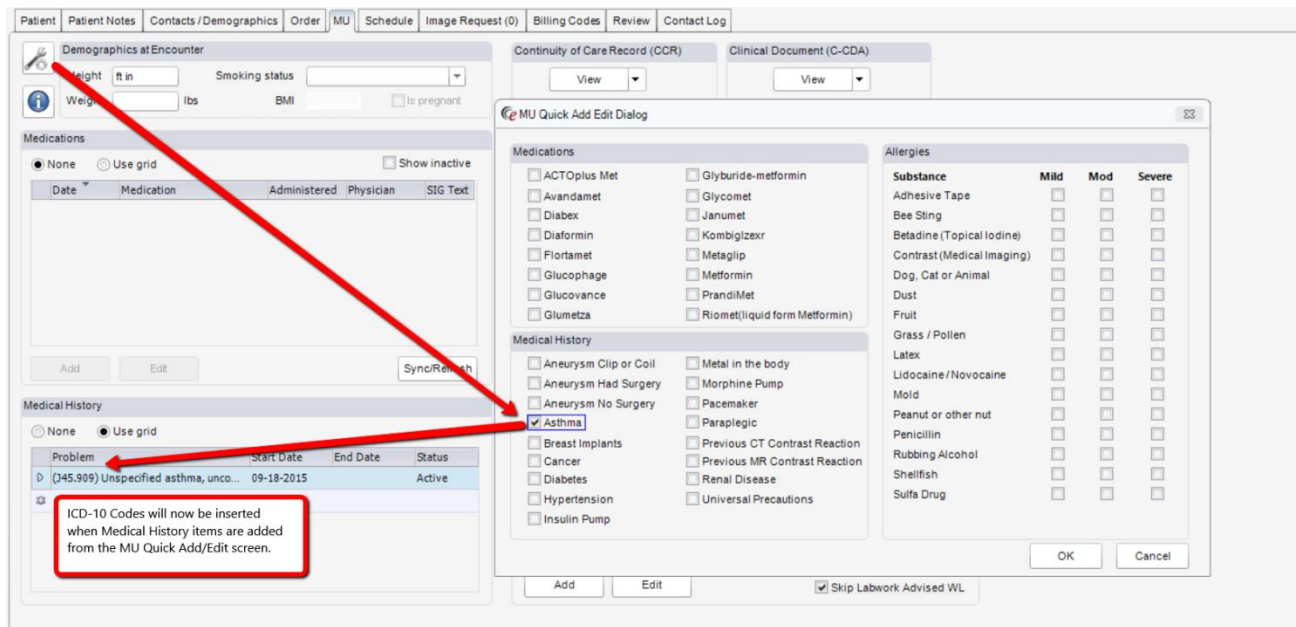
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eRAD RIS Server Update

1. Resolved Items

Please Note:

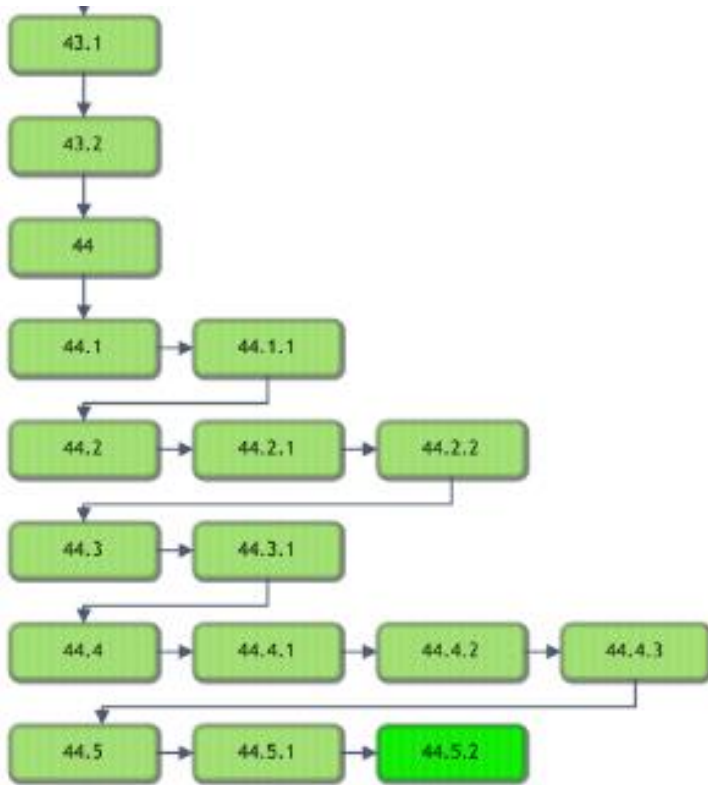
Resolved Items #11581 and #11582 below will impact the functionality of the MU Quick Add/Edit tool. As soon as this update is applied, the MU Quick Add/Edit tool will immediately begin adding any selected Medical History items to the MU grid using ICD-10 codes. This will occur regardless of the ICD-10 Effective Date in the SystemConfiguration settings. As part of the update, a script will convert any existing Medical History that was previously entered for patients using the Quick Add/Edit tool from ICD-9 codes to the equivalent ICD-10 codes. The conversion is based on the CMS General Equivalence Mapping (GEM) table.



Redmine #	Subject	Priority
11636	CCDA to display proper ICD10	Normal
11582	Need to convert historical ICD-9 codes that were added with the Quick Add/Edit tool to ICD-10 codes	Normal
11581	Need the MU Quick Add/Edit tool to begin adding Medical History using ICD-10 codes instead of ICD-9	Normal
9620	MU Quick Add Edit Dialog error when clicking OK - "Column '_problemName' does not belong to table c_patient_problem_list."	Normal

eRAD RIS Server Update

2. Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

3. Package Contents

Files included for this server update:

1. **GUI_ZIP_Updates** contains 1 file:

rRIS_1.3.44.5.2.30705

2. **rRISService** folder contains:

- | | |
|---|--|
| 2.1. ABCpdf.dll | 2.43. Radar.Common.WebClient.dll |
| 2.2. ABCpdf9-32.dll | 2.44. Radar.Common.WebClient.pdb |
| 2.3. ABCpdf9-64.dll | 2.45. Radar.DirectMessaging.Client.dll |
| 2.4. Antlr3.Runtime.dll | 2.46. Radar.DirectMessaging.Client.pdb |
| 2.5. CDSJobManager.dll | 2.47. Radar.DirectMessaging.Model.dll |
| 2.6. CDSJobManager.pdb | 2.48. Radar.DirectMessaging.Model.pdb |
| 2.7. CdsLib.dll | 2.49. rRISServices.exe |
| 2.8. CdsLib.xml | 2.50. rRISServices.exe.config |
| 2.9. CdsLib.XmlSerializers.dll | 2.51. rRISServices.pdb |
| 2.10. CommonLib.dll | 2.52. rRISServicesx64.exe |
| 2.11. CommonLib.pdb | 2.53. rRISServicesx64.exe.config |
| 2.12. DDEngine.dll | 2.54. ScheduledTaskManager.dll |
| 2.13. DDEngine.pdb | 2.55. ScheduledTaskManager.pdb |
| 2.14. DiffPlex.dll | 2.56. ServicesConfigWizard.exe |
| 2.15. Interop.FAXCOMEXLib.dll | 2.57. ServicesConfigWizard.pdb |
| 2.16. Microsoft.Practices.EnterpriseLibrary.Caching.dll | 2.58. SignatureApprovalService.exe |
| 2.17. Microsoft.Practices.EnterpriseLibrary.Caching.pdb | 2.59. SignatureApprovalService.pdb |
| 2.18. Microsoft.Practices.EnterpriseLibrary.Common.dll | 2.60. System.Net.Http.dll |
| 2.19. Microsoft.Practices.EnterpriseLibrary.Common.pdb | 2.61. System.Net.Http.Formatting.dll |
| 2.20. Microsoft.Practices.EnterpriseLibrary.Logging.dll | 2.62. System.Web.Http.dll |
| 2.21. Microsoft.Practices.EnterpriseLibrary.Logging.pdb | 2.63. System.Web.Http.SelfHost.dll |
| 2.22. Microsoft.Practices.ServiceLocation.dll | 2.64. System.Web.Http.SelfHost.xml |
| 2.23. Microsoft.Practices.ServiceLocation.pdb | 2.65. System.Web.Http.WebHost.dll |
| 2.24. Microsoft.Practices.Unity.dll | 2.66. System.Web.Http.WebHost.xml |
| 2.25. Microsoft.Practices.Unity.Interception.dll | 2.67. System.Web.Http.xml |
| 2.26. Microsoft.Practices.Unity.Interception.pdb | 2.68. System.Web.Mvc.dll |
| 2.27. Microsoft.Practices.Unity.pdb | 2.69. System.Web.Mvc.xml |
| 2.28. Microsoft.ReportViewer.Common.dll | 2.70. System.Web.Optimization.dll |
| 2.29. Microsoft.ReportViewer.WinForms.dll | 2.71. System.Web.Razor.dll |
| 2.30. Microsoft.ReportViewer.WinForms.xml | 2.72. System.Web.Razor.xml |
| 2.31. Newtonsoft.Json.dll | 2.73. System.Web.WebPages.Deployment.dll |
| 2.32. Newtonsoft.Json.xml | 2.74. System.Web.WebPages.Deployment.xml |
| 2.33. NLog.dll | 2.75. System.Web.WebPages.dll |
| 2.34. O2S.Components.PDFRender4NET.dll | 2.76. System.Web.WebPages.Razor.dll |
| 2.35. PdfSharp.dll | 2.77. System.Web.WebPages.Razor.xml |
| 2.36. PDFToImages.exe | 2.78. System.Web.WebPages.xml |
| 2.37. Radar.Api.Client.dll | 2.79. Tourreau.Gilles.FaxDotNet.dll |
| 2.38. Radar.Api.Client.pdb | 2.80. Tourreau.Gilles.FaxDotNet.pdb |
| 2.39. Radar.Api.Model.dll | 2.81. Tourreau.Gilles.FaxDotNet.xml |
| 2.40. Radar.Api.Model.pdb | 2.82. WCFService.dll |
| 2.41. Radar.Common.dll | 2.83. WCFService.pdb |
| 2.42. Radar.Common.pdb | 2.84. WCFServiceTests.dll |

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2.85. WCFServiceTests.pdb
2.86. WebApi.dll
2.87. WebApi.pdb

2.88. WebGrease.dll
2.89. Wedge.exe
2.90. Wedge.pdb

2.1.1 XSL folder contains:

2.1.1.1. Stylesheets folder contains:

- A. CDAToHTMLCompleteReport.xslt
- B. CDAToHTMLCompleteReportDark.xslt
- C. CDAToHTMLImpressionSection.xslt
- D. CDAToRIS.xslt
- E. CDAToTxt.xslt
- F. DocumentModelReport.xslt
- G. DocumentModelReportAsXml.xslt
- H. CDA folder contains:
 - i. C-CDA.xsl
 - ii. eRadStylesheet.xsl
 - iii. generalTemplates.xsl
 - iv. header.xsl
 - v. QRDA.xsl
 - vi. QrdaLevel3_Cypress2.4.0.xsl
 - vii. QrdaLevel3_ViewHtml.xsl
 - viii. sectionAdministeredMedications.xsl
 - ix. sectionAllergies.xsl
 - x. sectionEncounters.xsl
 - xi. sectionFindings.xsl
 - xii. sectionFuncCogStatus.xsl
 - xiii. sectionImmunizations.xsl
 - xiv. sectionInstructions.xsl
 - xv. sectionMedications.xsl
 - xvi. sectionPlanOfCare.xsl
 - xvii. sectionProblemList.xsl
 - xviii. sectionProcedures.xsl
 - xix. sectionQRDAMEasures.xsl
 - xx. sectionQRDAPatientData.xsl
 - xxi. sectionQRDAREporting.xsl
 - xxii. sectionReasonForVisit.xsl
 - xxiii. sectionResults.xsl
 - xxiv. sectionSocialHistory.xsl
 - xxv. sectionVitalSigns.xsl

2.1.2 Deploy folder contains 3 files:

- 2.1.2.1. applicationsettings.config
- 2.1.2.2. releaseVersion-connectionstrings.config
- 2.1.2.3. services.config

3. DB folder contains 3 subfolders and 1 .txt file:

3.1.1. Common folder contains MU folder and 2 .sql files

- 3.1.1.1. RISMaintenanceJobs.sql
- 3.1.1.2. rRISCoreData.sql
- 3.1.1.3. MU Folder contains 1 sub folder, 1 batch file, 1 .sql file and 1 text file
 - 3.1.1.3.1. ImportDataFileUpgradeDB.bat
 - 3.1.1.3.2. ImportDataFileUpgradeDB.sql
 - 3.1.1.3.3. MUreadme.txt
 - 3.1.1.3.4. Scripts folder contains 9 files
 - 3.1.1.3.4.1. 5-digit Commercial.csv
 - 3.1.1.3.4.2. ICD9CM_SNOMED_MAP_1TO1_201312.txt
 - 3.1.1.3.4.3. ICD9CM_SNOMED_MAP_1TOM_201312.txt
 - 3.1.1.3.4.4. l_hl7_voc_value_code.txt
 - 3.1.1.3.4.5. l_hl7_voc_value_set.txt

eRAD RIS Server Update

- 3.1.1.3.4.6. s_mu_code.txt
- 3.1.1.3.4.7. sct2_Concept_Snapshot_US1000124_20140301.txt
- 3.1.1.3.4.8. sct2_Description_Snapshot-en_US1000124_20140301.txt
- 3.1.1.3.4.9. xder2_iisssccRefset_ExtendedMapSnapshot_US1000124_20131220.txt

NOTE: Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

3.2. **NewInstall** folder contains 4 files

- 3.2.1. B44.0 Base Build.sql
- 3.2.2. Create rRIS User.sql
- 3.2.3. CreateDB.sql
- 3.2.4. LoadDefaultConfiguration.sql

3.3. **Upgrade** folder contains 2 subfolders and 1 batch file

- 3.3.1. RunUpgrade.bat
- 3.3.2. **Log** folder is empty
- 3.3.3. **Scripts** folder contains: 40 files
 - 3.3.3.1. _executeSQL.bat
 - 3.3.3.2. _getCurrentVersion.sql
 - 3.3.3.3. _run_scripts.bat
 - 3.3.3.4. B43.0.1.sql
 - 3.3.3.5. B43.0.12.sql
 - 3.3.3.6. b43.0.12_to_b43.1.0_Schema_Upgrade.sql
 - 3.3.3.7. B43.0.2.sql
 - 3.3.3.8. B43.0.3.0.sql
 - 3.3.3.9. B43.0.3.1.sql
 - 3.3.3.10. B43.0.3.2.sql
 - 3.3.3.11. B43.0.4.sql
 - 3.3.3.12. B43.0.5.sql
 - 3.3.3.13. B43.0.6.sql
 - 3.3.3.14. B43.0.7.sql
 - 3.3.3.15. B43.0.8.sql
 - 3.3.3.16. B43.1.0.sql
 - 3.3.3.17. B44.0.0.25942.sql
 - 3.3.3.18. B44.0.0.25974.sql
 - 3.3.3.19. B44.0.0.26019.sql
 - 3.3.3.20. B44.0.0.26037.sql
 - 3.3.3.21. B44.0.0.26158.sql
 - 3.3.3.22. B44.0.0.26207.sql
 - 3.3.3.23. B44.0.0.26321.sql
 - 3.3.3.24. B44.0.0.26384.sql
 - 3.3.3.25. B44.0.0.26412.sql
 - 3.3.3.26. B44.0.0.26475.sql
 - 3.3.3.27. B44.1.0.26906.sql
 - 3.3.3.28. B44.1.0.27145.sql
 - 3.3.3.29. B44.2.0.27365.sql
 - 3.3.3.30. B44.2.1.27909.sql
 - 3.3.3.31. B44.3.0.28076.sql
 - 3.3.3.32. B44.3.0.28111.sql
 - 3.3.3.33. B44.3.0.28127.sql
 - 3.3.3.34. B44.3.0.28138.sql
 - 3.3.3.35. B44.4.0.28609.sql
 - 3.3.3.36. B44.4.0.28676.sql
 - 3.3.3.37. B44.5.0.29775.sql
 - 3.3.3.38. B44.5.0.29835.sql
 - 3.3.3.39. B44.5.0.29935.sql
 - 3.3.3.40. B44.5.0.29976.sql
 - 3.3.3.41. B44.5.1.30449.sql
 - 3.3.3.42. B44.5.2.30554.sql

eRAD RIS Server Update

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

Build 44.5 installs. This server update must be applied to 44.5

eRAD RIS Server Update

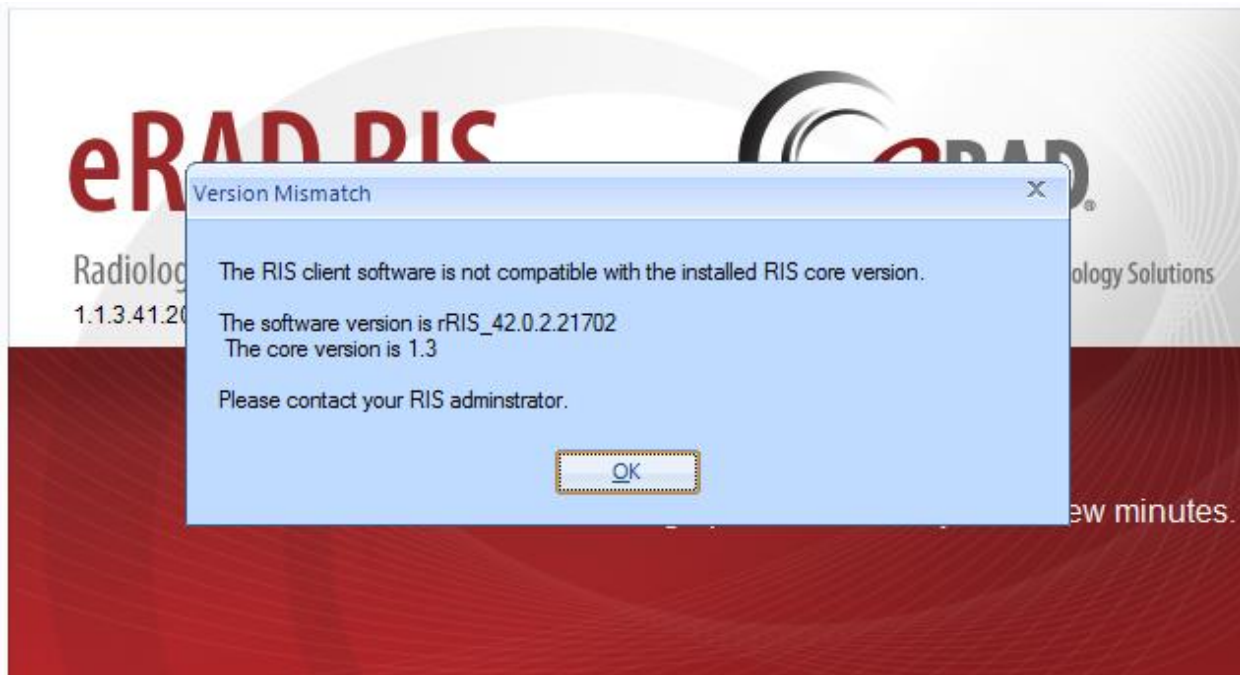
6. eRAD RIS Release Version Numbers

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
44.5	1	2.44.5.1.30451(3GB)	2.44.0.0.26405	2.44.5.1.30451	2.44.5.1.30449	Gui.zip, Web Server, DB
44.5	2	2.44.5.2.30705(3GB)	2.44.0.0.26405	2.44.5.1.30705	2.44.5.1.30554	Gui.zip, Web Server, DB

7. Installing

Client/GUI

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.44.5.2.30705.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_44.5.2.30705 → rRIS_1.3.44.5.2.30705

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

Web Service

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 88 files in the rRISService folder and 2 sub folders. Of those folders, 1 is a folder titled “XSL” that contains a sub folder and files within the subfolder. Another folder is titled “**deploy**” that contains the new .config files that will be deployed with the user of the file called “ServicesConfigWizard.exe” (see instructions below).

Services Configuration Wizard

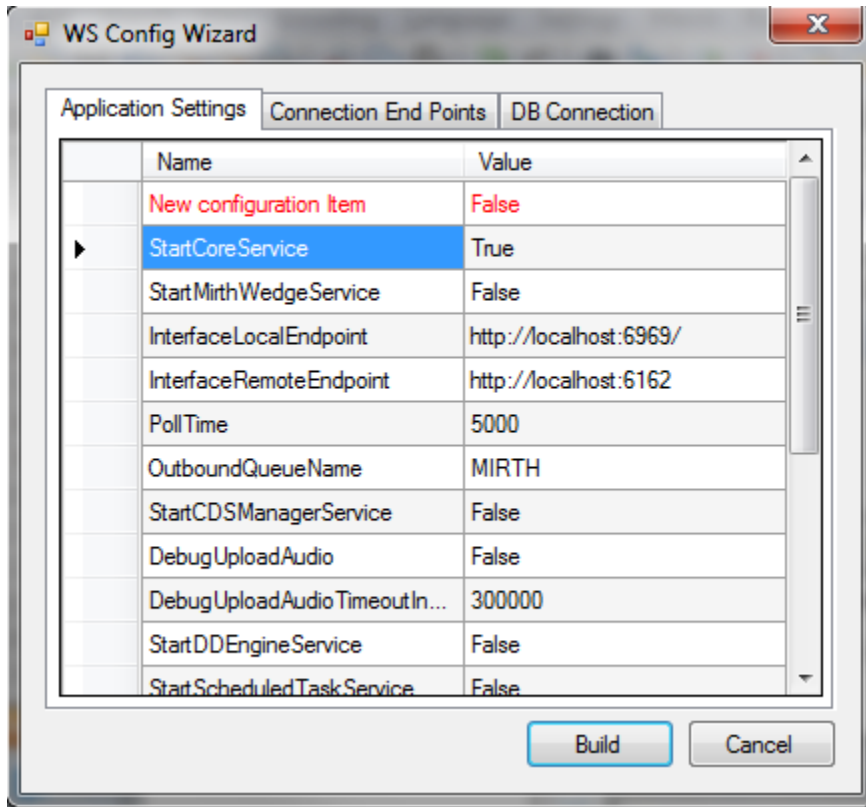
With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a “deploy” folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application “ServicesConfigWizard.exe”

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
Application Settings: all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

NOTE: the rRISServices.exe.config file is also included in the deploy folder. If this file has changes it **will not** update your current file in the Web Service directory. Any changes to this file will require a manual update of the rRISServices.exe.config and rRISServicesx64.exe.config files.

eRAD RIS Server Update



eRAD RIS Server Update

Connection End Points: will display the existing configuration, if the value is left blank then that entry will not be created, in the case of “Study Service” or “CDS Service” if both http and net.tcp were not provided then that endpoint will not be created at all.

WS Config Wizard

Application Settings | **Connection End Points** | DB Connection

Study Service

http:// localhost:8040 /rRIS/

net.tcp:// localhost:8041 /rRIS/

Notify Service

net.tcp:// localhost:7095 /rRIS/

CDS Service

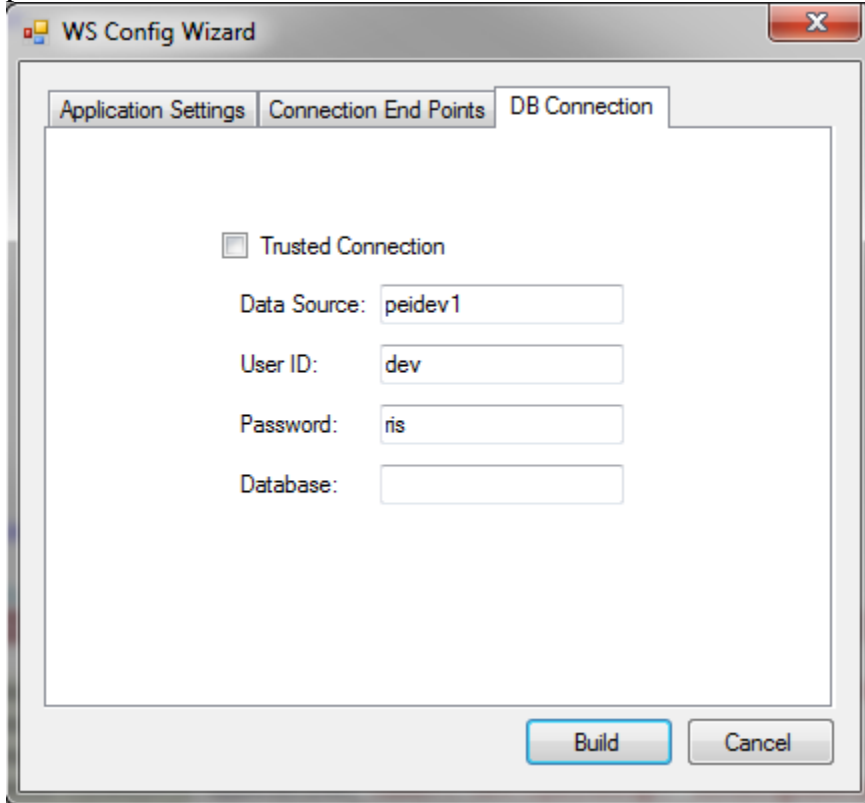
http:// localhost:7092 /rRIS/

net.tcp:// localhost:7093 /rRIS/

Build Cancel

eRAD RIS Server Update

DB Connection: will display the existing configuration, if the Connection is to be used as a trusted connection, then the user ID and password will become disabled and will not be used, and will rely on the provided database value, When not using the trusted connection, The Database value is not needed but can be used to force a specific database connection as long as the provided user has access to that database.



It is always good practice to do a compare of the .config files.

- 1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

eRAD RIS Server Update

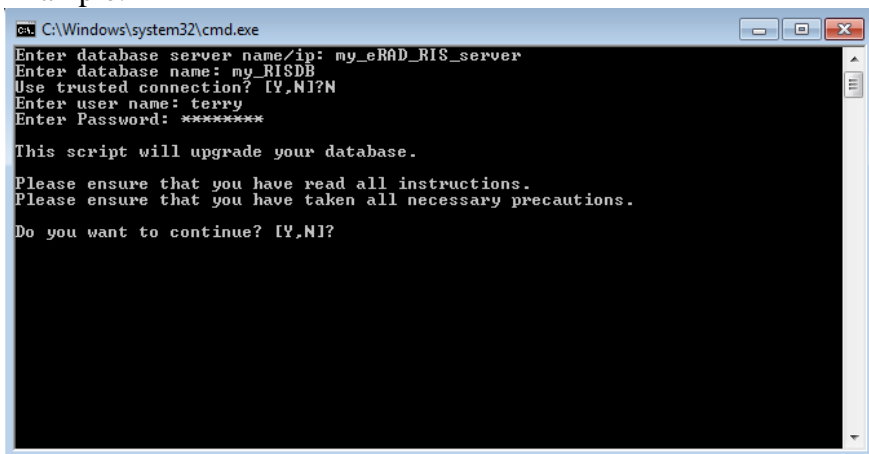
Database Updates

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.

- 1) From the upgrade folder, double click the "RunUpgrade.bat" command file.
- 2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.
- 3) You can choose to use "Trusted connection". Using this option will pass the identity of the currently logged on user. If this user has "db_owner" access to the eRAD RIS database then feel free to use this options.
- 4) If you decide not to use "Trusted connection" then you will be prompted for user id and password.

Example:



```
C:\Windows\system32\cmd.exe
Enter database server name/ip: my_eRAD_RIS_server
Enter database name: my_RISDB
Use trusted connection? [Y,N]?N
Enter user name: ferryy
Enter Password: *****

This script will upgrade your database.

Please ensure that you have read all instructions.
Please ensure that you have taken all necessary precautions.

Do you want to continue? [Y,N]?
```

- 5) After the upgrade program has finished you can find the upgrade logs in the "log" folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team
- 6) In the Common folder there is a subfolder of MU. The MU folder contains updates to lookups relevant for MU as well as updates for Zip Code table to add the County. Copy the

eRAD RIS Server Update

MU folder to the database server before running the batch file. There is a readme file contained in the MU folder. The details have also been included below

- a) The mu bulk install process must be run from a path on the database server!
 - b) Copy Files ImportDataFileUpgradeDB.bat and ImportDataFileUpgradeDB.sql from upgrade folder to a location on the database server(This location will be referred to as the "Script Folder Path".)
 - c) Copy Folder scripts and Source files from the upgrade folder to "Script Folder Path"Note source files must be inside the scripts folder
 - d) Run bat file
 - i) Enter Script Folder path [C:\Temp\SNOMED]:
 - ii) Enter database server name/ip: [ie peidev1]
 - iii) Enter database name: [ie rRIS_MU]
 - iv) Use a trusted connection to log on to SQL Server:
"N" means you will have to enter db [username] [password]
"Y" means you have a trusted connection and will not have to enter [username][password]
 - v) Do you wish to load SNOMED concept codes?
"N" no files will be loaded into the l_snomed_concept table
"Y" yes means l_snomed_concept table will be truncated and reloaded with the latest US concept codes
Source File [sct2_Concept_Snapshot_US1000124_20140301.txt]
 - vi) Do you wish to load SNOMED descriptions codes?
"N" no files will be loaded into the l_snomed_description table
"Y" yes means the l_snomed_description table will be truncated and reloaded with the latest US description codes
Source File [sct2_Description_Snapshot-en_US1000124_20140301.txt]
 - vii) Do you wish to load ICD9 to SNOMED mappings codes?
"N" no files will be loaded into the l_snomed_icd9_map table
"Y" yes means the l_snomed_icd9_map table will be truncated and reloaded with the latest US ICD9 to SNOMED mapping codes
Source File [ICD9CM_SNOMED_MAP_1TO1_201312.txt and ICD9CM_SNOMED_MAP_1TOM_201312.txt]
 - viii) Do you wish to load ICD10 to SNOMED mappings codes?
"N" no files will be loaded into the l_snomed_icd10_map table
"Y" yes means the l_snomed_icd10_map table will be truncated and reloaded with the latest US ICD10 to SNOMED mapping codes
Source File [xder2_iissscRefset_ExtendedMapSnapshot_US1000124_20131220.txt]
 - ix) Do you wish to load US zip codes?
"N" no files will be loaded into the z_zipCodesWithCounty table
"Y" yes means the z_zipCodesWithCounty table will be truncated and reloaded with the latest US zip codes
Source File [5-digit Commercial.csv]
-

eRAD RIS Server Update

Note: the following files should be loaded once only with B43!

x) Do you wish to load CMS codes?

"N" no files will be loaded into the s_mu_code table

"Y" yes means the s_mu_code table will be truncated and reloaded with the latest CMS codes

Source File [s_mu_code.txt]

xi) Do you wish to load HL7 support sets for CCDA?

"N" no files will be loaded into the l_hl7v3_voc_value_set table

"Y" yes means the l_hl7v3_voc_value_set table will be truncated and reloaded with the latest hl7v3_voc_value_set codes

Source File [l_hl7_voc_value_set.txt]

xii) Do you wish to load HL7 support codes for CCDA?

"N" no files will be loaded into the l_hl7v3_voc_value_code table

"Y" yes means the l_hl7v3_voc_value_code table will be truncated and reloaded with the latest l_hl7v3_voc_value_code codes

Source File [l_hl7_voc_value_code.txt]

User Release Notes

for eRAD RIS
Version 2
Build 44.6

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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 44.6 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.44.6

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 /eRAD RIS implementation teams.

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 2.44.6 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. New Settings for B2.44.6

Access strings

Setting	Default	Purpose / Controls Access to
Clinical.CreateReminder	None	Controls access to the create reminder feature from patient folder.
Clinical.EditReminder	None	Controls access to the edit reminder feature from patient folder.
Clinical.PreviewTerminatedReport	None	Controls access to previewing reports that have been terminated for voided or discontinued exams.
Config.LookupEditor.Complication	None	Grants access to the Complication lookup table located under the Mammography folder from the Configure option under Administration menu
Config.LookupEditor.PreInstructionType	None	Grants access to the PreInstructionType lookup table located under the Procedure folder from the Configure option under Administration menu

System Config

Setting	Default	Purpose / Controls Access to
BreastBodyPartCode	N/A	The code for the breast body part. May be used to activate mammo related functionality (e.g. Create Reminder)

5. New Features and Enhancements

Breast Imaging Updates

Feature 11221 – Biopsy Window Re-Design

The General section of the Add Mammo Biopsy window has been re-designed to make various labels more intuitive and add additional data collection fields. As displayed in Figure 5.1, Concordance and Complications sections have been added. These additions allow the user to collect additional information that can be made available for future Management Reports or database queries. Also a new option for a Lesion Classification of High Risk Malignant has been added. This allows for the flexibility of categorizing High Risk pathology findings as either Malignant or Benign, while still maintaining their “High Risk” designation. The database was updated to consider the selection of “High Risk Malignant” as Malignant when calculating statistics for MQSA-related management reports (e.g. True/False Positives, Sensitivity, Specificity, etc.). As before, the “High Risk Benign” category is treated as Benign for MQSA statistics.

The screenshot shows the 'General' section of a software window. It contains the following fields and options:

- Performing physician:** A dropdown menu with 'Aiken, Darcy j' selected.
- Biopsy facility*:** A text input field containing 'test'.
- Facility type:** Radio buttons for 'Internal facility' (selected) and 'External facility'.
- Biopsy technique*:** A dropdown menu with 'Core Biopsy' selected.
- Date performed *:** A date input field with '10-02-2015' and a calendar icon.
- Breast side:** Radio buttons for 'Left', 'Both' (selected), and 'Right'.
- Lesion classification:** Radio buttons for 'Benign', 'High Risk Benign', 'Malignant', and 'High Risk Malignant' (selected).
- Concordance:** Radio buttons for 'Concordant' (selected) and 'Discordant'.
- Complications:** A dropdown menu.
- Additional pathology results:** Radio buttons for 'Not required' (selected) and 'Required (select to keep on WL)'.
- Imaging Follow up:** Radio buttons for 'Not required' (selected) and 'Required'.
- Notes:** A text area containing 'testHRM and Hematoma'.

Figure 5.1 – Biopsy window changes

The following labels have also been updated to more accurately and precisely identify various data to be collected:

- Performing surgeon → Performing physician
- Biopsy location → Biopsy facility
- Additional surgery → Additional pathology results
- Follow up → Imaging follow up
- Create Follow Up (button available after selecting Follow Up Required) → Create Reminder

Selecting Required for Additional Pathology Results will allow the exam to remain on the ACR Category 4/5 Follow Up WL after saving the pathology results. This allows the Mammo Tracking personnel to continue to monitor the case for outstanding pathology results that may be forthcoming for a repeat biopsy, a biopsy of an additional site that was recommended in the same report, or simply additional surgical pathology if desired. This behavior has not changed, but the terminology has been updated to *Additional Pathology Results Required/Not Required*, as the previous label of *Additional Surgery Required/Not Required* sometimes misled Mammo Tracking personnel who believed that the purpose was to record whether the patient would be having surgery as a result of the biopsy results.

The Complications list box is populated with values from the new lookup table titled Complications which can be found at Administration menu>Configure>Mammography>Complication.

This new lookup table's access is controlled by access string: "**Config.LookupEditor.Complication**" which has a default of None.

ComplicationCode	Description	Display Order	Last Updated	Active
Contains:	Contains:	Equals:	Equals:	Contains:
Click here to add a new row				
HT	Hematoma	0	10-02-2015 11:39 AM	Y
IS	Insufficient Sample	0	10-02-2015 11:39 AM	Y
PI	Post-procedure Infection	0	10-02-2015 11:39 AM	Y

Figure 5.2 – Complication lookup table

Additional improvements have also been made to the Breast History grid at the top of the Add Mammo Biopsy window, as outlined in the description for Feature 11418 beginning on the following page.

Feature 11418 – Manually Create Mammo Tracking Reminders

Previously, eRAD RIS did not have a method to manually create breast imaging Reminders, unless pathology results are being entered as follow-up to a BI-RADS® 4 or 5 exam. It is sometimes desirable to create Reminders at other times, particularly for patients who have come to our facilities for biopsies that had been recommended elsewhere and are therefore not on the ACR Category 4/5 Follow Up WL.

From the Patient Folder:

A new context menu item (right-click menu) titled Create Reminder has been added in the Patient Folder. Selecting this option will open the Create Reminder window. This new context menu item is controlled by access string “**Clinical.CreateReminder**” with a default of none. The Create Reminder option will be available for procedures that have the body part that is specified in the new system config setting “**BreastBodyPartCode**.” This would include both BI-RADS® enabled exams, as well as other breast procedures and biopsies.

Options in the Create Reminder window are: Type of Reminder (Annual, Short Term or Callback), Site and Target Date.

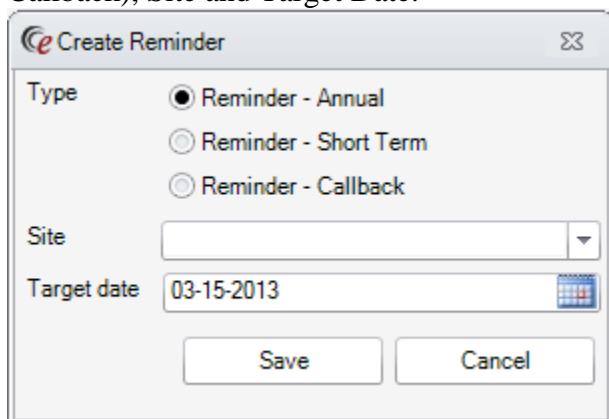


Figure 5.3 – Create Reminder window accessed from Patient Folder

The procedure used for a Reminder is determined by the pre-existing system config setting of DefaultMammoFollowUpOrderProcedureCode. The referring physician assigned will be that from the original study that was used to create the Reminder.

Another new context menu item added to the Patient Folder is Edit Reminder. This new context menu option is controlled by access string “**Clinical.EditReminder**” which has a default of None. This option will be available for statuses of Reminder – Annual, Reminder – Short Term, and Reminder – Callback. The purpose is to edit the details for an existing Reminder.

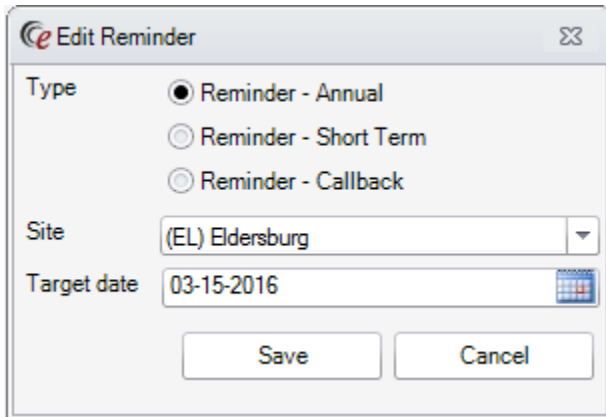


Figure 5.4 – Edit Reminder window

From the Add Mammo Biopsy Window

It is also possible to Create or Edit Reminders from the Add Mammo Biopsy window.

The Breast History grid at the top of this window has been updated in order to provide a comprehensive view of all BI-RADS® enabled exam in any status other than Cancelled or Discontinued, as well as outstanding Reminders.

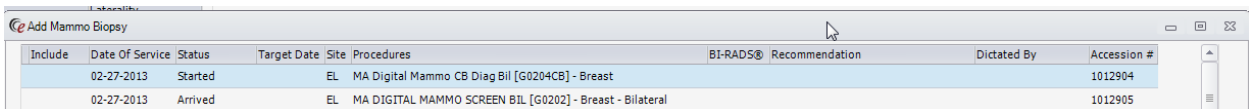


Figure 5.5 – Add Mammo Biopsy window history

The “Include” column is used for correlating pathology results with multiple exams; the behavior of this column has not changed, though the checkbox is only displayed for rows that are in the Signed status. The columns displayed in this Breast History grid have also been adjusted to display the most relevant details in a logical order.

From the Breast History grid, the user can now right-click on an existing Reminder and choose Edit Reminder to change the type of Reminder, the site, or the target date.

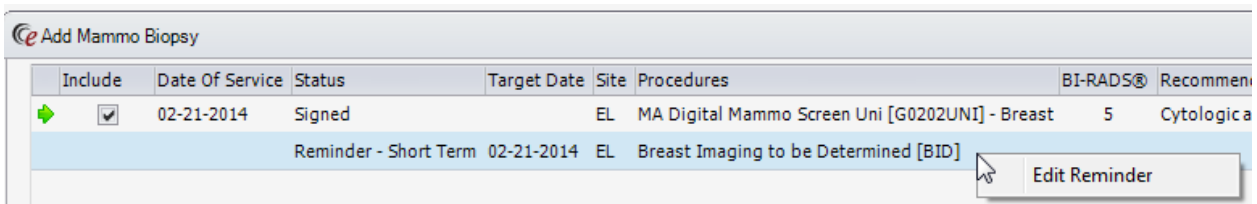


Figure 5.6 – Edit reminder on existing reminders

Reminders can also be created in the same manner as before from the Add Mammo Biopsy screen, though some of the terminology has been updated, as described above. The Create Reminder button (previously labeled Create Follow up) becomes available after selecting Additional Pathology Results = Not Required *and* Imaging Follow Up = Required. After clicking the Create Reminder button, the user can enter the type of Reminder, the Site, and the Target Date.

One additional improvement to the Breast History section has been added. To help the user determine what follow-up is necessary, there is a new context menu option available, “Show Report,” to display the report on a signed exam.



Figure 5.7 – Show report option on signed exam

Select Show Report to open a quick loading view of the report that is similar to the Data Nugget report view.

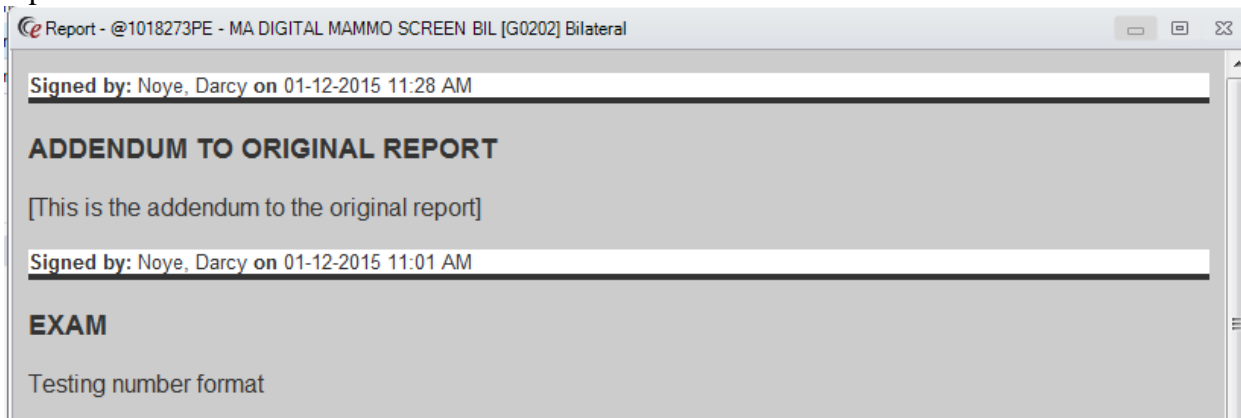


Figure 5.8 – Show report window

Insurance Eligibility

Feature 7852 - Reduce number of calls to Eligible API

This feature will reduce the number of redundant eligibility checks. We will omit the day-of-service auto eligibility check for the following scenarios:

- The remaining deductible is 0 or not provided and a previous request was valid in the same calendar month.
- More than one insurance policy is selected. In these cases, we don't calculate the amount to collect using deductible, so there is no need to retrieve an up-to-date deductible amount.
- The status or remaining deductible has been overridden. Manual overrides do not require updated deductible amounts for the calculation of the amount to collect.

Radiologist

Feature 11277 – Automate Logging into PowerScribe Immediately After Logging into eRAD RIS

eRAD RIS is now launching and logging into PowerScribe immediately after successful login to eRAD RIS if the reporting mode is PowerScribe. eRAD RIS maintains full functionality during this initial login process. If a user opens a case before the PowerScribe login is complete, eRAD RIS will wait for the login process to complete and display the message "Waiting for PowerScribe."

This feature is enabled by default, but users can change this behavior by changing the “Launch on login” user preference on the “Reporting” tab in the “PowerScribe” section.

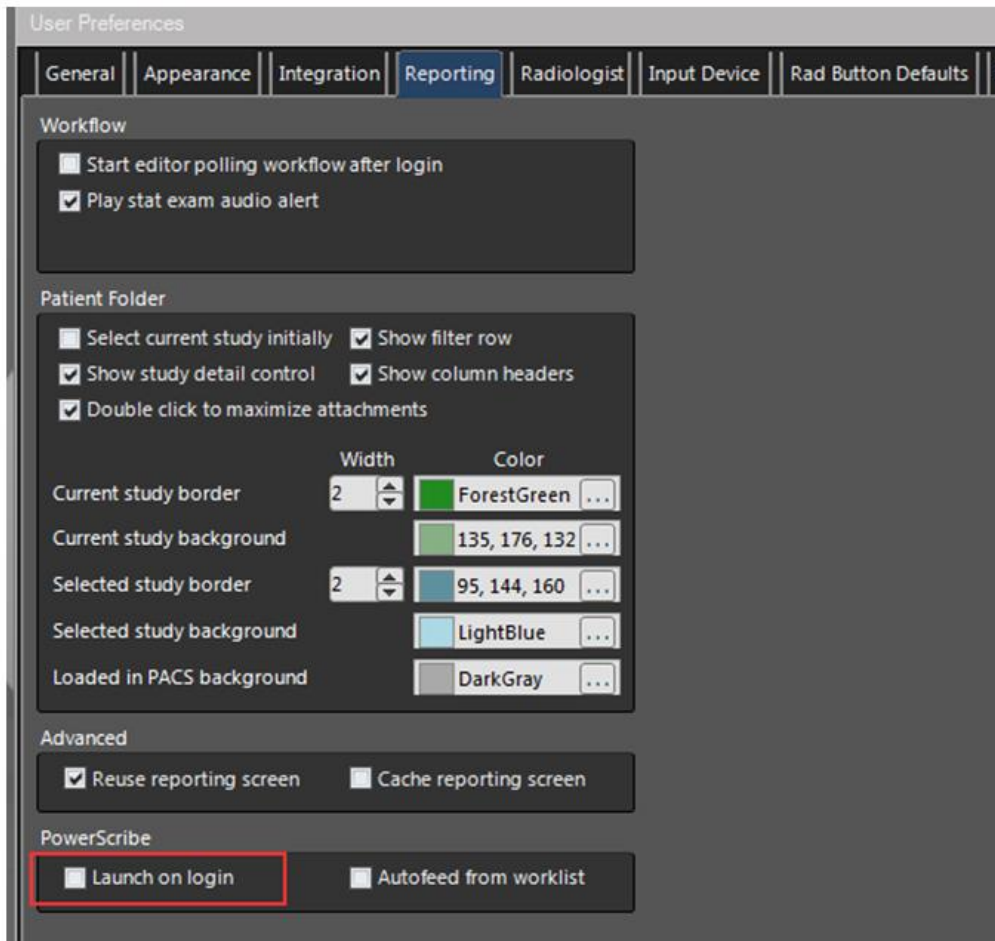


Figure 5.9 – New user preference for PowerScribe “Launch on login”

Outbound Messaging

Feature 10564 – Support ICD Data in RIS Outbound Messages

eRAD RIS needs to support sending each ICD9 or ICD10 entered in RIS in its own field in the DG1 segment of the HL7 message.

For customers who enter this information on the front end of RIS, they expect that information to be transferred to the billing system without the need to re-enter it in that system.

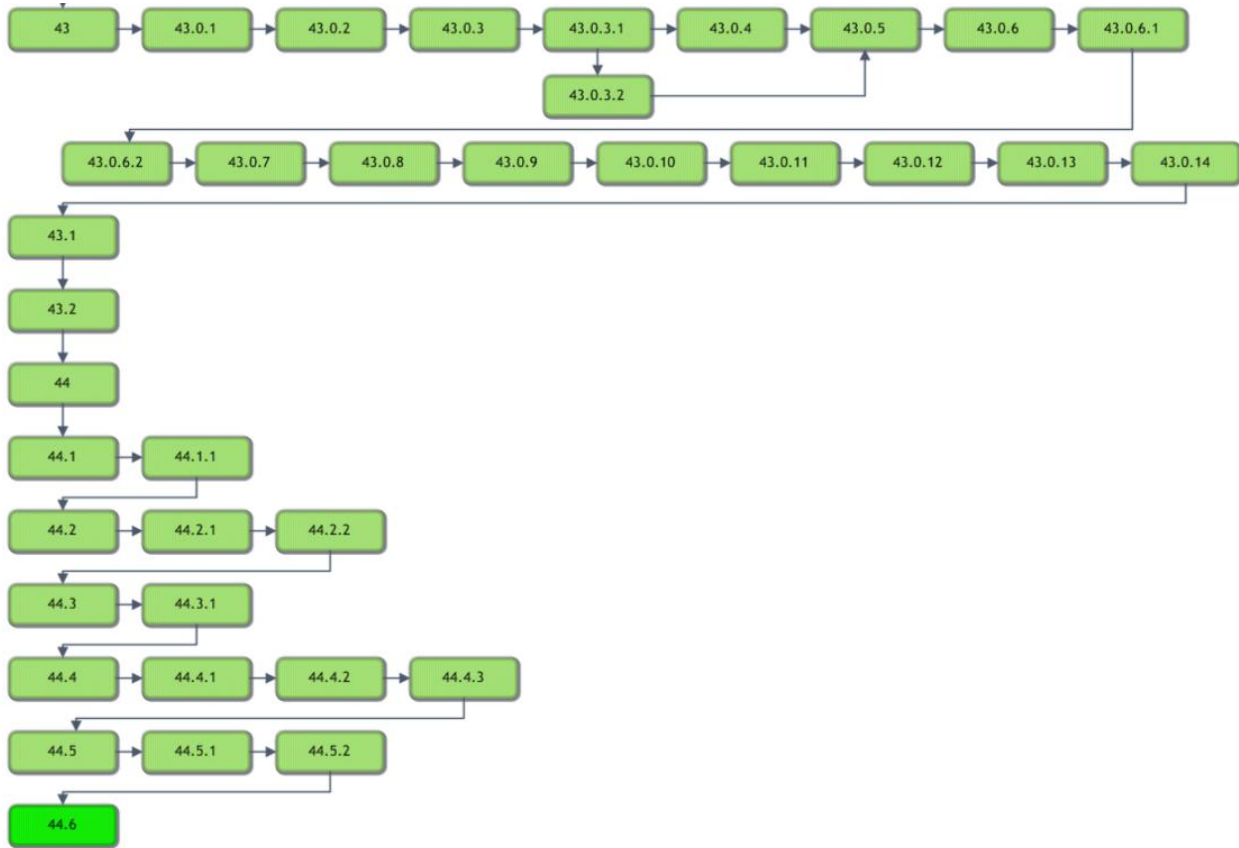
The problem is a limitation in the XML RIS sends to Mirth. The messages sent did not expand to include the ICD9 or ICD10 codes.

Now messages sent will be expanded to include all of the ICD9 and ICD10 codes. Below is an example of the message with multiple ICD codes being sent. Implementations will need to configure mappings to handle the new nodes.

```
<c_study_item_indication>
<indication_key><indication_key>2844</indication_key><indication_code>257</indication_code><description>TESTICULAR HYPERFUNCTION
</description><display_order>1</display_order><last_updated>7/21/2011 12:22:35 PM
00:00</last_updated><last_updated_by_user_id>darcy</last_updated_by_user_id><active_flag>Y</active_flag><bloodwork_required_flag>N</bloodwork_required_flag><coding_scheme>ICD9</coding_scheme><code_effective_date>1/1/2001 12:00:00 AM</code_effective_date></indication_key>
  <study_item_key>3</study_item_key>
  <last_updated_by_user_id>deuce</last_updated_by_user_id>
  <last_updated>2015-09-29T12:15:40.6573928-03:00</last_updated>
</c_study_item_indication>
<c_study_item_indication>

<indication_key><indication_key>11556</indication_key><indication_code>39.4</indication_code><description>MADURA FOOT ACTINOMYCOTIC INFECTION
</description><display_order>1</display_order><last_updated>7/21/2011 12:22:35 PM
00:00</last_updated><last_updated_by_user_id>darcy</last_updated_by_user_id><active_flag>Y</active_flag><bloodwork_required_flag>N</bloodwork_required_flag><coding_scheme>ICD9</coding_scheme><code_effective_date>1/1/2001 12:00:00 AM</code_effective_date></indication_key>
  <study_item_key>3</study_item_key>
  <last_updated_by_user_id>deuce</last_updated_by_user_id>
  <last_updated>2015-09-29T14:43:59.5980514-03:00</last_updated>
</c_study_item_indication>
```

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
44.5	1	2.44.5.1.30451(3GB)	2.44.0.0.26405	2.44.5.1.30451	2.44.5.1.30449	Gui.zip, Web Server, DB
44.5	2	2.44.5.2.30705(3GB)	2.44.0.0.26405	2.44.5.1.30705	2.44.5.1.30554	Gui.zip, Web Server, DB
44.6	-	2.44.6.0.31341(3GB)	2.44.0.0.26405	2.44.6.0.31341	2.44.6.0.31182	Gui.zip, Web Server, DB

8. Resolved Defects

Bugs, Suggested Features and Support Issues resolved in build 2.44.6. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.44.6.

Bug #	Priority	Subject	Category	Found Version
11167	Urgent	Contacts/Demographics info not resetting on changing patients	Scheduling	2.44.4.3
11044	Urgent	Enhance wedge to support when a rad occupies or vacates a primary chair	Interfaces	
11579	High	Lab Work Request WL (CPOE) - Addendum Signed Bug	Meaningful Use	2.44.5.0
11292	High	RIS incorrectly stores PACS bookmark after logout from PACS	PACS (eRAD) Int - RIS only	2.44.4.2
11288	High	Users can print/preview unsigned reports without permission.	Radiology Reporting	2.44.2
11197	High	Missing access string for new lookup table PrepInstructionType	Access strings	2.44.5
11187	High	Patients that have the same Patient Flag set cannot be merged	Patient Merge	2.44.5
11186	High	Insurance Eligibility - Medicare DBNull parsing error on address line 2	Insurance Eligibility	44.4
11182	High	Removing Patient Flag and it's corresponding notes only removes the notes	Scheduling	2.44.5
10777	High	CA - Error adding billing codes	Billing	2.44.4.1.28953
10748	High	Error created when trying to do a confirmation on an exam.	Confirmation	44.2
11904	Normal	Next workflow can open the exact same report that was just closed causing exceptions	Radiology Reporting	2.44.x
11902	Normal	Closing PowerScribe 360 after initial sync willl require two attempts from RIS to open a report	Powerscribe Integration	2.44.x
11889	Normal	Insurance Eligibility - WL Flag calculation is looking at cancelled studies.	Insurance Eligibility	44.4
11887	Normal	Insurance Eligibility - RIS loops updating the c_eligibilityrequest table	Insurance Eligibility	44.4
11840	Normal	Insurance Eligibility - We need to prevent accepting insurances if 3 of the 4 demographics do not match	Insurance Eligibility	44.4
11775	Normal	Same study can be opened multiple times from pending dictation WL	PACS (eRAD) Integration	2.44.5.2
11751	Normal	CD Import - fails to import all images.		44.4

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11572	Normal	Clean up trace table is cost higher db resources than is needed	DB	2.44.5
11568	Normal	Remove collations from database DDL files	DB	2.44.5
11557	Normal	Missing indexes that affect RIS performance	DB	2.44.5
11497	Normal	The 'minutes since cache requested' and 'cached by Name' columns should be synced up to update at the same time	Worklists	2.44.5.1
11421	Normal	billing codes not added for outside reads	Billing	2.44.5
11362	Normal	Height not Required on Scheduling when auto-entered from previous visit as <empty string>	Meaningful Use	2.44.5
11346	Normal	failed to enable constraint error when using the schedule button on the follow up screen	Mammography	2.44.4.3
11307	Normal	Powerscribe closing open report in eRAD RIS	Powerscribe Integration	2.43.0.6
11306	Normal	Waiting for PowerScribe 360 message box is hiding other focused applications	Powerscribe Integration	2.43
11305	Normal	Reporting Radiologist - PowerScribe initial dictation will open PS but not the report to dictate	Powerscribe Integration	2.44.2
11304	Normal	Reporting Radiologist - PowerScribe addendum interruption cases getting mismatched error with RIS	Powerscribe Integration	44.2
11303	Normal	Reporting Radiologist - PowerScribe issues with fix #7908 and #8143 one is reverting the other to fix different issues.	Powerscribe Integration	44.2
11267	Normal	align patient portal v1.0.x db views to RIS release	Connect Portal 4.x	2.44.5
11266	Normal	Missing access string to prevent a voided exam from having the report previewed and printed	Radiology Reporting	2.44
7969	Normal	Reporting Radiology - RTF to CDA converter bolding text when not bolded in source system	Powerscribe Integration	2.42.1
6333	Normal	Attachments Screen: fails to save for pre-scheduled studies.	Scanning	1.42

9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.44.6. Bugs reported in previous versions are not captured as Known Limitation in this document.

#	Status	Priority	Subject
11980	New	Normal	BI-RADS picker is editable - causes Index out of range error
11978	New	Normal	Appointment book allows any procedure to be scheduled in a room
11966	New	Normal	Mammo Biopsies Window - Cancel and ESC Key functionality
11948	New	Normal	PowerScribe - approving an addendum also saves a 2nd exam that is opened.
11934	New	Normal	Study/Order locks not clearing on closing multi-orders from Walk-In window
11960	New	Low	Confirmation - Administered checkbox under Medications is always unchecked (visually)
11937	New	Low	Error on filtering Calculated Time Severity column (Confirmation/Closed Rooms/Reception WL)
11935	New	Low	Study/Order locks not clearing on closing multi-orders from Schedule Order>Existing Orders prompt

User Release Notes

for eRAD RIS
Version 2
Build 44.7

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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 44.7 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.44.7

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 /eRAD RIS implementation teams.

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 2.44.7 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. New Features and Enhancements

Features 12358 and 12359 – Support XR-29

At the start of 2016, Centers for Medicare & Medicaid Services (CMS) will reduce Medicare payment for certain outpatient CT exams performed on scanners that do not meet the radiation dose safety criteria outlined in the XR-29 CT Standard (also known as MITA Smart Dose). Medicare claims submitted for certain CT exams performed on or after January 1, 2016 must be appended with a modifier if the CT scanner was not XR-29 compliant. Two new fields have been added to the RIS lookup tables in order to allow for the appropriate adjustments to be made to the billing file for any customers who must comply with this Medicare requirement.

A new field called XR29 Compliance Date has been added to the Modality lookup table. This will allow the RIS Administrator to specify the date the CT scanner became XR-29 compliant.

Modality Code	Short Description	Description	AE title	Digital	Site Code	Modality Type Code	Xr29 Compliance Date	Weight
CT1LU		CT1LU	CT1LU	N	LU ((LU) Lutherville)	CT	08-01-2015 12:00 AM	
CT1FH		CT1FH	CT1FH	Y	FH ((FH) Fisher)	CT	11-15-2015 12:00 AM	
CT1KO	Knoll North CT	CT1KO	CT1KO	N	KO ((KO) Knoll North)	CT	11-01-2015 12:00 AM	
XR1KO	Knoll North X-Ray	XR1KO	XR1KO	N	KO ((KO) Knoll North)	XR (Plain Film/Xray/CR)		
HYPHEN	hyphenTest		XR Hyphen	N	Hyphen-Test ((Hyphen-Test) Hyphen)	XR (Plain Film/Xray/CR)		
MR1EL		MR1EL	MR1EL	N	EL ((EL) Eldersburg)	MR (MRI)		

Figure 5.1 – Modality lookup table displaying new column of Xr29 Compliance Date

A new field called XR29 Required Flag has been added to the Billing Code lookup table. This will allow the RIS Administrator to specify the CPT codes that require the XR-29 modifier to be added for Medicare claims.

Billing Code	Description	Xr29 Required Flag	Version	Display Order	Billing Modality Type Code
70460	COMPUTED TOMOGRAPHY, HEAD OR BRAIN; WITH CONTRAST MATERIAL(S)	Y	1	1	CT (CAT Scan)
71260	COMPUTED TOMOGRAPHY, THORAX; WITH CONTRAST MATERIAL(S)	Y	1	1	CT (CAT Scan)
72126	COMPUTED TOMOGRAPHY, CERVICAL SPINE; WITH CONTRAST MATERIAL	Y	1	1	CT (CAT Scan)
0042T	CEREBRAL PERFUSION ANALYS CT W/BLOOD FLOWS&VOLUME	N	1	1	CT (CAT Scan)

Figure 5.2 – Billing code lookup table displaying new column of Xr29 Required Flag

When generating the billing file, the two additional columns can be used to build the logic to determine the appropriate modifier. Please contact the eRAD Support team for assistance with modifying your billing file if you submit claims to Medicare for outpatient CT exams.

A management report has been created to help administrators track which CT scanners are compliant. It is located in the Maintenance folder.

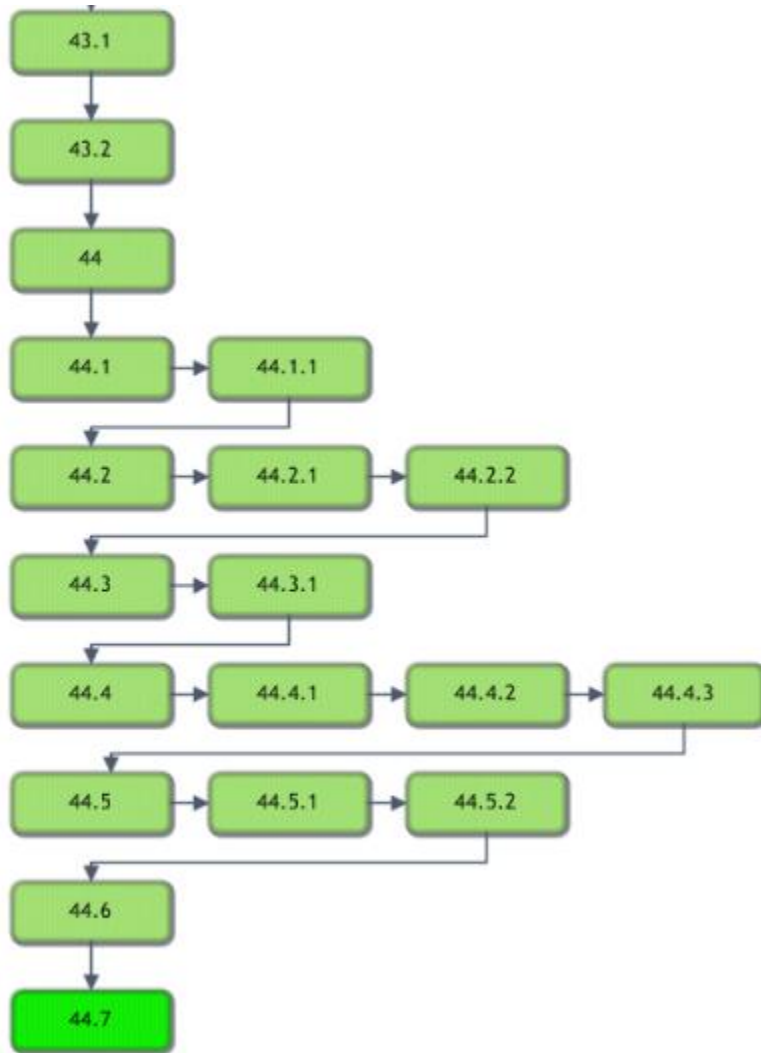
XR-29 Compliance
Practice(s): Advanced Radiology
Site(s): All sites for the selected practice(s).
Modality Type(s): CT
Description: This report display all the active modalities for the specified practices, sites and modality types, returning the list and XR-29 Compliance Date for each.

Practice	Site	Modality code	Modality Description	XR-29 Compliance Date
ADV	Crown Towers	CT1CT	CT1CT	
ADV	Eldersburg	CT1EL	CT1EL	
ADV	Eldersburg	CT2EL	CT2EL	
ADV	Eldersburg	RP	Reporting Modality	
ADV	Fisher	CT1FH	CT1FH	11-15-2015
ADV	Fisher	CT2FH	CT2FH	
ADV	Lutherville	CT1LU	CT1LU	08-01-2015
ADV	Lutherville	CT2LU	CT2LU	
ADV	Lutherville	NeedToTestCTRoom	NeedToTestCTRoom	

XR-29 Compliance Confidential and Proprietary Page 1 of 1 Date Run: 11-24-2015 03:46 PM RMISFormsGuestUser

Figure 5.3 – XR-29 Compliance Management Report

5. Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

6. 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
44.5	1	2.44.5.1.30451(3GB)	2.44.0.0.26405	2.44.5.1.30451	2.44.5.1.30449	Gui.zip, Web Server, DB
44.5	2	2.44.5.2.30705(3GB)	2.44.0.0.26405	2.44.5.1.30705	2.44.5.1.30554	Gui.zip, Web Server, DB
44.6	-	2.44.6.0.31341(3GB)	2.44.0.0.26405	2.44.6.0.31341	2.44.6.0.31182	Gui.zip, Web Server, DB
44.7	-	2.44.7.0.32205(3GB)	2.44.0.0.26405	2.44.7.0.32205	2.44.7.0.32125	Gui.zip, Web Server, DB, SQLReporting

7. Resolved Defects

Bugs, Suggested Features and Support Issues resolved in build 2.44.7. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.44.7.

Bug #	Priority	Subject	Category	Found Version
12280	Urgent	PACS images not synced with current report after timeout exceeded in eRAD RIS	PACS (eRAD) Int - RIS only	2.44.6
12358	Normal	Support XR-29	Thick Client GUI	
12359	Normal	Create XR-29 management report	Mgt Reports	
12408	Normal	When prompted "Action required in PACS" and PACS is killed, clicking OK to message should allow you to continue working in RIS without PACS.	PACS (eRAD) Integration	44.7
12414	Normal	PowerScribe error when closing studies with the X on the tab	Powerscribe Integration	2.44.7

8. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.44.7. Bugs reported in previous versions are not captured as Known Limitation in this document.

#	Status	Priority	Subject
12409	New	Normal	Under certain circumstances, the RIS message "Action required in PACS before continuing" must be acknowledged twice to continue working in RIS
12411	New	Normal	PACS "Invalid Study file" displays every time you go to the Patient folder
12415	New	Normal	PACS images getting locked when you exit out of RIS
12422	New	Normal	After restarting the PACS viewer, not all images are displayed when tabbing through studies that were open before PACS viewer was killed.

Server Update

For eRAD RIS
Version 2.0
Build 44.7
Update 44.7.1

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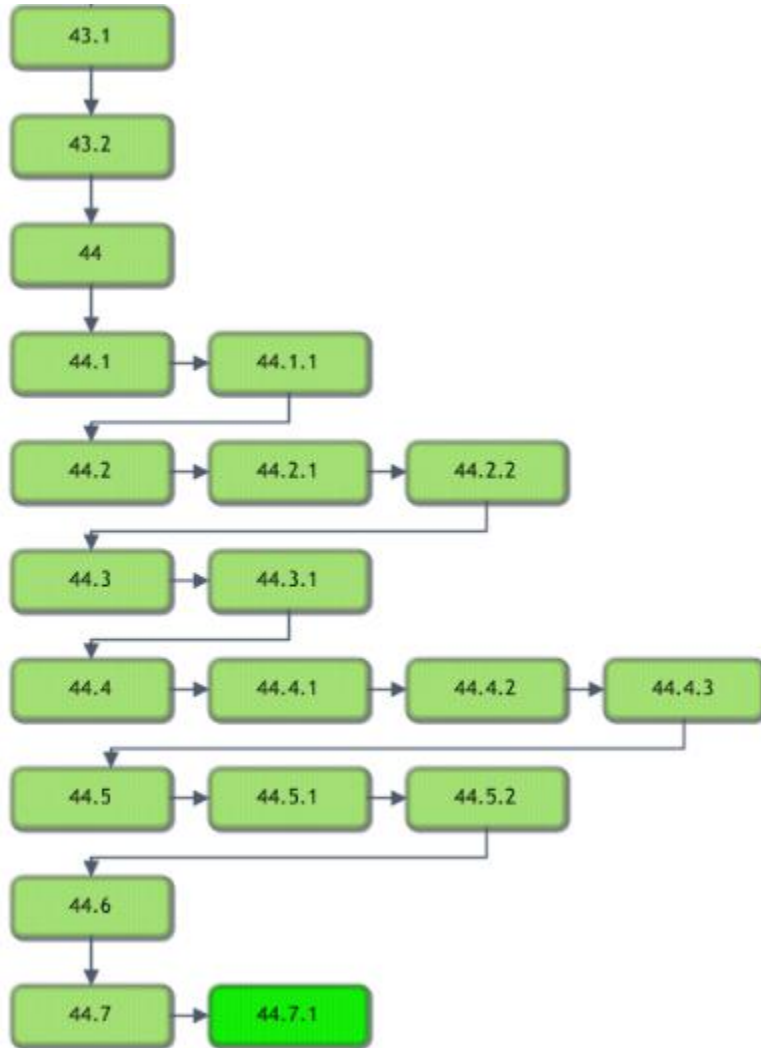
eRAD RIS Server Update

1. Resolved Items

Redmine #	Subject	Priority
12476	IW or CSH PACS integration - produces an error and crashes RIS	Urgent

eRAD RIS Server Update

2. Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

3. Package Contents

 _ReleaseNotes	12/3/2015 1:31 PM	File folder
 rRISService	12/2/2015 3:39 PM	File folder
 ThickClient	12/3/2015 1:29 PM	File folder

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

Build 44.7 installs. This server update must be applied to 44.7

eRAD RIS Server Update

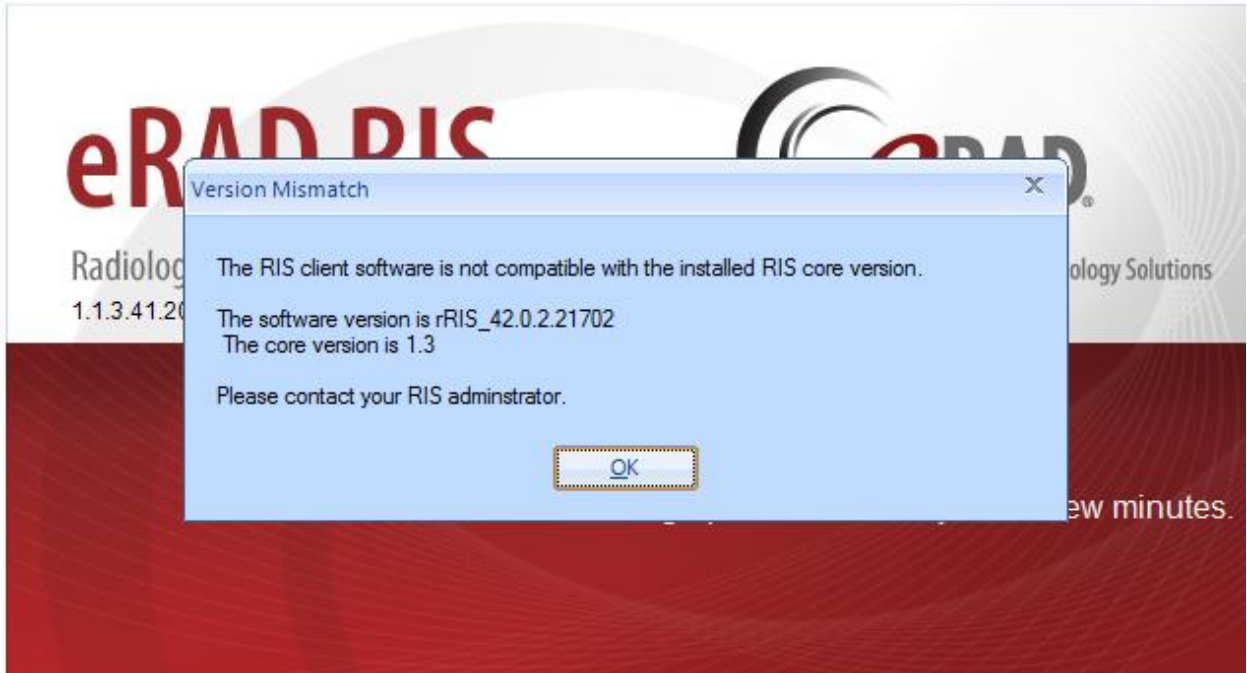
6. eRAD RIS Release Version Numbers

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
44.5	1	2.44.5.1.30451(3GB)	2.44.0.0.26405	2.44.5.1.30451	2.44.5.1.30449	Gui.zip, Web Server, DB
44.5	2	2.44.5.2.30705(3GB)	2.44.0.0.26405	2.44.5.1.30705	2.44.5.1.30554	Gui.zip, Web Server, DB
44.5	1	2.44.5.1.30451(3GB)	2.44.0.0.26405	2.44.5.1.30451	2.44.5.1.30449	Gui.zip, Web Server, DB
44.5	2	2.44.5.2.30705(3GB)	2.44.0.0.26405	2.44.5.1.30705	2.44.5.1.30554	Gui.zip, Web Server, DB
44.6	-	2.44.6.0.31341(3GB)	2.44.0.0.26405	2.44.6.0.31341	2.44.6.0.31182	Gui.zip, Web Server, DB
44.7	-	2.44.7.0.32205(3GB)	2.44.0.0.26405	2.44.7.0.32205	2.44.7.0.32125	Gui.zip, Web Server, DB, SQLReporting
44.7	1	2.44.7.1.32395(3GB)	2.44.0.0.26405	2.44.7.1.32395	2.44.7.0.32125	Gui.zip, Web Server

7. Installing

Client/GUI

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.44.7.1.32395.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_44.7.1.32395 → rRIS_1.3.44.7.1.32395

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

Web Service

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 88 files in the rRISService folder and 2 sub folders. Of those folders, 1 is a folder titled “XSL” that contains a sub folder and files within the subfolder. Another folder is titled “**deploy**” that contains the new .config files that will be deployed with the user of the file called “ServicesConfigWizard.exe” (see instructions below).

Services Configuration Wizard

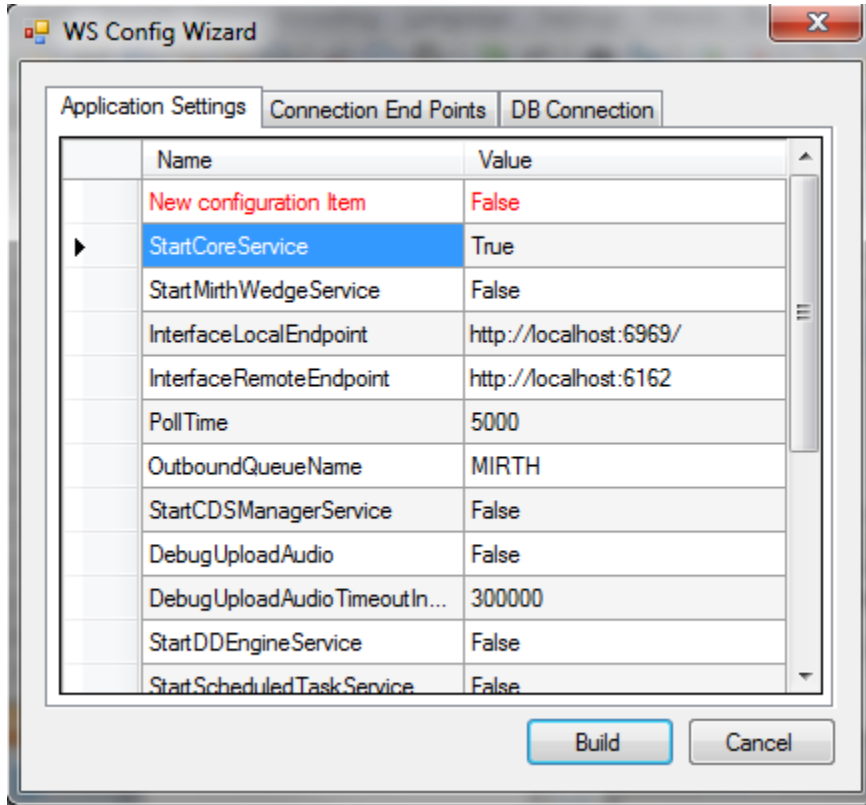
With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a “deploy” folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application “ServicesConfigWizard.exe”

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
Application Settings: all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

NOTE: the rRISServices.exe.config file is also included in the deploy folder. If this file has changes it **will not** update your current file in the Web Service directory. Any changes to this file will require a manual update of the rRISServices.exe.config and rRISServicesx64.exe.config files.

eRAD RIS Server Update



eRAD RIS Server Update

Connection End Points: will display the existing configuration, if the value is left blank then that entry will not be created, in the case of “Study Service” or “CDS Service” if both http and net.tcp were not provided then that endpoint will not be created at all.

WS Config Wizard

Application Settings | **Connection End Points** | DB Connection

Study Service

http:// localhost:8040 /rRIS/

net.tcp:// localhost:8041 /rRIS/

Notify Service

net.tcp:// localhost:7095 /rRIS/

CDS Service

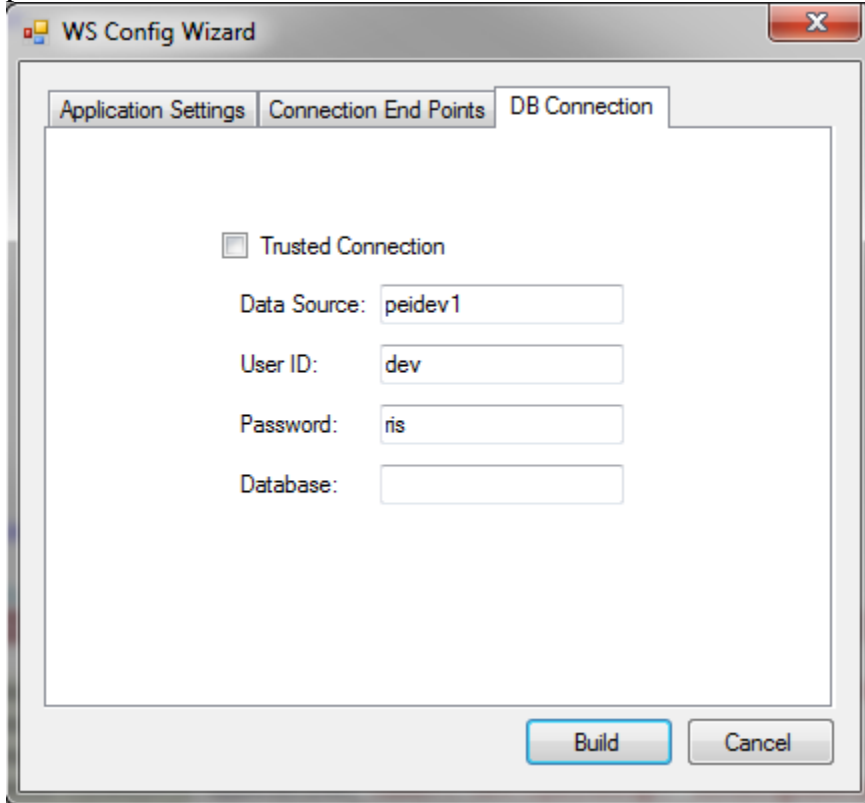
http:// localhost:7092 /rRIS/

net.tcp:// localhost:7093 /rRIS/

Build Cancel

eRAD RIS Server Update

DB Connection: will display the existing configuration, if the Connection is to be used as a trusted connection, then the user ID and password will become disabled and will not be used, and will rely on the provided database value, When not using the trusted connection, The Database value is not needed but can be used to force a specific database connection as long as the provided user has access to that database.



It is always good practice to do a compare of the .config files.

- 1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

Server Update

For eRAD RIS
Version 2.0
Build 44.7
Update 44.7.2

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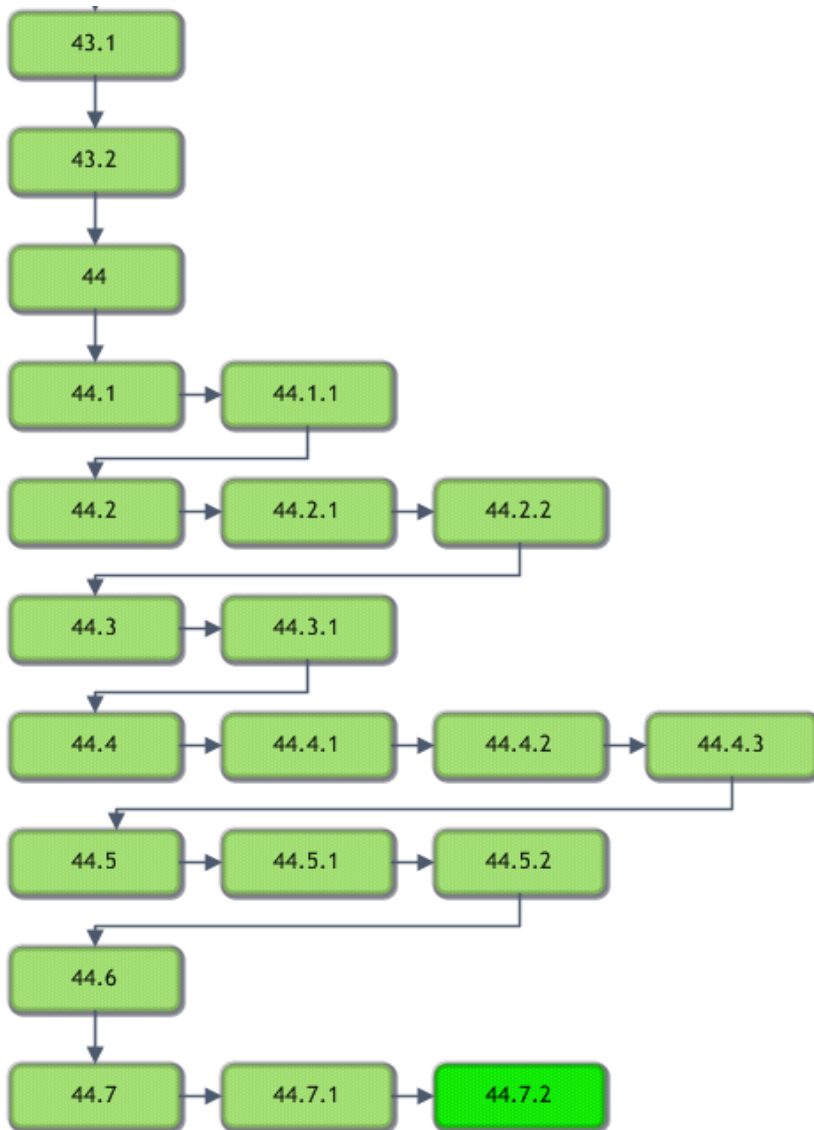
eRAD RIS Server Update

1. Resolved Items

Redmine #	Subject	Priority
12710	Wedge is throwing Distributed Transaction Errors due to resolving Indication Codes on outbound messages	Immediate
12713	PACS integration intermittent for both rads and techs	Urgent

eRAD RIS Server Update

2. Code Stream



Legend:




Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

3. Package Contents

 _ReleaseNotes	12/21/2015 4:47 PM	File folder
 rRISService	12/21/2015 1:32 PM	File folder
 ThickClient	12/21/2015 1:30 PM	File folder

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

Build 44.7 installs. This server update must be applied to 44.7

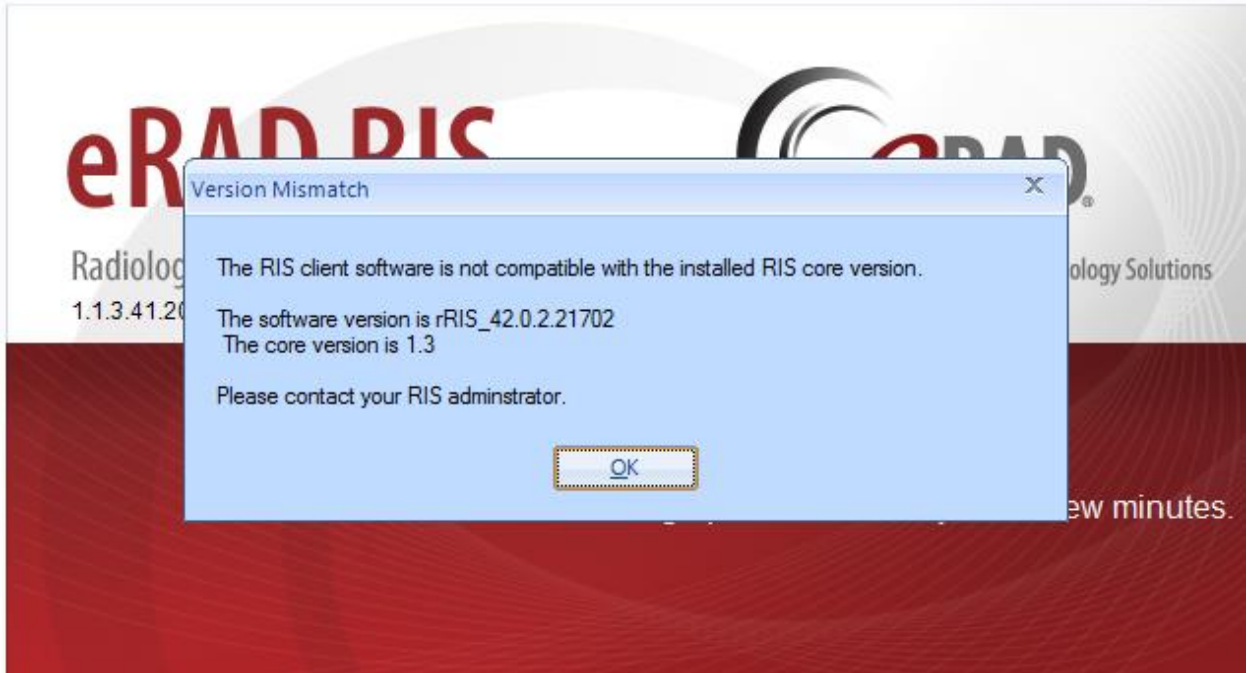
6. eRAD RIS Release Version Numbers

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 Service, DB
44.5	1	2.44.5.1.30451(3GB)	2.44.0.0.26405	2.44.5.1.30451	2.44.5.1.30449	Gui.zip, Web Service, DB
44.5	2	2.44.5.2.30705(3GB)	2.44.0.0.26405	2.44.5.1.30705	2.44.5.1.30554	Gui.zip, Web Service, DB
44.5	1	2.44.5.1.30451(3GB)	2.44.0.0.26405	2.44.5.1.30451	2.44.5.1.30449	Gui.zip, Web Service, DB
44.5	2	2.44.5.2.30705(3GB)	2.44.0.0.26405	2.44.5.1.30705	2.44.5.1.30554	Gui.zip, Web Service, DB
44.6	-	2.44.6.0.31341(3GB)	2.44.0.0.26405	2.44.6.0.31341	2.44.6.0.31182	Gui.zip, Web Service, DB
44.7	-	2.44.7.0.32205(3GB)	2.44.0.0.26405	2.44.7.0.32205	2.44.7.0.32125	Gui.zip, Web Service, DB, SQLReporting
44.7	1	2.44.7.1.32395(3GB)	2.44.0.0.26405	2.44.7.1.32395	2.44.7.0.32125	Gui.zip, Web Service
44.7	2	2.44.7.2.32694(3GB)	2.44.0.0.26405	2.44.7.2.32694	2.44.7.0.32125	Gui.zip, Web Service

7. Installing

Client/GUI

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.44.7.2.32694.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_44.7.2.3694 → rRIS_1.3.44.7.2.32694

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

Web Service

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 90 files in the rRISService folder and 2 sub folders. Of those folders, 1 is a folder titled “XSL” that contains a sub folder and files within the subfolder. Another folder is titled “**deploy**” that contains the new .config files that will be deployed with the user of the file called “ServicesConfigWizard.exe” (see instructions below).

Services Configuration Wizard

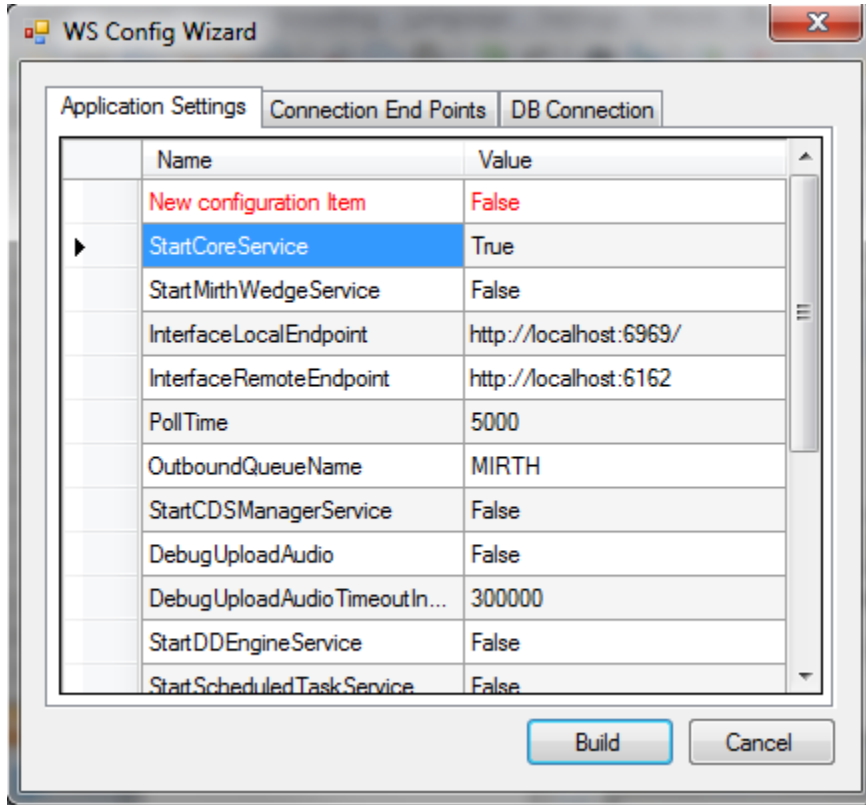
With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a “deploy” folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application “ServicesConfigWizard.exe”

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
Application Settings: all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

NOTE: the rRISServices.exe.config file is also included in the deploy folder. If this file has changes it **will not** update your current file in the Web Service directory. Any changes to this file will require a manual update of the rRISServices.exe.config and rRISServicesx64.exe.config files.

eRAD RIS Server Update



eRAD RIS Server Update

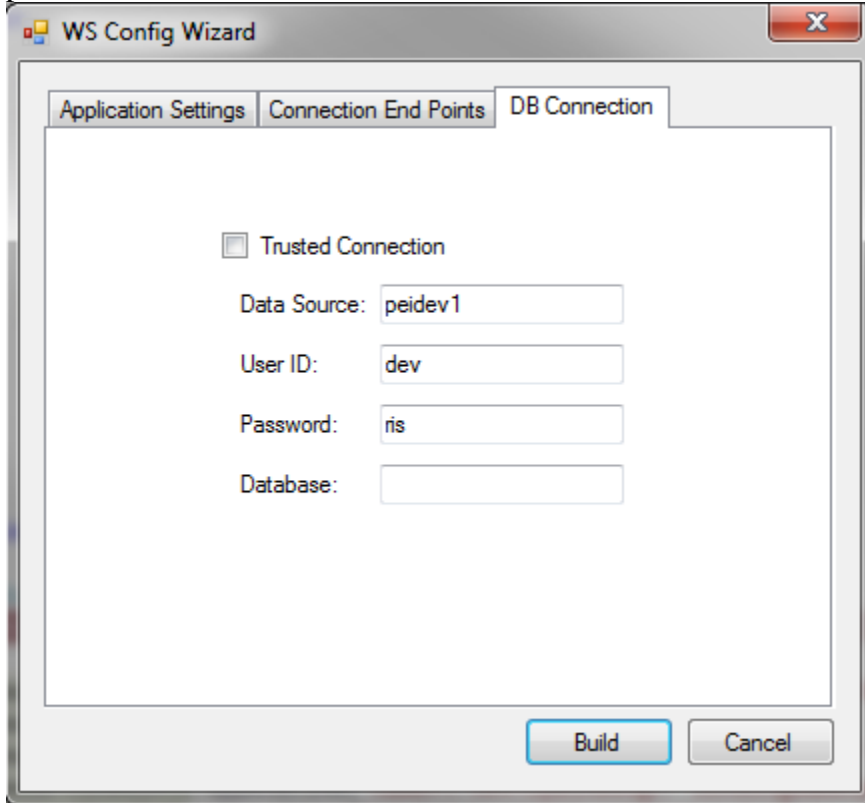
Connection End Points: will display the existing configuration, if the value is left blank then that entry will not be created, in the case of “Study Service” or “CDS Service” if both http and net.tcp were not provided then that endpoint will not be created at all.

The screenshot shows the 'WS Config Wizard' dialog box with the 'Connection End Points' tab selected. The dialog is divided into three sections: 'Study Service', 'Notify Service', and 'CDS Service'. Each section contains two rows of configuration fields. The 'Study Service' section has 'http://' with 'localhost:8040' and '/rRIS/' and 'net.tcp://' with 'localhost:8041' and '/rRIS/'. The 'Notify Service' section has 'net.tcp://' with 'localhost:7095' and '/rRIS/'. The 'CDS Service' section has 'http://' with 'localhost:7092' and '/rRIS/' and 'net.tcp://' with 'localhost:7093' and '/rRIS/'. At the bottom of the dialog are 'Build' and 'Cancel' buttons.

Service	Protocol	Host:Port	Path
Study Service	http://	localhost:8040	/rRIS/
	net.tcp://	localhost:8041	/rRIS/
Notify Service	net.tcp://	localhost:7095	/rRIS/
CDS Service	http://	localhost:7092	/rRIS/
	net.tcp://	localhost:7093	/rRIS/

eRAD RIS Server Update

DB Connection: will display the existing configuration, if the Connection is to be used as a trusted connection, then the user ID and password will become disabled and will not be used, and will rely on the provided database value, When not using the trusted connection, The Database value is not needed but can be used to force a specific database connection as long as the provided user has access to that database.



It is always good practice to do a compare of the .config files.

- 1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

Server Update

For eRAD RIS
Version 2.0
Build 44.7
Update 44.7.3

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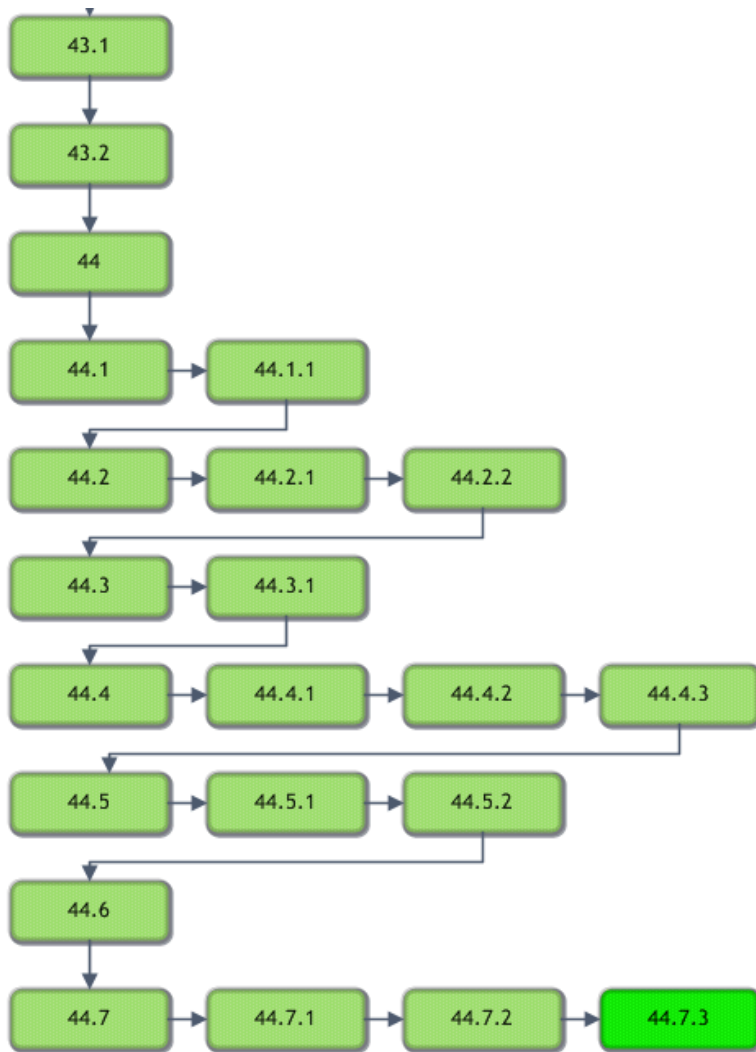
eRAD RIS Server Update

1. Resolved Items

Redmine #	Subject	Priority
12770	PACS integration is prompting the rads to much with message boxes after the new update	Normal

eRAD RIS Server Update

2. Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

3. Package Contents

 _ReleaseNotes	3/26/2012 11:02 AM	File folder
 ThickClient	12/23/2015 4:44 PM	File folder

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

Build 44.7 installs. This server update must be applied to 44.7.2

eRAD RIS Server Update

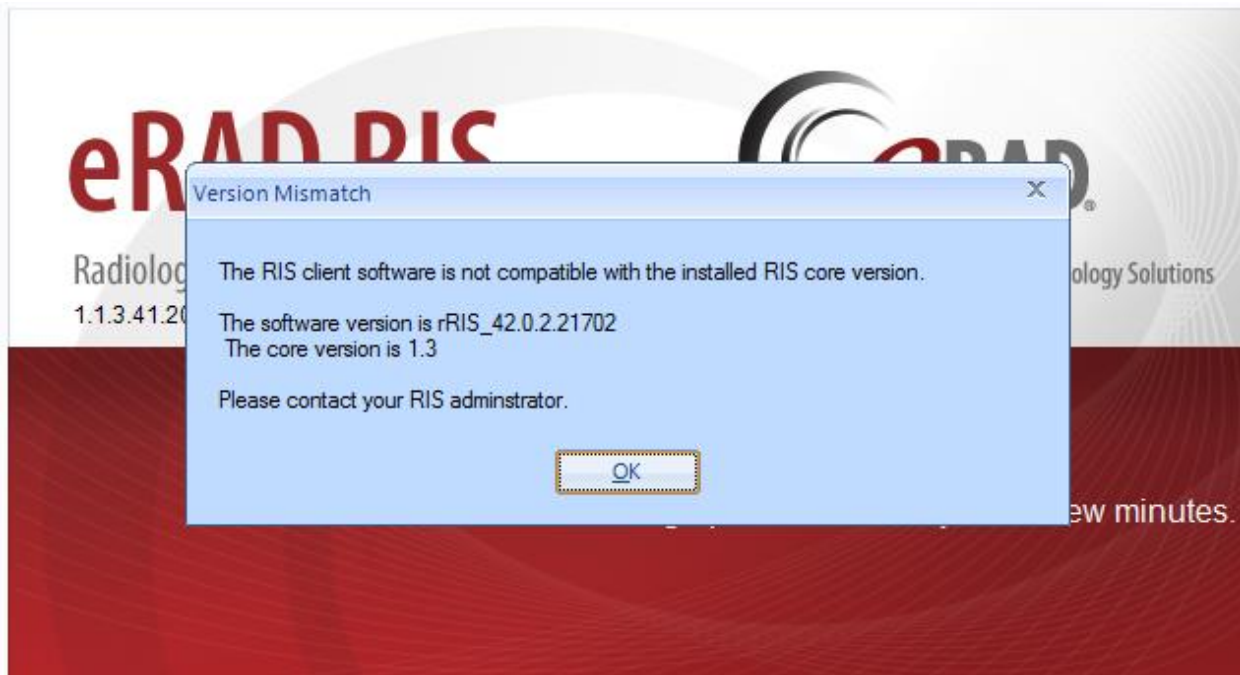
6. eRAD RIS Release Version Numbers

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 Service, DB
44.5	1	2.44.5.1.30451(3GB)	2.44.0.0.26405	2.44.5.1.30451	2.44.5.1.30449	Gui.zip, Web Service, DB
44.5	2	2.44.5.2.30705(3GB)	2.44.0.0.26405	2.44.5.1.30705	2.44.5.1.30554	Gui.zip, Web Service, DB
44.5	1	2.44.5.1.30451(3GB)	2.44.0.0.26405	2.44.5.1.30451	2.44.5.1.30449	Gui.zip, Web Service, DB
44.5	2	2.44.5.2.30705(3GB)	2.44.0.0.26405	2.44.5.1.30705	2.44.5.1.30554	Gui.zip, Web Service, DB
44.6	-	2.44.6.0.31341(3GB)	2.44.0.0.26405	2.44.6.0.31341	2.44.6.0.31182	Gui.zip, Web Service, DB
44.7	-	2.44.7.0.32205(3GB)	2.44.0.0.26405	2.44.7.0.32205	2.44.7.0.32125	Gui.zip, Web Service, DB, SQLReporting
44.7	1	2.44.7.1.32395(3GB)	2.44.0.0.26405	2.44.7.1.32395	2.44.7.0.32125	Gui.zip, Web Service
44.7	2	2.44.7.2.32694(3GB)	2.44.0.0.26405	2.44.7.2.32694	2.44.7.0.32125	Gui.zip, Web Service
44.7	3	2.44.7.2.32749(3GB)	2.44.0.0.26405	2.44.7.2.32694	2.44.7.0.32125	Gui.zip

7. Installing

Client/GUI

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.44.7.3.32749.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_44.7.3.32749→ rRIS_1.3.44.7.3.32749

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

Server Update

For eRAD RIS
Version 2.0
Build 44.7
Update 44.7.4

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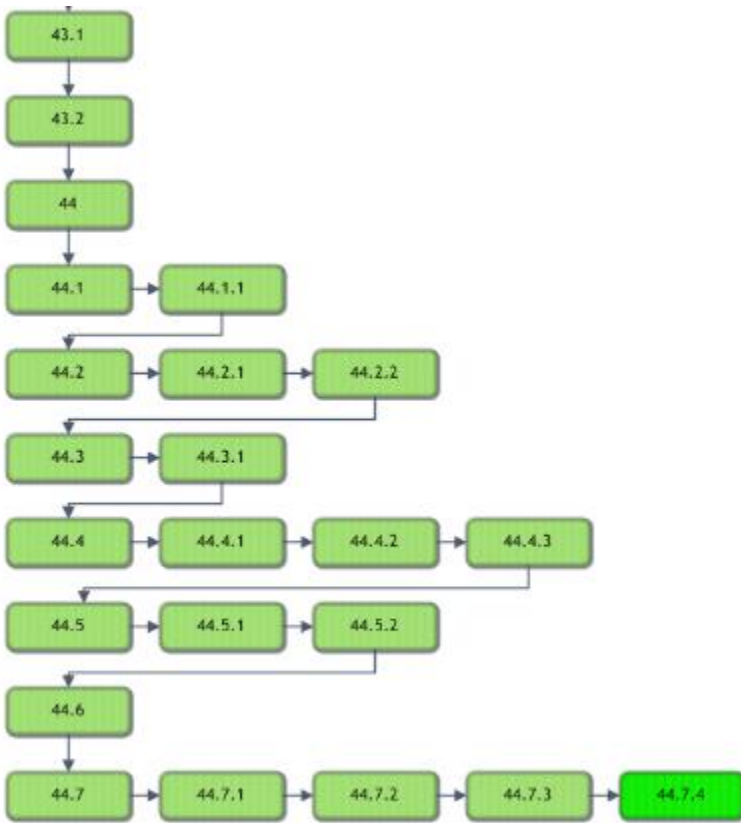
eRAD RIS Server Update

1. Resolved Items

Redmine #	Subject	Priority
12785	Insurance Eligibility - When scheduling with more than one insurance hourglass does not clear	Normal
12787	Insurance Eligibility - Timing issue results in incorrect 100% co-insurance amount	Normal

eRAD RIS Server Update

2. Code Stream



Legend:



Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

3. Package Contents

Name	Date modified	Type
 _ReleaseNotes	1/5/2016 1:29 PM	File folder
 ThickClient	12/31/2015 9:40 AM	File folder

4. Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

5. Who is affected

Build 44.7 installs. This server update must be applied to 44.7.2

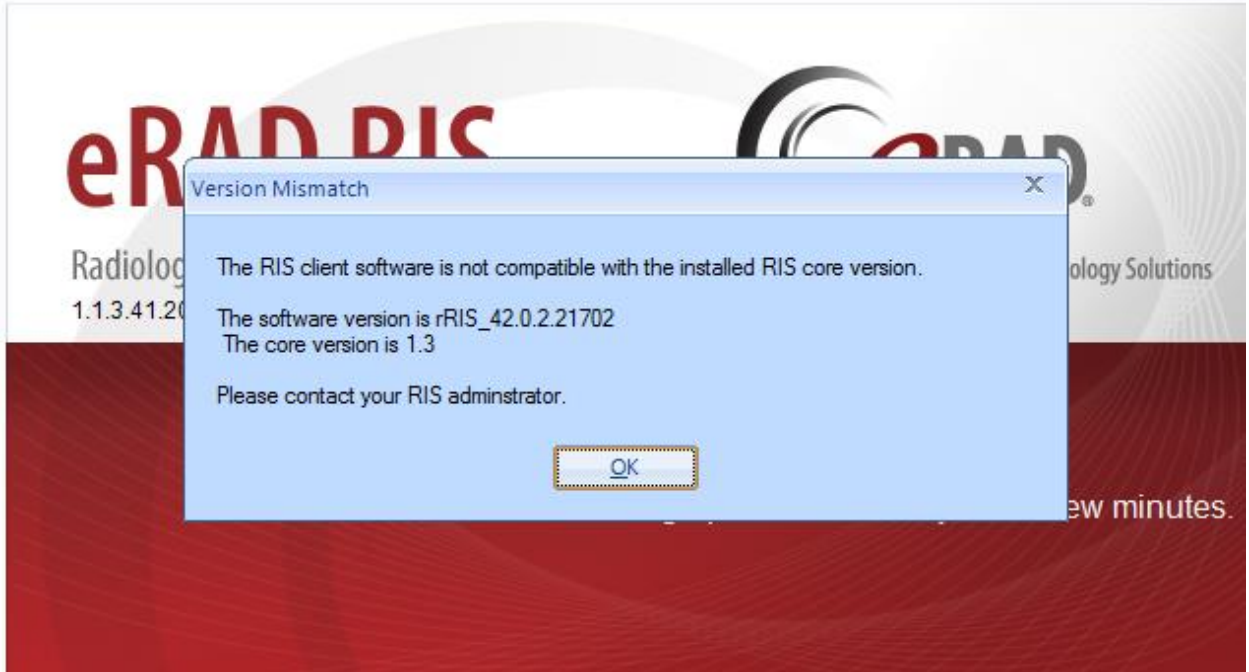
6. eRAD RIS Release Version Numbers

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 Service, DB
44.5	1	2.44.5.1.30451(3GB)	2.44.0.0.26405	2.44.5.1.30451	2.44.5.1.30449	Gui.zip, Web Service, DB
44.5	2	2.44.5.2.30705(3GB)	2.44.0.0.26405	2.44.5.1.30705	2.44.5.1.30554	Gui.zip, Web Service, DB
44.5	1	2.44.5.1.30451(3GB)	2.44.0.0.26405	2.44.5.1.30451	2.44.5.1.30449	Gui.zip, Web Service, DB
44.5	2	2.44.5.2.30705(3GB)	2.44.0.0.26405	2.44.5.1.30705	2.44.5.1.30554	Gui.zip, Web Service, DB
44.6	-	2.44.6.0.31341(3GB)	2.44.0.0.26405	2.44.6.0.31341	2.44.6.0.31182	Gui.zip, Web Service, DB
44.7	-	2.44.7.0.32205(3GB)	2.44.0.0.26405	2.44.7.0.32205	2.44.7.0.32125	Gui.zip, Web Service, DB, SQLReporting
44.7	1	2.44.7.1.32395(3GB)	2.44.0.0.26405	2.44.7.1.32395	2.44.7.0.32125	Gui.zip, Web Service
44.7	2	2.44.7.2.32694(3GB)	2.44.0.0.26405	2.44.7.2.32694	2.44.7.0.32125	Gui.zip, Web Service
44.7	3	2.44.7.3.32749(3GB)	2.44.0.0.26405	2.44.7.2.32694	2.44.7.0.32125	Gui.zip
44.7	4	2.44.7.4.32779 (3GB)	2.44.0.0.26405	2.44.7.2.32694	2.44.7.0.32125	Gui.zip

7. Installing

Client/GUI

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.44.7.3.32779.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_44.7.3.32779→ rRIS_1.3.44.7.3.32779

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

User Release Notes

for eRAD RIS
Version 2
Build 45

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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 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.45

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 2.45 is considered a new core release of the application and will require a reinstallation of eRAD RIS. 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. New Access Strings and Configuration Settings 45

Setting Placeholder	Setting	Default	Purpose / Controls Access to
Access string / User Group Permission tables	Clinical.AuditHistory.ShowReportPeerReviewed	None	Allows the user to see when reports were peer reviewed in the audit history
Access string / User Group Permission tables	Clinical.ChangeStatusCancelTechRepReqd	None	Controls access to the context menu option Change Status CancelTechRepReqd
Access string / User Group Permission tables	Clinical.ContrastTimer	None	Enables the user to start and reset the contrast timer on the Technologist WL
Access string / User Group Permission tables	Clinical.ExportIsraelMinistryOfHealth	None	Controls access to the menu item to export the XML for the Israeli Ministry of Health
Access string / User Group Permission tables	Clinical.PortalLauncher	None	Controls access to the context menu for the Portal Integration Window
Access string / User Group Permission tables	Clinical.QuickRadarMessage	None	Controls access to the context menu for the quick RADAR message feature
Access string / User Group Permission tables	Clinical.RadarMessage	None	Controls access to the context menu for the RADAR message feature
Access string / User Group Permission tables	Clinical.ReportEditor.AdvancedMenu	None	Enables access to the advanced menu in the eRAD report editor
Access string / User Group Permission tables	Clinical.VerifyReport	None	Controls access to the Verify Report button on the context menu on work lists
Access string / User Group Permission tables	Config.AllowEradReportingIntegration	None	Allows users access to turning on eRAD reporting workflow for themselves or other users if the current user has admin access
Access string / User Group Permission tables	Config.AllowExternalReportingIntegration	None	Allows users access to turning on External reporting workflow for themselves or

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			other users if the current user has admin access
Access string / User Group Permission tables	Config.AllowMModalReportingIntegration Replaces Config.AllowMModalConfig	Full	Allows users access to turning on M*Modal reporting workflow for themselves or other users if the current user has admin access
Access string / User Group Permission tables	Config.AllowPowerScribeReportingIntegration Replaces Config.AllowPowerScribeConfig	None	Allows users access to turning on PowerScribe reporting workflow for themselves or other users if the current user has admin access
Access string / User Group Permission tables	Config.LookupEditor.AccessString.AllowedToChangeDefaults	None	Controls access to editing the default access level code on access strings
Access string / User Group Permission tables	Config.LookupEditor.AccessString.CustomAccessStrings	None	Full access enables the user to add, edit and delete custom access strings
Access string / User Group Permission tables	Config.LookupEditor.AdditionalResource	None	lookup table access for Additional Resources
Access string / User Group Permission tables	Config.LookupEditor.AuditHistory	None	Allows the user to see the audit log for configuration changes.
Access string / User Group Permission tables	Config.LookupEditor.Autotext	None	lookup table access for Autotext
Access string / User Group Permission tables	Config.LookupEditor.BrowserConfig	None	Controls access to the Lookup Editor for the BrowserConfiguration used by the Portal Integration Window
Access string / User Group Permission tables	Config.LookupEditor.LogControl	None	lookup table access for Log Control
Access string / User Group Permission tables	Config.LookupEditor.OrderingOrganization	None	lookup table access for Ordering Organization

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Access string / User Group Permission tables	Config.LookupEditor.OverbookReason	None	lookup table access for Overbook Reason
Access string / User Group Permission tables	Config.LookupEditor.SystemMessage	None	Lookup table access for the System Messages currently used for Portal
Access string / User Group Permission tables	Config.LookupEditor.ValidationRules	None	lookup table access for ValidationRules
Access string / User Group Permission tables	Menu.File.UserPreferences	Full	Enables access to the User Preference menu option on the File menu.
Access string / User Group Permission tables	Portal.MIM	None	Allows access to the MIM section form the referring portal.
Access string / User Group Permission tables	Portal.PACS	None	Allows access to the PACS section form the referring portal.
Access string / User Group Permission tables	Portal.Referring	None	Allows access to the Referring Portal
Access string / User Group Permission tables	Portal.Referring.Admin	None	Allows access to the Referring Portal Administration Login
SystemConfig lookup	AllowedReportingIntegrationTypes	15	(value = sum of desired types where External = 1, MModal = 2, PS360 = 4 and eRAD = 8) Determines which reporting integration types are allowed on this system. The default equals all reporting modes as 1+2+4+8=15
SystemConfig lookup	DateFormat	MM-dd-yyyy	(value = string) The date format (i.e. MM-dd-yyyy). Only numeric dates are supported.
SystemConfig lookup	DaysToKeepClientErrorLog	60	(value = int) The number of days to keep an error log after

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			it has been generated.
SystemConfig lookup	DefaultAlternateMRNMask	AAAAAAAAAA	(value = string) Default mask for alternate MRNs. Mask rules: # = number only, A = alphanumeric and L = alpha only.
SystemConfig lookup	DictationArchiveCurrentLocation	N/A	DictationArchiveCurrentLocation
SystemConfig lookup	DictationArchiveDaysOfTheWeek	0,1,2,3,4,5,6	(value = string) A comma separated list of days that the dictation archive process will wake up to see if there is work. The list contains numbers representing the day number within the week, where: 0 is Sunday, 1 is Monday, 2 is Tuesday, 3 is Wednesday, 4 is Thursday, 5 is Friday, 6 is Saturday. For example, a value of 0,1,2,3,4,5,6 means that the archive process will run every day of the week.
SystemConfig lookup	DictationArchiveMaxThreads	6	(value = int) The maximum number of thread the dictation archive process can use within one process. Default is 6.
SystemConfig lookup	DictationArchiveServerNames	N/A	(value = string) A comma separated list of server names that are allowed to run the dictation archive service.
SystemConfig lookup	DictationArchiveStartTime	00:00:00	(value = time) The time of day in hh:mi format (24 hour) that the dictation archive process can wake up.
SystemConfig lookup	DictationArchiveStopTime	00:00:00	(value = time) The time of day in hh:mi format (24 hour) that the dictation archive process must stop. Does not have to be greater than DictationArchiveStartTime then the process will continue to the next day until the time is reached.

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SystemConfig lookup			(value = int) The maximum size in GB that the system will persist dictation directly in the db. When this value is exceeded the dictation archive process will begin (at its next run time interval) to move audio files to the archive.
	DictationMaxSizeInDB	2147483647	
SystemConfig lookup			(value = int) When dictation archiving is initiated, this is the minimum size in GB that the system will reduce the amount of dictations that are persist directly in the db.
	DictationMinSizeInDB	2147483647	
SystemConfig lookup			(value = bool) True to force user to select a zip code for signing
	EnforceZipcodeSelection	False	
SystemConfig lookup			(value = int) The Person key that will be used when sending secure messages for a non-user messaging instance, i.e. new account setup.
	GenericIncomingMessagePersonKey	-1	
SystemConfig lookup			(value = int) 1 - Imperial (Height - ft in / Weight - lbs), 2 - Metric (Height - cm / Weight - kg)
	HeightAndWeightFormat	1	
SystemConfig lookup			(value = DateTime yyyy-MM-dd) Date to define when to enable checking if height is required when scheduling or arriving the patient
	HeightRequiredEffectiveDate	1999-01-01	
SystemConfig lookup			(value = bool) True enables RIS to try to 'kill' or close the Word Viewer after opening legacy report in a new instance of the Word Viewer from the reporting screen.
	KillWordViewerAfterLegacyReport	True	
SystemConfig lookup			(value = bool) True enables RIS to try to 'kill' or close the Word Viewer before opening legacy report in a new instance of the Word Viewer.
	KillWordViewerBeforeLegacyReport	True	
SystemConfig lookup			URL that will be used for MIM image viewing
	MIMS_URL	N/A	

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SystemConfig lookup	OrderLevelLocking	False	(value = bool) True to lock the entire order at once
SystemConfig lookup	OverbookReasonFormat	1	(value = int) 1 - free text only, 2 - OverbookReason lookup only, or 3 - both free text and the OverbookReason lookup.
SystemConfig lookup	PhoneNumberFormatDisabled	False	(value = bool) True to disable the phone number format mask
SystemConfig lookup	PortalHelpRequestMessageGroup	N/A	The message group that Help request would be sent too. If no message group is defined then just email will be sent to the configured Portal's send to email address.
SystemConfig lookup	PortalImageMigrationToolUrl	N/A	(value = string) URL to custom migration tool for PACS Images.
SystemConfig lookup	PortalLauncherEnforceTimeoutInReportingScreen	True	(value = bool) Whether the PortalLauncherSessionTimeout is enforced when the Portal Launcher is open in the reporting screen
SystemConfig lookup	PortalLauncherSessionTimeout	20	(value = int) The amount of time, in minutes from when the Portal Launcher is opened until it automatically closes. -1 = infinite
SystemConfig lookup	PortalLauncherTabLocation	Left	(value = string) Possible values - Left, Right, Top, Bottom. Sets the location of the tabs in the portal launcher window.
SystemConfig lookup	PortalNewAccountRequestMessageGroup	N/A	The message group that New Account requests would be sent too. If no message group is defined then just email will be sent to the configured Portal's send to email address.
SystemConfig lookup	ReferringPortalDefaultExamTabCriteria	[{"name":"Completed","filter_criteria":{"DayRange":"90","progress_status":["Completed"]},"sort_criteria":{"patient_name":"ASC"},"display_order":1}, {"name":"Scheduled","filter_	(value = string) JSON value to define default filter tab view criteria for the referring portal exams tab.

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		criteria":{"DayRange":"90", "progress_status":["Scheduled"]}, "sort_criteria":{"patient_name":"ASC"}, "display_order":2}, {"name":"InProgress", "filter_criteria":{"DayRange":"90", "progress_status":["InProgress"]}, "sort_criteria":{"patient_name":"ASC"}, "display_order":3}]	
SystemConfig lookup	ReferringPortalDefaultOrderTabCriteria	[{"name":"Orders", "filter_criteria":{"DayRange":"7"}, "sort_criteria":{"patient_name":"ASC"}, "display_order":1}, {"name":"Under Review", "filter_criteria":{"DayRange":"90", "um_status":["MDReview", "NurseReview"]}, "sort_criteria":{"patient_name":"ASC"}, "display_order":2}, {"name":"Drafted", "filter_criteria":{"DayRange":"7", "um_status":["Received"]}, "sort_criteria":{"patient_name":"ASC"}, "system_criteria":{"RowCounter":"true", "RowCounterClass":"gray"}, "display_order":5}]	(value = string) JSON value to define default filter tab view criteria for the referring portal orders tab.
SystemConfig lookup	RegistrationRequiresSubscriberDOB	False	(value = true/false) True will require the subscriber's date of birth to be entered prior to arriving.
SystemConfig lookup	RISOutputFilePath	%ApplicationStartup %	(value = string) Path to directory where RIS will write output files.
SystemConfig lookup	ShowDOBCalendar	False	(value = bool) True shows the calendar selection control on Date Of Birth.
SystemConfig lookup	StartOfWeek	1	(value = int) numeric value of the first day of the work week: 0=Sunday...6=Saturday
SystemConfig lookup	TimeFormat	h:mm tt	(value = string) The time format (i.e. h:mm tt)
SystemConfig lookup	UMExpirationDays	90	(value = int) The number of days until an authorization expires.

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SystemConfig lookup	WalkinAddMinutes	0	(value = int) The amount of time in minutes to add to the scheduled start time for a walk in study.
SystemConfig lookup	WeekEndDays	0,6	Comma delimited list of the days of the normal weekend: 0=Sunday...6=Saturday
SystemConfig lookup	WeightRequiredEffectiveDate	1999-01-01	(value = DateTime yyyy-MM-dd) Date to define when to enable checking if weight is required when scheduling or arriving the patient
SystemConfig lookup	WorkWeekDays	1,2,3,4,5	Comma delimited list of the days of the normal work week: 0=Sunday...6=Saturday
SystemConfig lookup	ZipCodeCharacterMax	5	(value = int) Number of characters needed for zip code validation.
SystemConfig lookup	ZipCodeToAddressAutoFill	True	(value = bool) True to have address fields auto-filled when entering a zip code.
Applicationsetti ngs.config	ExternalInterfacePlugin	None	This setting contains the name of the plugin to use for sending messages out to an external system. See feature External Web Services Infrastructure for more information
Applicationsetti ngs.config	QueueItemReserveTime	25000	This setting determines how long the Wedge will reserve a queue item.
Applicationsetti ngs.config	DDEQueueItemReserveTime	25000	This setting determines how long the DDE will reserve a queue item.
Applicationsetti ngs.config	StartExternalInterfaceService	False	When set to True, this setting will enable the External Interface Web services. See feature External Web Services Infrastructure for more information
services.config	<service behaviorConfiguration="rRISBehaviorWithDebug" name="WCFSservice.ServiceImplementation.ExternalInterfaceServ	"http://localhost:7100/rRIS" />	Used with External Web Services Infrastructure. The server_name (localhost)

	<pre> ice"> <clear /> <endpoint address="wsI" binding="wsHttpBinding" bindingConfiguration="wsIBinding" name="wsI" bindingNamespace="http://www.radnet.com/PEI/RIS/ExternalInterfaceService" contract="WCFService.ServiceContract.IExternalInterfaceService" listenUriMode="Explicit"> </endpoint> <host> <baseAddresses> <add baseAddress="http://localhost:7100/rRIS" /> </baseAddresses> </host> </service> </pre>		<p>is determined by the host that is running the service. The port (7100) is determined by the endpoint configuration in the services.config configuration file.</p> <p>See feature External Web Services Infrastructure for more information</p>
<p>rRISServices.exe.config</p> <p>rRISServicesx64.exe.config</p>	<pre> <binding name="wsIBinding" maxReceivedMessageSize="5000000"> <security mode="None"/> </binding> </pre>	<p>None</p>	<p>Setting added under the wsHttpBinding node</p> <p>See feature External Web Services Infrastructure for more information</p>
<p>rRISServices.exe.config</p> <p>rRISServicesx64.exe.config</p>	<pre> </behavior> <behavior name="rRISBehaviorWithDebug"> <serviceMetadata httpGetEnabled="true" httpsGetEnabled="true" policyVersion="Policy15"/> <serviceDebug httpsHelpPageEnabled="true" httpHelpPageEnabled="true" includeExceptionDetailInFaults="true"/> <serviceCredentials> <serviceCertificate findValue="PEIDEV1" storeLocation="LocalMachine" storeName="My" x509FindType="FindBySubjectName"/> </pre>		<p>Setting added under serviceBehaviours node.</p> <p>See feature External Web Services Infrastructure for more information</p>

	<pre> <userNameAuthentication userNamePasswordValidationMode ="Custom" customUserNamePasswordValidato rType="WCFService.MyUserNamePa sswordValidator, WCFService"/> </serviceCredentials> <serviceThrottling maxConcurrentCalls="3000" maxConcurrentSessions="5000" maxConcurrentInstances="5000"/ > </behavior> </pre>		
--	--	--	--

Changes to RIS.exe.config file

The section <listeners> in the ris.exe.config file has been changed in this release. Below you will see the before and after. **Text highlight green** in the “after” displays the changes.

Before	After
<pre> rollFileExistsBehavior="Increment" rollInterval="Hour" header="" footer="" fileName="verbose_log/trace.log" formatter="SimpleTextFormatter" /> </listeners> </pre>	<pre> rollFileExistsBehavior="Increment" rollInterval="Hour" header="" footer="" fileName=" verbose_log/trace.log" formatter="SimpleTextFormatter" /> </listeners> </pre>

5. New Features and Enhancements

Language Localization and Right to Left Language Support

A framework has been constructed to allow other languages to be displayed and utilized in eRAD RIS. This framework consists mostly of a Microsoft standard resource file approach, however the decision was made to not simply use this framework verbatim, as under that model, each screen within RIS would have its own resource file leading to massive repetitiveness (and therefore inconsistency).

Therefore, the core of eRAD RIS application uses a single resource file called LANG.Resx. The deployment of this resource file is performed by the native Microsoft framework.

The first localization language is Hebrew. With this we are also supporting right to left language. All of the user based screens in eRAD RIS.

The configuration screens have not been localized.

Capture and Display Primary and Alternate Patient Names

The Patient tab can display two new fields extended on the patients first and last names. These new fields can be hidden by adding custom access strings

The screenshot shows the 'Patient' tab in the eRAD RIS system. The 'General Information' section contains fields for 'First', 'Last', and 'Middle' names. A red box highlights the 'First' and 'Last' name fields, indicating the alternate name fields mentioned in the text. Other fields include 'Sex', 'DOB', 'Birth place', and 'Father's name'. The 'Contact Information' section includes 'Address 1', 'Address 2', 'City', 'State', 'Zip', 'Country', 'Home phone', 'Work phone', 'Cell phone', 'Email', and 'Preferred contact method'. The 'Patient Origin' section includes 'Preferred language', 'Education level', 'Religion', 'Ethnicity', and 'Race'. The 'Family History' section is a table with columns for 'Relationship', 'Family History', 'Age At Diagnosis', and 'Age At Death'.

Figure 5.1 – Alternate Patient First and Last name fields

To remove this field from view on the patient tab, Service Personnel would need to create a customer access string.

An example would be having the Patients first and last names displayed in a native language, such as Hebrew, and the alternate first and last names displaying the English names (or vice versa)

Patient Search for Hebrew and English Patient Names

With data entered in the First and Last name fields, as well as data entered in the Alternate First and Last name fields we can use the Patient Search window to locate the patient using either of the names.

Upon searching for a patient, the new alternate name data will be shown in the existing alternate name columns. This column will display any historical names as well as the new alternate names (as historical alternate names).

The screenshot shows a 'Patient Search' window with the following search criteria:

- First Name: Robert
- Last Name: Cohen
- Birth Date: dd/MM/yyyy
- Phone #: (empty)
- MRN: (empty)
- Search Other Variations:

Buttons: Search, Reset, New Pt + Apt (dropdown)

First Name	Last Name	Middle Name	Birth Date	MRN	Issuer	Gender	Address	City	State	Home Phone	Mobile Phone	Matching Alternate MRN	Matching Alternate First Name	Matching Alternate Last Name
רוביט	כהן		05/05/1972	26800PE	system	M							Robert	Cohen

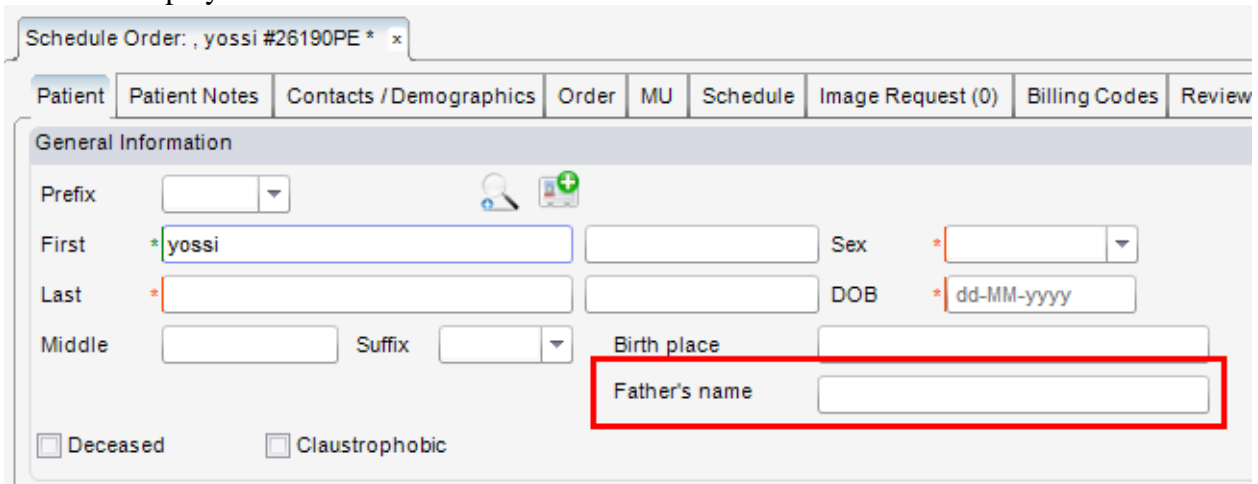
Figure 5.2 – Patient Search displaying both Hebrew and English names

In this screen capture the alternate name is the English name. When searching on the English name it displays under that column. The Hebrew name will display in the First and Last name fields.

Capture and Display Patients Fathers Name

In Israel, the father's name is used to reconfirm that the staff has the appropriate patient. The RIS must be able to capture and display the patient's father's name for reception and technologist roles

The field displayed below has been added to the Patient tab.



The screenshot shows a web interface for a patient record. At the top, there is a search bar containing 'Schedule Order: , yossi #26190PE *'. Below this is a navigation menu with tabs: Patient, Patient Notes, Contacts / Demographics, Order, MU, Schedule, Image Request (0), Billing Codes, and Review. The 'Patient' tab is selected. The main content area is titled 'General Information' and contains several input fields: Prefix (dropdown), First (text, value 'yossi'), Last (text), Middle (text), Suffix (dropdown), Sex (dropdown), DOB (text, format 'dd-MM-yyyy'), Birth place (text), and Father's name (text, highlighted with a red border). At the bottom, there are checkboxes for 'Deceased' and 'Claustrophobic'.

Figure 5.3 – Father's Name field on Patient tab

The field is enabled by default. To remove this field from view on the patient tab, Service Personnel would need to create a customer access string.

NOTE: creating custom access strings is new in Build 45. See feature in this document for more information

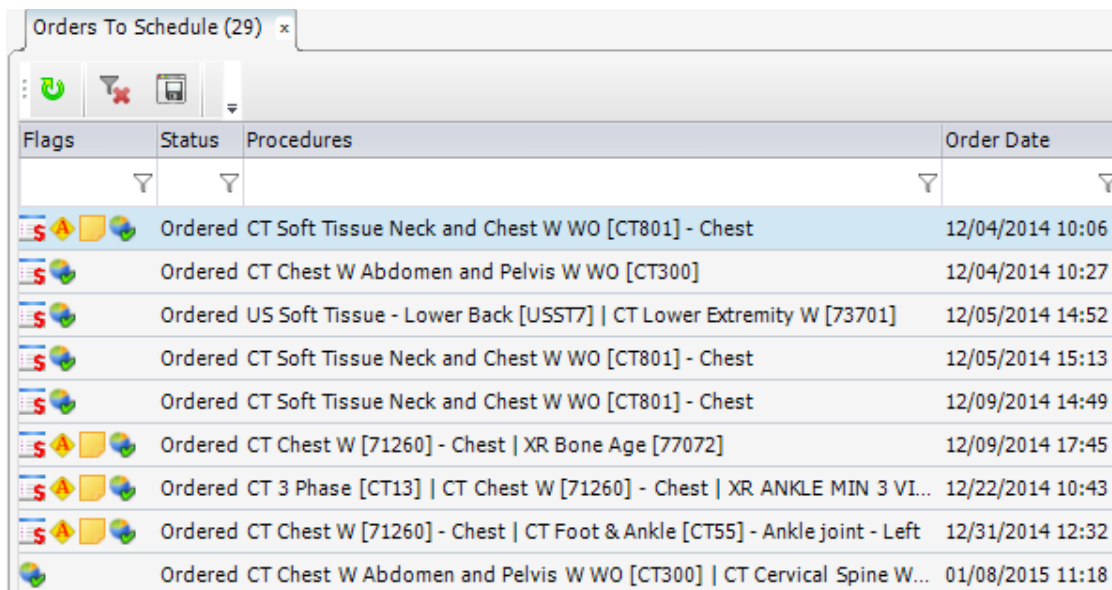
Support Configurable Date Format

eRAD RIS currently utilizes a hardcoded date format of “MM-dd-yyyy” throughout the application. Not all customers want to utilize this format, therefore it needs to be configurable.

A new system configuration setting of “**DateFormat**” has been added and has a default value of “MM-dd-yyyy”.

The DateFormat setting allows the system to be configured to use a specific date format.

For example if the customer would like slashes instead of dashes, DateFormat can be set to “MM/dd/yyyy”. **Please note that only numeric date formats are supported at this time. The format of dd/MMM/yyyy for example is not a valid date format that is supported in eRAD RIS.**



Flags	Status	Procedures	Order Date
S	Ordered	CT Soft Tissue Neck and Chest W WO [CT801] - Chest	12/04/2014 10:06
S	Ordered	CT Chest W Abdomen and Pelvis W WO [CT300]	12/04/2014 10:27
S	Ordered	US Soft Tissue - Lower Back [US5T7] CT Lower Extremity W [73701]	12/05/2014 14:52
S	Ordered	CT Soft Tissue Neck and Chest W WO [CT801] - Chest	12/05/2014 15:13
S	Ordered	CT Soft Tissue Neck and Chest W WO [CT801] - Chest	12/09/2014 14:49
S	Ordered	CT Chest W [71260] - Chest XR Bone Age [77072]	12/09/2014 17:45
S	Ordered	CT 3 Phase [CT13] CT Chest W [71260] - Chest XR ANKLE MIN 3 VI...	12/22/2014 10:43
S	Ordered	CT Chest W [71260] - Chest CT Foot & Ankle [CT55] - Ankle joint - Left	12/31/2014 12:32
	Ordered	CT Chest W Abdomen and Pelvis W WO [CT300] CT Cervical Spine W...	01/08/2015 11:18

Figure 5.4 – Example of date format with slashes instead of dashes on work list

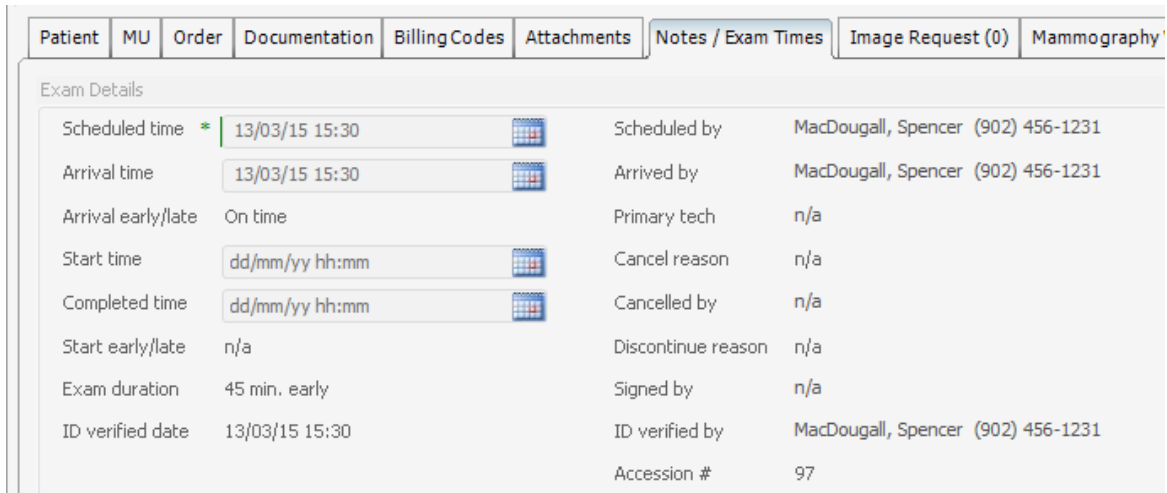


Figure 5.5 – Example of slashes instead of dashes on data window

It is also recommended that the DateFormat configuration value matches the short date format set on the client's workstation. The user will be promoted after login if the values do not match.

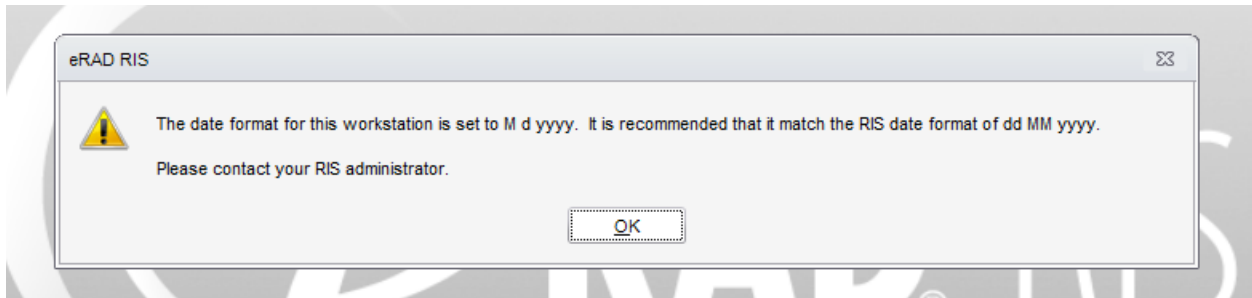


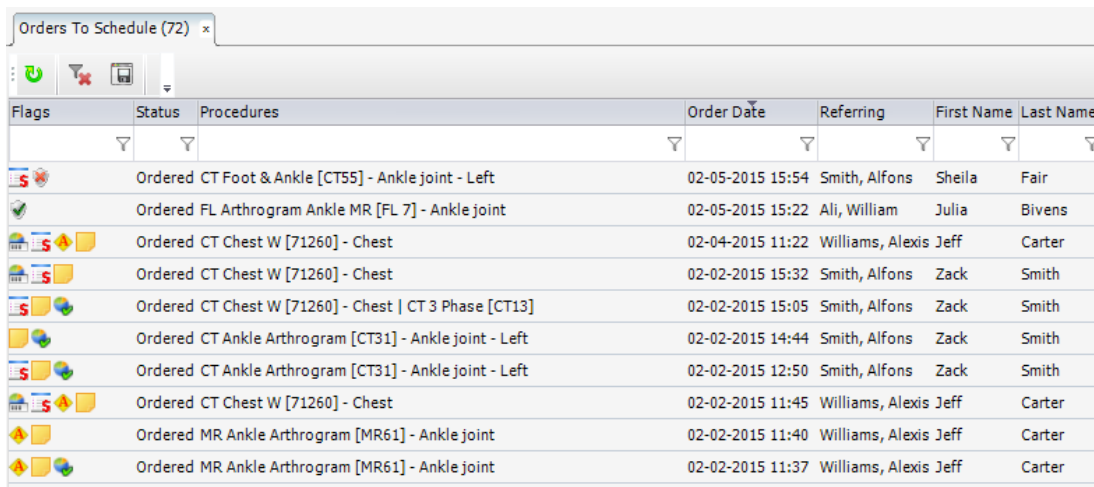
Figure 5.6 – Message on login of conflicting regional date format and system Configuration setting DateFormat

Support 24 Hour Time Format

Not all customers use the 12 hour clock as a standard. Therefore eRAD RIS is also required to display time in a 24 hour format.

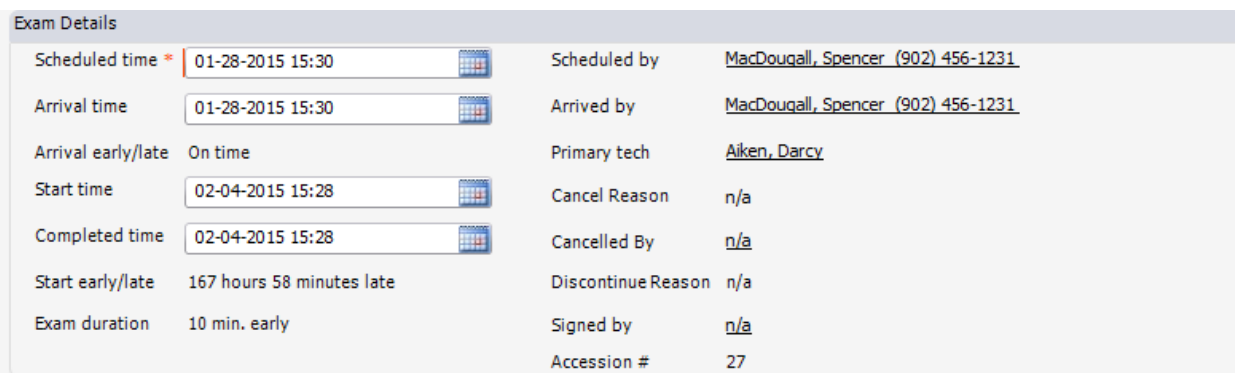
A new System Configuration value of “**TimeFormat**” has been added to the system with a default value of h:mm tt. All times that are displayed in the system (data forms, worklists, appointment book, etc.) will be based on this configuration value.

The TimeFormat setting allows the system to be configured to use a specific time format. The default value is “h:mm tt”. If the customer would like times displayed in a 24 hour format, the TimeFormat setting can be changed to “HH:mm”. If the customer wants the 12 hour format but would like to include the leading zero, the TimeFormat setting can be changed to “hh:mm tt”.



Flags	Status	Procedures	Order Date	Referring	First Name	Last Name
	Ordered	CT Foot & Ankle [CT55] - Ankle joint - Left	02-05-2015 15:54	Smith, Alfons	Sheila	Fair
	Ordered	FL Arthrogram Ankle MR [FL 7] - Ankle joint	02-05-2015 15:22	Ali, William	Julia	Bivens
	Ordered	CT Chest W [71260] - Chest	02-04-2015 11:22	Williams, Alexis Jeff		Carter
	Ordered	CT Chest W [71260] - Chest	02-02-2015 15:32	Smith, Alfons	Zack	Smith
	Ordered	CT Chest W [71260] - Chest CT 3 Phase [CT13]	02-02-2015 15:05	Smith, Alfons	Zack	Smith
	Ordered	CT Ankle Arthrogram [CT31] - Ankle joint - Left	02-02-2015 14:44	Smith, Alfons	Zack	Smith
	Ordered	CT Ankle Arthrogram [CT31] - Ankle joint - Left	02-02-2015 12:50	Smith, Alfons	Zack	Smith
	Ordered	CT Chest W [71260] - Chest	02-02-2015 11:45	Williams, Alexis Jeff		Carter
	Ordered	MR Ankle Arthrogram [MR61] - Ankle joint	02-02-2015 11:40	Williams, Alexis Jeff		Carter
	Ordered	MR Ankle Arthrogram [MR61] - Ankle joint	02-02-2015 11:37	Williams, Alexis Jeff		Carter

Figure 5.7 – Work list using 24 hour time format



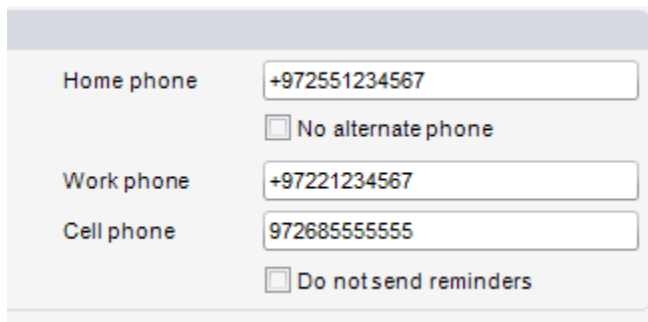
Exam Details			
Scheduled time *	01-28-2015 15:30	Scheduled by	MacDougall, Spencer (902) 456-1231
Arrival time	01-28-2015 15:30	Arrived by	MacDougall, Spencer (902) 456-1231
Arrival early/late	On time	Primary tech	Aiken, Darcy
Start time	02-04-2015 15:28	Cancel Reason	n/a
Completed time	02-04-2015 15:28	Cancelled By	n/a
Start early/late	167 hours 58 minutes late	Discontinue Reason	n/a
Exam duration	10 min. early	Signed by	n/a
		Accession #	27

Figure 5.8 – Data window using 24 hour time format

Support International Phone Numbers

eRAD RIS is designed to use a phone mask format of (###) ###-#### #####. This format is not acceptable for international customers. There is a requirement to allow the system to be configured to bypass the phone number mask.

A New System Configuration setting of “**PhoneNumberFormatDisabled**” with a default of false has been added to eRAD RIS. If the PhoneNumberFormatDisabled is set to true, the system will ignore the phone number mask and allow the user to enter up to 20 numeric characters. The validation that requires a phone number filed to be at least 10 characters also gets removed when the PhoneNumberFormatDisabled is set to true.



The screenshot shows a user profile form with the following fields and options:

- Home phone: +972551234567
- No alternate phone
- Work phone: +97221234567
- Cell phone: 97268555555
- Do not send reminders

Figure 5.9 – Phone number mask removed

Support Metric Height and Weight

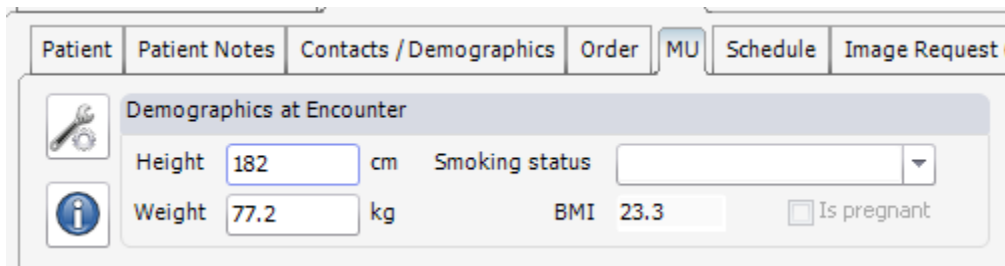
eRAD RIS is currently hardcoded to the US standard of feet and inches for height and pounds for weight. The system must support both metric and imperial height and weight formats.

A new System Configuration setting of “**HeightAndWeightFormat**” has been added with a default value of 1.

HeightAndWeightFormat can be set to 1 for Imperial or 2 for Metric.

1. Imperial (Height - ft in / Weight - lbs)
2. Metric (Height - cm / Weight - kg)

The HeightAndWeightFormat will display the patient demographics at encounter in Imperial or Metric formats.



The screenshot shows a software interface with a navigation bar at the top containing tabs: Patient, Patient Notes, Contacts / Demographics, Order, MU, Schedule, and Image Request. Below the navigation bar is a section titled 'Demographics at Encounter' with a gear icon on the left. The form contains the following fields: Height (182) cm, Smoking status (dropdown menu), Weight (77.2) kg, BMI (23.3), and Is pregnant (checkbox).

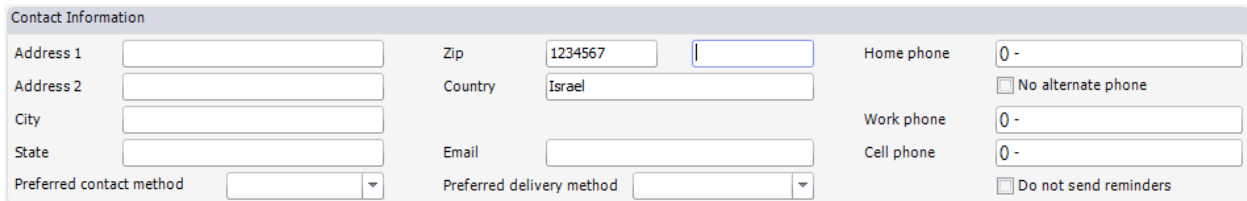
Figure 5.10 – Height and weight displayed in metric

Zip Code (Postal Code) changes

Two new System Configuration settings have been added to allow for different lengths of postal codes.

The first setting of “**ZipCodeCharacterMax**” has been added with a default value of 5. This setting controls the number of characters required for validation.

The second new setting is “**ZipCodeToAddressAutoFill**” which has a default value of True. When set to False, the State and Country fields will not auto-populate.



The screenshot shows a 'Contact Information' form with the following fields and values:

Address 1	<input type="text"/>	Zip	1234567 <input type="text"/>	Home phone	0 - <input type="text"/>
Address 2	<input type="text"/>	Country	Israel		<input type="checkbox"/> No alternate phone
City	<input type="text"/>			Work phone	0 - <input type="text"/>
State	<input type="text"/>	Email	<input type="text"/>	Cell phone	0 - <input type="text"/>
Preferred contact method	<input type="text"/>	Preferred delivery method	<input type="text"/>		<input type="checkbox"/> Do not send reminders

Figure 5.11 – Zip code field allowing more than 5 characters

Limit the Number of Open Patient Tabs via User Groups

A new column has been added to the User Group lookup table. The column of Maximum Open Patient Tabs will determine how many patient tabs are permitted to be opened for a user that belongs to the User Group.

Group Name	Description	Display Order	Maximum Open Tabs	Maximum Open Patient Tabs	Display In Portal Flag	Portal Display Name
Contains: ▾	Contains: ▾	Equals: ▾	Equals: ▾	Equals: ▾	Contains: ▾	Contains: ▾
✳ Click here to add a new row						
MammoTech	Mammo Technician	13	20	1	N	
SchedulingAdmin	Scheduling Admin	8	20	20	N	
Technologist	Technologist	3	20	1	N	
Radiologist	Radiologist	6	45	20	N	
Administrator	Administrator	4	20	20	N	

Figure 5.12 – UserGroup lookup table displaying new column Maximum Open Patient Tabs

If a user attempts to open more than their allowable amount of patient tabs, they will receive a message informing they must close one before they can proceed.

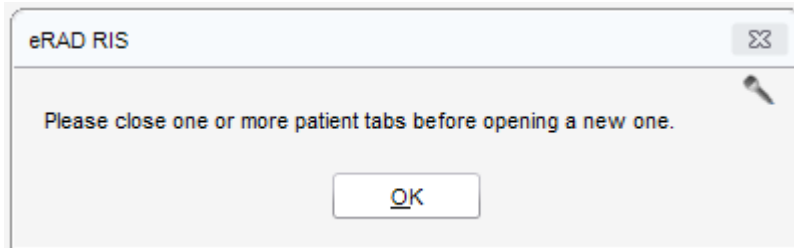


Figure 5.13 – Informative message if attempt to open more than allowed patient tabs

If the user belongs to multiple user groups, the user group with the larger value for Maximum Open Patient Tabs will be used. For example, looking at the User Group figure above, if the user belongs to both the Technologist and Administrator User Groups they will be permitted to have 20 patient tabs open.

Order Level Locking

In Build 42 eRAD RIS introduced Non Order Level Locking. In Build 45 eRAD RIS will again support order level locking.

Order level locking will be controlled by a new system configuration setting of “**OrderLevelLocking**” which has a default of False to maintain our existing screen based strategy or True to lock the entire order

The Radiologist work lists have been modified so that they were no longer looking for locks that end with the word Report. Without this change, the locked by column was always null.

When a user attempts to open a locked order they will be given the option to open in read only mode or simply close. There is also an option to break lock, which is permission based so it can be available to administrators only.

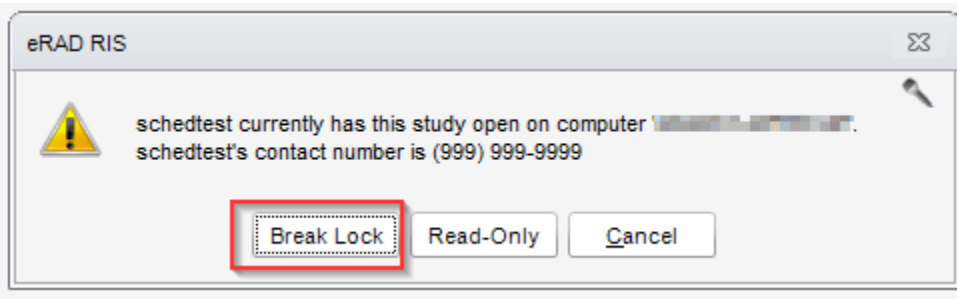


Figure 5.14 – Locking message. The Break Lock button is permission based

Ability to Hide Controls and Data Fields

We have many fields in eRAD RIS which are not relevant to all customers. We have an existing pattern in eRAD RIS for controlling access via access strings. We have included the ability to create custom access strings to show/hide.

This is for the **SERVICE** team only. We have constructed a dynamic access string pattern which will behave in the following manner: Some access strings can now be created by the service team. Based on a predictable known naming convention, the access string will be able to control access to elements without custom code being added to eRAD RIS. At this point, the framework supports 2 patterns – one to control data capture/display elements (ie, fields) and another to control the visibility of an entire tab.

System owned access strings will not be editable in the look up editor, only custom access strings.

Data Fields

For these access strings, the acceptable values are:

- FULL (can read and write)
- DISABLED/READONLY (visible, but greyed-out and cannot be modified)
- NONE (not visible)

We do not implement a true ‘READONLY’ at this time (which would be a non-greyed out control that is not editable). We felt it was not clear to the user that they could not modify the field, as it appears the same as a FULL access field.

Tabs

As mentioned, tabs can also be hidden from view. A custom access string can be created by Service Personnel.

For Tab access strings the following values are acceptable.

- FULL (tab is visible and user can click on it)
- DISABLED/READONLY/NONE (tab is not visible)

Legacy Reports Opening in Microsoft Word Viewer

The system now supports listing a file type in the c_legacy_report table. If the file type is WORD then the system will load the legacy reports in the Microsoft Word Viewer. The files are served to eRAD RIS application from the web service and are saved in a temporary location, similar to existing PDF legacy report functionality.

eRAD RIS will delete the temp file when Microsoft Word Viewer is closed by the user.

If the user leaves the Microsoft Word Viewer open, then when eRAD RIS closes, the viewer will be force killed (this is required to remove the file lock) and the temporary file will be deleted. The Microsoft Word Viewer is read only.

There are two new System Configuration settings for this feature.

“**KillWordViewerBeforeLegacyReport**” with a default value of True. True enables RIS to try to 'kill' or close the Word Viewer before opening legacy report in a new instance of the Word Viewer.

“**KillWordViewerAfterLegacyReport**” with a default value of True. True enables RIS to try to 'kill' or close the Word Viewer after opening legacy report in a new instance of the Word Viewer from the reporting screen.

Support Domain Single Sign On

User will launch RIS with a new command line switch /SSO to invoke single sign on. When a user logs onto their workstation, selecting the eRAD RIS icon from the desktop will automatically log that person in.

This of course only works with Domain users. If the user account created in eRAD RIS and is using eRAD RIS authentication SSO will not work.

There are also a few features within eRAD RIS that doesn't support SSO.

Credential Swap, UI Locking and Logout as they aren't compatible with the SSO model. Also PACS integration will be an issue as we don't have the client's username and password to pass to the PACS server so a user who wishes to launch the PACS viewer will be forced to login the first time.

The user preference for UI locking will be disabled

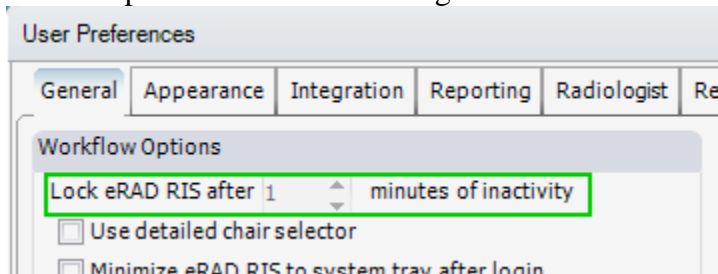


Figure 5.15 – User preference disabled because of Single Sign On

Configurable Client File Storage Paths

In previous versions most files were written to the directory in which the application was running from, which was the users profile directory. With the support of Citrix, we will need to have the ability to write the files configurable.

A new System Configuration setting of “**RISOutputFilePath**” has been added with a default value of %ApplicationStartup%.

RIS now uses this path and then tags it with a folder that matches the current users username and writes output files in that location instead of just in the current start up folder

This value supports a few values that act like environment variables. Here are the available variables you can use instead of an actual path:

%ApplicationData%	= "C:\\Users\\\$user_account\\AppData\\Roaming"
%LocalApplicationData%	= "C:\\Users\\\$user_account\\AppData\\Local"
%CommonApplicationData%	= "C:\\ProgramData"
%MyDocuments%	= "C:\\Users\\\$user_account\\Documents"
%DesktopDirectory%	= "C:\\Users\\\$user_account\\Desktop"
%ApplicationStartup%	= current value AKA RIS's runtime location

The value can also be just a path like “C:\\some\\folder\\location”.

The actual path where the files will be written can have a folder added to it that contains the current logged in username (RIS username). You would add another value to your path: %UserName%.

Let's imagine the current logged in user's username is 'TestUser' and the RISOutputFilePath is set to “C:\\some\\folder\\location%UserName%”. The resulting file location will be “**C:\\some\\folder\\location\\TestUser**”.

RIS will test the path on login. If it cannot write and delete a test file in this location the follow error:

“Error with output file path” + exception message.

Portal Launcher

Customers require integrations with several portals from within RIS. These various portals require us to be able to pass over various pieces of data in the URL as well as to perform validation on whether a given portal is available for a study/order.

Users now have the option from the Patient folder to launch the portal viewer. A new window in the RIS that contains a tab for each configured portal. The viewer automatically passes data regarding the Patient/Study/Order to the portal via the URL. The portal viewer is also available via a Tool window – for the radiologists.

This feature has 3 new System Configuration settings and 2 new Access Strings:

System Config settings

PortalLauncherSessionTimeout – Amount of time in minutes before the Portal Launcher window will close automatically. Default: 20

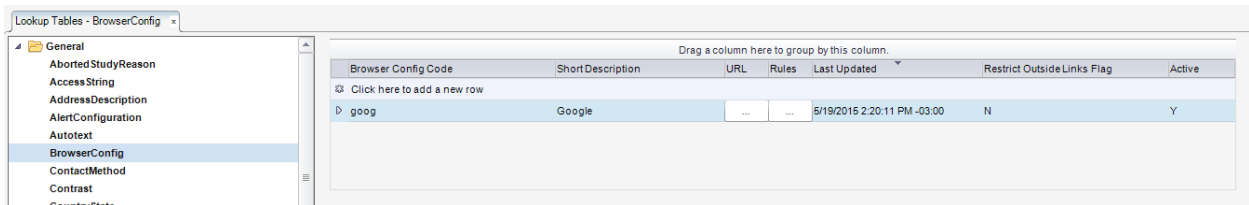
PortalLauncherEnforceTimeoutInReportingScreen - Whether or not any configured timeout will apply when the portal window is open in the reporting screen. Default: True

PortalLauncherTabLocation – Sets location of tabs in portal launcher. Default: Left

Access Strings

Config.LookupEditor.BrowserConfig – Controls access to the BrowserConfig Lookup Editor

Clinical.PortalLauncher – Controls the ability to launch the portal viewer from the patient folder and the radiologist tool windows.



Browser Config Code	ShortDescription	URL	Rules	Last Updated	Restrict OutsideLinks Flag	Active
goog	Google	5/19/2015 2:20:11 PM -03:00	N	Y

Figure 5.16 – BrowserConfig lookup table

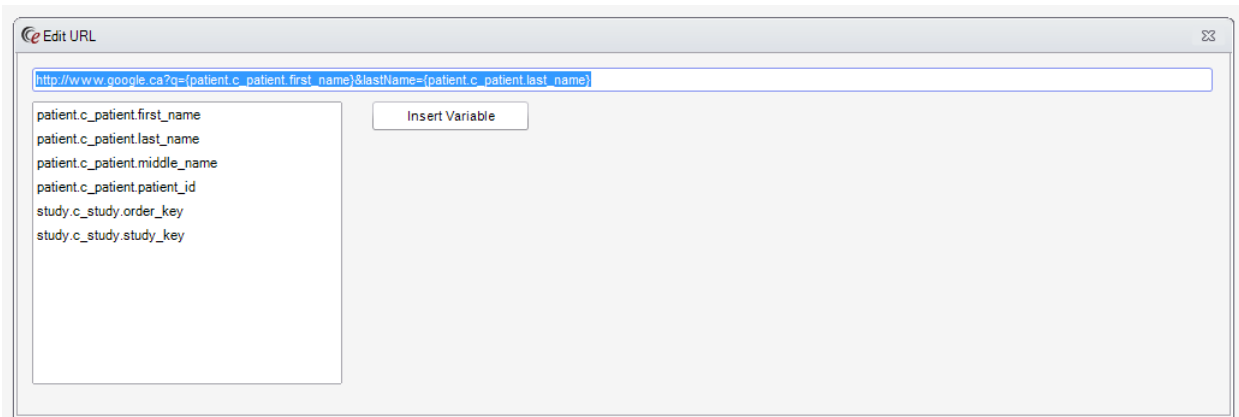


Figure 5.17 – Window opened from URL button

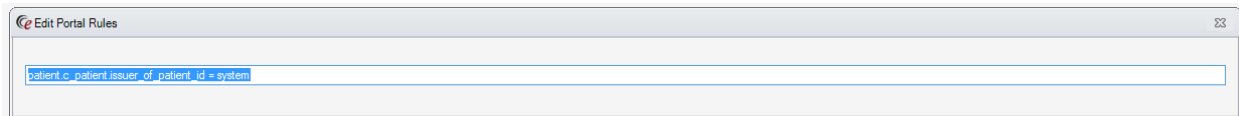
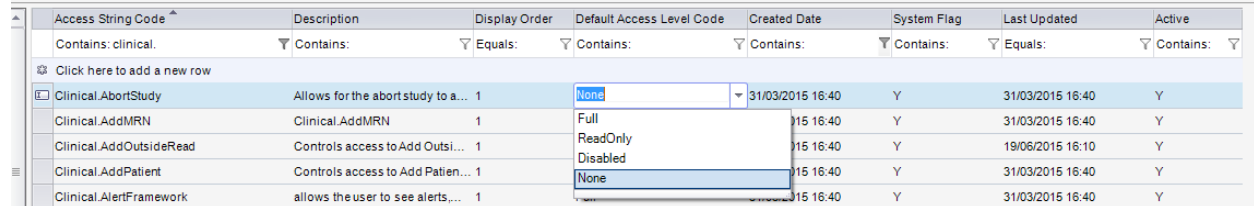


Figure 5.18 – Editor Portal rules window

Configurable Default Value on Access String table

The default level of access on the Access String table has been locked down for quite some time.

In Build 45, the Default Access Level Code is once again available. A user can change the default value of the access string and keep it that way after every upgrade.



Access String Code	Description	Display Order	Default Access Level Code	Created Date	System Flag	Last Updated	Active
Contains: clinical.	Contains:	Equals:	Contains:	Contains:	Contains:	Equals:	Contains:
Click here to add a new row							
Clinical.AbortStudy	Allows for the abort study to a...	1	None	31/03/2015 16:40	Y	31/03/2015 16:40	Y
Clinical.AddMRN	Clinical.AddMRN	1	Full	15 16:40	Y	31/03/2015 16:40	Y
Clinical.AddOutsideRead	Controls access to Add Outsi...	1	ReadOnly	15 16:40	Y	19/06/2015 16:10	Y
Clinical.AddPatient	Controls access to Add Patien...	1	Disabled	15 16:40	Y	31/03/2015 16:40	Y
Clinical.AlertFramework	allows the user to see alerts...	1	None	15 16:40	Y	31/03/2015 16:40	Y

Figure 5.19 – Ability to change the Default Access Level Code value

The ability to change the Default Access Level Code is controlled by the access string “**Config.lookupeditor.AccessString.AllowedToChangeDefaults**” which has a default value of None. If FULL the user can edit the default values for access strings.

Configurable Weekday, Weekend and Start of Week Values

In eRAD RIS today the work week is Monday-Friday, weekends are Saturday and Sunday. The work week starts on Monday. In Israel to support Hebrew localization, the work week starts on Sunday thru Thursday and the weekend is Friday and Saturday. We needed a method to change these values.

Three new system configuration settings have been added to control this behaviour. The days are numbered as such: 0=Sunday, 1=Monday, 2=Tuesday, 3=Wednesday, 4=Thursday, 5=Friday and 6=Saturday

“**WorkWeekDays**” which has a default of 1,2,3,4,5, will determine the days of the work week

“**WeekEndDays**” which has a default of 0,6 will determine the days of the weekend

“**StartOfWeek**” with a default value of 1 will determine the first day of the week.

WorkWeekDays and WeekEndDays will determine how to apply the repeating restrictions and closures in the availability template.

StartOfWeek will determine the first day listed for Time Ranges in the Availability Template

Time Ranges:							
Monday			Tuesday				
Start	End	Reservation	Start	End	Reservation	Start	End
✳ Click here to add a new row			✳ Click here to add a new row			✳ C	
8:00 AM	2:00 PM		8:00 AM	7:00 PM		8:	

Figure 5.20 – StartOfWeek = 1 so Monday is the first day listed

Time Ranges:							
Sunday			Monday				
Start	End	Reservation	Start	End	Reservation	Start	End
✳ Click here to add a new row			✳ Click here to add a new row			✳ Click	
8:00 AM	5:00 PM		8:00 AM	2:00 PM		8:00	

Figure 5.21 – StartOfWeek = 0 so Sunday is the first day listed

It will also determine the first day listed in the Day and time search options on the Schedule tab

Day and time options

<input checked="" type="checkbox"/> Monday	Monday
<input checked="" type="checkbox"/> Tuesday	Earliest
<input checked="" type="checkbox"/> Wednesday	07:00
<input checked="" type="checkbox"/> Thursday	
<input checked="" type="checkbox"/> Friday	Latest
<input checked="" type="checkbox"/> Saturday	22:00
<input checked="" type="checkbox"/> Sunday	

Search Range

Start Date: 29/06/2015

End Date: 05/07/2015

Search

Figure 5.22 – StartOfWeek = 1 Monday is the first day listed

Day and time options

<input checked="" type="checkbox"/> Sunday	Sunday
<input checked="" type="checkbox"/> Monday	Earliest
<input checked="" type="checkbox"/> Tuesday	07:00
<input checked="" type="checkbox"/> Wednesday	
<input checked="" type="checkbox"/> Thursday	Latest
<input checked="" type="checkbox"/> Friday	22:00
<input checked="" type="checkbox"/> Saturday	

Search Range

Start Date: 29/06/2015

End Date: 05/07/2015

Search

Figure 5.23 – StartOfWeek = 0 so Sunday is the first day listed

Resource Type Changes in Personnel Editor

A new lookup table titled AdditionalResource has been added under the User folder on the Administration>Configure menu. The AdditionalResource access is controlled by new access string of “**Config.LookupEditor.AdditionalResource**” that has a default access level of Full.

The lookup table columns are Additional Resource Code, Description, Display Order, Last Updated and Active. The codes added to this table will then be available in a new field in the Personnel table under the Resource tab. This field is a multi-type ahead control that allows the person to belong to multiple resource groups.

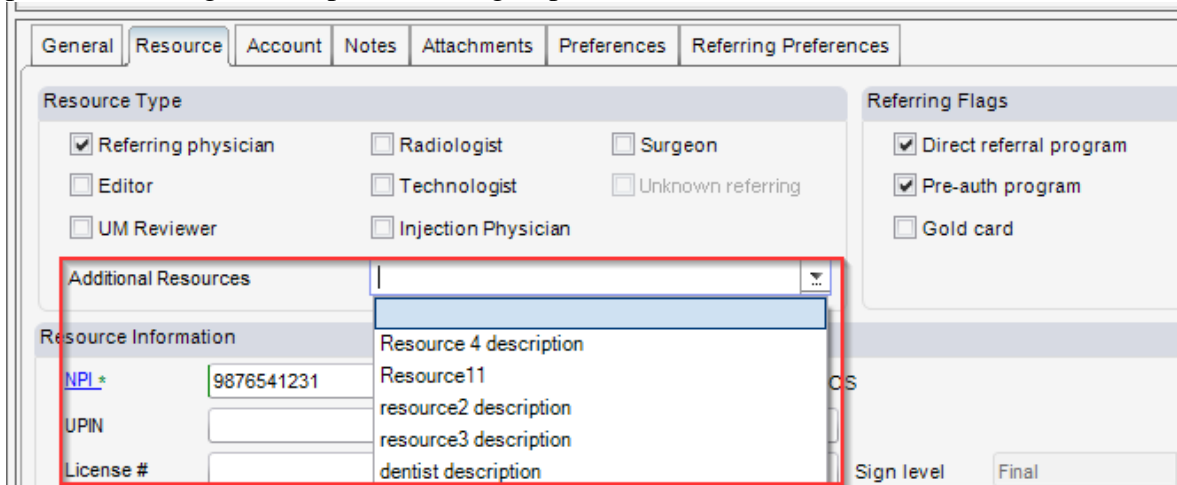


Figure 5.24 – Additional Resources field in Personnel Editor

Also a new Resource Type has been added. The Injection Physician checkbox option is available.

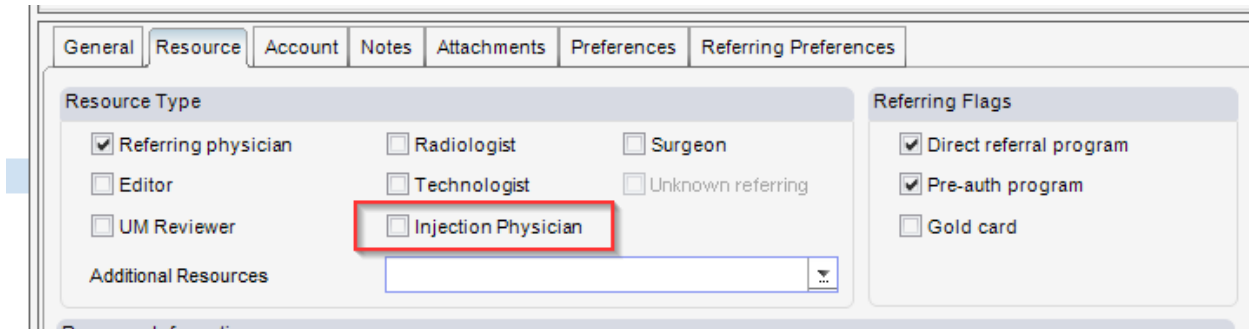


Figure 5.25 – Injection Physician Resources field in Personnel Editor

This will also be a Type option in the Internal Person Search window and display in the Resource Details column.

Patient Search – Search by License

The patient search window now allows the user to search by the Physician License #.

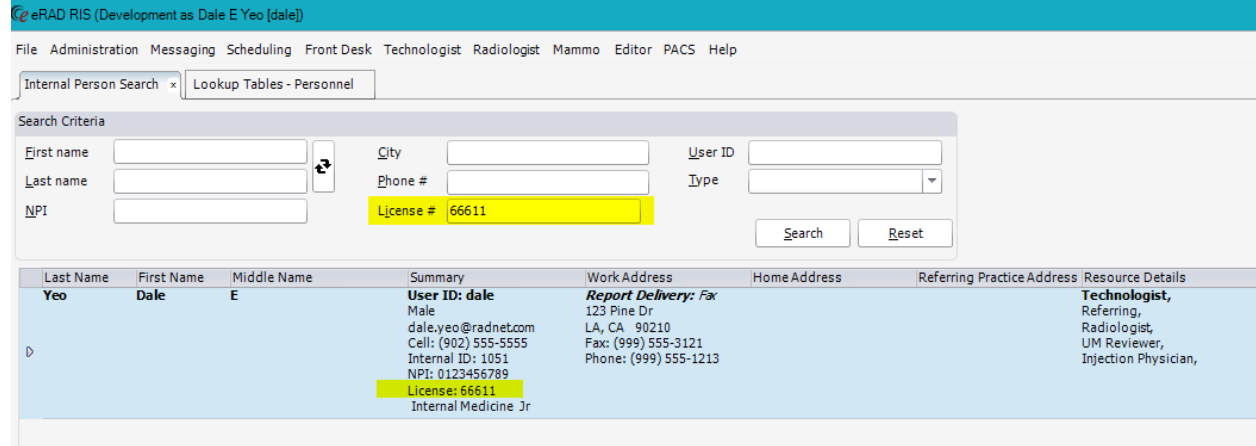


Figure 5.26 – License # search option

The License field being referenced in the search is based on the highlighted field in the screenshot below from the personnel editor.

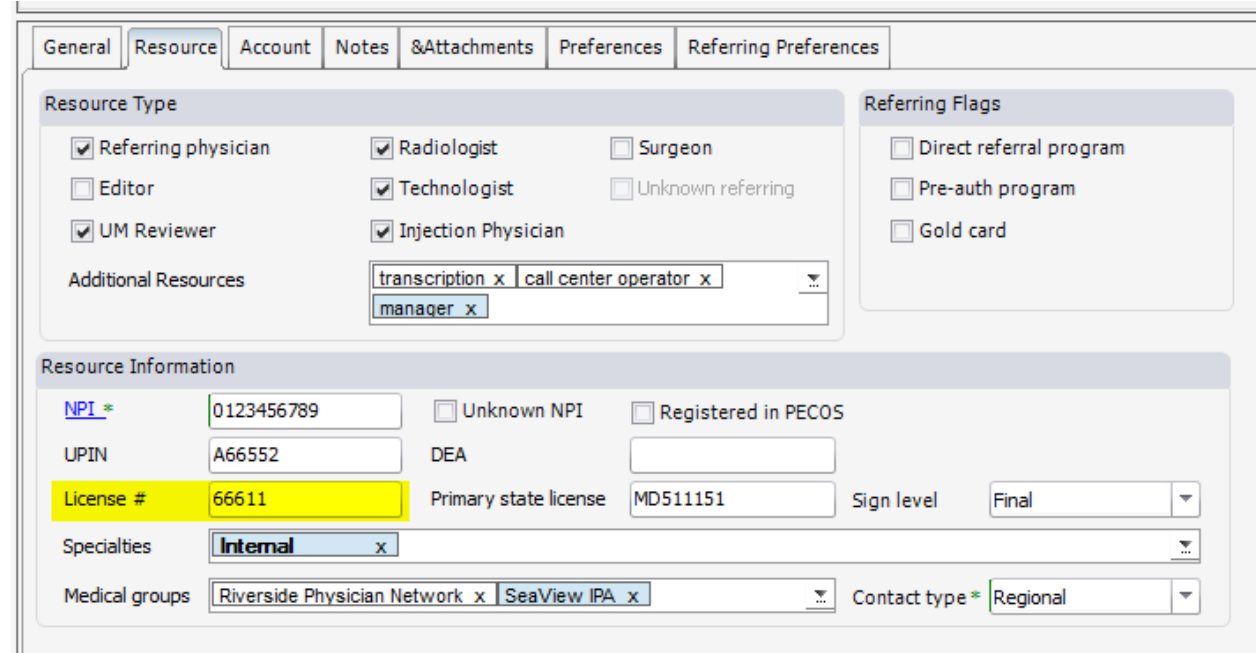


Figure 5.27 – License # field in Personnel Editor

Personnel Editor Message on Referring Address

Although the screen will not delete an address that is already in use, to be standard it should prompt "Are you sure you want to remove this address" before proceeding.

A confirmation message "Are you sure you want to remove this address?" has been added when the Remove button is selected with an address selected in the Contact Information section of the General tab.

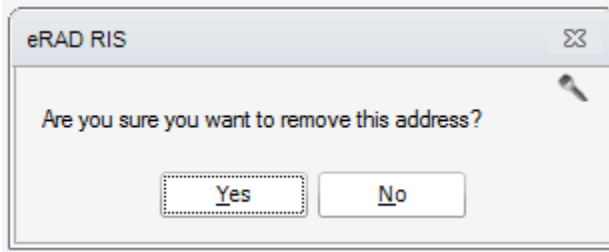


Figure 5.28 – Confirmation message choosing to remove address from Personnel Editor.

Site Lookup Table Changes

In previous versions the Organization>Site window has been refactored. The look and feel is now the same as the Practice window.

It has the same functionality as before, except we now have data grouped in a tab page as shown in the following:

The screenshot shows a software window titled "Add/Edit Site". It features a "Details" section with various input fields and checkboxes. The "Address" section is currently selected, showing a tabbed interface with "Address" as the active tab. The "Address" tab contains several input fields for site location information.

Field	Value
Site code *	EL
Description*	Eldersburg
Phone #	4434367100
Fax #	4434367132
Discproducer path	V:\
PACS child server	PEI Child PACS 2
Report template path	
Availability template	93
Mammography tracking enabled	<input checked="" type="checkbox"/>
Disable BI_RADS controls	<input type="checkbox"/>
Outside read location	<input type="checkbox"/>
Insurance required	<input type="checkbox"/>
MU required	<input checked="" type="checkbox"/>

Field	Value
Address 1	1430 Progress Way
Address 2	Suite 108
City	Eldersburg
State	MD
Zip code	21784
Country	

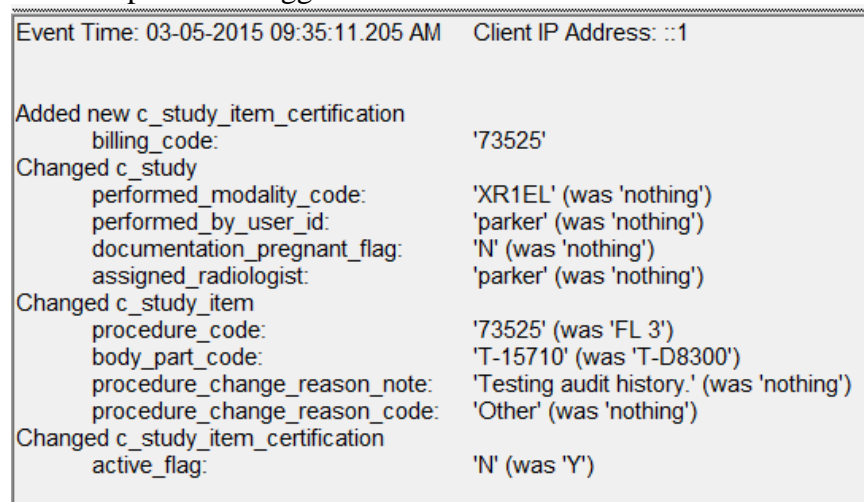
Figure 5.29 – New look Site window

Audit History Updates

Additional logging will be displayed in the Audit History. All added and changed values for the following tables and fields.

c_order_item.procedure_code
c_study.scheduled_modality_code
c_study.scheduled_start_date
c_study_item.procedure_code
c_study_item_certification.billing_code

An example of the logged events



Event Time: 03-05-2015 09:35:11.205 AM		Client IP Address: ::1	
Added new c_study_item_certification			
billing_code:		'73525'	
Changed c_study			
performed_modality_code:		'XR1EL' (was 'nothing')	
performed_by_user_id:		'parker' (was 'nothing')	
documentation_pregnant_flag:		'N' (was 'nothing')	
assigned_radiologist:		'parker' (was 'nothing')	
Changed c_study_item			
procedure_code:		'73525' (was 'FL 3')	
body_part_code:		'T-15710' (was 'T-D8300')	
procedure_change_reason_note:		'Testing audit history.' (was 'nothing')	
procedure_change_reason_code:		'Other' (was 'nothing')	
Changed c_study_item_certification			
active_flag:		'N' (was 'Y')	

Figure 5.30 – Audit history additional logging events

The splitter bar between the audit event list and the details of the event will now remember the last position the user placed it. Looking at the screenshot below you can see the splitter bar has been raised from its initial position. The next time this user opens the Audit History window the splitter bar will be in the same position, saving the user time to adjust.

Filters

Patient
 Order
 Study
 Include retrievals

Date	Action	Description	User
Equals: ▾	Contains: ▾	Contains: ▾	Contains: ▾
23/06/2015 10:39	Patient Merged	Patient ID: 26639PE merged into Patient ID: 26641PE	Noye, Dar
23/06/2015 10:32	Study scheduled	Study updated	Noye, Dar
23/06/2015 10:32	Study scheduled	Order updated	Noye, Dar
23/06/2015 10:32	Study scheduled	Visit updated	Noye, Dar
23/06/2015 10:32	Study scheduled	Patient updated	Noye, Dar
23/06/2015 10:30	Study scheduled	Patient updated	Noye, Dar

Event Time: 23/06/2015 10:32:16.530 Client IP Address: 10.100.16.181

Added new c_study
 scheduled_modality_code: 'XR1EL'
 scheduled_start_date: '6/23/2015 10:35:00 AM -03:00'

Added new c_study_item
 procedure_code: '73070'

Added new c_study_item_certification
 billing_code: '73070'

Figure 5.31 – Splitter Bar keeps last position in Audit History window.

Audit History Logging and Retrieval of Lookup Tables

We have added an Audit History context menu option from the Administration->Configuration screen. An authorized user can now right click on a lookup table (e.g. SystemConfig) and then choose Audit History and see a list of all of the audited changes that were made. This is controlled by the access string “**Config.LookupEditor.AuditHistory**” which has a default of None.

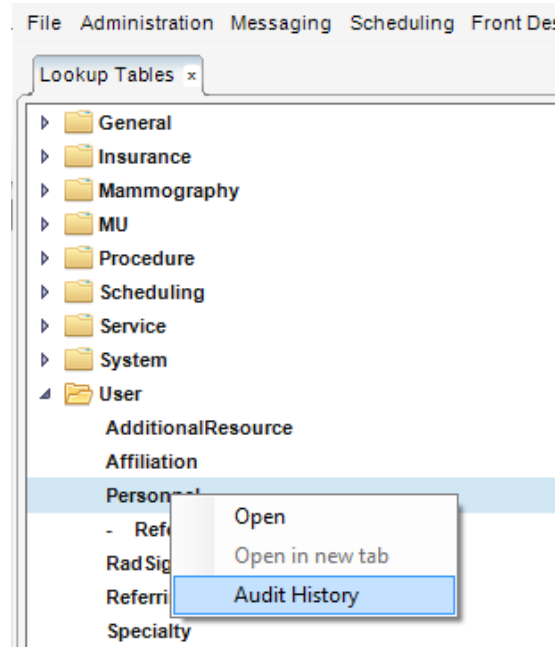


Figure 5.32 – Audit History on Lookup Table

The Audit History shows an ordered list of all changes that were made in a specific date range (including the date and the user ID), and when the user clicks an entry on the list, the bottom portion of the screen will display a list of the rows that were modified (added, deleted, or changed) including the before and after versions of the information in the case of modified rows.

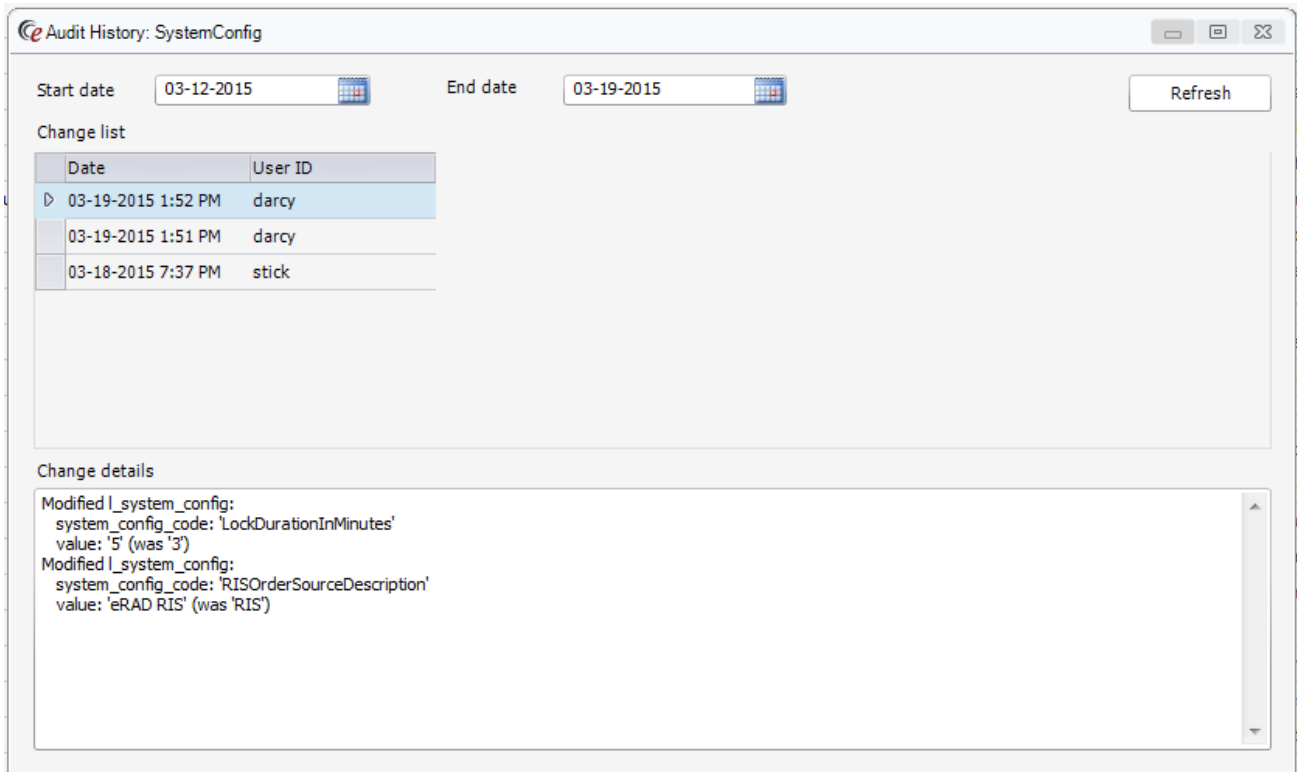


Figure 5.33 – Audit History showing SystemConfig changes

Any modified row will show the row's primary key identifier. Any rows that include a user, person, or user group identifier should also include additional information to clarify which user, person or group is being described.

Required Fields Configurability

A new lookup table has been added under the Service folder of the Lookup tables directory. This new lookups access is controlled by access string Config.LookupEditor.ValidationRules that has a default access level of None. As the parent folder suggests, the validation rules should be applied by Service Personnel.

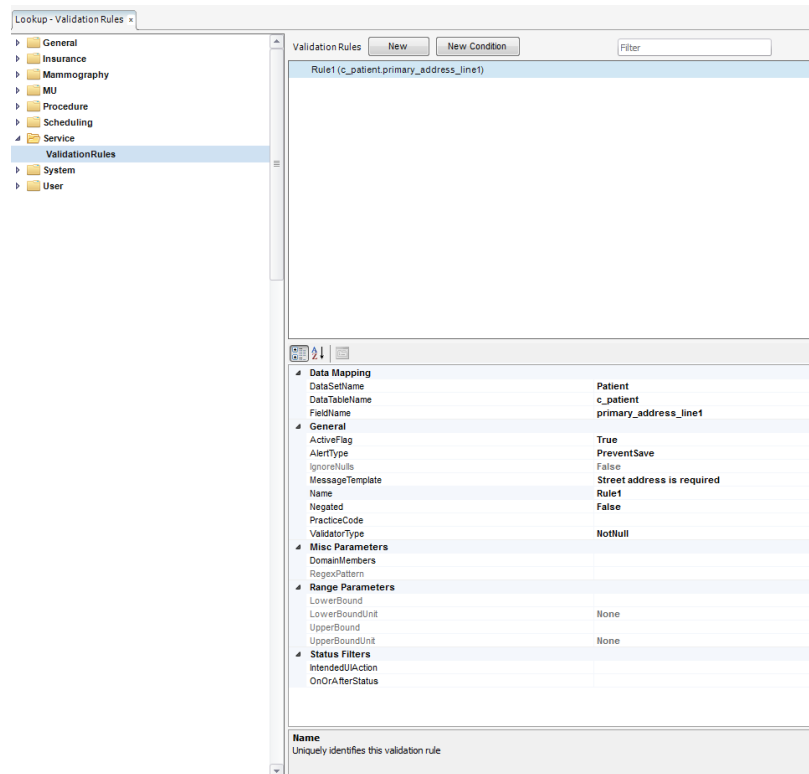


Figure 5.34 – ValidationRules lookup table

The topmost portion of the editor provides a “New” button for creating new rules, a “New Condition” button that allows conditional logic to be attached to a rule (e.g. require e-mail address ONLY if preferred delivery method is e-mail), and a filter for searching through the existing rules by name or table/fieldname.

To indicate a field is required, launch the validation rules editor and follow the steps below:

1. Click the “New” button to create a new rule. This will create a new row in the top level panel with a generic name (e.g. Rule2), and the bottom portion of the screen will display a grid of properties that allow the rule to be configured.

2. Under the “Data Mapping” category, use the drop down boxes to set the DataSet name, DataTableName, and FieldName to indicate which field should be required (e.g. DataSet: Patient, DataTable: c_patient, FieldName: primary_address_line1)
3. Optionally enter a practice, intended UI Action (these correspond to actions in RIS like UI_PatientArrived), and/or OnOrAfterStatus and then Save the changes.

Note – in order for the RIS client to begin enforcing the new validation rules, you must either log out of RIS or choose Help -> Refresh Configuration.

Note that when a screen is loaded that has controls mapped to fields that are required; they should have a red bar painted on the margin of the control to indicate that they are mandatory.



Figure 5.35 – Address 1 field is now required based on a rule created

Validation Rule Properties

Data Mapping Properties

1. DataSetName – identifies the dataset that contains the table/column to be validated. The editor currently provides a drop down list with the following values: Patient, Visit, Order, and Study. This field is required for all validation rules
2. DataTableName – identifies the table that contains the column to be validated. The editor provides a list of all tables in the DataSet with the name specified in “DataSetName”. This field is required for all validation rules
3. FieldName – identifies the column to be validated. This field is required for all validation rules.

General Mapping Properties

1. ActiveFlag – identifies whether this rule is enabled. A rule or condition with ActiveFlag = False will be ignored by the validation framework. This field defaults to true.
2. AlertType – Specifies the result of the validation. The editor has a dropdown list that currently contains two values: Warning, or PreventSave. The evaluation of the rules is the same in either case, but the failure to pass validation is handled differently. As the name suggests, PreventSave is a hard-stop that will prevent the user from proceeding until the data is fixed. A warning will simply display a message to the user to draw their

attention to a potential problem. The warning will only be displayed one time for the lifetime of the screen/data the user has open.

3. IgnoreNulls – indicates whether the validation rule should bypass fields that are null. E.g. we may want a rule that will allow null for an e-mail address, but if one is provided, we should verify that it matches a specific pattern. This defaults to false for a “NotNull” ValidatorType but true for all others.
4. MessageTemplate – the message that will be displayed if validation fails. Note that this message will not be used for “NotNull” validators, the Required Fields framework displays its own message e.g. “Address 1. Is required”. Note that MessageTemplate does not apply to “Conditions”, the parent validation rule’s MessageTemplate will be used instead. If no MessageTemplate is specified, the defaults provided by the Enterprise Library will be used (this may not be desirable). If the message template includes “{0}”, the “{0}” will be replaced with the value that was validated.
5. Name – unique identifier for a validation rule, the value entered is presented in the top panel of the screen and is searchable using the Filter control. The editor will provide a default value e.g. Rule1. This field is required.
6. Negated – if true, this indicates that the rule should prevent matching values e.g. if a DomainValidator is used with DomainMembers {“a”, “b”, “c”}, then the rule will only allow values of “a”, “b”, or “c”. If the Negated property is set to true, in this case the values of “a”, “b”, and “c” would all be unacceptable.
7. PracticeCode – optionally identifies the practice to which the rule applies. If not specified the rule will apply to all practices (this is the default). If the current exam/patient data is associated with a particular practice, we will filter based on that practice. When a screen opens without exam context (e.g. New Patient), we will apply the rules based on the current practice indicated by the “OrgPicker” in RIS.
8. ValidatorType - the following types of Validators are now supported:
 - a. NotNull – indicates that the field is required
 - b. RangeValidator – indicates that the field should fall within the numeric range specified
 - c. DomainValidator – indicates that the field should belong to a list of values (e.g. “Baby”, “Toddler”, “Child”)
 - d. StringLengthValidator – indicates that the fields should be alphanumeric text with a length between a specified range
 - e. RegexValidator – indicates that the fields should match a regular expression pattern, e.g. `\b[A-Z0-9._%+-]+@[A-Z0-9.-]+\.[A-Z]{2,4}\b` is an e-

mail address DateTimeRangeValidator – indicates that the fields should fall within a specific range e.g. 01/01/1970 – 01/01/1999. Note that we are using a case insensitive version of the RegexValidator.

- f. DateTimeRangeValidator – indicates that the fields should fall within a specific range e.g. 01/01/1970 – 01/01/1999
- g. RelativeDateTimeValidator – indicates that the fields should fall within a specified range relative to the current date/time e.g a birth date could have a lower bound of -120 years and an upper bound of -18 years to enforce the rule that a patient had to be at least 18 years old

Misc Parameters

- 1. DomainMembers – used to specify a list of acceptable values. If Negated is true these values will be prohibited instead. This is required for a DomainValidator.
- 2. RegexPattern – Identifies the regular expression to be used for a RegexValidator. This is required for a RegexValidator.

Range Parameters

LowerBound – Identifies the minimum value in the acceptable range. This could be a numeric value in the case of a RangeValidator or StringLengthValidator, but must be a DateTime in the case of a DateTimeRangeValidator or RelativeDateTimeValidator. This field is required for a RangeValidator, a StringLengthValidator, a DateTimeRangeValidator, or a RelativeDateTimeValidator.

UpperBound – Identifies the maximum value in the acceptable range. See LowerBound for additional notes.

LowerBoundUnit – Identifies the unit of time for the lower bound (e.g. second, minute, hour, day, year). This is required for a RelativeDateTimeValidator.

UpperBoundUnit – Identifies the unit of time for the upper bound (e.g. second, minute, hour, day, year). This is required for a RelativeDateTimeValidator.

Status Filters

IntendedUIAction – limits the rule so that it only applies to a particular action (e.g. UI_PatientArrived). The default IntendedUIAction is UI_StudyUpdated, but several screens have been updated with logic to change the IntendedUIAction when the user clicks a status type button (e.g. CheckingIn, Arrive, Start, Complete, etc). Note that if a rule was configured to require a value when the exam is being checked in, there is nothing that would prevent the user from removing the value afterwards when arriving the patient. This field is optional; a blank value will mean that the validation should be applied to all statuses.

OnOrAfterStatus – limits the rule so that it only applies once an exam hits a particular status. There is a natural ordering applied to statuses so if a field is required OnOrAfterStatus “Arrived”, it will also be required by the technologist.

Conditions

When a rule is selected, a condition can be added so that a validation failure will not be enforced unless all the other conditions tied to that rule are true. To add a condition, click on a rule and then click the “New Condition” button, a condition can then be configured in the same manner as a regular rule (note that the MessageTemplate for a condition is ignored). A condition is nested underneath its “parent” rule on the top panel of the editor and its name is prefixed with “Condition – “

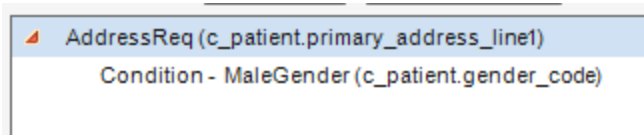


Figure 5.36 – Example of Condition

Conditions may be configured to look at other rows in the same study container regardless of which dataset they belong to.

Warnings

Rules with an alert type of Warning may be useful for building functionality similar to the Alert framework. Rules configured with the Alert framework are potentially more precise but may require a new build of RIS in order to provide new alert types. Rules configured with the ValidationRules framework are dynamic and can be created/configured without a new release of RIS.

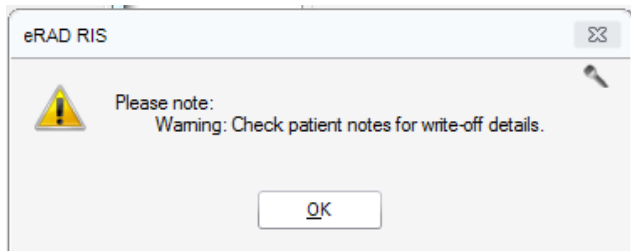


Figure 5.37 – Warning message created

Validation Rules

▸ AddressReq(c_patient.primary_address_line1)
 WriteOffAlert(c_patient.notes)

▲ Data Mapping	
DataSetName	Patient
DataTableName	c_patient
FieldName	notes
▲ General	
ActiveFlag	True
AlertType	Warning
IgnoreNulls	False
MessageTemplate	Check patient notes for write-off details
Name	WriteOffAlert
Negated	True
PracticeCode	
ValidatorType	RegexValidator
▲ Misc Parameters	
DomainMembers	
RegexPattern	write.off
▲ Range Parameters	
LowerBound	
LowerBoundUnit	None
UpperBound	
UpperBoundUnit	None
▲ Status Filters	
IntendedUIAction	
OnOrAfterStatus	

Figure 5.38 – Validation Rules

Visit Number Added to Work Lists

Visit number now shows up as the last column in the worklists for Receptionists, Technologists and Transcriptionists. It appears near the center of the Radiologist worklists as these add extra columns for each worklist beyond the basic set.

Issuer of Ext. Order #	Due Time	Calculated Time Severity	Last Contact	Last Contact Type	Visit #
Overdue 1... None					2

Figure 5.39 – Visit column added to work lists

Cancel Reason Code Added to Orders to Schedule Work List

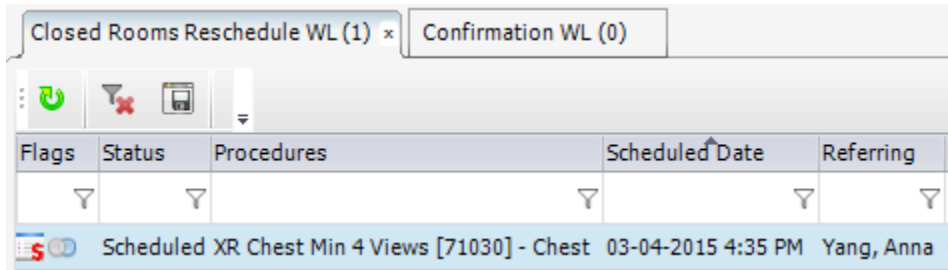
The column of Cancel Reason has been added to the Orders to Schedule work list.

Order Type	Next Follow Up	Next FollowUp Type	Birth Date	Abort Reason	Cancel Reason
			01-01-1980		No Show
			01-01-1980		
			01-01-1980		

Figure 5.40 – Cancel Reason on Orders to Schedule work list

Referring Doctor Column Added to Work Lists

The Closed Room Reschedule and Confirmation work lists now have the Referring Doctor column added.

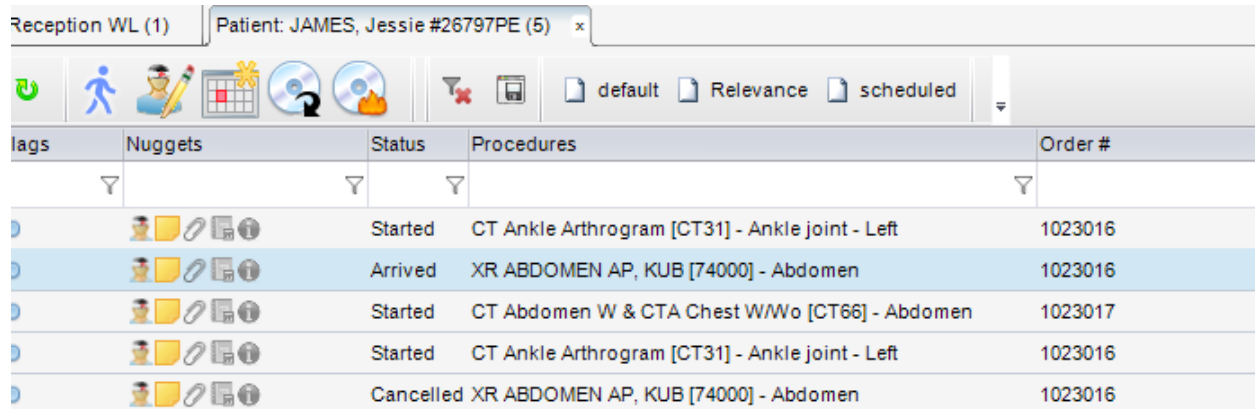


The screenshot shows a software interface with two tabs: 'Closed Rooms Reschedule WL (1)' and 'Confirmation WL (0)'. Below the tabs is a toolbar with icons for refresh, delete, and save. A table is displayed with the following columns: 'Flags', 'Status', 'Procedures', 'Scheduled Date', and 'Referring'. Each column has a downward-pointing arrow icon. The first row of data is highlighted in blue and contains the text: 'Scheduled XR Chest Min 4 Views [71030] - Chest 03-04-2015 4:35 PM Yang, Anna'.

Figure 5.41 – Referring column

Order Number Added to Patient Folder Work List

The Patient Folder WL now has the Order # column.



The screenshot shows a software interface with two tabs: 'Reception WL (1)' and 'Patient: JAMES, Jessie #26797PE (5)'. Below the tabs is a toolbar with various icons including a person, a calendar, and a magnifying glass. A table is displayed with the following columns: 'Flags', 'Nuggets', 'Status', 'Procedures', and 'Order #'. Each column has a downward-pointing arrow icon. The table contains five rows of data:

Flags	Nuggets	Status	Procedures	Order #
		Started	CT Ankle Arthrogram [CT31] - Ankle joint - Left	1023016
		Arrived	XR ABDOMEN AP, KUB [74000] - Abdomen	1023016
		Started	CT Abdomen W & CTA Chest W/Wo [CT66] - Abdomen	1023017
		Started	CT Ankle Arthrogram [CT31] - Ankle joint - Left	1023016
		Cancelled	XR ABDOMEN AP, KUB [74000] - Abdomen	1023016

Figure 5.42 – Order # column on Patient Folder

Support Elapsed Time for Contrast on Work List

The ProcedureCode lookup table has been enhanced to include an Oral Contrast Duration field. This represents the amount of time in minutes the oral contrast must be administered before the procedure is performed. This field is numeric and defaults to a value of 0.

Procedure Code	Description	Oral Contrast Duration	Body Part Code	Laterality
Click here to add a new row				
70140	שדג נעע	30	T-D1100 (Head)	
CT13	שדג כעי חל	0		
RD6	XR Wrist Min 3 Views, Bilat	0	T-D8600 (Wrist) Bila	
73110	XR WRIST MIN 3 VIEWS	0	T-D8600 (Wrist)	
RD22	XR Wrist 2 Views, Bilat	0	T-D8600 (Wrist) Bila	
73100	XR Wrist 2 Views	0	T-D8600 (Wrist)	

Figure 5.43 – Oral Contrast Duration column added to procedure code table

A Contrast Timer column has been added to the Technologist WL. It counts down the number of minutes since the contrast has been consumed by the patient.

On the context menu of the Technologist WL the “Start Contrast Timer” and “Stop Contrast Timer” context menu items have been added. Access to these options on the context menu are controlled by the access string “**Clinical.ContrastTimer**” which has a default of None.

Flags	Status	Procedures	Scheduled Date	Referring	Sedation	First Name	Last Name	Patient Name	MRN	room	Accession #	Contrast Timer	ST
	Arrived	MR Ankle Arthrogram [MR...	04/01/2015 13:55	Smith, Colton		Myra	Jones	Jones, Myra	66	MR1LU 116			
	Arrived	CT 3 Phase [CT13] - Abdo...	04/01/2015 14:00	Test, Randy		Randy	Test	Test, Randy	117	CT1LU 114		-11	
	Arrived	CT Abdomen W [74160] - ...	04/01/2015 13:00	Test, Ron		Ron	Hexall	Hexall, Ron	12	CT1LU 113		-2	
	Arrived	CT Chest W [71260] - Chest	04/01/2015 13:00	Test, Jeff		Jeff	Carter	Carter, Jeff	4	CT1LU 112		4	
	Arrived	CT Ankle Arthrogram [CT3...	04/01/2015 14:00	Test, IVT		IVT	Test	Test, IVT	50	CT1LU 115		4	

Figure 5.44 – Start Contrast Timer in context menu

If the contrast timer has been started, the system will take the oral contrast duration assigned to the procedure code from the study and begin counting the minutes down. The user will have the ability to stop the contrast timer which will basically remove the value from the Technologist

WL. Selecting start contrast timer again will start the contrast timer from the oral contrast duration.

If the procedure code for the selected study does not have an oral contrast duration greater than zero, the “Start Contrast Timer” menu item will not be available to the user.

The eRAD RIS service team have the ability to add custom colors to the Technologist WL as a visual indicator for the Contrast Timer. For example, the Conditional Formatting Rules Manager can be setup with the following and then saved as a worklist view:

- Set the RowForeColor to Green if the Contrast Timer is > 10 minutes.
- Set the RowForeColor to Orange if the Contrast Timer is <= 10 and >=1.
- Set the RowForeColor to Red if the Contrast Timer is <= 0.

Flags	Status	Procedures	Scheduled Date	Referring	Sedation	First Name	Last Name	Patient Name	MRN	room	Accession #	Contrast Timer	STAT Read
		Arrived MR Ankle Arthrogram [MR...	04/01/2015 13:55	Smith, Carlton6		Myra	Jones	Jones, Myra	66	MR1LU	116		
		Arrived CT 3 Phase [CT13] - Abdo...	04/01/2015 14:15	Acevedo, Gina		Randy	Test	Test, Randy	117	CT1LU	114	-1	
		Arrived CT Abdomen W [74160] - ...	04/01/2015 13:45	Aguirre, Jamal5		Ron	Hextall	Hextall, Ron	12	CT1LU	113	8	
		Arrived CT Chest W [71260] - Chest	04/01/2015 13:00	Williams, Alexis		Jeff	Carter	Carter, Jeff	4	CT1LU	112	14	
		Arrived CT Ankle Arthrogram [CT3...	04/01/2015 14:45	Smith, Alfons		IVT	Test	Test, IVT	50	CT1LU	115	14	

Figure 5.45 – Conditional Formatting of Technologist WL using CellBackColor

Flags	Status	Procedures	Scheduled Date	Referring	Sedation	First Name	Last Name	Patient Name	MRN	room	Accession #	Contrast Timer	STAT Read
		Arrived MR Ankle Arthrogram [MR...	04/01/2015 13:55	Smith, Carlton6		Myra	Jones	Jones, Myra	66	MR1LU	116		
		Arrived CT 3 Phase [CT13] - Abdo...	04/01/2015 14:15	Acevedo, Gina		Randy	Test	Test, Randy	117	CT1LU	114	-1	
		Arrived CT Abdomen W [74160] - ...	04/01/2015 13:45	Aguirre, Jamal5		Ron	Hextall	Hextall, Ron	12	CT1LU	113	8	
		Arrived CT Chest W [71260] - Chest	04/01/2015 13:00	Williams, Alexis		Jeff	Carter	Carter, Jeff	4	CT1LU	112	14	
		Arrived CT Ankle Arthrogram [CT3...	04/01/2015 14:45	Smith, Alfons		IVT	Test	Test, IVT	50	CT1LU	115	14	

Figure 5.46 – Conditional Formatting of Technologist WL using RowForeColor

Technologist – Verify Patient ID

A “Technologist verified ID” checkbox has been added to the documentation tab of the Perform Exam window.

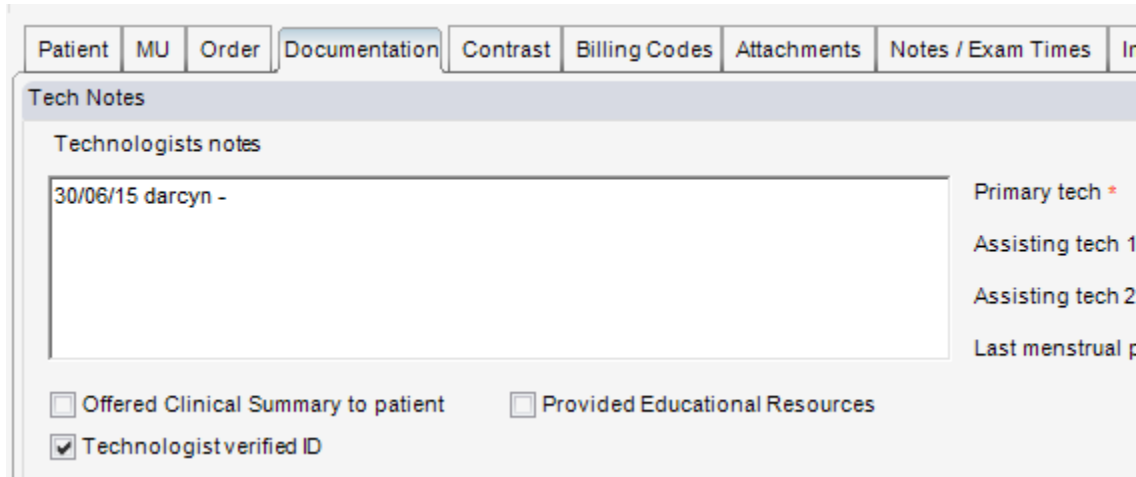


Figure 5.47 – Technologist verified ID check box

Once the technologist verifies the patient by checking the Technologist verified ID checkbox, the “ID verified date” and “ID verified by” labels are automatically updated on the Notes / Exam Times tab.

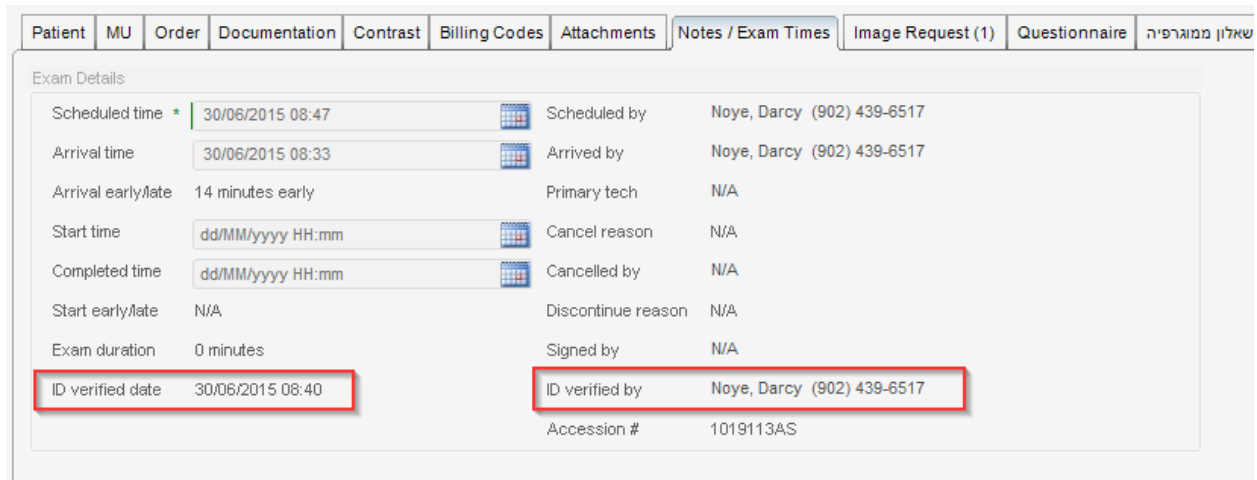


Figure 5.48 – ID verified date and ID verified by fields added to Notes/Exam Times tab

Contrast Enhancements and Injection Doctor Workflow

The contrast fields that were once on the Documentation tab have been given their own tab. The Contrast tab will contain the Contrast and Sedation data panes as well as the new Contrast Injection Details data pane.

Name	Amount	Unit	Vials
contrast brand X	47	cc	1
paint it black	4	mg	1

Name	Amount	Unit
sedative 1	250	mcg
sedative 2	5000	cc

Contrast Injection Details

ID verified (injector)

Injection signed

Injection signed by: Yeo, Dale (902) 555-5555

Injection signed date: 04-30-2015 1:17 PM

Figure 5.49 – Contrast tab of Perform Exam window

Once the Injection signed check box is selected the fields of Injection signed by: and Injection signed date: will auto populate.

The ID verified (injector) and Injection signed check boxes will be enabled if the user has the Resource Type of Injection Physician checked in the Personnel Editor on the Resource tab.

Resource Type

Referring physician

Editor

UM Reviewer

Radiologist

Technologist

Injection Physician

Surgeon

Unknown referring

Additional Resources

Referring Flag

Direct re

Pre-auth

Gold ca

Figure 5.50 – Injection Physician resource type

Technologist – LMP Required Options

The ProcedureCode lookup table has a new column added of Requires Lmp Check Flag, which by default has a value of Y and will be located on the right of the ProcedureCode lookup table.

Hold Code Flag	Confirmation Required Flag	Breast Density Required Flag	Cpoe Pathology Flag	Insurance Service Type Code	Requires Lmp Check Flag	LastU...	Active
Contains: ▾	Contains: ▾	Contains: ▾	Contains: ▾	Contains: ▾	Contains: ▾	Equa ▾	Contains: ▾
N	Y	Y	N		Y	03-18-...	Y
N	Y	N	N		Y	10-07-...	Y
N	Y	N	N		Y	09-26-...	Y
Y	Y	Y	N		Y	09-26-...	Y
Y	Y	N	N		Y	09-25-...	Y

Figure 5.51 – Requires LMP Check Flag column in ProcedureCode lookup table

With the default set to Y, it will behave as before and the LMP will be required to be completed for female patients that fall between the age range set in the system configuration settings of LMPStartingAge (default of 12) and LMPendingAge (default of 56).

Below is an example of the LMP field enabled (set to Y on the procedure code) and disabled.

Figure 5.52 – LMP enabled and disabled for same patient

Cancelled Due to Technical Repeat Status

A new cancelled status has been added to eRAD RIS. The status of CancelTechRepReqd is an end-state status. No auto order replacement study will be created.

The workflow will have the user access the new status from the context menu option of Change Status to... Cancelled due to required tech repeat. Access to this context menu option is controlled by the access string “**Clinical.ChangeStatusCancelTechRepReqd**” which has a default of None.

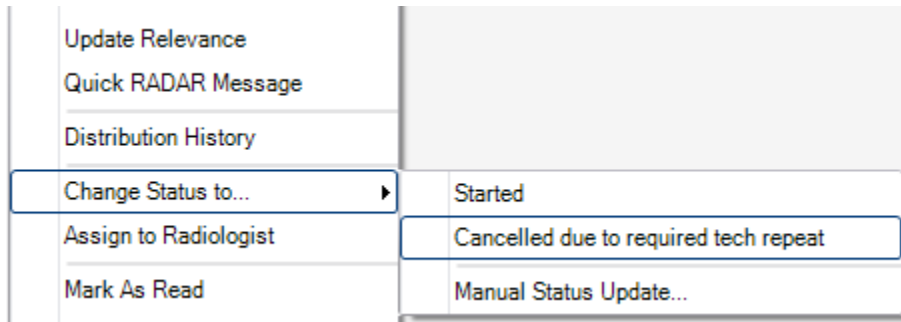


Figure 5.53 – Context menu option to cancel for tech repeat

This status uses sequence 0 like the other cancelled statuses. Also it currently is mapped to no portal_status_code (aka NULL).

These items are only viewable in non-status based work lists such as the Patient Folder work list.

Arrived	CT Abdomen W/Wo & Pelvis W [CT23] - Abdomen	03-18-2015 12:23	Adkins, Dante355 39537 1	R1138	CT1EL EL
Arrived	CT Ankle Arthrogram [CT31] - Ankle joint - Right	03-18-2015 12:02	Adkins, Dante355 39537 1	R1137	CT1LU LU
Arrived	CT Chest W & Abdomen W/Wo [CT42] - Chest	03-18-2015 11:54	Adkins, Dante355 39537 1	R1136	CT1PO PO
Report Drafted	CT 3 Phase [CT13]	03-16-2015 10:20	Adkins, Dante355 39537 1	R1135	CT1FH FH 03-16-2015 10:32
CancelTechRepReqd	CT Chest Wo [71250] - Chest	03-03-2015 11:15	Adkins, Dante355 39537 1	R1064	CT1LU LU
Arrived	CT Head Wo [70450] - Head	03-03-2015 07:45	Adkins, Dante355 39537 1	R1065	CT1LU LU
Exam Done	CT 3 Phase [CT13]	12-19-2014 10:00	Adkins, Dante355 39537 1	5	CT1EL EL
Cancelled	CT 3 Phase [CT13]	12-02-2014 15:20	Adkins, Dante355 39537 1	1	CT1LU LU

Figure 5.54 – CancelTechRepReqd status on work list.

Discontinue and Cancel Reason Codes on Notes/Exam Time Tab

Previously we didn't have anywhere in the application to see the cancelled reason or discontinued reasons. We have added these to the Notes/Exam Time tab in the View/Edit window.

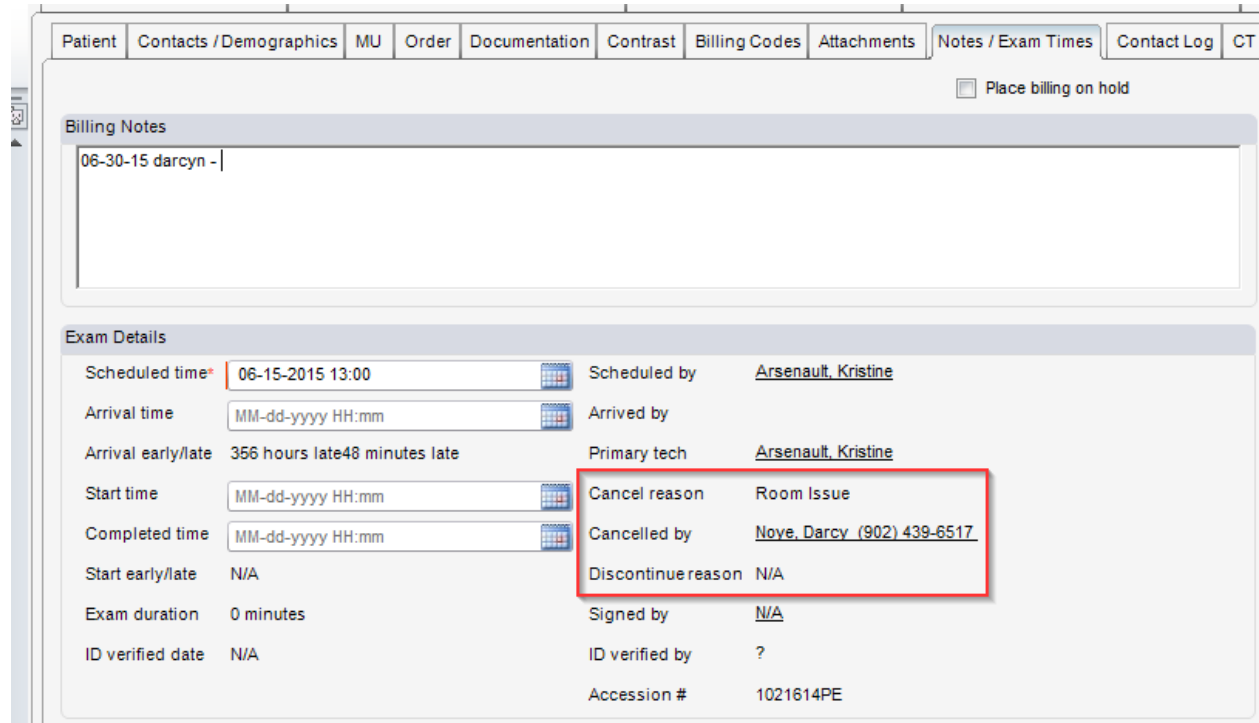


Figure 5.55 – Displaying where the Cancel and Discontinue reason codes can be viewed.

Search Field Override to Patient When Search Starts With Using Symbols

When you are in the search field, regardless of what category you might be on (ie patient or internal person or carrier search etc) – if you search using a # or @ that RIS recognizes you are searching for patient data, and doesn't force you to go choose patient option first.

Entering in the # symbol will search for MRN and the @ symbol will search for accession number.

Example: in the figure below the search option is looking to search for site, but with #24063PE entered it will automatically search for a patient and if found it will open the patient folder

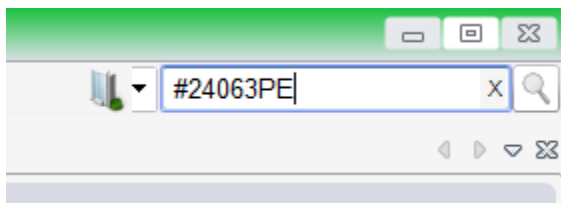


Figure 5.56 – Search for patient in Site search

It will also change the quick search to be for patient.

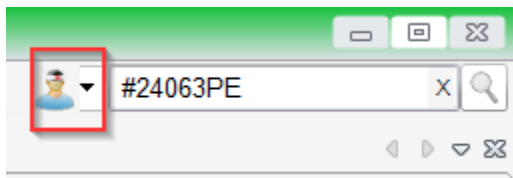
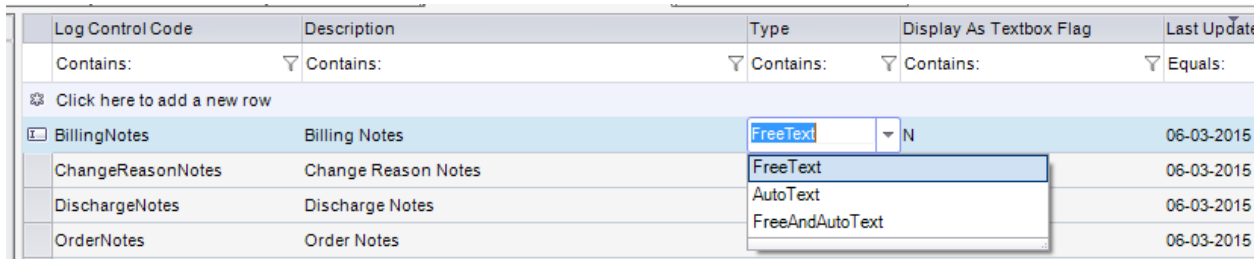


Figure 5.57 – After performing search

Note Fields Configurability to be Log Controls

Throughout the application there are many different note fields (AKA log controls). In Build 45 we have introduced the ability change the note field from a free form text field to an auto text field, or a combination of both.

A new lookup table called LogControl has been added under the General directory of the Configure menu option. This lookup’s access is controlled by access string “**Config.LookupEditor.LogControl**” and has a default access level of None. This table contains all of the eRAD RIS log controls and the state of the log control is defined in this table.



Log Control Code	Description	Type	Display As Textbox Flag	Last Update
Contains:	Contains:	Contains:	Contains:	Equals:
Click here to add a new row				
BillingNotes	Billing Notes	FreeText	N	06-03-2015
ChangeReasonNotes	Change Reason Notes	FreeText		06-03-2015
DischargeNotes	Discharge Notes	AutoText		06-03-2015
OrderNotes	Order Notes	FreeAndAutoText		06-03-2015

Figure 5.58– LogControl lookup table

The LogControl lookup has been modified to include a display_as_textbox_flag column. If the value for display_as_textbox_flag = Y, then the screen will render using a standard textbox and not a log control. Currently, this configuration is only available for the following:

1. Technologist Notes on both the Documentation and New Outside Read screens
2. Signs and Symptoms on both the Documentation and New Outside Read screens
3. Change Reason Note on the Documentation Screen

If a textbox or open text control is to be displayed, open the LogControl lookup table and set the Display as Textbox Flag to ‘Y’ for the log control code. If a log control is to be displayed, set the Display as Textbox Flag to ‘N’ and specify if the log control is FreeText, AutoText, or FreeAndAutoText.

Only ChangeReasonNotes, SignsAndSymptoms, and TechNotes support this feature at this time.

If the Display as Textbox Flag is enabled for ChangeReasonNotes, SignsAndSymptoms, or TechNotes, then only FreeText can be chosen as the Type.

Please note that if the RIS is configured to use a LogControl for a field like TechNotes, it can change the appearance of TechNotes in other areas of the application for example diagnostic

report templates. The TechNotes will include the date stamp and username with each entry versus just plain text.

If a control that doesn't support "Display As Textbox Flag" has the value set to Y, on save of the lookup the user will be prompted with validation message.

Log Control Code	Description	Type	Display As Textbox Flag	Last Updated
Contains:	Contains:	Contains:	Contains:	Equals:
Click here to add a new row				
BillingNotes	Billing Notes	FreeText	N	02-23-2015 10:15 AM
ChangeReasonNotes	Change Reason Notes	FreeAndAutoText	Y	04-27-2015 9:41 AM
DischargeNotes	Discharge Notes	AutoText	N	04-27-2015 1:28 PM
OrderNotes	Order			02-25-2015 1:25 PM
PatientNotes	Patient			04-27-2015 11:55 AM
PersonNotes	Person			02-23-2015 10:15 AM
RadarSMSMessages	Radar			03-25-2015 11:15 AM
RadNotes	Radiol			02-23-2015 10:15 AM
SchedulingNotes	Schedu			02-24-2015 1:50 PM
SignsAndSymptoms	Signs			04-27-2015 2:36 PM
TechNotes	TechnologistNotes	FreeAndAutoText	Y	04-27-2015 11:55 AM
UMExternalNotes	Utilization Management External Notes	AutoText	N	02-23-2015 10:20 AM
UMInternalNotes	Utilization Management Internal Notes	FreeAndAutoText	N	02-23-2015 10:20 AM
VerificationNotes	Insurance Verification Notes	FreeText	Y	02-23-2015 10:15 AM

eRAD RIS

The following error must be corrected:

Display As Textbox Flag: not supported for VerificationNotes.

OK

Figure 5.59 – Validation message informing Log Control doesn't support Display As Textbox Flag

Another validation message will appear if one of the supported Log Controls has the Display As Textbox Flag = Y and the Type column is something other than FreeText

Log Control Code	Description	Type	Display As Textbox Flag
Contains:	Contains:	Contains:	Contains:
Click here to add a new row			
ChangeReasonNotes	Change Reason Notes	FreeText	Y
SignsAndSymptoms	Signs And Symptoms	AutoText	Y
BillingNotes	Billing Notes	FreeText	N
DischargeNotes			N
OrderNotes			N
PatientNotes			N
PersonNotes			N
RadarSMSMessage			N
RadNotes			N
SchedulingNotes			N
TechNotes	TechnologistNotes	AutoText	N
UMExternalNotes	Utilization Management External Notes	AutoText	N
UMInternalNotes	Utilization Management Internal Notes	FreeAndAutoText	N
VerificationNotes	Insurance Verification Notes	FreeText	N

eRAD RIS

The following error must be corrected:

Type: SignsAndSymptoms supports FreeText only when displayed as a textbox.

OK

Figure 5.60 – Validation message informing Log Control must be FreeText when Display As Textbox Flag=Y

Auto text that is to be entered in the log control will come from the Autotext lookup table. This lookup table is controlled by the access string “**Config.LookupEditor.Autotext**” which has a default access level of None.

Description	Language Content	Log Control Code	Display Order	Last
Contains:	Contains:	Contains:	Equals:	Equ
Click here to add a new row				
Autotext1	This is autotext for Order Notes	[Dropdown Menu]	1	

Figure 5.61 – Autotext lookup table

With the Order Notes field now configured for Autotext, the Order Notes field will not permit to have free text entered. The Autotext is accessed from a context menu on the notes field.

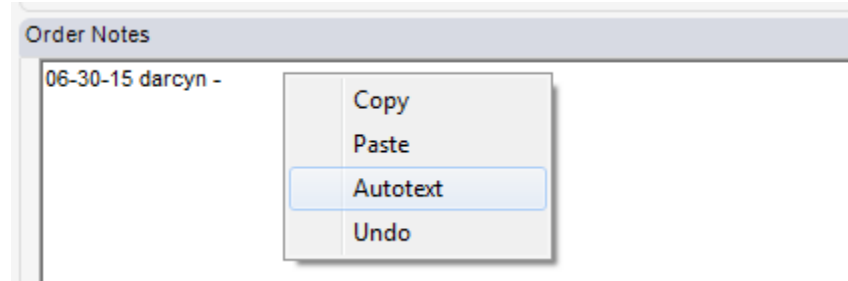


Figure 5.62 – Context menu with Autotext option for Order Notes field

Selecting the Autotext context menu option will open a new window titled Autotext. This window will contain the options available for this log control.

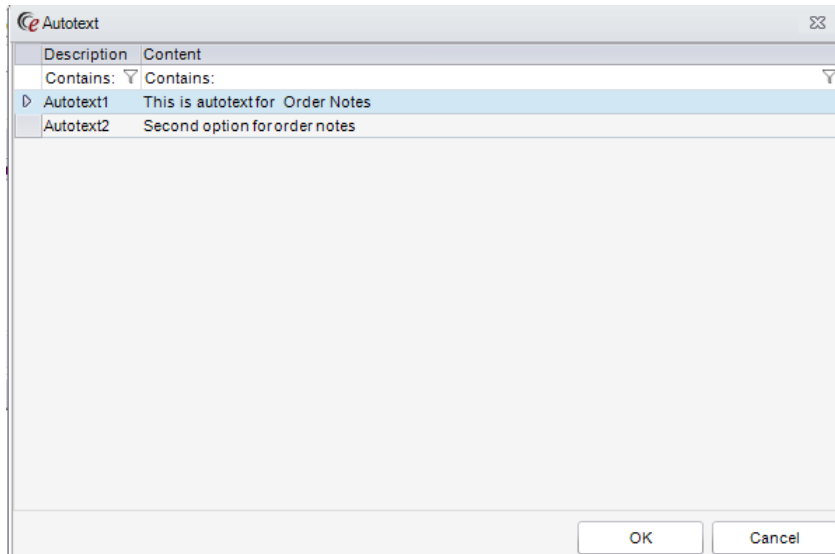


Figure 5.63 – Autotext window with available options

If the log control, in this example Order Notes is configured to be free text and auto text, a combination of both can be used in the field.

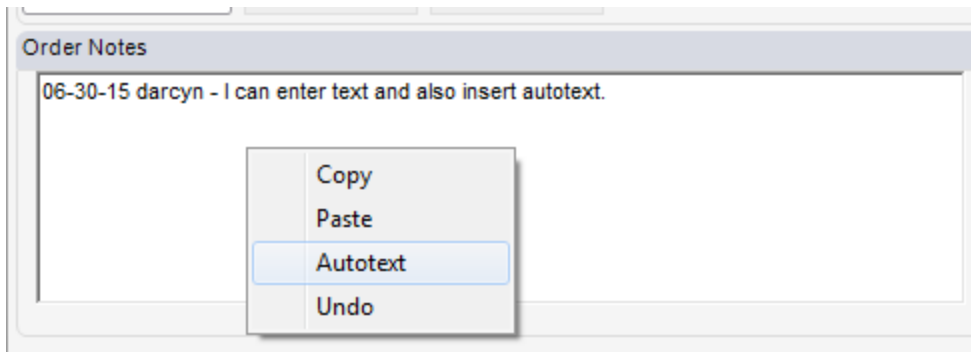


Figure 5.64 – Free text/Autotext field

Overbook Reason Enhancements

To continue on from the previous feature, the Overbook Reason field will also have the options of free text, autotext or a combination of both. To start a new lookup table has been created to capture the Overbook Reason Code that can be used if the field is Autotext only or both available to the field. The OverbookReason table access is controlled by the access string of “**Config.LookupEditor.OverbookReason**” which has a default of Full.

Overbook Reason Code	Description	Display Order	Last Updated	Active
Contains:	Contains:	Equals:	Equals:	Contains:
Click here to add a new row				
1	Mgr Approved	1	03/04/2015 15:...	Y
2	SysAdmin Approved	1	03/04/2015 15:...	Y

Figure 5.65 – Overbook Reason lookup table

If the OverBook reason field is free text, autotext or a combination of both is controlled by a new System Configuration setting called “**OverbookReasonFormat**” has default value of 1.

The possible values are

- 1 - free text only
- 2 - OverbookReason lookup only
- 3 - both free text and the OverbookReason lookup.

The scheduling screen in RIS has been updated to support the above pattern. If the overbook reason utilizes the lookup values, it is important to note that it is the Description field from OverbookReason and not the OverbookReasonCode that is stored in the database.

The Overbook field itself on the scheduling window is controlled by the pre-existing access string of “**Clinical.Schedule.AllowOverbooking**” which has a default access level of None

Send SMS message from Work List

The option to send a RADAR message from the Reception or Patient Folder WL has been added in B45. The context menu option of Quick RADAR Message has been added with an access string of “**Clinical.QuickRadarMessage**” that controls access to it, which has a default of None.

Selecting this context menu option will open the Quick RADAR Message window. The message will have a character limit of 160. Options are SMS (text) or Email. This message can be free text or can be configured to autotext. The patients name, mobile phone number and email address will be displayed in the window.

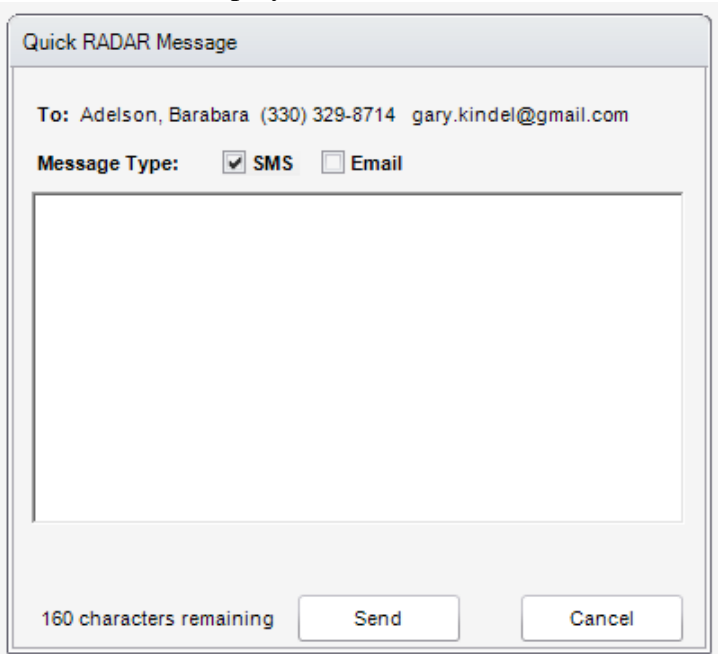


Figure 5.66 – Quick RADAR Message dialog window

If the patient selected to send the RADAR message is missing the Email and mobile phone information the user will be presented with the following message.

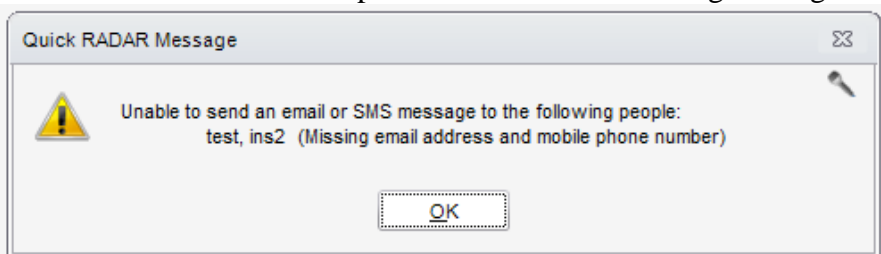


Figure 5.67 – Quick RADAR Message that patient doesn't have an email or mobile phone number

Support Linking of Reports

For stage 1 of linked reports, linking is limited to procedure plans that are predefined to be reported together. There is no support for manual linking and unlinking studies for stage 1.

The ProcedurePlan lookup table has always had the Report Together Flag, but it wasn't being used. Now we will use it for Linked Reporting. When the Report Together Flag is set to Y, the Plan Procedures grid will require one procedure to be set as the Primary Study.

Procedure Plans:

Procedure Plan Code	Name	Description	Report Together Flag
Click here to add a new row			
CTPlan	CTPlanning	CT Plan	Y
RPP	RankatsProcedurePlan	Rankats Procedure Plan	Y
DPP	DarcysProPlan	Darcys Procedure Plan	Y
ayeleplan	testing hebrew	PP in hebrew	N
NucMed2Studies	Nuc Med 2 studies	Nuc Med 2 Studies	N
CT13	ct13	testing bug 1868	N
testPlan29-1	testCase_procedure29-1	Test Procedure plan by KangHyeok N	N

Procedures:

Procedure Code	Description
0028T	DX Body Composition Study
20605	FL Arthrocentesis Inject Intermediate Jt

Plan Procedures:

Procedure	Seq	Primary Study Flag	Min Wait...	Max
G0202 MA DIGITAL MAM...	0	Y	0	0
76645 US Breast Uni Or Bil	1	N	0	0

Figure 5.68 – Procedure Plan lookup table

The primary study will be the study that is reported on. But before it gets to Exam Done status, the procedure plan will behave just as it did before. After the plan is scheduled the work lists will display a new flags for Primary and Non-Primary studies in the plan.

Reception WL (3) x

06-30-2015 Eldersburg

Flags	Status	Procedures
\$	Scheduled	CT Chest W [71260] - Chest
	Scheduled	MA DIGITAL MAMMO SCREEN BIL [G0
	Scheduled	US Breast Uni Or Bil [76645] - Breast - I

Figure 5.69 – Linked Reporting flags for primary and non-primary

If the primary study is rescheduled on its own, the linked reporting will be broken and the studies belonging to the procedure plan will then become individual studies no longer tied together. This is also true if the procedure is changed during the registration process. If the procedure picker row is remove (red x) or the procedure is removed (black x) and a different procedure is used in its place on the primary study, this will also break the linked reporting.

For the Technologist the procedure plan can be opened in the Perform Exam window. If they are of different modalities, the studies will start and completed as before, even if the studies “Include” option is used. The only change is with the Preferred Radiologist. When a radiologist is assigned to one study it will be auto assigned to the remaining studies in the procedure plan.

The worklists have been enhanced to better identify which studies on the work list belong together in the report together procedure plan. When one of the studies from the procedure plan is selected on the work list, the other studies also part of the procedure plan will have their row color change to pinkish color. In the figure below you can see the Mammo study is selected on the work list and the US Breast study has a pink row color.

Flags	Status	Procedures	Scheduled Date	Referring
\$		Scheduled CT Chest W [71260] - Chest	06-30-2015 08:50	Smith, Rober
🔗	✅	Scheduled CT Abdomen W & CTA Chest W/Wo [CT66] - Abdomen	06-30-2015 13:00	Noye, Darcy
🔗	✅	Scheduled MA DIGITAL MAMMO SCREEN BIL [G0202] - Breast - Bilateral	06-30-2015 13:05	Noye, Darcy
🔗	✅	Scheduled US Breast Uni Or Bil [76645] - Breast - Bilateral	06-30-2015 13:20	Noye, Darcy
🔗	✅	Scheduled US Breast Uni Or Bil [76645] - Breast - Bilateral	06-30-2015 13:25	Noye, Darcy

Figure 5.70 – Row color of report together procedure plans change color

Once the report together procedure plan has been completed by the Technologist and the studies are not in a status of Exam Done only the primary study will appear on the My Pending Dictation work list. If one or more of the studies needs to be PACS Corrected, none of the studies can be reported on, the option to open the dictate window will not be available until PACS Corrected = Y for all studies in the plan.

From the Patient Folder a user can select to dictate on one of the non-primary studies, but when the Dictate window opens, it will open for the primary study. The template loaded in the report

editor and the templates and macros available in the Template Browser data pane will also be based off of the primary study.

In the Patient History data pane in the reporting window, the same pinkish row color will be displayed when one of the studies selected from the report together procedure plan is selected. This is true also if the reporting window is opened on another study belonging to the same patient. Other configurable row colors remain the same. The current and selected study background and boarder will still appear.

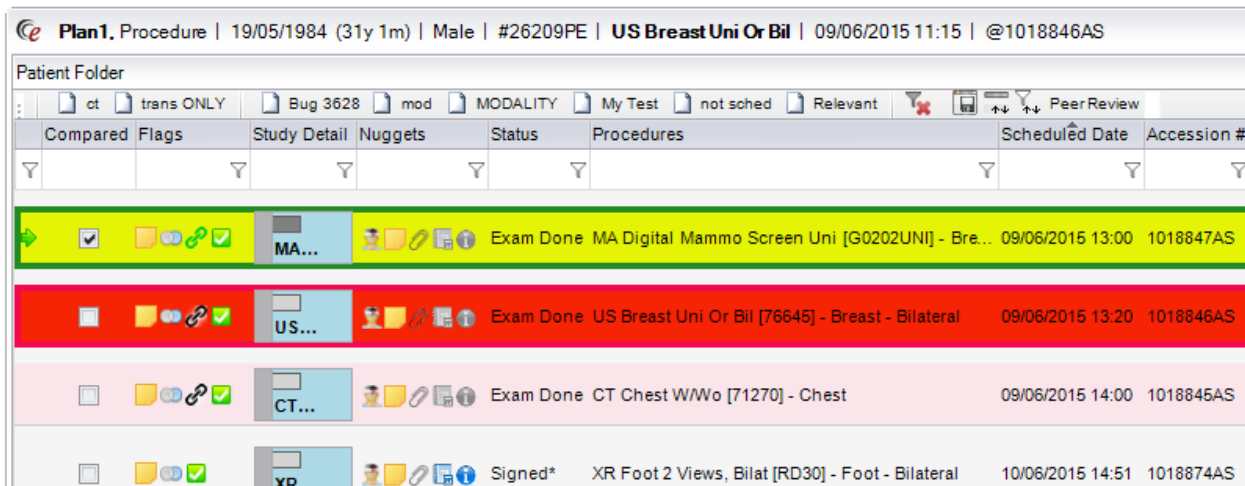


Figure 5.71 – Patient History data pane

PACS images will be opened for all studies belonging to the plan. These are not included in the count for user preference “Load Relevant Priors”. Relevancy is also based off of the primary study only.

The exam status of the primary study will be reflected on the non-primary studies. Once the primary study status changes from Exam-Done to Report Drafted, from Report Drafted to Transcribed... right up to Signed status, so will the non-primary studies. If the primary study is Voided, the non-primary studies will return to a status of Exam Done and will need to be reported on again, or actioned to be cancelled (aborted or discontinued). If the “Delete Dictation/Report and Reset Status” is used, this will also change the status of the studies in the report together procedure plan to all be Exam Done.

Flags added to any of the studies in the procedure plan will also be copied over to the other studies in the plan. Flags such as Suspended, QA, Problem and Mark As Read will be applied to all studies.

If one of the studies has the Supervising Radiologist, Assigned Radiologist or Assigned Editor added or changed, this will also be applied to all of the studies in the report together procedure plan.

The QA workflow will only look at the primary study. If a Radiologist or Editor is configured to have every 2nd study sent to QA, the report together procedure plan will only count as one study. So if a report together procedure plan has 3 studies in the plan, this will only count as one.

This is also true for the Daily Statistics counters. If the report together procedure plan has 3 studies that are dictated on, the counter will only count this as 1. Same is true for Signing counter and Editor statistics

Locking of studies post exam done will be that if one of the procedures is opened, it will lock the remaining studies in the procedure plan.

Editor polling will only open the primary study. The non-primary studies will be skipped over and the next available will be opened.

When viewing the final report from the Data Nugget or from the Preview/Print Report context menu option, the primary and non-primary studies will all display the same report.

Document Distribution will send one report based on the primary study. If a manual job is created, again the primary study will be used.

Show Patient Notes from Previously Merged Patients Notes

In build 45 we added a hyperlink to the bottom of the patient notes control, it will appear as a read only label when there are no previous patient notes, or an underlined hyperlink when there are previous patient notes.

When the user clicks the hyperlink, a dialog box pops up and will display the notes for all of the patients that were merged into the current patient, grouped under a header that shows the previous patient name, MRN, and the date of the merge. The user can then use the mouse to highlight the text they want to extract and press Control+C to copy the text to the clipboard so that it can be pasted into the notes section and saved.

All screens that allow the user to add patient notes have been updated with the new feature.

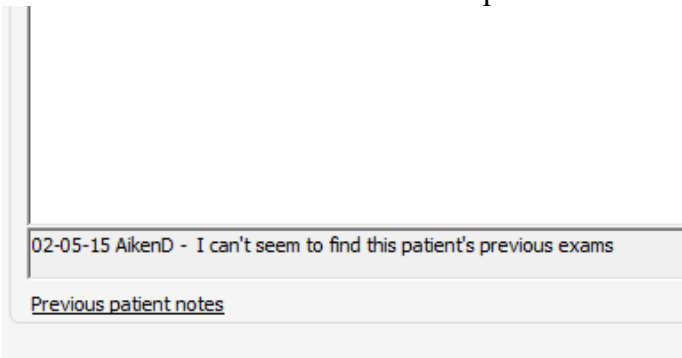


Figure 5.72 – Hyperlink to access merged patient notes

Selecting this hyperlink will open the Previous Patient Notes window.

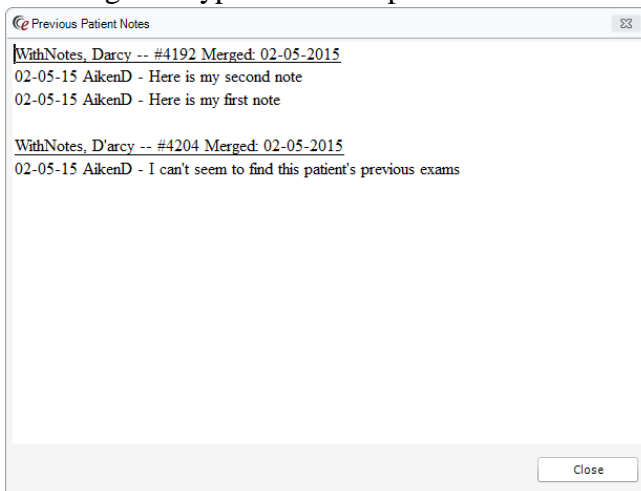


Figure 5.73 – Previous Patient Notes window

Enhanced Alternate MRN

The MRN grid on the patient tab has changed. We also moved the system MRN to be in the grid as well.

The Add/Remove options in the context menu have been removed as well as the buttons. The Grid will not have a “Click here to add a new row” option similar to other grids.

Adding and removing MRN rows is still controlled by the existing access strings, “**Clinical.AddMRN**” and “**Clinical.RemoveMRN**”.

A special read only blue row has been added to the first position in the grid. This row is to hold and display the system issued MRN. The end user cannot edit or remove this row.

Support for applying masks to the MRNs has been added. There is a default mask that can be configured with the new System Configuration setting of “**DefaultAlternateMRNMask**” that has a default of AAAAAAAAAA.

The Issuer table also has a new column titled Mask so a mask can be defined for each issuer. The column.

IssuerCode	Description	Display Order	Mask	Last Updated	Active
Click here to add a new row					
National ID Israel	National ID	4	# #### #	02-02-2015 11:...	Y
Passport CDN	Passport ID	5	LL####	02-02-2015 11:...	Y
QE Test	QE Testing	2	##-AA-LLL	01-30-2015 1:0...	Y
Barney	Barney	3		06-19-2012 1:5...	Y
test	test	1		05-15-2012 4:5...	Y

Figure 5.74 – Mask column added to Issuer table

Mask rules: # = number only, A = alphanumeric and L = alpha only.

Configuration Overbook Reason for Rooms/Modalities

The Modality lookup has been modified. It now includes an “Allow Overbook Flag”. This flag defaults to “N”. If enabled, the system will not prompt the user to specify a reason when there is already a procedure booked for the selected time on the scanner. The system will not enforce the overbook reason as a required field.

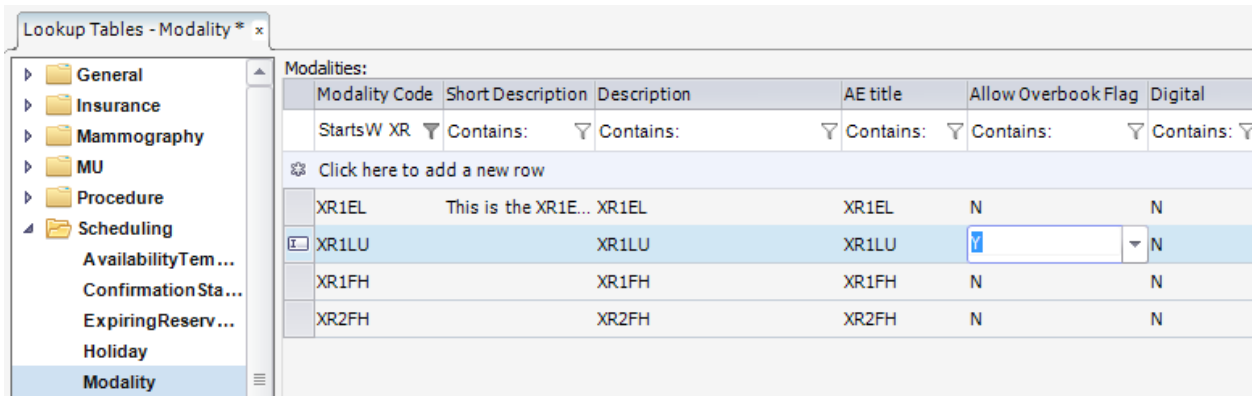


Figure 5.75 – Modality table with Allow Overbook Flag added

New Walk-In Button on Patient Folder

As the title indicates, a new ICON has been added to the Patient Folder to open the Walk-In window.



Figure 5.76 – New Walk-In button on the Patient Folder WL

DOB Field Enhancements

Using the calendar control was a bit cumbersome and time expensive trying to find a date. We have enhanced this DOB field on the Patient tab so it is an intelligent date control which will hopefully save the user’s time entering in the patient date of birth.

But we will leave it up to the customer to choose which they like to use. A System Configuration setting of “**ShowDOBCalendar**” has been added with a default of false. When set to true the calendar selection control will be displayed and available.

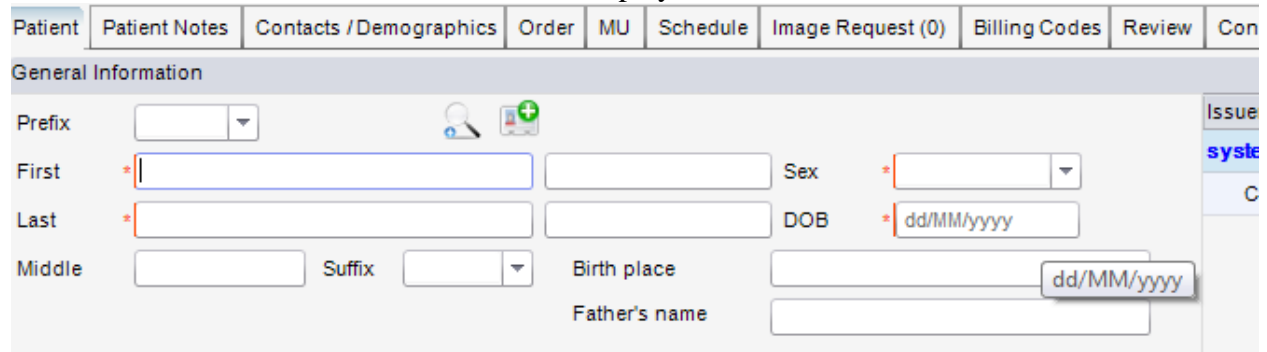


Figure 5.77 – Changes to DOB field on patient tab

Quick Search Enhancement to Clear Search Criteria

When entering a text in to the Quick Search field for Patient, Internal Person, Site, etc... we can easily clear the contents of the search field using the X.

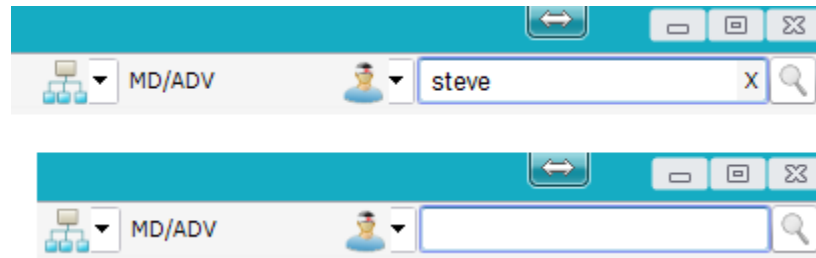


Figure 5.78 – Quick Search with the X to clear contents

Using Preferred Site Value on Reschedule

This feature works directly with the System Configuration setting “**ScheduleUsePreferredSite**”. When rescheduling the procedure, the Site field in the Search Options on Schedule tab will be defaulted to the site value from the Preferred Site on the Order tab.

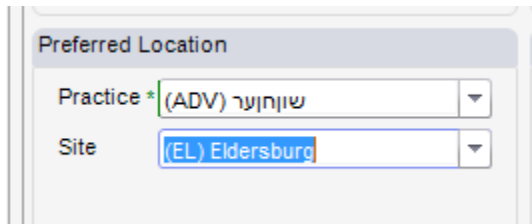


Figure 5.79 – Preferred Site

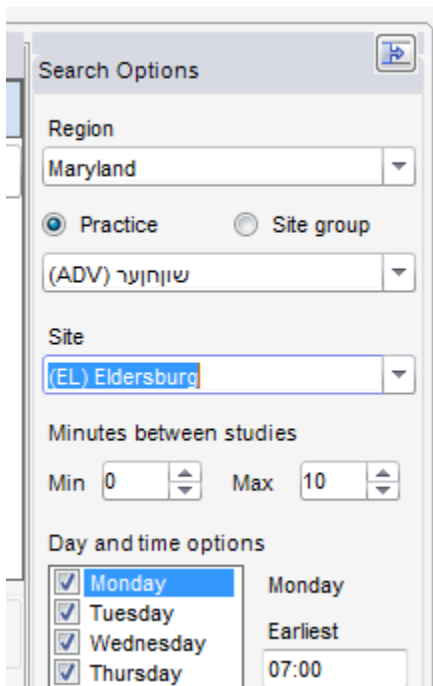


Figure 5.80 – Search Options Site defaulted

Add X Amount of Minutes to Walk-In Procedure

Walk-In has always been a “now” time. So when the Walk-In procedure was completed in the Walk-In window, the time of the exam would be current time.

We have added a new System Configuration setting of “**WalkinAddMinutes**” with a default value of 0, that will add time onto the Walk-In’s scheduled start time.

For example, with the value set to 11 you can see in the figure below the Scheduled Time is 11 minutes more that current time

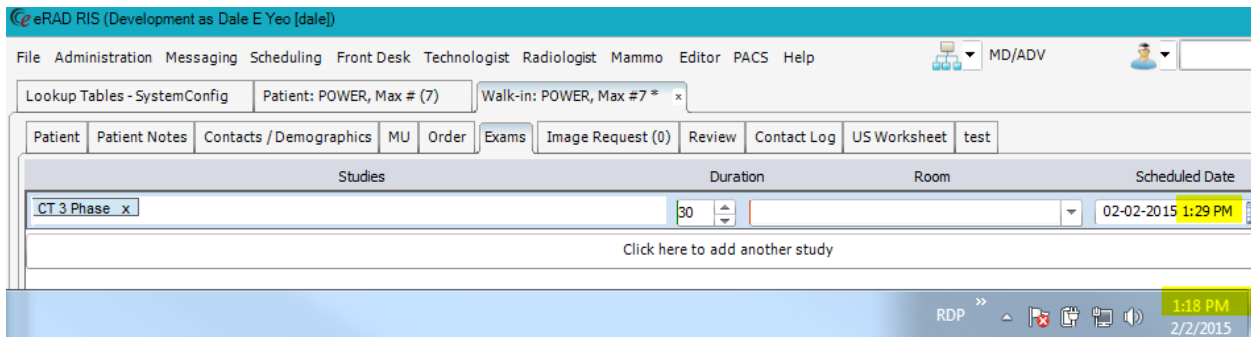


Figure 5.81 – Walk-in time increased by system configuration setting

Issuer of ID Added to Existing Order Window

Added a new column to the existing orders dialog box that appears when scheduling and appointment or creating a Walk-In for a patient that has orders to be scheduled. The new column has the caption “Order Source” and will show either the value of the “issuer_of_placer_order_number” column in the order (when specified, this is generally the emr code), or the system configuration value for RISOrderSourceDescription (generally “RIS”) for an internally generated order.

If the “issuer_of_placer_order_number” matches an EMR code in the EMR lookup table, the tool tip for the Order Source column will show the full description of the EMR as well as the EMR code.

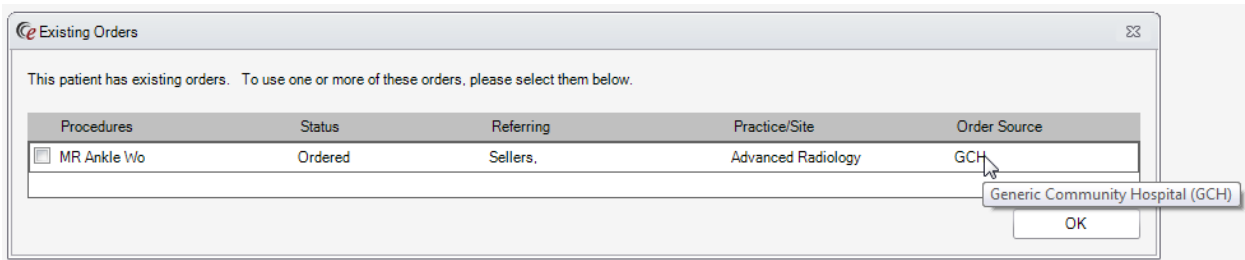


Figure 5.82 – Existing Orders window with Order Source column added

Support Automated Appointment Reminder Opt Out

Some patients do not want to have automated appointment reminders. A new checkbox “Do not send reminders” has been added on the Patient tabs, Contact Information data pane.

This will store this field at the patient level. During Implementation, RADAR will still need to reference this flag.

The screenshot shows a patient contact information form with the following fields:

Zip	<input type="text" value="32310"/>	<input type="text"/>	Home phone	<input type="text" value="0 -"/>
Country	<input type="text" value="US"/>			<input type="checkbox"/> No alternate phone
Email	<input type="text"/>		Work phone	<input type="text" value="0 -"/>
Preferred delivery method	<input type="text"/>		Cell phone	<input type="text" value="0 -"/>
				<input checked="" type="checkbox"/> Do not send reminders

Figure 5.83 – Checkbox for Do not send reminders

Order Notes added to MU Tab

The order notes field has been added to the MU tab. As with the Order Notes field on other tabs, it will adhere to the configuration set for Autotext in the Log Control lookup table

Patient: POWER, Max # (7) | View/Edit: POWER, Max #7 * x

Patient | Contacts / Demographics | **MU** | Order | Documentation | Billing Codes | Attachments | Notes / Exam Times | Contact Log | Mammography Worksheet | US Worksheet | test

Demographics at Encounter

Height Smoking status

Weight lbs BMI Is pregnant

Continuity of Care Record (CCR)

Clinical Document (C-CDA)

Medications

None Use grid Show inactive

Date	Medication	Administered	Physician	SIG Text

Allergies

None Use grid

Allergy	Reaction	Severity	Status	Start Date

Medical History

None Use grid

Problem	Start Date	End Date	Status

Lab Orders

Test	Status / Value	Date

Skip Labwork Advised WL

Order Notes

01-21-15 YeoD -

01-21-15 YeoD - ds kfsdak dfadf dsaf kdsfadskfjal sdfaj dsfaksjdf ifaewiof 098 40398 jrdjfaosodfffd 43q0 898q [0ltworfreof jfroaeirt45786093865 biwurfja ijdigfasdfgisdighidufhg siudf sdfughsduhg sddffd

01-21-15 YeoD - bcvbcbvcbvc

Figure 5.84 – Order notes on MU tab

New Diabetic Medications For MU

Added 4 new diabetic medications to the Quick add/edit screen (Jentaduetto, Invokamet, Kazano and Xigduo). Corrected the two medications that were identified as needed corrected (ACTOPlus Met changed to ActoPlus Met and Kombiglzexr changed to Kombiglyze XR). Created a db script that will need to run that will update the c_patient_medication table changing the drug_name from Kombiglzexr to Kombiglyze XR.

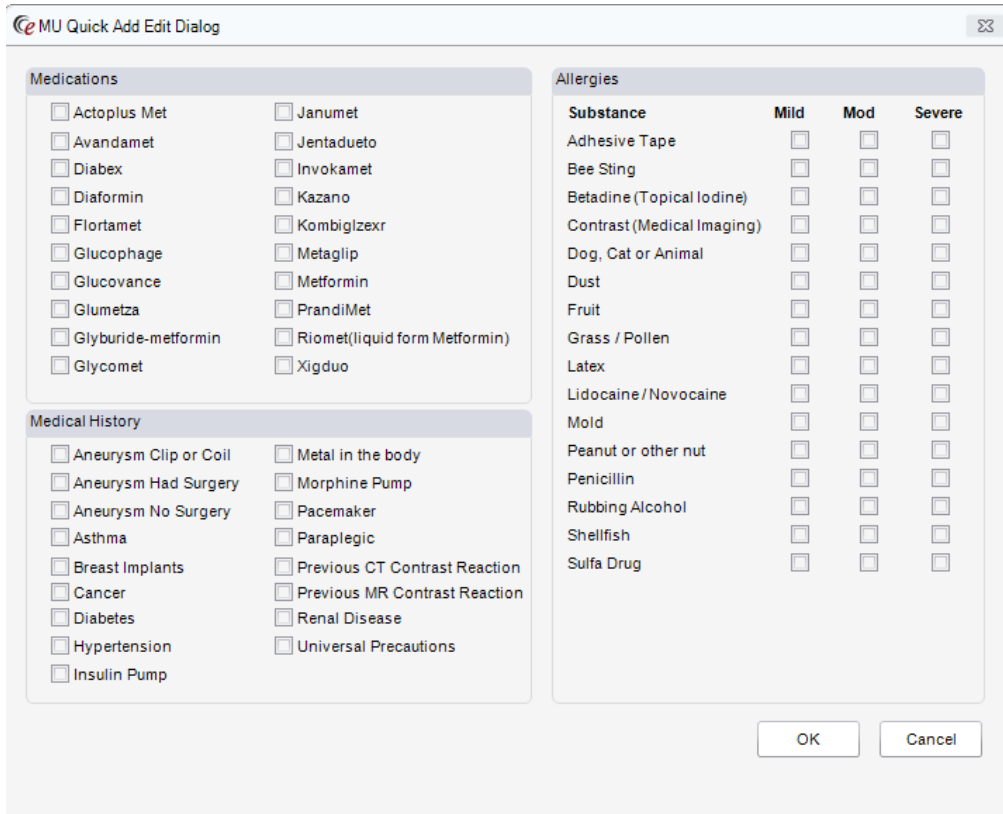


Figure 5.85 – Quick add edit window displaying additions and changes to Medications

Effective Date for Height and Weight

With the pre-existing System Configuration settings of HeightRequiredOnArrival, WeightRequiredOnArrival, HeightRequiredOnSchedule and WeightRequiredOnSchedule configured it was making it difficult to check the patient record in the Scheduling or Registration windows if the patient wasn't there at the time. The user would be prompted to complete this data and couldn't save.

We have added 2 new System Configuration settings.

“HeightRequiredEffectiveDate” which has a default of “1999-01-01”

Date to define when to enable checking if height is required when scheduling or arriving the patient"

“WeightRequiredEffectiveDate” which has a default of “1999-01-01”

Date to define when to enable checking if weight is required when scheduling or arriving the patient"

Reporting – Embedded Audio Recorder

We implemented a new recorder, which can be used by choosing the “eRAD” option in his user preferences. This option is controlled by access string

“**Config.AllowEradReportingIntegration**” which has a default of None

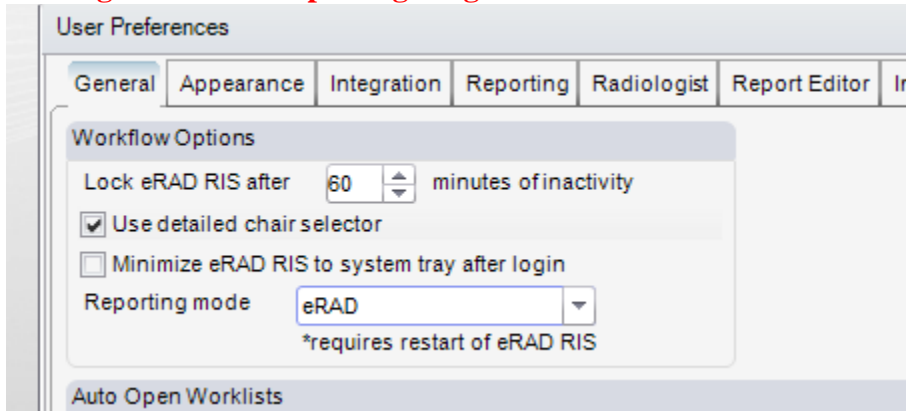


Figure 5.86 – New user preference

This new recorder will support record, pause, stop, playback, rewind, fast forward and show playback position (1:40 of 3:22).

Other User Preferences currently supported are Resume playback after rewinding and Insert/overwrite dictation.

It is recommended user then restarts eRad RIS for changes to take effect, and for their previous modes to be uninitialized. Once this change has been made, the user would not notice or see anything different than if they were running in batch mode. The only real differences would be that there is no batch process, audio must go to MTs for transcription and that the report tab in the dictation screen would now say “Digital Audio Report”.

Current limitations are a user would not have auto save reports/recovery or the ability to set playback speed wouldn't yield any results.

Reporting – eRAD Report Editor

With the audio recorder we also need to build our own report editor. The report editor would need to be seamless when changing from one editor to another, meaning not losing any functionality. The functionality of the editor will be explained below

Shortcuts – All relevant shortcuts have been added. For more information on shortcuts please reference the Shortcuts.docx document

Command bar – All relevant buttons have been added. Tooltip values are also present

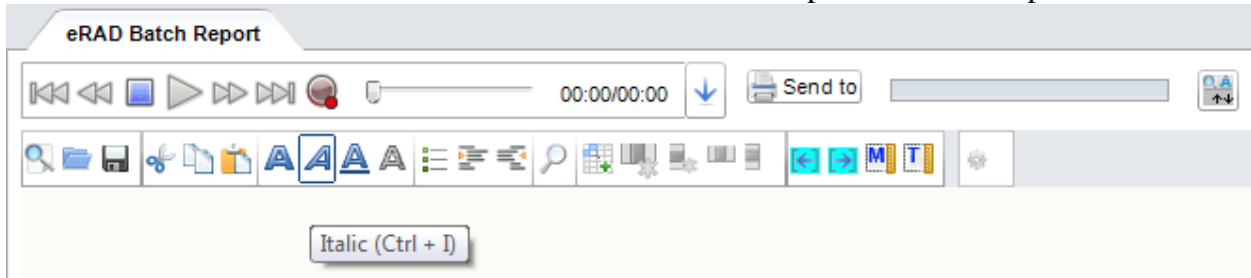


Figure 5.87 – Command bar

Custom Colors in Editor – The editor will support colors for Font, Background, Field Background, Template Text, Macro Text, Radiologist Edit Text, Transcription Edit Text and QA Edit Text. Also Font Size is available.

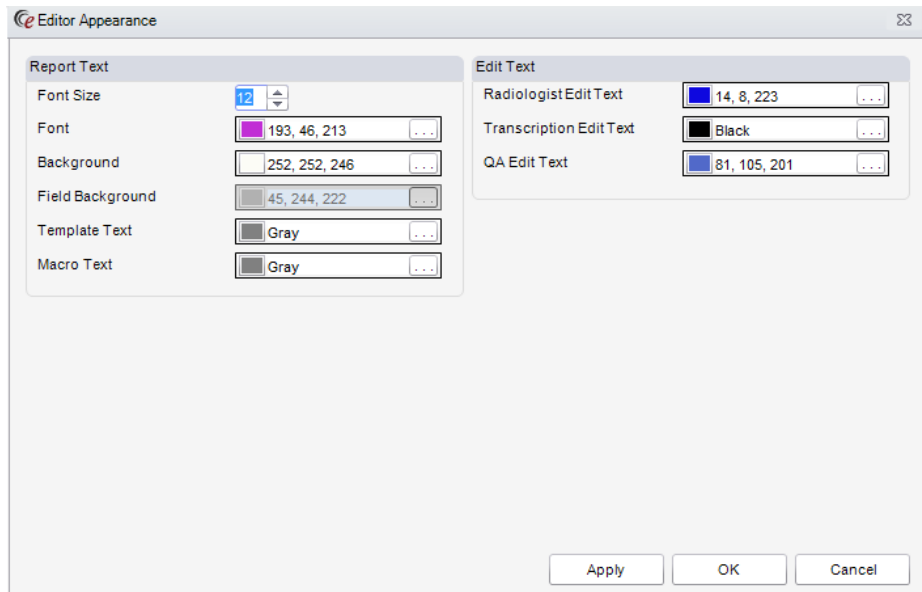


Figure 5.88 – eRAD Editor Appearance

Text Expander – A file called TextExpander.txt is used to create a user specific file <userid>_TextExpander.txt.

We will load all those entries into the editor when we create one assuming the user’s preference for text expander is set. We read the file and add every line item one by one. We’ve seen this take as much as 160ms, on initial load, but this is with many other things trying to load for the first time and accessing the disk. After the initial load we see values around 20ms, which doesn’t seem to fluctuate much based on the size of the file. We tested as big as we deploy, and as small as 1. Difference was not measurable in load time.

Next and Previous Field Navigation – When the template loaded has multiple fields, users will be able to navigate to next and previous fields by use of the mapped buttons on the SpeechMike, the arrow keys on the keyboard, next and previous field buttons on the command bar and using the Fields data pane.

Tables and Columns in Reports - New tables can be added via right click content menu option or toolbar button.

We provided the same control that will create default table of 3 columns and 2 rows. This can be modified at the time of table creation or after.

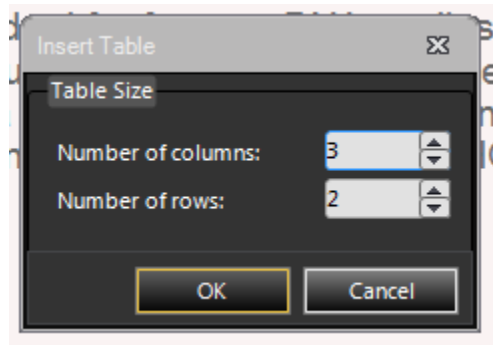


Figure 5.89 – Insert tables

After the table is inserted and the cursor is focused in the table more options will be available to the user in the toolbar and the context menu. These options include Insert Column, Insert Row, Delete Column and Delete Row. There are four options only available in the context menu and they are Insert Column Left, Insert Column Right, Insert Row Above and Insert Row Below.

The pre-existing access string of “**Clinical.CreateTableInReport**” which has default of Full is used to control user access to insert tables into a report.

Base template support - In the template/macro lookup editor, we now have a type for “Base Templates” which is only available when the editor type is set to “eRAD”. These base templates are created just like any other templates.

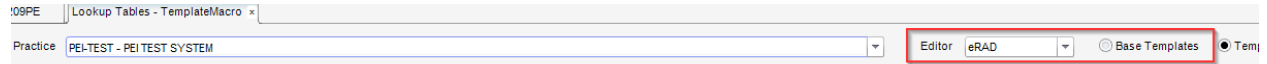


Figure 5.90 – Creating base templates for eRAD reporting

These base templates are created just like any other templates with a couple exceptions. They can only be assigned to practices and you do not have the options to set it as template/default/normal. One of the benefits with the eRAD Base Template, is that you can include fields that will be driven by data which you could not do with our M*Modal implementation. This is a great way to produce advanced custom reports quickly and consistently.

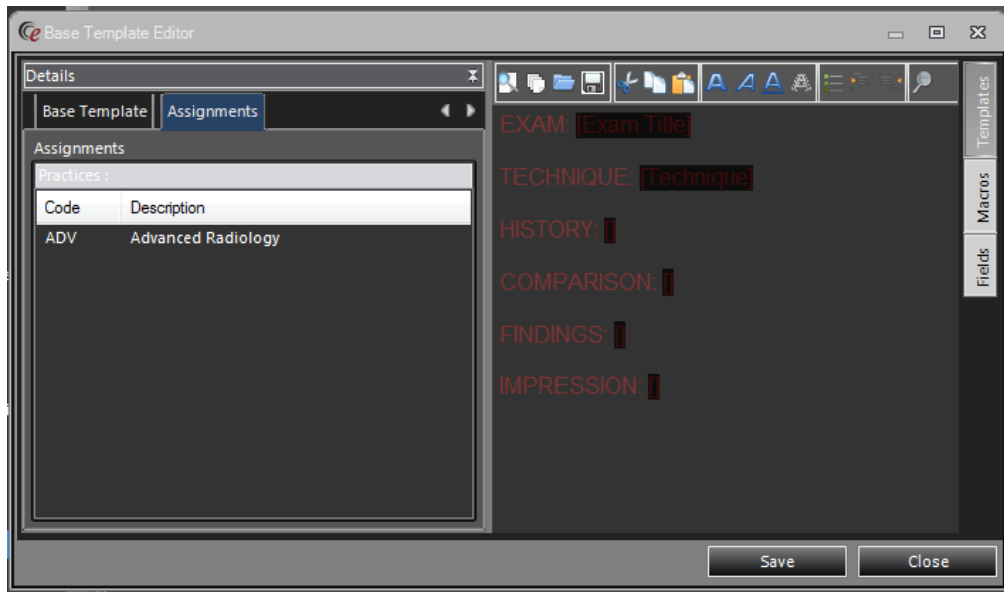


Figure 5.91 – Creating base templates

When the user then creates a template, they will have the option to choose a Base Template in the same dropdown used by M*Modal users, this dropdown will populate based on the selected Practice on the same screen. Unlike with M*Modal the user does not require base template in order to save, it is purely optional.

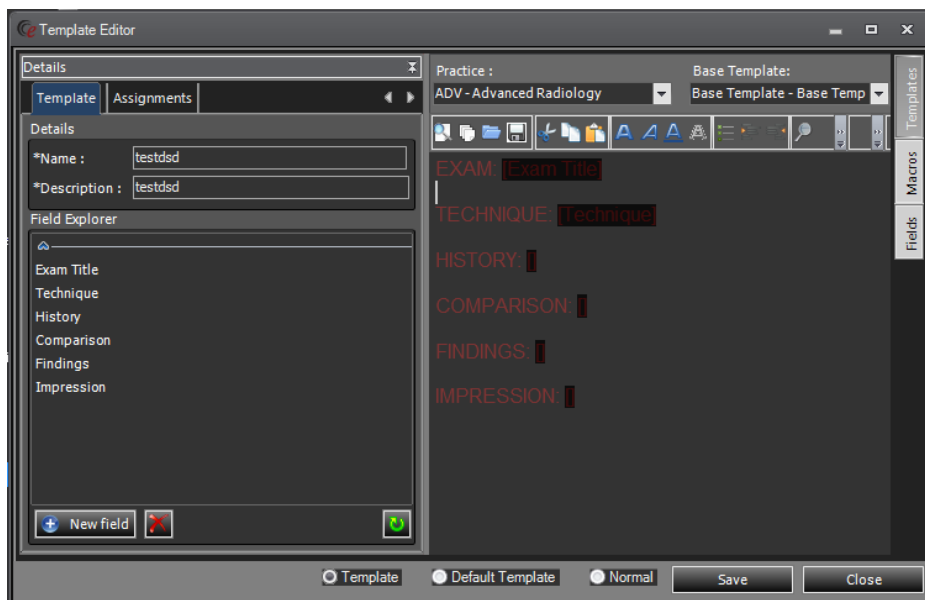


Figure 5.92 – Base template not required

Something to note is that we REQUIRE a base template be created for ADDENDUM it should be named “ADDENDUM” and will be used by code to support addendum workflow. Similar to how in M*Modal we required a pair of Base Document Models to support basic workflow.

Create template from report to support Auto Macros - We insert bookmark around the field before we populate it, we then use those bookmarks to reconstruct the field when we create a template from the report.

Advanced menu for reporting window - A new menu bar with more functionality which can be added to the editor pane at runtime by the user has been added. If the user does not have the correct access, which is “Full”, the code removes the menu item from the context menu.

To enable the editor’s advanced menu, right click in the editor window to bring up the context menu, and then select the “Editor Advanced Menu” item. This will insert a new menu bar with more functionality above the existing one. To remove the advanced menu, simply bring up the context menu again by right clicking in the editor pane and select “Editor Advanced Menu” to toggle visibility.

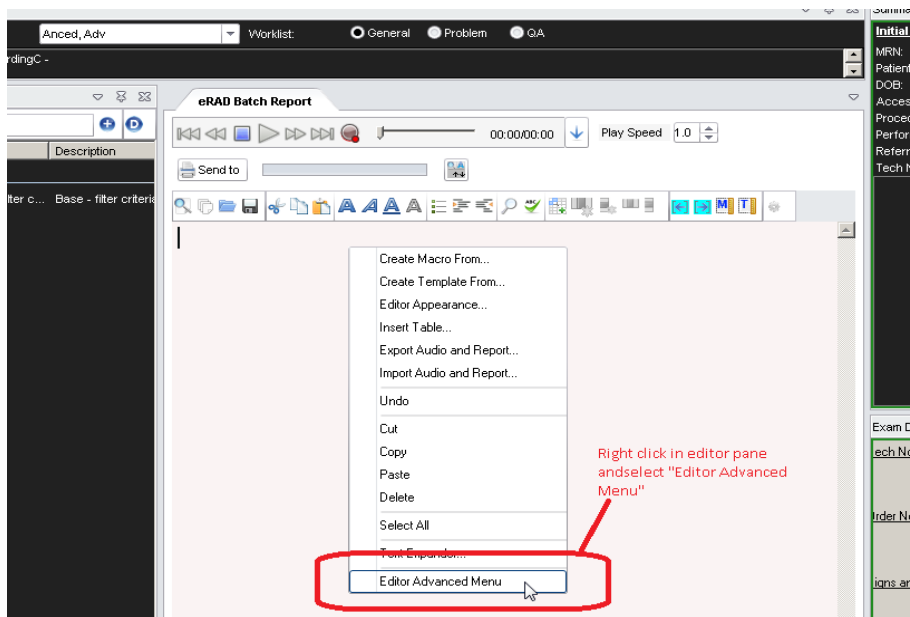


Figure 5.93 – Access to Advanced menu

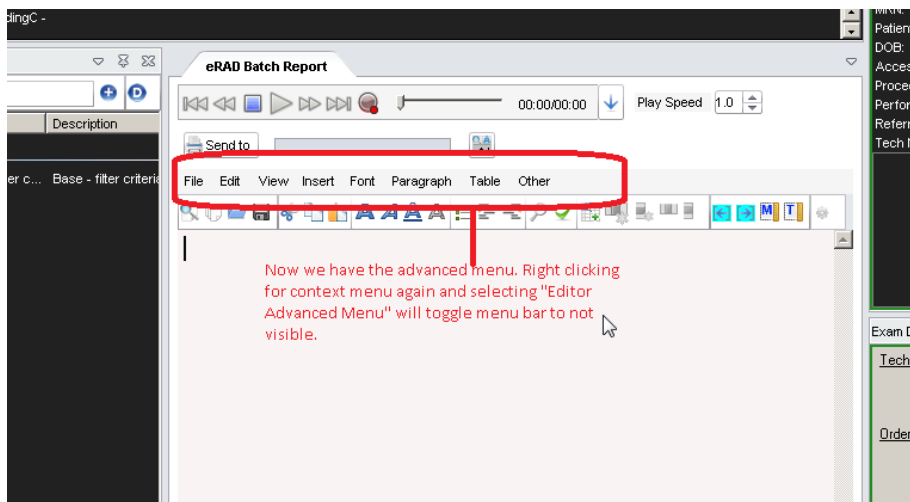


Figure 5.94 – Displaying advanced menu

Support Auto Save in eRAD Editor - With the new editor control, we need to make sure we can support existing auto save functionality so that when RIS crashes or is terminated, then the user would be prompted to reload reports that were in progress on login. One thing we needed to do with this editor was to disable its automatic backup feature. When the report was saved over an existing file, it would create a <filename>.BU backup of the existing

file before overwriting it. This caused errors as our auto save feature would try to parse these files as unique auto saved reports and would start searching for accession numbers with a .BU suffix.

This feature is only really complete once Feature #7864 is completed, as it takes care of the audio recorder part of this feature. Right now we are having some technical difficulties with that one, it might get delayed into another build.

General Reporting – Add Editor Appearance Preferences to User Preferences

This screen was available through the right click context menu on the report in the Radiologist/Transcription screens. We changed it a little mostly sizing and alignments so that it would match that of the user preferences screen. We also changed the buttons; we now have an Apply, OK and a Cancel button.

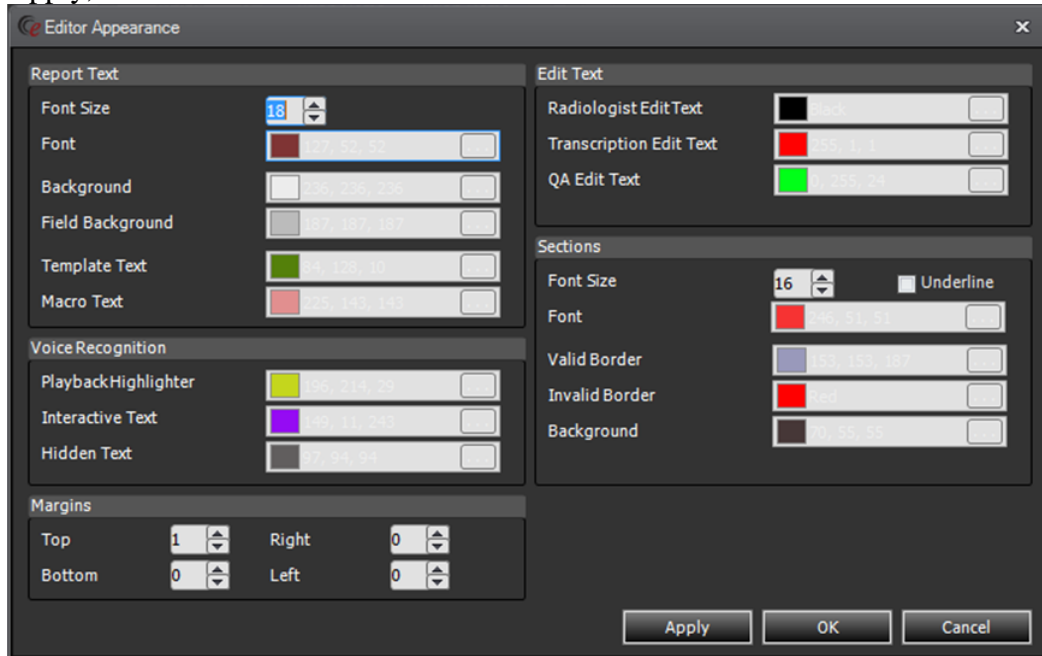


Figure 5.95 – Editor Appearance

We then injected them into the user preference screen under the “Report Editor” tab. These are the same control as the above screen they are being reused in this screen. If the user is using eRAD reporting then the “Margins”, “Sections” and the “Voice Recognition” groups will not be visible neither from the “User Preferences” screen nor the “Editor Appearance” screen.

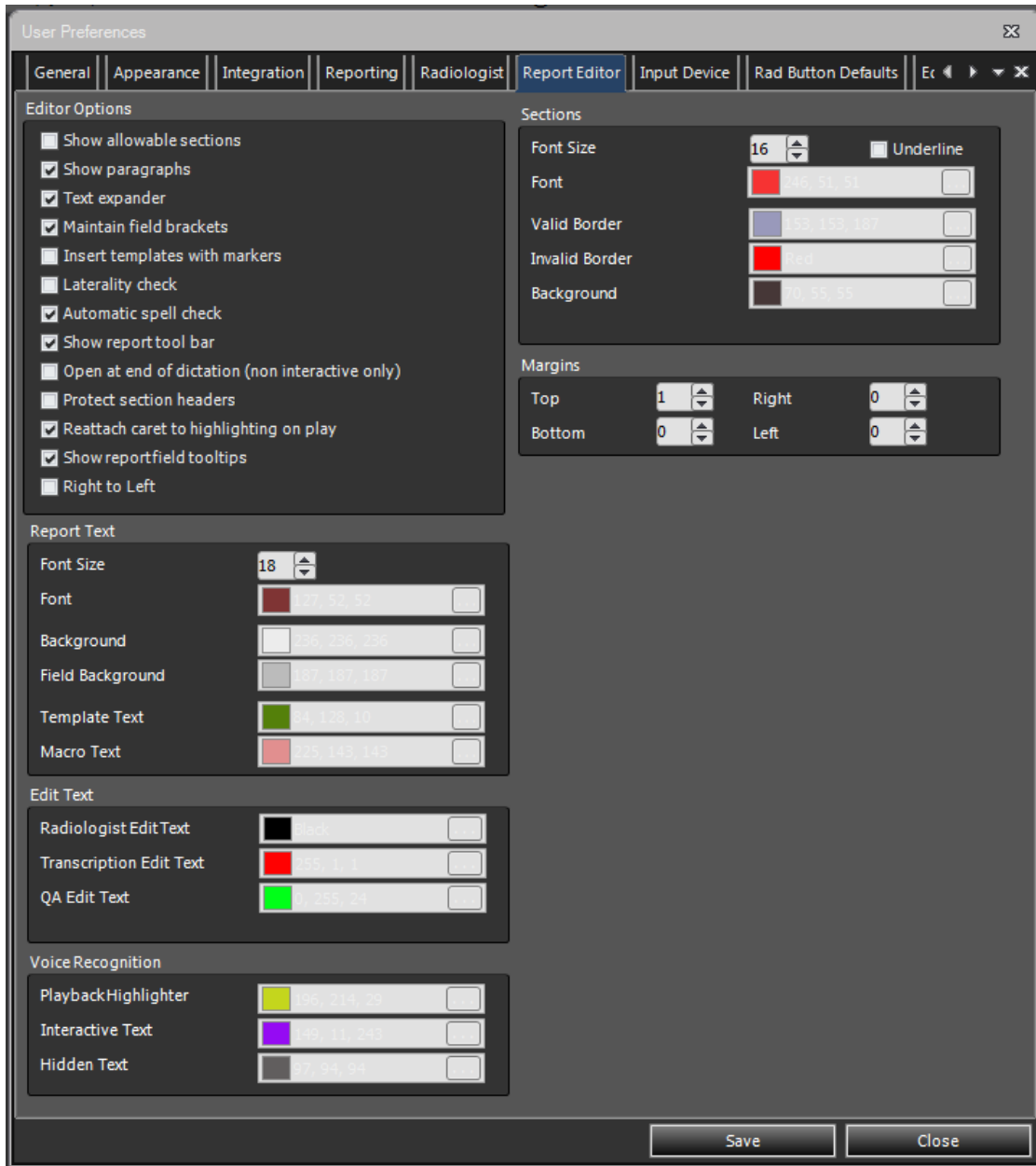


Figure 5.96 – Editor Appearance in User Preferences

General Reporting – Permissions for Report Integration Types

Current report integration types are:

1. eRAD (New type as of build 45 which includes it's own editor "TEEdit" and it's own basic dictation playback/recording device "MCI")
2. External (used to be None)
3. M*Modal
4. PowerScribe 360

The following access strings determine the integration type will be available to be selected in the User Preferences>General> Reporting Mode options

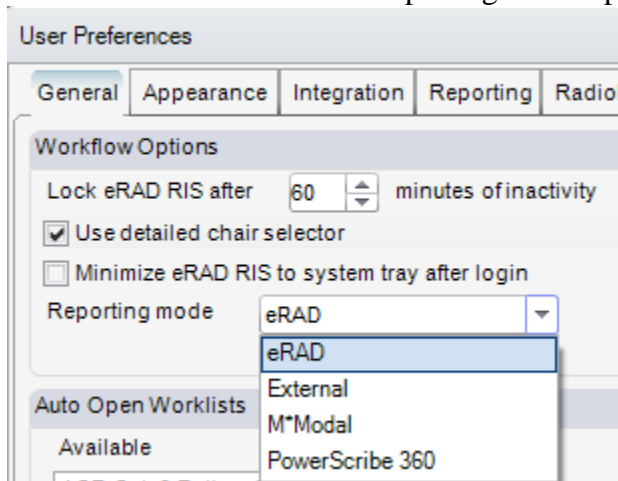


Figure 5.97 – Reporting modes

1. **Config.AllowEradReportingIntegration** – has a default of None. Controls access to eRAD reporting mode.
2. **Config.AllowExternalReportingIntegration** – has a default of None. Controls access to External Reporting Mode.
3. **Config.AllowMModalReportingIntegration** – has a default of Full. Controls access to MModal reporting mode
4. **Config.AllowPowerScribeReportingIntegration** – has a default of None. Controls access to PowerScribe 360 reporting mode

A new system configuration setting of "**AllowedReportingIntegrationTypes**" was added to control which reporting modes are available in the system. The default value for the setting is 15. The value is the sum of desired types where External = 1, MModal = 2, PS360 = 4 and eRAD =

8. So a value of 10 would mean that both eRAD and MModal are allowed. 15 means all are permitted (1+2+4+8=15).

In the template/macro lookup editor, we now have a drop down to identify which editor we are working with (MModal or eRAD integration). This drop down will default to the editor based on the users reporting mode. The default will always fall back to MModal if it's an available option assuming the user is using neither reporting integration types. It will also only load the values in the drop down if the system config setting and the access string allow for it or if the user is still on a no longer allowed mode. When only 1 value exists in the drop down, the drop down will not be shown.

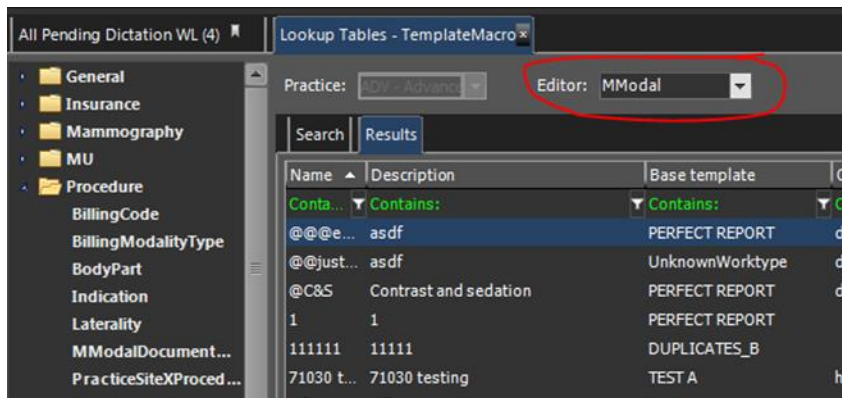


Figure 5.98 – Template/Macro defaulting to reporting mode

If the configuration is such that neither MModal nor eRAD Reporting is permitted, then the Template/Macro editor will not open. It will display the following message "The current system configuration doesn't support this lookup editor."

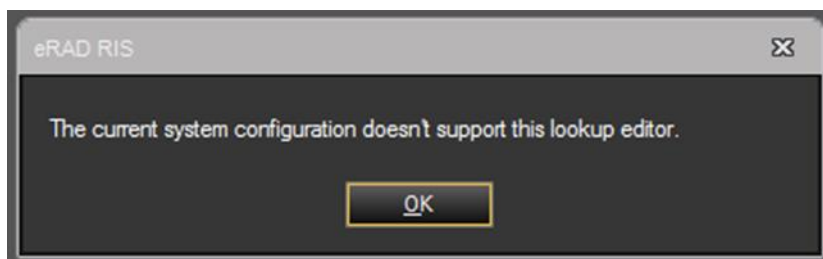


Figure 5.99 – Message is not configured for MModal or eRAD reporting

We are now hiding the “Interactive” and the “Interactive info prompt” group boxed in the “Radiologist” tab and the “Voice Recognition”, “Margins” and “Sections” group boxes under the “Report Editor” tab for user preferences when the user is using the eRAD integration type. We changed the text of the report tab on the reporting screen as follows...

- “Interactive Report” is now “M*Modal Interactive Report”

- “Batch Report” is now “M*Modal Batch Report”
- “eRAD Batch Report” is a new mode that didn’t exist before.
- “Report” for other modes like External or PowerScribe 360

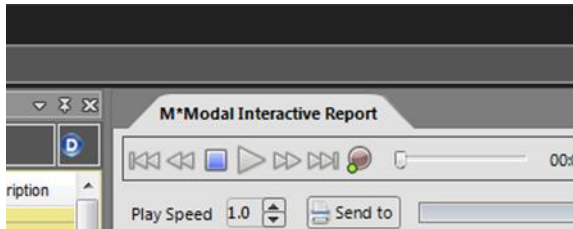


Figure 5.100 – MModal added to tab name when reporting mode is MModal

General Reporting – Custom Field for Modality Description

We added a new custom field in our list of custom fields that maps to the current study item modality report description column. The report description column is set in the Admin>Scheduling>Modality table.

If this value is empty nothing will be placed into the diagnostic report field.

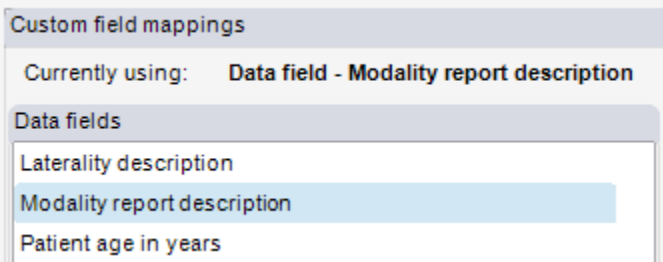


Figure 5.101 – Modality report description custom field mapping

General Reporting – Insert Template in the Template Editor

In the template editor we added a tab on the right hand side that will expand with the list of templates. User double clicks on one and the template will replace all the text in the current editor. We do not merge the documents. This is simply a way to get started using another template.

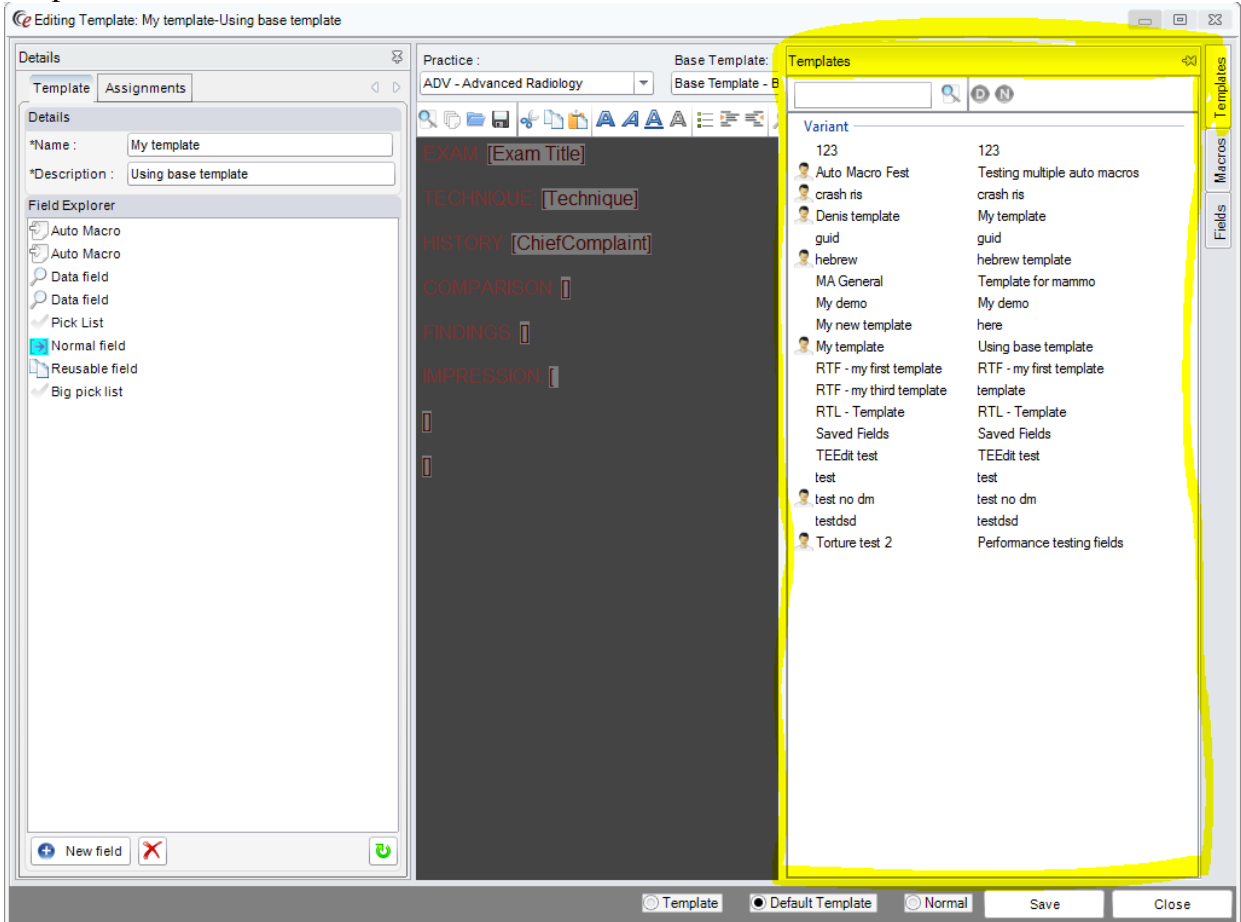


Figure 5.102 – Inserting existing template into new template

General Reporting – Support Pick Lists in Report Editor

We created a new field type called pick list. This option will be available when creating a new field. The field can be named and will show in the field editor as this name.

Users can add option to the pick list type of field and set the following properties on the pick list option.

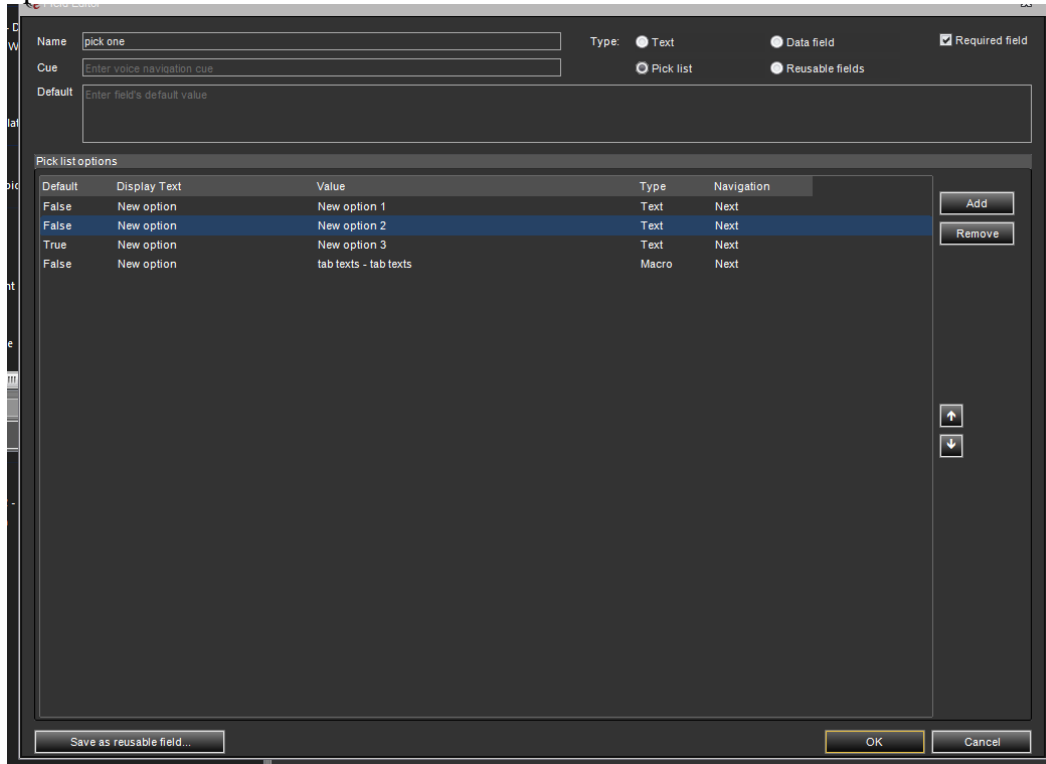


Figure 5.103 – Pick lists

Default – this will determine if the option will be inserted by default when the pick list is first loaded. This default option will be highlighted when the cursor is located in the field.

Display Text – this column will be what the users see in the first column of the “Pick list options” in the “Fields” tool window. Meant to be a short descriptive name.

Value – this column will be one of two scenarios.

- **Type** = “Text” we will simply put this text directly into the field as text.
- **Type** = “Macro” we will try to locate a macro matching on the text entered into the value column. If the macro is not found we will indicate to the user as we do similar to xKeys insertion.

Type – this column will drive the previous value setting. The default for this option is “Text”. There are only two options currently “Macro” and “Text”.

Navigation – this column will determine where the cursor and selection is placed after selected the option. It is a drop down with the following options.

- “Next” – default option will move to the next valid field in the report. Similar to click the next field on the speech mike or shortcut
- “None” – will not do any additional navigation after option selection
- “Previous” – navigate to the previous field

We have the ability to remove an add items in the pick list.

We have the ability to sort the options which is how they will display to the user when creating reports.

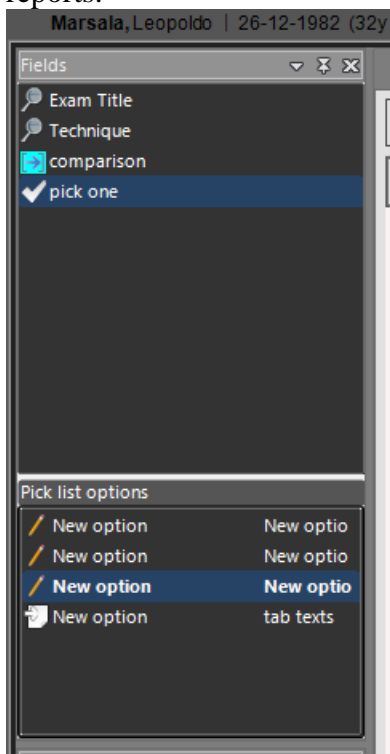


Figure 5.104 – Adding and removing from pick list

General Reporting – Technologist Name as Report Field

We added a new custom field that can be mapped into the diagnostic report that will contain the performing technologist if available.

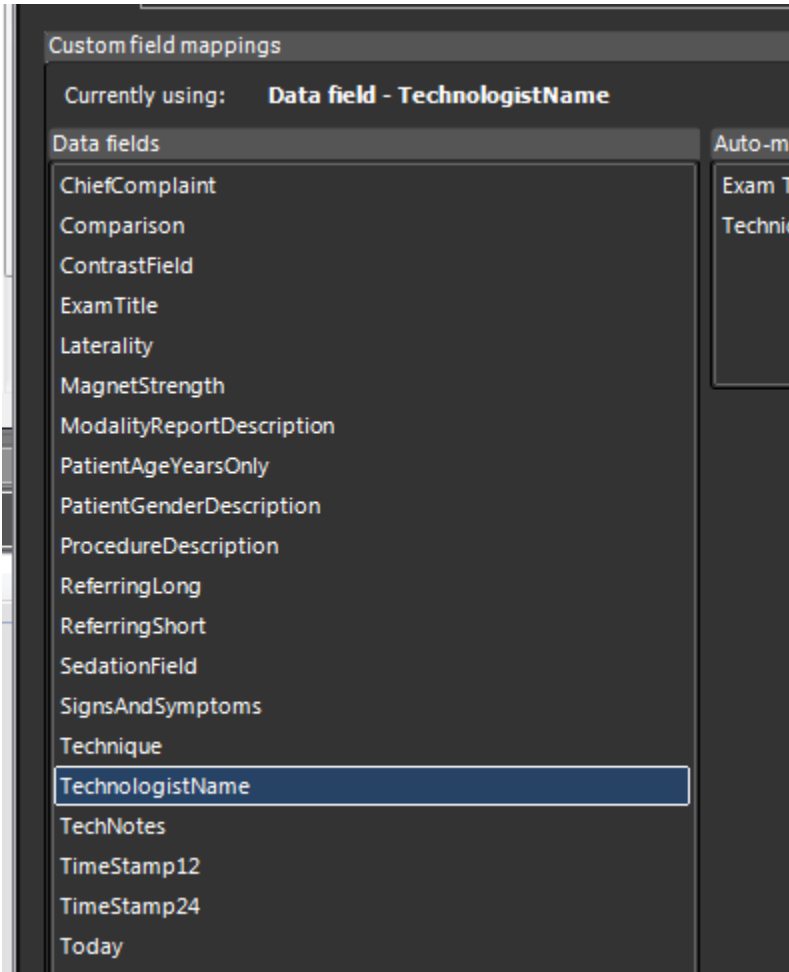


Figure 5.105 – Tech name as custom field

General Reporting – Support DEXA Reporting

Persistence of DEXA values is done in the eRAD RIS database in the `c_study_item_dexa` table. There will be one row per study item in this table. Typically one row per study until the system supports multiple study items per study.

Loading these DEXA values into the diagnostic reports is done via the template/macro manager tool. In this tool fields can be added and then mapped to the specific DEXA value(s). Current DEXA study values map the field directly to the `c_study_item_dexa` table. For previous DEXA study values map the field to the `c_study_item_dexa_previous` table.

Note that we populate the previous dexa table based on performed end date. This will also populate for unsigned studies as it was a performed DEXA exam.

Allowing technologists to create the report prior to the radiologist opening will be addressed in Build 45.1.

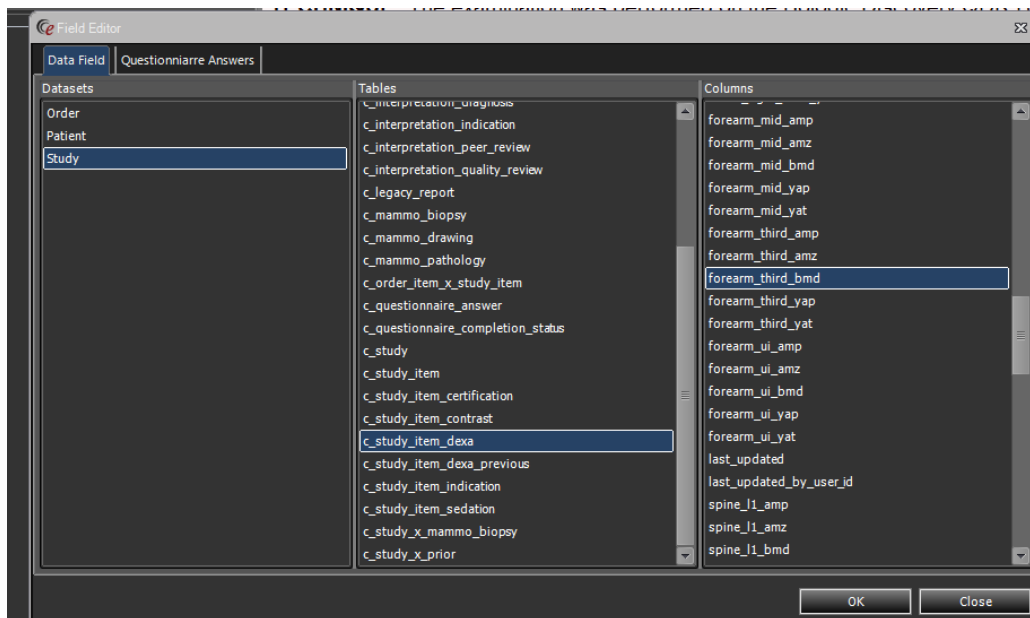


Figure 5.106 – Support for DEXA reporting

General Reporting – Zip Code Added to Signed Reports

The reading location zip code has been requested to be displayed in the report. The zip code is of the reading radiologist is captured in the County Selector or Chair Selector windows. Chair Selector is enabled in the Practice table, where the County Selector is enabled with the System Configuration setting of “**EnforceCountySelection**” with a default of False.

A new System Configuration setting has been added titled “**EnforceZipcodeSelection**” which has a default of False.

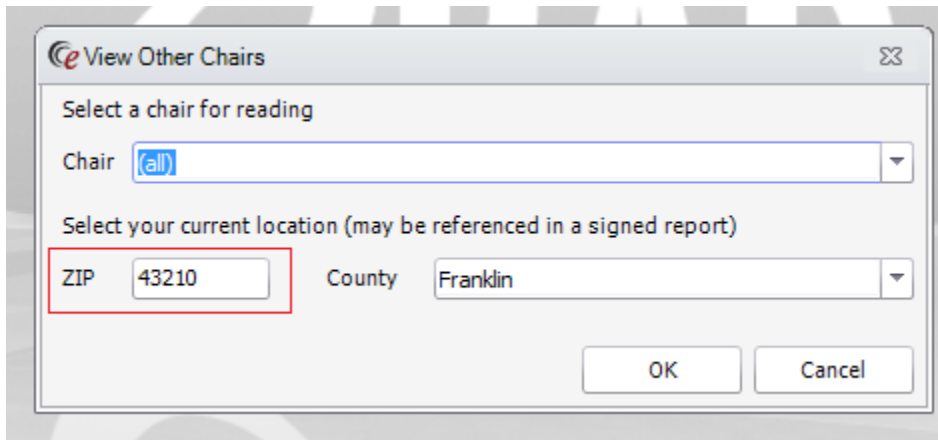



Figure 5.107 – ZIP for report and can be a required field now

When the setting is turned on, the user must enter a zip code before reports can be signed. The selected zip code will then be saved when the report is signed.

General Reporting – Restrict Exam Dictation to Associated Practice Only

We now check the practice code of the study and validate if the radiologist is associated to that practice. If not associated the dictate and sign button will be disabled.

Worklists needed to include the practice code column so the appropriateness checks would function properly. This was mainly a change in the worklist views with the addition of a store procedure used to get the My Signed By Date WL.



#	Ready To Read	Practice
✓		BORG
✓		ADV
✓		ADV
✓		ADV
✓		ADV
✓		ADV
✓		ADV

Figure 5.108 – Practice column

If using the feature “Report on accession number” (inbound reporting) we check the practice code while opening the dictation screen and indicate to the user they do not have rights to open the study.

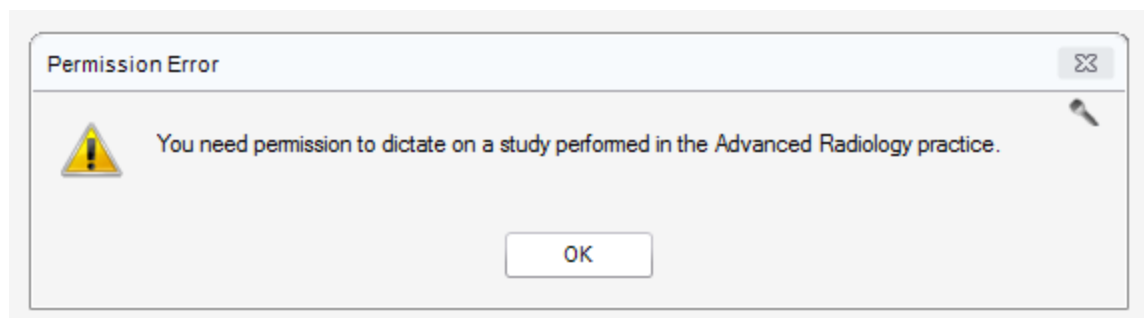


Figure 5.109 – Message informing cannot dictate because not assigned to practice

General Reporting – Show Only Assigned Studies on My Pending Dictation

The Pending Dictation (My) WL in eRAD RIS returns all studies assigned to the logged in user and studies not assigned to anyone.

We added a new practice level setting “Show unassigned studies on Pending Dictation WL”. This new setting is default to true (Y) which will replicate pre-existing WL functionality.

The screenshot displays a web-based configuration interface. At the top, there are input fields for 'zip code' (21244-3244) and 'Country' (US). Below these are several tabs: 'Miscellaneous', 'PACS and Reporting' (which is selected), 'Peer Review', 'Portal', and 'Radar'. The 'PACS and Reporting' section is divided into two sub-sections: 'PACS' and 'Reporting'. The 'PACS' section contains a 'PACS server' dropdown menu set to 'PEI eRAD PACS server' and a 'CD burner user profile' text input field. The 'Reporting' section contains a 'CDS object ID' text input field with the value '2.16.840.1.113883.3.21.11740.361961.362921/9~Def' and a checked checkbox labeled 'Show unassigned studies on Pending Dictation WL'.

Figure 5.110 – Preference on practice to show/hide unassigned studies on Pending Dictation

If the practice chooses not to include unassigned studies on the Pending Dictation WL they can turn this setting off.

General Reporting – Assign Radiologist to Procedure Code Group

A new lookup table of ReadingGroup has been created and resides under the Procedure directory of the Configure menu.

We created a new custom editor to maintain this feature, it allows to see users/reading groups and procedures all on one screen with the ability to add/remove users and procedures from reading groups as well as creating and deleting reading groups.

The editor will open up as follows, it will list the reading groups in the top left grid, with the user assignments grid below, and the procedures on the right.

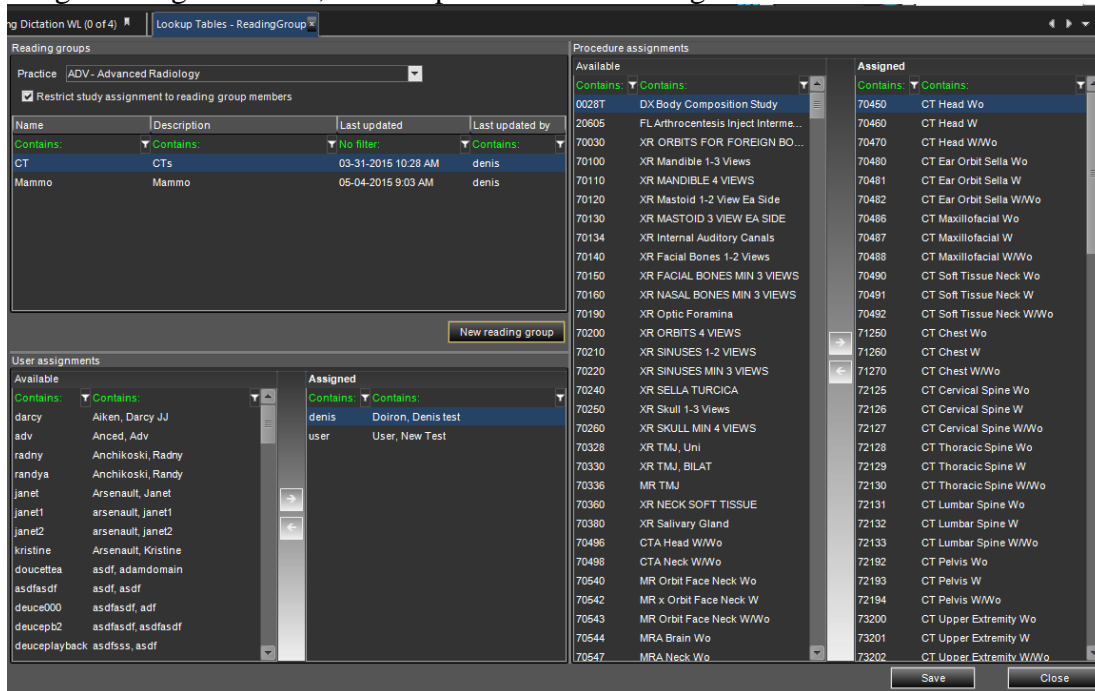


Figure 5.111 – Reading Group lookup table

When they choose to create a new reading group, they click the “New” button and a popup form will show asking for the name and the description of the reading group. These fields have validation and the “OK” button will only enable when they pass validation. Hovering over the red exclamation mark will provide information on why it isn’t passing validation.

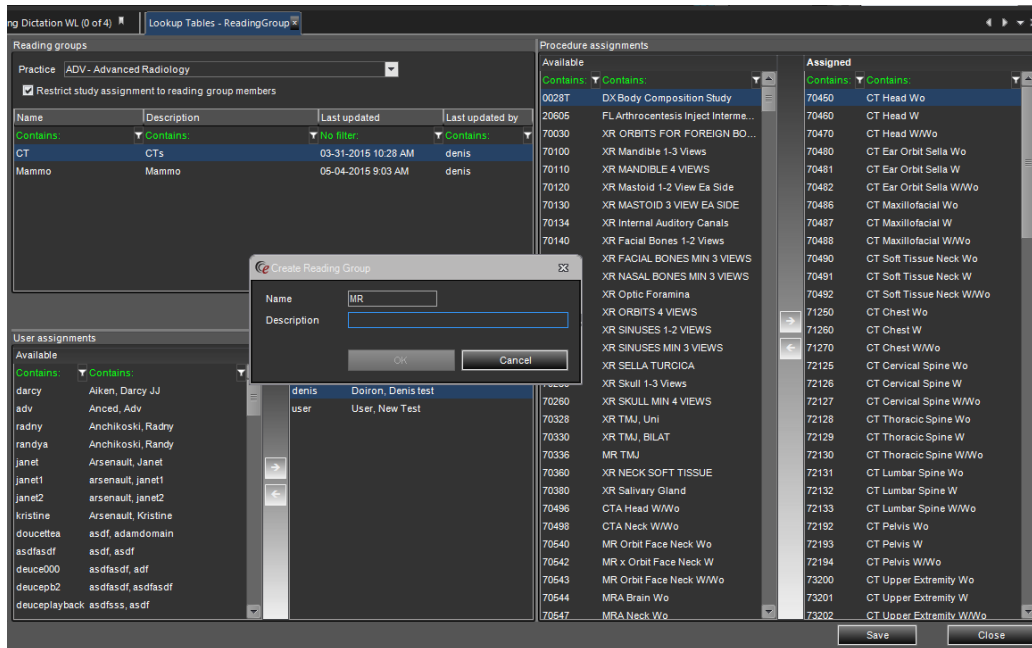


Figure 5.112 – Reading Group

The assignments areas are 2 separate grids, one showing the available items, and the other showing the selected items for this reading group. The user then moves item between them either by double clicking items, or using the arrow button between the grids until he/she is happy with the assignments. The user can create or modify multiple reading groups then click “Save” to commit changes to the database.

Users can be assigned to as many reading groups as desired, but procedures can only be assigned to 1 reading group per practice. Once a procedure is assigned to a reading group, it will no longer be in the available list for any other reading groups in that practice.

From this screen we can also control which practice will limit radiologist assignments to members of appropriate reading groups. This is controlled with the checkmark under the practice selection control.

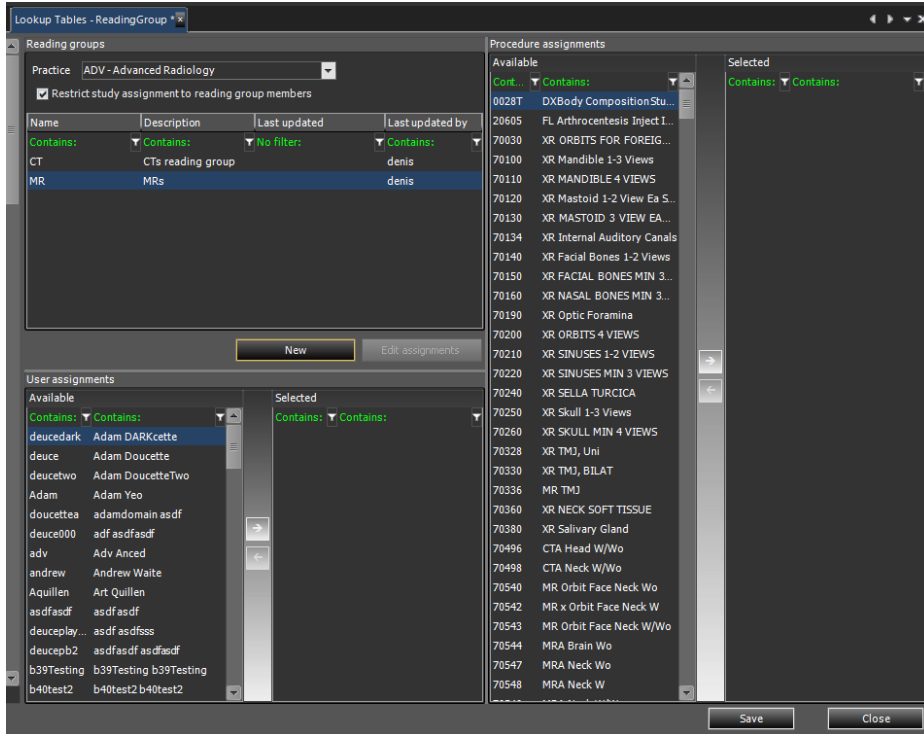


Figure 5.113 – Reading Group lookup table

This is also available to be configured in the “Add/Edit Practice” screen under the “PACS and Reporting” tab.

The screenshot shows a software window titled "Add/Edit Practice" with several sections:

- Details:** Practice code (ADV), Description (Advanced Radiology), Phone # ((443) 436-1100), Fax # ((443) 436-4568), Time zone ((UTC-04:00) Atlantic Time (Canada)), and an Active checkbox.
- Contact:** Contact name (Jim Smith), Phone # ((443) 436-1100), Mobile # (()-), Fax # (()-), and Email (jim@mail.com).
- Address:** Address 1 (7253 Ambassador Road), Address 2, City (Baltimore), State (MD), ZipCode (21244-3244), and Country (US).
- Logo:** A placeholder for a logo with a red X icon.
- Navigation:** Tabs for Miscellaneous, PACS and Reporting (selected), Peer Review, Portal, and Radar.
- PACS:** PACS Server (PEI eRAD PACS server) and CD burner user profile.
- Reporting:** CDS object ID (2.16.840.1.113883.3.21.11740.361961.362921.9-), Chair workflow enabled (unchecked), Show unassigned studies on Pending Dictation WL (checked), and Restrict study assignment to reading group members (checked).
- Buttons:** OK button at the bottom right.

Figure 5.114 – Preference on practice for reading group

Users can also be assigned to reading groups in the personnel editor. Similar to how we assign user groups and schedule groups.

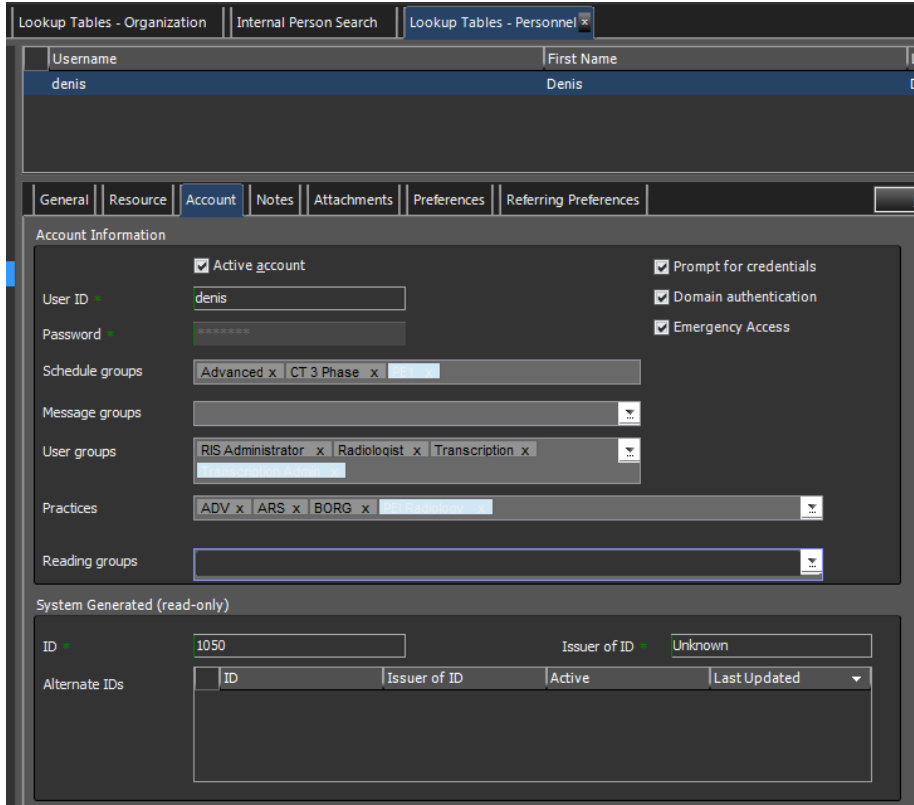


Figure 5.115 – Assigning Reading Groups in Personnel Editor

When the practice is set to “Restrict study assignments to reading group members” we will filter our “Assign to radiologist” dialog to limit the list of users to the currently assigned users or users that are part of all the reading groups of the selected studies. If we are assigning multiple studies as once, the users in the list will be the ones that are allowed to read all cases.

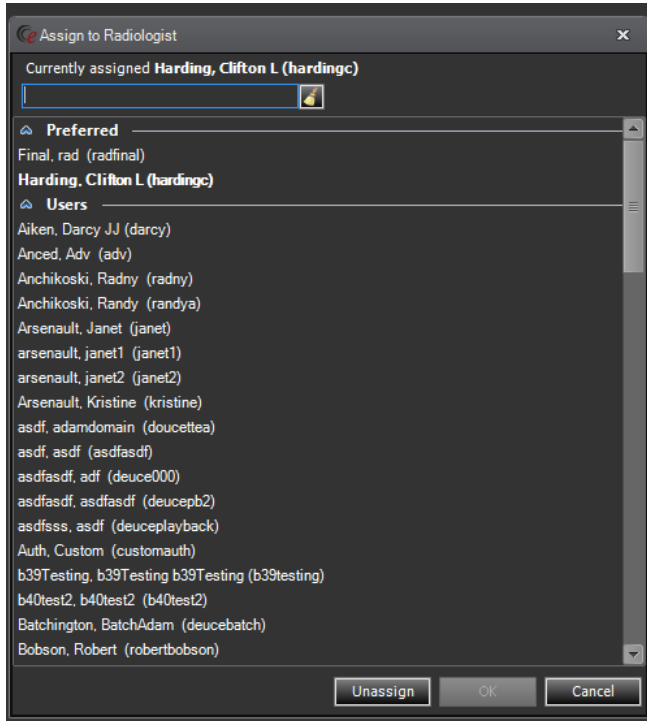


Figure 5.116 – Assign Radiologist filtered by Reading Group

A new column has also been added to the work lists. The Reading Group Column will display the Description and Name of the reading group and is available on the Patient Folder WL as well as the Radiology and Editor WL's

General Reporting – Elapsed Time Pending Signature

Added new column Elapsed Minutes Pending Signature renames Time Pending Signature to Elapsed Time Pending Signature.

The Elapsed Minutes Pending Signature will allow users to sort, filter and create conditional filters to highlight particular exams that exceed configurable amount of time.



Audio Size (bytes)	Elapsed Time Pending Signature	Elapsed Minutes Pending Signature	Elapsed Time
	3h 29m	210	

Figure 5.117 – New columns for time pending signature

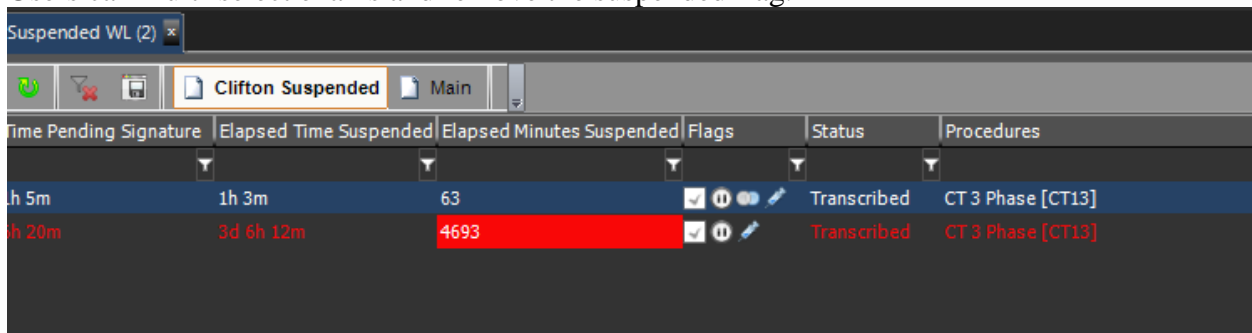
General Reporting – Show Elapsed Suspended Time on Work Lists

We added two new columns Elapsed Time Suspended and Elapsed Minutes Suspended.

The Elapsed Time Suspended was added for consistency with existing Time Pending Signature.

The Elapsed Minutes Suspended will allow users to sort, filter and create conditional filters to highlight particular exams that exceed configurable amount of time.

Users can multi-select exams and remove the suspended flag.



Time Pending Signature	Elapsed Time Suspended	Elapsed Minutes Suspended	Flags	Status	Procedures
1h 5m	1h 3m	63	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Transcribed	CT 3 Phase [CT13]
1h 20m	3d 6h 12m	4693	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Transcribed	CT 3 Phase [CT13]

Figure 5.118 – New columns for time suspended

General Reporting – Ability to Display Audit History for Peer Review

When a report was Peer Reviewed it was never captured in the Audit History. This was to hide the details so other users could not see who had Peer Reviewed others studies.

We now control visibility of the “Report Peer Reviewed” audit entries via access string of “**Clinical.AuditHistory.ShowReportPeerReviewed**” which has a default of None.

If the access string is set to “Full” the entry will be displayed. If set to anything else it will be hidden.

Reporting MModal – Upgrade to 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). To utilize and gain the benefit from this newer recognizer we must notify M*Modal so they can make backend changes to the users account.

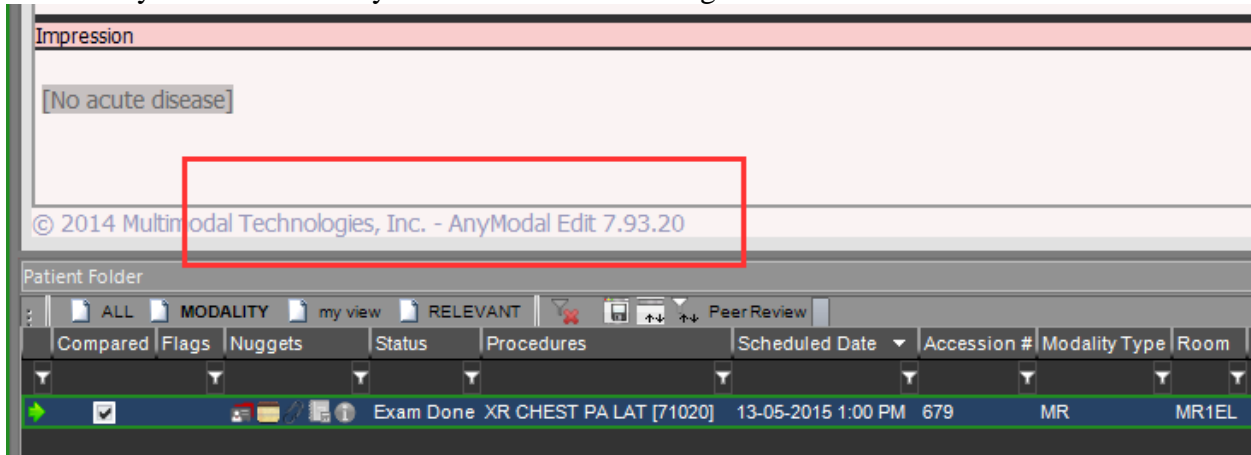


Figure 5.119 – MModal 7.93

Reporting PowerScribe – PowerMicII Support

We integrated the PowerMic II device by referencing the Interop.USBMgrLib.dll in the AudioLib and MainApp projects. This library exposed the needed methods and hooks for us to tie into the device button presses.

Below is a screen shot displaying all of the buttons that can be configured in eRAD RIS.

Configuration options are the same as the Philips Speech Mike device.

We coded the device to support hot-swapping. You can plug and unplug on the fly and it will be recognized with a message.

If another system is using the Power Mic II as an input device you can set the buttons in eRAD RIS to do “Nothing” so it doesn’t conflict with the other application.

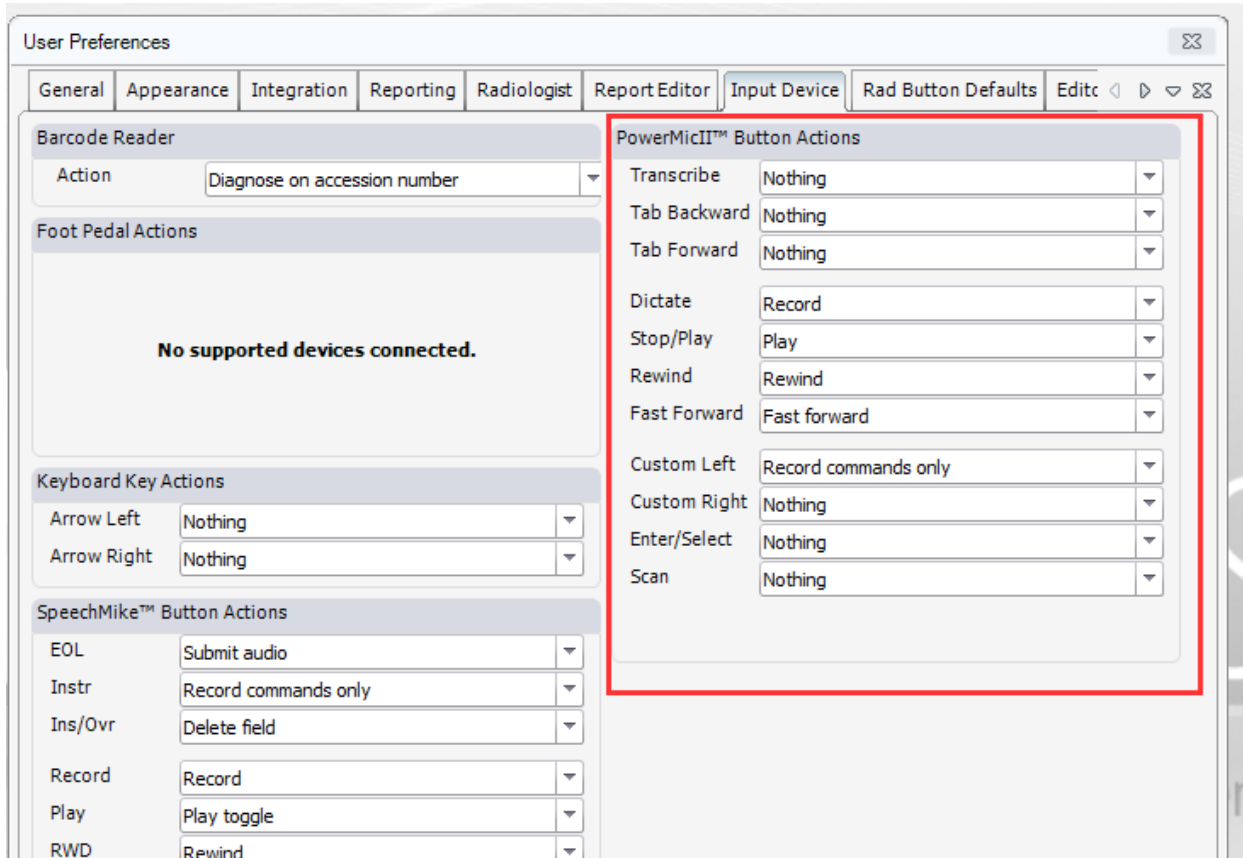


Figure 5.120 – PowerMic button assignments mapped via user preferences

Document Distribution – Save Patient Preference for Report Distribution

The patient preference for report distribution will be saved in the order table in a new column of patient_report_delivery_preference. This feature will not be mapped to any screens in RIS, but simply a place in the system to store the data to receive from and/or pass to external systems.

Document Distribution – Active Printer Synchronization

The DD now starts a task for the queue poller then loops every 10 seconds to poll for new/changed printers each iteration.

If it finds a new printer that is also in the lookup, it will start the worklist worker for this printer. If it finds a printer that is not in the lookup but is currently being worked it will stop the worker. If it finds a printer that no longer has *Keep Printed Documents* turned on then it will stop the worker.

Document Distribution – Verify Printer’s Keep Printed Documents Setting

We now check to make sure the printer has the Keep Printed Documents checked box checked before we submit jobs to it. If it does not, then it will print an error message indicating that printer does not have this setting and will not add it to the list of printers for which is submits jobs. An error message will be printed to the console to indicate that this printer does not have the *Keep Printed Documents* setting on.

Submitting a print job for this printer will now result in the job staying in Pending status.

Document Distribution – Jobs Created When Transaction Fails

All jobs now roll back if any portion of the work of processing the jobs fails to complete. Instead of processing the queue item in one transaction, it is now done in three steps each having its own transaction logic.

The first step involves a database transaction where the action queue row will have its available date time temporarily set to a future date to act as a reservation time period so no other program pulling from this queue can get the same job. This period is based on the database time and a configurable reservation time in the applicationsettings.config file.

The second step is where the actual business logic takes place. This may or may not be done within a transaction, depending on the needs of the program using the queue. The DDE uses a transaction for this step but the Wedge which uses the same code does not.

The third step is within another database transaction and either deletes the action queue row if it was successfully processed or updates it if it was not.

The three step approach has been applied to processing c_action_queue rows one at a time as well as to the strategy of processing all rows grouped by the action_data_key values of their corresponding c_action rows.

Added new settings in the applicationsetting.config file for DDE Service for:

QueueItemReserveTime – This setting determines how long the Wedge will reserve a queue item.

DDEQueueItemReserveTime – This setting determines how long the DDE will reserve a queue item.

Document Distribution – EMR Distribution Jobs Validity Check

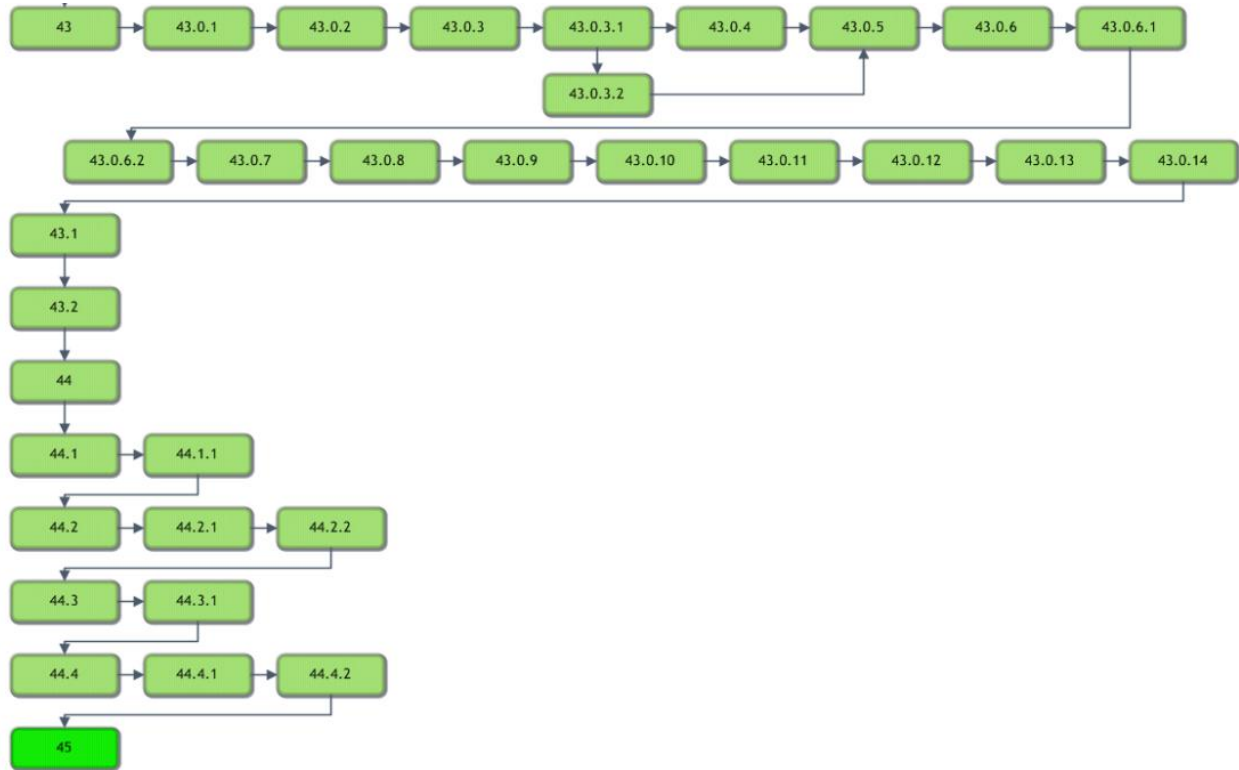
EMR distribution jobs should go to error status in the following cases:

- 1) The job is related to an EMR order that has multiple studies associated to it and the EMR does not have functionality to account for it.
- 2) The job is for an order with no placer order number but is destined for an EMR that does not support unsolicited reports.

There were two new columns added to the EMR lookup table to denote the ability of the EMR to accept reports for these cases.

- supports_unsolicited_reports_flag
- supports_multiple_reports_flag

6. Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

7. 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	-	2.44.1.0.26984(3GB)	2.44.0.0.26405	2.44.1.0.26984	2.44.1.0.26906	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
44.4	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 Server
45	-	2.45.0.0.29559(3GB)	2.45.0.0.26107	2.45.0.0.29559	2.45.0.0.29558	Full Version Release

8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.45. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.45.

Bug #	Priority	Subject	Category	Found Version
8612	Immediate	DB data dictionary was not being created in B44 or dev branch	DB	2.44
9506	Urgent	view c_frm_reminder_letter missing a status in its filter	DB	2.43.1
9355	Urgent	Possible to set site code for outside reads to null via IVT. ***Study will disappear from patient folder.	DB	2.43.1
9205	Urgent	IVT WL queries are terribly slow for a 3 Radnet data centers	IVT / Precert	2.43
8555	Urgent	Laterality for scheduled procedure is not being initialized as expected.	Scheduling	43.1
8411	Urgent	Patient Name to be included in Email message to RADAR	Document Distribution	2.43.1
9619	High	Collection was modified error related to worklist views	Radiology Reporting	2.43.1
9531	High	Error arriving studies from same order	Reception	2.44.2
9514	High	AppointmentBook is showing cancelled studies	Scheduling	2.44.2
9347	High	Contrast - Perform Exam on non-contrast and contrast study copying contrast/billing codes to non-contrast study	Technologist	2.44.1
9334	High	Scheduling - Body part list is not filtered down when possible list of values exists	Scheduling	2.44
9282	High	Details result set dates are not correct, versus the review tab and timeslot search	Scheduling	2.43
9232	High	Contrast - Perform Exam - CT dose changing while starting exam with multiple studies from same order	Technologist	2.44.1
9021	High	Adding Alternate MRN error in message	Patient Folder	2.43.1
8763	High	QA flag is not removed after verifying edit	Radiology Reporting	2.44

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8762	High	All signed pending QA context menu option for verify edits doesn't open proper action and report can be released	Radiology Reporting	2.44
8460	High	Insurance Eligibility - Copay is asked for when billing codes are configured with "Allow amount to collect with Valid Insurance" set to 'N'.	Insurance Eligibility	43.1
8404	High	New Walkin Button from Patient Search results does not trigger the existing orders prompt	Reception	2.44
8132	High	Marketing - Monthly Variance Report performance issue	Mgt Reports	2.43.0.14
8066	High	MQSA Location Summary Group By BI-RADS - Calculation error	Mgt Reports	43.0.12
7837	High	c_frm_core_view - update view	User Views	2.43.0.6
7730	High	MQSA Location Summary Group By BI-RADS - times out on large installations	Web Services/DB	2.43.0.6
6929	High	Log text box control should display UserID - not a combination of lastname + first initial	All Workflows	2.42
6106	High	error opening merge suggestions due to patient search results	Web Services/DB	1.41
10539	Normal	Arbitration Signed does not save on PerformExam and ViewEdit screen	Technologist	2.44.3
9695	Normal	Undo feature allows user to backspace date/user in notes	Logging	2.44
9661	Normal	Scheduling - Advanced search panel - the time field allows invalid input	Scheduling	2.43
9607	Normal	Login - If you attempt login with blank userid or password you get an error 500 message	Localization	2.44
9600	Normal	patient search is slow when search for first name with "search other variations" turned on and sounds like is used	Patient Search	2.44.2
9536	Normal	error changing pre-cert info on registration	Reception	2.44.2
9520	Normal	Scheduling - Advanced serach - First day of the week should follow the config item for first day of week.	Scheduling	2.44

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9482	Normal	datamodel test case - PrimaryKeyTest() is ignoring tables that it should not be.	DB	2.43.1
9477	Normal	missing database index on c_eligibility_invoice.eligibility_invoice_key	Web Services/DB	2.43.1
9469	Normal	Insurance Eligibility - Warning entries for EligibilitySpecialCondition are not ignored when marked as inactive	Insurance Eligibility	43.1
9442	Normal	Access strings - some flags cannot be visually turned off for users	Admin-Other	2.44
9440	Normal	Template/macro lookup editor shows user names and dates in the wrong format	Radiology Reporting	2.41
9367	Normal	View/Edit - Outside Reads throws error on opening View/Edit.	View Edit	2.44
9288	Normal	a db sql job was causing locks and resulting in slow screen loads	Mammography	2.43.1
9285	Normal	Chair selector - Cancel is not enabled when logging into the application.	Radiology Reporting	2.43
9264	Normal	Color Dialog boxes not persisting custom colors	UI Look and feel	2.4
9246	Normal	CA - job to call c_SummaryMaster failed	DB	2.43.1
9234	Normal	db upgrade scripts will not work if there user supplied credentials	DB	2.44
9233	Normal	Contrast - Changing performed procedure in Perform Exam keeps contrasts but removes their billing codes	Technologist	2.44.1
9221	Normal	Unable to make contrast not required for techs without affecting MU contrast alerts	Technologist	2.44
9220	Normal	ICode expiration date is currently hard codes to 5 days needs to be changed	Connect Patient Portal 1.x	2.44
9219	Normal	MU - Generating of the Icode code needs to be expanded to generate the Icode code at Check-In Status	Meaningful Use	2.43
9177	Normal	RIS DB scheduled jobs should run as a non active directory user.	DB	2.43.1
9094	Normal	Cannot access a disposed object. Object name: 'MainShell'. When exiting application.	Radiology Reporting	2.44

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9019	Normal	Activation issue when using next workflow in dictation screen with reuse on.	Radiology Reporting	2.44
9017	Normal	Collection was modified error on application exit when using Minimized to tray.	Embedded Reporting	1.39
9014	Normal	Preferred Site (c_orderRow.filler_site_code) isn't required when saving an order through "Schedule Later"	Scheduling	2.44.1
9013	Normal	Preferred Site (c_orderRow.filler_site_code) not auto-populating on Scheduling/Walk-ins	Scheduling	2.44.1
9000	Normal	Personnel - Entering password and changing back to the password field later gives "Cannot reuse one of the users last 3 passwords" message.	Person Management	2.44
8996	Normal	Personnel - Unknown NPI and Registered in PECOS checkbox unchecking themselves in certain scenarios.	Person Management	2.44
8989	Normal	Volume level is very high during playback of dictations.	Radiology Reporting	44
8766	Normal	Report History Icon - Study Info panel is always empty.	Radiology Reporting	2.44
8757	Normal	Report History - Error on reports drafted that are Batch and Edited by System as long as it's not an addendum	Radiology Reporting	2.44
8702	Normal	Contrast - Amount value is getting reset back to the default when clicking the start button.	Technologist	2.44
8676	Normal	procedure c_UpdateSalesSummary fails when c_study._site_code is null	DB	2.43.1
8661	Normal	precert query that executes thousands of times in large data centers that could be improved with an index	DB	2.43.1
8648	Normal	CDS Console Management menu option should be available regardless of users reporting mode	Radiology Reporting	2.42.1
8571	Normal	Add alternate MRN is using Issuer Code and Responsible Party is using Description from Issuer table	UI Look and feel	2.44
8527	Normal	Error when trying to create a new template for dictation	Radiology Reporting	2.44
8511	Normal	Payment screen: Last 4 digits of credit card number error and mask are not intuitive.	Payment control	2.44

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8470	Normal	When the PACSIntegration.Override is set to None, get error when you log into RIS	PACS (eRAD) Int - RIS only	2.44
8455	Normal	Error produced if contrast amount is deleted and then the Start or Complete button is selected.	Technologist	2.44
8416	Normal	Connect referring portal is not display quick launch icon	Connect Referring Portal 3.x	2.43
8379	Normal	Title of a Peer Review Report and the title from the folder do not match	Mgt Reports	2.44
8378	Normal	Peer Review Reports are not displaying today's data unless tomorrows date is included in the date range	Mgt Reports	2.44
8302	Normal	Assigned Radiologist is not recognized as assigned in the Assign to Radiologist window	Radiology Reporting	2.44
8301	Normal	GetExamCountsByChair takes a rather long time to execute	Radiology Reporting	2.43
8282	Normal	Dictation Control - Form that is already visibile cannot be displayed as a modal dialog box.	Radiology Reporting	2.44
8184	Normal	BulkWritable columns operations fails in patient folder if there is an order that is not scheduled in the patient's folder	Patient Folder	44
8062	Normal	IVT Turnaround Report Failing	Mgt Reports	43.0.14
8005	Normal	Radiologist reading location - user prompted twice	Radiology Reporting	43.0.12
7995	Normal	County Selection - DB upgrade issue	DB	43.0.12
7977	Normal	Carrier - Performance issue saving lookup table	Insurance Managment	43.0.12
7845	Normal	Floating windows in reporting cannot be made smaller after opening a reporting screen.	Radiology Reporting	2.43
7824	Normal	Person search - Unknown gender is confusing with unknown referring	Web Services/DB	2.42
7792	Normal	Management Reports - No Date Range displayed on 'Carriers Not Using Insurance Eligibility' report	Mgt Reports	2.43.08

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7784	Normal	Adminsitration - Conditional Tab - exception possible after clearing value	Questionnaire	2.43.1
7675	Normal	Need to alter the varchar(5000) fields to varchar(max)	DB	2.43
7576	Normal	Patients from an Electronic Order are not searchable from the Walk-In screen	Reception	2.43
7188	Normal	County selection screen requires user to click or tab to county field.	UI Look and feel	2.43
7171	Normal	Workflow issue saving order when specifying scanned document at exam level	Scanning	2.42
7096	Normal	Reschedule reason drop down lookup lists - Not ordered correctly	Infrastructure	2.41
6360	Normal	The advanced search icon is small, and needs a hover text to ensure clarity of it's purpose.	Scheduling	1.42
5527	Normal	Reporting - Support for IE10	Embedded Reporting	1.4
2935	Normal	New Appointment button is available to users who don't have rights to create new appointment	Scheduling	1.39.001
1963	Normal	Scheduling summary screen overlaps windows taskbar.	Thick Client GUI	1.37
1339	Normal	Column chooser appears to have hidden column names available	UI Look and feel	1.36
8604	Low	Race not auto-populating from Confirmation window	UI Look and feel	2.44
8577	Low	Family History not auto-populating in Edit Billing window (BEWL)	UI Look and feel	2.44
8564	Low	Note to radiologist, the acknowledgment warning has a spelling mistake "actionning" should only have 1 n "actioning"	Radiology Reporting	2.44
8545	Low	When an exam is aborted by a tech in the perform exam window, it is removed from the PACS WL, it can be set back to started then completed (exam done) but the exam is not recreated in PACS.	PACS (eRAD) Integration	2.44
8248	Low	Improper english in eRAD RIS warning message.	Thick Client GUI	2.44

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7951	Low	Unused system config setting for LookupTableIndexTimeToLiveMinutes should be removed	Web Services/DB	2.43.0.12
6978	Low	Message box - poor wording	UI Look and feel	2.43

9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.45. Bugs reported in previous versions are not captured as Known Limitation in this document.

#	Status	Priority	Subject
10568	In Progress	Urgent	Memory leaks present and memory usage climbing very quickly.
10912	New	High	EMR with new MRN grid
10910	New	High	Unable to match EMR patient to internal patient (Duplicate MRN message)
10897	New	High	Linked Reports - linked_id column should be default of null instead of 0
10846	New	High	Questionnaire - Checkboxes cannot save Y and N values
10844	New	High	Questionnaire - Hebrew questionnaires opened in a browser RTL issue with Save/Finish/Next Page/Previous Page buttons
10840	New	High	Duplicate MRN issue when using the New Patient button from data window or from patient search
10825	New	High	Hidden answers are saved as though they were visible
10767	New	High	M*Modal Interactive Dictionary color problem
10760	New	High	Walk-In - Existing Orders window showing on Checking In
10712	New	High	apparent memory leak in user preferences screen
10620	New	High	Editing pick list option values and hitting enter while cell is in edit mode causes issues
10560	New	High	Schedule - Able to schedule without a room selected causing exception
8994	In Progress	High	ris.exe crashes on exit on Windows Server 2012
10926	New	Normal	New Reading Group lookup table is missing access string
10924	New	Normal	Addendum request's assign to rad dropdown does not show *Preferred rads
10922	New	Normal	Unable to assign to radiologist from the work list for addendums
10920	New	Normal	Next - Previous navigation - keyboard action- Selecting Previous field or section causes an error when using eRAD editor.
10919	New	Normal	Change font size feature does not change the size in the menus
10918	New	Normal	When in the dictation window and using the Next - Previous navigation, hover icon says 'Previous field'

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			regardless if using Next or Previous
10917	New	Normal	Technologist verified ID is required but not showing any indication that is it.
10916	New	Normal	Rename column in modality lookup to avoid confusion
10915	New	Normal	EMR orders missing Contacts/Demographics information
10914	New	Normal	Error when trying to save an incomplete insurance policy if there is an existing expired policy that is "not shown"
10911	New	Normal	MRN - Error on hover on empty issuer
10905	New	Normal	The RIS Icon when launched via Citrix is an 'R'
10900	New	Normal	When launching RIS via Citrix, default for PACS is Hologic
10899	New	Normal	Preferred rad - Display order the same on multiple items
10898	New	Normal	Preferred Rad - Inactive rads can be added to the list
10896	New	Normal	Open Patient Tab limitation setting is exceeded when Reuse Reporting Screen is checked.
10892	New	Normal	error when opening context menu from dataset visualizer
10889	New	Normal	System Config ShowDOBCalendar=False doesn't apply to IVT window
10887	New	Normal	Dictation files save to external location, when they cannot be found in the Gui the Load Audio button is displayed once then the dictation controls are accessible
10885	New	Normal	eRAD Report Editor - Clicking/drag dropping is copying selection of text within report
10882	New	Normal	Visibility Framework - Most fields cannot be set to read-only on Contacts/Demographics tab
10879	New	Normal	Visibility Framework - Including a study on Perform Exam re-enables read-only fields on Documentation tab
10878	New	Normal	Visibility Framework - Some fields cannot be set to read-only/hidden
10858	New	Normal	Validation Framework - Audit History errors in Event Viewer on null value for condition
10857	New	Normal	Report history ICON missing from toolbar in reporting window
10856	New	Normal	Reporting - (Hebrew RIS) Copy button on Reporting panes includes \t
10853	New	Normal	Peer review - skip and continue does not work

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10850	In Progress	Normal	Ability to arrange pages in the questionnaire
10848	New	Normal	Ability to set the display order for conditional tabs
10836	New	Normal	Questionnaire - Unable to save blank/null entries for dropdowns that are tied to DB fields
10829	New	Normal	Polling queue next workflow will try to open interpretation types that the user doesn't have access to
10828	New	Normal	Tabs on the All Suspended WL should state which WL, ie Rad or Editor
10821	New	Normal	When using the New Walk-In and New Appointment from patient search if the patient has existing orders the existing orders popup is incorrect
10820	New	Normal	Unable to remove dates in a date field.
10818	New	Normal	Object reference error when moving mouse over MRN in the MRN grid when the issuer is not one of the issuer's listed in the l_issuer table (EMR MRN)
10817	New	Normal	Issuer does not show up for MRN's from EMR's if the issuer is not in the l_issuer table
10813	New	Normal	Rulesets are evaluated in design mode
10792	New	Normal	When saving a scheduling availability template, the template selection should remain on that template
10789	New	Normal	Image Request - not repopulating the location value
10786	New	Normal	Image request form - phone number - Appears to not populate when only 1 address for the referring
10784	New	Normal	Action Container should not contain c_primary_interpretation node.
10783	New	Normal	Order notes on MU tab needs to take into account Order X
10782	New	Normal	Attached Documents window should have the Minimize option disabled
10775	New	Normal	Personnel - Modifying Additional Resources doesn't recognize changes after intial save
10763	New	Normal	Walk-In - Error on Patient Search>Walk-In>Selecting Mutliple orders from Existing Orders window
10761	New	Normal	Register - MU fields not clearing validation properly
10753	New	Normal	Visibility Framework - Need a way to hide State field on Image Request window
10751	New	Normal	Questionnaire-When creating a text box the instructions "Double-click to edit" remain in the text area
10749	New	Normal	IVT WL - Referring Physician Specialty Column filtering should default to "Contains"
10747	New	Normal	Visibility Framework - Some fields have additional

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			labels that can't be hidden
10740	In Progress	Normal	Reading Groups- Changes to assigned/unassigned Users and Procedures are not contributing any update to the Last updated field
10720	New	Normal	Possible SQL injection on WL queries with parameter order by
10714	New	Normal	External Scheduling Interface - Issue with GetBookingLock and Expiry
10698	New	Normal	Opening a 2nd patient folder from patient search causes an error if data nugget is opened for 1st patient.
10697	New	Normal	Questionnaire- Unable to click and drag to move a question box
10686	In Progress	Normal	Template/Macro Lookup - context menu option Export List to Excel is not working
10685	In Progress	Normal	Template/Macro Lookup - context menu export templates defaults file type to cda (xml)
10676	New	Normal	Assuta External Scheduling Interface - Issue with EndDate
10670	In Progress	Normal	ERAD Editor - when you edit an existing macro, can easily edit a field when you meant to create a new field.
10666	New	Normal	Laterality required orders can be misleading to user if there is more than one
10657	New	Normal	Perform Exam - Body part dropdown isn't filtered initially
10654	New	Normal	Strange behavior in template created in a previous version of RIS
10618	New	Normal	When editing pick lists, there is no way to navigate between cells in the grid.
10615	New	Normal	Word Viewer - closing Word Viewer when closing another reporting tab
10614	New	Normal	When using "Cache Reporting Screen" User Preference once you open a dictation for Addendum every time you try and open the dictation screen after that you get an error from interpretation_get saying there is no item at index 1
10612	New	Normal	Word Report Viewer does not close when closing the patient tab
10597	New	Normal	Linked Reports - User preference to set current study linked background color.
10577	QE Rejected	Normal	Priority column is interfering with the new prioritize arrows in the Insurance Policies grid
10575	New	Normal	Text Expander - adding a new value only saves for the

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			session, log out and back into RIS, value is not saved.
10555	New	Normal	Picklist - with several options, 1 being Type = macro. The macro has several lines of text that is bulleted, when inserted into report numbering is incorrect.
10553	QE Rejected	Normal	Configuration module window still mirrors R to L when it should not
10549	New	Normal	Questionnaire datepickers do not display as RightToLeft when the Questionnaire is RightToLeft
10513	New	Normal	eRAD Report Editor - Entries made in M*Modal text expander
10508	New	Normal	db view called c_vw_WL_SignedByDate_My is obsolete.
10491	New	Normal	There needs to be an access string to disable the 'save as order' button
10465	New	Normal	Cancel Study - c_previous_referring does not belong to this DataSet
10441	New	Normal	eRAD Report Editor - field color not applying
10430	In Progress	Normal	Reports fields with special characters
10419	QE Rejected	Normal	Worklists - Columns not populated on the signed by date worklist.
10388	New	Normal	Phillips Speechmike Barcode scanner does not work through Citrix
10387	New	Normal	Motorola Sybol Scanner does not work in Citrix when not in HID Keyboard Mode
10338	New	Normal	RUM - Default Body part/Laterality not auto-populating on adding Alternate/Additional procedure
10331	New	Normal	RUM - Stat Exam flag set from IVT window doesn't change UM required to UM complete flag
10321	New	Normal	Add/Edit Region dialog box says Add/Edit Site in the title bar.
10316	New	Normal	Setting RecentPasswordRestrictionCount to 0 or lower disables tracking passwords but does not prevent checking against old passwords in validation
10300	New	Normal	TE Edit - Advanced Menu - font seems to interfere with the reporting editor's font.
9735	New	Normal	Missing access string - Clinical.ReportEditor.AdvancedMenu
9716	New	Normal	Editor Appearance -> Color dialog -> system -> some values are saved incorrectly.
9696	New	Normal	System config items - 'Wedge Groups container' and 'Wedge Unescapes Container' look identical, need clarification.

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9690	In Progress	Normal	After login background screen displays duplicate eRAD RIS logo
9673	New	Normal	Changes to Billing Codes not updating Amount to Collect on Self Pay
9654	New	Normal	eligibility service will not run if the connection string doesn't end with ";"
9647	New	Normal	zip code lookup on IVT screen does not behave the same as zip code lookup on other screens
9643	New	Normal	log control on tech notes does not enforce 1000 character limit
9642	In Progress	Normal	Custom fields for time are not working
9486	New	Normal	Procedure plan site override of min/max times cannot find available times
9422	New	Normal	User is able to complete an exam that Requires contrast without entering a contrast.
9356	New	Normal	Contact Log - Saved entries show userID for Contact By
9344	In Progress	Normal	RUM - STAT Exam - Priority dropdown can be cleared > saved which then causes errors.
9343	In Progress	Normal	RUM - Body Part dropdown on adding additional/alternative procedure can be saved with invalid text.
9317	New	Normal	Worklist - Conditional formatting will not set the back color for the entire row.
9297	New	Normal	Manual Status Update - Discontinued - Not prompted to enter discontinue reason
9291	New	Normal	Scheduling-Schedule Date box changes from green to red for the same time slot
8991	New	Normal	Unable to Login with benign error if AllowedPasswordFailAttempts system config is missing
8990	New	Normal	Questionnaire - Rendering questionnaire not displaying correctly
8988	New	Normal	old trace log cleanup procedure looks for trace log in the current directory
8516	New	Normal	Direct Message - Issue attaching CCDA document to New Patient
8279	New	Normal	issuer_of_id has hard coded default of system

Release Notes

eRAD RIS Version 2 Build 45.1

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
45.1		2.45.1.0.30774(3GB)	2.45.0.0.26107	2.45.1.0.30774	2.45.1.0.30738	Gui.zip, Web Service, DB, SQLReporting, Questionnaire, Citrix support

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1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS in build 2.45.1

Not every feature will be described in this document. Typically only features which can be visually demonstrated to the user are outlined in this document.

2. Intended Audience

This document is created by the eRAD RIS Development/Commercialization team for customers of eRAD RIS.

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

If you experience difficulties accessing the application please contact Darcy Noye with the PEI RIS Development Team.

4. New Settings

4.1. New access strings

Setting	Default	Purpose
Clinical.AdditionalData	None	Controls access to the Additional Data grid on the Exam tab and the Exam Details tab
Clinical.EditExternalMRN	None	Allows editing of external MRN in the MRN grid on the Patient tab.
Clinical.EditMRN	None	Allows editing of MRN in the MRN grid on the Patient tab.
Clinical.EditPatientFlags	None	Controls access to assign patient flags
Clinical.EditPatientFlagsNotes	None	Controls access to assign notes to the patient flags
Clinical.FormsAndLabels.AllowSaveAsAttachment	None	Allow user to save a form or label as an attachment from the Print Forms window.
Clinical.ReportingEditor	N/A	This access string was obsolete and has been removed. (replaced with Clinical.ReportingTranscription)
Clinical.ReportingTranscription	None	Controls access to the Editor's Create/Edit Report Screen
Clinical.ResendDictationForRecognition	None	Enables access to the resend dictation for recognition context menu action.
Clinical.Schedule.SaveAsOrder	Full	Controls access to the Save As Order/Schedule Later button on Schedule/Reschedule screen, as well as Schedule Later button on Reschedule Reason dialog
Config.LookupEditor.DictationArchiveLocation	None	Controls access to the lookup table for the Dictation Archive Location
Config.LookupEditor.ExternalReportingSystem	None	Controls access to the External Reporting System lookup table located under the System directory
Config.LookupEditor.Finding	None	Controls access to the Finding lookup table located under the Procedure directory.
Config.LookupEditor.ImagingCenter	None	Controls access to the Image Center lookup table located under the System directory. These are displayed on the patient and referring portal
Config.LookupEditor.LegacyReportArchive	None	lookup table access for the Legacy Report Archive
Config.LookupEditor.MarketingDomains	None	lookup table access for Marketing Domains to be used for site groups
Config.LookupEditor.PatientFlag	None	lookup table access for PatientFlag located under the General directory
Config.LookupEditor.PreInstructionType	None	lookup table access for Prep Instruction Type located under the Procedure directory
Config.LookupEditor.ProcedurePicker	None	lookup table access for Patient Portal Procedure Picker configuration
Config.LookupEditor.Questionnaire	N/A	This access string was obsolete and has been removed
Config.LookupEditor.ReadingGroup	None	lookup table access for Reading Group located under the Procedure directory
Config.LookupEditor.StudyExtraInfo	None	Lookup table access for Study Extra Info located under the System directory
Config.LookupEditor.WorkUnit	None	lookup table access for Work Unit located under the Procedure directory
Config.QuestionnaireEditor	None	Controls access to the browser-based Questionnaire Editor.

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Flag.ExamStat	N/A	This access string was obsolete and has been removed. (was replaced by Flag.StatExam)
Flag.LinkedStudy	Full	Access to see the flag for Primary Linked Study
Flag.PrimaryLinkedStudy	Full	Access to see the flag for Primary Linked Study
Flag.ReadStat	N/A	This access string was obsolete and has been removed. (was replaced by Flag.StatRead)
Reporting.UnprotectDataFields	None	Controls access to the Unprotect Fields button on the reporting screen
View.FindingsFollowup	None	Access to see the main menu item "View/Findings Followup" (on dictation screens)
View.Portals	None	Access to see the main menu item "View/Portals" (on dictation screens)
View.ReportAssistant	None	Access to see the main menu item "View/Report Assistant" (on dictation screens)
WL.PatientFolder	Full	Controls access to the Patient Folder worklist context menu item.
WL.PendingBiopsyResult	None	WL access for Pending Biopsy Result worklist under Administration menu
WL.Rad.FindingFollowup	None	WL access for Finding Followup worklist under Radiologist menu
WL.Rad.PendingBiopsy	None	WL access for Pending Biopsy worklist under Radiologist menu
WL.Rad.PendingBiopsyAll	None	WL access for Pending Biopsy All worklist under Radiologist menu
WLNotification.PendingBiopsyNotify	Full	Enables ability to show worklist driven pending biopsy notifications

4.2. New system configuration settings

DefaultIssuerGeneratesPatientID	True	Determines the default issuer of patient ID will generate patient IDs in RIS
KillPDFViewerAfterLegacyReport	True	Enables RIS to try to 'kill' or close the PDF Viewer after opening legacy report in a new instance of the PDF Viewer from the reporting screen.
KillPDFViewerBeforeLegacyReport	True	Enables RIS to try to 'kill' or close the PDF Viewer before opening legacy report in a new instance of the PDF Viewer.
PatientPortalImageHoldPeriodDisplayedDays	5	The number of days from the time the study is performed to the date that the patient portal will say that it will be able to see the images.
PatientPortalReportHoldPeriodDisplayedDays	5	The number of days from the time a report is signed to the date that the patient portal will say that it will become available.
PortalAddendumReportMessage	This exam does not have a report because it was not requested by your referring provider. Please contact your referring provider for your results.	The desired message to display to the patient when the study has an addendum assigned to it, and has not been passed the new Hold back period.
PortalImagesHoldBackMessage	Images are currently unavailable. Estimated availability is after {PatientPortalImageHoldPeriodDisplayedDays(dddd, MMM dd, yyyy)}	The desired message to display to the patient when the Images are not available to display due to the hold back period.
PortalImageUnAvailableMessage	Images are currently unavailable. Please Get Help to request images.	The desired message to display to the patient when the Images are not available due to the PACS server unavailable.
PortalIncompleteStatusReportUnavailableMessage	This exam is currently {portal_status_code}. No report is available for this exam.	The desired message to display to the patient when the report is not available, due to the fact the study is not complete
PortalLocationLayoutFormatString	{description}	Desired layout for site and practice drop down fields in the Patient Portal ex. {description}
PortalReportHoldBackMessage	This report is currently unavailable. Estimated availability is after {PatientPortalReportHoldPeriodDisplayedDays(dddd, MMM dd, yyyy)}	The desired message to display to the patient when the report is not available to display due to the hold back period.
PortalReportUnAvailableMessage	No report is available for this exam.	The desired message to display to the patient when the report is not available due to report server unavailable, or no report

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		configured.
PortalTechOnlyNoReportMessage	This exam does not have a report because it was not requested by your referring provider. Please contact your referring provider for your results.	The desired message to display to the patient when the study is completed as Tech Only and there would not be any report available.
RADARMessagePHIReminderText	RADAR Quick Message is not a secure method of communication. Patient health information (PHI) must not be included in this message. All messages sent using RADAR Quick Message must conform to established health privacy rules for unsecured communications.	Defines the PHI warning string that will be displayed on RADAR Quick Message dialog screen.
WordViewerPath		Path to directory where Word Viewer is installed. Used for MS Word legacy reports, path must include EXE name. If left empty, RIS will try to open WordViewer.exe and assume it is available in the current system path.

4.3. Changes to RIS.exe.config file

The section <listeners> in the ris.exe.config file has been changed in this release. Below you will see the before and after. The changes are shown **highlighted in green**.

Before	After
<pre><appSettings> <add key="defaultEndPointName" value="NetTcpBinding_IStudyService" /> <add key="ClientSettingsProvider.ServiceUri" value="" /> <add key="LookupTableTimeToLiveInMinutes" value="60"/> <add key="ShouldCloseViewSessionOnThread" value="true"/> <add key="EnableHighPriorityLookupStrategy" value="true"/></pre>	<pre><appSettings> <add key="defaultEndPointName" value="NetTcpBinding_IStudyService" /> <add key="ClientSettingsProvider.ServiceUri" value="" /> <add key="LookupTableTimeToLiveInMinutes" value="60"/> <add key="ShouldCloseViewSessionOnThread" value="true"/> <add key="EnableHighPriorityLookupStrategy" value="true"/> <add key="CmdLineArgs" value="" /></pre>

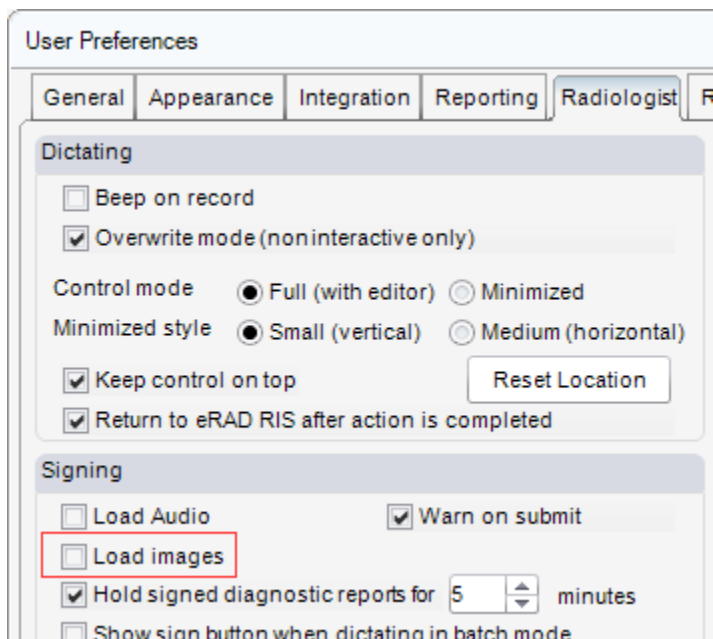
5. New Features and Enhancements

Primary User: Radiologist

07293 Automatically open images when signing (user preference)

When a radiologist signs reports (from the pending signature worklist primarily) the images in PACS are not automatically loaded. There is a manual load images button that they can use, but this has to be clicked for each study. There is a desire to have the images automatically load as they do when dictating a report. This would have to be a user preference as not all radiologists will want this feature.

The RIS now has a new user preference in the radiologist tab signing area called Load Images. When set the RIS will load images automatically when opening the study in the Sign Reports window, the same as it does when dictating a study.



User preferences showing the load images option

08351 Linked Reports - Simple linked reports (phase 1)

There is an industry need for the RIS to support having multiple individual studies performed, but to be read and reported as a single entity from the radiologist's perspective. Since this is a large undertaking, the development team has broken this up into phases, with 45.1 containing the first phase.

To support this, the RIS development team has implemented a simple 'phase 1' of linked reporting. In this simple model, linking is limited to studies in a procedure plan that is predefined to be linked (aka 'reported together'). There is no support for manual linking and unlinking studies for phase 1. The procedure plan table already has a "report_together_flag" which determines if studies should have a single linked report. If the procedure plan is set to report together then one procedure will also need to be set as the primary study. The primary study will be the study that will technically be reported on. The other (secondary) studies in the procedure plan will be linked to the primary.

The ordering, scheduling and registration workflows are unchanged for linked studies. The tech work flow is only changed in one way, when the tech sets an assigned radiologist on one study; the system applies it to all linked studies.

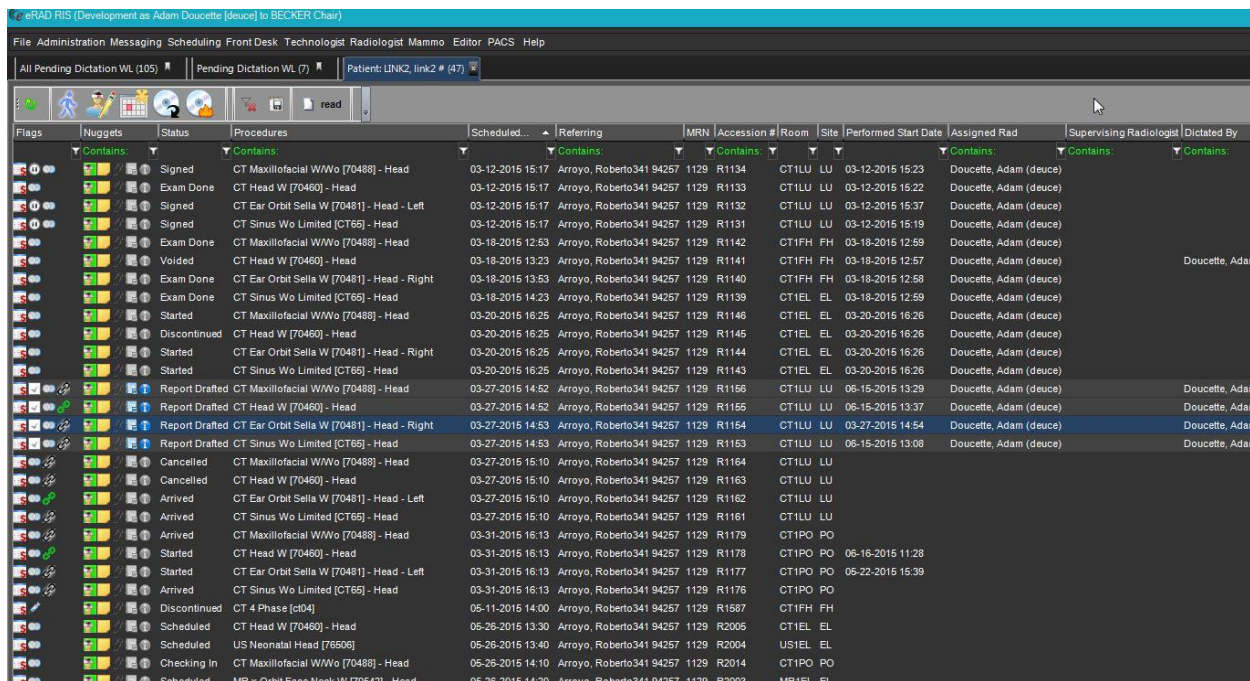
Exams will not show on the 'My Pending Dictation worklist' until all linked studies are PACS corrected and exam done. Then once these conditions are met, RIS shows the primary study on this work list. All of the "my" radiologist and transcriptionist work lists work the same; they only show the primary study.

Unlike the 'My Pending Dictation worklist', the 'All Pending Dictation worklist' will display all linked studies, as individual studies as soon as they are in the status of 'Exam Done' and are PACS corrected. However, if all the 'linked' studies have not reached this state, the studies may not be opened to start dictating. The 'All' worklists show all linked studies.

Opening any linked study in the radiologist or transcriptionist screen will lock all linked studies and will open the primary study regardless of exam selected to be actioned on. Since the primary study is the item technically opened, you will see the templates and macros for the primary.

Study status updates will happen on all studies once the reporting work flow stage has begun. So when the primary is dictated or signed, this status is reflected on the secondary studies as well. Also the QA and Problem flags are reflected on all studies.

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Patient folder showing worklist icons and highlighting

There are various impacts to existing workflows which are described here:

PACS integration:

PACS will load the primary study as normal, and will load the linked studies as priors. PACS will load only the primary studies relevancy based priors, not based on all linked studies.

Quality Review Distribution:

QA distribution treats linked studies as a single study.

Delete Dictation and Report:

Delete dictation and report will delete the report/dictation and reset all linked studies back to exam done.

Reset/Open Skipped Rows:

Reset open skipped rows will not have to worry about primary studies, as the rad screen will not allow non-primaries to be opened.

XML Drop Files:

XML files are written using the primary studies data

Rad and MT Daily Stats

Stats are calculated based on reports actioned upon, not studies. So a linked report of 4 studies is counted as 1.

Auditing:

We are auditing the direct actions taken on a single study key and including the linked_id in the audit trail which provides the link to the primary study.

Document Distribution:

Will not distribute duplicate reports of the linked exams

Canceling the Primary study:

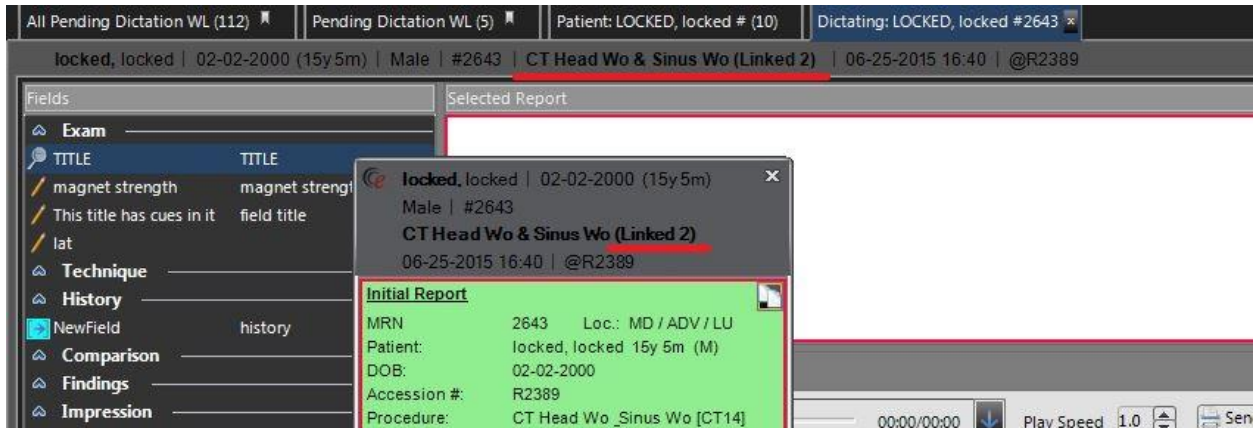
If the primary study is cancelled or cancelled due to technical repeat, then the RIS breaks the link. This means the linked ID is set to 0 on all studies and they become their own primary to be reported individually

Report History/Preview Report:

Even when opening a secondary study and invoking these features, the primary report will be displayed and expected.

10766 Linked Reports - Show linked information in the title bar of reporting window

When opening a linked study in the reporting window the RIS need to clearly inform the radiologist of the fact that there are multiple studies in this collection to be read. To do so, the RIS will show the word ‘Linked’ and the number of studies linked in the title bar after the procedure description.



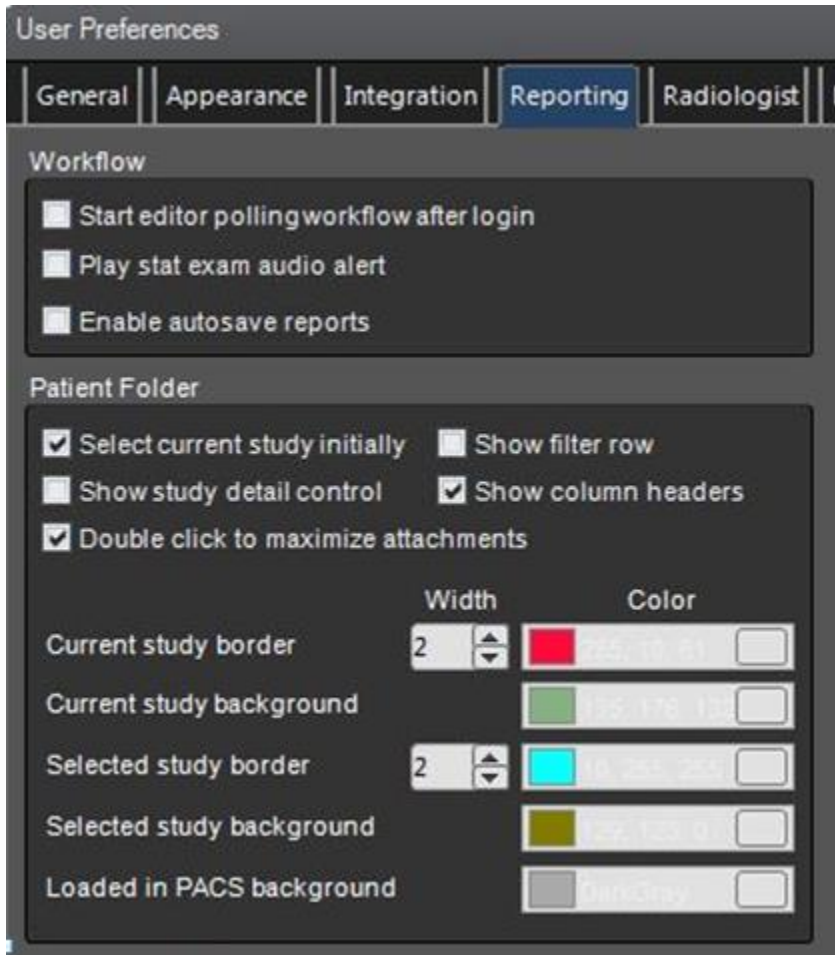
Radiologist window showing a linked collection with 2 linked studies.

10597 Linked Reports - Display the current study linked background color in patient folder

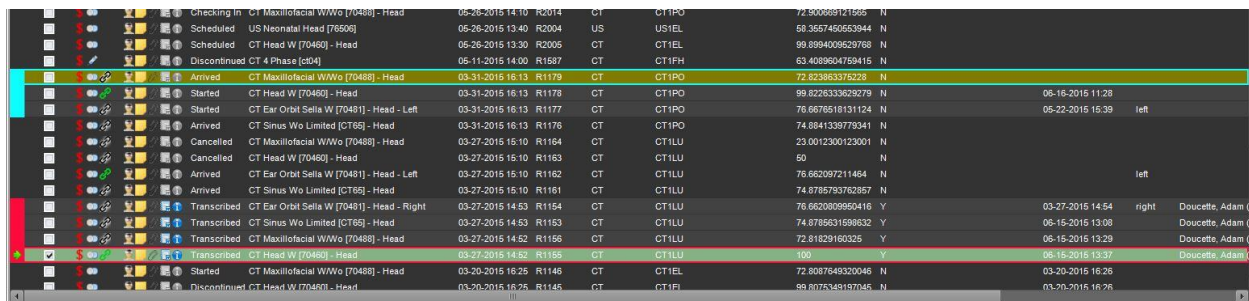
In the patient folder, the RIS needs to visually indicate studies which are linked together. To do so, the RIS now features an icon (a piece of chain) to indicate the studies are linked. To show which ones are linked, the RIS will also show the linked studies with a background color of pink in light mode, (and grey in dark mode) when any study of the linked collection is selected. In this manner, when the user selects a study, they get the visual feedback to tell them there is more than one study attached to the study they have just selected.

In the radiologist's mini-patient folder in the reporting window, the RIS provides similar but enhanced functionality. This patient folder has existing color enhancements known as 'current study border' and 'selected study border'. There is also a column called the 'main study indicator' which shows the current study. The main study indicator column will take on the background color of the current study border color and the column next to the prior study will take on the background color of the selected study border color for the selected.

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Existing user preference screen showing the red and teal colors being used by this user.

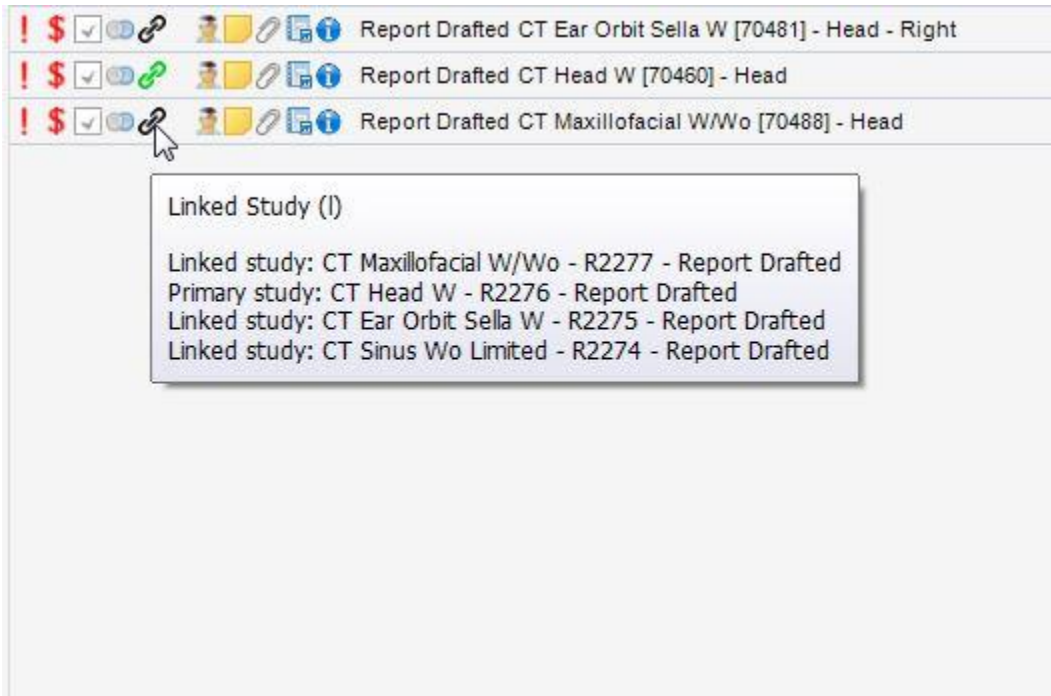


Patient folder showing the color in the Main Study Indicator column.

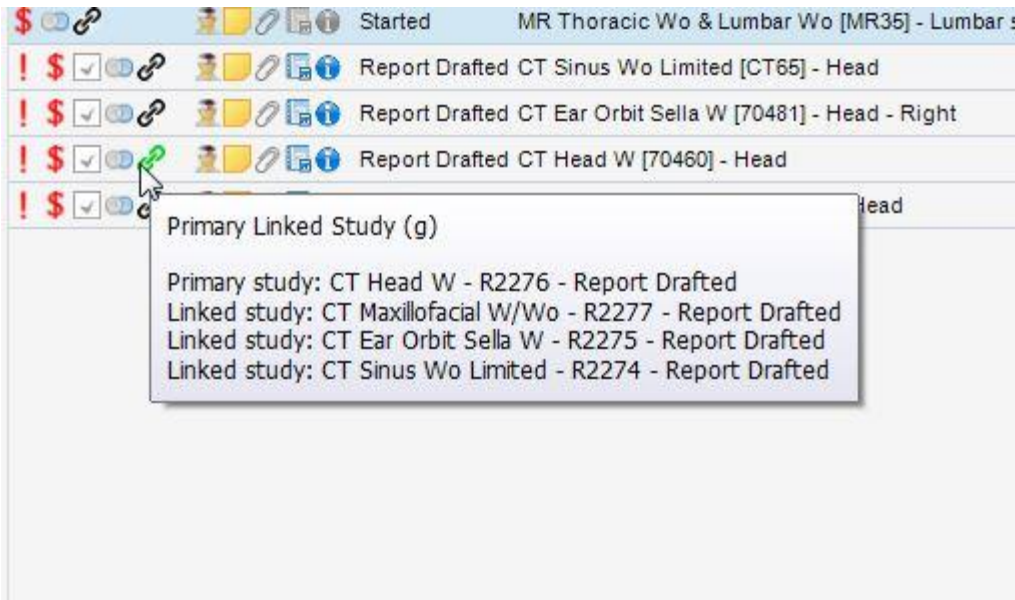
10640 Linked Reports - Create worklist icon and tool tip to display linked information

There is a need to show a visual flag and information on various worklists so that a user has detailed information about linked studies.

There is now a flag on several worklists that shows a status about the linked studies. The primary linked study is shown as a green link of chain, while the secondary studies are shown as black links of chain. There is also a tool tip which shows detailed information about all the studies in the linked collection. The tooltip will display all the studies in the linked collection starting with the currently study that the mouse is pointing at, then the primary linked study, followed by the remaining secondary studies. The tooltip will display if they are primary or just linked and display their procedure description, accession number and status.



Linked study tooltip when the mouse has hovered over a secondary study



Linked study tooltip when the mouse has hovered over the primary study

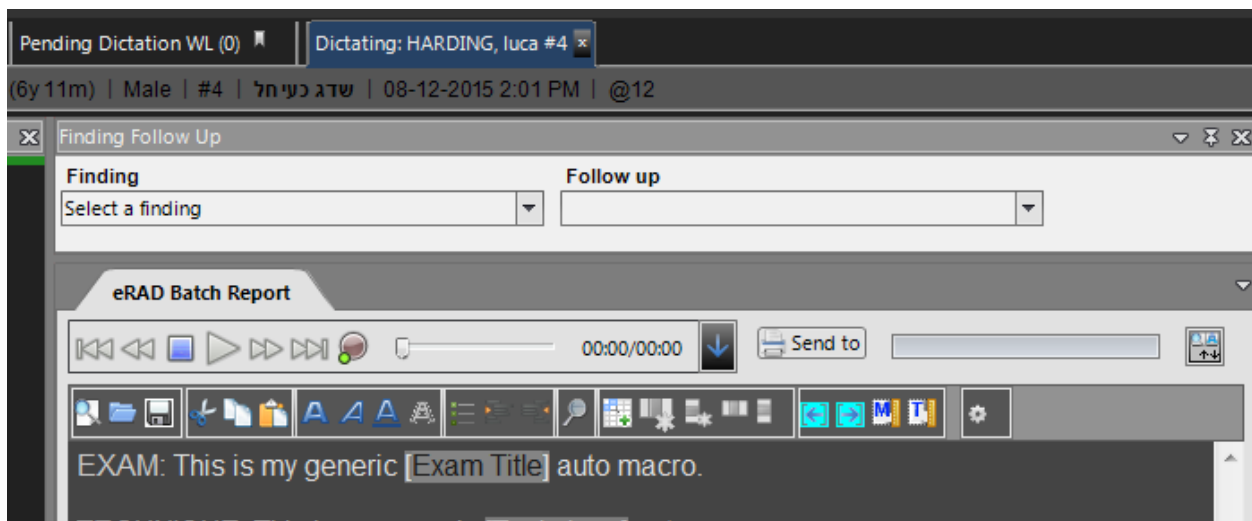
08360 Create 'Finding Follow Up' workflow

Includes sub-features:

- 10802 Ability to configure mandatory finding follow up procedures
- 10803 Ability to configure finding a follow up options
- 11549 Management report

There is an industry requirement (initially from Israel) to have a radiologist enter a finding (positive or negative) on certain studies. If the finding is positive, then additional follow up is required. The finding and the follow up should be entered during dictation or transcription of the study. The follow up options need to have a configurable time frame associated with each option. Any studies that require follow up must be placed onto a worklist for someone to review and resolve.

There is now a new panel in the radiologist/transcriptionist window called 'Finding Follow Up'. This window will only appear when the study (procedure code) being read is enabled for the follow up workflow.



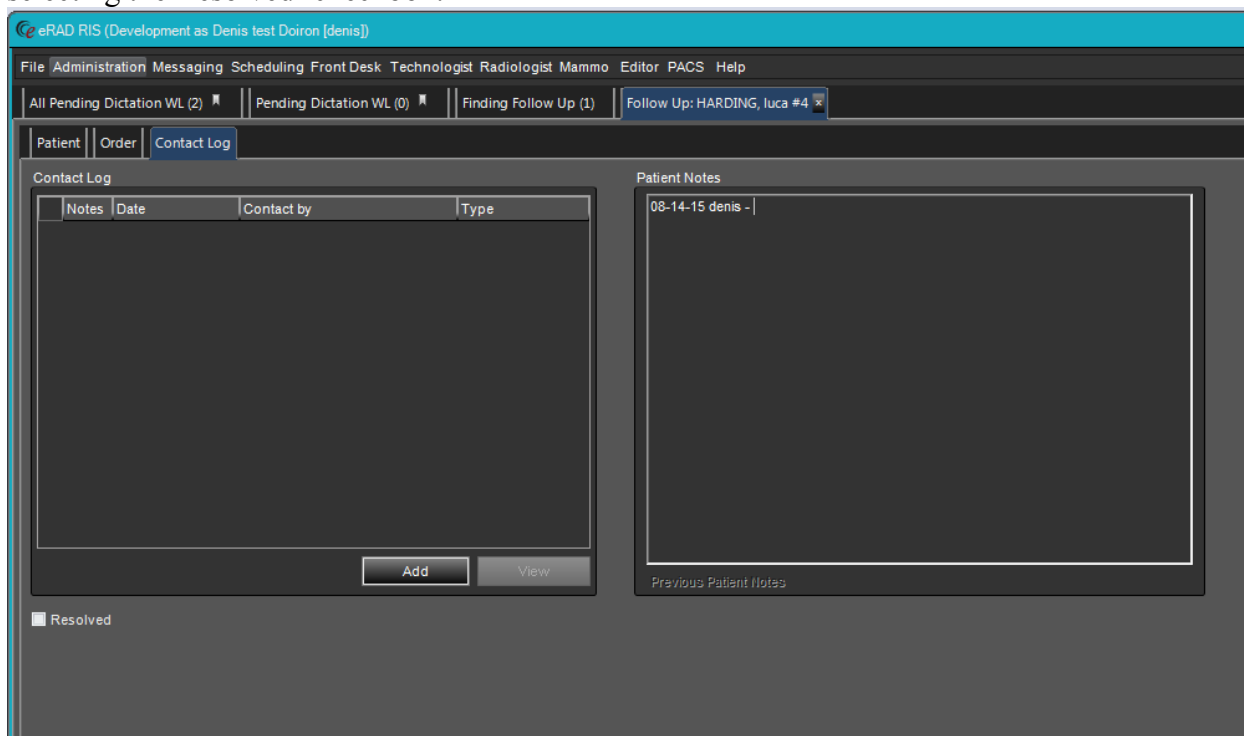
Radiologist window showing 'Finding Follow Up' tool window.

If a finding is required for that study, the radiologist will not be able to sign the report until the drop down is populated. However, the radiologist can send the report to transcription, and the transcriptionist can populate the value based on the dictation.

The options available in the finding drop down are populated from entries in the “Finding” lookup table which describes the finding options and the associated follow up options, which are stored in the existing “recommendation” lookup. Each findings option can be linked to many follow up options.

The follow up time frame is stored at the follow up option (recommendation) lookup in the follow up days field.

When the radiologist selects a follow up option the “follow up days” value will determine if it shows on the “Finding Follow Up WL” after signing the report. If the follow up option “follow up days” value is empty then it will not go to the “Finding Follow Up WL”. From this “Finding Follow Up WL” the follow up can be resolved by right clicking and selecting “Remove Follow Up Required Flag” or by opening the “Follow Up” screen shown below and selecting the ‘resolved’ checkbox.



Follow up contact log

From the Follow Up screen the user has access to the contact log and the patient notes as well as the Patient and Order data. If the user completes a contact log entry it will increase the contact attempts counter on the worklist. If the user checks the resolved option then the study will be removed from the worklist.

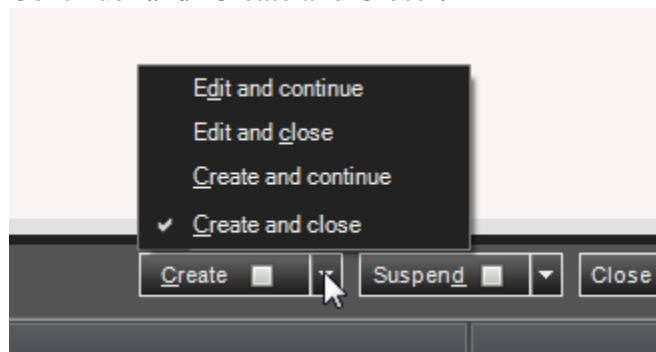
From patient folder the users can “Set Follow Up Required” flag on a study from the context menu, which will place the study to the Follow Up Required worklist.

09371 Ability for users to create diagnostic report prior to radiologist

eRAD RIS creates the radiologist report when the radiologist opens the Dictation screen. There have been frequent customer requests for the ability for a technologist (or transcriptionist) to be able to create the initial report in order to pre-populate some data (or the entire report) and then send the report to the Pending Dictation worklist, or the Pending Signature worklist for the radiologist to complete.

To support this, the “Create/Edit” context menu item (which already existed on the transcription worklist but was limited to studies that already had a report created by the radiologist) has been altered so that it will be enabled on studies that in ‘Exam Done’ status. Now, if the report does not already exist, this menu item will create the empty report.

There are also two new drop down button options on the “Create/Edit” screen called ‘Create and Continue’ and ‘Create and Close’.



New button options attached to the Create button

A “Create/Edit Report” button has also been added to the technologist “Perform Exam” window. The button will only become enabled when the technologist has ‘Completed’ the study.



Technologist screen showing the new Create/Edit Report button

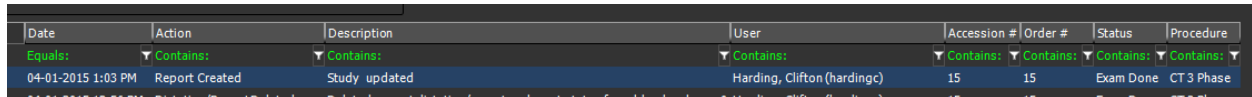
Clicking the button will open a Create/Edit Report screen and the technologist can then view and enter data into the diagnostic report.

In all these cases, the RIS will load the report templates based on the organization structure as there is no ‘Dictating Radiologist’ at that time in the workflow.

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The RIS will not enforce populating BI-RADS drop downs when editors create only, nor will it enforce populating Finding Follow up drop downs when editors create only.

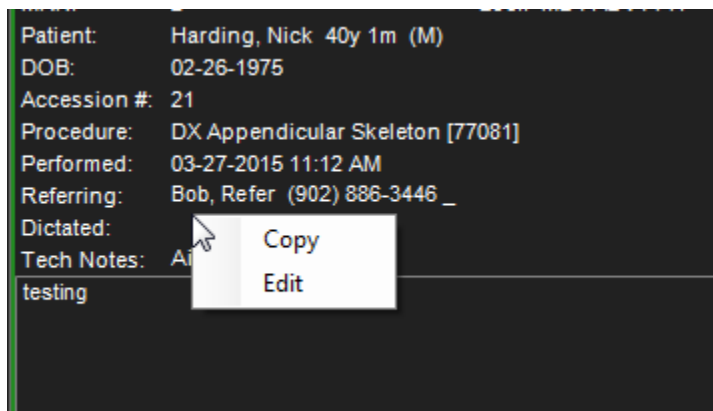
There is a new audit even called Report Created (UI_ReportCreated) - which will show as “Report Created” in the audit history.



Date	Action	Description	User	Accession #	Order #	Status	Procedure
04-01-2015 1:03 PM	Report Created	Study updated	Harding, Clifton (hardingc)	15	15	Exam Done	CT 3 Phase

Audit history viewer showing the new audit event

The RIS will allow the editor to assign to a radiologist when creating or editing the report. This will enable the editor to set the dictating radiologist so it will show on their pending signature worklist. Prior to this change, the summary panel wouldn't show the dictating radiologist if it was empty, but now it shows a blank space and will allow the user to right click and assign a radiologist. This assignment will just be the dictating radiologist and will not populate the dictated date.



Summary panel showing the blank space where the dictating radiologist would be

The dictated date (if not yet set) will be populated when the radiologist signs the report.

When the ‘Edit and Close/Continue’ option is clicked and if the dictating radiologist is not set and the assigned radiologist is not set the RIS will set the dictating radiologist field to be the same as the assigned radiologist. This will allow users in the tech screen to assign to a radiologist as they always did, then create the report and have it show on the pending signature worklist.

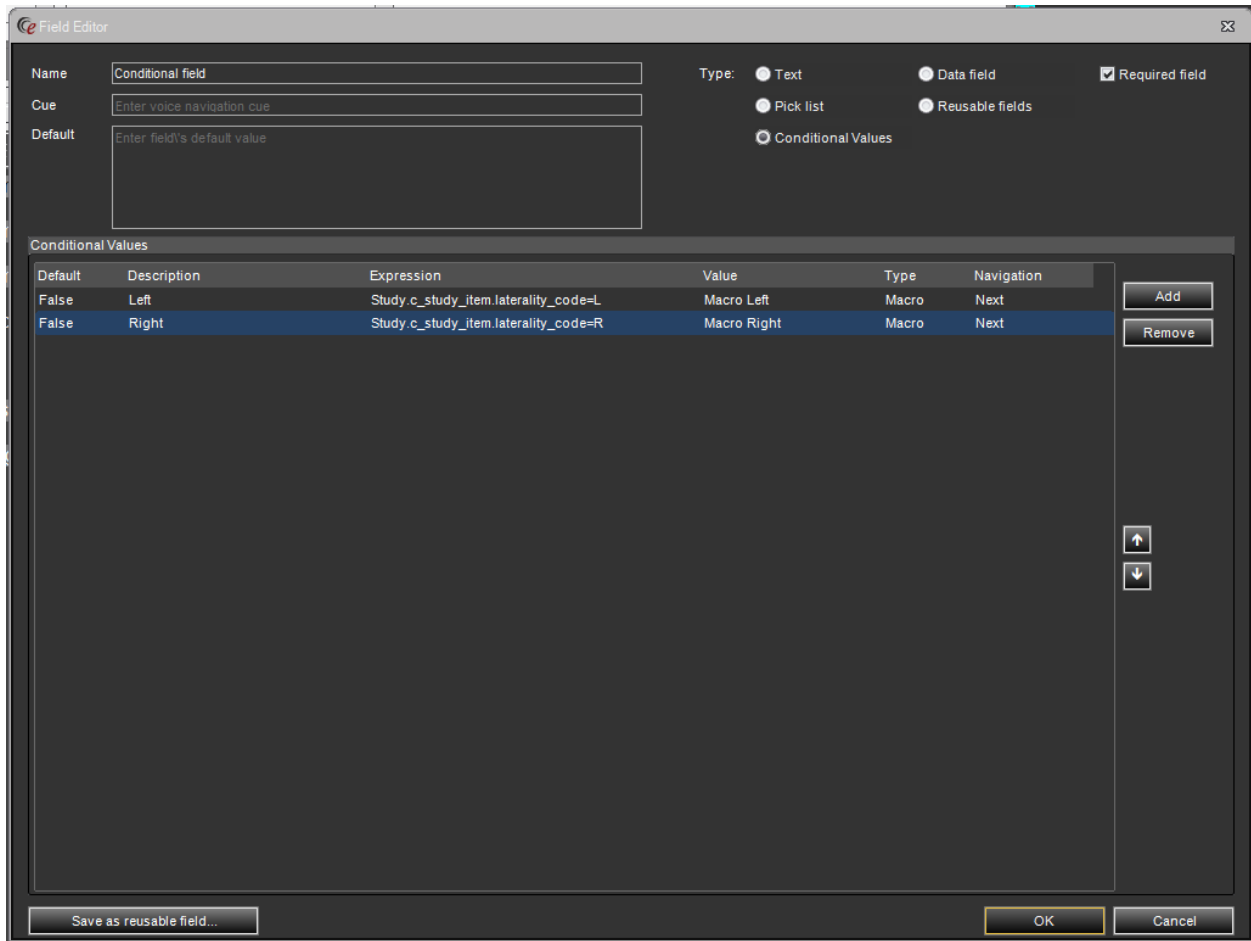
When ‘Edit and Close/Continue’ is clicked and the dictating radiologist is not set and assigned radiologist is not set the RIS will prompt the user for dictating radiologist selection. Without this selection it will not show on a radiologists pending signature worklist. Canceling this dialog is

allowed and the study will fall to the ‘All Pending Signature worklist’ with the current user as the dictating radiologist. This was pre-existing logic in eRAD RIS when sending for signature and there was no dictating radiologist.

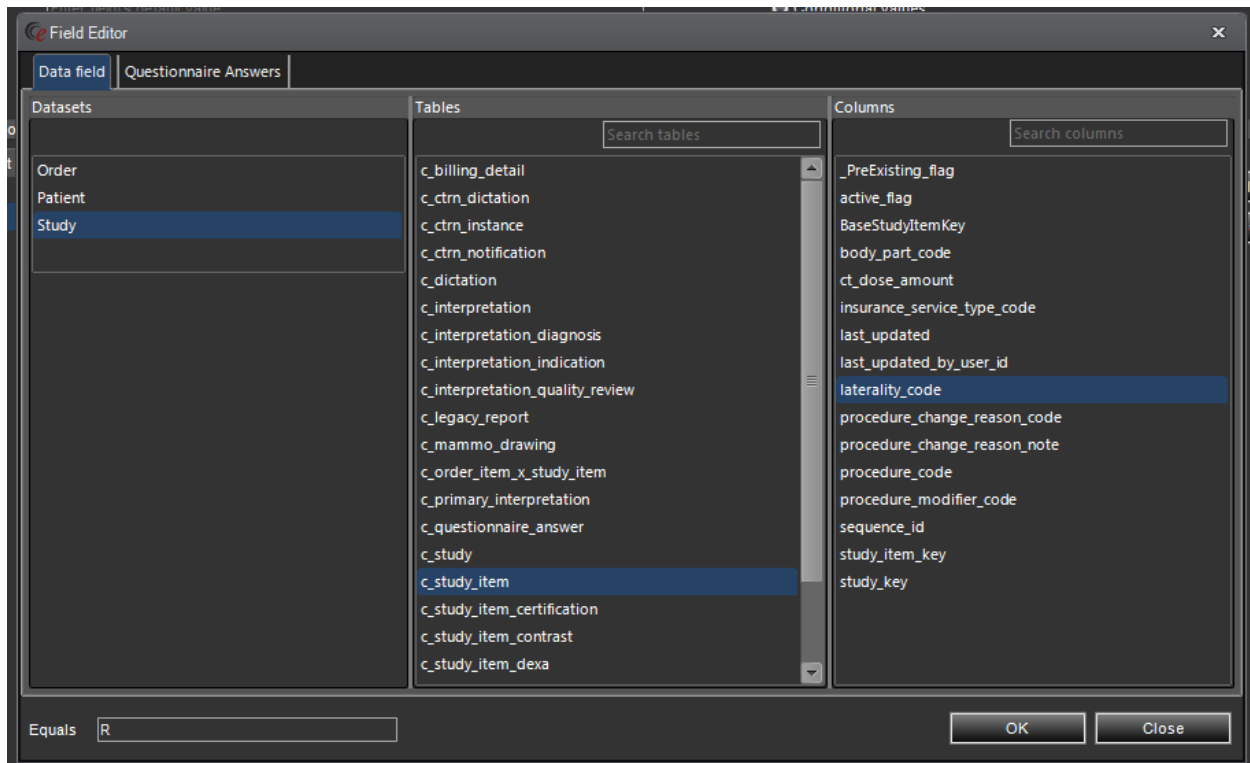
11205 Conditional Fields for Structured Reporting (Phase 1)

The general industry direction is to provide some form of structured reporting capability in eRAD RIS. This will require many sub-features which will be developed over the coming months. The first feature required is a conditional field which could check a simple logical condition and then automatically populate the report with a specific text or macro. This condition would be based on a data field or questionnaire field being equal to a specified value.

To provide this capability, there is now a new option type in the template macro field editor called `Conditional Values`. When the expression is double clicked to enter edit mode, the advanced data field popup will appear. The advanced data field popup in this case has a “Equals” textbox in the bottom left. When the mapped data field is equal to the value assigned, then its text or macro will get inserted. When no conditions are met, then the default condition will be used, if there are none then the field will stay empty. When multiple conditions are met, the first one will be used.



The field editor showing a conditional field set up on laterality code



The advanced field editor popup with the new “Equals” text box.

The conditional fields will populate when the template is inserted. To repopulate them the template needs to be re-inserted, but then all changes to the report would be lost.

Outstanding Issues

If a conditional field is populated with a macro that contains tables or fields, the original field is deleted, because the RIS can't embed fields or tables in fields. What this means is that in order to repopulate the conditional field based on data changes, the entire template needs to be reloaded, which would lose the user's changes to the report. Phase 2 will aim to remedy this limitation

10488 Legacy Report Viewer - PDF viewer should be managed by RIS

A customer has requested that the PDF viewer for legacy reports should allow only a single report to be viewed at a time. In other words, it should automatically close the legacy report when a new patient is opened to prevent any possibility of confusion. Since some customers prefer the existing workflow, this must be a configuration option.

The RIS now contains an integrated PDF viewer that supports viewing and printing of PDFs, as well as automated closing from the RIS. There are two new configuration settings:

KillPDFViewerBeforeLegacyReport

(value = bool) True enables RIS to try to 'kill' or close the PDF Viewer before opening legacy report in a new instance of the PDF Viewer.

Default TRUE

KillPDFViewerAfterLegacyReport

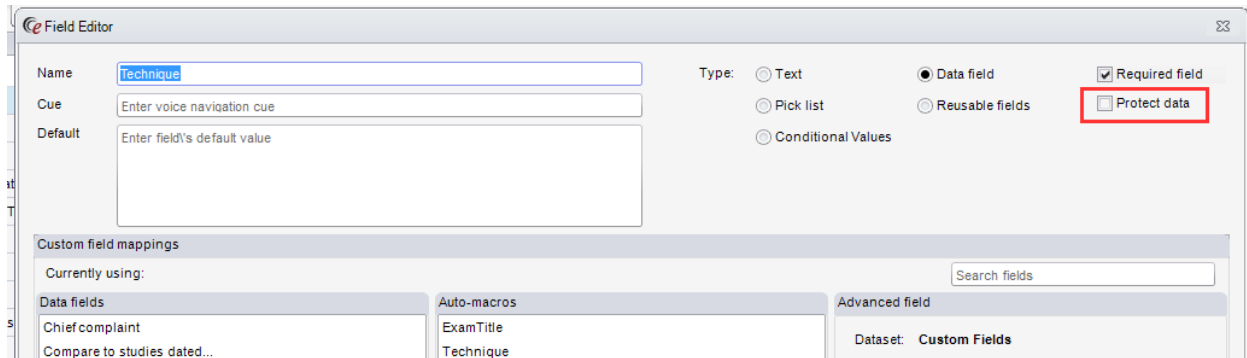
(value = bool) True enables RIS to try to 'kill' or close the PDF Viewer after opening legacy report in a new instance of the PDF Viewer from the reporting screen.

Default TRUE

10572 Ability to protect a field element in the eRAD report editor

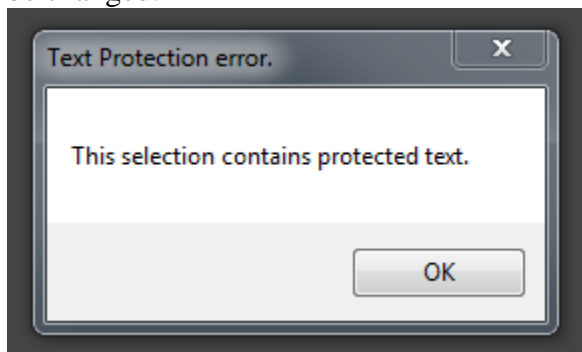
The RIS has the ability to populate diagnostic reports with data from the RIS database. These elements are visually editable by the user, but by design the modification to the data is not saved back to the database field that it came from. Since this may lead to confusion that data should be saved, and since some customers desire this data to be locked down, the RIS should provide a configuration so that this data can be protected from being altered.

The Field Editor tool now includes a checkbox called ‘Protect data’. This only applies to data fields and advanced fields.

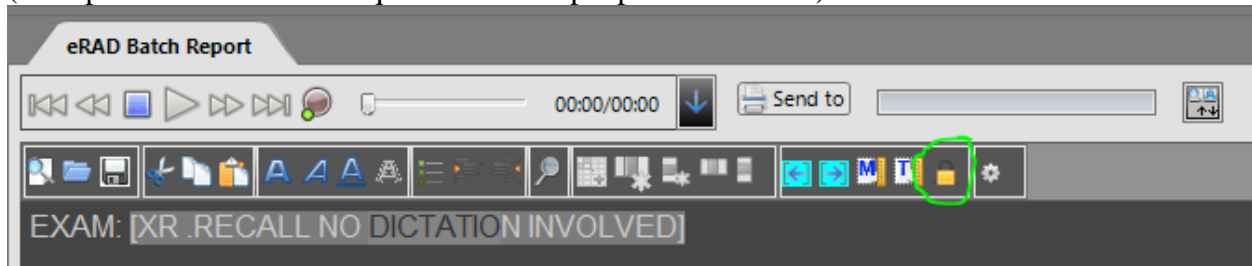


Field Editor showing new Protect Data option

When the checkbox is selected, there is a visual font change to show that the field is protected. If the user attempts to modify the text inside this block, the computer will make a “ding” sound. If the user attempts to make a modification to the report by selecting a range of text that includes a protected block, a message box will be displayed saying “This selection contains protected text”. This message box is not created by the RIS, so unfortunately the text and behaviour cannot be changed.

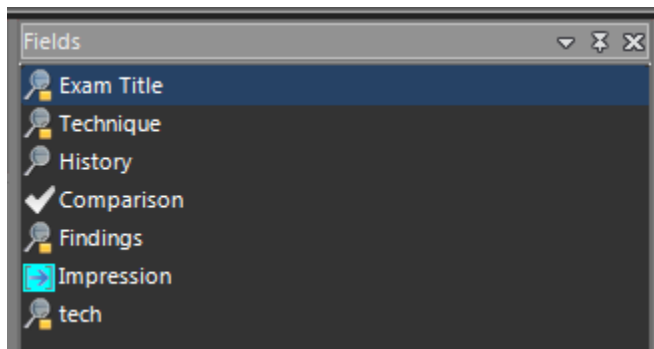


The user can unprotect all fields (this is from existing functionality). This can be accomplished only if the user has FULL access to the “Reporting.UnprotectDataFields” access string. When fields are protected in the report, a button will appear in the report editor’s toolbar next to the field navigation buttons. The button will only be visible when fields are protected, once the button is clicked to unprotect fields, all fields will be unprotected and the button will disappear. If the user undoes this action, the button will reappear once all the fields are protected again (multiple undos would be required for multiple protected fields).



Reporting window showing the locked field indicator

When fields are protected, they will show up in the report field controls with a small lock on the field icon. This icon will stay there even if the user unprotects them. The lock represents the field’s property as defined in the field item editor.



Fields tool window showing the type along with the small lock indicator

9630 Integrate with GE Universal viewer

A customer has requested the ability to integrate the RIS client to the GE Universal Viewer for the radiologist reading environment. This is similar to the integrations that already exist between the eRAD RIS client and eRAD PACS, GE PACS IW, Carestream PACS, and Hologic.

The eRAD RIS client can now be configured to connect to a UV server. The workstation must have the UV PACS client installed on it. Users can launch view sessions, close view sessions, and append new studies into the existing view sessions. Logins are handled in a manner similar to the other PACS integrations in that the first attempt to launch images attempts to log in with the credentials used for eRAD RIS. If this fails the user will be prompted for different credentials.

The integration is based on the performed study instance uid, so an HL7 feed needs to be set up in order to get this information from the PACS to the RIS.

How to enable the feature:

Install the UV PACS viewer on the workstation by logging to the server with Internet Explorer in compatibility mode and installing the viewer.

Configure a UV PACS server in the PACS Server lookup table in RIS. The PACS Server type must be UV and the url field must be filled with the ip or hostname of the server.

Either configure a practice in RIS to use this server or on login use the PACS menu to override the default selection.

Biopsy Workflow

There is a need for a biopsy workflow for Israel that is different than the existing US –based workflow.

The basic workflow is as follows, with additional details in the larger section below:

- A study is configured to require a biopsy
- When that study is received in reception, it is automatically added to a ‘Pending Biopsy’ worklist for the radiologist to perform
- A notification is sent to the radiologist that the study is ready for the biopsy procedure
- The radiologist performs the biopsy and documents the procedure.
- The radiologist annotates an image with locations of biopsy samples and FLN icons
- A ‘Procedure Report’ is created that includes pertinent details of the biopsy as well as the drawing.
- The procedure report is stored as an attached image to the study
- Downstream systems are notified of the completed biopsy procedure via an interface
- The study is added to a ‘Pending Biopsy Results’ worklist
- When the biopsy results are received, the same study is released from the pending worklist – or can be manually released
- The study appears on the (my) ‘Pending Dictation’ Worklist
- The remainder of the workflow is as per normal diagnostic reporting workflow.

11076 Biopsy Workflow - Ability to Flag a Procedure as a Biopsy

The RIS now contains a new biopsy workflow. In order to know when to enable this workflow, there needs to be a way to associate the procedure to the workflow.

A new column called 'Biopsy Enabled Flag' has been added to the Procedure Code lookup table with a default value of 'N'. Procedure codes that are required to be sent to the Pending Biopsy workflow will have to have the Biopsy Enabled Flag set to 'Y'.

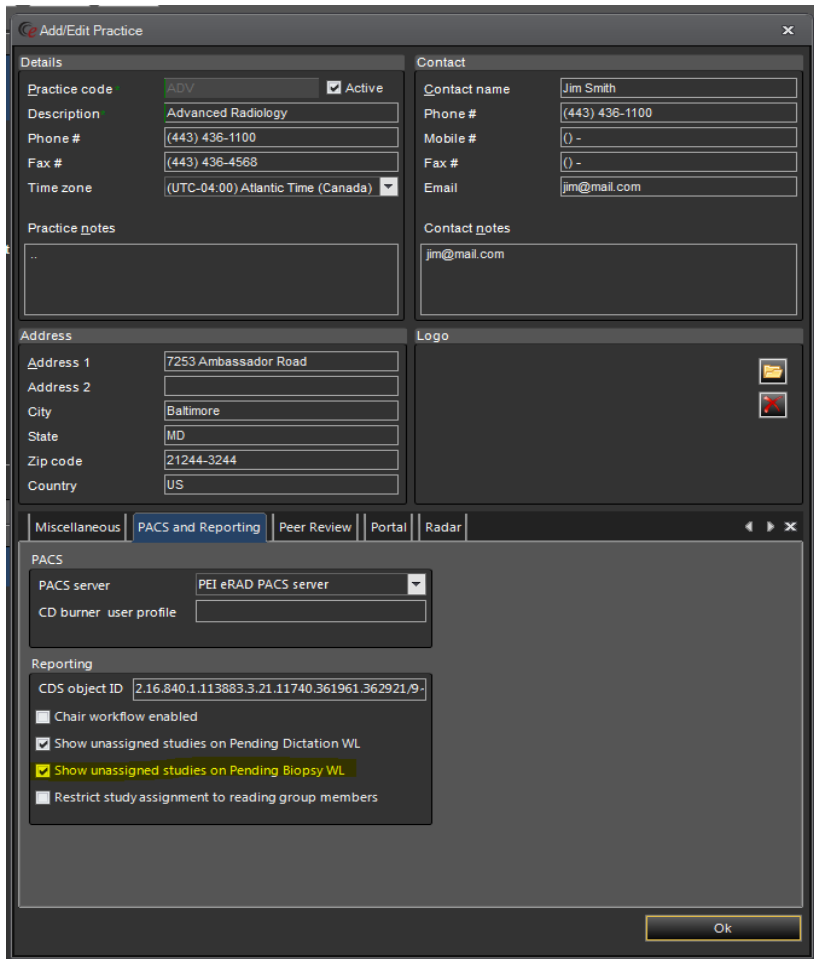
11077 Biopsy Workflow - Create Pending Biopsy and All Pending Biopsy Worklists

In order to begin the biopsy process, there needs to be a worklist for the radiologist who performs the biopsy procedure. Therefore, the RIS requires a (my) 'Pending Biopsy' worklist. A senior staff radiologist will also require an 'All Pending Biopsy' worklist.

These worklists have been created and are based on the same statuses as the Technologist WL (Arrived, CheckingIn, Started). The radiologist's (my) Pending Biopsy WL is filtered based on the assigned radiologist. The "Perform Exam" screen will be used by the Radiologist to action the pending biopsies. The pending biopsy work list will show studies in Arrived or Started status that have a procedure code that has the biopsy enabled flag set to 'Y'.

Note:

In the same manner as the (my) Pending Dictation worklist, it is possible to show un-assigned studies on the 'my' pending biopsy worklist. To enable this setting, the following checkbox should be enabled at the practice level:



Practice maintenance screen showing the new unassigned studies option

Access Strings:

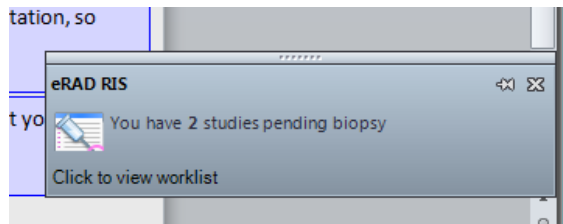
WL.Rad.PendingBiopsyAll – FULL shows the worklist

WL.Rad.PendingBiopsy – FULL shows the worklist

11078 Biopsy Workflow - Notify a radiologist of an assigned pending biopsy

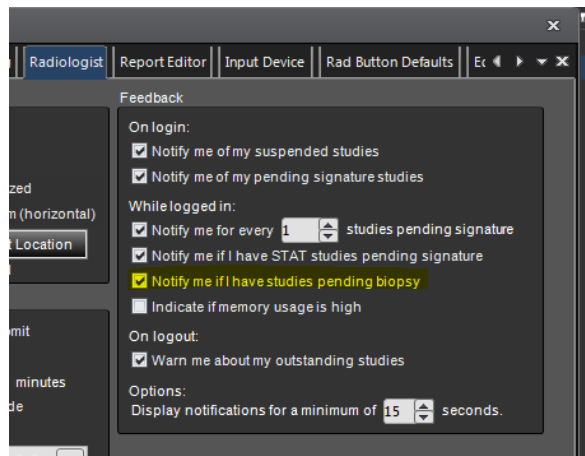
When a radiologist is assigned a biopsy request, he or she will need to be notified.

eRAD RIS now supports a new notification pop-up that will appear for the radiologist when they have a study assigned to them that requires a biopsy.



Example of a biopsy notification

There is a user preference that allows the user to turn off this notification.



The user preference screen showing the new notification option

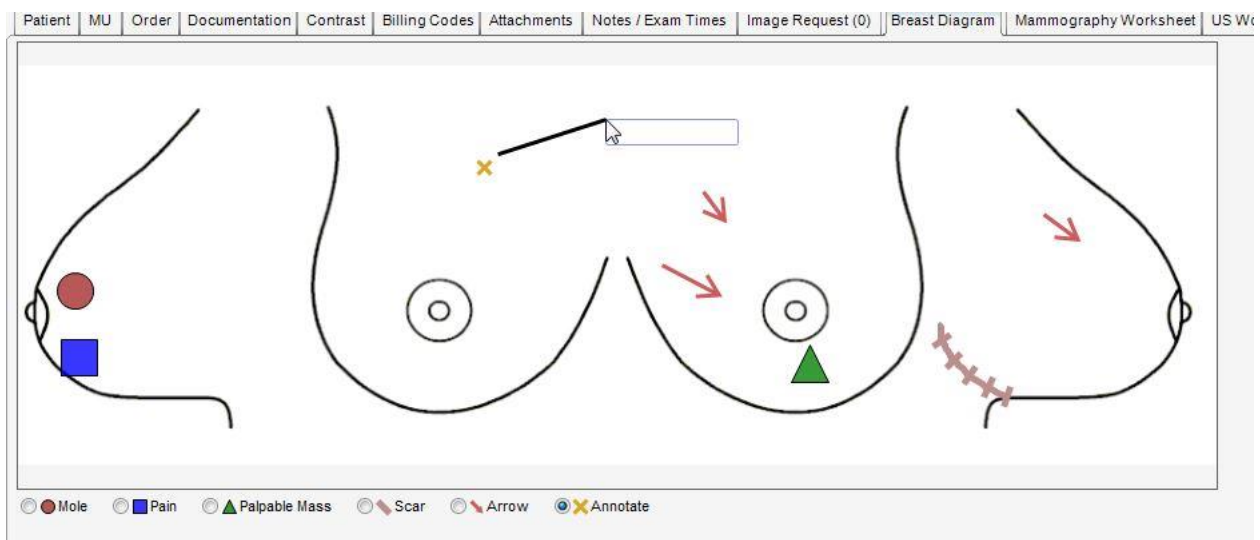
Access strings:

WLNotification.PendingBiopsyNotify” – Default FULL – If set, the notification can appear to the user.

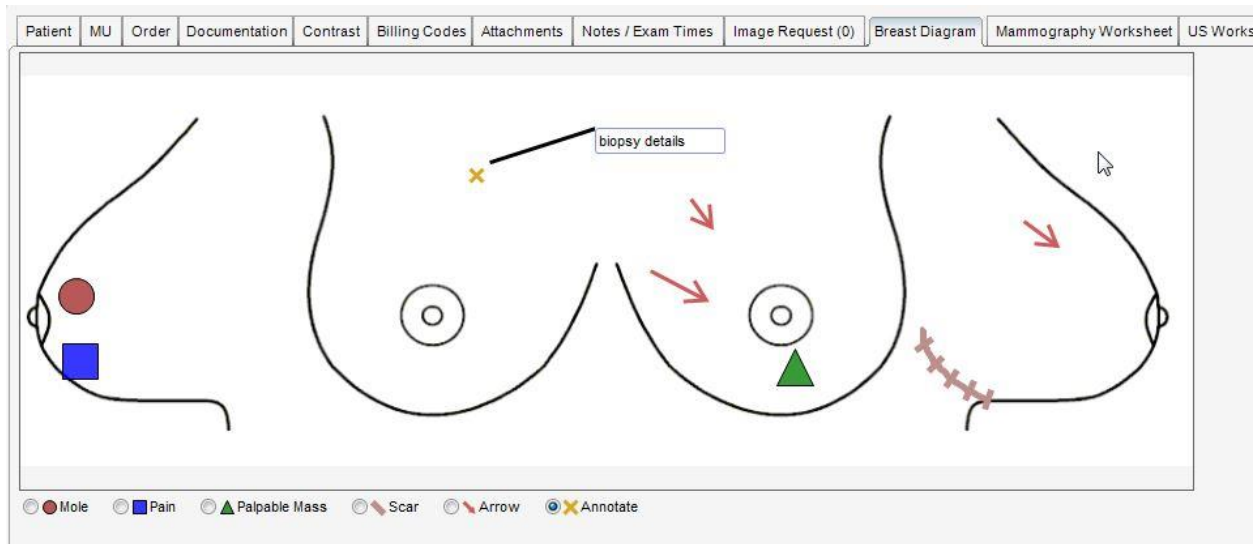
11079 Biopsy Workflow – Drawing tool – Add tool to show biopsy locations (annotation tool)

The RIS drawing tool needs to be expanded to include a new tool type which will be used primarily to show the location of a biopsy sample. It is desirable to make this a ‘call-out’ type tool so that a custom label can be added to each call out, therefore making this tool useful for many other purposes.

eRAD RIS’s drawing tool now contains a new tool called ‘Annotate’. When selected, the mouse is used to select a starting location for the annotation. Consider this to be the actual location of the biopsy sample in this case, and consider it to act like a ‘line’ feature in many drawing programs. The user will click down with the left mouse button at the location of the biopsy, and while holding down the left button, will drag the mouse to a new location where the annotation text can be entered. When the user releases the mouse button, the RIS will open a text field where the user can key in the value for the annotation. To delete an annotation, right click on the annotation and select the ‘Delete’ option.



Drawing window showing an annotation tool. The user has selected a starting location and is dragging the mouse to a location for the annotation label



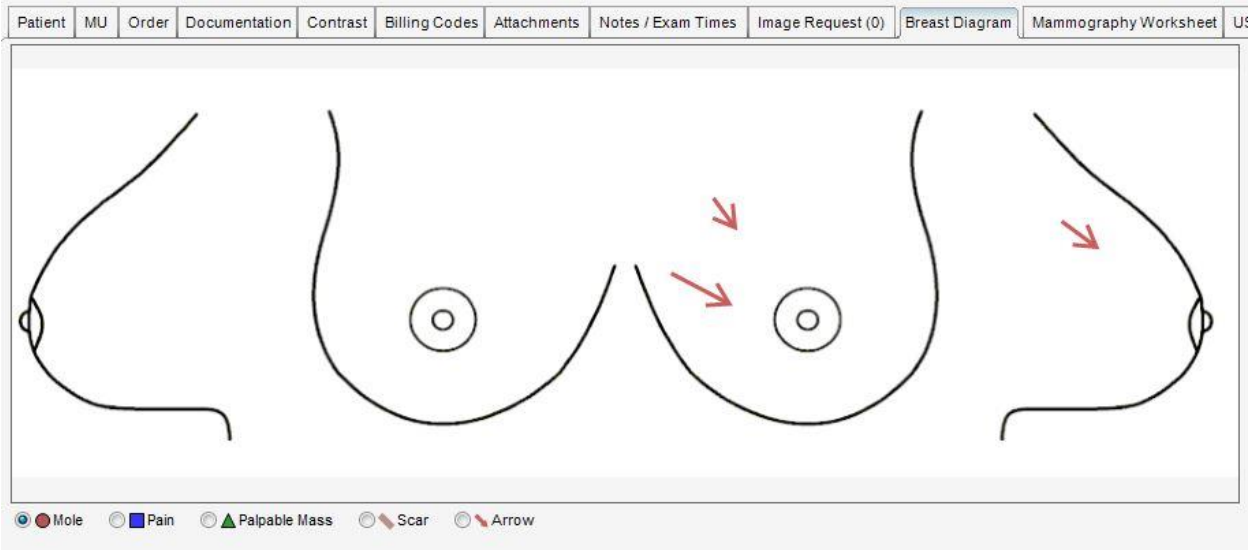
Drawing window showing an annotation tool. The user has released the mouse button allowing text to be entered for the label

To delete an annotation, right-click on the starting point of the annotation and select 'Delete' from the context menu.

11184 Biopsy Workflow - Drawing tool - Add tool for arrow (FNL tool)

The RIS drawing tool needs to be expanded to include a new tool type resembling an arrow which will be used to represent FNL (fine needle localization).

A new tool has been added called ‘Arrow’. To draw an arrow, select the tool type, then click on the image with the left mouse button and while holding down the button drag the mouse to another location. When the mouse button is released, an arrow will be drawn. To delete an arrow, right click on the arrow, and select the ‘Delete’ option.



Drawing window showing an FNL (arrow) tool. The user has selected a starting point and dragged the mouse to an end point and released the mouse button. The user has done this 3 times.

11083 Biopsy Workflow – Generate a Biopsy Procedure Report (framework)

When the biopsy procedure is marked as completed by a radiologist, a Biopsy Procedure Report is required to be created, printed, stored to the patient’s attached images and an XML version needs to be transmitted to an external system. This report must also include the drawing from the drawing tool, along with answers from the questionnaire framework.

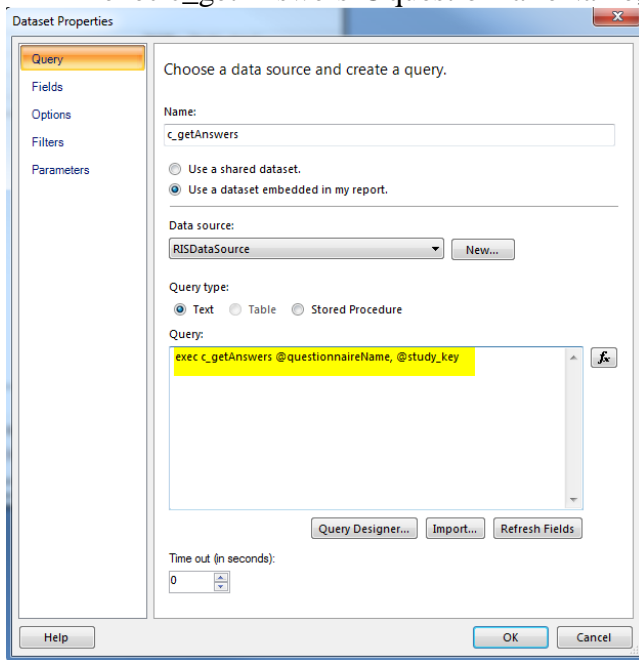
eRAD RIS will generate this report using the existing forms/labels feature. A sample report was created so that service personnel could see how to pull questionnaire answers (the biopsy data entered by the radiologist is stored in these answers) and the drawing into this form.

How to create the Procedure Report form:

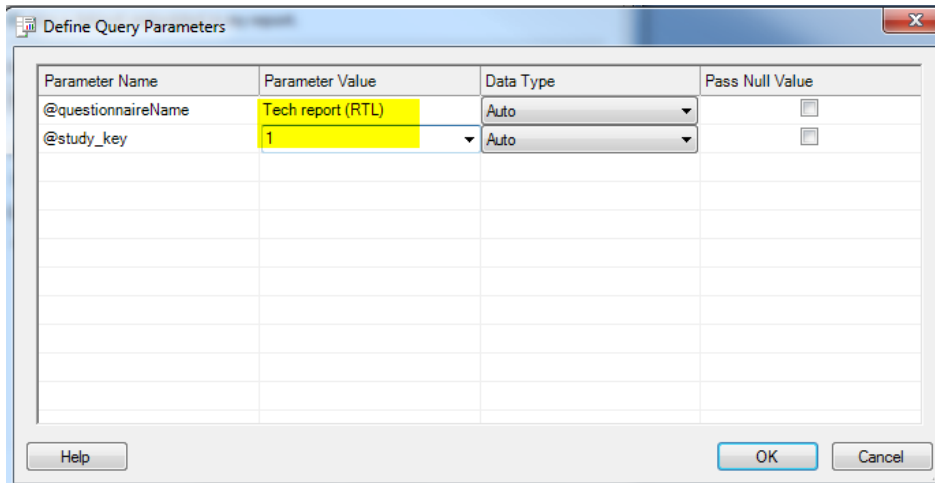
This is a more involved setup, usually involving the assistance of eRAD support personnel. For assistance, please contact eRAD Support and reference feature 11083

In report builder create a dataset. Set the data source to RISDataSource. Set the query type to Text. Set the query as shown

`exec c_getAnswers @questionnaireName, @study_key`

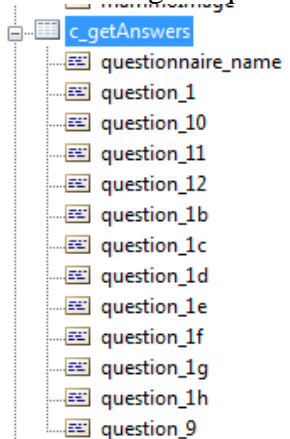


Click the Refresh Fields button, and if prompted enter your sql connection information. You will be prompted with the Define Query Parameters window. You will enter the name of the Questionnaire and any study key.



The dataset should populate with a list of all the question short names from the questionnaire like this:

Note: In this example question_1 through question_12 are the short names for the questions in the sample questionnaire I referenced. This is why it is helpful to have more meaningful names when creating the questionnaire short names for mapping the data into a SSRS report.



Notice that adding that stored procedure creates 2 report parameters if they did not already exist.

- @questionnaireName,
- @study_key

Notice that the Study_key parameter is what drives the form from the worklist.

How to include the drawing tool image:

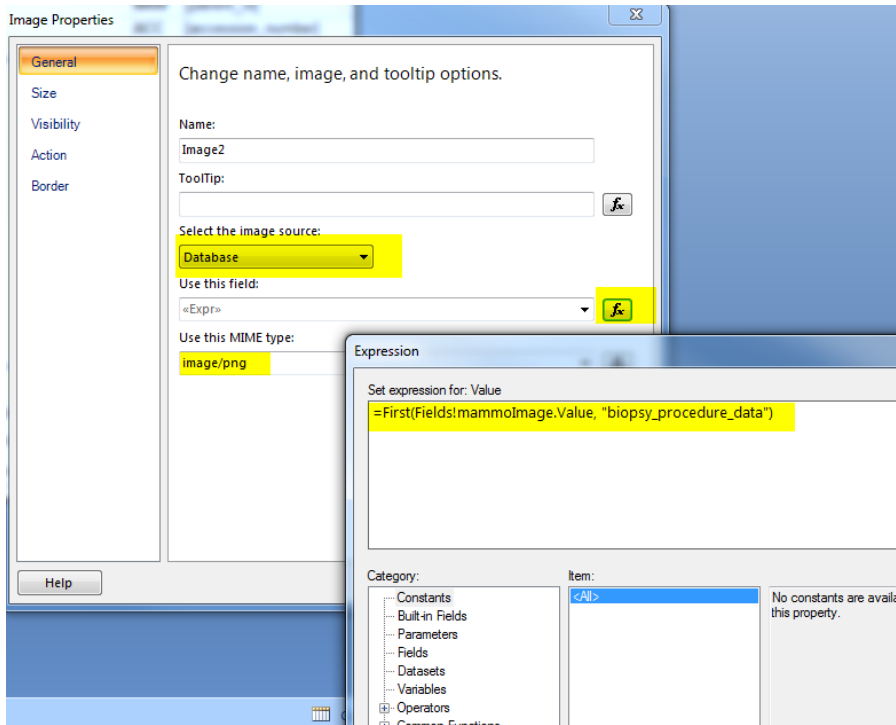
To pull the biopsy image into the form, join the image_data from the into the c_mammo_drawing table into your query.

Example:

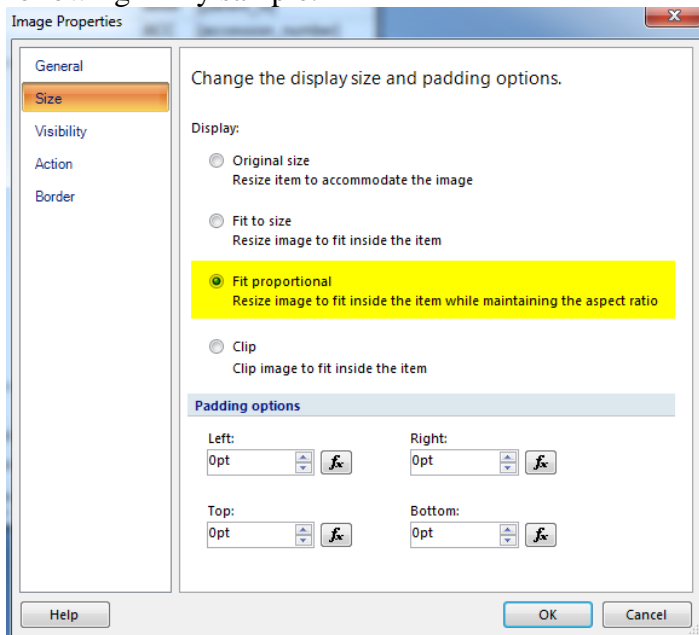
```
select
    <your patient, study, order or whatever other information you need would be here>
    ,md.image_data as mammoImage
from
    c_study s
    inner join c_patient p on s.patient_key=p.patient_key
    left join c_mammo_drawing md on s.study_key=md.study_key
where
    s.study_key = @study_key
```

In SSRS report builder put an image where you want it on the form and add information as follows:

- **Select the image source:** Need to be Database
- **Use this field:** Using the little fx (functional expression) button to select the image field from your dataset. In this example I called my dataset biopsy_procedure_data and pulled the field I aliased as mammoImage
- **Use this MIME type:** I selected image/png but you can use what you prefer.



You might want to set the Size properties to what suits your needs. best, but I just used the following in my sample.



11082 Biopsy Workflow – Ability to collect custom Biopsy Data

During the performing of the biopsy procedure, there is specific data that will have to be collected and entered by the performing radiologist (examples include Modality Type, Study, Pathology Type, Left or Right Breast, Biopsy Location, Color of Specimen Container, BIRAD, etc) In order to provide future enhancement opportunity and not hard-code this single solution, it is desirable to use the conditional tab framework to collect this information, but some enhancements to this framework are required. The Conditional Tab editor needs to include body part and biopsy enabled flag. The RIS will also need to produce a ‘Procedure Report’ when the biopsy has been performed.

The questionnaire framework will now evaluate the biopsy and body part fields when determining when to display a questionnaire.

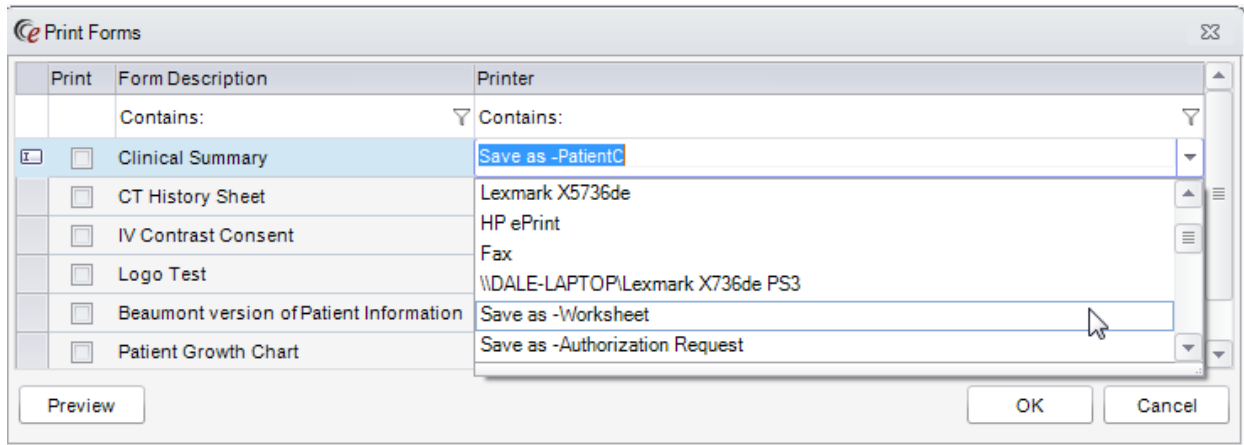
The forms and labels editor was modified to support filter criteria that includes Body Part and Biopsy flag. A “companion form” can be created to present the information from the questionnaire, with criteria that specify that the form should be printed whenever the “tech completes the exam” (which is actually the radiologist completing the biopsy procedure)

11271 Biopsy Workflow - Ability to save a form directly to the patient folder

When the biopsy procedure report is created, the user must save it to the patient folder. eRAD RIS needs to support creating a form and saving it directly to the patient folder.

The Print Forms dialog (which can be configured to automatically launch at many points in the workflow) normally contains a list of printers where the document can be printed. This has been enhanced to also contain links to save an image of the document directly to the patient folder. It will appear in the list of printers and ‘Save as’ and a scanned document type. When selected, the RIS will render the report as an image (using multiple pages if necessary) and store the image as a scan document visible from the patient folder. As per normal RIS functionality, once a destination is selected, the RIS will remember this destination, so the user only has to make this selection once.

If more than one copy of the same document is required (for example, in the requested biopsy workflow there has to be a printed copy of the document as well as the document attached to the patient folder) simply configure the document to appear twice in this dialog by having 2 identical forms created.



The print forms dialog showing the ability to save the document to the patient folder as a ‘worksheet’ type.

Access strings:

Clinical.FormsAndLabels.AllowSaveAsAttachment

11084 Biopsy Workflow - Track biopsies that are awaiting results

As biopsy procedures are completed by the radiologist in RIS and sent to a lab for pathology, there needs to be a means to track that the biopsy has been sent to an external system and is awaiting results.

To accomplish this, a new worklist called Pending Biopsy Result WL has been added to the Administration menu in eRAD RIS. As biopsy procedures are marked as complete by the radiologist, the study will appear on this Pending Biopsy Result worklist. The study will remain on this worklist until the pending_biopsy_result_flag (accessible via the RIS interface) is set to ‘N’. Once the interface message is received, the study will be removed from the Pending Biopsy Result WL and a radiologist can now dictate on it from the Pending Dictation worklist.

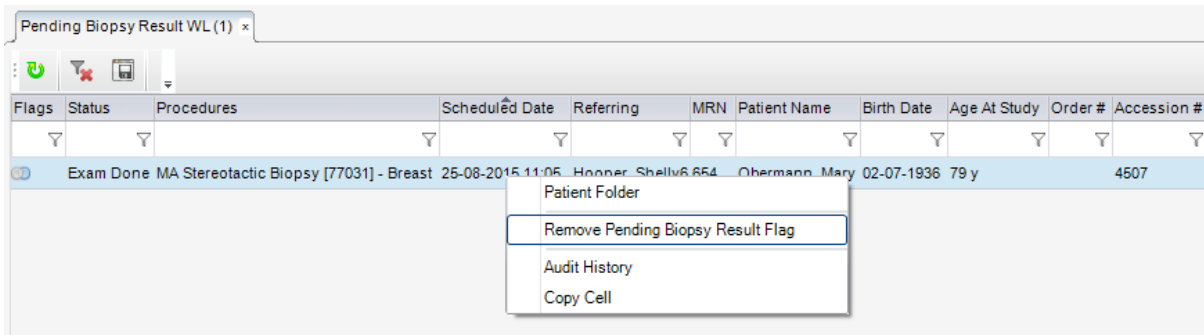
Should the interface not exist, a user can manually remove a study from the Pending Biopsy Result WL by right clicking and selecting ‘Remove Pending Biopsy Result Flag’.

Access strings:
 WL.PendingBiopsyResult

Flags	Nuggets	Status	Procedures	Pending Biopsy Result	Scheduled Date	Referring	MRN	Accession #	Room	Site	Performed Start Date
		Exam Done	MA Stereotactic Biopsy [77031] - Breast	✓	25-08-2015 11:05	Hooper, Shelly6	38054 654	4507	MA1LU	LU	25-08-2015 11:04
		Cancelled	MA Stereotactic Biopsy [77031] - Breast		25-08-2015 09:40	Hooper, Shelly6	38054 654	4506	MA1LU	LU	
		Exam Done	MA Stereotactic Biopsy [77031] - Breast		20-08-2015 13:32	Hooper, Shelly6	38054 654	4425	MA1LU	LU	20-08-2015 13:34
		Arrived	CT Chest W [71260] - Chest		18-08-2015 15:20	Hooper, Shelly6	38054 654	4490	CT1PO	PO	
		Arrived	CT Chest W [71260] - Chest		18-08-2015 15:00	Hooper, Shelly6	38054 654	4489	CT1PO	PO	
		Started	CTA Chest W/Wo [71275] - Chest		13-08-2015 15:30	Hooper, Shelly6	38054 654	4418	CT1LU	LU	13-08-2015 10:26
		Started	CT Chest W/Wo [71270] - Chest		13-08-2015 15:00	Hooper, Shelly6	38054 654	4419	CT1LU	LU	13-08-2015 10:26
		Started	CT Chest W [71260] - Chest		13-08-2015 14:15	Hooper, Shelly6	38054 654	4420	CT1LU	LU	13-08-2015 10:26
		Scheduled	MA Stereotactic Biopsy [77031] - Breast		13-08-2015 13:55	Hooper, Shelly6	38054 654	4422	MA1LU	LU	
		Exam Done	MA Stereotactic Biopsy [77031] - Breast		13-08-2015 07:45	Hooper, Shelly6	38054 654	4413	MA1LU	LU	13-08-2015 14:02
		Exam Done	MA Stereotactic Biopsy [77031] - Breast		12-08-2015 16:25	Hooper, Shelly6	38054 654	4414	MA1LU	LU	12-08-2015 16:26

The patient folder showing the Pending Biopsy Result Flag on the Patient Folder

RADNET Inc. – eRAD RIS Release Notes



The screenshot shows a software interface window titled "Pending Biopsy Result WL (1) x". Below the title bar is a toolbar with icons for refresh, delete, and print. The main area contains a table with the following columns: Flags, Status, Procedures, Scheduled Date, Referring, MRN, Patient Name, Birth Date, Age At Study, Order #, and Accession #. A single row is highlighted in blue, representing a pending biopsy result. A right-click context menu is displayed over this row, listing the following actions: Patient Folder, Remove Pending Biopsy Result Flag, Audit History, and Copy Cell.

Flags	Status	Procedures	Scheduled Date	Referring	MRN	Patient Name	Birth Date	Age At Study	Order #	Accession #
		Exam Done MA Stereotactic Biopsy [77031] - Breast	25-08-2015 11:05	Hooper, Shelly	6654	Obermann, Mary	02-07-1936	79 y		4507

The Pending Biopsy Result worklist showing the right-click context menu to manually remove the pending flag

Mammography

9255 Support BIRADS 4a,4b,4c (non-USA sites only)

Currently eRAD RIS supports only 'BIRADS 4', and utilizes the recommendation code to distinguish between 4a, 4b, 4c. A non-US customer wants the BIRADS drop down to directly support the categorization of 4a, 4b, 4c.

To support this request, the RIS has been modified to support the additional BIRADS codes. This change technically allows any of the 0-6 BIRAD codes to be extended in the BIRADS table.

Front Desk

8355 Validation on manually entered MRN

All residents of Israel have an Israeli National ID. This is utilized as the MRN in RIS. All National IDs are required to pass a validation referred to as the Luhn Algorithm also known as Mod 10. The RIS must validate the MRN when entered into the system.

To support this, the RIS now has a simple validation framework for MRN's associated to the issuer. Currently there are two validation types supported, but the framework allows for additional types to be added in the future. The two identity validation types supported today are:

- Mod10 – This validation type will accept (pass) a MRN value through the Mod 10 algorithm and determine if it passes or fails.
- Mod10PrePad – This validation type will pass an MRN value through the Mod 10 algorithm and determine if it passes or fails. It will also pad zeros to the left of the number if it passes validation but is less than the appropriate amount of characters. The appropriate amount of characters is determined by the total amount of characters defined in the Mask for the issuer.

The Patient MRN grid has been enhanced to check for identity validation for the Issuer if configured in the Issuer lookup table. If identity validation fails, an error will be shown to the user which will prevent him or her from saving the MRN.

If identity validation passes but the MRN value is required to be padded with zeros, the appropriate number of zeros will be added to the left of the MRN value.

The screenshot shows a 'General Information' window with the following fields: Prefix (dropdown), First (Ron), Last (Hextal), Middle (empty), Suffix (dropdown), Birth place (empty), Father's name (Elvis), Sex (Male), DOB (10-10-1980), and age (34y 9m). There are checkboxes for Deceased, Claustrophobic, Arbitration signed, and Verified ID, along with an eRx button. On the right, a table shows Issuer MRN Active status:

Issuer	MRN	Active
system	12	<input checked="" type="checkbox"/>
National ID	543700421	<input checked="" type="checkbox"/>

Below the table is a link: [Click here to add a new row](#)

General information window showing valid 9 character National ID

RADNET Inc. – eRAD RIS Release Notes

The screenshot shows the 'General Information' window in the eRAD RIS system. The window contains several input fields for patient information, including Prefix, First name (Ron), Last name (Hextall), Sex (Male), and Date of Birth (10-10-1980). A table on the right lists the Issuer (system) and National ID (543700422). An error dialog box is overlaid on the window, displaying the following text:

eRAD RIS

The following errors must be corrected:

- Identity validation failed for NationalID,
- HMO is required,
- Special accommodation is required.

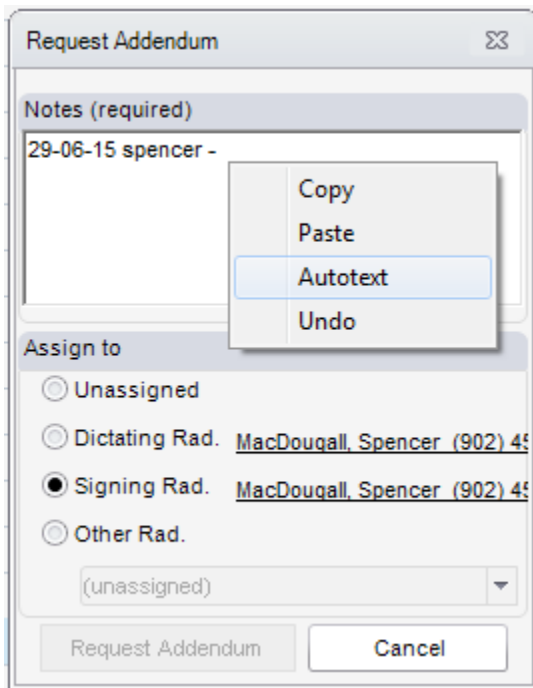
OK

General information window and error dialog showing invalid ID

10534 Support Configurable Autotext for Addendum Notes

A customer has requested that both the Request Addendum and the Reject Addendum forms in the Radiologist workflow support values driven from a lookup rather than just free text.

In build 45.0, the RIS introduced a new feature called Autotext for log controls. To solve this new customer request, these two addendum fields have been updated to support the autotext control. Now the user can right-click on the note area to invoke the autotext feature. As per the existing autotext feature, these text controls can be configured to support free text, a combination of free text and autotext, or purely autotext.



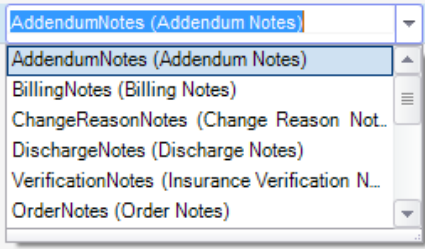
Request addendum screen showing the right-click autotext option

How to enable this feature:

To enable this feature a new log control code has been added to the Autotext lookup called “Addendum notes”. The administrator can configure autotexts to be associated with this category and will therefore display in these dialogs.

RADNET Inc. – eRAD RIS Release Notes

Description	Language Content	Log Control Code	Disp
Contains:	Contains:	Contains:	Equ
Click here to add a new row			
Autotext2	Second option for order notes	OrderNotes (Order Notes)	1
Autotext1	This is autotext for Order Notes	AddendumNotes (Addendum Notes)	1



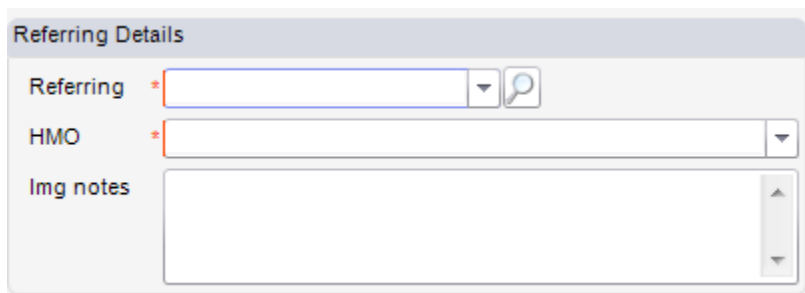
Autotext configuration screen showing the new Addendum Notes option

Scheduler/Front Desk

10623 Need to have ‘Source of Order’ as a user-editable field instead of ‘Visited At’

For a specific customer, studies are scheduled in an external CRM system and will not have a ‘visited at’ populated with the referring physician. The interface will automatically populate a ‘source of order’ field, and this is how the RIS and its attached system will know where to direct the diagnostic report. Walk-in patients (and VIP's) are directly scheduled in eRAD RIS, therefore the scheduler/receptionist needs to be able to store/edit the ‘source of order’ so that the RIS knows where to direct the diagnostic report (which is their case is called an HMO). Therefore, it must be possible to edit the ‘source of order’ in a field within the RIS.

To resolve this need, there is now an ordering organization lookup table, and under the appropriate conditions, this is shown in place of the ‘Visited at’ in the Referring Details of the order tab.

The image shows a screenshot of a software window titled "Referring Details". It contains three main sections: "Referring" with a dropdown menu and a search icon, "HMO" with a dropdown menu, and "Img notes" with a text area and a scroll bar.

Referring Details window showing the source of order field.

How to enable this feature:

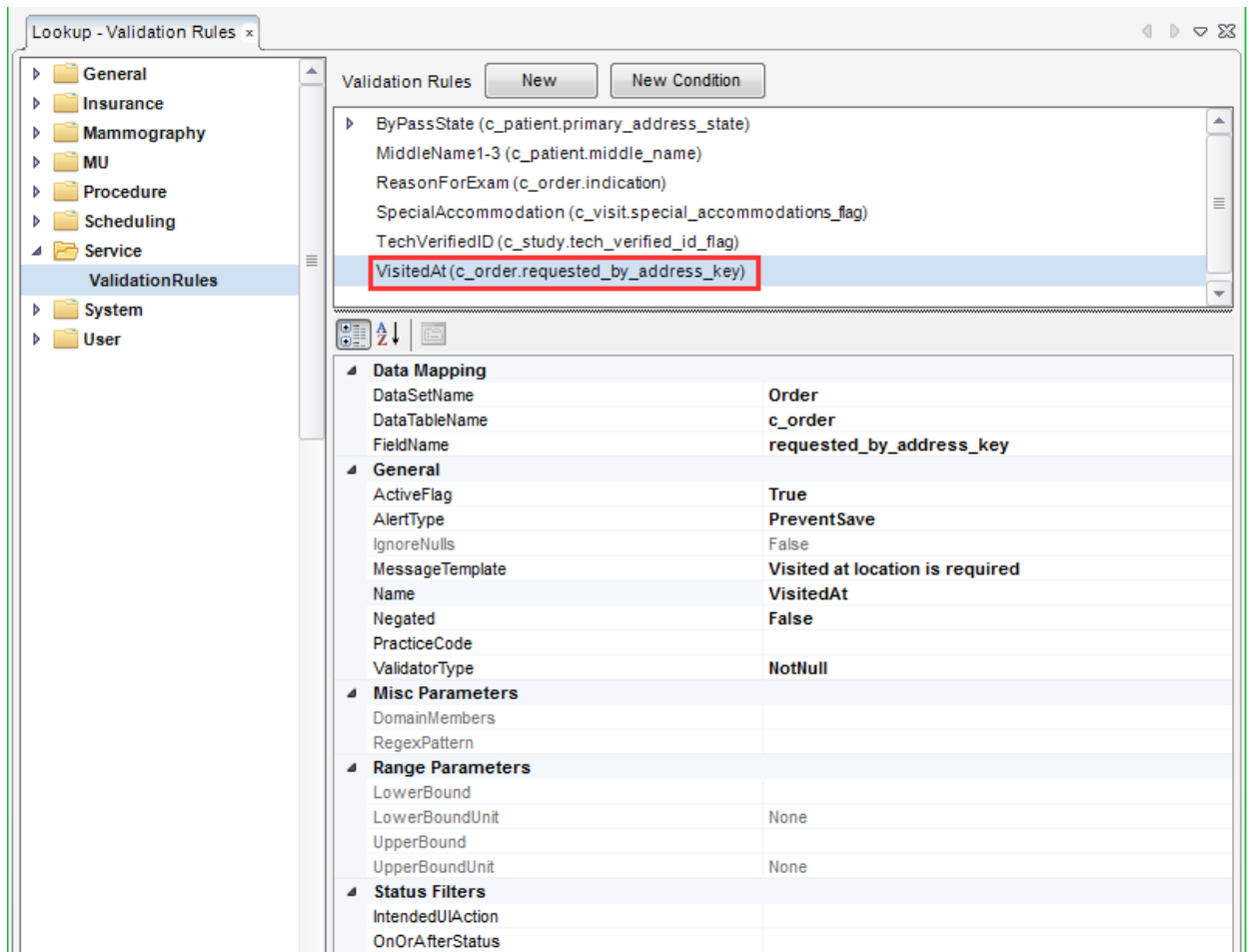
To enable the ‘HMO’ field, set the following access string to FULL

Custom.Visibility.Data.Order.c_orderRow.ordering_organization_code

To disable the ‘Visited at’ field set the following access string to NONE

Custom.Visibility.Data.Order.c_orderRow.requested_by_address_key

Outside of this feature (but helpful to mention it here) you will also need to disable the required field for the ‘Visited At’



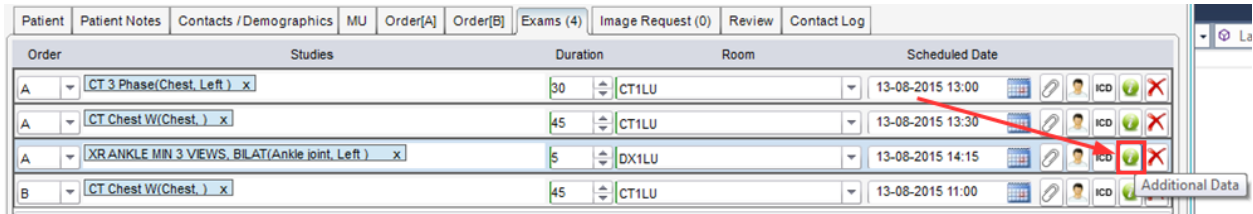
Validation Rules lookup editor showing the rule which disables the Visited At required field

Scheduler and Technologists

10843 - Provide Viewer/editor for ‘Study Extra Info’

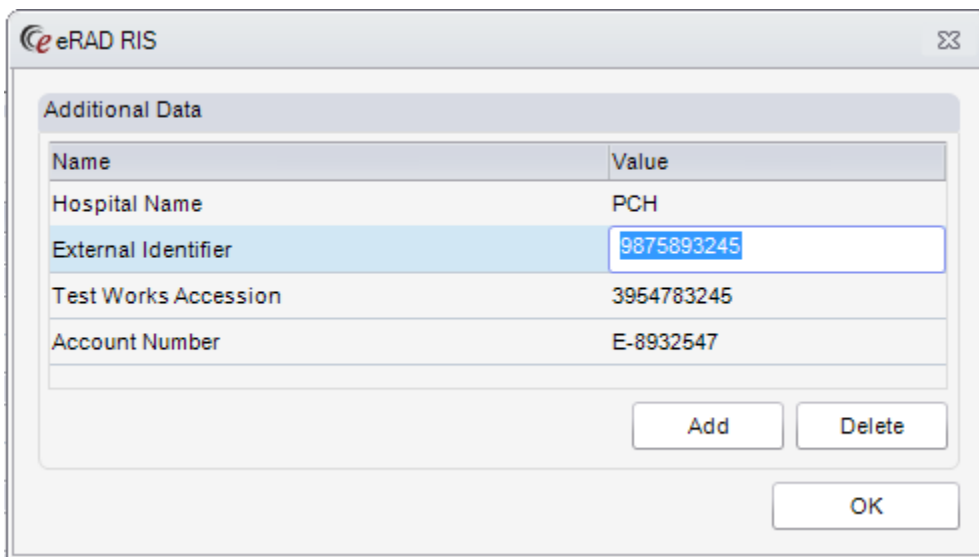
To support dynamic data fields which may be send to eRAD RIS from an external system, the RIS has a special data table known as ‘study_extra_info’. While some of these fields are used simply to pass data between systems, there are occasions where the user may need to view and/or add/edit/remove this information.

To allow the viewing and editing, a new button was added to the procedure picker row as shown below:



Procedure selection screen showing the Additional Data button

Clicking this button will open the study extra info grid.



Additional Data popup screen showing the ability to edit a field

To view or edit the additional data from other roles (ie: the Perform Exam and the View/Edit screens) an ‘Additional Data’ grid has been added to the Exam Details tab. Note that this tab used to be called ‘Contrast’, but its purpose has grown beyond just recording contrast.

The screenshot shows the 'Exam Details' tab selected in a navigation bar. Below the navigation bar, there are several sections: 'Contrast' and 'Sedation' each with a table and 'Add'/'Delete' buttons; 'Contrast Injection Details' with checkboxes and text labels; and a new 'Additional Data' grid with a table containing one row: 'Tafnit Number' with value '12345'.

Tech screen showing the Exam Details tab and showing the additional data grid

Access strings:

To control access to these fields both for viewing and the ability to edit, each row in the Additional Data (Study Extra Info lookup table) can be linked to an Access String using the following custom format:

“Custom.Visibility.AdditionalData.[field name]”

For example, the Study Extra Info field for ‘ExternalIdentifier’ will have an associated access String of Custom.Visibility.AdditionalData.ExternalIdentifier.

If no custom Access String is added for the Study Extra Info Code, then the system will automatically grant Full rights.

If a particular User Group requires read-only access to ExternalIdentifier, this can be configured in the User Group Permission Lookup table by selecting the group and specifying the Custom.Visibility.AdditionalData.ExternalIdentifier as read-only.

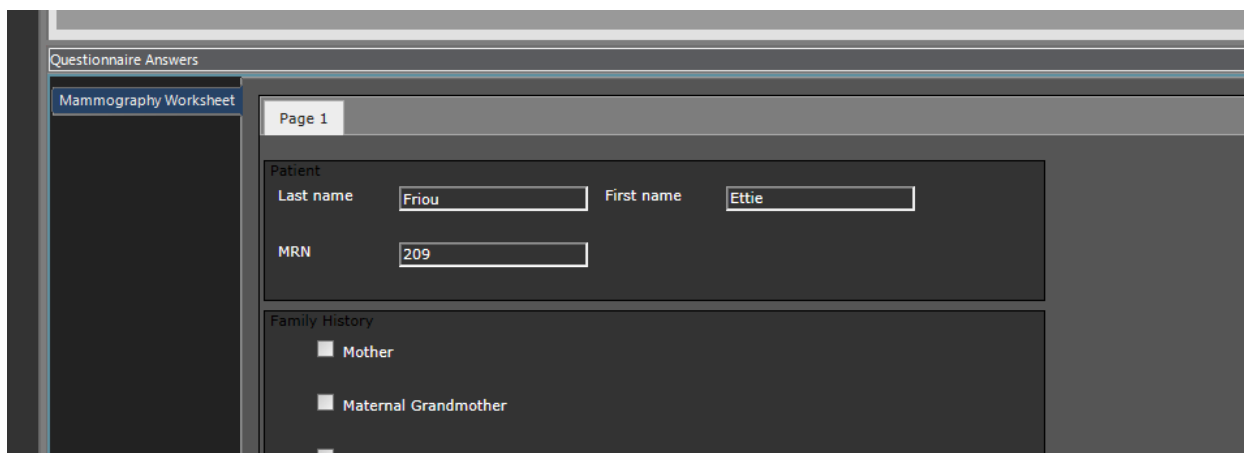
The Additional Data grid allows the user to view, modify, add, and delete entries in the c_study_extra_info data table based on the permission framework outlined above. A user must have Full rights in order to add, delete, or edit an entry.

All users

10700 Questionnaire - Display questionnaire answers in the reporting screen

The new questionnaire (digital forms) feature allows for a customer to create custom questions and store the answers electronically. Radiologists and transcriptionists need a read-only ability to review these answers.

eRAD RIS now contains a new tool window in the reporting screen called ‘Questionnaire Answers’. This window can be opened via the View Menu while the reporting screens are open. This new tool window can be docked and saved in the current layout the same as all tool windows. This new tool window will display questionnaires of type “General”. (See feature #11008 for more details on conditional tab types). If more than one questionnaire is applicable to a study then each will show as a tab within the viewing window. The screen capture below shows a single Mammography Worksheet questionnaire with a single page of questions and answers.



Radiologist screen showing the Questionnaire Answers tool window containing a single questionnaire and it's answers

Access String:

View.QuestionnaireAnswers - used to control if the user can see the tool window

10819 Questionnaire - Allow certain questions to be marked required

The eRAD RIS questionnaire framework does not currently have a mechanism to enforce when questions are to be answered. The system should permit a question to be marked as required. It must bypass the required check if the question is not visible.

The RIS Admin can now designate questions as required in the questionnaire editor. When the questionnaire is being filled out, required fields are highlighted in red.

Dog's name

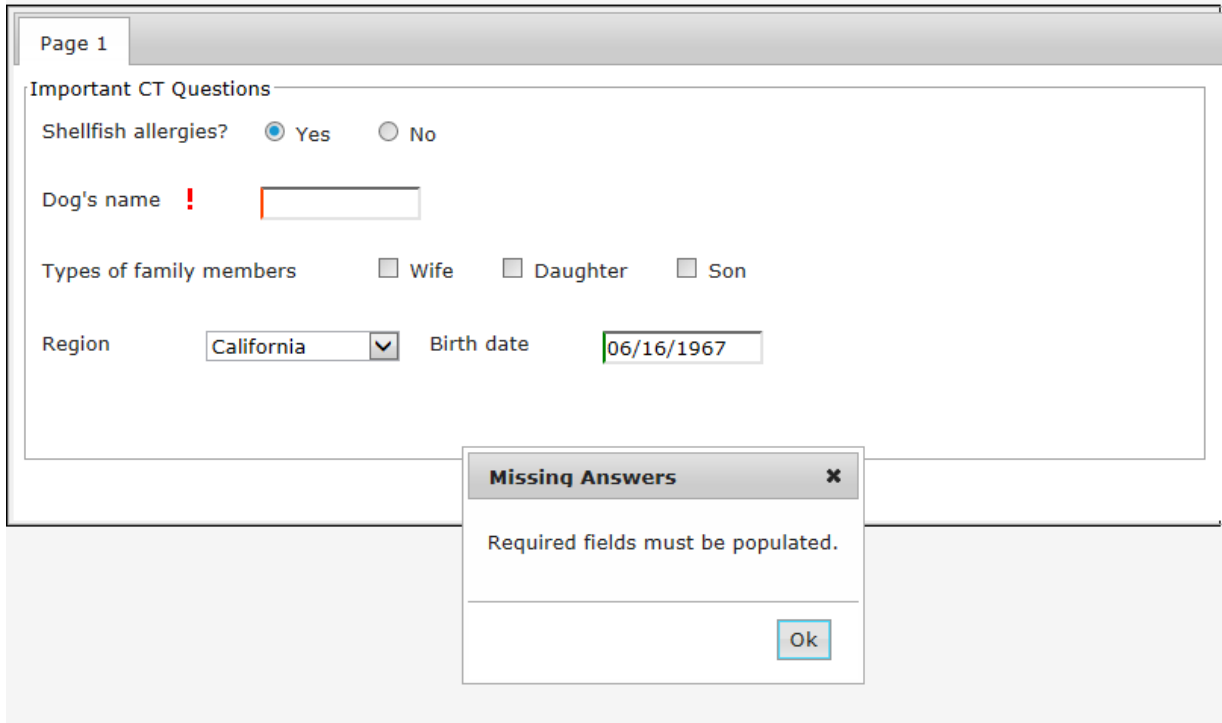
Example question that is required showing the red highlight

Once the question is answered, the highlight is changed to green to indicate that it is still required, but answered.

Dog's name

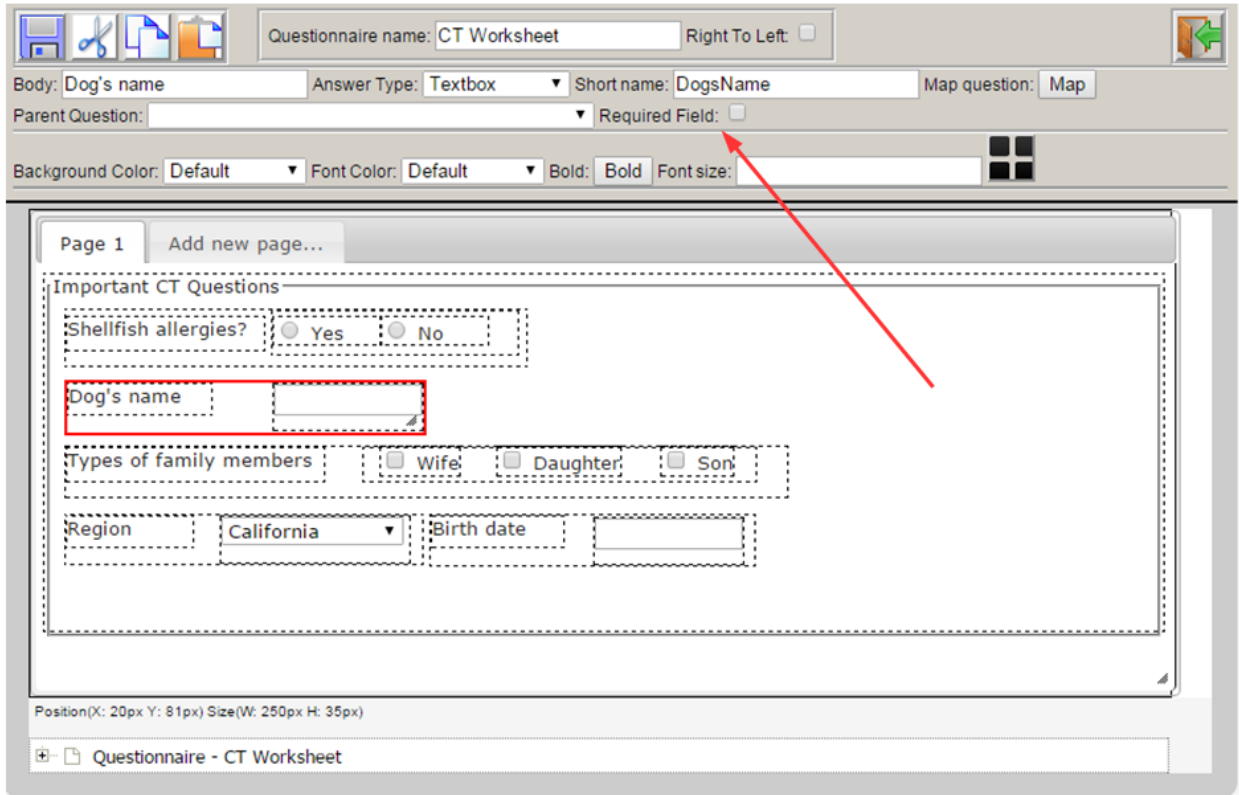
Example question that is required and has been populated

When the user attempts to save, required questions with no answers will have a red exclamation mark appear beside them and a message will appear to remind the user to answer the question(s).



How to enable this feature:

To make a question required, select the question in the questionnaire editor. Once selected, the toolbar will show a checkbox for 'Required Field'.

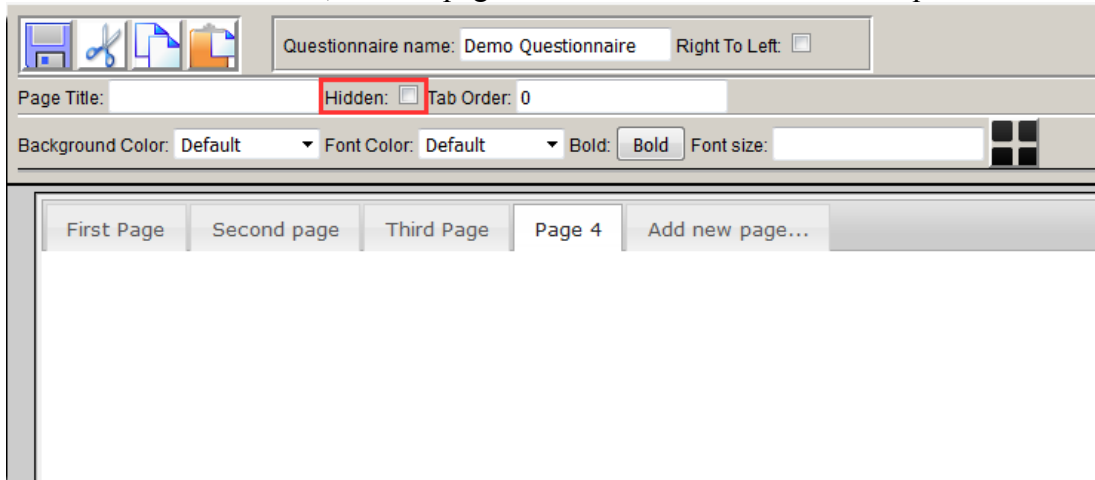


Questionnaire editor showing the new required field checkbox

10849 Questionnaire - Ability to hide a page at runtime

eRAD RIS can use the questionnaire framework to populate fields in the diagnostic report. Typically these expressions will be added to one or more tab pages that will be visible when designing, but should not be visible when the user opens the questionnaire. Therefore, the RIS needs to be able to hide these pages automatically.

To address this need, each tab page in the questionnaire designer now has a checkbox called 'hidden'. When selected, this tab page will not be available when the questionnaire is displayed.

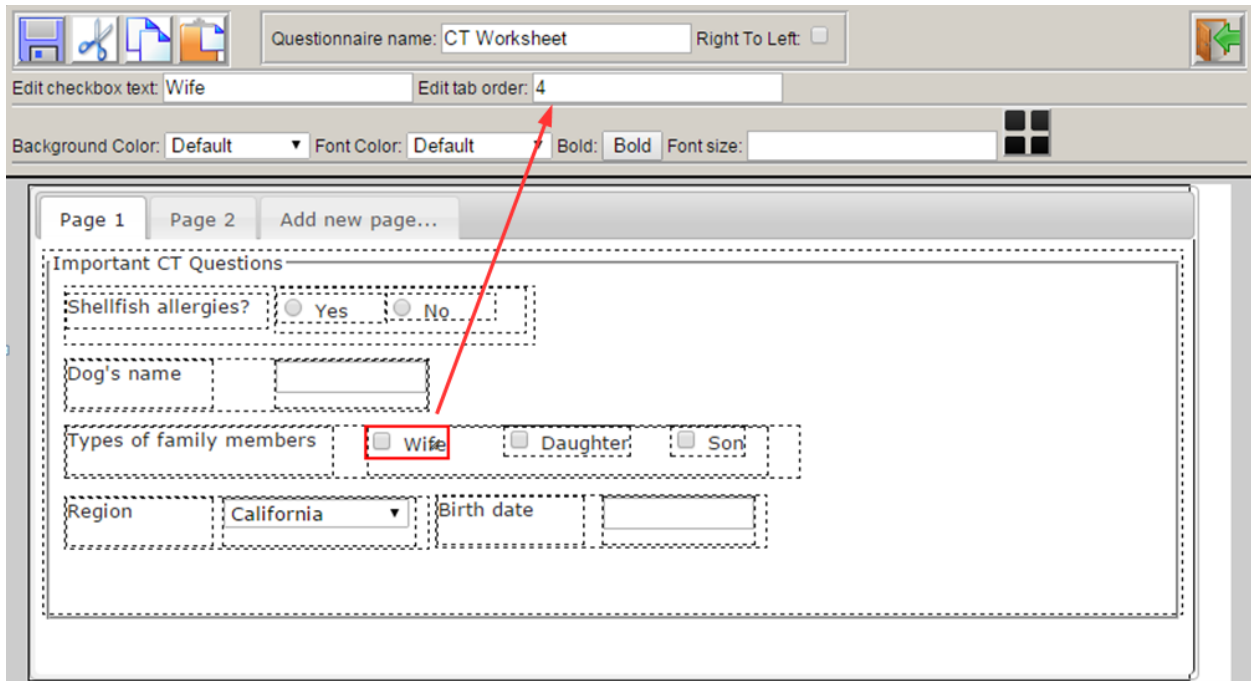


Questionnaire editor showing the new Hidden checkbox

10991 Questionnaire - Tab Order should be configurable

Initially the questionnaire editor automatically assigned the tab order in the same order as the question was created. However when editing questionnaire, there needs to be a way for the administrator to alter this tab order.

The questionnaire editor now allows the RIS Administrator to alter the tab order of the questions on the page. When editing a questionnaire, selecting an answer element will show a new text field on the toolbar called 'Edit tab order'. Tab order should be set to a sequence to allow the user to tab in that same sequence.



11000 Questionnaire - Support dark theme

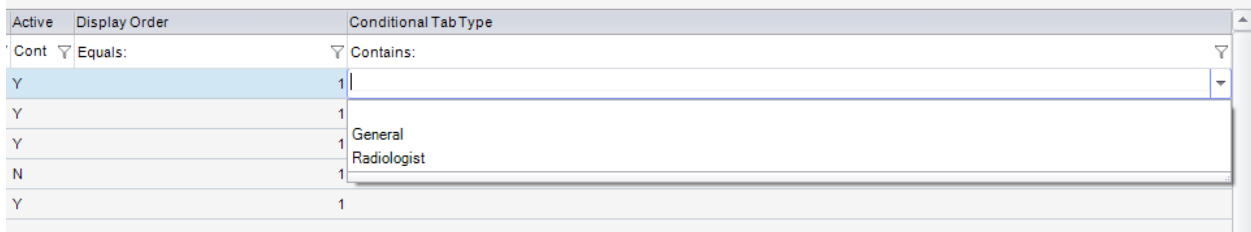
eRAD RIS supports a dark mode theme (primarily for the radiologist) and when viewing a questionnaire in this mode the RIS should automatically display these questions and answers in this same dark mode.

11008 Questionnaire - Ability to specify a type of tab

The questionnaires will currently display to all users when the display criteria matches. However, some questionnaires will only be displayed to the radiologist for example. RIS needs to support a tab type which will help guide if the questionnaire is shown in a particular condition.

To support this need, the RIS now includes a ‘Tab Type’ in the conditional tab lookup editor. The values are currently only ‘General’ and ‘Radiologist’. Control over which type is displayed is currently hard-coded into various screens in the RIS.

How to enable this feature:



Active	Display Order	Conditional Tab Type
Cont	Equals:	Contains:
Y	1	
Y	1	
Y	1	General
N	1	Radiologist
Y	1	

11402 Display "Radiologist" type questionnaires and update a corresponding diagnostic report (Report Assistant)

eRAD RIS requires a new tool window to display "Radiologist" type conditional tabs (questionnaires). This new tool window will allow users to enter and update questionnaire data and save. Upon saving the questionnaire data, a corresponding diagnostic report can update based on this input. This will allow for simple diagnostic report building using the questionnaire framework.

The new tool window is called 'Report Assistant'. It is available to anyone inside the reporting screens if they have the appropriate permission. The window includes a 'Save' button. After the save is selected the RIS will re-insert the default template into the report editor which can incorporate Users should be aware when using this workflow any changes made to the diagnostic report prior to clicking the save button in the Report Assist tool will be overwritten by the default template and all fields will be evaluated again.

Access strings:

View.ReportAssistant

11061 Questionnaire - Support cascading dropdowns

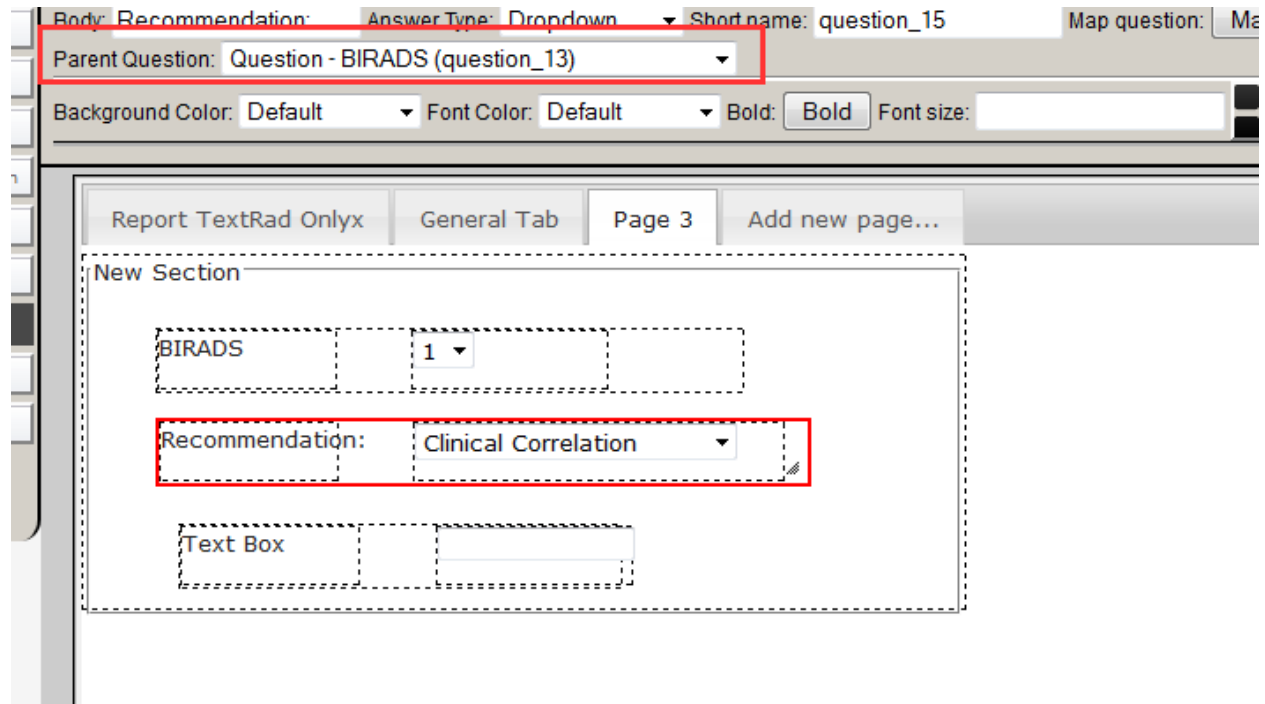
The questionnaire framework currently does not support cascading dropdowns. These dropdowns should have options that are based on a previously selected value from another drop down.

Example: You want to make a drop down list of ‘recommendations’ but that list of options will vary depending on the value is a previously selected drop down.

To resolve this issue, the questionnaire framework has been updated to support cascading values.

How to configure this feature:

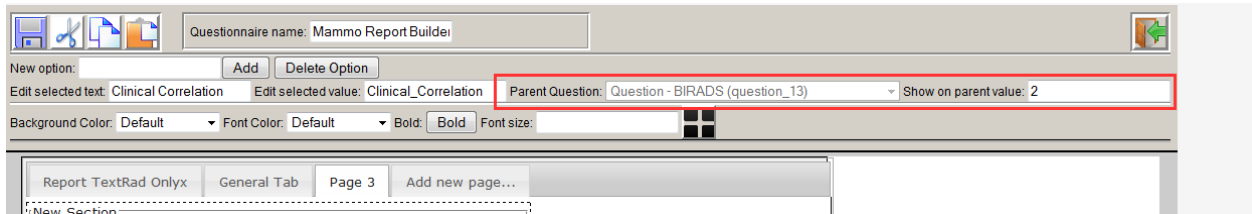
To configure a cascading drop down, select the child drop down field. This will enable a toolbar option called ‘Parent Question’.



Questionnaire editor screen showing the parent question field

The parent question field is a dropdown that will show a list of all questions in the current questionnaire. Select the appropriate parent question.

Next, add or select an existing option and set the value for when this dropdown option should show.



Questionnaire editor showing the parent question and the value for the cascade

If the parent's value matches the dropdown show value it will display otherwise it will be hidden.

If no options are set to display for a specific parent value then the dropdown will be empty with no options available.

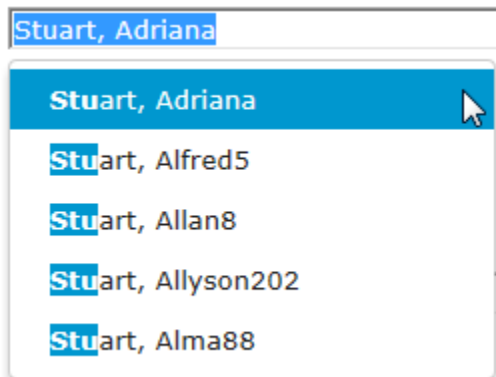
The system will automatically select the first option in the drop down list when the parent's value is changed.

11417 Questionnaire – Support a type-ahead control that links to personnel and medication lookup tables

The eRAD RIS questionnaire builder needs a drop down list option that links to personnel and medication.

Textbox answer types can now be linked to either personnel or medication from RIS. While it might have been nice to link to any lookup table, that will require a larger framework change so for now only these two lookup tables can be supported.

When the user begins typing in a specially configured text box, a query is executed to retrieve up to 10 suggestions that match. When the user tabs out of the text box, the RIS will save the text they have entered if it is a valid item from the list, or select the first suggestion on the list if it was a partial match (e.g. the user entered Wheel for a last name and the closest suggestion was for Wheeler), or the RIS will clear out the item if there were no suggestions (e.g. if the user entered Wheelz and there were no items that had a word that started with wheelz, the RIS would null out the entry.)



A questionnaire showing the type-ahead for a name

Personnel:

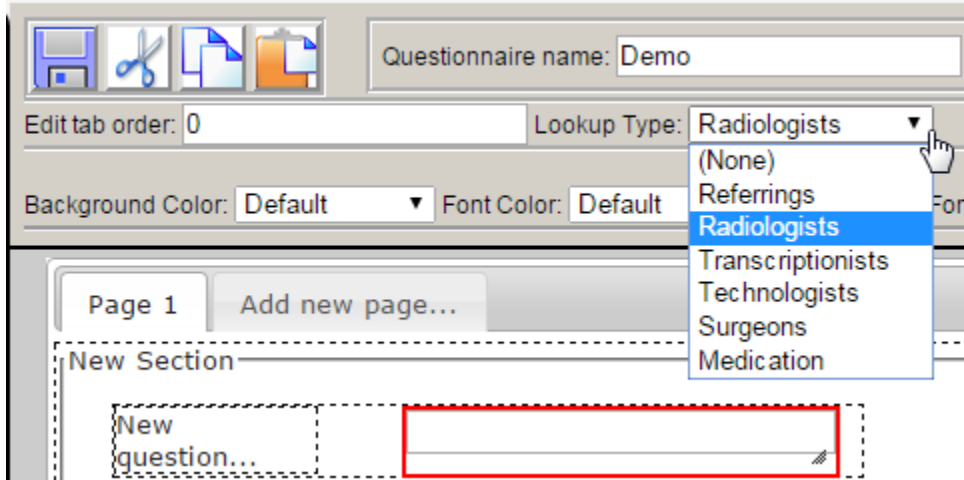
The list of personnel types is currently set to radiologist, referrals, transcriptionists, technologists, and surgeons. The personnel searches all search first name and last name in the same way, but they do a role search (e.g. radiologist_flag = 'Y', technologist_flag = 'Y', etc) as well. If only one word has been entered, the RIS assumes it is a last name. If the RIS finds less than 10 matches on last name, it also search the first name field. If two words are entered, the RIS checks for the existence of a comma and if found, the search assumes lastName, firstName otherwise firstName followed by lastName.

Medication:

Medication search built in a generic way where the RIS searches the description field and returns the description and the primary key.

How to configure this feature:

In the questionnaire editor, when you select a control of type textbox answer, you will now get a lookup type option on the toolbar. Select the appropriate type of resource to search.



Questionnaire editor showing the LookupType option when a textbox answer is selected in the questionnaire editor

11172 Questionnaire – Autotext pick list for text controls

The questionnaire framework needs to support an ‘autotext’ style control, where the user can select one or more values from a list of acceptable values.

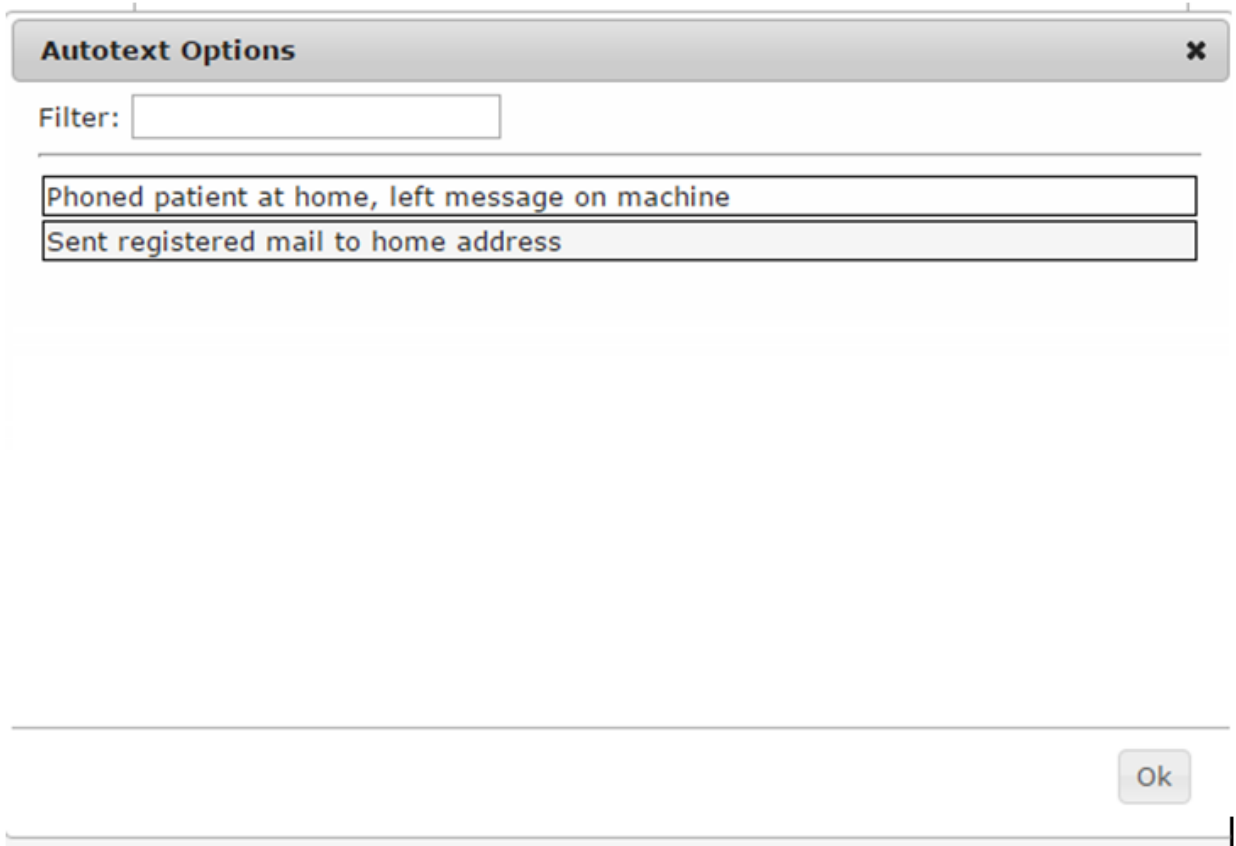
eRAD RIS now supports an Autotext style control inside the questionnaire framework. This allows a user to select a value from a drop down list. In addition, the control will allow one or more items to be selected from the list, which will therefore concatenate the selected text

The questionnaire control will appear as a text area with an ellipse button [...] When selected, the autotext control will appear

Order Notes

A screenshot of a text area in a questionnaire. The text area is empty and has a thin grey border. To the left of the text area is the label "Order Notes". In the top right corner of the text area, there is a small grey button with three dots (...).

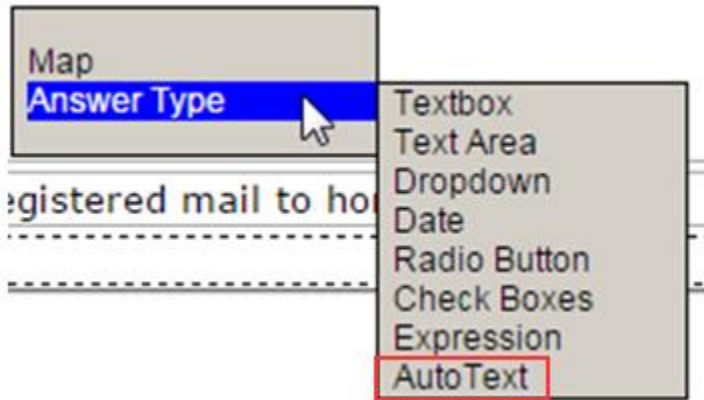
Example of a text field in a questionnaire with the ellipse button shown



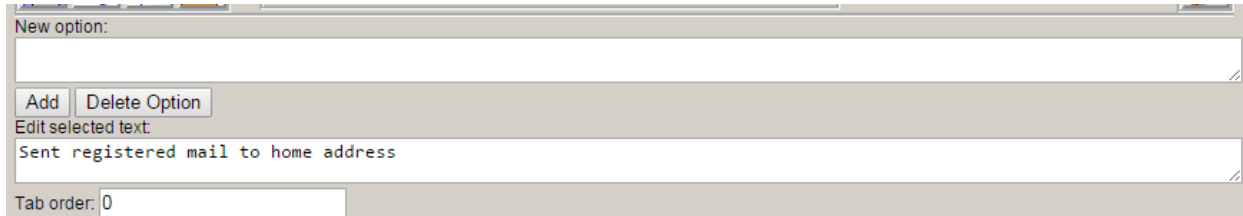
Example of an autotext inside of the questionnaire framework after the ellipse button is pressed

How to configure this feature:

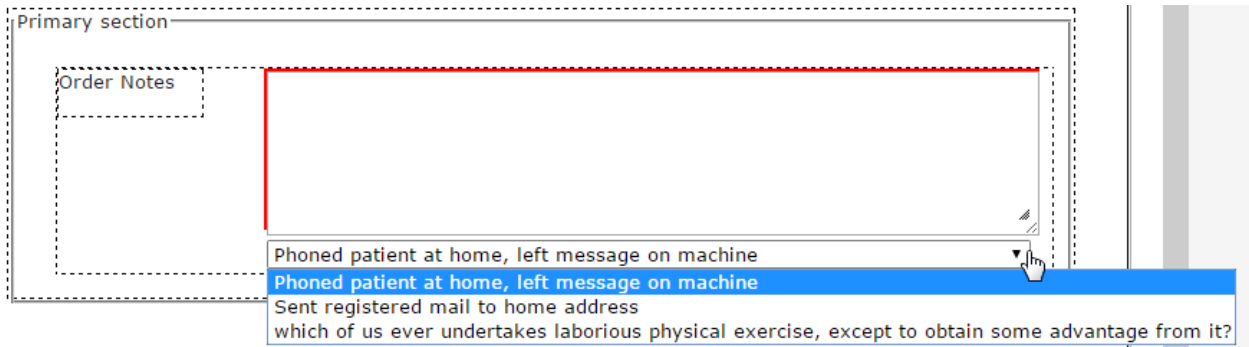
To configure a question to use the autotext control, select the Answer Type option and set the value to 'AutoText'



Questionnaire editor showing the selection of the Auto Text option



Questionnaire editor showing the addition of autotext values



Questionnaire Editor showing the multiple autotext values

11242 Questionnaire - Ability to show/hide pages

In the existing Questionnaire editor, the user has ability to show/hide pages from "Manage Rules". However, this only shows/hides the contents of that page. It is preferable to hide the entire tab.

Now, when the page contents are hidden by a ruleset, the page tab itself is also hidden.

Example:

Page 1

Important CT Questions

Shellfish allergies? Yes No

Dog's name

Types of family members Wife Daughter Son

Region Birth date

Questionnaire showing only one tab. A ruleset is in place to show a second page if the dog's name is Toto.

Page 1 Page 2

Important CT Questions

Shellfish allergies? Yes No

Dog's name

Types of family members Wife Daughter Son

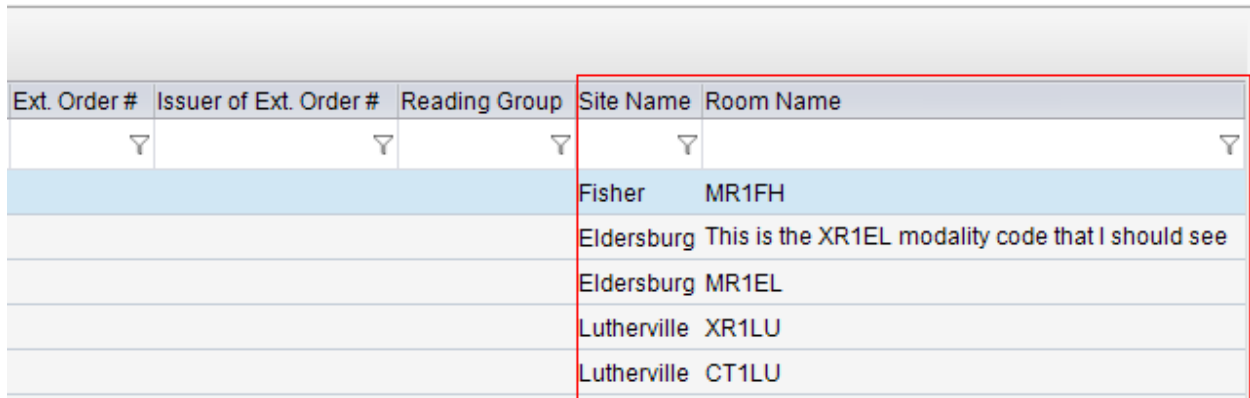
Region Birth date

Questionnaire showing the second tab when a value was entered to match the ruleset.

10765 - Worklists - Need site description and room description in most worklists

Currently, eRAD RIS displays site code and room code (sometimes referred to as modality code) in many worklists. This code value is not always meaningful. A customer has requested the ability to display the site name and the room name in any worklist that currently shows site code and room code.

To resolve this, there are now two new columns for site name and room name.



Ext. Order #	Issuer of Ext. Order #	Reading Group	Site Name	Room Name
			Fisher	MR1FH
			Eldersburg	This is the XR1EL modality code that I should see
			Eldersburg	MR1EL
			Lutherville	XR1LU
			Lutherville	CT1LU

A general worklist showing the two new columns

Infrastructure

8356 Support of non “system” issuer of IDs

The RIS currently expects the main MRN for a patient to be what we refer to as the ‘System’ issuer which is typically generated by the RIS. The RIS support other ‘non-system’ issuers for alternate ID’s, and these can be EMR’s ID’s for patients. The RIS currently has functionality that if it does not have a ‘system’ ID for the patient, then it expect the user to manually match this patient to a ‘system’ ID. In the case where a customer has a national MRN of some kind, the RIS should not expect this matching to occur, and must accept a manually entered MRN as the main MRN for the patient.

The support this, the RIS has now has a new model for supporting issuers. There is a ‘primary’ issuer (a RIS MRN, or a national ID, or a passport number for example) and a ‘secondary’ issuer (an EMR issuer for example which must be matched to a primary issuer). A primary issuer does not have to be matched to primary issuer, but a secondary issuer does – Therefore EMR type MRN’s must still be matched to the primary. The RIS can support multiple primary type issuers, such as national ID’s, passport numbers etc. There is a configuration setting for “DefaultIssuerOfPatientID” which determines which issuer generates the MRN if the patient is created directly in the RIS.

The RIS also has a new configuration setting to determine if the RIS should automatically generate an MRN for a new patient, or if it should allow the user to key in an MRN. This configuration setting is “DefaultIssuerGeneratesPatientID.” The default value for this configuration setting is TRUE which means the existing functionality of RIS generating an ID for a new patient is still in place. However, if DefaultIssuerGeneratesPatientID is FALSE then RIS does not generate an MRNs and patients do not need a default issuer just an issuer that is primary, thus avoiding the need to match EMR patients to internal patients.

As a side note, the DefaultIssuerOfPatientID value now must be in the l_issuer table and should be set to have the primary_issuer_flag column set to Y.

Primary issuers are shown in the MRN grid with word [primary] appended to the end of their name.

Issuer	MRN	Active
system [primary]	10415	<input checked="" type="checkbox"/>
		<input type="checkbox"/>

MRN grid showing the Primary issuer

9562 Support a Secondary Reporting Database

Customers have requested a secondary database instance to use for management reporting so that there will be no impact to the production database if someone runs a large report during working hours.

There can now be a second SSRS reporting data source configured to point to the secondary database. Appropriate reports that don't require real time data will use that data source and thereby hit the secondary database. Configuration must be done by eRAD support personnel.

11161 Support command line options for RIS client application via the config file

In the current version of eRAD RIS, command line options (such as the language selector or the single sign on option) would need to be configured in the shortcut on every workstation and would be lost when a new core install is done. It is desirable to have the a mechanism to globally deploy these command line option

To resolve this need, eRAD RIS now allows administrators to set command line options for all users of the system in the client configuration file.

How to implement this feature:

To implement this option add the command lines you wish to use to the ris.exe.config file in the appSettings node and add a key for value of the CmdLineArgs setting.

```
<appSettings>
  <add key="defaultEndPointName" value="NetTcpBindin
  <add key="ClientSettingsProvider.ServiceUri" value
  <add key="LookupTableTimeToLiveInMinutes" value="6
  <add key="ShouldCloseViewSessionOnThread" value="t
  <add key="EnableHighPriorityLookupStrategy" value=
  <add key="CmdLineArgs" value="" />
  <!--<add key="RowLevelCacheDataSetNamesCSV" value=
  <!-- <add key="MModalDataTransferValue" value="0"/
</appSettings>
```

Example of ris.exe.config file showing the cmdlineargs key

10603 Add SLA field to the procedure group table

A customer has requested a management report that will indicate the turnaround time of a study compared against the agreed upon service level (SLA). Each procedure group can have a different service level.

In order to produce this report, the RIS now has a numeric column added to the procedure group table, where the administrator can enter the expected service level. The management report (being written separately by ELAD) will reference this value to produce this report. The report will be a site level report, not a globally released report

8764 - Insurance Eligibility – Support ‘or’ logic for the medical group string

The RIS has the ability to use the eligibility special conditions to display a warning when the return does not contain the appropriate medical group string. The RIS has been enhanced in this release to also support <and> and <or> conditions such that more advanced rules can be created on the returned string.

Administrators should be able to create a rule that only fires if the return does not contain "prospect" and does not contain "NUESTRA" also RIS should support the the <OR> operator such as:

Prospect <OR> NUESTRA

This would fire a warning if the return contained Prospect or if the return contains NUESTRA.

Interface updates

11522 – New Action needed to submit an order without automatically generating a scanned document

A new main action of HL7_OrderRequested has been created which does not attempt to create a scanned document version of the submitted order

8331 – Ability to update RIS procedure code tables via an interface

A stored procedure has been created that will import procedure codes into the RIS. It will perform the following actions:

1. Inserts all new records from the CSV file into the procedure table with the following defaults:
 - a. Last updated date with the current date time the procedure was processed
 - b. Last updated by user id is stamped as ‘tafnit-‘ & date of processing
 - c. Active is set to Y
 - d. Display order set to 1
2. Deactivates any RIS procedure codes that are in the RIS table but no longer in the file.
 - a. This also updates the last updated date and last updated by user id.
3. Updates any changed information in the procedure description, alternate description in the RIS to match what is in the source file. *Including changes in case sensitivity.

11153 – Create an Action Queue history table

A new table was created (c_action_queue_history) that stores a copy of certain fields from the c_action_queue table as each item is removed from the queue. This way the RIS has a history of these messages.

Management reports updates

11154 Questionnaire mapping report

A new report has been created called Questionnaire Data Dictionary under Management Reports \ Maintenance. The report allows you to select from a list of the active questionnaires in RIS, and return the Questions for each questionnaire selected. Fields pulled into the report include the Question Short Name, Question Body, Question Guid and page # all grouped together by the Questionnaire.

9213 Linked report management report

The linked report feature essentially allows the radiologist to create a single report from multiple studies. The following management reports were updated with a column called ‘Linked Counts’ to show the additional studies which were technically read but did not result in a diagnostic report. For example, if the radiologist completed a single report, but it consisted of 3 studies, the report count would be 1, but the linked count would be 2 indicating that the radiologist technically reviewed 3 studies.

- Dictations by User
- Radiologist Dictation Activity by Date
- Radiologist Productivity by User – Mammo
- Radiologist Signing Activity

10416 Referring details report

The RIS now includes a new report called Referring Physician Details. This report displays the exams requested by a physician within the dates selected based on date of service. The report is

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grouped by date the physicians' requested the study.

Referring Physician Details

Date Range: 01-23-2015 - 07-23-2015

Physician name searched on: yeo, da

Physician selected: Yeo, Dale E ID:1051

Description: This report displays the exams requested by a physician within the dates selected based on date of service. The report is grouped by date the physicians' requested the study.

Request Date	Accession	Patient	Scheduled Date	Status	
04-30-2015					1
	3375	[REDACTED]	05-01-2015 07:45 AM	Scheduled	
		"CT Chest W [CT51] - Chest			
05-11-2015					9
	3379	[REDACTED]	05-11-2015 10:59 AM	ExamDone	
		CT 3 Phase [CT13]			
	3378	[REDACTED]	05-11-2015 10:59 AM	ExamDone	
		CT Abdomen Wo [74150] - Abdomen			
	3383	[REDACTED]	05-11-2015 11:35 AM	Signed1	
		CT Chest W [71260] - Chest			
	3382	[REDACTED]	05-11-2015 01:35 PM	Signed1	
		CT 3 Phase [CT13]			
	3381	[REDACTED]	05-11-2015 03:35 PM	Signed1	
		CT Abdomen Wo [74150] - Abdomen			
	3384	[REDACTED]	05-11-2015 03:50 PM	Signed1	
		CT Abdomen Wo [74150] - Abdomen			
	3385	[REDACTED]	05-11-2015 01:50 PM	Signed1	
		CT 3 Phase [CT13]			
	3386	[REDACTED]	05-11-2015 11:50 AM	Signed1	
		CT Chest W [71260] - Chest			
	3380	[REDACTED]	05-11-2015 10:59 AM	Dictated	
		CT Chest W [71260] - Chest			
Total					10

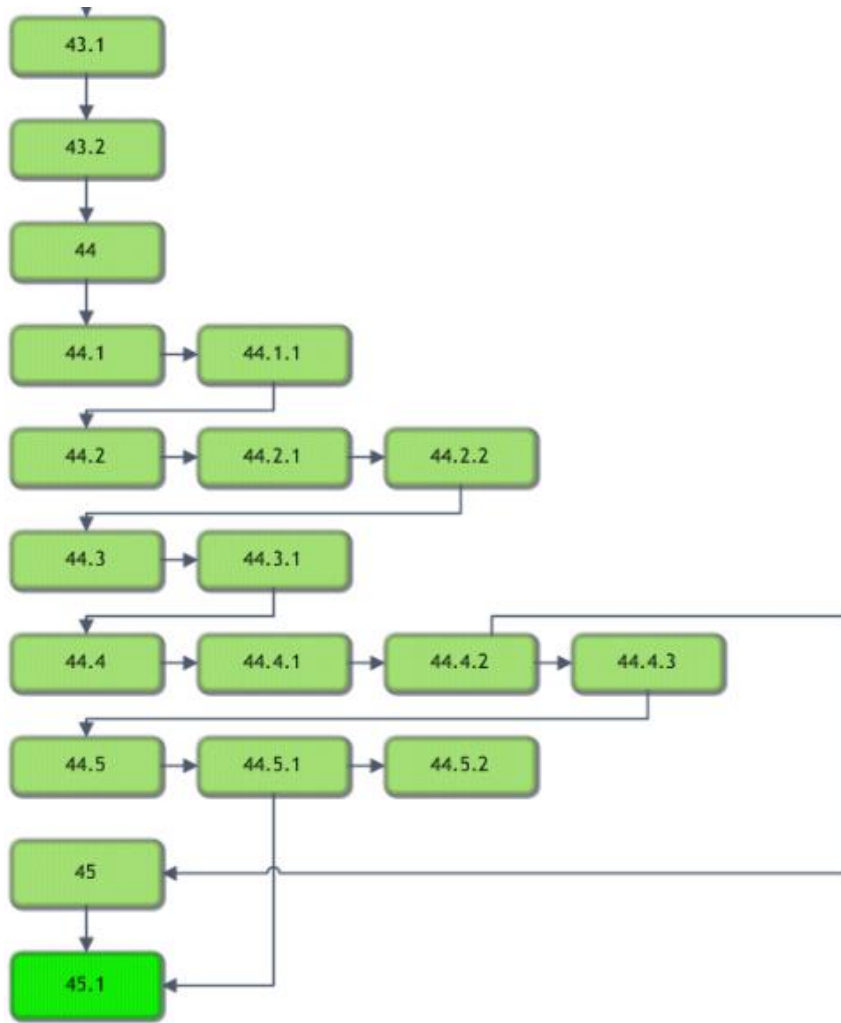
Referring Physician Details

Confidential and Proprietary
Page 1 of 1

Date Run: 7/23/2015 3:21 PM
RMIS\dale

Example of the Referring Physician Details report

6. Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

7. 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	-	2.44.1.0.26984(3GB)	2.44.0.0.26405	2.44.1.0.26984	2.44.1.0.26906	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
44.4	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 Server
45	-	2.45.0.0.29559(3GB)	2.45.0.0.26107	2.45.0.0.29559	2.45.0.0.29558	Full Version Release
45.1		2.45.1.0.30774(3GB)	2.45.0.0.26107	2.45.1.0.30774	2.45.1.0.30738	Gui.zip, Web Service, DB, SQLReporting, Questionnaire, Citrix support

8. Resolved Defects

Bugs, suggested features and support issues resolved in build 2.45.1. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.45.1.

Bug #	Priority	Category	Subject
10668	Normal	Access strings	Remove redundant access strings: Flag.ExamStat and Flag.ReadStat
11149	Normal	Access strings	Clinical.ReportingEditor is redundant - should be Clinical.ReportingTranscription
7788	Normal	Admin-Other	Multiple lookups are missing a default display order value
10733	Low	Admin-Other	Creating a reading group - Hover text for an error is incorrect
10740	Normal	Admin-Other	Reading Groups- Changes to assigned/unassigned Users and Procedures is not updating the Last Updated field
10792	Normal	Admin-Other	When saving a scheduling availability template, the template selection should remain on that template and not reset to first template
10976	Low	Admin-Other	Tab order in Carrier Search is not in order
10839	Low	Appointment book	Appointment Book - Message loop on closing Reschedule window with x instead of close if maximum open tabs feature is set to 1
11035	Normal	Appointment book	Dragging appointment to new time slot in appointment book throws "Input string was not in a correct format" error
11045	Normal	CD Burning	CD Burning - When there are multiple studyInstanceUID's may result in error message regarding additional images
11380	Normal	Confirmation	The Confirmation Status lookup table has a column called confirm_by_default_flag that has no implementation
10583	Normal	Connect Portal 4.x	Secure Messaging - Subject line should limit the number of characters to the database field size
10778	Normal	Connect Referring Portal 3.x	Webapi interface for 'diagnosticreport' throws an exceptions when "visited at" is null

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11022	Normal	Connect Referring Portal 3.x	Add merge_to_person_key to the l_person API for the Connect 3.x interface
11571	Normal	DB	Questionnaire - Can't copy/paste in questionnaire editor toolbar text fields
11559	Normal	DB	Add indexes to increase RIS performance
5740	Normal	Embedded Reporting	Reporting - SnapInsertToTimeStamps causing editing issues for some users
5985	Normal	Embedded Reporting	Reporting - A colon in the section title will cause report rendering issues.
8029	Normal	Embedded Reporting	Input/output device selection not sticking for MModal users
10885	High	Embedded Reporting	eRAD Report Editor – Clicking + drag dropping within template editor is causing intermittent duplication of text issues.
10912	High	EMR	New MRN grid needs to support EMR MRN's
9216	Normal	Insurance Eligibility	Insurance Eligibility - Remaining Copay is incorrectly taken as co-payment amount
10784	Normal	Interfaces	Action Container should not contain c_primary_interpretation node.
10858	Normal	Interfaces	Validation Framework – Event viewer records an error when there is a null value condition.
11246	Normal	Interfaces	Scan Documents via the interface append pages instead of replacing the whole document
11255	Normal	Interfaces	Patient demographics matching fails if birth_date is not in message
11080	Normal	Legacy Reports	Viewing a legacy report in WORD format does not work from the WL right click, report - print preview.
10897	High	Linked Reporting	Linked Reports - linked_id column should be default of null instead of 0
10856	Normal	Localization	Reporting - (Hebrew RIS) Copy button on Reporting panes includes \t character

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10981	Normal	Localization	Custom Fields for Contrast and Sedation not localized
10992	Normal	Localization	Localization – collection of small items to localize
10997	Normal	Localization	Part of Admin Config is localized when it shouldn't be.
11081	Normal	Localization	Problem with Report History Data Nugget
11142	Normal	Localization	De-localize conditional formatting window
9263	Normal	Mgt - Report - Custom	Move Radnet only reports from the installer to treat them as custom reports.
11168	Normal	Mgt - Report - Custom	Radiologist dashboard
7743	Normal	Mgt Reports	Mammo Annual Radiologist Summary - report details should be sorted by month
9615	Low	Mgt Reports	Mgt Rpt - Referring Physician List - couple of suggestions for easier viewing
11240	Normal	Mgt Reports	Mgt Reports - Error on selecting multiple Practices (2 Insurance Eligibility Reports)
10900	Normal	PACS (Non - eRAD) Integration	When launching RIS via Citrix, the default for PACS is Hologic
11034	Normal	Patient Search	Patient search – Search for 'other variations' needs to be configurable
9475	Normal	Person Management	Personnel - Selecting the dropdown area of a text box can cause the focus to change to another text box
10775	Normal	Person Management	Personnel - Modifying 'Additional resources' doesn't recognize changes after initial save
10867	Normal	Person Management	Unknown NPI Flag - NPI field is not disabled when opening a Referring Physician with Unknown NPI checked
11181	Normal	Person Management	Personnel Merge - Error when source/destination person doesn't have an active RIS account

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10936	Normal	Portal Viewer	Permission Clinical.PortalLauncher doesn't apply to radiology view menu
10813	Normal	Questionnaire	Questionnaire - Rulesets are evaluated in design mode
10820	Normal	Questionnaire	Questionnaire - Unable to remove dates in a date field.
10825	Normal	Questionnaire	Questionnaire - Hidden answers are saved as though they were visible
10836	Normal	Questionnaire	Questionnaire - Unable to save blank/null entries for dropdowns that are tied to DB fields
10844	High	Questionnaire	Questionnaire - Hebrew questionnaires opened in a browser RTL issue with Save/Finish/Next Page/Previous Page buttons
10846	High	Questionnaire	Questionnaire - Checkboxes cannot save Y and N values
11065	Normal	Questionnaire	Questionnaire Editor - Rules that uses greater than/lesser than don't work properly against numeric values
11068	Normal	Questionnaire	Questionnaire - RIS populated date fields calendar control doesn't open to the correct date
11073	Normal	Questionnaire	Questionnaire - Tab title allows for more than 30 characters in RIS (throws error at run time)
11074	High	Questionnaire	Questionnaire - On Register/Perform Exam, only questionnaires for the study initially opened are shown
11257	Normal	Questionnaire	Questionnaire - Drop down list cannot be sized
11272	Normal	Questionnaire	Questionnaire - Newly added sections/questions render improperly until resized.
11290	Normal	Questionnaire	Questionnaire - Focus is jumping to tree view when clicking questions in the Questionnaire Editor
11057	Normal	RADAR	Quick RADAR Message - Curly Brackets cannot be entered in message (throws error).
11250	Normal	RADAR	Quick RADAR Message - To: field is too small

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11284	Normal	RADAR	Quick RADAR Message - SMS messages won't send when over 160 characters
8561	Normal	Radiology Reporting	Report Fields Control - Update field control when fields are modified in the report
9420	Normal	Radiology Reporting	Reading group and linked reporting need to come together.
9642	Normal	Radiology Reporting	Custom fields for time are not working
9709	Normal	Radiology Reporting	Template/macro editor - field editor - the data fields should be alphabetic order.
10395	Normal	Radiology Reporting	Action Buttons on reporting screen still respond to shortcuts even when they are not visible
10513	Normal	Radiology Reporting	eRAD Report Editor - Entries made in M*Modal text expander
10530	High	Radiology Reporting	When permission is not granted to create new templates or macros, user is able to add, edit , delete fields in the template via the preview window.
10563	Low	Radiology Reporting	Macro/Template Editing - Creating template from with auto-macro fields will inconsistency
10575	High	Radiology Reporting	Text Expander - adding a new value only saves for the session, log out and back into RIS, value is not saved.
10670	Normal	Radiology Reporting	ERAD Editor - when you edit an existing macro, can easily edit a field when you meant to create a new field.
10685	Normal	Radiology Reporting	Template/Macro Lookup - context menu export templates defaults file type to cda (xml)
10686	Normal	Radiology Reporting	Template/Macro Lookup - context menu option Export List to Excel is not working
10823	Normal	Radiology Reporting	Similar Display of Preferred Radiologist and Assigned Radiologist Needed
10829	Normal	Radiology Reporting	Polling queue next workflow will try to open interpretation types that the user doesn't have access to
10887	Normal	Radiology Reporting	Dictation files save to external location, when they cannot be found in the Gui the Load Audio button is displayed once then the dictation controls are accessible

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10896	Normal	Radiology Reporting	Open Patient Tab limitation setting is exceeded when Reuse Reporting Screen is checked.
10918	Normal	Radiology Reporting	When in the dictation window and using the Next - Previous navigation, hover icon says 'Previous field' regardless if using Next or Previous
10920	Normal	Radiology Reporting	Next - Previous navigation - keyboard action- Selecting Previous field or section causes an error when using eRAD editor.
10924	Normal	Radiology Reporting	Addendum request's assign to rad dropdown does not show *Preferred rads
10926	Normal	Radiology Reporting	New Reading Group lookup table is missing access string
10993	Normal	Radiology Reporting	Reporting - M*Modal Recognizer not updating
11001	Normal	Radiology Reporting	Birads picker validation issue with localization
11051	Normal	Radiology Reporting	Picklist - when the option is a macro the navigation doesn't work.
11053	Normal	Radiology Reporting	In the report , the Scanner value in the technique field should be populated from something other than Report Description column if that column is blank
11054	Normal	Radiology Reporting	Opening the TemplateMacro lookup editor will display an additional column 'Macro Type'
11276	Normal	Radiology Reporting	Make the wordviewer executable name/path configurable in sysconfig
11300	Normal	Radiology Reporting	Pending dictation WL, when you skip and continue if the Interpretation type is blank the study will not open in dictation window
10891	Normal	Reception	inappropriate error occurring when trying to split orders on registration for an already scheduled study
7071	Low	Scheduling	Scheduling - Scroll Wheel on mouse does not work in search results grid
10491	Normal	Scheduling	There needs to be an access string to disable the 'save as order' button
10653	Normal	Scheduling	Date at top of Details date grid can display a different date than the selected Scheduled Date/time

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10868	Normal	Scheduling	Cannot remove phone number with PhoneNumberFormatDisabled=True
10889	Normal	Scheduling	System Config ShowDOBCalendar=False doesn't apply to IVT window
10894	Normal	Scheduling	Preferred Site incorrect on Scheduling site change
11158	Normal	Technologist	Null object exception when trying to perform exam
2661	Normal	Thick Client GUI	Template Macro Editor - Double click template or macro
8063	Normal	Thick Client GUI	Barcode Scanner - Message "Unable to initialize Motorola Barcode Scanner" should not be displayed in left bottom corner if user is not using barcode scanner.
10927	Normal	Thick Client GUI	Motorola barcode scanner error in application log
11298	Normal	Thick Client GUI	Unexpected error "splitbutton base : enable check" when opening a study in any QA WL
10811	Low	UI Look and feel	Cosmetic fixes needed for scheduling calendar
10917	Normal	UI Look and feel	Technologist verified ID is required but not showing any indication that is it.
11012	Normal	UI Look and feel	Labels in Register Multiple Studies window are misaligned
11023	Normal	UI Look and feel	Register multiple studies window has some problems
11024	Normal	UI Look and feel	Arrive date check window has alignment and wording problems
11220	Normal	UI Look and feel	Completing a Personnel Merge changes all Yes/No/Cancel prompts to Yes/Cancel/Cancel
11269	Normal	UI Look and feel	MainStudyIndicator column added when loading worklist views in patient folder.
10753	Normal	visibility framework	Visibility Framework - Need a way to hide State field on Image Request window

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10864	Normal	visibility framework	Visibility Framework - some fields cannot be set to ReadOnly on Reschedule window
10865	Normal	visibility framework	Custom Access String - Not being able to hide fields on Walk-In>Existing Orders
10879	Normal	visibility framework	Visibility Framework - Including a study on Perform Exam re-enables read-only fields on Documentation tab
10882	Normal	visibility framework	Visibility Framework - Most fields cannot be set to read-only on Contacts/Demographics tab
10706	Low	Walk-In	Walk-In - Selecting order from Existing Orders window doesn't automatically fill date/time on Exams
10419	Normal	Worklists	Worklists - Columns not populated on the signed by date worklist.
10859	Low	Worklists	Reading Group column needs to be added to the All Peer Review Pending Action WL
11038	Normal	Worklists	Null object reference when hovering over flags column in IVT WL
8425	Normal		Insurance Eligibility - Deductible issue when service section has a total deductible of zero but no remaining deductible is specified.
10908	Normal		Management report icon showing as Radnet R logo, rather than eRAD 'e' logo
10916	Normal		Rename column in modality lookup to avoid confusion
11019	Normal		Error on Reschedule with Insurance Eligibility
11239	Normal		Word Legacy reports - context menu from worklist tries to treat file as PDF

9. Known Limitations

The following are bugs, suggested features and support issues found in build 2.45.1. Bugs reported in previous versions are not repeated here.

#	Status	Priority	Subject
11702	New	Normal	"Set Follow Up Required Flag" is not always sending study to Finding Follow Up WL
11703	New	Low	Amount to Collect field on Order tab missing currency sign (\$)
11708	New	Normal	Amount to collect field shows 4 decimal places in some cases
11712	New	Normal	Amount to collect on Self-Pay cannot be modified in some cases
11364	New	Low	An exam is aborted in perform exam window. Status changes to 'discontinued', no Mirth message sent. Order is still in PACS WL.
11584	New	Normal	Auto macros that start with a field must have a space before the field otherwise 'create template from report' doesn't work correctly
11701	New	Normal	Biopsy - Missing access strings for Remove and set pending biopsy result
11664	New	Normal	Biopsy – 'Set Pending Biopsy Result Flag' and 'Remove Pending Biopsy Result Flag' are not localized
11401	New	Low	Drawing tool – Drawing object can be partially outside of visible area
11524	New	Low	Drawing tool - context menu available when image option not selected
11694	New	Normal	Citrix - installer missing the telerik files
11692	New	Normal	Citrix - log files should have more detail
11491	New	Normal	Conditional fields navigation setting is not working
11493	New	Normal	Conditional fields not working in M*Modal
11529	New	High	Contrast - Leaving contrast/sedation amount/units blank on multi-study order can cause false validation fails
11508	New	Low	CT dose required - If you open a study where the ct dose was not required at time of performing exam , you cannot save unless this value is entered.
11650	New	Normal	Data Exception while trying to Reschedule from the Reception WL
11494	New	Normal	Delimiter for questionnaire answers and not localized.
11570	New	Normal	Dictation field in Summary Panel in dictation window copy option throws error
11480	New	Normal	Edit and create menu items for the Edit button should be more descriptive.
11729	New	Normal	EMR on primary issuer setup not taken into account
11507	New	Low	Error changing primary study flag after it has already been set
11327	New	Normal	Intermittent error closing User Preferences
11540	New	Low	Error on adding new row on MRN grid for unlinked patient
11709	New	Normal	Field meta data is not being saved when pasting into report template with no fields
11609	New	Normal	Finding Follow Up - Missing language item for finding code in the finding

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			follow up worklist
11660	New	Normal	Findings - if procedure 'findings required flag' is set to N, the context menu item (Set Required Followup Flag) in patient folder, should not be visible
11714	New	Low	Getting casting error when saving View/Edit with no patient gender
11363	New	Normal	Height/Weight not required while going through Existing Orders prompt
11629	New	Normal	Image Request WL requires new "name" equivalent columns with description
11587	New	Normal	In dictation window, the 'find' option doesn't find a word if it only exists in a field
11473	New	Normal	In the editor window, the shortcut CTRL+ALT+S should be changed because the action button has been renamed from 'transcribe' to 'edit'
11675	New	Low	Indication required but could not add an indication.
11541	New	Normal	Linking EMR patient to RIS patient hides system issuer (just a visual glitch)
11383	New	Low	M*Modal - Remove subsection tool bar option in the report editor
11726	New	Normal	Management Report - Editor Activity report is not returning results
11724	New	Normal	Management Report - Radiologist Signing Activity report filters
11744	New	High	Memory Leak In GridFlagCellElement
11742	New	Urgent	MemoryLeak in QuestionnaireAnswersView control for radiologist screen
11700	New	Normal	Missing access strings for setting/removing Follow Up Required Flag
11718	New	Low	MModal - when creating a template from report where the template has multiple auto macros of the same type, numbering of the auto macros fields in new template is backwards.
11591	New	Normal	MModal - create a template from report - auto macros are not working correctly.
11715	New	Normal	MModal - when creating a template from report the auto macro doesn't work correctly
11504	New	Normal	MModal - When opening an older template in template editor via dictation window, get error "Index was outside of the bounds of the array"
11676	New	Normal	MRN - Issuer dropdown filtering out valid entries
11295	New	High	Multi-Orders don't display correctly on opening Register
11737	New	Low	No visual cursor on Access String lookup table
11538	New	Low	Patient flags not usable in dark mode
11016	New	Low	Patient folder control has a white background in light mode instead of grey
11357	New	Low	Patient information was updated in registration window but MIRTH message was not sent to PACS with updated information
11683	New	Low	Personnel - Modifying pre-saved address followed by Edit>Cancel reverts changes
11391	New	Low	Policy subscriber description needs to be edited within prompt for matching policies.

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11515	New	High	Portal Launcher - Unable to remove a rule once saved
11483	New	Normal	Protected Field - Although you cannot insert macros into protected fields, the behavior could be better
11567	New	Normal	Questionnaire - Date fields require perfect formatting when manually typing in dates
11302	New	Low	Questionnaire - Display Order on conditional tab should be aligned to left
10999	New	Low	Questionnaire - Document outline will not reflect tab page order changes
11578	New	Low	Questionnaire - Expressions only updating on events
11686	New	Low	Questionnaire - Localization of "Required!" hover text
11661	New	High	Questionnaire - Mapped date fields problems with dd/MM/yyyy format
11404	New	Low	Questionnaire - Problem hiding first page through rules
11678	New	Normal	Questionnaire - Required field message doesn't appear when user is on a different tab
11682	New	Low	Questionnaire - Required fields exclamation mark not consistent
11580	New	Low	Questionnaire - Stand-alone textboxes have the Lookup Type dropdown shown
11398	New	Normal	Questionnaire - Tabbing to checkboxes/radio buttons doesn't highlight them
11593	New	Low	Questionnaire - Type-Ahead alter images/textboxes by 1 pixel
11561	New	Low	Questionnaire Answers - Users can close individual questionnaires tabs
11592	New	High	Questionnaire Answers - Pane isn't read-only in radiologist window
11625	New	Low	Questionnaire Editor - Creating Rule with Condition "Has answer" prompts for "Value:"
11411	New	Normal	Questionnaire Editor - Duplicate Short Names created on copy/pasting sections
11674	New	Normal	Questionnaire Editor - Rules for date fields on calculated dates problem with dd/MM/yyyy
11627	New	Normal	Questionnaire Editor - Rules on Autotext controls don't work
11396	New	Normal	Questionnaire Editor assigns duplicate tab title after a page is deleted
11668	New	Low	Questionnaire Type-Ahead Textbox for Medication returning results with garbage text entered
11696	New	Normal	Radio buttons may still save an answer when hidden due to a rule on a questionnaire
11739	New	Normal	Releasing a report sets an unnecessary 2 minute lock
11717	New	Normal	Remove Follow Up Required Flag - spelling mistake in context menu
11499	New	Normal	Report Assistant - no scroll bars
11565	New	Low	Reporting - Create/Edit Report from Tech window shouldn't include 'and Continue' buttons
11589	New	Low	Reporting - Extra space in BI-RADS required message
11315	New	Low	Reporting - waiting on selected report when there is no selected report (mouse pointer with spinning wheel)

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11719	New	Low	Responsible Party - ID Issuer dropdown now includes primary issuers
11527	New	Low	Scantype lookup doesn't allow empty Keyboard shortcut if other scantypes don't have assigned keyboard shortcut
11731	New	Low	Scheduling - Emergency Contact showing as required on Registration
11384	New	Normal	Shortcut CTRL+SHIFT+R - return to report tab not working
11573	New	Normal	Shortcut keys for 'Create and Continue' and 'Create and close' required for the reporting editor
11479	New	Normal	Should be using the templates and the macros of the assigned radiologist.
11475	New	Low	Tab order need adjusting for Referring Physician Details report
11488	New	Low	Tech creating a report from the Perform exam window, the audit log shows the incorrect status if a modification is made in the perform exam window after submitting the report.
11521	New	High	Template editor - Assignments - Modality type, Procedures or Users Windows - Hitting the Cancel button actually saves the changes
11617	New	Normal	Template/Macro lookup editor, search option not retrieving results.
11426	New	Low	Text expander - order of items is different depending if you are in eRAD or MModal reporting mode.
11656	New	Low	validation message for missing dates on the manage rules screen may be shown twice
11611	New	Normal	View PDF legacy reports in Reporting window
11560	New	High	Walk-In - Error on splitting orders after Checking In
11481	New	Normal	Warning or workflow restriction should be put in place based on reporting mode used
11353	New	Low	When an Appointment is scheduled, then cancelled but will schedule later, then cancelled altogether, it still remains on the PACS WL.
11505	New	Low	When importing a template in the template\macro editor, get an error if the practice and base template values are not selected prior to the import.

Server Update

For eRAD RIS
Version 2.0
Build 45.1
Update 45.1.1

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eRAD RIS Server Update

New Features

Questionnaire

11685 – Support for Cross Questionnaire Ruleset Actions

There is a process that runs when questionnaires are loaded into RIS. Checkboxes with the same short name will be kept in sync with each other provided that they are both open on the same screen, and that their short name begins with “z_linked_”.

For example, front desk staff open a procedure in the registration screen that has multiple Questionnaires and each one contains a checkbox called “z_linked_q1”. Completing this checkbox will update the checkbox on the other as well. After a checkbox is updated through this linked question process, the rules are automatically triggered so that the behavior will be the same whether the user manually checks the checkbox or the linked question process makes the change.

Currently, this feature only applies to checkboxes.

eRAD RIS Server Update

10819 – Allow Questions to be Marked as Required and Validate on Save

The user can now designate questions to be required fields in the Questionnaire editor.

When completing the questionnaire in the GUI, required fields will be highlighted in red when not answered. Once the required field is completed the red indicator will turn to green. Essentially it works the same as required fields on data windows within eRAD RIS.

Dog's name

Example of red indicator informing user field is required.

Dog's name

When the field has a value, the indicator turns green.

On validation, unanswered required fields will have an exclamation mark appear beside them and a message will appear to remind the user to answer the marked questions. In the event the questionnaire server is unavailable, RIS will allow the user to skip questionnaire validation and save everything else.

The screenshot shows a web application window titled "Page 1" containing a form titled "Important CT Questions". The form includes several fields: "Shellfish allergies?" with radio buttons for "Yes" (selected) and "No"; "Dog's name" with a red exclamation mark and a red border around the empty text input field; "Types of family members" with checkboxes for "Wife", "Daughter", and "Son"; "Region" with a dropdown menu set to "California"; and "Birth date" with a text input field containing "06/16/1967". A modal dialog box titled "Missing Answers" is overlaid on the form, displaying the message "Required fields must be populated." and an "Ok" button.

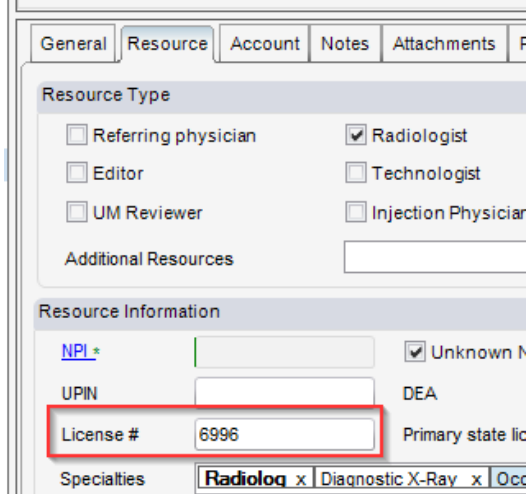
If the field is not visible on the Questionnaire we will bypass this requirement

eRAD RIS Server Update

Interface Updates

11769 – Radiologist Identified by License Number via Interface

In the Personnel Editor we can store the License number for a Radiologist.



The screenshot shows a web-based interface for editing a resource. At the top, there are tabs for 'General', 'Resource', 'Account', 'Notes', 'Attachments', and 'F'. The 'Resource' tab is selected. Below the tabs, there are two main sections: 'Resource Type' and 'Resource Information'. In the 'Resource Type' section, there are several checkboxes: 'Referring physician', 'Editor', 'UM Reviewer', 'Radiologist' (checked), 'Technologist', and 'Injection Physician'. Below this is an 'Additional Resources' text input field. The 'Resource Information' section contains several fields: 'NPI' (with a dropdown arrow), 'UPIN', 'License #' (highlighted with a red box and containing the value '6996'), 'Unknown M' (checked), 'DEA', and 'Primary state lic'. At the bottom, there is a 'Specialties' section with a list of specialties, including 'Radiolog x', 'Diagnostic X-Ray x', and 'Occ'.

We now support the ability to identify a radiologist from the License # value. If the message received from the external system sends in the License #, we will be able to determine the radiologist and assign appropriately to the study.

If more than one Radiologist User is assigned the same License #, when sent to eRAD RIS, a message will be returned informing that it is a duplicate. Similarly, if the license # doesn't exist, a message will be posted. These messages will only be available in MIRTH Management Console.

eRAD RIS Server Update

11555 – Allow for Data Masking on Portal Data Variables

A portal plugin framework was created to support the ability to “massage” or manipulate the data value that is sent in a URL for a portal.

This feature resolves an issue of the leading zeros that may be present on a National ID for example. eRAD RIS will store the leading characters, where a portal may need to have the leading zeros stripped.

When the new PortalPluginIntParser.dll is present in the PortalPlugins folder, using the following data variable in the Portal URL will remove the leading zeros:

```
{patient.c_patient.patient_id?issuer_of_patient_id=1|ParseInt}
```

This is the only variable supported at this time.

Resolved Items

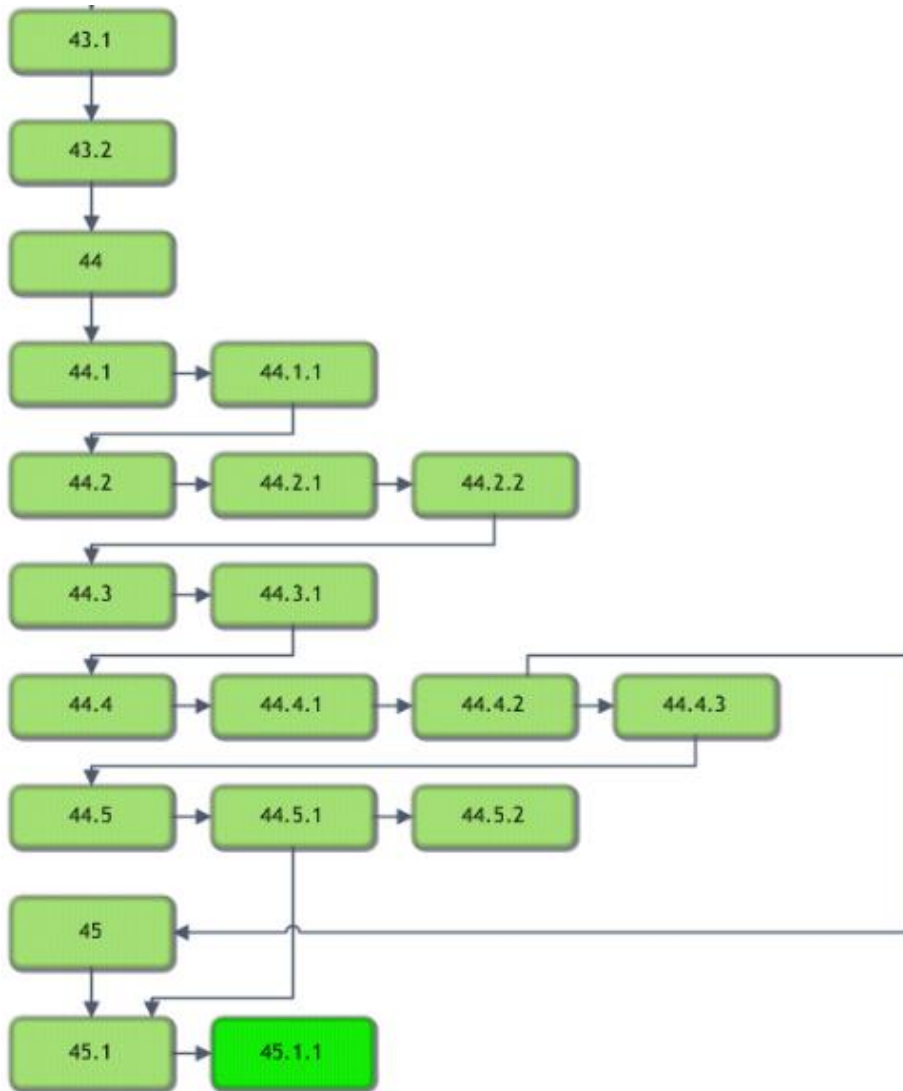
Redmine #	Subject	Priority
11882	Worklists taking long time to return data - need to modify the worklist views	Immediate
11898	Unable to map questionnaire data into diagnostic reports in Hebrew culture	Immediate
11742	MemoryLeak in QuestionnaireAnswersView control for radiologist screen	Urgent
11873	Scheduling - Opening a scheduled study from appointment book throws error	High
11803	Exception clicking Bold toolbar button in report editor.	High
11801	Error loading macros when using conditional fields	High
11785	Scanner dropdown list in PerformExam and ViewEdit should display modality short description if specified	High
11783	Error in Field Editor when saving Conditional Values	High
11764	Findings - Error when submitting a dictation when the findings value is not entered. Cannot submit the dictation.	High
11763	Support for international date formats	High
11744	Memory Leak In GridFlagCellElement	High
11727	MRN - [primary] getting appended to description on Issuer lookup (for primary issuers only)	High
11690	Discontinued non-primary studies prevent reporting of other linked studies	High
11661	Questionnaire - Mapped date fields - problems with dd/MM/yyyy format	High
11610	Cannot merge patients with primary issuer MRN's	High
11592	Questionnaire Answers pane is not read-only	High
11909	Drawing control localization changes	Normal
11814	Inbound Diagnostic Reporting - Leaking a ReportOnAccessionNumber control each time it is opened	Normal
11784	Client file storage path Config setting RISOutputFilePath doesn't accept the default value	Normal
11746	MemoryLeak in ReportingRadiologist due to FindingFollowup EventHandler	Normal
11717	Remove Follow Up Required Flag - spelling mistake in context menu	Normal
11701	Biopsy - Missing access strings for Remove and Set Pending Biopsy Result	Normal
11700	Missing access strings for setting/removing Follow Up Required Flag	Normal

eRAD RIS Server Update

11693	Citrix - call to launch eRAD view session doesn't return a list of open studies.	Normal
11692	Citrix - log files need to have more details	Normal
11650	Data Exception while trying to Reschedule from the Reception WL	Normal
11805	Questionnaire Answers - Users can close individual questionnaire tabs	Low
11788	Finding follow up recommendation drop down is not using display order	Low

eRAD RIS Server Update

Code Stream



Legend:









Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

Package Contents

Name	Date modified
 _ReleaseNotes	10/09/2015 8:46 AM
 DB	10/05/2015 1:29 PM
 PACS Citrix Bridge	10/05/2015 1:30 PM
 Questionnaires	10/05/2015 1:30 PM
 rRISService	10/09/2015 11:17 ...
 SQLReporting	10/05/2015 1:29 PM
 ThickClient	10/05/2015 1:27 PM
 WebHelp	10/05/2015 1:28 PM

Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

Who is affected

Build 45.1 installs. This server update must be applied to 45.1.1

eRAD RIS Release Version Numbers

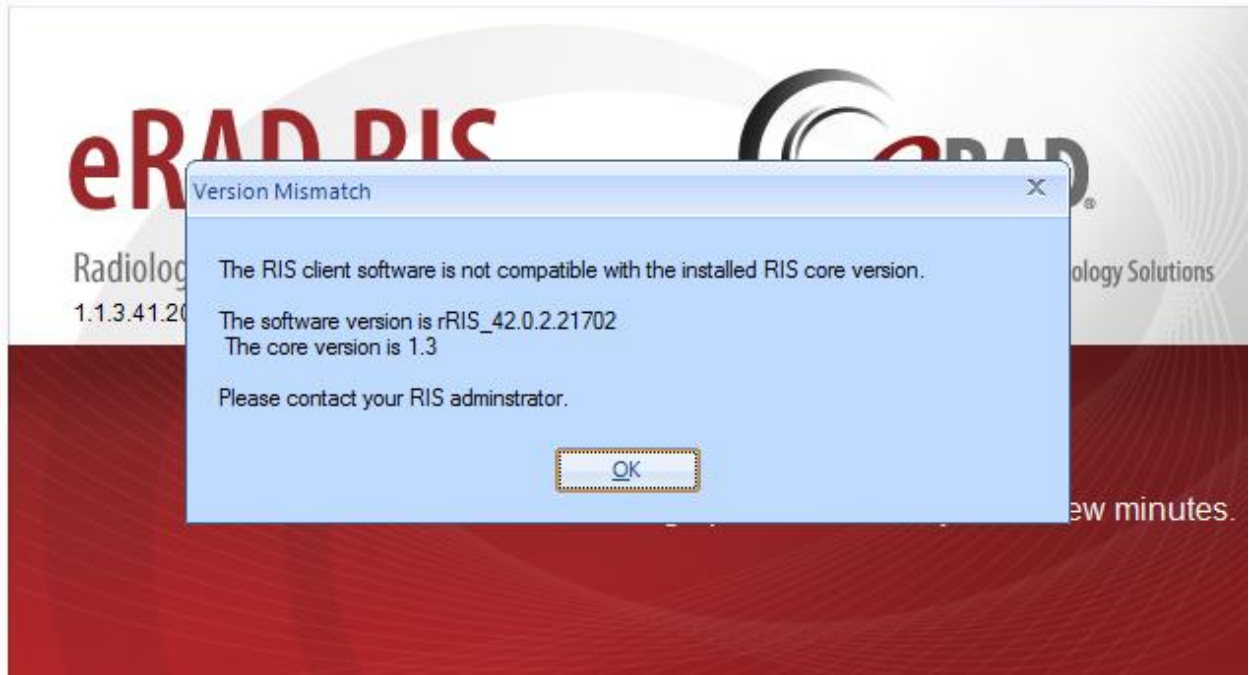
Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
43	-	2.43.0.0.23715(3GB)	2.43.0.0.23171	2.43.0.0.23715	2.43.0.0.23743	Full Version Release
43	1	2.43.0.1.23798(3GB)	2.43.0.0.23171	2.43.0.1.23798	2.43.0.1.23770	GUI.zip, Web Service, DB updates
43	2	2.43.0.2.24017(3GB)	2.43.0.0.23171	2.43.0.2.24017	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 SSRS 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 SSRS 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 SSRS 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 SSRS 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, SSRS 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
44.5	1	2.44.5.1.30451(3GB)	2.44.0.0.26405	2.44.5.1.30451	2.44.5.1.30449	Gui.zip, Web Server, DB
44.5	2	2.44.5.2.30705(3GB)	2.44.0.0.26405	2.44.5.1.30705	2.44.5.1.30554	Gui.zip, Web Server, DB
45	-	2.45.0.0.29559(3GB)	2.45.0.0.26107	2.45.0.0.29559	2.45.0.0.29558	Full Version Release
45.1	-	2.45.1.0.30774(3GB)	2.45.0.0.26107	2.45.1.0.30774	2.45.1.0.30738	Gui.zip, Web Service, DB, SQLReporting, Questionnaire, Citrix support
45.1	1	2.45.1.1.31175(3GB)	2.45.0.0.26107	2.45.1.1.31175	2.45.1.1.31174	Gui.zip, Web Service, DB, SQLReporting, Questionnaire

eRAD RIS Server Update

Installing

Client/GUI

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.45.1.1.31175.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_45.1.1.31175→ rRIS_1.3.45.1.1.31175

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

Web Service

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 88 files in the rRISService folder and 2 sub folders. Of those folders, 1 is a folder titled “XSL” that contains a sub folder and files within the subfolder. Another folder is titled “**deploy**” that contains the new .config files that will be deployed with the user of the file called “ServicesConfigWizard.exe” (see instructions below).

Services Configuration Wizard

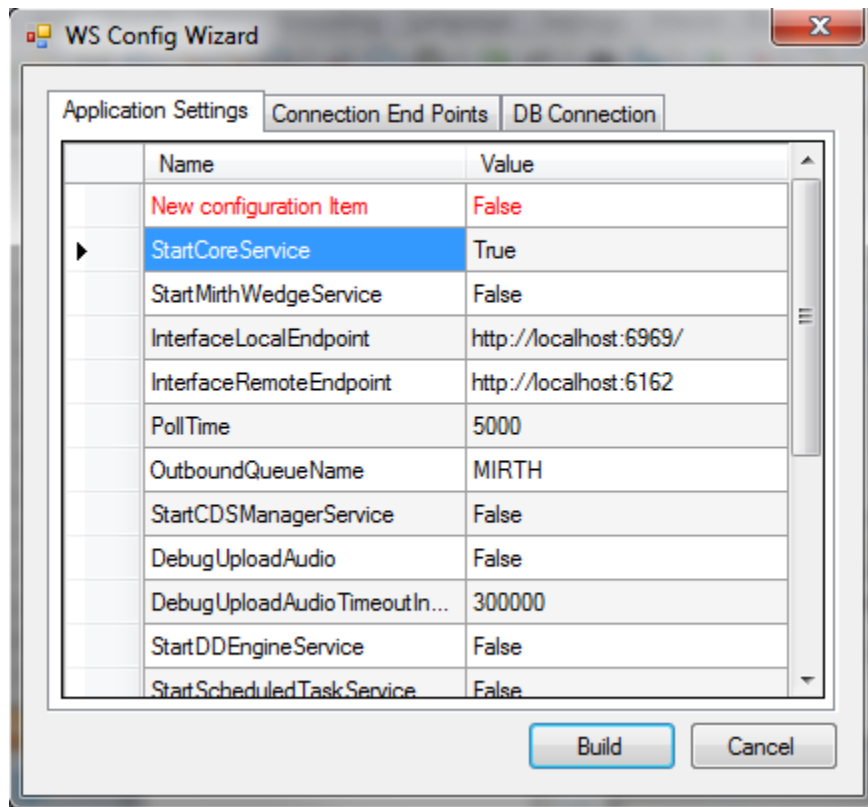
With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a “deploy” folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application “ServicesConfigWizard.exe”

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
Application Settings: all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

NOTE: the rRISServices.exe.config file is also included in the deploy folder. If this file has changes it **will not** update your current file in the Web Service directory. Any changes to this file will require a manual update of the rRISServices.exe.config and rRISServicesx64.exe.config files.

eRAD RIS Server Update



eRAD RIS Server Update

Connection End Points: will display the existing configuration, if the value is left blank then that entry will not be created, in the case of “Study Service” or “CDS Service” if both http and net.tcp were not provided then that endpoint will not be created at all.

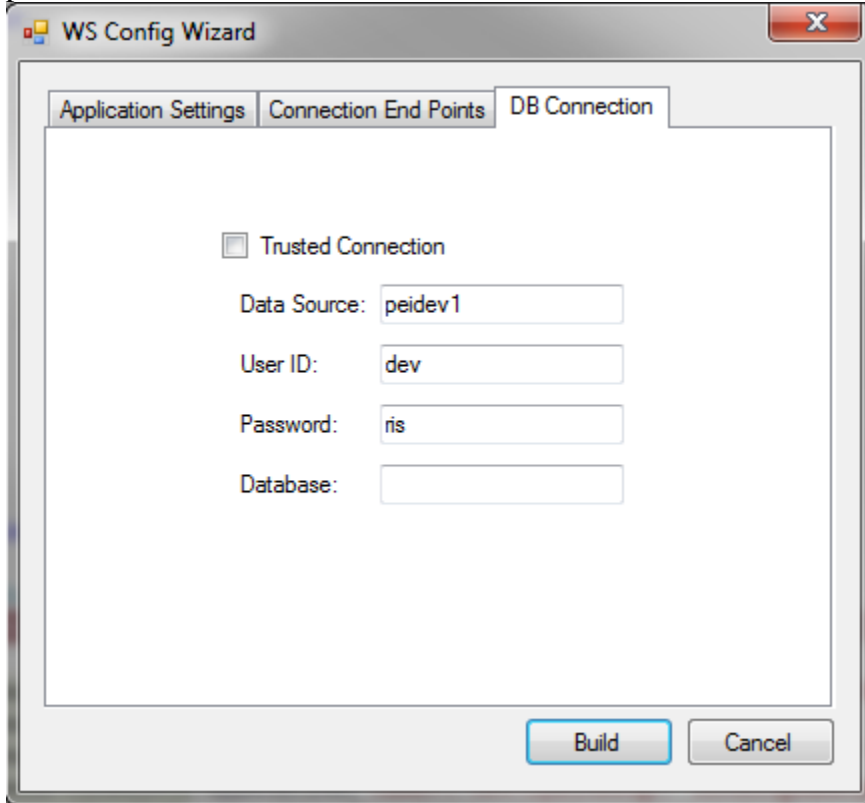
The screenshot shows a window titled "WS Config Wizard" with three tabs: "Application Settings", "Connection End Points", and "DB Connection". The "Connection End Points" tab is active. It contains three sections, each with a title and a list of endpoints:

- Study Service**
 - http:// localhost:8040 /rRIS/
 - net.tcp:// localhost:8041 /rRIS/
- Notify Service**
 - net.tcp:// localhost:7095 /rRIS/
- CDS Service**
 - http:// localhost:7092 /rRIS/
 - net.tcp:// localhost:7093 /rRIS/

At the bottom of the dialog are two buttons: "Build" and "Cancel".

eRAD RIS Server Update

DB Connection: will display the existing configuration, if the Connection is to be used as a trusted connection, then the user ID and password will become disabled and will not be used, and will rely on the provided database value, When not using the trusted connection, The Database value is not needed but can be used to force a specific database connection as long as the provided user has access to that database.



It is always good practice to do a compare of the .config files.

- 1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.
rRISService directories include:
 - a) *rRISService*
 - b) *CDS rRISService*
 - c) *Wedge rRISService*
 - d) *DDE rRISService*

Restart each service.

eRAD RIS Server Update

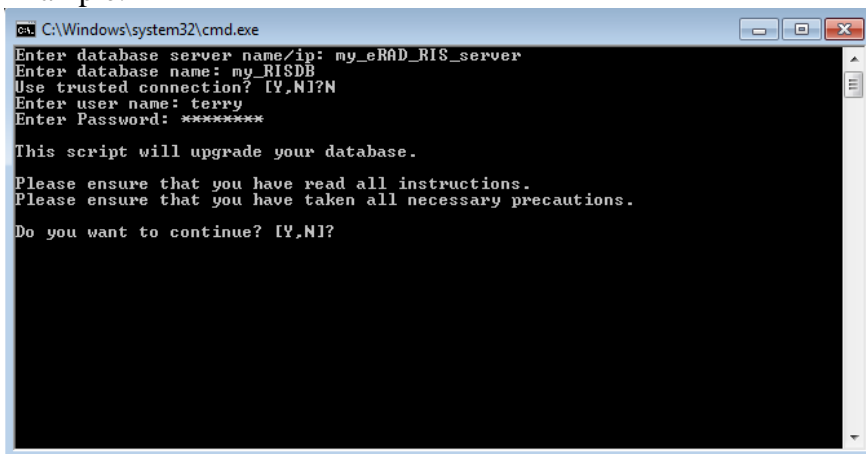
Database Updates

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.

- 1) From the upgrade folder, double click the "RunUpgrade.bat" command file.
- 2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.
- 3) You can choose to use "Trusted connection". Using this option will pass the identity of the currently logged on user. If this user has "db_owner" access to the eRAD RIS database then feel free to use this options.
- 4) If you decide not to use "Trusted connection" then you will be prompted for user id and password.

Example:



```
C:\Windows\system32\cmd.exe
Enter database server name/ip: my_eRAD_RIS_server
Enter database name: my_RISDB
Use trusted connection? [Y,N]?N
Enter user name: ferryy
Enter Password: *****

This script will upgrade your database.

Please ensure that you have read all instructions.
Please ensure that you have taken all necessary precautions.

Do you want to continue? [Y,N]?
```

- 5) After the upgrade program has finished you can find the upgrade logs in the "log" folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team
- 6) In the Common folder there is a subfolder of MU. The MU folder contains updates to lookups relevant for MU as well as updates for Zip Code table to add the County. Copy the

eRAD RIS Server Update

MU folder to the database server before running the batch file. There is a readme file contained in the MU folder. The details have also been included below

- a) The mu bulk install process must be run from a path on the database server!
 - b) Copy Files ImportDataFileUpgradeDB.bat and ImportDataFileUpgradeDB.sql from upgrade folder to a location on the database server(This location will be referred to as the "Script Folder Path".)
 - c) Copy Folder scripts and Source files from the upgrade folder to "Script Folder Path"Note source files must be inside the scripts folder
 - d) Run bat file
 - i) Enter Script Folder path [C:\Temp\SNOMED]:
 - ii) Enter database server name/ip: [ie peidev1]
 - iii) Enter database name: [ie rRIS_MU]
 - iv) Use a trusted connection to log on to SQL Server:
"N" means you will have to enter db [username] [password]
"Y" means you have a trusted connection and will not have to enter [username][password]
 - v) Do you wish to load SNOMED concept codes?
"N" no files will be loaded into the l_snomed_concept table
"Y" yes means l_snomed_concept table will be truncated and reloaded with the latest US concept codes
Source File [sct2_Concept_Snapshot_US1000124_20140301.txt]
 - vi) Do you wish to load SNOMED descriptions codes?
"N" no files will be loaded into the l_snomed_description table
"Y" yes means the l_snomed_description table will be truncated and reloaded with the latest US description codes
Source File [sct2_Description_Snapshot-en_US1000124_20140301.txt]
 - vii) Do you wish to load ICD9 to SNOMED mappings codes?
"N" no files will be loaded into the l_snomed_icd9_map table
"Y" yes means the l_snomed_icd9_map table will be truncated and reloaded with the latest US ICD9 to SNOMED mapping codes
Source File [ICD9CM_SNOMED_MAP_1TO1_201312.txt and ICD9CM_SNOMED_MAP_1TOM_201312.txt]
 - viii) Do you wish to load ICD10 to SNOMED mappings codes?
"N" no files will be loaded into the l_snomed_icd10_map table
"Y" yes means the l_snomed_icd10_map table will be truncated and reloaded with the latest US ICD10 to SNOMED mapping codes
Source File [xder2_iisssccRefset_ExtendedMapSnapshot_US1000124_20131220.txt]
 - ix) Do you wish to load US zip codes?
"N" no files will be loaded into the z_zipCodesWithCounty table
"Y" yes means the z_zipCodesWithCounty table will be truncated and reloaded with the latest US zip codes
Source File [5-digit Commercial.csv]
-

eRAD RIS Server Update

Note: the following files should be loaded once only with B43!

x) Do you wish to load CMS codes?

"N" no files will be loaded into the s_mu_code table

"Y" yes means the s_mu_code table will be truncated and reloaded with the latest CMS codes

Source File [s_mu_code.txt]

xi) Do you wish to load HL7 support sets for CCDA?

"N" no files will be loaded into the l_hl7v3_voc_value_set table

"Y" yes means the l_hl7v3_voc_value_set table will be truncated and reloaded with the latest hl7v3_voc_value_set codes

Source File [l_hl7_voc_value_set.txt]

xii) Do you wish to load HL7 support codes for CCDA?

"N" no files will be loaded into the l_hl7v3_voc_value_code table

"Y" yes means the l_hl7v3_voc_value_code table will be truncated and reloaded with the latest l_hl7v3_voc_value_code codes

Source File [l_hl7_voc_value_code.txt]

Server Update

For eRAD RIS
Version 2.0
Build 45.1
Update 45.1.3

Table of Contents

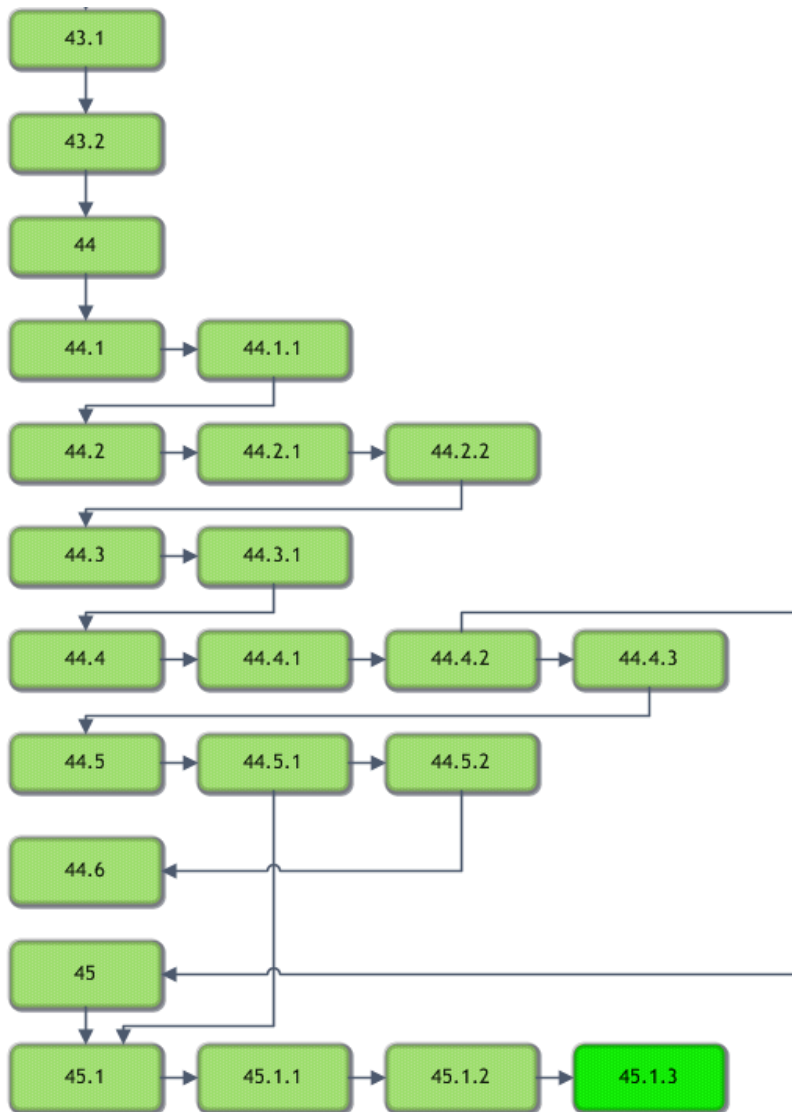
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Resolved Items

Redmine #	Subject	Priority
12004	Appointment book load times to slow	Urgent
12002	CD Import or Legacy Data can overwrite the system MRN	Urgent
12001	CD Import thows exception if DOS on disk cannot be found and time format is not dd-mm-yyyy	Urgent
11984	Using the "Print Forms" context menu causes error "The UTC time represented when the offset is applied must be between year 0 and 10,000". Auto printing forms simply do not appearthe .	Urgent
12023	questionnaires should not reference CSS files from CDN servers	High
12011	Report Rendering (SSRS) - Reports with tables have an extra line after every row data element	High
12009	Questionnaire - Expressions are not evaluated after visiblity changes on source questions	High
12003	Citrix Bridge Installer adds CitrixBridge.exe to HKLM\Software\Microsoft\Window\Run but the path is missing so it fails to start on boot.	High
11972	Diagnostic report editor not keeping right to left document text flow.	High
11969	Linked Questionnaire checkboxes don't fire change event	High
11967	Questionnaires should not be editable after report signature	High
11958	error logging in to questionnaires from browser using domain auth for some users	High
11955	Alternate name search feature is causing an exception to be thrown if it finds a matching name	High
11954	Excessive lines added into the diagnostic reports (nugget and SSRS) after going through RTF to CDA converter	High
11953	Questionnaire - Users do not get prompted on questionnaire not saving	High
11944	Ability to configure questionnaires to display in specific screens	High
11936	Poor performance switching between questionnaire tabs for large questionnaires	High
11997	Questionnaire expressions cannot refer to other expressions	Normal
11965	Reporting Radiology - RTF to CDA converter bolding text when not bolded in source system	Normal
11964	Questionnaire Expression Editor allows the user to make over 26 variables, but does not support more than 26	Normal
11952	Questionnaire answers are saved to the database even when no answer is provided	Normal
11951	Report Assistant is saving all questionnaires regardless of changes	Normal

eRAD RIS Server Update

Code Stream



Legend:








Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

Package Contents

 _ReleaseNotes	21/10/2015 22:31
 DB	20/10/2015 22:22
 PACS Citrix Bridge	20/10/2015 22:24
 Questionnaires	20/10/2015 22:23
 rRISService	20/10/2015 22:21
 SQLReporting	20/10/2015 22:22
 ThickClient	20/10/2015 22:20

Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

Who is affected

Build 45.1 installs. This server update must be applied to 45.1

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 SSRS 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 SSRS 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 SSRS 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 SSRS 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, SSRS 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
44.5	1	2.44.5.1.30451(3GB)	2.44.0.0.26405	2.44.5.1.30451	2.44.5.1.30449	Gui.zip, Web Server, DB
44.5	2	2.44.5.2.30705(3GB)	2.44.0.0.26405	2.44.5.1.30705	2.44.5.1.30554	Gui.zip, Web Server, DB
45	-	2.45.0.0.29559(3GB)	2.45.0.0.26107	2.45.0.0.29559	2.45.0.0.29558	Full Version Release
45.1	-	2.45.1.0.30774(3GB)	2.45.0.0.26107	2.45.1.0.30774	2.45.1.0.30738	Gui.zip, Web Service, DB, SQLReporting, Questionnaire, Citrix support
45.1	1	2.45.1.1.31175(3GB)	2.45.0.0.26107	2.45.1.1.31175	2.45.1.1.31174	Gui.zip, Web Service, DB, SQLReporting, Questionnaire
45.1	2	2.45.1.1.31175(3GB)	2.45.0.0.26107	2.45.1.2.31378	2.45.1.1.31174	Web Service and Citrix Bridge
45.1	3	2.45.1.3.31452(3GB)	2.45.0.0.26107	2.45.1.3.31452	2.45.1.3.31369	GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge

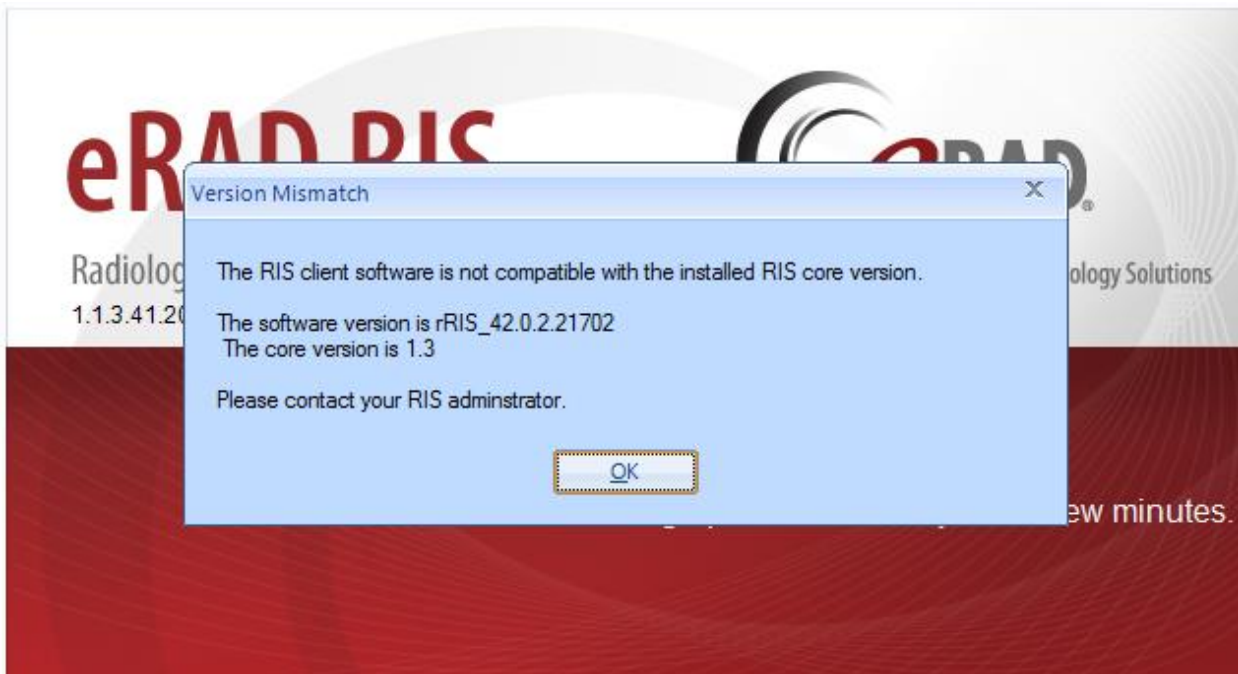
eRAD RIS Server Update

Installing

Client/GUI

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.45.1.3.31452.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_45.1.3.31452 → rRIS_1.3.45.1.3.31452

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

eRAD RIS Server Update

Web Service

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 88 files in the rRISService folder and 2 sub folders. Of those folders, 1 is a folder titled “XSL” that contains a sub folder and files within the subfolder. Another folder is titled “**deploy**” that contains the new .config files that will be deployed with the user of the file called “ServicesConfigWizard.exe” (see instructions below).

Services Configuration Wizard

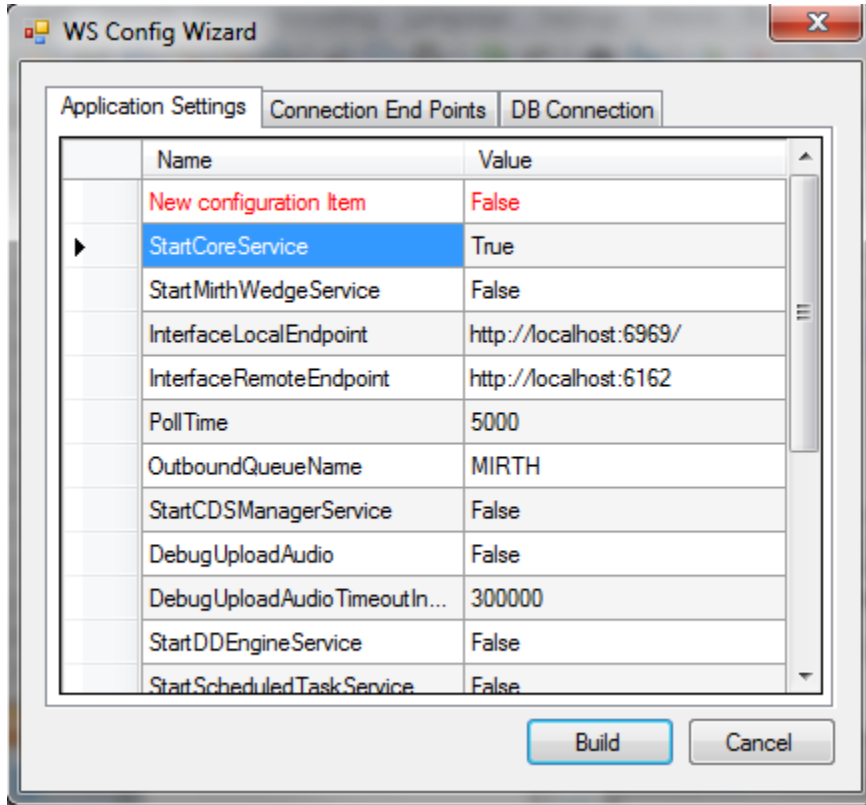
With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a “deploy” folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application “ServicesConfigWizard.exe”

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:
Application Settings: all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

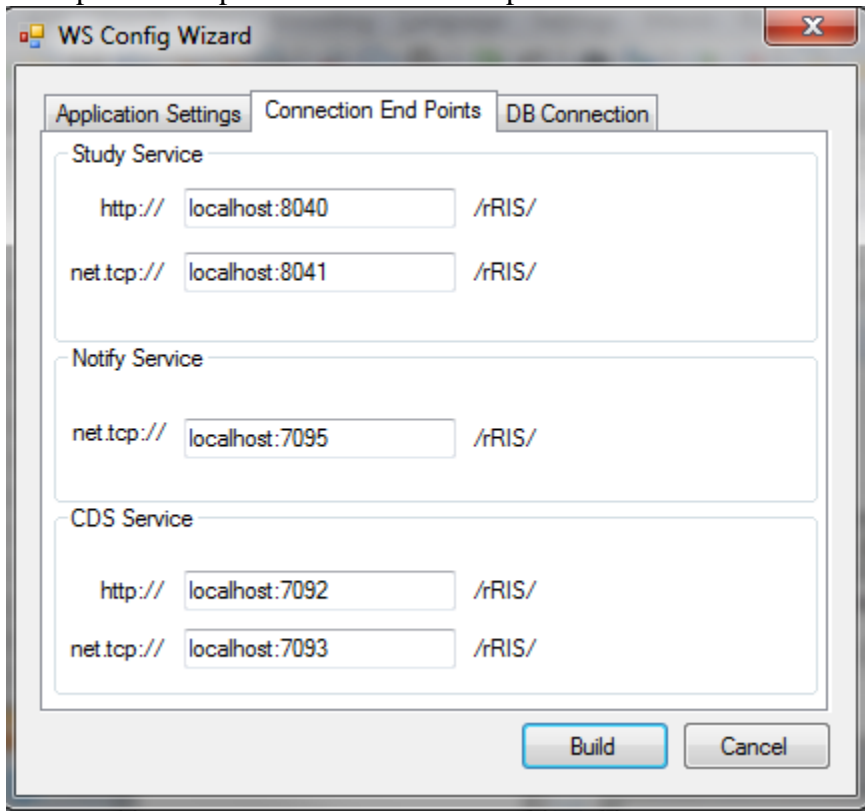
NOTE: the rRISServices.exe.config file is also included in the deploy folder. If this file has changes it **will not** update your current file in the Web Service directory. Any changes to this file will require a manual update of the rRISServices.exe.config and rRISServicesx64.exe.config files.

eRAD RIS Server Update



eRAD RIS Server Update

Connection End Points: will display the existing configuration, if the value is left blank then that entry will not be created, in the case of “Study Service” or “CDS Service” if both http and net.tcp were not provided then that endpoint will not be created at all.

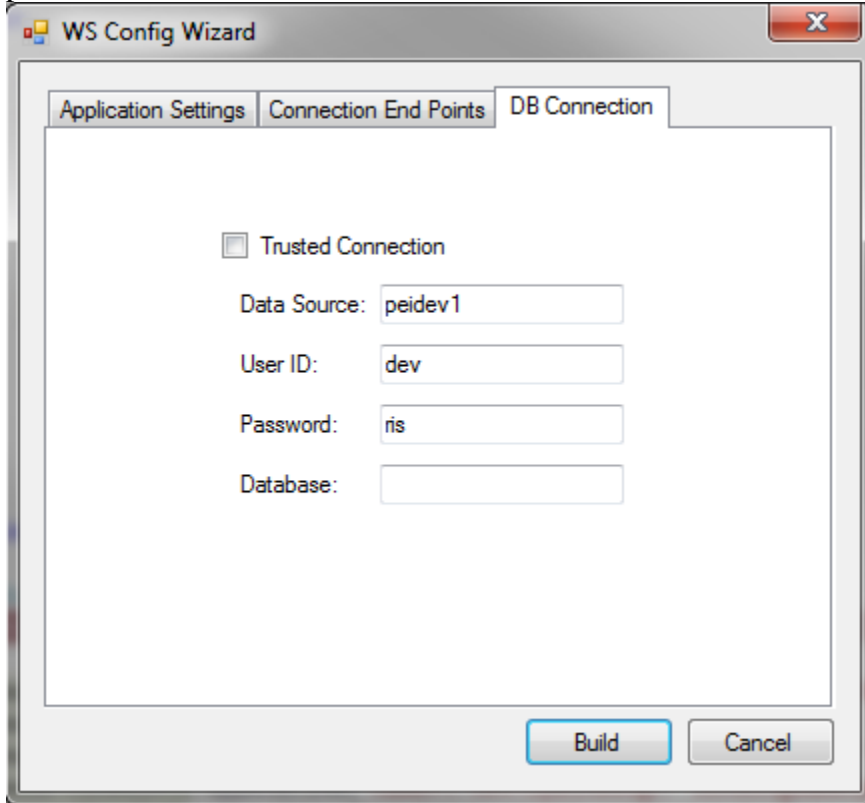


The screenshot shows a dialog box titled "WS Config Wizard" with three tabs: "Application Settings", "Connection End Points", and "DB Connection". The "Connection End Points" tab is active. It contains three sections: "Study Service", "Notify Service", and "CDS Service". Each section has two rows of input fields for "http://" and "net.tcp://", each followed by a text box and a "/rRIS/" label. The "Study Service" section has "localhost:8040" and "localhost:8041". The "Notify Service" section has "localhost:7095". The "CDS Service" section has "localhost:7092" and "localhost:7093". At the bottom right, there are "Build" and "Cancel" buttons.

Service	Protocol	Host:Port	Path
Study Service	http://	localhost:8040	/rRIS/
	net.tcp://	localhost:8041	/rRIS/
Notify Service	net.tcp://	localhost:7095	/rRIS/
CDS Service	http://	localhost:7092	/rRIS/
	net.tcp://	localhost:7093	/rRIS/

eRAD RIS Server Update

DB Connection: will display the existing configuration, if the Connection is to be used as a trusted connection, then the user ID and password will become disabled and will not be used, and will rely on the provided database value, When not using the trusted connection, The Database value is not needed but can be used to force a specific database connection as long as the provided user has access to that database.



It is always good practice to do a compare of the .config files.

- 1) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService.

rRISService directories include:

- a) *rRISService*
- b) *CDS rRISService*
- c) *Wedge rRISService*
- d) *DDE rRISService*

Restart each service.

eRAD RIS Server Update

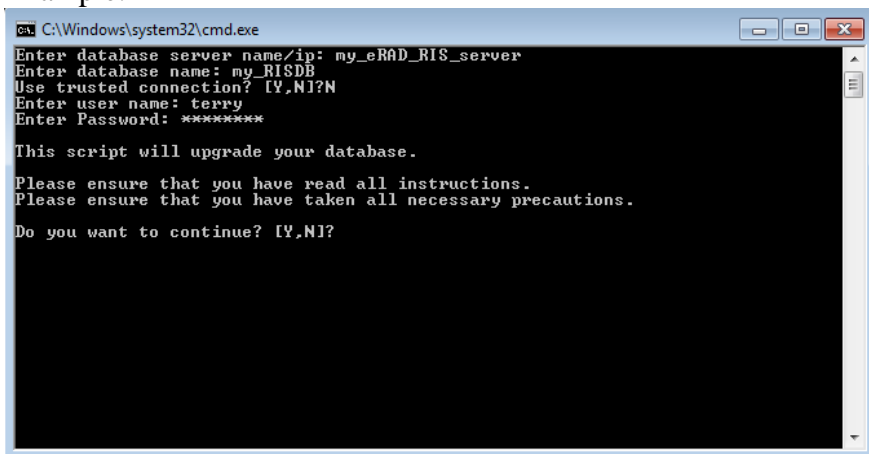
Database Updates

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.

- 1) From the upgrade folder, double click the "RunUpgrade.bat" command file.
- 2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.
- 3) You can choose to use "Trusted connection". Using this option will pass the identity of the currently logged on user. If this user has "db_owner" access to the eRAD RIS database then feel free to use this options.
- 4) If you decide not to use "Trusted connection" then you will be prompted for user id and password.

Example:



```
C:\Windows\system32\cmd.exe
Enter database server name/ip: my_eRAD_RIS_server
Enter database name: my_RISDB
Use trusted connection? [Y,N]?N
Enter user name: ferryy
Enter Password: *****

This script will upgrade your database.

Please ensure that you have read all instructions.
Please ensure that you have taken all necessary precautions.

Do you want to continue? [Y,N]?
```

- 5) After the upgrade program has finished you can find the upgrade logs in the "log" folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team
- 6) In the Common folder there is a subfolder of MU. The MU folder contains updates to lookups relevant for MU as well as updates for Zip Code table to add the County. Copy the

eRAD RIS Server Update

MU folder to the database server before running the batch file. There is a readme file contained in the MU folder. The details have also been included below

- a) The mu bulk install process must be run from a path on the database server!
 - b) Copy Files ImportDataFileUpgradeDB.bat and ImportDataFileUpgradeDB.sql from upgrade folder to a location on the database server(This location will be referred to as the "Script Folder Path".)
 - c) Copy Folder scripts and Source files from the upgrade folder to "Script Folder Path"Note source files must be inside the scripts folder
 - d) Run bat file
 - i) Enter Script Folder path [C:\Temp\SNOMED]:
 - ii) Enter database server name/ip: [ie peidev1]
 - iii) Enter database name: [ie rRIS_MU]
 - iv) Use a trusted connection to log on to SQL Server:
"N" means you will have to enter db [username] [password]
"Y" means you have a trusted connection and will not have to enter [username][password]
 - v) Do you wish to load SNOMED concept codes?
"N" no files will be loaded into the l_snomed_concept table
"Y" yes means l_snomed_concept table will be truncated and reloaded with the latest US concept codes
Source File [sct2_Concept_Snapshot_US1000124_20140301.txt]
 - vi) Do you wish to load SNOMED descriptions codes?
"N" no files will be loaded into the l_snomed_description table
"Y" yes means the l_snomed_description table will be truncated and reloaded with the latest US description codes
Source File [sct2_Description_Snapshot-en_US1000124_20140301.txt]
 - vii) Do you wish to load ICD9 to SNOMED mappings codes?
"N" no files will be loaded into the l_snomed_icd9_map table
"Y" yes means the l_snomed_icd9_map table will be truncated and reloaded with the latest US ICD9 to SNOMED mapping codes
Source File [ICD9CM_SNOMED_MAP_1TO1_201312.txt and ICD9CM_SNOMED_MAP_1TOM_201312.txt]
 - viii) Do you wish to load ICD10 to SNOMED mappings codes?
"N" no files will be loaded into the l_snomed_icd10_map table
"Y" yes means the l_snomed_icd10_map table will be truncated and reloaded with the latest US ICD10 to SNOMED mapping codes
Source File [xder2_iissscRefset_ExtendedMapSnapshot_US1000124_20131220.txt]
 - ix) Do you wish to load US zip codes?
"N" no files will be loaded into the z_zipCodesWithCounty table
"Y" yes means the z_zipCodesWithCounty table will be truncated and reloaded with the latest US zip codes
Source File [5-digit Commercial.csv]
-

eRAD RIS Server Update

Note: the following files should be loaded once only with B43!

x) Do you wish to load CMS codes?

"N" no files will be loaded into the s_mu_code table

"Y" yes means the s_mu_code table will be truncated and reloaded with the latest CMS codes

Source File [s_mu_code.txt]

xi) Do you wish to load HL7 support sets for CCDA?

"N" no files will be loaded into the l_hl7v3_voc_value_set table

"Y" yes means the l_hl7v3_voc_value_set table will be truncated and reloaded with the latest hl7v3_voc_value_set codes

Source File [l_hl7_voc_value_set.txt]

xii) Do you wish to load HL7 support codes for CCDA?

"N" no files will be loaded into the l_hl7v3_voc_value_code table

"Y" yes means the l_hl7v3_voc_value_code table will be truncated and reloaded with the latest l_hl7v3_voc_value_code codes

Source File [l_hl7_voc_value_code.txt]

Server Update

For eRAD RIS
Version 2.0
Build 45.1
Update 45.1.8

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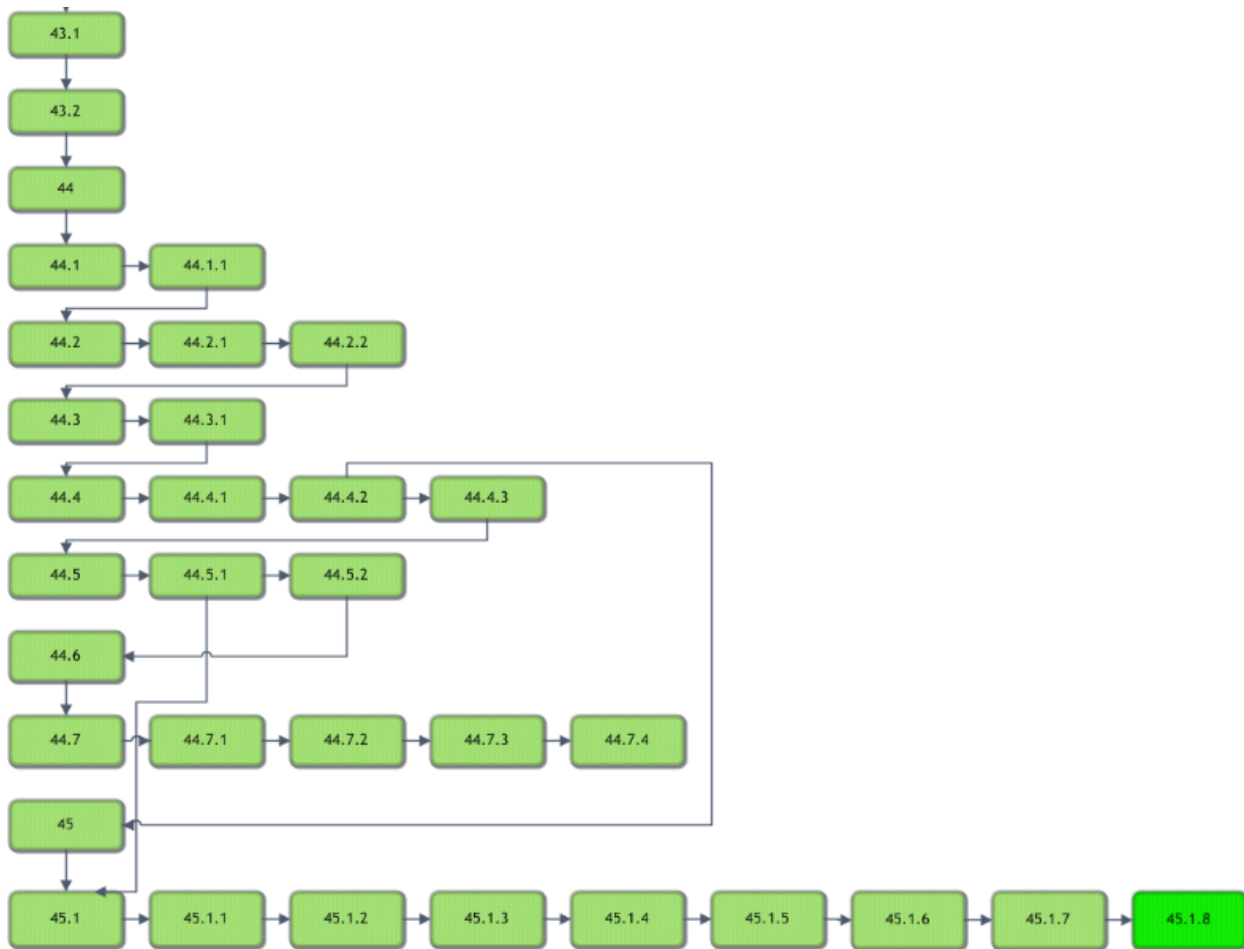
eRAD RIS Server Update

Resolved Items

Redmine #	Subject	Priority
13091	Interpretation persists between studies when signing	Immediate

eRAD RIS Server Update

Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

Package Contents

 _ReleaseNotes	2/1/2016 4:40 PM
 ThickClient	2/1/2016 4:43 PM

Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

Who is affected

Build 45.1 installs. This server update must be applied to 45.1.6

eRAD RIS Server Update

eRAD RIS Release Version Numbers

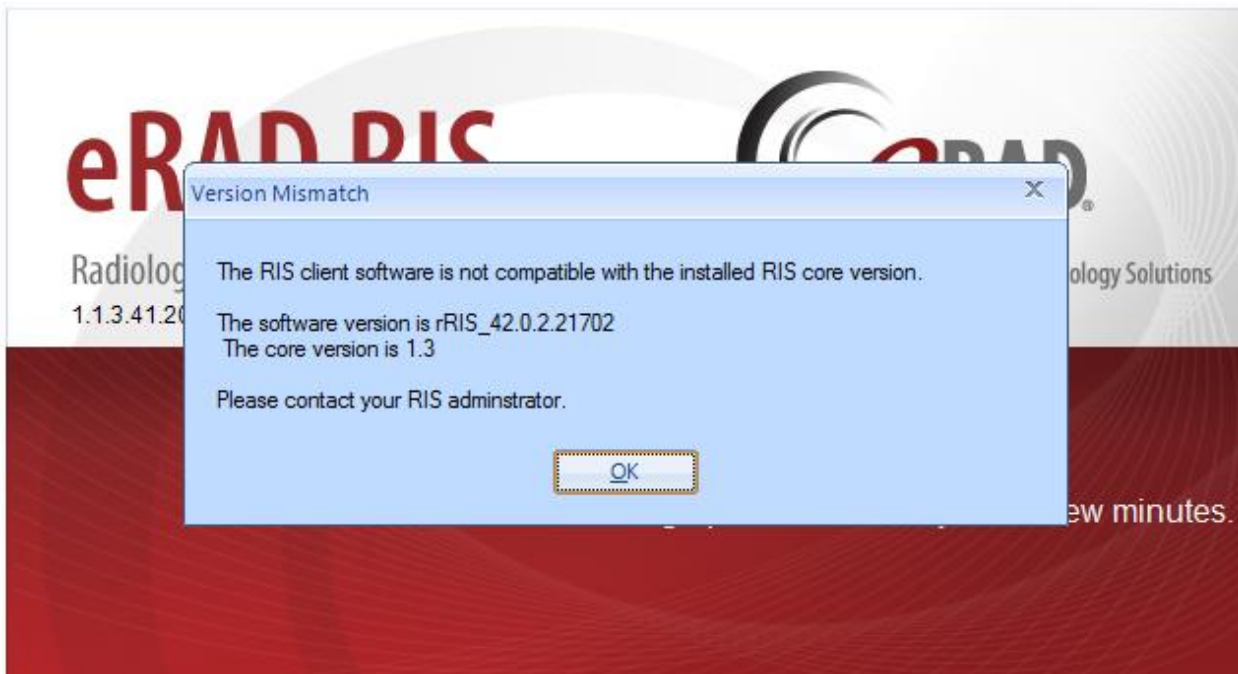
Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
43.1	-	2.43.1.0.25850(3GB)	2.43.0.0.23171	2.43.1.0.25850	2.43.1.0.25771	Gui.zip Web Service and DB Updates
43.2	-	2.43.2.0.26864(3GB)	2.43.0.0.23171	2.43.2.0.26864	2.43.1.0.25771	Gui.zip and Web Service
44	-	2.44.0.0.26570(3GB)	2.44.0.0.26405	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, SSRS 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
44.5	1	2.44.5.1.30451(3GB)	2.44.0.0.26405	2.44.5.1.30451	2.44.5.1.30449	Gui.zip, Web Server, DB
44.5	2	2.44.5.2.30705(3GB)	2.44.0.0.26405	2.44.5.1.30705	2.44.5.1.30554	Gui.zip, Web Server, DB
45	-	2.45.0.0.29559(3GB)	2.45.0.0.26107	2.45.0.0.29559	2.45.0.0.29558	Full Version Release
45.1	-	2.45.1.0.30774(3GB)	2.45.0.0.26107	2.45.1.0.30774	2.45.1.0.30738	Gui.zip, Web Service, DB, SQLReporting, Questionnaire, Citrix support
45.1	1	2.45.1.1.31175(3GB)	2.45.0.0.26107	2.45.1.1.31175	2.45.1.1.31174	Gui.zip, Web Service, DB, SQLReporting, Questionnaire
45.1	2	2.45.1.1.31175(3GB)	2.45.0.0.26107	2.45.1.2.31378	2.45.1.1.31174	Web Service and Citrix Bridge
45.1	3	2.45.1.3.31452(3GB)	2.45.0.0.26107	2.45.1.3.31452	2.45.1.3.31369	Gui.zip, Web Service, DB, Questionnaire and Citrix Bridge
45.1	4	2.45.1.4.31621(3GB)	2.45.0.0.26107	2.45.1.4.31621	2.45.1.4.31599	Gui.zip, Web Service, DB, Questionnaire and Citrix Bridge
45.1	5	2.45.1.5.31773(3GB)	2.45.0.0.26107	2.45.1.5.31773	2.45.1.5.31771	Gui.zip, Web Service, DB, Questionnaire
45.1	6	2.45.1.6.32070(3GB)	2.45.0.0.26107	2.45.1.6.32070	2.45.1.6.31936	Gui.zip, Web Service, DB, Questionnaire, Citrix Bridge
45.1	7	2.45.1.6.32070(3GB)	2.45.0.0.26107	2.45.1.6.32070	2.45.1.6.31936	Web Service for Wedge only. Version number of Wedge is 45.1.6.32614
45.1	8	2.45.1.6.33254(3GB)	2.45.0.0.26107	2.45.1.6.32070	2.45.1.6.31936	Gui.zip

eRAD RIS Server Update

Installing

Client/GUI

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.45.1.8.33254.zip file provided with this release.
Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_45.1.8.33254 → rRIS_1.3.45.1.8.33254

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

This is required for installs that have not reached build 42. Because the software installed on your local workstation is a pre-42 build it detects a version mismatch in the software naming and won't allow the newest build to be launched (it is looking for 1.3. in the name). Once the workstation(s) have reached a build of 42 we will no longer need to add "1.3." to the GUI.zip name. Also note that a core install will not resolve this issue below.

NOTE: If your upgrade is coming from 40.016.1 or prior a core install will be required. Versions (builds) of 40.017 and greater do not require a core install as long as you are at least at 40.017 (Core Version 1.3.40.18756)

Server Update

For eRAD RIS
Version 2.0
Build 45.1
Update 45.1.9

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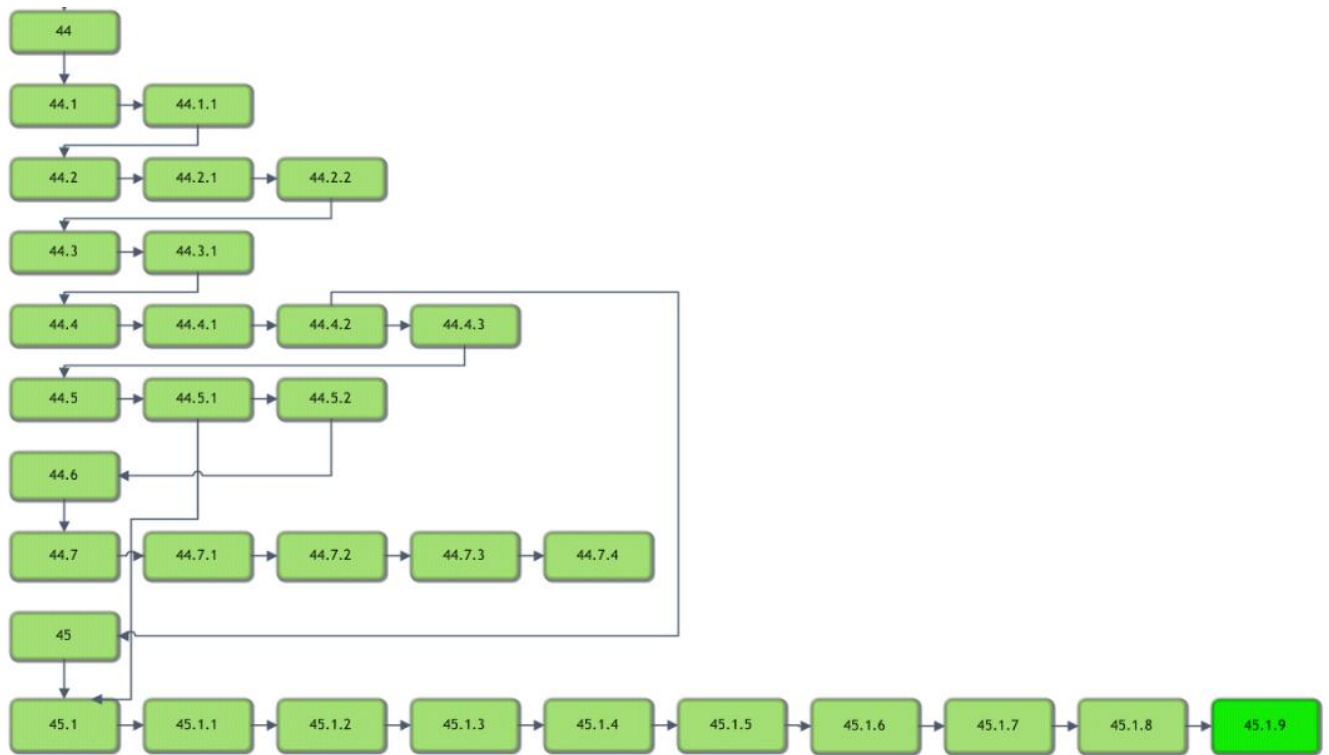
eRAD RIS Server Update

Resolved Items

Redmine #	Subject	Priority
12720	PACS integration intermittent for both Radiologists and technicians	Urgent (next build)
12529	IW or CSH PACS integration - produces an error and crashes RIS	Urgent (next build)
12427	PACS images not synced with current report after timeout exceeded in eRAD RIS	Urgent (next build)
12552	RIS hang during exit	High
12530	eRAD PACS - Integration - if 2 studies are opened and both do not have images attached. RIS gets stalled until OK is clicked on "Invalid study file" message	Normal
12528	ERAD PACS - Integration - using the next workflow the 'Waiting for PACS' message times out when relevant studies to open is greater than 0	Normal
12495	PACS Integration - Waiting for PACS message, when Cancel is chosen get a "Thread was being aborted" message.	Normal
12428	When prompted "Action required in PACS" and you kill PACS, clicking OK to message should allow you to continue working in RIS without PACS.	Normal
10672	PACS Sync - Images can remain shown for previous patient when opening a report to sign off	Normal

eRAD RIS Server Update

Code Stream



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

eRAD RIS Server Update

Package Contents

 _ReleaseNotes	2/25/2016 4:30 PM
 ThickClient	2/25/2016 4:26 PM

Intended Audience

This document is created by the RIS Development team for the RadNet/eRAD RIS Implementation teams.

Who is affected

Build 45.1 installs. This server update must be applied to 45.1.6

eRAD RIS Server Update

eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
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, SSRS 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
44.5	1	2.44.5.1.30451(3GB)	2.44.0.0.26405	2.44.5.1.30451	2.44.5.1.30449	Gui.zip, Web Server, DB
44.5	2	2.44.5.2.30705(3GB)	2.44.0.0.26405	2.44.5.1.30705	2.44.5.1.30554	Gui.zip, Web Server, DB
45	-	2.45.0.0.29559(3GB)	2.45.0.0.26107	2.45.0.0.29559	2.45.0.0.29558	Full Version Release
45.1	-	2.45.1.0.30774(3GB)	2.45.0.0.26107	2.45.1.0.30774	2.45.1.0.30738	Gui.zip, Web Service, DB, SQLReporting, Questionnaire, Citrix support
45.1	1	2.45.1.1.31175(3GB)	2.45.0.0.26107	2.45.1.1.31175	2.45.1.1.31174	Gui.zip, Web Service, DB, SQLReporting, Questionnaire
45.1	2	2.45.1.1.31175(3GB)	2.45.0.0.26107	2.45.1.2.31378	2.45.1.1.31174	Web Service and Citrix Bridge
45.1	3	2.45.1.3.31452(3GB)	2.45.0.0.26107	2.45.1.3.31452	2.45.1.3.31369	GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge
45.1	4	2.45.1.4.31621(3GB)	2.45.0.0.26107	2.45.1.4.31621	2.45.1.4.31599	GUI.zip, Web Service, DB, Questionnaire and Citrix Bridge
45.1	5	2.45.1.5.31773(3GB)	2.45.0.0.26107	2.45.1.5.31773	2.45.1.5.31771	GUI.zip, Web Service, DB, Questionnaire
45.1	6	2.45.1.6.32070(3GB)	2.45.0.0.26107	2.45.1.6.32070	2.45.1.6.31936	GUI.zip, Web Service, DB, Questionnaire, Citrix Bridge
45.1	7	2.45.1.6.32070(3GB)	2.45.0.0.26107	2.45.1.6.32070	2.45.1.6.31936	Web Service for Wedge only. Version number of Wedge is 45.1.6.32614
45.1	8	2.45.1.8.33254(3GB)	2.45.0.0.26107	2.45.1.6.32070	2.45.1.6.31936	GUI.zip
45.1	9	2.45.1.9.33573(3GB)	2.45.0.0.26107	2.45.1.6.32070	2.45.1.6.31936	GUI.zip

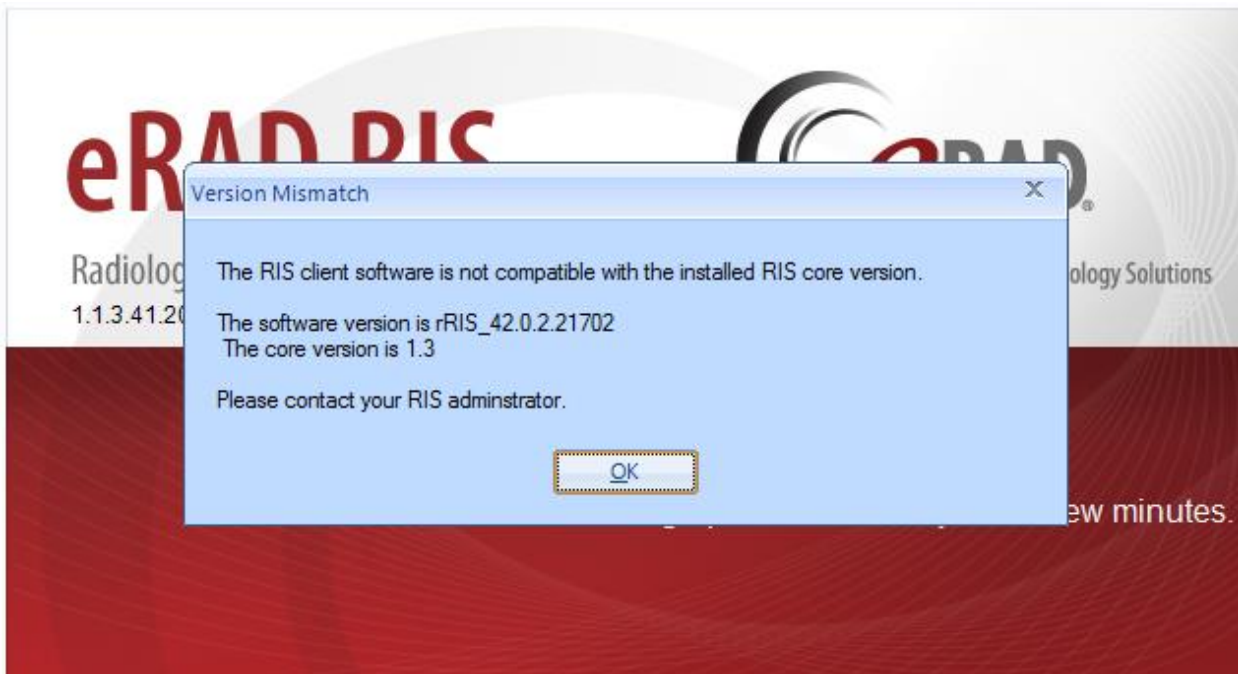
eRAD RIS Server Update

Installing

Client/GUI

- 1) Copy and replace the current rRIS...zip file with the rRIS_1.3.45.1.9.33573.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.



If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_45.1.9.33573 → rRIS_1.3.45.1.9.33573

NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

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