



eRAD RIS

# COMBINED CUSTOMER RELEASE NOTES

for versions 2.2017.1 through 3.2017.6.14

UPDATED MARCH 9, 2022

# SUMMARY

This document re-publishes the previously released Customer Release Notes for eRAD RIS versions 2.2017.1 through 2.2017.6.14 as a single document.

The following documents have been merged:

1. eRAD RIS Customer Release Notes 2.2017.1.0.pdf
2. eRAD RIS Customer Release Notes 2.2017.1.1.pdf
3. eRAD RIS Customer Release Notes 2.2017.1.10.pdf
4. eRAD RIS Customer Release Notes 2.2017.1.2.pdf
5. eRAD RIS Customer Release Notes 2.2017.1.3.pdf
6. eRAD RIS Customer Release Notes 2.2017.1.4.pdf
7. eRAD RIS Customer Release Notes 2.2017.1.6.pdf
8. eRAD RIS Customer Release Notes 2.2017.1.7.pdf
9. eRAD RIS Customer Release Notes 2.2017.1.8.pdf
10. eRAD RIS Customer Release Notes 2.2017.1.9.pdf
11. eRAD RIS Customer Release Notes 2.2017.1.pdf
12. eRAD RIS Customer Release Notes 2.2017.3.0.pdf
13. eRAD RIS Customer Release Notes 2.2017.3.1.pdf
14. eRAD RIS Customer Release Notes 2.2017.3.10.pdf
15. eRAD RIS Customer Release Notes 2.2017.3.2.2.pdf
16. eRAD RIS Customer Release Notes 2.2017.3.2.pdf
17. eRAD RIS Customer Release Notes 2.2017.3.3.pdf
18. eRAD RIS Customer Release Notes 2.2017.3.4.pdf
19. eRAD RIS Customer Release Notes 2.2017.3.5.pdf
20. eRAD RIS Customer Release Notes 2.2017.3.6.pdf
21. eRAD RIS Customer Release Notes 2.2017.3.7.pdf
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24. eRAD RIS Customer Release Notes 2.2017.3.pdf
25. eRAD RIS Customer Release Notes 3.2017.6.0.pdf
26. eRAD RIS Customer Release Notes 3.2017.6.1.pdf
27. eRAD RIS Customer Release Notes 3.2017.6.10.pdf
28. eRAD RIS Customer Release Notes 3.2017.6.11.1.pdf
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30. eRAD RIS Customer Release Notes 3.2017.6.12.pdf
31. eRAD RIS Customer Release Notes 3.2017.6.13.pdf
32. eRAD RIS Customer Release Notes 3.2017.6.14.pdf
33. eRAD RIS Customer Release Notes 3.2017.6.2.pdf
34. eRAD RIS Customer Release Notes 3.2017.6.3.pdf
35. eRAD RIS Customer Release Notes 3.2017.6.4.pdf
36. eRAD RIS Customer Release Notes 3.2017.6.5.pdf
37. eRAD RIS Customer Release Notes 3.2017.6.6.pdf
38. eRAD RIS Customer Release Notes 3.2017.6.7.pdf
39. eRAD RIS Customer Release Notes 3.2017.6.8.pdf
40. eRAD RIS Customer Release Notes 3.2017.6.9.pdf



# **Customer Release Notes**

for eRAD RIS

Version 2

Build 2017.1

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## PURPOSE

This is the Customer Release Notes document for eRAD RIS Version 2.2017.1.

Not every feature will be described in this document. Typically, only features which can be visually demonstrated are outlined here.

## INTENDED AUDIENCE

This document was created by the eRAD RIS Development team and Product Management team for eRAD RIS customers.

## NEW SETTINGS

### NEW ACCESS STRINGS

Setting	Default	Purpose
Config.LookupEditor.GenderIdentity	None	Look-up table access for Gender Identity
Config.LookupEditor.SexualOrientation	None	Look-up table access for Sexual Orientation
Config.LookupEditor.StudyUpdateResponseInclusions	None	Look-up table access for Study Update Response Inclusions access
Flag.ContrastRequested	Full	Access to see the flag for ContrastRequested
Flag.SedationRequired	Full	Access to see the flag for SedationRequired
View.FindingFollowup  Replaces  View.FindingsFollowup	None	Access to see the Finding Followup menu item from View menu (visible when dictate window is open)
View.Preset.Administration.PresetCriticalResult	None	Access to preset layout administration for Critical Results
View.PresetCriticalResult	Full	Access to see the main menu item View/LoadLayout.../Critical Results
WL.MyFolder		Removed duplicate access string. Remaining access string is WL.Folders.

### NEW SYSTEM CONFIGURATION SETTINGS

Setting	Default	Purpose
UMOpinionLetterReportPath  Replaces  AuthorizationLetterReportPath		(value = path and name)The path and name of the Opinion Letter for Utilization Management.
UMTrackingNumberPrefix  Replaces  AuthorizationPrefix		(value = string) A prefix that will be added to UM Tracking numbers for Utilization Management.
AddUseLocationFilterToWorklistSiteGroups	True	(value = True/False) Determines if the list of

		sites/site groups on some worklists will include an option to use the location filter.
AllowPeerReviewOnInactiveRads	True	Determines if a case read by a now inactive radiologist can be peer reviewed.
DaysToKeepImageRequestActive	0	(value = int) The number of days to keep a request on the Image Request Worklist before automatically cancelling it. It will be based on the scheduled date or the image request date whichever is greater. A value of 0 will disable the automatic cancellation.
DaysToKeepWedgeInboundMessages	7	(value = number) This value informs the nightly cleanup job how many days old a Wedge inbound message log entry must be before removing it.
DaysToKeepWedgePerformanceTraceLogs	3	(value = number) This value informs the nightly cleanup job how many days old a Wedge inbound or outbound performance log entry must be before removing it.
ExternalReportsOnPendingDictationWL	False	(value = Y/N) This value determines whether external report verification studies go to the Pending Dictation worklists. If False, they will go to the Pending Signature worklists. Changes to this setting only apply to new studies. A maintenance script exists for system administrators to back-fill existing studies.
PortalOpinionLetterUnavailableMessage  <b>REPLACES</b>  PortalAuthLetterUnAvailableMessage	This opinion letter is currently unavailable on the portal. Please contact the medical group to request the letter.	The message to display to the UM Connect portal user when the Utilization Management Opinion Letter is not available due to unexpected error (e.g. SSRS report server is unavailable or not configured).
PortalNoSelectedInsuranceDayPadding	5	(value = int) This value is used by Portal online scheduling to add days to the start search criteria to allow time to gather insurance information from the patient prior to the appointment when it is not entered at the time of scheduling.
WedgeDuplicateInboundMessagePrevention	False	(value = bool) If true, we will prevent two messages with the same unique ID from processing twice.

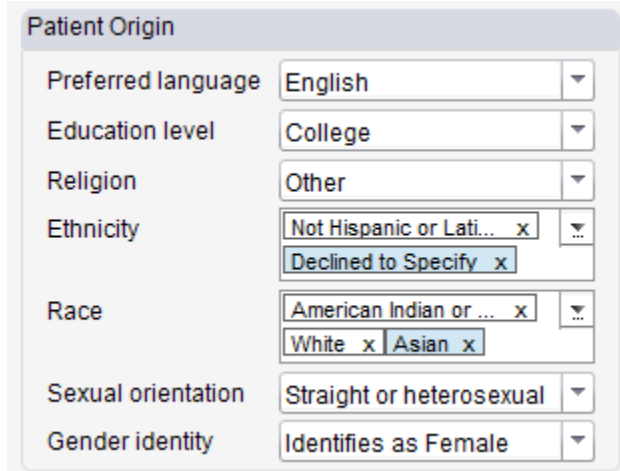
## NEW FEATURES

### SCHEDULING AND REGISTRATION

#### FEATURE #13650 – DEMOGRAPHIC UPDATES FOR PATIENT TAB

In preparation for the latest round of Certified Electronic Health Record Technology (CEHRT) certification, it was necessary to make some changes to the patient demographics on the Patient tab. The following changes have been made:

1. It is now possible to select more than one Ethnicity.
2. New fields have been added for *Sexual Orientation* and *Gender Identity*.



**Patient Origin**

Preferred language: English

Education level: College

Religion: Other

Ethnicity: Not Hispanic or Lati... x, Declined to Specify x

Race: American Indian or ... x, White x, Asian x

Sexual orientation: Straight or heterosexual

Gender identity: Identifies as Female

While it is required for certified electronic health technology to have the **ability** to collect the sexual orientation and gender identity information, it is likely that most customers will not wish to collect this data. Therefore, these new fields have been **hidden** by default. Please contact eRAD Support if you would like to make these fields visible.

When enabled, the *Sexual Orientation* and *Gender Identity* dropdown fields are populated by two new look-up tables.

Lookup Tables - SexualOrientation x

sex	Sexual Orientation Code	Description	Display Order	Snomed	Last Updated	Active
Contains:	Contains:	Contains:	Equals:	Equals:	Equals:	Contains:
Click here to add a new row						
	Heterosexual	Straight or heterosexual	1	20430005	11-07-2016 9:08 AM	Y
	Homosexual	Lesbian, gay, or homosexual	2	38628009	02-24-2017 12:26 AM	Y
	Bisexual	Bisexual	3	42035005	02-24-2017 12:26 AM	Y
	OTH	Something else	4		02-24-2017 12:26 AM	Y
	UNK	Don't know	5		02-24-2017 12:26 AM	Y
	Decline	Declined to answer	6		02-24-2017 12:26 AM	Y

Lookup Tables - GenderIdentity						
gen	Gender Identity Code	Description	Display Order	Snomed	Last Updated	Active
	Contains:	Contains:	Equals:	Equals:	Equals:	Contains:
	Click here to add a new row					
	F	Identifies as Female	1		11-07-2016 9:26 AM	Y
	M	Identifies as Male	1		11-07-2016 9:26 AM	Y
	TF	Male-to-Female (MTF)/Transgender Female	1	407376001	11-07-2016 10:21 AM	Y
	TM	Female-to-Male (FTM)/Transgender Male	1	407377005	11-07-2016 10:21 AM	Y
	Q	Genderqueer, neither exclusively male nor female	2		02-24-2017 12:30 AM	Y
	Other	Other	3		02-24-2017 12:30 AM	Y
	UNK	Don't know	4		02-24-2017 12:30 AM	Y
	Decline	Declined to answer	5		02-24-2017 12:30 AM	Y



## DIGITAL FORMS

## FEATURE #14828 – DIGITAL FORMS NOW SUPPORT GRIDS

Sometimes important patient information is stored in grids in eRAD RIS, such as the Contrast and Sedation grids.

**Contrast**

Name	Amount	Unit	Vials
Optiray 350	15	mL	1

Add Delete

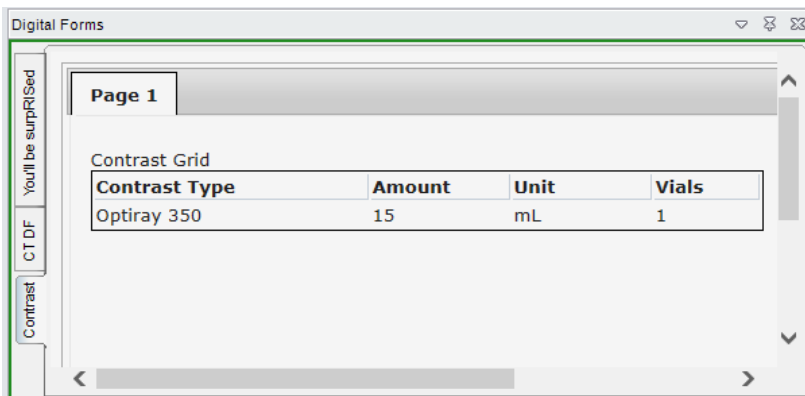
**Sedation**

Name	Amount	Unit
Ativan	200	test22

Add Delete

When this data is mapped into the diagnostic report, the information from this type of grid is visible to the radiologist. However, if there is information that is not mapped into the diagnostic report template or it is not part of the radiologist's workflow to view the report template when dictating, it was not previously possible for the radiologist to easily access this information.

To make it easier for radiologists to see data in a grid, it is now possible to create a grid inside a Digital Form that can be displayed to the radiologist. These grids can be set up by eRAD Support in the Digital Forms Editor. Once created, they can be configured to display in the eRAD RIS Reporting screen as read-only grids that auto-fill using the displayed study's data.



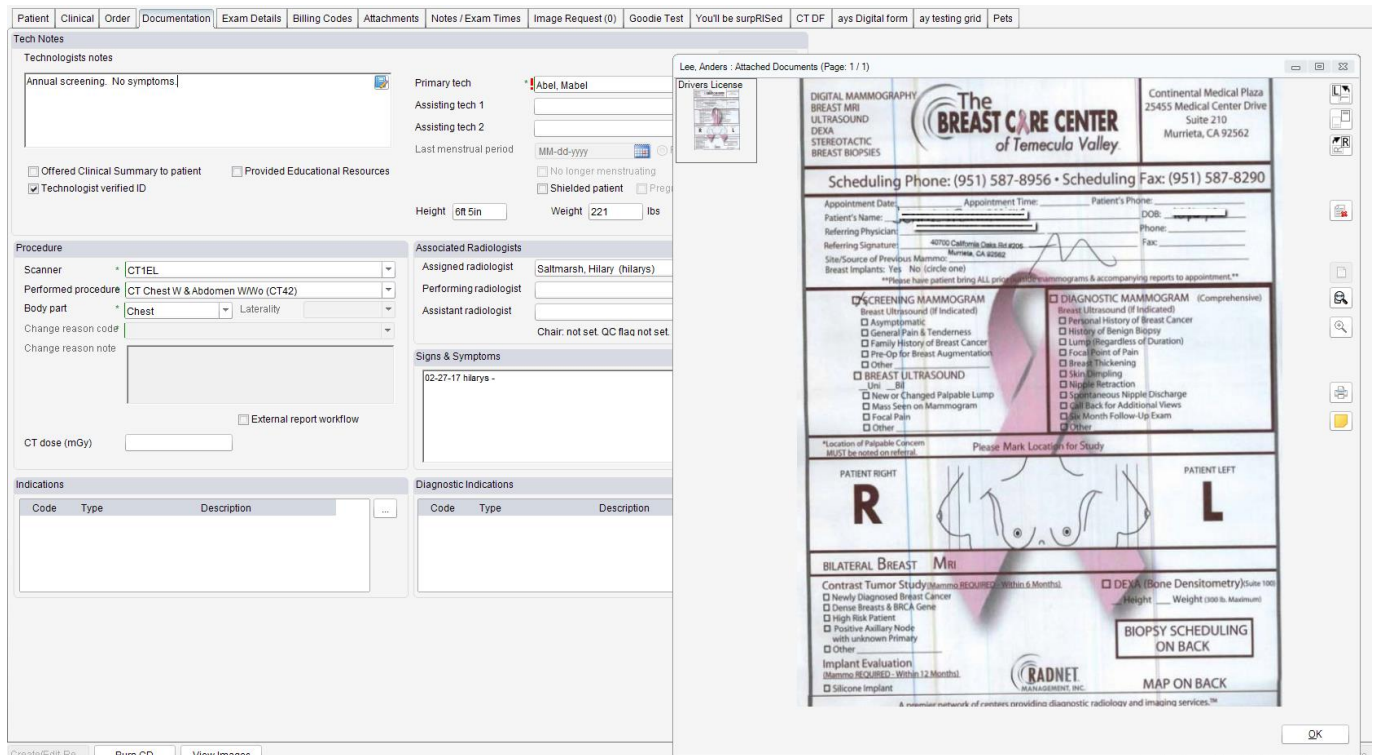
The screenshot shows the 'Digital Forms' editor interface. On the left, there is a sidebar with tabs labeled 'You'll be surprised', 'CT DF', and 'Contrast'. The main area displays 'Page 1' of a form. Inside the form, there is a section titled 'Contrast Grid' which contains a table with the following data:

Contrast Type	Amount	Unit	Vials
Optiray 350	15	mL	1

SCANNED DOCUMENTS

FEATURE #14545 – VIEW ATTACHMENTS ALONGSIDE RIS SCREENS WHILE ENTERING DATA

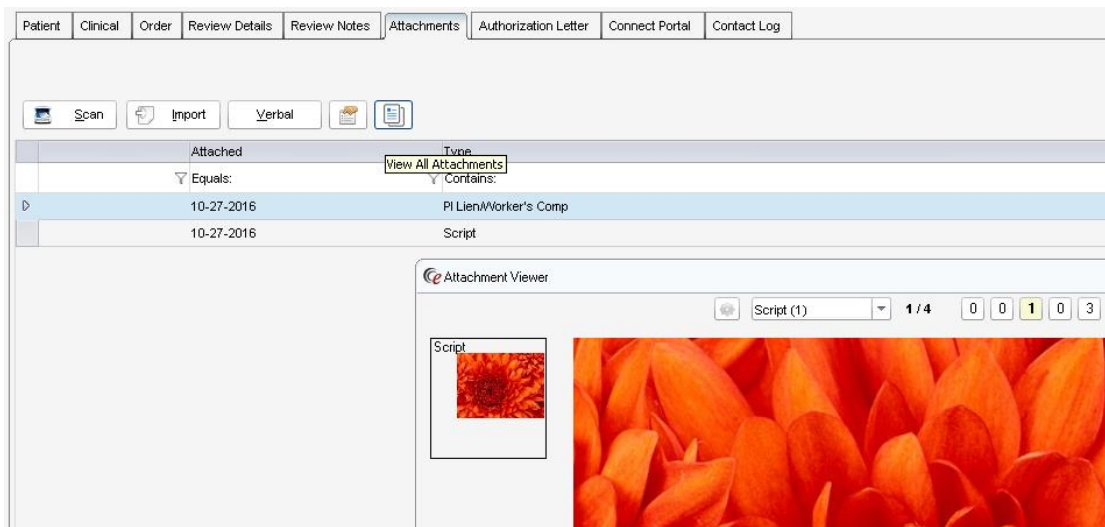
A new feature allows users to view an attachment in a floating window to facilitate data entry for the patient's exam. To open the floating attachment viewer, double click on the desired document in the Attachments tab. Once open, it is possible to re-size or re-position the viewer and then navigate between the sub-tabs for the selected patient.



The screenshot shows the eRAD interface with the 'Documentation' tab selected. A floating window titled 'Lee, Anders : Attached Documents (Page: 1 / 1)' is open, displaying a patient's mammography report from 'The BREAST CARE CENTER of Temecula Valley'. The report includes patient information, scheduling details, and a list of procedures performed, such as 'DIGITAL MAMMOGRAPHY', 'BREAST MRI', 'ULTRASOUND', 'DEXA', 'STEREOTACTIC', and 'BREAST BIOPSIES'. The report also features a diagram of a breast with markers for the study.

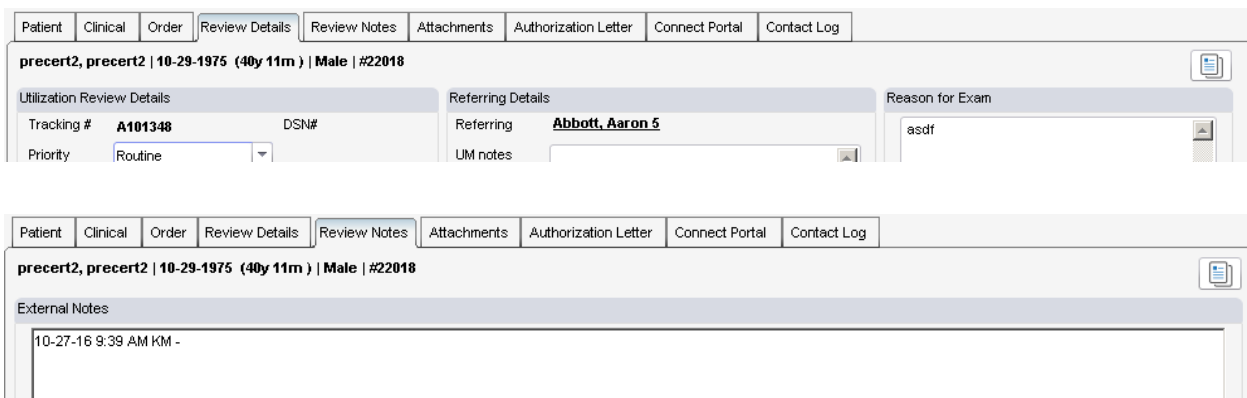
In the image above, the document is visible while entering data on the Documentation tab.

There is also a new button available on the Attachments screen which allows the user to open *all* of the patient's attachments: (📎) "View All Attachments."



This will open the same screen used by the Attachments data nugget from the Patient Folder. This viewer combines all of the patient's attachments, while also allowing the user to set preferences for which type of attachments to display and the preferred order, replicating the existing functionality used in the data nugget. When viewing attachments in this viewer, the content is read-only.

The *View All Attachments* icon is also available in the Utilization Management workflow: look for the icon on the "Review Details" and "Review Notes" tabs in the top right corner.



The floating attachment screen will remember its previous location; however, if it is partially off screen, the location will be ignored. This prevents a user from positioning the viewer almost completely off the screen, then not being able to see the screen when it is re-launched.

If new attachments are added while the *View All Attachments* viewer is open, it is necessary to close the screen and re-open it to see the new documents. If the button is clicked a second time and it is already open, the screen will close and re-open, refreshing its contents. When the button is clicked and there are no attachments, the user will receive a message that attachments are not available.

**February 28, 2017**

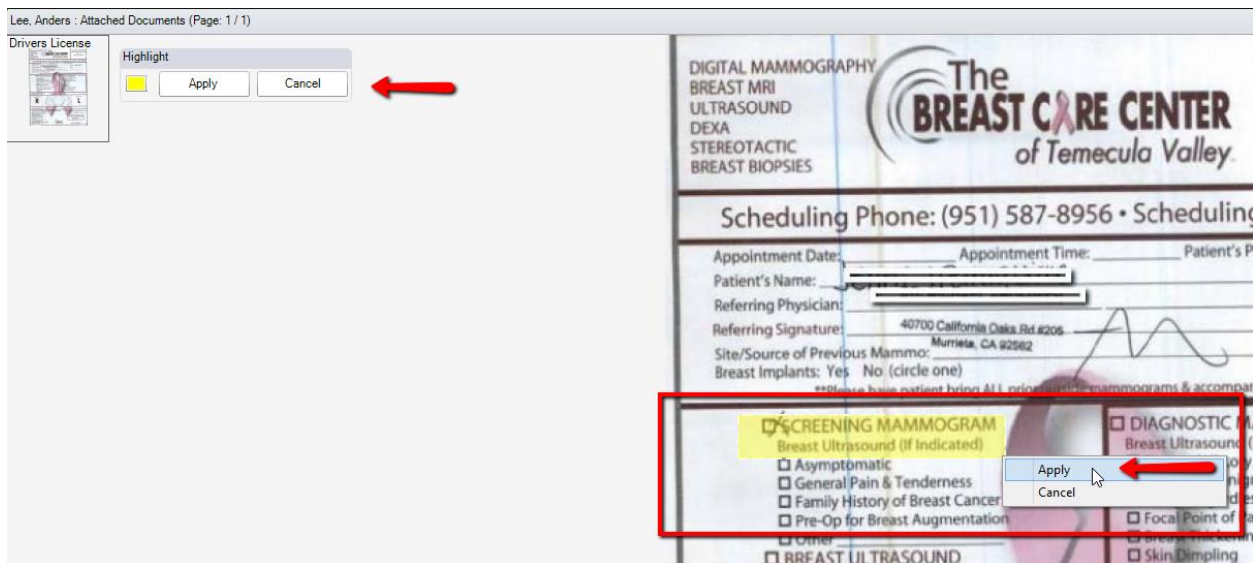
For both the Attachment Viewer and the [View All Attachments](#) viewer, navigating away from the selected patient will automatically close the viewer. This is done to minimize risk so that it is not possible to view one patient's attachments while entering data for a different patient.

Note: when launching via the Scan / Import buttons, it is not possible to float the document until it has been saved and re-opened from the Attachment tab.

## FEATURE #14996 – HIGHLIGHT AN AREA ON AN ATTACHMENT

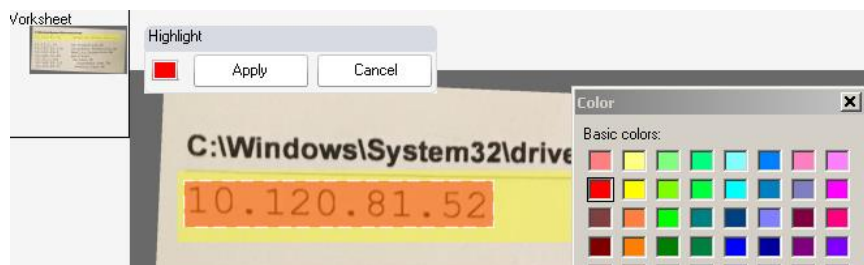
It is often helpful to be able to highlight a particular area of a scanned document, particularly for long documents such as clinical notes. Users now have the ability to highlight an area to make it easier to reference the attachment when communicating with radiologists or other RIS users (e.g. “see the pink highlighted text on page 9”).

The attachment viewer has been updated with a new right-click context menu called *Highlight*. With the document open, right-click and select Highlight. Then select an area of the attachment image by holding the left mouse button and dragging over the section to highlight. The color of the highlighted area can be modified by clicking on the color swatch displayed in the “Apply”/“Cancel” box. To complete the highlighting, the user must click on the “Apply” button or press the enter key.



When using the highlighting, cropping or straightening tools, as soon as the mouse button is released, a context menu to apply or cancel the operation is displayed nearby. Also, the user can simply click <enter> to apply.

In the following example, a second highlight was created with an alternate color.

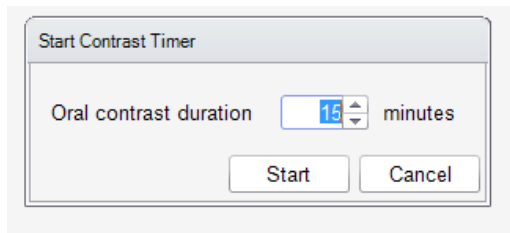


TECHNOLOGIST

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FEATURE #14568 – ADJUST THE DURATION OF CONTRAST TIMER FOR A PATIENT

Previously, the Contrast Timer could be started, stopped and re-started, but it was not possible to use an Oral Contrast Duration different than the default timer length for the selected procedure. To provide the ability to adjust the contrast timer duration for a particular patient, the user will be presented with a new dialog box when selecting the *Start Contrast Timer* option from the right-click menu.



The default Oral Contrast Duration (in minutes) for the procedure code will be provided to the user with the option to make adjustments as needed prior to clicking Start. The maximum duration possible is 5,000 minutes. To adjust the duration after starting, the user must stop the timer and start it again to make the change.

## RADIOLOGIST

### FEATURE #4123 – EXTERNAL REPORTS CAN NOW BE VERIFIED FROM PENDING DICTATION WL

Some customers who read studies with a different dictation system, outside of eRAD RIS, use the existing *External Report* workflow to allow a radiologist to verify the report created in the external system.

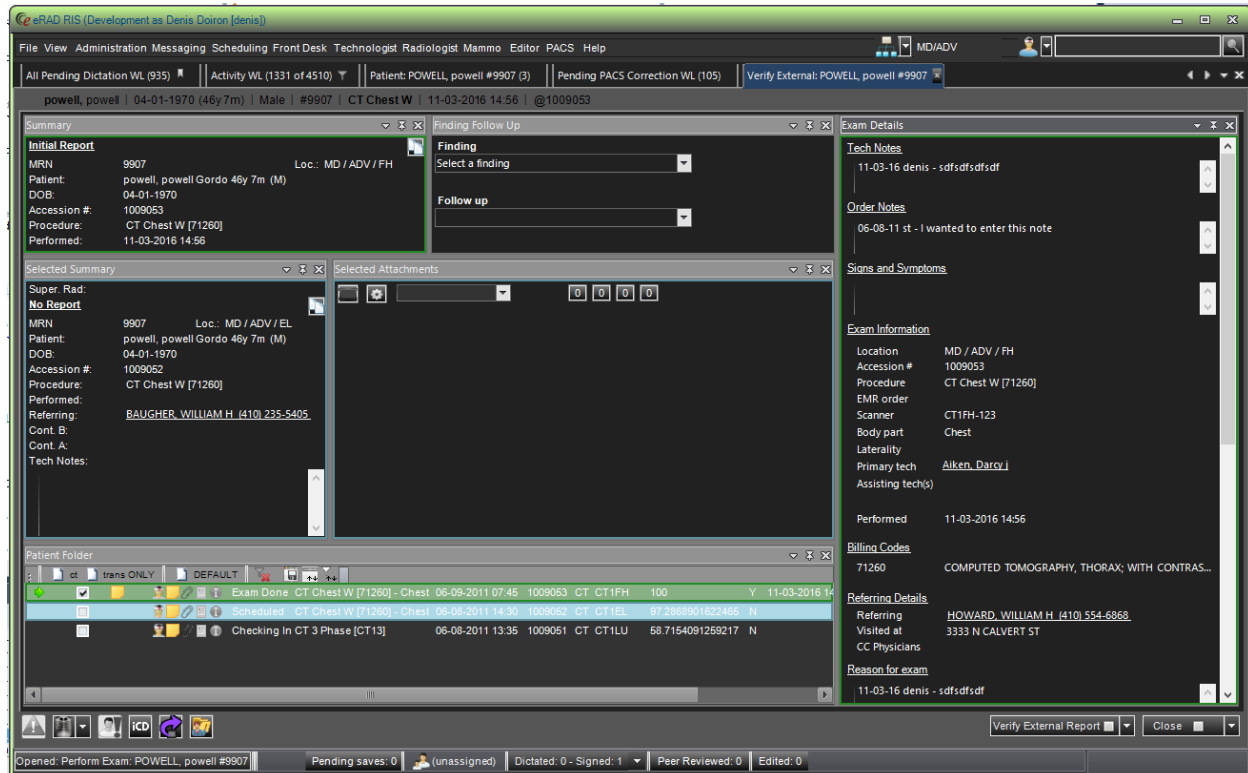
Previously, these studies would fall to the Pending Signature worklist. For External Reports, the screen that would open was a version of the View/Edit tab; from here, the radiologist would verify the report. However, radiologists have indicated that they would prefer to review these studies from the Pending Dictation WL, and would like to be able to access all of the information that they would see when dictating a report from within eRAD RIS, such as Digital Forms, attachments and prior reports.

In order to improve this workflow, two main changes have been made:

- There is a new System Configuration setting that will allow the studies to fall to the Pending Dictation WLs, instead of the Pending Signature WLs.
- The studies will now open in a Verify External screen that provides access to the reporting panels used for other reporting modes (Attachments, Digital Forms, etc.).

The new System Configuration setting is labeled *ExternalReportsOnPendingDictationWL*. The default is False, which means that by default, the external reports will continue to fall to the Pending Signature WLs. Change to True to move these to the Pending Dictation WLs. If this is done, only new studies will fall to the Pending Dictation WL; any outstanding external reports that were already on the Pending Signature WL will have to be reviewed there by using the right-click option to open Verify External. A script has been created to move any old studies at the time that this change is made. If your organization would like to change to using Pending Dictation for Verify External studies, please let eRAD Support know that you would like the script to be run.

For either worklist, the resulting screen will now look similar to the normal dictating screen, but with the Verify External Report button instead of Submit/Sign.



The screenshot displays the eRAD RIS interface with the following panels and data:

- Summary Panel:**
  - MRN: 9907
  - Patient: powell, powell Gordo 46y 7m (M)
  - DOB: 04-01-1970
  - Accession #: 1009053
  - Procedure: CT Chest W [71260]
  - Performed: 11-03-2016 14:56
- Selected Summary Panel:**
  - Super. Rad: No Report
  - MRN: 9907
  - Patient: powell, powell Gordo 46y 7m (M)
  - DOB: 04-01-1970
  - Accession #: 1009052
  - Procedure: CT Chest W [71260]
  - Performed: BAUGHER, WILLIAM H (410) 235-5405
  - Referring: Cont B
  - Cont A:
  - Tech Notes:
- Exam Details Panel:**
  - Tech Notes:** 11-03-16 denis - sdfdsdfsdf
  - Order Notes:** 06-08-11 st - I wanted to enter this note
  - Signs and Symptoms:**
  - Exam Information:**
    - Location: MD / ADV / FH
    - Accession #: 1009053
    - Procedure: CT Chest W [71260]
    - EMR order:
    - Scanner: CT1FH-123
    - Body part: Chest
    - Laterality:
    - Primary tech: Aiken, Darci J
    - Assisting tech(s):
    - Performed: 11-03-2016 14:56
  - Billing Codes:**
    - 71260 COMPUTED TOMOGRAPHY, THORAX; WITH CONTRAS...
  - Referring Details:**
    - Referring: HOWARD, WILLIAM H (410) 554-6868
    - Visited at: 3333 N CALVERT ST
    - CC Physicians:
    - Reason for exam:** 11-03-16 denis - sdfdsdfsdf
- Patient Folder Panel:**

Exam Done	CT Chest W [71260]	Chest	06-09-2011 07:45	1009053	CT CT1FH	100	Y	11-03-2016
Scheduled	CT Chest W [71260]	Chest	06-08-2011 14:30	1009052	CT CT1EL	97 2658901822465	N	
Checking In	CT 3 Phase [CT13]		06-08-2011 13:35	1009051	CT CT1LU	58 7154091259217	N	
- Status Bar:**
  - Opened: Perform Exam: POWELL, powell #9907
  - Pending saves: 0
  - (unassigned)
  - Dictated: 0 - Signed: 1
  - Peer Reviewed: 0
  - Edited: 0

Panels can be rearranged according to the user's preference, as with normal dictation/signing.



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## FEATURE #15097 – DISABLE PEER REVIEW BUTTON FOR INACTIVE RADIOLOGISTS

When a radiologist account is deactivated in eRAD RIS, some customers prefer that active radiologists should not be able to perform Peer Reviews for the inactive radiologist's prior studies.

To accommodate for this, there is a new System Configuration setting called *AllowPeerReviewOnInactiveRads*. The default is True, which will maintain the existing functionality after upgrading. To prevent Peer Reviews for inactive radiologists, set the System Configuration to False.

When set to False, radiologists will no longer see the Peer Review button on prior studies that were signed by a radiologist who has since been marked as inactive.

## IMAGE REQUEST WORKFLOW

### FEATURE #15109 – AUTOMATICALLY CANCEL IMAGE REQUESTS THAT ARE NOT RESOLVED WITHIN A DEFINED TIME FRAME

Some customers have found that their Image Request worklists can grow to be larger than desired due to patients who neglect to pick up their images. There is now a system configuration setting of *DaysToKeepImageRequestActive*. By default, the value will be set to 0, which means that the feature is turned off and items will remain on the Image Request WL until they are manually resolved. To turn on the feature, enter the number of days that the Image Request should remain on the worklist. If 60 is entered, any Image Requests that are in a Pending or Ready status with a Requested Date that is more than 60 days old will be cancelled. If the request is made **prior** to the patient's appointment, the number of days will be applied to the Scheduled Date instead of the Requested Date.

Cancelled Image Requests will fall off of the Image Request WL, but will still be visible in the Previous Requests section for the patient.

Date	Req. By	Source	Format	Delivery	Status	Req. ID
11/19/2015 08:59	Test	Other	CD	Courier	Cancelled	1002

**Requested By**

☐ Patient
 ☐ Referring
 ☐ Other doctor
 ☒ Other

Doctor

Location

Name \*

Organization

Phone Number  ( ) -

**Details**

Requesting site: \*

Format \*

Notes

Delivery method \*

Delivery Instructions

**Deliver To / Pickup By**

☐ Patient
 ☐ Referring
 ☐ Other doctor
 ☒ Other

☒ Copy requested by

Doctor

Location

Prefix  Suffix

First name \*

Last name \*

Address

City

State

Country  Zip

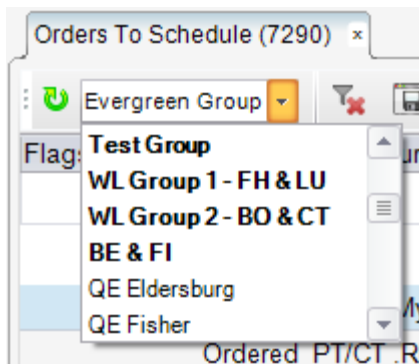
Phone Number  ( ) -

## GENERAL WORKLIST ENHANCEMENTS

### FEATURES #15106, 14587, 15226, 15427 – ALLOW FILTERING OF ADDITIONAL WORKLISTS BY SITE GROUP

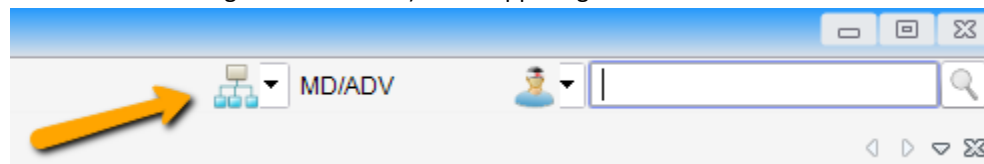
Site Groups, an existing feature, allow a RIS Administrator to create custom groupings of sites that are relevant for workflow purposes. In a previous build, 2016.2, a new strategy was implemented for filtering the IVT WL by *Site Group*, using a Site Group Type Code of *IVT Team*. One goal of this feature was to improve worklist performance by reducing the need for users to view an entire Practice when only a small number of sites were pertinent. Another benefit of being able to filter worklist content by Site Group is the ability to see data from sites that might span across multiple practices.

Now eRAD RIS has extended this framework to other worklists. As with the IVT WL, a dropdown list will be available to select a Site Group (shown at the top of the list in Bold) or an individual Site.



The Site Group options in the list are driven by the following circumstances:

- At least one site in the Site Group must belong to the Practice selected in the RIS Location Filter (sometimes known as the Organization Picker) in the upper right-hand corner of RIS.



- Only the Site Groups that contain the currently selected site or at least one site from within the currently selected practice will be included.
  - Note that the list of sites and Site Groups will change as the user changes their selection in the Location Filter. The user's selected site or Site Group for each worklist will be reloaded from one login session to the next, so that users will only have to select their option once, unless their role requires them to switch between multiple site groups routinely.
  - If a user does not see a Site Group that is expected in the list, make sure that the RIS Location Filter is set to a Practice or Site that is included in the Site Group.
- If a Site Group contains sites across multiple Practices, the current user must have access to all Practices in order for that Site Group to appear in the list.

Only specific types of Site Groups are available in the dropdowns. There are two new Site Group Type Codes:

- **WORKLIST GROUP** – Use this to create Site Groups that will be available on all applicable worklists except those controlled by the Radiologist Worklist Group described below.
  - Orders to Schedule
  - No Show
  - Closed Rooms Reschedule
  - Confirmation
  - IVT
  - Activity
  - Labwork
  - Patient Merge Requests
  - Unknown Reconciliation
  - Pending PACS Correction
  - Pending Biopsy Result
  - Billing Exception
  - Billing Confirmation
  - Image Request
  - Distribution
  - Distribution History
  - Mammo Follow-up Orders
  - Mammo Letters
  - ACR Category 0 Follow-up
  - ACR Category 4/5 Follow-up
- **RADIOLOGIST WORKLIST GROUP** – Use this to create Site Groups that will be available on worklists used by radiologists and editors.
  - All worklists under the Radiologist menu
  - All worklists under the Editor menu

These Site Group Type Codes are assigned by the RIS Administrator in the Site Group table.

Lookup Tables - SiteGroup \* x

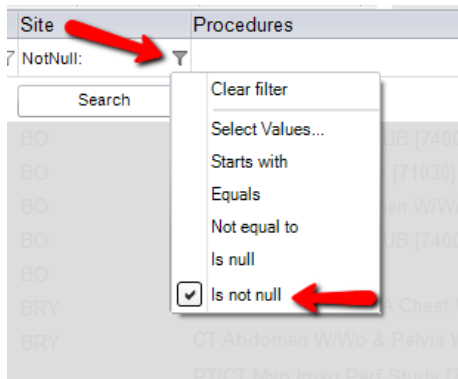
Site Group Code	Description	Display Order	Practice Code	Site Group Type Code	La
Contains:	Contains:	Equals:	Contains:	Contains:	Contains:
Click here to add a new row					
▶ Evergreen	Evergreen Group	1		Worklist Group	02
▶ PEI	PEI Service Area	1	PEI TEST SYSTEM	Patient Portal	01
▶ Rad_Group2	RAD WL Group 2 - BO & CT	1	Advanced Radiology	Radiologist Worklist Group	12
▶ WL_Group2	WL Group 2 - BO & CT	1	Advanced Radiology	Worklist Group	12
▶ WL_Group1	WL Group 1 - FH & LU	1	Advanced Radiology	KBI Reporting	12
▶ Rad_Group1	RAD WL Group 1 - FH & EL	1	Advanced Radiology	Patient Portal	12
▶ PEI_FH	PEI & FH	1	Advanced Radiology	Rad Reading Group	08
▶ LU_FH_EL	LU   FH   EL	1	Advanced Radiology	RIS Schedule	08
▶ BE_FI	BE & FI	4		Worklist Group	07
▶ RF   LU	RF & LU	1	Advanced Radiology	Radiologist Worklist Group	08
				Worklist Group	05

Site Groups must have one of these two Type Group codes in order to be available from the applicable worklist. The previously created “IVT Team” Site Group Type is now incorporated into the general Worklist Group category. Any Site Groups that have been created as “IVT Team” will be converted to the Worklist Group Site Group Type as part of the upgrade.

In an effort to eliminate any confusion when the upgrade is applied, the default option in the new worklist filter will be *Use Location Filter* which will maintain the same behavior from previous builds: the worklist contents will be controlled only by the main Location Filter and no Site Group filtering will be applied until the user makes a different selection from the dropdown to use a particular Site Group filter.

If it is desirable to remove this option after implementing worklist Site Groups, it is possible to remove the *Use Location Filter* option by changing the System Configuration setting *AddUseLocationFilterToWorklistSiteGroups* to False.

If there are any worklist items for the Practice in the Location Filter that do **not** have a Site assigned, those will also be included on the worklist. This is done to prevent studies without a location from being forgotten. It is possible to hide these by creating a Custom View on the worklist, with a filter of “Is not null” on the Site column. This will hide any worklist items without an assigned Site.



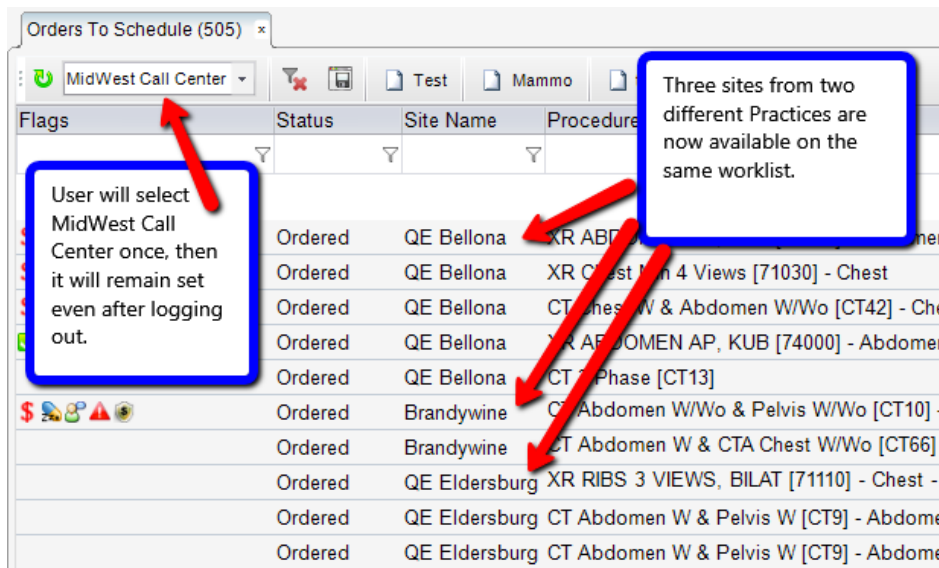
An example may help in understanding how to take advantage of this feature. Imagine there is an organization with two practices: Red Radiology and Blue Radiology. Each practice consists of 15 sites. MidWest Call Center is responsible for scheduling at three of those sites: two from Red Radiology and one from Blue Radiology. The staff would like to view all five sites on the Orders to Schedule WL at the same time. To allow this, the RIS Administrator will create a Site Group called MidWest Call Center. The Site Group Type Code will be Worklist Group. Each of the 3 desired sites will be associated to the new Site Group. In the image below, the first site, Brandywine, has been attached.

Remember to click the arrow and add all of the sites to be included in the Site Group.

Site Group Code	Description	Display Order	Practice Code	Site Group Type Code	Last Updated	Active
Contains:	Contains:	Equals:	Contains:	Contains:	Equals:	Contains: Y
Click here to add a new row						
MidWest Call Center	MidWest Call Center	1		Worklist Group		Y
Site Group Code	Site Code					
MidWest Call Center	Brandywine					
Click here to add a new row						

February 28, 2017

Now that the MidWest Call Center Site Group has been created, the Call Center scheduler can open the Orders to Schedule WL, select the MidWest Call Center option, and see all three sites on the worklist.



The screenshot shows the 'Orders To Schedule (505)' window. A dropdown menu at the top left is set to 'MidWest Call Center'. A table below lists orders with columns for Flags, Status, Site Name, and Procedure. Annotations with red arrows point to the dropdown and the table rows.

**Annotations:**

- Left Annotation:** User will select MidWest Call Center once, then it will remain set even after logging out.
- Right Annotation:** Three sites from two different Practices are now available on the same worklist.

Flags	Status	Site Name	Procedure
	Ordered	QE Bellona	XR ABDOMEN AP, KUB [74000] - Abdomen
	Ordered	QE Bellona	XR Chest With 4 Views [71030] - Chest
	Ordered	QE Bellona	CT Chest W & Abdomen W/Wo [CT42] - Chest
	Ordered	QE Bellona	CT Phase [CT13]
	Ordered	Brandywine	CT Abdomen W/Wo & Pelvis W/Wo [CT10] - Abdomen
	Ordered	Brandywine	CT Abdomen W & CTA Chest W/Wo [CT66] - Abdomen
	Ordered	QE Eldersburg	XR RIBS 3 VIEWS, BILAT [71110] - Chest
	Ordered	QE Eldersburg	CT Abdomen W & Pelvis W [CT9] - Abdomen
	Ordered	QE Eldersburg	CT Abdomen W & Pelvis W [CT9] - Abdomen

---

**FEATURE #14961 - UM PRIORITY COLUMN AVAILABLE ON ORDERS TO SCHEDULE WORKLIST**

For customers using Utilization Management functionality, the UM Priority is now available as a column on the Orders to Schedule WL. This will allow users to sort and filter based on the UM Priority.

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**FEATURE #15361 – NEW COLUMN AVAILABLE ON TECHNOLOGIST WL TO DISPLAY TIME OF CONTRAST INJECTION**

In some organizations, contrast injections are performed by a doctor instead of the technologist performing the scan. There is an existing workflow in eRAD RIS to accommodate the doctor “signing” the injection. For those using this workflow, an *Injected* column is now available on the Technologist worklist to display the time the injection was signed.

## INTERFACING

### FEATURE #14747 – EXTERNAL INTERFACE CAN NOW RETURN VALUES FOR SCHEDULE MESSAGE

To enhance workflow when an external scheduling system utilizes the RIS Scheduling engine, the External Interface Service (Wedge) now provides a new web method (similar to the StudyUpdate method) that returns information regarding the study or studies that were created or updated. Please contact eRAD Support to learn more about this functionality if applicable.



## MANAGEMENT REPORTS

### FEATURE #14511 – MANAGEMENT REPORTS AND DASHBOARDS FOR UTILIZATION MANAGEMENT

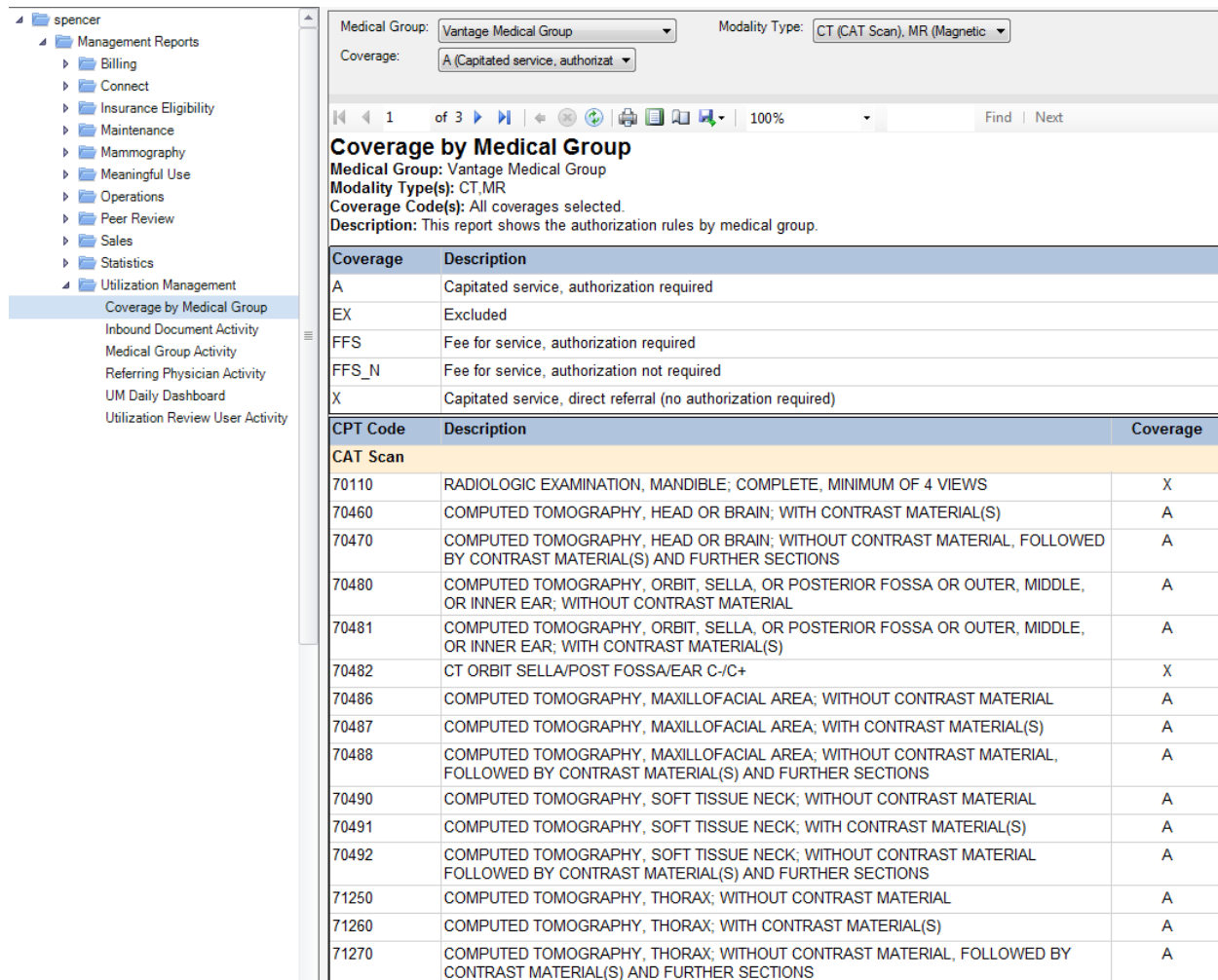
A collection of management reports for tracking statistics relevant to the new Utilization Management functionality in eRAD RIS is now available.

A new core folder called Utilization Management has been added to the Management Report structure in eRAD RIS. The following reports were added to the Utilization Management folder:

- **Coverage by Medical Group** – This will allow the user to select a Medical Group, Modality Type, and Coverage Type. In other words, it is a means to run a report against the UM authorization rules (matrices).
- **Inbound Document Activity** – This report will allow the user to select a date range and receive the following information:
  - The number of documents not processed and the average age in hours.
  - The number of documents discarded, sorted by reason (e.g. Junk Mail, Duplicate, etc.).
  - The number of documents processed by data entry user.
  - A breakdown of incoming vs processed documents by hour of day.
- **Medical Group Activity** – This report will allow the user to select a date range and get a listing of all medical group activity that required utilization review and are in a final UM status for the period:
  - A breakdown of STAT, Urgent, and Routine.
  - Total procedure count, average turnaround hours, and percent compliant.
  - Drill down capabilities from UM Status such as Recommended all the way down to Modality Type (CT, MR, etc.).
- **Referring Physician Activity** – This report will allow the user to select a date range and get a listing of all referring physician activity that required utilization review and are in a final UM status for the period:
  - A breakdown of STAT, Urgent, and Routine.
  - Total procedure count, average turnaround hours, and percent compliant.
  - Drill down capabilities from UM Status such as Recommended all the way down to Modality Type (CT, MR, etc.).
- **Utilization Review User Activity** – This report will allow the user to select a date range and get the following information:
  - A listing of all the reviewers who finalized an authorization request during the period.
  - Average hours to final status and percent of total.
  - Ability to drill-down to see the UM Statuses such as Recommended As Requested.
- **UM Daily Dashboard** – This report is limited to one day's activity and would typically be scheduled and distributed to the UM management team. It contains the following information:
  - Number of unprocessed inbound documents in the data entry queue.
  - Breakdown of the reviewer queue by priority and status.
  - Finalized procedure count by priority and status.
  - Finalized procedure count broken down by average turnaround time.
  - Finalized procedure seven day trend bar chart.
  - Breakdown of procedure count by Modality Type.

- Breakdown of procedure count by medical group.
- Top ten referring physician procedure count.

See below for examples of the management reports.



The screenshot displays the eRAD Management Reports interface. On the left, a navigation tree shows various report categories under 'spencer', with 'Utilization Management' and 'Coverage by Medical Group' selected. The main panel shows the 'Coverage by Medical Group' report for 'Vantage Medical Group'. The report filters are set to 'Modality Type: CT (CAT Scan), MR (Magnetic)' and 'Coverage: A (Capitated service, authorization required)'. The report title is 'Coverage by Medical Group' and it includes a description: 'This report shows the authorization rules by medical group.' The report contains two tables: one for 'Coverage' and one for 'CPT Code'.

Coverage	Description
A	Capitated service, authorization required
EX	Excluded
FFS	Fee for service, authorization required
FFS_N	Fee for service, authorization not required
X	Capitated service, direct referral (no authorization required)

CPT Code	Description	Coverage
<b>CAT Scan</b>		
70110	RADIOLOGIC EXAMINATION, MANDIBLE; COMPLETE, MINIMUM OF 4 VIEWS	X
70460	COMPUTED TOMOGRAPHY, HEAD OR BRAIN; WITH CONTRAST MATERIAL(S)	A
70470	COMPUTED TOMOGRAPHY, HEAD OR BRAIN; WITHOUT CONTRAST MATERIAL, FOLLOWED BY CONTRAST MATERIAL(S) AND FURTHER SECTIONS	A
70480	COMPUTED TOMOGRAPHY, ORBIT, SELLA, OR POSTERIOR FOSSA OR OUTER, MIDDLE, OR INNER EAR; WITHOUT CONTRAST MATERIAL	A
70481	COMPUTED TOMOGRAPHY, ORBIT, SELLA, OR POSTERIOR FOSSA OR OUTER, MIDDLE, OR INNER EAR; WITH CONTRAST MATERIAL(S)	A
70482	CT ORBIT SELLA/POST FOSSA/EAR C-/C+	X
70486	COMPUTED TOMOGRAPHY, MAXILLOFACIAL AREA; WITHOUT CONTRAST MATERIAL	A
70487	COMPUTED TOMOGRAPHY, MAXILLOFACIAL AREA; WITH CONTRAST MATERIAL(S)	A
70488	COMPUTED TOMOGRAPHY, MAXILLOFACIAL AREA; WITHOUT CONTRAST MATERIAL, FOLLOWED BY CONTRAST MATERIAL(S) AND FURTHER SECTIONS	A
70490	COMPUTED TOMOGRAPHY, SOFT TISSUE NECK; WITHOUT CONTRAST MATERIAL	A
70491	COMPUTED TOMOGRAPHY, SOFT TISSUE NECK; WITH CONTRAST MATERIAL(S)	A
70492	COMPUTED TOMOGRAPHY, SOFT TISSUE NECK; WITHOUT CONTRAST MATERIAL FOLLOWED BY CONTRAST MATERIAL(S) AND FURTHER SECTIONS	A
71250	COMPUTED TOMOGRAPHY, THORAX; WITHOUT CONTRAST MATERIAL	A
71260	COMPUTED TOMOGRAPHY, THORAX; WITH CONTRAST MATERIAL(S)	A
71270	COMPUTED TOMOGRAPHY, THORAX; WITHOUT CONTRAST MATERIAL, FOLLOWED BY CONTRAST MATERIAL(S) AND FURTHER SECTIONS	A

Figure 1 – Coverage by Medical Group Management Report

## Inbound Document Activity

Date Range: 08-27-2016 - 11-25-2016

Description: This report shows a breakdown of inbound document activity based on processed date.

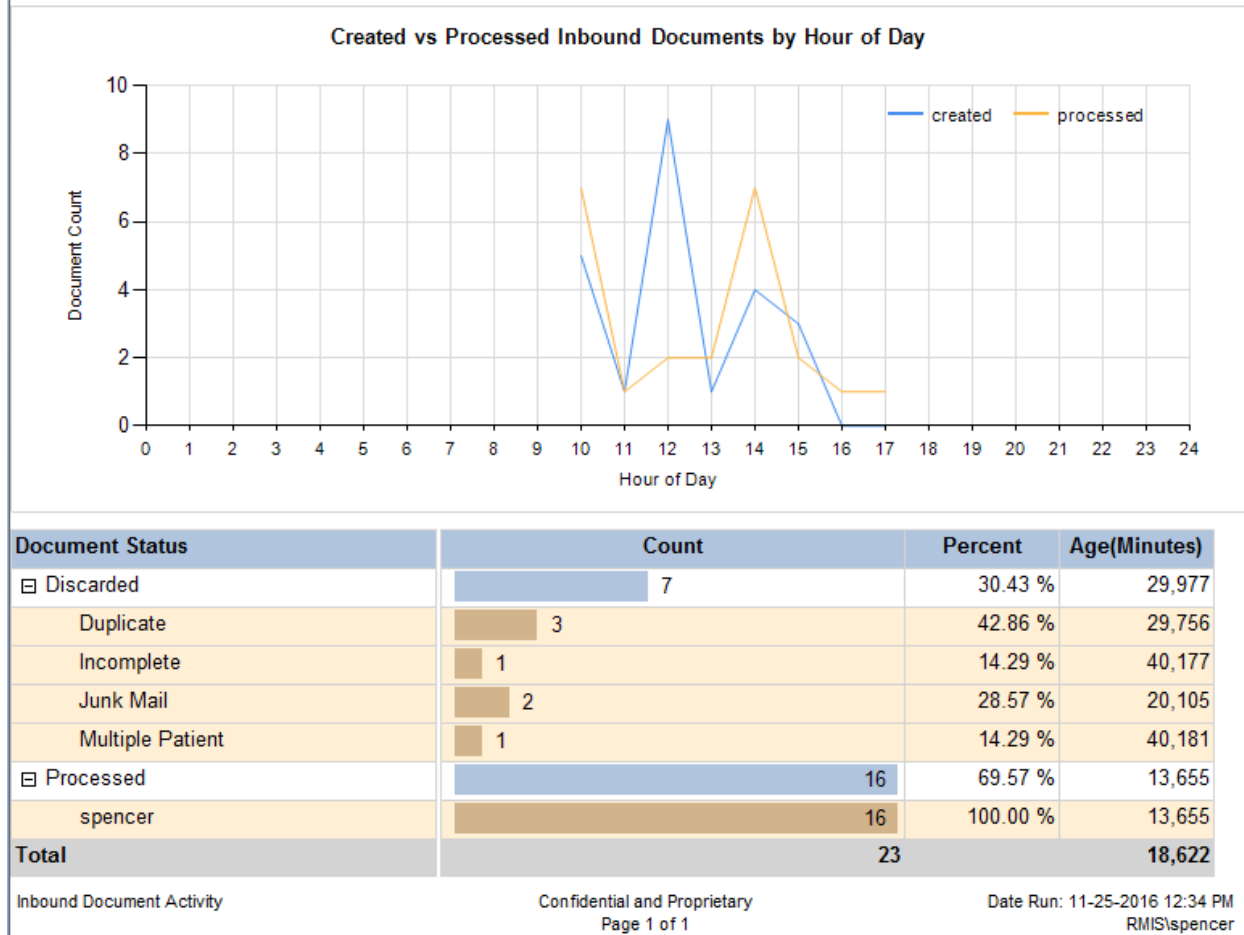


Figure 2 – Inbound Document Activity Management Report

### Medical Group Activity

Date Range: 01-01-2016 - 11-24-2016

Description: This report shows procedure count by medical group categorized by review priority, average turnaround time, and the percentage of reviews completed with the time allotted.

Medical Group	STAT			Urgent			Routine			Total		
	Count	Hours	Comp	Count	Hours	Comp	Count	Hours	Comp	Count	Hours	Comp
<input type="checkbox"/> Choice							1	1	100 %	1	1	100 %
<input type="checkbox"/> Prospect Medical Group							1	135	0 %	1	135	0 %
<input type="checkbox"/> Regal Medical Group							5	1	100 %	5	1	100 %
<input type="checkbox"/> Received							2	0	100 %	2	0	100 %
<input type="checkbox"/> Recommended							3	1	100 %	3	1	100 %
<input type="checkbox"/> As Added Exam							1	1	100 %	1	1	100 %
<input type="checkbox"/> As Alternative							1	1	100 %	1	1	100 %
<b>MRI and MRA</b>							1	1	100 %	1	1	100 %
<input type="checkbox"/> As Requested							1	1	100 %	1	1	100 %
<input type="checkbox"/> Riverside Physician Network				3	1	100 %				3	1	100 %
<input type="checkbox"/> Seaview IPA	2	25	100 %	7	79	71 %	23	4	91 %	32	21	88 %
<input type="checkbox"/> Vantage Medical Group	21	0	100 %	52	35	75 %	217	20	88 %	290	21	87 %
<b>Total</b>	<b>23</b>	<b>2</b>	<b>100 %</b>	<b>62</b>	<b>38</b>	<b>76 %</b>	<b>247</b>	<b>19</b>	<b>88 %</b>	<b>332</b>	<b>21</b>	<b>87 %</b>

Medical Group Activity

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Date Run: 11-24-2016 2:53 PM  
SpencerLaptp-HPFormsGuestUser

Figure 3 – Medical Group Activity Management Report

### Referring Physician Activity

Date Range: 01-01-2016 - 11-24-2016

Description: This report shows utilization management procedure counts by referring physician categorized by review priority, average turnaround time, and the percentage of reviews completed with the time allotted.

Referring Physician	STAT			Urgent			Routine			Total		
	Count	Hours	Comp	Count	Hours	Comp	Count	Hours	Comp	Count	Hours	Comp
<input type="checkbox"/> Abbott, Alberto3 24490							8	10	88 %	8	10	88 %
<input type="checkbox"/> Not Recommended							2	0	100 %	2	0	100 %
<input type="checkbox"/> Recommended							5	16	80 %	5	16	80 %
<input type="checkbox"/> As Requested							5	16	80 %	5	16	80 %
<b>Diagnostic CT</b>							4	20	75 %	4	20	75 %
<b>MRI and MRA</b>							1	0	100 %	1	0	100 %
<input type="checkbox"/> Withdrawn							1	0	100 %	1	0	100 %
<input type="checkbox"/> James, Alfred0 88052							1	1	100 %	1	1	100 %
<input type="checkbox"/> Jefferson, Abraham6 45231							3	55	67 %	3	55	67 %
<input type="checkbox"/> Jones, Aimee 04700							2	68	50 %	2	68	50 %
<input type="checkbox"/> Jones, Allan 64317							2	0	100 %	2	0	100 %
<input type="checkbox"/> Jones, Artur 12418							1	0	100 %	1	0	100 %
<input type="checkbox"/> ref, test							1	0	100 %	1	0	100 %
<input type="checkbox"/> Refer, Self							3	0	100 %	3	0	100 %
<input type="checkbox"/> Smith, Alfons	14	4	100 %	47	48	70 %	186	21	89 %	247	25	86 %
<input type="checkbox"/> Smith, Alliso 97245				3	1	100 %	4	1	100 %	7	1	100 %
<input type="checkbox"/> Smith, Amelia0 89165							4	1	100 %	4	1	100 %
<input type="checkbox"/> Smith, Bobbie 46382	9	0	100 %	12	7	92 %	27	8	85 %	48	6	90 %
<input type="checkbox"/> Williams, Alexis 24384							5	25	60 %	5	25	60 %
<b>Total</b>	<b>23</b>	<b>2</b>	<b>100 %</b>	<b>62</b>	<b>38</b>	<b>76 %</b>	<b>247</b>	<b>19</b>	<b>88 %</b>	<b>332</b>	<b>21</b>	<b>87 %</b>

Referring Physician Activity

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Date Run: 11-24-2016 2:55 PM  
SpencerLaptp-HPFormsGuestUser

Figure 4 – Referring Physician Activity Management Report

### Utilization Review User Activity

Date Range: 01-01-2016 - 11-24-2016

Description: This report shows utilization review procedure count by reviewer.

Review Finalized By	Proc Count	Avg Hours	% of Total
<input type="checkbox"/> MacDougall, Spencer	243	30	99.18 %
<input type="checkbox"/> MD Review	1	1	0.41 %
<input type="checkbox"/> Not Recommended	50	18	20.58 %
Medical Necessity Not Established	43	17	86.00 %
Not Medically Necessary	7	24	14.00 %
<input type="checkbox"/> Received	3	20	1.23 %
<input type="checkbox"/> Recommended	173	27	71.19 %
<input type="checkbox"/> Reopen	2	110	0.82 %
<input type="checkbox"/> Returned, Review Completed	3	41	1.23 %
<input type="checkbox"/> Returned, Review Not Initiated	1	299	0.41 %
<input type="checkbox"/> Withdrawn	10	108	4.12 %
<input type="checkbox"/> Mills, Terry	2	69	0.82 %
<b>Total</b>	<b>245</b>	<b>30</b>	

Utilization Review User Activity

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Date Run: 11-24-2016 3:10 PM  
SpencerLaptp-HP\FormsGuestUser

Figure 5 – Utilization Review User Activity Management Report

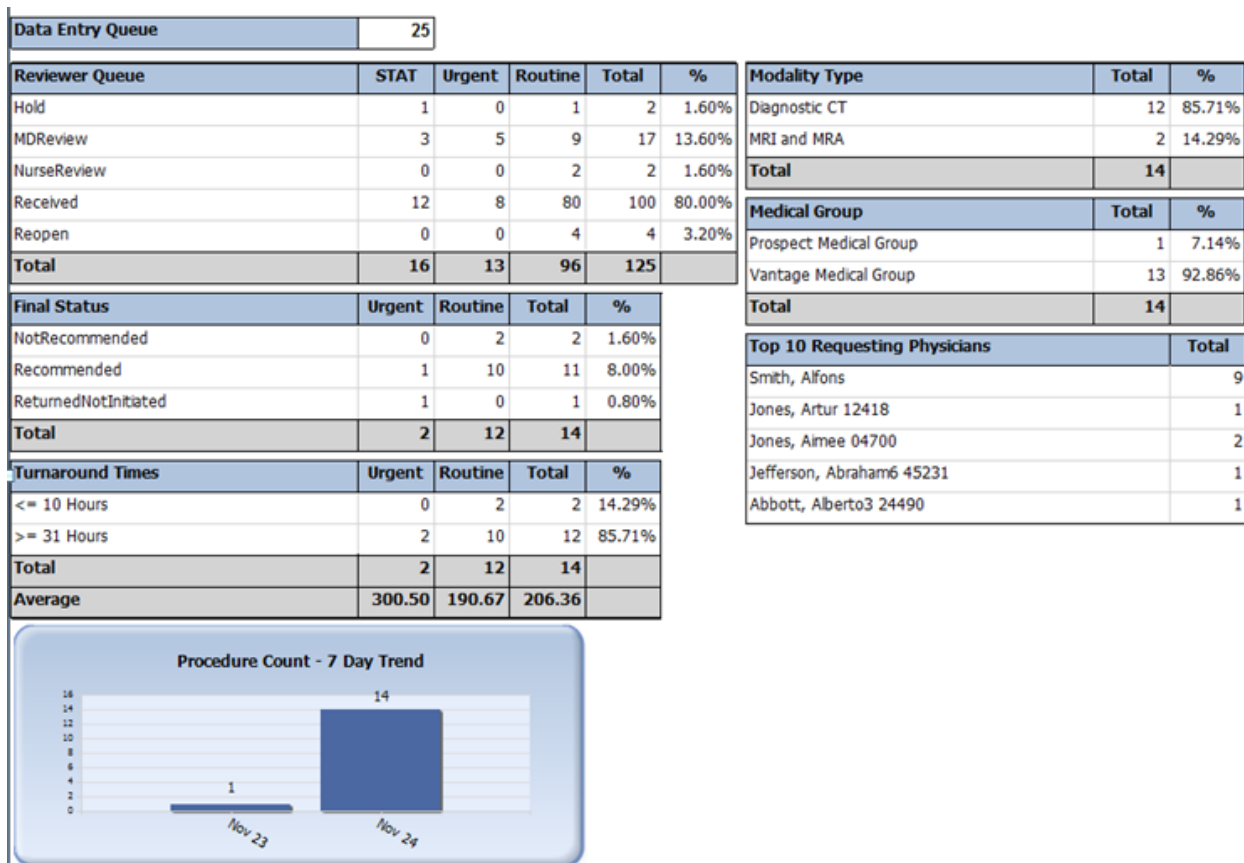


Figure 6 – UM Daily Dashboard

## RESOLVED DEFECTS

Bugs, support issues, and design optimizations resolved in build 2.2017.1.

Bug #	Category	Subject
15268	RADAR SecurePIC	An optional ris.exe.config setting for DBActionSignalRServiceEndpoint was added to be used when the IP address used for hosting on the server is different than the IP address used on the client.
15300	Insurance Eligibility	An issue with the Eligibility status icon becoming hidden on the Manage Policies grid when there is a long insurance carrier description has been resolved.
15301		Resolved issue with Amount to Collect field not refreshing if scheduling is completed before Eligibility finished running.
15307	Technologist	An exception no longer occurs when adding to the Contrast grid from View/Edit screen.
15023	Billing	Resolved an issue with Linked Reports where the non-primary studies would not receive an updated billing status and would not drop from the Activity WL.
15940	Cancel	It is now possible to cancel an order made as a guest in Patient Portal from the Reschedule workflow (previously caused RIS to crash).
15373	CD Burning	Resolved an issue where RIS could crash during CD Export under certain circumstances.
15311	CEHRT	ImportDataFileUpgradeDB has been modified for loading SNOMED codes to disable constraints related to new Gender Identity and Sexual Orientation tables.
15915	Citrix Bridge	Citrix version 7.9 needs the latest version of vcom API which requires a modification the the citrixbridge.exe. Also resolved a problem with the path for the verbose log in the citrixbridge.exe.config.
7613	Confirmation	Closed Room Reschedule WL now supports repeat rules, resolving an issue where studies could be filtered from the Confirmation worklist.
15359	DB	Resolved an issue where users could be allowed to re-use passwords even when the System Configuration setting does not allow it.
14450	Document Distribution	Improvements made to the logging of Document Distribution notes.
14782	Finding Followup	It is now possible to save Finding Follow-up selections when using PowerScribe reporting mode.
15037	Insurance Eligibility	If Eligible API provides a Spend Down amount, this is now

		displayed in the detailed eligibility return.
15286	Insurance Eligibility	Resolved an issue with the tooltip for the Eligibility worklist icon.
13521	Interfaces	Wedge will no longer crash when replying to an inbound message when connecting system (e.g. Mirth, Ensemble) has closed the connection.
14715	Interfaces	Wedge will now provide an alert if a plugin is misconfigured.
15092	Interfaces	Added support for openxml versions of MS Word and Excel to external interface. This will provide better support for RTL and formatting.
15449	Interfaces	An error in RadarConnect process message for practices with null values has been resolved.
15522	Log Control	The notes field context menu, including spellcheck options, is now available in textbox only mode.
15938	MRN	Assigning MRN during reschedule using guest Patient Portal study no longer throws an exception.
15068	Outside Read	A core validation rule has been added with a condition that allows Reason for Exam to be required on all studies <i>except</i> Outside Reads.
13888	PACS (eRAD) Int - RIS only	In the Patient Folder, it is now possible to launch images for a study, even if a different study was previously launched from the same Patient Folder and the PACS Viewer was closed. Previously, the Patient Folder would have to be closed and re-opened under those circumstances.
14066	PACS (Non - eRAD) Integration	Carestream PACS integration now supports appending studies in the viewer when double clicking a prior study from the mini-Patient Folder in the dictation screen.
14889	PACS (Non - eRAD) Integration	Resolved an issue with Carestream PACS integration in which studies loaded by External Study Identifier did not close properly.
15393	PACS (Non - eRAD) Integration	Resolved an issue with Carestream PACS integration in which viewing a second study from the Patient Folder does not display the Accession number.
14636	PACS (Non - eRAD) Integration	Resolved an issue with IW PACS integration in which images were not redisplayed when switching between tabs.
15676	Patient Merge	Merging external MRNs with internal RIS patients is once more possible during rescheduling workflow.
15149	Patient Portal	No longer issues with arriving or cancelling appointments made as a guest in the Patient Portal.
15102	Peer Review	Radiologists are now prevented from peer reviewing studies from outside of their current Practice.
12563	Person Management	RecentPasswordRestrictionCount set to -1 now fully disables the recent password feature, as designed.



13788	Powerscribe Integration	Resolved an issue with PowerScribe integration in which it was possible to unintentionally close a second study when dictating multiple cases and an addendum.
14867	RADAR	Resolved an issue for RADAR exam cancellations.
15232	RADAR	Audit records for RADAR messaging now include patient /order /study context.
15566	Radar - Nudge	Resolved a value cannot be null error for App.config RADARSecureMessagePort.
11929	Radiology Reporting	Switching between external reporting integration modes (PS360 or External) to internal reporting modes (eRAD or M*Modal) now occurs seamlessly without errors.
14757	Radiology Reporting	Resolved an index out of range error that occurred under certain conditions when using Next workflow during dictation.
15392	Radiology Reporting	All applicable tool window controls in reporting screens will now prompt if there are unsaved changes.
15553	Radiology Reporting	When using emergency access and RIS crashes, using autosave, clicking the emergency access again will no longer remove the auto saved report.
15975	Radiology Reporting	Selected Report panel is now properly saving in personal or system layouts.
14045	Scanning	"A lock is required to update this order" error is no longer occurring when saving scanned documents for an external prior report.
15240	Scanning	Resolved an issue with auto-cropping when using the Straighten tool on scanned documents.
15671	Scanning	Scanning no longer unexpectedly converts images to black and white.
14845	Scheduling	Foreign key exception when adding "Additional Data" to a procedure no longer occurs.
14948	Scheduling	A user without permission to reschedule a study can no longer do so from the context menu.
15104	Scheduling	When scheduling using Order A/Order B with different referring physicians, Order B now successfully receives the data from the Clinical tab.
15559	SecurePIC	SecurePIC requests are now successful from IVT screen for studies in an Ordered status.
15076	Technologist	Modifying a study that was performed before the Tech verified ID field was set as Required using validation rules has been resolved.
15155	Technologist	ExamDoneTechOnly - PACS correction flag can no longer be inadvertently set to Y after exam completion.
14971	Thick Client GUI	Resolved an issue where the RIS application could stay in view



		after RIS locks.
15363	Thick Client GUI	Resolved an issue that previously resulted in a 'Cannot access a disposed object. Object name: RadLabel' error/crash.
15371	Thick Client GUI	Resolved an issue that could cause a RIS crash while disposing PerformExam or ViewEdit.
14771	Utilization Management	When using the Quick Search box to search by UM authorization number, the applicable row will not be highlighted if the search is performed multiple times or with the Patient Folder already open.
15209	Worklists	Resolved an intermittent issue with RIS Crashing between scheduling under particular circumstances (Object reference not set to an instance of an object).

## KNOWN LIMITATIONS

The following are new bugs found in build 2.2017.1. Bugs reported in previous versions are not captured as Known Limitations in this document.

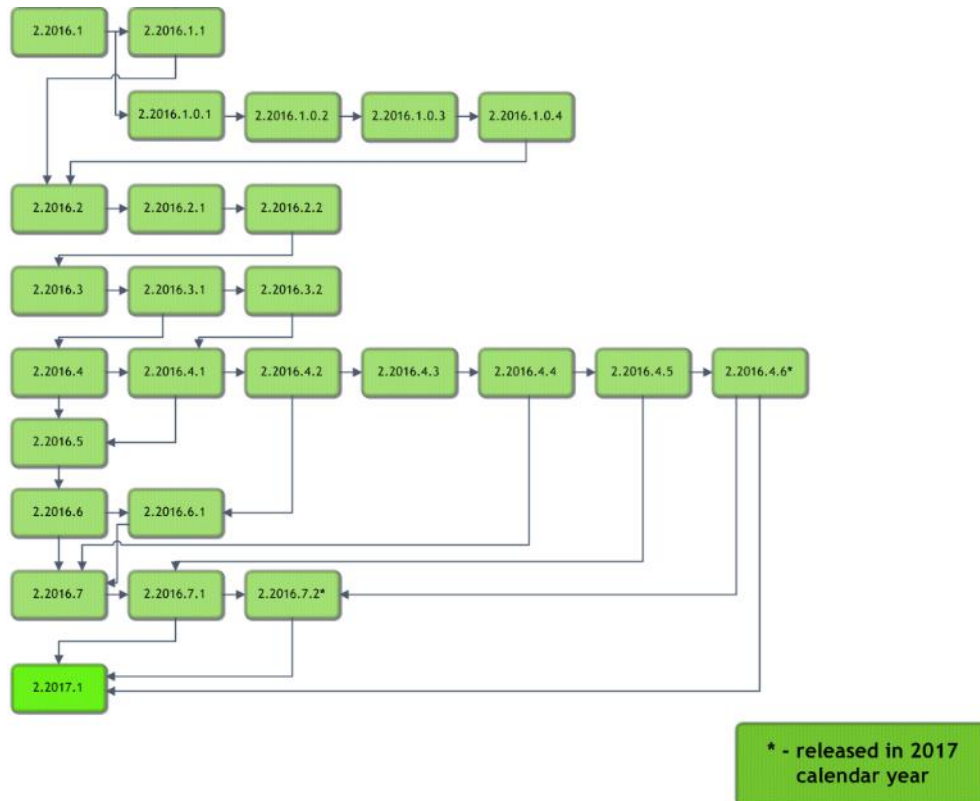
#	Subject
16068	Dictated by in Summary panel is not populated for reports created by technologist.
15974	Document Distribution jobs failing to send email via RADAR due to large file size.
15577	System configuration setting "Enforce zip code selection" set to True and "Enforce county selection" set to False, will require a zip code but the field will not appear.
16040	Attach Inbound Documents WL action buttons throw exception if pressed when highlighting a locked document row.
16072	The "Last Login By User ID" management report should display the date.
16060	TemplateMacro Editor- When using the assignment tab, after filtering available options, items that are not in the results are added to assigned column when using the right arrow to select.
16047	With preferences for reuse reporting screen (unchecked) and autofeed from worklist (checked), the Next workflow in the dictate screen is sometimes failing to open the next study.
16046	With the reuse reporting screen preference unchecked, Next workflow in the signing screen behaves as if in the Dictate screen.
16042	Unable to delete table rows from DocumentType look-up (? FK exception thrown).
16026	Removed/inactive order_items showing as disabled on Exam Details list when valid, active order_items present.
16024	Infinitt PACS - Images from Patient Folder are not always closing.
16023	Imported order-level documents are disabling the incorrect context menu option to switch document level.
16013	Clinical.ViewStudy access string does not control access to View Study button/context option on appropriate exams.
16005	When user has both Technologist and Editor resource types, it is possible for them to be assigned as radiologist if creating a report from perform exam screen.
16000	Inactive UM Resolution Codes are visible in the UM Alerts resolution code drop-down.
15991	Scheduling a study in OrderSigned status from within a Folder removes the study from Folder's WL.
15989	Multiple Studies flag gets carried through "Schedule From" action on single-procedure study.
15920	Contrast amounts are not defaulting when including multiple exams.
15900	When deleting the dictation /report and resetting status on a study that is suspended, _status_flags is not getting reset.
15884	Scan Document Notes option still available on non-modal attachment viewer without the option to save them.
15871	TemplateMacro Results grid is freezing when a change is initiated but not saved before attempting to open the editor window.
15820	Attach Inbound Documents - Opening context menu on rows other than the one selected throws an error.
15804	Changing the image request status for studies in Exam Done produces an error that "Signs and Symptoms" is required.

15800	Closing a study by clicking X on the tab will lock the images.
15796	An error is thrown in the "Adding a mammo biopsy" screen when cancelling the person search window.
16070	eRAD reporting mode - Create template from report creates double brackets for 2 <sup>nd</sup> auto macro field.
15963	Scheduling an order under Utilization Review from a Folder does not display a message informing the user that it is under UM Review.
15962	Unable to modify Additional/Alternative procedure status when default statuses are null.

**RIS RELEASE VERSION NUMBERS**

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Notes
2016.1	-	2.16.1.0.33419 (3GB)	2.16.1.0.33079	2.16.1.0.33419	2.16.1.0.33416		GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge
2016.1	1	2.16.1.1.33672 (3GB)	2.16.1.0.33079	2.16.1.0.33419	2.16.1.0.33416		GUI.zip
2016.1	.0.1	2.16.1.0.1 (3GB)	2.16.1.0.33079	2.16.1.0.33419	2.16.1.0.33416		GUI.zip (This is not included in 2016.1.1, version directly above)
2016.1	.0.2	2.16.1.0.1 (3GB)	2.16.1.0.33079	2.16.1.0.2	2.16.1.0.33416		Wedge Web Services only
2016.1	.0.3	2.16.1.0.3 (3GB)	2.16.1.0.33079	2.16.1.0.3	2.16.1.0.3.00128918		GUI.zip, Web Services and DB
2016.1	.0.4	2.16.1.0.4 (3GB)	2.16.1.0.33079	2.16.1.0.4	2.16.1.0.3.00128918		GUI.zip, Web Services
2016.2	-	2.16.2.0 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00172540		Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge
2016.2	1	2.16.2.1 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00172540		GUI.zip and Citrix Bridge
2016.2	2	2.16.2.2 (3GB)	2.16.2.0	2.16.2.0	2.16.2.2.00243102		GUI.zip, DB and Citrix Bridge
2016.3	-	2.16.3.0 (3GB)	2.16.3.0	2.16.3.0	2.16.3.0.00257101	2.16.3.0	Full Version Release
2016.3	1	2.16.3.1 (3GB)	2.16.3.0	2.16.3.1	2.16.3.1.00298834	2.16.3.0	GUI.zip, Web Service and DB
2016.4	-	2.16.4.0	2.16.4.0	2.16.4.0	2.16.4.0.00301943	2.16.4.0	Full Version Release
2016.4	1	2.16.4.1	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	GUI and Web Service updates
2016.4	2	2.16.4.2 (3GB)	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	GUI and Patient Portal updates
2016.4	3	2.16.4.3 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	GUI and Patient Portal updates
2016.4	4	2.16.4.4 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	GUI
2016.4	5	2.16.4.5 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	GUI
2016.4	6	2.16.4.6 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	GUI
2016.5	-	2.16.5.0 (3GB)	2.16.5.0	2.16.5.0	2.16.5.0.00349303	2.16.5.0	Full Version Release
2016.6	-	2.16.6.0 (3GB)	2016.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	Full Version Release
2016.6	1	2.16.6.1 (3GB)	2016.6.0	2016.6.0	2.16.6.0.00411295	2.16.6.0	GUI and Patient Portal updated
2016.7	-	2.16.7.0 (3GB)	2.16.7.0	2.16.7.0	2.16.7.0.00490835	2.16.7.0	Full Version Release
2016.7	1	2.16.7.1 (3GB)	2.16.7.0	2.16.7.1	2.16.7.0.00490835	2.16.7.0	GUI and Web Service updates
2016.7	2	2.16.7.2 (3GB)	2.16.7.0	2.16.7.2	2.16.7.0.00490835	2.16.7.0	GUI and Web Service updates
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	Full Version Release

## CODE STREAM DIAGRAM



# Server Update

For eRAD RIS

Version 2.0

Build 2.2017.1

Update 2.2017.1.1

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## NEW FEATURES

## FEATURE #16082 – EXTEND THE STUDY EXTRA INFO FEATURE TO INCLUDE ORDER EXTRA INFO

eRAD RIS has had the ability to store extra information received from an external ordering system at the study level, using a feature called *StudyExtraInfo*. This feature extends this functionality to allow us to store information at the **order** level.

Sometimes there is a need to store additional information that may be customer specific, particularly information received from one system that also needs to be passed to corresponding systems at certain points in the workflow.

A new lookup table of *OrderExtraInfo* was created for specifying the Code with which the RIS will be receiving information to be stored. The table is listed under Configure>System folder. Access to the table is controlled by a new access string titled *Config.LookupEditor.OrderExtraInfo* with a default of None. The table consists of the Order Extra Info Code, Display Name, Description, Display Order, Last Updated and Active columns.

Order Extra Info Code	Display Name	Description	Display Order	Last Updated	Active
Contains:	Contains:	Contains:	Equals:	Contains:	Contains:
Click here to add a new row					
Test external system	Test external system	Test external system	1	02-22-2017 11:22 AM	Y
-BACKUP	BACKUP	Backup Order Extra Info Code	1	02-15-2017 1:38 PM	Y
-OEIC1	-OEIC1	Order Extra Info Code 1	1	02-15-2017 1:38 PM	Y

Messages sent will specify the Order Extra Info Code and have a value field. These messages will be stored in another new DataBase table *c\_order\_extra\_info* that is not accessible from the GUI.

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An example c\_order\_extra\_info node to be sent to eRAD RIS:

```
<ext1:c_order_extra_info>  
  <order_extra_info_code>Test external system</order_extra_info_code>  
  <value>test value to be stored in c_order_extra_info table</value>  
</ext1:c_order_extra_info>
```

## RESOLVED ITEMS

eRAD RIS

Redmine #	Subject
16113	Waiting for PACS dialog is now showing when expected.
16166	Audio files are now being deleted as appropriate for editors.
16187	Demographics match on phone number is now compatible with c_patient_phone pattern.

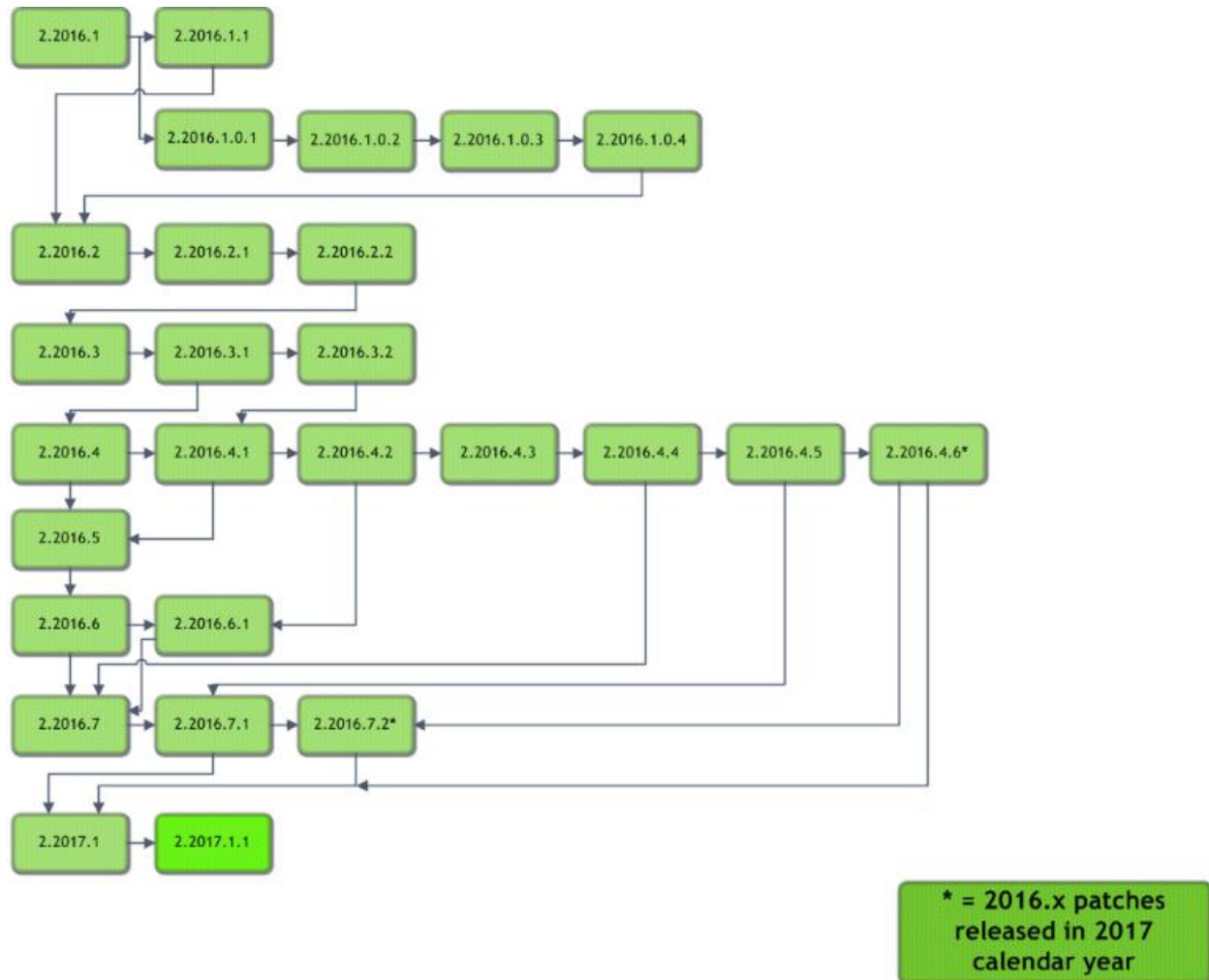
## NEW ACCESS STRINGS

Setting	Default	Purpose
Config.LookupEditor.OrderExtraInfo	None	Controls access to the look-up table editor for OrderExtraInfo.

---

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**CODE STREAM**

## PACKAGE CONTENTS

 _ReleaseNotes	2/17/2017 4:13 PM
 DB	2/17/2017 9:44 AM
 rRISService	2/17/2017 9:43 AM
 ThickClient	2/17/2017 4:11 PM
 RISServerMasterCert	3/31/2016 1:38 PM

## INTENDED AUDIENCE

THE INTENDED AUDIENCE FOR THIS DOCUMENT IS THE RADNET CLINICAL SYSTEMS TEAM AND THE ERAD SUPPORT/SERVICE TEAM.

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## WHO IS AFFECTED

Build 2017.1 installs. This server update must be applied to 2017.1.

## ERAD RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Notes
2016.1	-	2.16.1.0.33419 (3GB)	2.16.1.0.33079	2.16.1.0.33419	2.16.1.0.33416				GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge
2016.1	1	2.16.1.1.33672 (3GB)	2.16.1.0.33079	2.16.1.0.33419	2.16.1.0.33416				GUI.zip
2016.1	.0.1	2.16.1.0.1 (3GB)	2.16.1.0.33079	2.16.1.0.33419	2.16.1.0.33416				GUI.zip (This is not included in 2016.1.1, version directly above)
2016.1	.0.2	2.16.1.0.1 (3GB)	2.16.1.0.33079	2.16.1.0.2	2.16.1.0.33416				Wedge Web Services only
2016.1	.0.3	2.16.1.0.3 (3GB)	2.16.1.0.33079	2.16.1.0.3	2.16.1.0.3.00128918				GUI.zip, Web Services and DB
2016.1	.0.4	2.16.1.0.4 (3GB)	2.16.1.0.33079	2.16.1.0.4	2.16.1.0.3.00128918				GUI.zip, Web Services
2016.2	-	2.16.2.0 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00172540				Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge
2016.2	1	2.16.2.1 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00172540				GUI.zip and Citrix Bridge
2016.2	2	2.16.2.2 (3GB)	2.16.2.0	2.16.2.0	2.16.2.2.00243102				GUI.zip, DB and Citrix Bridge
2016.3	-	2.16.3.0 (3GB)	2.16.3.0	2.16.3.0	2.16.3.0.00257101	2.16.3.0			Full Version Release
2016.3	1	2.16.3.1	2.16.3.0	2.16.3.1	2.16.3.1.00298834	2.16.3.0			GUI.zip, Web Service and DB
2016.3	2	2.16.3.2	2.16.3.0	2.16.3.2	2.16.3.1.00298834	2.16.3.0			GUI.zip and Web Service
2016.4	-	2.16.4.0	2.16.4.0	2.16.4.0	2.16.4.0.00301943	2.16.4.0	1.16.4.0.310284		Full Version Release
2016.4	1	2.16.4.1	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	1.16.4.0.310284		GUI and Web Service updates
2016.4	2	2.16.4.2 (3GB)	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	1.16.4.2.460241		GUI and Patient Portal updates
2016.4	3	2.16.4.3 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	1.16.4.3.489120		GUI and Patient Portal updates
2016.4	4	2.16.4.4 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	1.16.4.3.489120		GUI
2016.4	5	2.16.4.5 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0			GUI
2016.4	6	2.16.4.6 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0			GUI
2016.5	-	2.16.5.0 (3GB)	2.16.5.0	2.16.5.0	2.16.5.0.00349303	2.16.5.0	1.16.5.0.362009		Full Version Release
2016.6	-	2.16.6.0 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	1.16.6.0.432471		Full Version Release
2016.6	1	2.16.6.1 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	1.16.6.1.468583		GUI and Patient Portal updated
2016.7	-	2.16.7.0 (3GB)	2.16.7.0	2.16.7.0	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	Full version release
2016.7	1	2.16.7.1 (3GB)	2.16.7.0	2.16.7.1	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	GUI and Web Service updates
2016.7	2	2.16.7.2 (3GB)	2.16.7.0	2.16.7.2	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	GUI and Web Service updates
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000	Full Version Release
2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000	GUI, Web Service and DB updates

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## INSTALLING

### CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD\_rRIS\_2017.1.1.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

### WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

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 128 files in the rRISService folder and 7 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). Folders ar (Arabic), he (Hebrew), pt\_BR (Brazilian Portuguese) and es-AR (Argentina Spanish) are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc...

### **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

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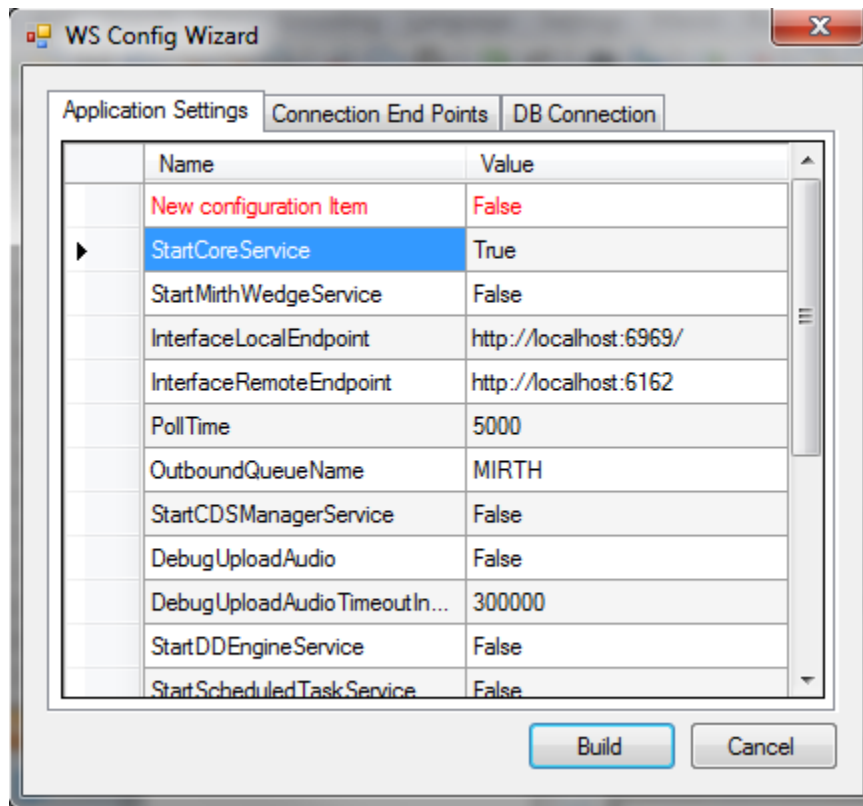
exist in a “deploy” folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

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.





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**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 /rIS/

net.tcp:// localhost:8041 /rIS/

**Notify Service**

net.tcp:// localhost:7095 /rIS/

**CDS Service**

http:// localhost:7092 /rIS/

net.tcp:// localhost:7093 /rIS/

Build Cancel

---

## DATABASE UPDATES

---

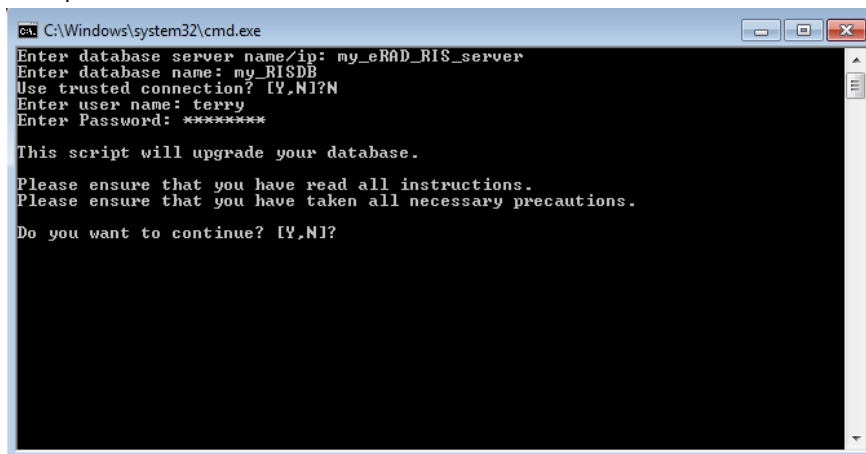
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Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*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: 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]?
```

- 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

# Server Update

For eRAD RIS

Version 2.0

Build 2.2017.1

Update 2.2017.1.2

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## NEW SYSTEM CONFIGURATION SETTINGS

Setting	Default	Purpose
AppointmentSearchMaxResults	-1	(value = int) Specify the number of appointment slot results to be returned by the scheduling engine. -1 turns off the feature. Changing the default is only recommended for customers scheduling via an External Interface Service. These customers should use a number higher than the recommended minimum of 500.

## NEW FEATURES

### FEATURE #16137 – CARESTREAM PACS INTEGRATION – ABILITY TO OPEN PRIOR STUDIES WHEN PRIMARY STUDY IS NOT AVAILABLE

Before an exam is performed, it is sometimes necessary for the radiologist to view the prior images for the patient. Previously, when a radiologist opened the reporting screen, the *view session* would not be initiated if the current study was unavailable. Without this, the prior studies could not be launched from the reporting screen. To allow for this functionality, a new setting is now available in the CSHConfig.xml file: `empty_view_session_on_fail`.

Changing this setting to True will adjust the CSH integration behavior to make the ShowStudy call to PACS act as if the primary study opened correctly, even if it has failed because current images do not yet exist. Please note that with this setting turned on, the radiologist will not be prompted that the primary study failed to open, and the mini-Patient Folder will indicate that the PACS status for the primary study is Open. At this point, the radiologist can double click on the desired prior study. RIS will ask the PACS what studies have loaded and upon finding that nothing is loaded, the normal Append call will be replaced with a ShowStudy call. At this point, images for the prior will open, and both current and prior studies will be listed as Open.

To support this behavior, the `supports_append` setting in the CSHConfig.xml file needs to be set to True.



---

**FEATURE #16240 – APPOINTMENT SEARCH IMPROVEMENTS FOR EXTERNAL INTERFACE SERVICE**

Some customers use an interface to search the RIS for available appointment slots, which required some performance improvements. Alterations to some of the behind-the-scenes logic were made, which has led to significant performance gains.

In addition, there is now a System Configuration setting which will allow an appointment slot search to be made via the interface to return a given number of results, regardless of the appointment date. Because this method of searching via the interface will bypass the time frame requirement and instead limit search results by the number of results returned, this allows users scheduling in an external system to perform one search when there may not be any appointments available in the next few weeks. The user can simply search and X number of the next available appointments will be returned, even if the first is not available for several weeks.

The System Configuration setting is *AppointmentSearchMaxResults*. By default, this setting is “-1” which means that the functionality is turned off. In that case, all possible results in the given time period will be displayed as usual. If set to 2,000, then the first 2,000 time slots will be available, regardless of the timeframe when searching via the interface service.

Setting this value too low will yield searches with few or even no appointment slots returned. The recommended minimum setting is 500, but care should be taken when setting this configuration to anything under 1,000.

**Important Note:** This setting controls both the results from the External Interface Service and the results for users searching directly in the RIS. However, users working directly in the RIS cannot bypass the date range requirement. Therefore, it is recommended to only adjust this setting if scheduling is done via the External Interface Service. If scheduling directly in the RIS, the setting default of -1 should be used to disable the feature.

---

**FEATURE #16201 – ERAD RIS NOW SUPPORTS UPDATING SEQUENCE ID VIA THE INBOUND EXTERNAL INTERFACE SERVICE**

When the schema for inbound study container messages was initially built, sequence ID was not included in the schema. In order to perform updates or additions to any table in the study container which has a sequence ID, the sequence ID has been added to the schema.

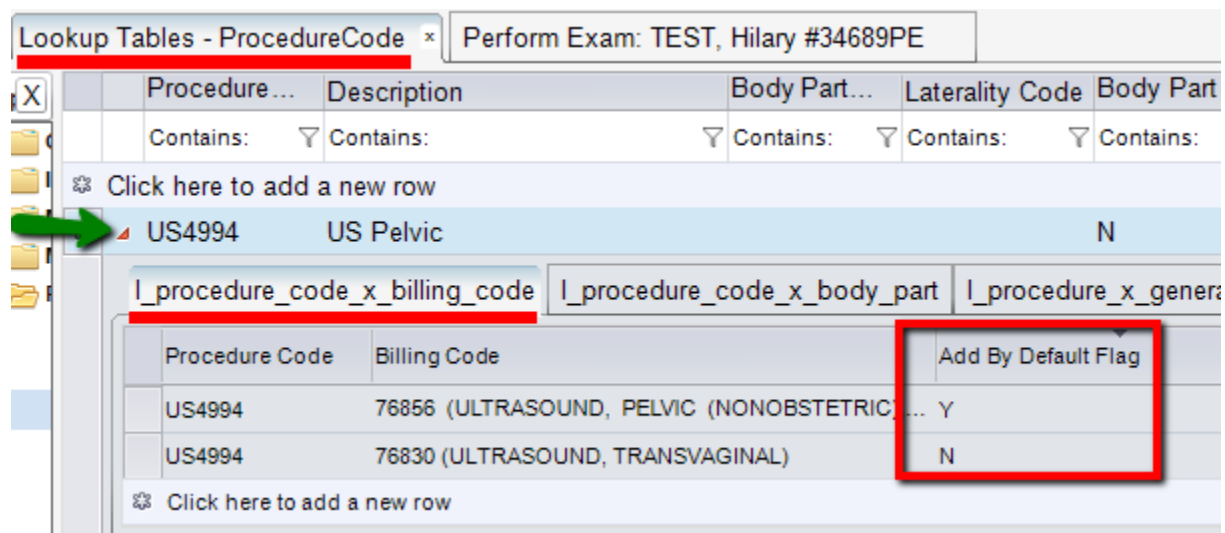
## FEATURE #16299 - ERAD RIS NOW SUPPORTS BOTH DEFAULT AND "RECOMMENDED" BILLING CODES

Previously, all billing codes associated to a procedure were active by default. In some cases, it may be useful to also associate billing codes that are *sometimes* used for a particular procedure. For example, some customers use a workflow in which procedure codes are broad, such as CT Sinus. In this case, the billing code might be the CPT for CT Sinus "with contrast," "without contrast," or "with and without contrast." Also, the contrast CPT may or may not be relevant depending on what is performed.

In these cases, being able to associate the billing codes that are most likely to be used for a particular procedure is more beneficial than creating default billing codes that are always active for the exam and have to be deactivated by the technologist.

To allow for this workflow, a new column has been added to the *l\_procedure\_code\_x\_billing\_code* sub-table, which is found in the Procedure Code look-up table. The column, **Add By Default**, will default to Y, meaning that the billing code will be associated and active for that procedure. This is the same as the previous behavior.

To associate billing codes without actively adding them to the procedure, set the Add By Default column to N. As you can see in the table below, it is possible to have a combination of Default billing codes and recommended/possible billing codes.



Procedure Code	Description	Body Part	Laterality Code	Body Part
US4994	US Pelvic		N	

Procedure Code	Billing Code	Add By Default Flag
US4994	76856 (ULTRASOUND, PELVIC (NONOBSTETRIC))	Y
US4994	76830 (ULTRASOUND, TRANSVAGINAL)	N

In the example above, the only billing code that will be automatically added for the US Pelvic procedure is 76856. The billing code 76830 will now be available from a quick pick list, as shown below.

The screenshot shows the 'Billing Codes' tab in the eRAD RIS interface. The 'Billing Code Information' section displays a table with columns: ABN, Units, Change Reason, Billing Code, CPT modifier, CPT modifier, PreCert #, Expiry Date, PreCert Status, and Active. A procedure 'US Pelvic (US4994)' is listed with a billing code '76856 (ULTRASOUND, PELVIC (NONOBSTETRIC))'. A red box highlights the 'Billing Code' column, and a red arrow points to the 'Active' column. A blue box highlights the 'Add' button with a dropdown arrow, which is open, showing options 'Apply', 'Select All', and '76830 (ULTRASOUND, TRANSVAGINAL)'. The 'Add' button is located in the bottom right corner of the interface.

When suggested codes are available for a procedure, the Add button will have a dropdown arrow allowing the user to quickly select and apply the suggested billing codes. Clicking the main Add button, instead of the dropdown arrow, will open the normal Add Billing Code screen where the entire list of Billing Codes can be accessed.

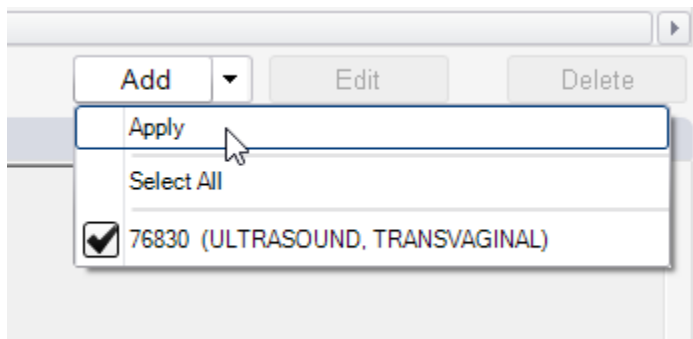
The 'Add Billing Code' dialog box is shown. It contains the following fields:

- Billing code \*
- Units: 1
- CPT modifier 1
- CPT modifier 2
- ABN
- Change reason

The 'Save' and 'Cancel' buttons are located at the bottom right of the dialog box.

If no recommendations exist, the Add button will not have the dropdown arrow and the Add Billing Code screen is the only option for adding additional billing codes.

To use suggested billing codes, check the box(es) and click the Apply button.



This will add the billing code to the procedure in an Active status.

Exam Details	Billing Codes	Attachments	Notes / Exam Times	Image Request (0)	Goodie Test	ay testing grid
Billing Code	CPT modi...	CPT modi...	PreCert #	Expiry Date	PreCert Status	Active
76856 (ULTRASOUND, PELVIC (NONOBSTETRIC),...					Not Required	Y
76830 (ULTRASOUND, TRANSVAGINAL)					Not Required	Y

Keep in mind that suggested billing codes will not trigger IVT workflow. Once the suggested billing code has been added to the exam, it will be treated like normal active billing codes.

It is also now possible to select multiple lines in the active Billing Codes grid in order to delete them all at once, if needed. Selecting rows and clicking the Delete key on the keyboard is also allowed. The user will be prompted to confirm that they want to delete the selected billing code(s). Deleting a saved billing code row is the same as marking the row as "Active = N". If suggested billing codes are added, but deleted *before* the exam is saved, the row will simply be deleted.

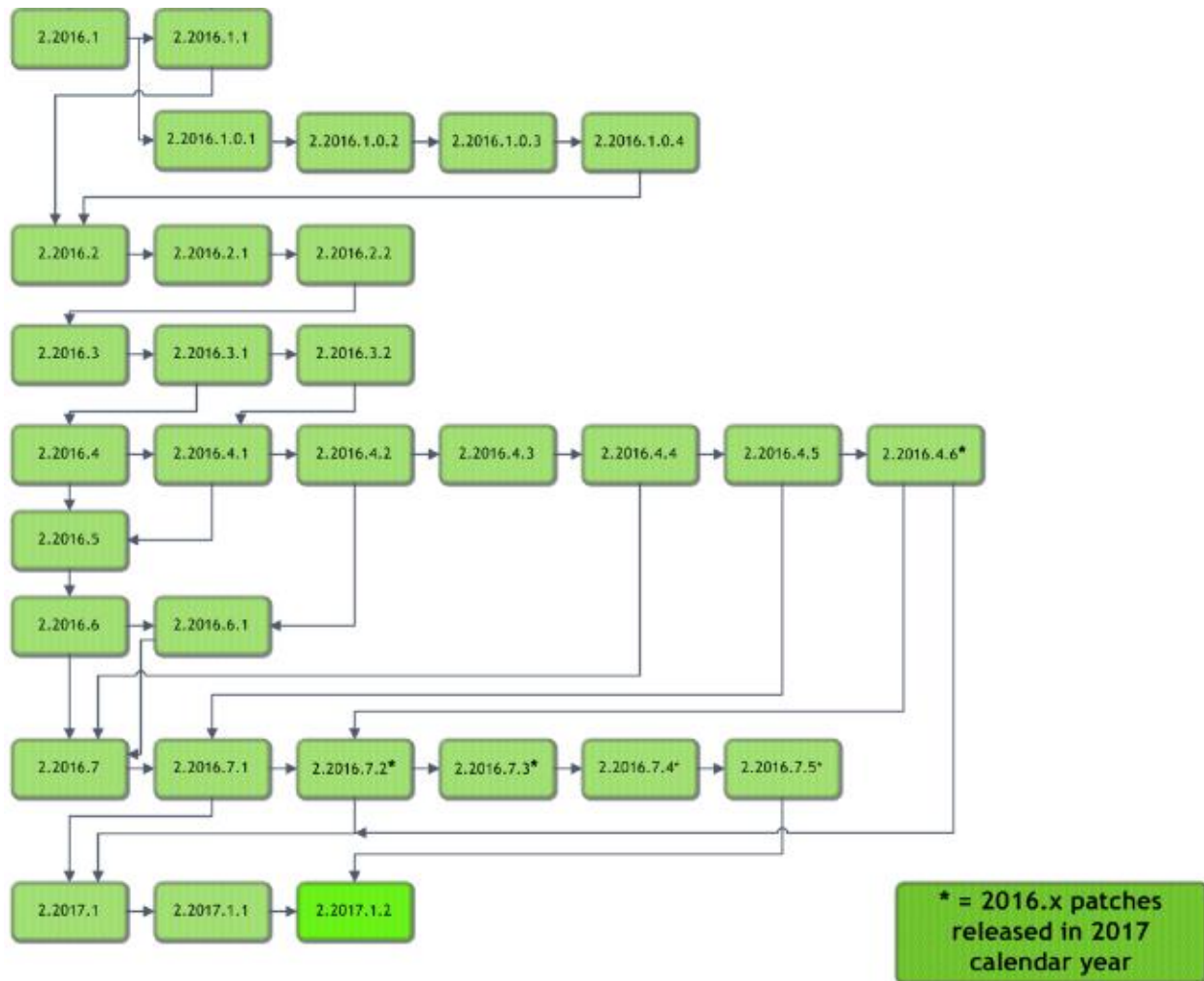
The billing codes associated to any procedure code currently will all be set as Add By Default = Y at the time of the upgrade, which means that they will continue to behave as they did prior to upgrading.

**RESOLVED ITEMS**

eRAD RIS

Redmine #	Subject
16249	External Interface Service - Appointment Search not respecting time portion of StartDate and EndDate

## CODE STREAM

**Legend:**

Light Green = Previously Released software





Bright Green = Current Release

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## PACKAGE CONTENTS

 _ReleaseNotes	03/10/2017 3:32 PM
 DB	03/10/2017 3:29 PM
 rRISService	03/10/2017 3:30 PM
 ThickClient	03/10/2017 3:30 PM

## INTENDED AUDIENCE

THE INTENDED AUDIENCE FOR THIS DOCUMENT IS THE RADNET CLINICAL SYSTEMS TEAM AND THE ERAD SUPPORT/SERVICE TEAM.

## WHO IS AFFECTED

Build 20117.1 installs. This server update must be applied to 2017.1.1

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## ERAD RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Notes
2016.1	-	2.16.1.0.33419 (3GB)	2.16.1.0.33079	2.16.1.0.33419	2.16.1.0.33416				GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge
2016.1	1	2.16.1.1.33672 (3GB)	2.16.1.0.33079	2.16.1.0.33419	2.16.1.0.33416				GUI.zip
2016.1	.0.1	2.16.1.0.1 (3GB)	2.16.1.0.33079	2.16.1.0.33419	2.16.1.0.33416				GUI.zip (This is not included in 2016.1.1, version directly above)
2016.1	.0.2	2.16.1.0.1 (3GB)	2.16.1.0.33079	2.16.1.0.2	2.16.1.0.33416				Wedge Web Services only
2016.1	.0.3	2.16.1.0.3 (3GB)	2.16.1.0.33079	2.16.1.0.3	2.16.1.0.3.00128918				GUI.zip, Web Services and DB
2016.1	.0.4	2.16.1.0.4 (3GB)	2.16.1.0.33079	2.16.1.0.4	2.16.1.0.3.00128918				GUI.zip, Web Services
2016.2	-	2.16.2.0 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00172540				Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge
2016.2	1	2.16.2.1 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00172540				GUI.zip and Citrix Bridge
2016.2	2	2.16.2.2 (3GB)	2.16.2.0	2.16.2.0	2.16.2.2.00243102				GUI.zip, DB and Citrix Bridge
2016.3	-	2.16.3.0 (3GB)	2.16.3.0	2.16.3.0	2.16.3.0.00257101	2.16.3.0			Full Version Release
2016.3	1	2.16.3.1	2.16.3.0	2.16.3.1	2.16.3.1.00298834	2.16.3.0			GUI.zip, Web Service and DB
2016.3	2	2.16.3.2	2.16.3.0	2.16.3.2	2.16.3.1.00298834	2.16.3.0			GUI.zip and Web Service
2016.4	-	2.16.4.0	2.16.4.0	2.16.4.0	2.16.4.0.00301943	2.16.4.0	1.16.4.0.310284		Full Version Release
2016.4	1	2.16.4.1	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	1.16.4.0.310284		GUI and Web Service updates
2016.4	2	2.16.4.2 (3GB)	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	1.16.4.2.460241		GUI and Patient Portal updates
2016.4	3	2.16.4.3 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	1.16.4.3.489120		GUI and Patient Portal updates
2016.4	4	2.16.4.4 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	1.16.4.3.489120		GUI
2016.4	5	2.16.4.5 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0			GUI
2016.4	6	2.16.4.6 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0			GUI
2016.5	-	2.16.5.0 (3GB)	2.16.5.0	2.16.5.0	2.16.5.0.00349303	2.16.5.0	1.16.5.0.362009		Full Version Release
2016.6	-	2.16.6.0 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	1.16.6.0.432471		Full Version Release
2016.6	1	2.16.6.1 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	1.16.6.1.468583		GUI and Patient Portal updated
2016.7	-	2.16.7.0 (3GB)	2.16.7.0	2.16.7.0	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	Full version release
2016.7	1	2.16.7.1 (3GB)	2.16.7.0	2.16.7.1	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	GUI and Web Service updates
2016.7	2	2.16.7.2 (3GB)	2.16.7.0	2.16.7.2	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	GUI and Web Service updates
2016.7	3	2.16.7.3 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	GUI and Web Service updates
2016.7	4	2.16.7.4 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	GUI
2016.7	5	2.16.7.5 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	GUI
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000	Full Version Release
2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000	GUI, Web Service and DB updates
2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000	GUI, Web Service and DB updates

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## INSTALLING

### CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD\_rRIS\_2017.1.2.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

### WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

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 128 files in the rRISService folder and 7 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). Folders ar (Arabic), he (Hebrew), pt\_BR (Brazilian Portuguese) and es-AR (Argentina Spanish) are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc...

### **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, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

---

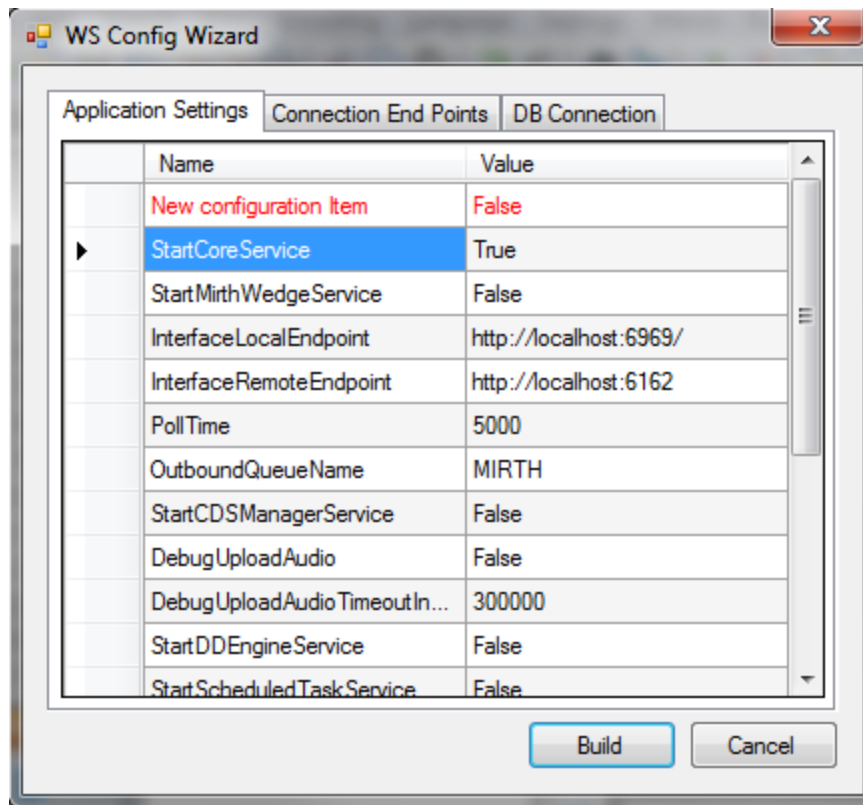
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On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

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.



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**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 /rIS/

net.tcp:// localhost:8041 /rIS/

Notify Service

net.tcp:// localhost:7095 /rIS/

CDS Service

http:// localhost:7092 /rIS/

net.tcp:// localhost:7093 /rIS/

Build Cancel

---

## 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.

---

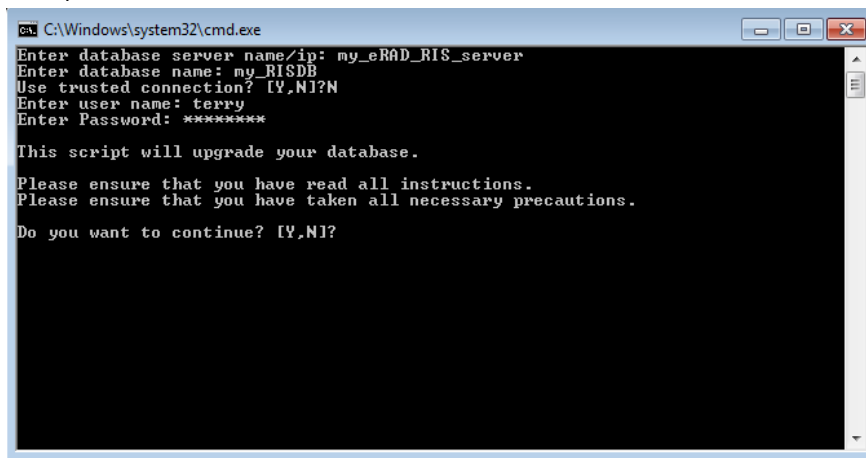
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*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need 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: 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]?
```

- 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

# Server Update

For eRAD RIS

Version 2.0

Build 2.2017.1

Update 2.2017.1.3

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## NEW CONFIGURATION SETTINGS

## SYSTEM CONFIGURATION SETTINGS

Setting	Default	Purpose
AutoIncludeLinkedStudiesForTech	False	(value = True/False) Determines if linked studies are automatically included (checked) on Perform Exam screen when a linked study is opened.
AutoCopyPasteLinkedStudies	False	(value = True/False) Determines if data is copied to all linked studies when one study in a collection is saved on the Perform Exam screen.

## ACCESS STRINGS

Setting	Default	Purpose
Clinical.Tech.AllowAddExam	None	Allows access to the “Add exam to current order” button on Perform Exam screen.

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## NEW FEATURES

## FEATURE #16292 – TECHNOLOGIST CAN NOW ADD ADDITIONAL EXAMS TO THE ORDER FROM PERFORM EXAM TAB

Technologists often need to add additional studies to the order when the patient is already on the table, after receiving feedback from the radiologist or upon realizing that the referral contains a separate exam that was not registered. Technologists need a method to add additional studies with fewer steps, as long as the study belongs to the same order (which would also necessitate the same referring physician and payment method).

To increase efficiency for this workflow, users can be granted a new access string named *Clinical.Tech.AllowAddExam*. The default for this access string is None. If set to Full, a technologist will have access to a new button on the Perform Exam tab labeled “Add exam to current order.” The button is located beneath the list of today’s exams at the top of the Perform Exam tab.

Patient: LEMARCHE, Carl #4747pm (2)		Perform Exam: LEMARCHE, Carl #4747pm											
	Include	Flags	Status	Procedures	Scheduled Date	Referring	Sedation	Room	Accession #	STAT Read	STAT Exam	Modality Type	Ready To Read
	<input checked="" type="checkbox"/>		Arrived	XR Chest Min 4 Views [71030] - Chest	03-07-2017 13:35	Mac Donald, Dana60 96909		XR1LU	2781			XR	<input checked="" type="checkbox"/>
	<input type="checkbox"/>		Arrived	CT Head W & STN W [CT17] - Head	03-07-2017 13:05	Mac Donald, Dana60 96909		CT1LU	2782			CT	<input checked="" type="checkbox"/>
Add exam to current order													

Clicking the “Add exam to current order” button will allow the technologist to add a new exam to the currently selected Order without going through the registration process.

A new window will open for the technologist to select the procedure, along with Body Part and Laterality if applicable.

Add Exam To Current Order

Scanner

XR1LU

Performed procedure

Body part

Laterality

OK

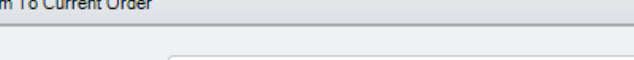
Cancel

Currently, the scanner (room) is hard coded to match the same scanner as the existing procedure. In the next phase, this will be expanded to allow the technologist to select a different scanner.

The procedures available in the dropdown will include any procedure code that is part of the Schedule Group for the scanner.

Upon clicking OK, a new exam will be added to the existing order. The Date and Time will default to the current date and time, similar to a Walk In.

For customers using Linked Reports, another option will be available if the current study is part of a set of linked studies.



Add Exam To Current Order

Scanner XR1EL

Performed procedure

Body part Laterality

☒ Add to linked collection

OK Cancel

Checking the “Add to linked collection” checkbox will automatically add the new procedure to the linked set. RIS will set the linked id and display the linked flag for the new study. This box will be checked by default.

It has always been possible to adjust the height of the list of today's procedures at the top of the Perform Exam tab by hovering on the dividing line and click/dragging when the double arrow appears. RIS will now remember this position and re-open with the same height for the next patient.

Include	Flags	Status	Procedures	Scheduled Date	Referring	Sedation	Room	Accession #
<input type="checkbox"/>		Started	US Soft Tissue - Lower Back [USST7]	03-28-2017 8:21 AM	BROWN, WILLIAM		US1EL	1036470QE17_
<input type="checkbox"/>		Started	US Thyroid [76536] - Neck	03-28-2017 7:37 AM	BROWN, WILLIAM		US1EL	1036468QE17_
<input checked="" type="checkbox"/>		Started	US Pelvic [US4994]	03-28-2017 7:06 AM	BROWN, WILLIAM		US1EL	1036469QE17_

Add exam to current order

Patient
Clinical
Order
Documentation
Exam Details
Billing Codes
Attachments
Notes / Exam Times
Image Request (0)
Good

### Tech Notes

Technologists notes

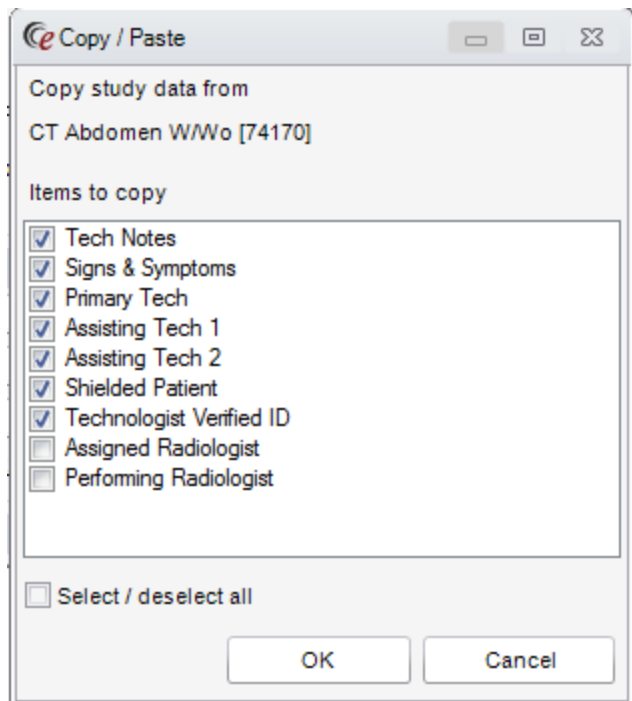
Primary tech \* Abel, Mabel

Assisting tech 1

---

**FEATURE #16294 – COPY/PASTE FEATURE NOW INCLUDES “TECHNOLOGIST VERIFIED ID”**

On the Perform Exam screen (Documentation tab), there is an option to Copy/Paste certain data elements to other included studies (via the Include checkbox). An option to include the “Technologist Verified ID” field in the Copy/Paste options has been added. This option will be checked by default.



There are a few related database fields that track the user id of the technologist and the date/time that this field was updated. The core RIS services ensure that these fields are also kept in sync when the copy/paste function is used.

## FEATURE #16293 – TECHNOLOGIST INFORMATION CAN AUTOMATICALLY COPY TO ALL LINKED STUDIES

When using the Linked Reporting feature, linked studies are not sent to the radiologist for dictation until all studies are completed by the technologist. For customers using linked reporting for exams that are performed on different days or in different modalities, it is preferable to prevent the radiologist from dictating before all of the images are available. However, for customers who routinely use Linked Reporting for multiple x-ray exams performed at the same time by the same technologist, this can cause workflow problems for linked reporting if the technologist forgets to complete one of the studies. In these environments, it is also desirable for certain information, such as primary technologist, technologist notes, and pregnancy status, to automatically copy to all of the studies that are part of the linked set.

For these purposes, the following System Configuration options are now available:

- *AutoIncludeLinkedStudiesForTech* – When set to True, RIS will automatically “include” all studies in a linked collection when the perform exam window is opened. This allows the technologist to Start and Complete all of the exams together. The default for this setting is False. In a future build, RIS will exclude studies in the linked collection if they have a different Modality Type. For this first phase, this behavior will apply to all studies in the linked collection **regardless** of Modality Type.
- *AutoCopyPasteLinkedStudies* – When set to True, RIS will automatically copy/paste all available fields from the most recently saved exam to all other checked exams in the linked collection. The Copy/Paste will occur any time a user saves any of the studies in the linked set from the Perform Exam screen. The default for this setting is False. To use this setting, the first setting, *AutoIncludeLinkedStudiesForTech*, must also be set to True.

Setting both of the above System Configuration settings to True will make the following workflow possible:

The technologist can open a study from the Technologist worklist and other studies that are part of the linked set will automatically be Included.

Include	Flags	Status	Procedures	S
<input type="checkbox"/>		Arrived	MA DIGITAL MAMMO CB DIAG BIL & US BREAST [G0204...	0
<input checked="" type="checkbox"/>		Arrived	CT Chest W & Abdomen WWo [CT42] - Chest	0
<input checked="" type="checkbox"/>		Arrived	CT Chest W [71260] - Chest	0

The technologist can fill in any fields that are required upon Start (e.g. entering the Primary Technologist). Clicking Start will copy the information to all of the checked studies and all of the studies will move to Started status.

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<input checked="" type="checkbox"/>	\$		Started	KR TIBIA FIBULA 2 VIEWS [73590] - Leg
<input checked="" type="checkbox"/>	\$		Started	KR KNEE 1-2 VIEWS, UNILAT [73560] - K
<input checked="" type="checkbox"/>	\$		Started	KR FEMUR 2 VIEWS [73550] - Leg

Additional information can be added on the Documentation tab and upon the next action which includes a save, such as Complete, Suspend or Save, the fields will copy to all of the included exams that are part of the linked set. Fields that will be copied include: Tech Notes, Signs & Symptoms, Primary Tech, Assisting Tech 1, Assisting Tech 2, Shielded Patient, Pregnancy Status information, Technologist Verified ID, Assigned Radiologist, and Performing Radiologist. These are the same fields that are available for manual (optional) copy/paste workflow, which is still available for customers who would not benefit from this new feature.

Please note that when the new feature is used, it is not possible to handle any of the linked studies separately. In other words, they cannot be de-selected from the Include workflow if they are part of the linked set.

---

## FEATURE #16138 - VALIDATION RULES FRAMEWORK HAS BEEN EXTENDED TO CONSIDER TABLES

Validation rules can now be created based off of patient/exam information that exists in tables, such as associated insurance carriers, MRNs and attachments.

Using the enhanced capability, the following validation rules are now possible:

1. Ability to require that at least one insurance is added if Self Pay is not selected.
2. Ability to warn the user, or prevent them from continuing, if a particular issuer of MRN has not been added for the patient.
3. Ability to warn the user, or prevent them from continuing, if a particular scanned document type (such as Referral) is not associated to an order.

As with all validation rules, the timing of the warning or hard stop can be customized.

These are only a few examples of rules that can be created. Please contact eRAD Support to inquire about creating validation rules for your organization.

### Service Notes:

The concept of table expressions was added to validation rules in order to allow for rules that consider 1-n type tables. When creating a validation rule, it is now possible to choose a data set and data table, then choose “(ComputedExpression)” and enter an expression and filter that will be evaluated against the specified table.

The property grid in the validation editor was updated to include a section called *Table Expressions* with two properties: Expression and ExpressionFilter. The expression is an aggregate function like Sum, Avg, Min, Max, Count, StDev, or Var. A description of aggregate expressions can be found here:

[https://msdn.microsoft.com/en-us/library/system.data.datacolumn.expression\(v=vs.110\).aspx](https://msdn.microsoft.com/en-us/library/system.data.datacolumn.expression(v=vs.110).aspx)

The ExpressionFilter can be used to determine which rows should be included in the expression. Expressions take the form of “<column\_name> <operator> <filterValue>” (e.g. “active\_flag = ‘Y’”), but they may also include Boolean (AND/OR) logic (e.g. “active\_flag = ‘Y’ AND sequence\_id = 1”).

See below for examples of validation rules that utilize the new framework.

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## VERIFIED ID VALIDATION RULE

<b>Data Mapping</b>	
DataSetName	Study
DataTableName	c_study
FieldName	(ComputedExpression)
<b>General</b>	
ActiveFlag	True
AlertType	Warning
IgnoreNulls	True
MessageTemplate	Patient ID has not been verified
Name	VerifiedID
Negated	True
PracticeCode	
ValidatorType	RangeValidator
<b>Misc Parameters</b>	
DefaultValue	
DomainMembers	String[] Array
RegexPattern	
<b>Range Parameters</b>	
LowerBound	0
LowerBoundUnit	None
UpperBound	0
UpperBoundUnit	None
<b>Status Filters</b>	
IntendedUIAction	UI_PatientArrived
OnOrAfterStatus	
<b>Table Expressions</b>	
Expression	count(study_key)
ExpressionFilter	verified_id_flag = 'Y'

The Verified ID Validation rule uses a Field of “(ComputedExpression)” and an *ExpressionFilter* of “verified\_id\_flag = 'Y'” so that RIS will count only the studies that have *verified\_id\_flag* set to a “Y”. The expression *count(study\_key)* means that the rule will validate the number of matching studies. The *ValidatorType* is set to a *RangeValidator* so that RIS can evaluate whether the count of matching studies falls within a certain range. The lower bound and

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upper bound of the range were both set to zero and the rule is Negated, which means RIS will pass validation only if there is at least one study that is verified\_id\_flag = 'Y'.

## SCANNED DOCUMENT VALIDATION RULES

▲ Data Mapping	
DataSetName	ScanDocumentList
DataTableName	c_vw_scan_document_list
FieldName	(ComputedExpression)
▲ General	
ActiveFlag	False
AlertType	PreventSave
IgnoreNulls	True
MessageTemplate	You must have a worksheet
Name	WorksheetExists
Negated	False
PracticeCode	
ValidatorType	RangeValidator
▲ Misc Parameters	
DefaultValue	
DomainMembers	
RegexPattern	
▲ Range Parameters	
LowerBound	1
LowerBoundUnit	None
UpperBound	1000
UpperBoundUnit	None
▲ Status Filters	
IntendedUIAction	UI_PatientArrived
OnOrAfterStatus	
▲ Table Expressions	
Expression	count(scan_document_key)
ExpressionFilter	scan_type_code = 'Worksheet' and CurrentOrdersFlag = 'Y'

The above “Worksheet Exists” validation rule is built as a blueprint for other scanned document based rules. It is included in the upgrade script, so it can be easily enabled or configured by the service team. *ScanDocumentList* was added as an option for DataSets to validate. The only data table in this data set is *c\_vw\_scan\_document\_list*. The *field name* has been set to “(ComputedExpression)”. The expression filter is configured to look for scan\_type\_code = ‘Worksheet’ and there is an additional check for CurrentOrdersFlag = ‘Y’, which here means that

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the scanned document is associated with one of the orders that is currently opened. *CurrentOrdersFlag* is a calculated column that takes into account all open orders and studies, including studies that are associated with a different order (e.g. OrderA/OrderB, a.k.a. bookX). In cases where the business rule called for a scanned document to simply be on file in the patient record, the CurrentOrdersFlag = 'Y' could be omitted. Another calculated column, *CurrentStudiesFlag*, performs the same function, but considers the study level instead. Conditions can be added, so that the Worksheet required in this example would only fire if the study has a Modality Type of Ultrasound.

## PATIENT INSURANCE VALIDATION RULES

The validation rule for patient insurance considers both insurances and self-pay. A rule is used to check *c\_visit\_x\_patient\_insurance* and if no rows are found, the rule will check the *bill\_to\_type\_code* on *c\_visit* to make sure RIS does not warn the user about missing insurance if “self pay” has been specified.

The rule with corresponding condition looks like this:

HasInsurance(c_visit_x_patient_insurance.(ComputedExpression))
Condition - UnlessBillToType(c_visit.bill_to_type_code)

Main rule:

<b>Data Mapping</b>	
DataSetName	Visit
DataTableName	c_visit_x_patient_insurance
FieldName	(ComputedExpression)
<b>General</b>	
ActiveFlag	True
AlertType	Warning
IgnoreNulls	True
MessageTemplate	Insurance information was not provided
Name	HasInsurance
Negated	False
PracticeCode	
ValidatorType	RangeValidator
<b>Misc Parameters</b>	
DefaultValue	
DomainMembers	
RegexPattern	
<b>Range Parameters</b>	
LowerBound	1
LowerBoundUnit	None
UpperBound	1000
UpperBoundUnit	None
<b>Status Filters</b>	
IntendedUIAction	UI_PatientArrived
OnOrAfterStatus	
<b>Table Expressions</b>	
Expression	count(visit_key)
ExpressionFilter	

The above validation rule checks to see if there is any insurance associated with the current visit.

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Condition:

▲ Data Mapping	
DataSetName	Visit
DataTableName	c_visit
FieldName	bill_to_type_code
▲ General	
ActiveFlag	True
AlertType	PreventSave
IgnoreNulls	False
MessageTemplate	
Name	UnlessBillToType
Negated	True
PracticeCode	
ValidatorType	NotNull
▲ Misc Parameters	
DefaultValue	
DomainMembers	
RegexPattern	
▲ Range Parameters	
LowerBound	
LowerBoundUnit	None
UpperBound	
UpperBoundUnit	None
▲ Status Filters	
IntendedUIAction	
OnOrAfterStatus	
▲ Table Expressions	
Expression	
ExpressionFilter	

The above condition checks to see if *bill\_to\_type\_code* is null and, if so, a validation failure occurs for exams that also failed the insurance check (main rule).

To replicate previous (hard coded) functionality, this rule is enabled by default, as a soft warning upon arrival. The service team can change the parent rule to “PreventSave” if they want to prevent the user from being able to Arrive without insurance/self-pay. It is also possible to change the timing of the warning/requirement. For

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example, a customer could choose to warn the user if an insurance has not been entered at the time of scheduling. A second rule could be used to enforce that an insurance is entered at the time of registration.

## MRN VALIDATION RULES

Data Mapping	
DataSetName	Patient
DataTableName	c_patient_key_data
FieldName	(ComputedExpression)
General	
ActiveFlag	False
AlertType	Warning
IgnoreNulls	True
MessageTemplate	Must have a QE Test ID
Name	QETestIssuer
Negated	False
PracticeCode	
ValidatorType	RangeValidator
Misc Parameters	
DefaultValue	
DomainMembers	
RegexPattern	
Range Parameters	
LowerBound	1
LowerBoundUnit	None
UpperBound	12
UpperBoundUnit	None
Status Filters	
IntendedUIAction	UI_PatientArrived
OnOrAfterStatus	
Table Expressions	
Expression	count(patient_key)
ExpressionFilter	issuer_of_patient_id = 'QE Test'

The above rule is a blueprint of a rule that can validate that the patient has at least one patient ID with a particular *Issuer*. The rule is disabled by default, but can be configured/enabled by the service team in the field. In the above sample, the rule is counting rows in the *c\_patient\_key\_data* table that have an issuer of “QE Test” at the point that

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the patient is arrived. The rule will display the message “Must have a QE Test ID” in the event that the patient is missing an ID issued by the “QE Test” issuer. In the field, this would be adjusted to look for (and warn about) an issuer that is required for the customer. Conditions can be added to this rule. For example, a condition could be added to require an issuer of Arizona State Prison if the Patient Class is set to Prisoner.

## FEATURE #16299 - ERAD RIS NOW SUPPORTS BOTH DEFAULT AND "RECOMMENDED" BILLING CODES

Note: this functionality was originally introduced in the previous patch, 2017.1.2. The description is included here because there have been further changes to the feature.

Previously, all billing codes associated to a procedure were active by default. In some cases, it may be useful to also associate billing codes that are *sometimes* used for a particular procedure. For example, some customers use a workflow in which procedure codes are broad, such as CT Sinus. In this case, the billing code might be the CPT for CT Sinus "with contrast," "without contrast," or "with and without contrast." Also, the CPT for contrast material may or may not be relevant depending on what is performed.

In these cases, being able to associate the billing codes that are most likely to be used for a particular procedure is more beneficial than creating default billing codes that are always active for the exam and have to be deactivated by the technologist.

To allow for this workflow, a new column has been added to the *l\_procedure\_code\_x\_billing\_code* sub-table, which is found in the Procedure Code look-up table. The column, **Add By Default**, will default to Y, meaning that the billing code will be associated and active for that procedure. This is the same as the previous behavior.

To associate billing codes without actively adding them to the procedure, set the Add By Default column to N. As you can see in the table below, it is possible to have a combination of Default billing codes and recommended/possible billing codes.

Lookup Tables - ProcedureCode		Perform Exam: TEST, Hilary #34689PE			
Procedure...	Description	Body Part...	Laterality Code	Body Part	
Contains:	Contains:	Contains:	Contains:	Contains:	Contains:
Click here to add a new row					
US4994	US Pelvic				N
l_procedure_code_x_billing_code		l_procedure_code_x_body_part		l_procedure_x_genera	
Procedure Code	Billing Code				Add By Default Flag
US4994	76856 (ULTRASOUND, PELVIC (NONOBSTETRIC)...				Y
US4994	76830 (ULTRASOUND, TRANSVAGINAL)				N
Click here to add a new row					

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In the example above, the only billing code that will be automatically added for the US Pelvic procedure is 76856. The billing code 76830 will now be available from a quick pick list, as shown below.

The screenshot shows the 'Billing Codes' tab in the eRAD RIS interface. A table lists billing codes for the procedure 'US Pelvic (US4994)'. The first row shows code '76856 (ULTRASOUND, PELVIC (NONOBSTETRIC))' with a red box around it and a red arrow pointing to the 'Add' button. A blue box highlights the 'Add' button's dropdown menu, which includes options 'Apply', 'Select All', and '76830 (ULTRASOUND, TRANSVAGINAL)'.

ABN	Units	Change R	Billing Code	CPT modi...	CPT modi...	PreCert #	Expiry Date	PreCert Status	Active
			76856 (ULTRASOUND, PELVIC (NONOBSTETRIC))						Y

When suggested codes are available for a procedure, the Add button will have a dropdown arrow allowing the user to quickly select and apply the suggested billing codes. Clicking the main Add button, instead of the dropdown arrow, will open the normal Add Billing Code screen where the entire list of Billing Codes can be accessed.

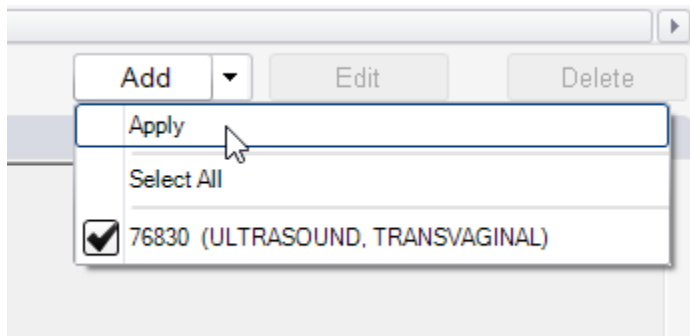
The 'Add Billing Code' dialog box contains the following fields:

- Billing code \* (dropdown menu)
- Units (spinner box with value 1)
- CPT modifier 1 (dropdown menu)
- CPT modifier 2 (dropdown menu)
- ABN (dropdown menu)
- Change reason (dropdown menu)

Buttons: Save, Cancel

If no recommendations exist, the Add button will not have the dropdown arrow and the Add Billing Code screen is the only option for adding additional billing codes.

To use suggested billing codes, click the dropdown arrow and check the box(es) to be added. Then click Apply.



This will add the billing code to the procedure in an Active status.

Exam Details	Billing Codes	Attachments	Notes / Exam Times	Image Request (0)	Goodie Test	ay testing grid
Billing Code	CPT mod...	CPT mod...	PreCert #	Expiry Date	PreCert Status	Active
76856 (ULTRASOUND, PELVIC (NONOBSTETRIC), ...					Not Required	Y
76830 (ULTRASOUND, TRANSVAGINAL)					Not Required	Y

If a technologist is performing multiple exams at once using the “Include” workflow, suggested billing codes will be available for each included procedure (if any).

Patient Clinical Order Documentation Exam Details Billing Codes Attachments Notes / Exam Times Image Request (0) Goodie Test ay testing grid You'll be

Billing Code Information

ABN	Units	Change Reason	Billing Code	CPT modifier 1
1			Procedure: US Thyroid (76536)	
	1		76536 (ULTRASOUND, SOFT TISSUES OF HEAD AND NECK (EG, THYROID, PARATHYROID, PAROTI...	
2			Procedure: US Pelvic (US4994)	
	1		76856 (ULTRASOUND, PELVIC (NONOBSTETRIC), REAL TIME WITH IMAGE DOCUMENTATION; COM...	

☐ Show previous precert and CPT codes

Verification and PreCert Notes

Hover to see suggested codes for each procedure

Add Edit Delete

US Pelvic (US4994) US Thyroid (76536)

Apply Select All 76830 (ULTRASOUND, TRANSVAGINAL)

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Suggested billing codes will not trigger IVT workflow. Once the suggested billing code has been added to the exam, it will be treated like normal active billing codes and IVT workflow will apply.

It is also now possible to select multiple lines in the active Billing Codes grid in order to delete them all at once, if needed. Selecting rows and clicking the Delete key on the keyboard is also allowed. The user will be prompted to confirm that they want to delete the selected billing code(s). Deleting a saved billing code row is the same as marking the row as "Active = N". If suggested billing codes are added, but deleted *before* the exam is saved, the row will simply be deleted.

The billing codes associated to any procedure code prior to this upgrade will all be set as Add By Default = Y, which means that they will continue to behave as they did prior to upgrading.

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**FEATURE #16310 – VALIDATION RULE TO ALERT USER WHEN NO BILLING CODES ARE PRESENT**

Previously, the RIS had a hard coded warning when there were no active billing codes for a procedure. Because the workflow for the above feature includes the possibility that some procedures will legitimately have no active billing codes at the time of scheduling or registration, the hard coded warning has been replaced with a validation rule that allows the customer to customize the timing for the warning (or change it to a hard stop if desired).

The original hard coded rule looked at procedure codes to see if any billing codes were mapped by the RIS administrators. The previous warning that stated: “There Are No Billing (CPT) Codes Mapped To This Procedure” has been removed and a new configurable rule has been added. The new rule does not look at Procedure/Billing Code mappings, but actually checks whether there are any studies that do not currently have billing codes attached.

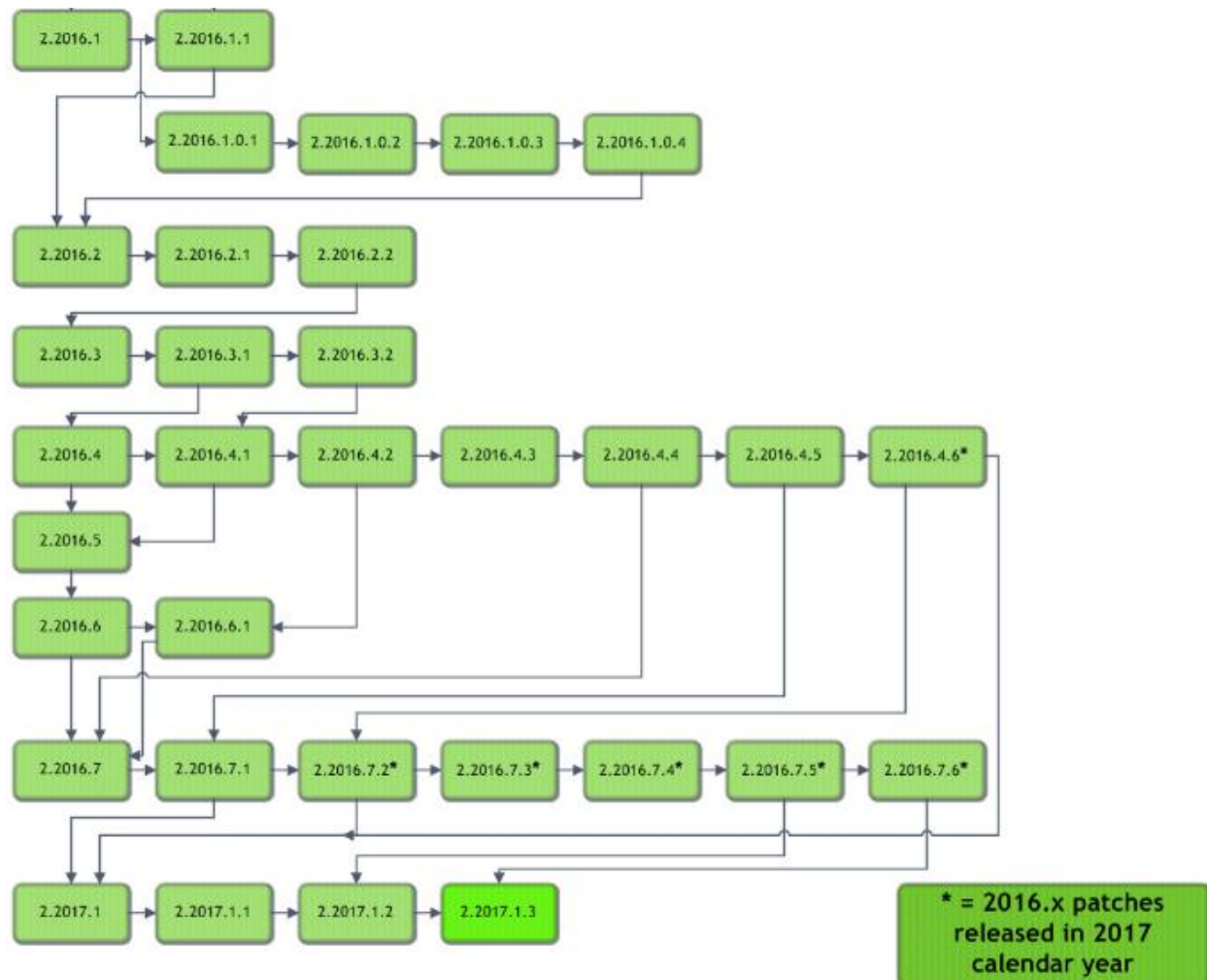
The new rule will be enabled by default to replicate existing functionality.

Data Mapping	
DataSetName	Study
DataTableName	c_study_item
FieldName	(ComputedExpression)
General	
ActiveFlag	True
AlertType	PreventSave
IgnoreNulls	True
MessageTemplate	Billing codes are required
Name	BillingCodesRequired
Negated	False
PracticeCode	
ValidatorType	RangeValidator
Misc Parameters	
DefaultValue	
DomainMembers	
RegexPattern	
Range Parameters	
LowerBound	1
LowerBoundUnit	None
UpperBound	1000
UpperBoundUnit	None
Status Filters	
IntendedUIAction	UI_PatientArrived
OnOrAfterStatus	
Table Expressions	
Expression	min(ActiveBillingCodeCount)
ExpressionFilter	active_flag = 'Y'

**RESOLVED ITEMS****eRAD RIS**

Redmine #	Subject
16506	Carestream PACS integration is now functional even if configuration file cannot be found.
16484	Resolved an issue causing an API object reference error for Carestream PACS integration.





## CODE STREAM

**Legend:**

Light Green = Previously Released software

Bright Green = Current Release

**PACKAGE CONTENTS**

Name	Date modified	Type	Size
 _ReleaseNotes	03/26/12 11:02 AM	File folder	
 DB	03/27/17 1:14 PM	File folder	
 rRISService	03/27/17 1:14 PM	File folder	
 ThickClient	03/27/17 1:15 PM	File folder	

**INTENDED AUDIENCE**

THE INTENDED AUDIENCE FOR THIS DOCUMENT IS THE RADNET CLINICAL SYSTEMS TEAM AND THE ERAD SUPPORT/SERVICE TEAM.

**WHO IS AFFECTED**

Build 20117.1 installs. This server update must be applied to 2017.1.2

## ERAD RIS RELEASE VERSION NUMBERS

	A	B	C	D	E	F	G	H	I	K
1	Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Notes
144	2016.1	1	2.16.1.1.33672 (3GB)	2.16.1.0.33079	2.16.1.0.33419	2.16.1.0.33416				GUI.zip
145	2016.1	.0.1	2.16.1.0.1 (3GB)	2.16.1.0.33079	2.16.1.0.33419	2.16.1.0.33416				GUI.zip (This is not included in 2016.1.1, version directly above)
146	2016.1	.0.2	2.16.1.0.1 (3GB)	2.16.1.0.33079	2.16.1.0.2	2.16.1.0.33416				Wedge Web Services only
147	2016.1	.0.3	2.16.1.0.3 (3GB)	2.16.1.0.33079	2.16.1.0.3	2.16.1.0.3.00128918				GUI.zip, Web Services and DB
148	2016.1	.0.4	2.16.1.0.4 (3GB)	2.16.1.0.33079	2.16.1.0.4	2.16.1.0.3.00128918				GUI.zip, Web Services
149	2016.2	-	2.16.2.0 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00172540				Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge
150	2016.2	1	2.16.2.1 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00172540				GUI.zip and Citrix Bridge
151	2016.2	2	2.16.2.2 (3GB)	2.16.2.0	2.16.2.0	2.16.2.2.00243102				GUI.zip, DB and Citrix Bridge
153	2016.3	-	2.16.3.0 (3GB)	2.16.3.0	2.16.3.0	2.16.3.0.00257101	2.16.3.0			Full Version Release
154	2016.3	1	2.16.3.1	2.16.3.0	2.16.3.1	2.16.3.1.00298834	2.16.3.0			GUI.zip, Web Service and DB
155	2016.3	2	2.16.3.2	2.16.3.0	2.16.3.2	2.16.3.1.00298834	2.16.3.0			GUI.zip and Web Service
156	2016.4	-	2.16.4.0	2.16.4.0	2.16.4.0	2.16.4.0.00301943	2.16.4.0	1.16.4.0.310284		Full Version Release
157	2016.4	1	2.16.4.1	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	1.16.4.0.310284		GUI and Web Service updates
158	2016.4	2	2.16.4.2 (3GB)	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	1.16.4.2.460241		GUI and Patient Portal updates
159	2016.4	3	2.16.4.3 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	1.16.4.3.489120		GUI and Patient Portal updates
160	2016.4	4	2.16.4.4 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	1.16.4.3.489120		GUI
161	2016.4	5	2.16.4.5 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0			GUI
162	2016.4	6	2.16.4.6 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0			GUI
163	2016.5	-	2.16.5.0 (3GB)	2.16.5.0	2.16.5.0	2.16.5.0.00349303	2.16.5.0	1.16.5.0.362009		Full Version Release
164	2016.6	-	2.16.6.0 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	1.16.6.0.432471		Full Version Release
165	2016.6	1	2.16.6.1 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	1.16.6.1.468583		GUI and Patient Portal updated
166	2016.7	-	2.16.7.0 (3GB)	2.16.7.0	2.16.7.0	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	Full version release
167	2016.7	1	2.16.7.1 (3GB)	2.16.7.0	2.16.7.1	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	GUI and Web Service updates
168	2016.7	2	2.16.7.2 (3GB)	2.16.7.0	2.16.7.2	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	GUI and Web Service updates
169	2016.7	3	2.16.7.3 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	GUI and Web Service updates
170	2016.7	4	2.16.7.4 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	GUI
171	2016.7	5	2.16.7.5 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	GUI
172	2016.7	6	2.16.7.6 (3GB)	2.16.7.0	2.16.7.6	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	GUI and Web Service updates
173	2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000	Full Version Release
174	2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000	GUI, Web Service and DB updates
175	2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000	GUI, Web Service and DB updates
176	2017.1	3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000	GUI, Web Service and DB updates

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## INSTALLING

### CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD\_rRIS\_2017.1.3.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

### WEB SERVICE

This update is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

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 128 files in the rRISService folder and 7 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). Folders ar (Arabic), he (Hebrew), pt\_BR (Brazilian Portuguese) and es-AR (Argentina Spanish) are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc...

### **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, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

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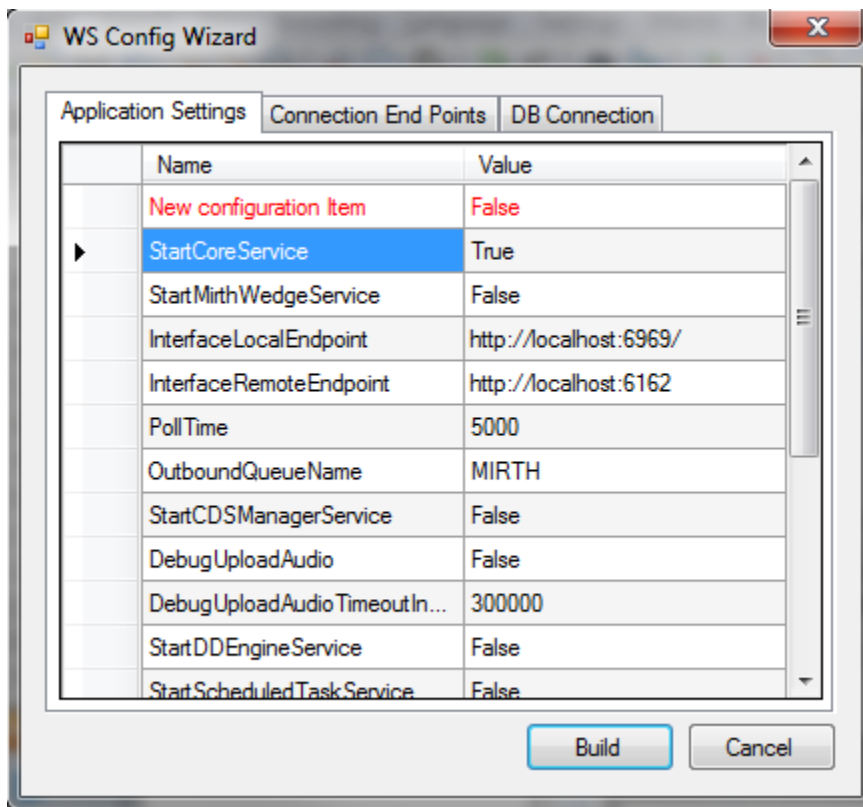
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On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

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.



**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

---

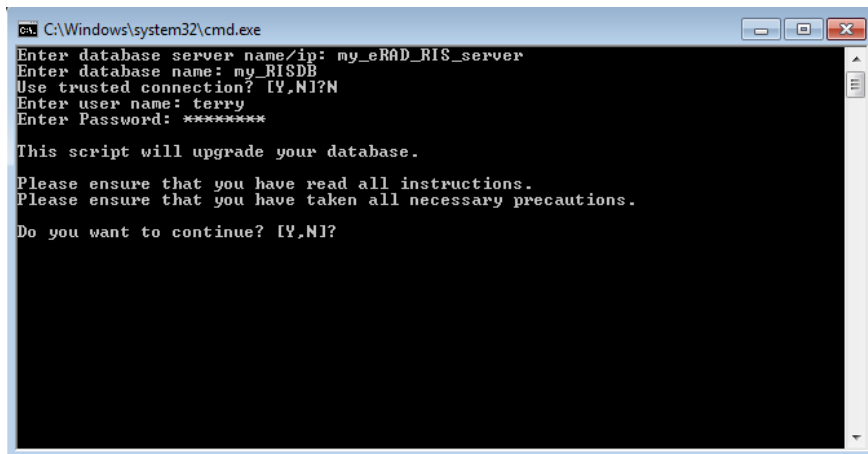
## DATABASE UPDATES

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: 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]?
```

- 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

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# Server Update

For eRAD RIS

Version 2.0

Build 2.2017.1

Update 2.2017.1.4

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## PACKAGE CONTENTS

 _ReleaseNotes	05/02/2017 11:31 AM
 DB	05/02/2017 11:28 AM
 PatientConnect	05/02/2017 10:54 AM
 rRISService	05/02/2017 9:40 AM
 ThickClient	05/02/2017 11:28 AM

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

## WHO IS AFFECTED

Build 2017.1 installs. This server update must be applied to 2017.1.3.

## NEW FEATURES

### FEATURE #16591 – STRIP LAST CHARACTER FROM VARIABLES PASSED TO EXTERNAL PORTALS

The existing portal feature in eRAD RIS allows the customer to pass patient data to external portals, such as a Health Information Exchange (HIE), in order to pull up records in the external portal. There was an international requirement to strip the last character from the MRN before passing it to the portal.

A new plugin has been added which allows the user to strip the last character from any variable.

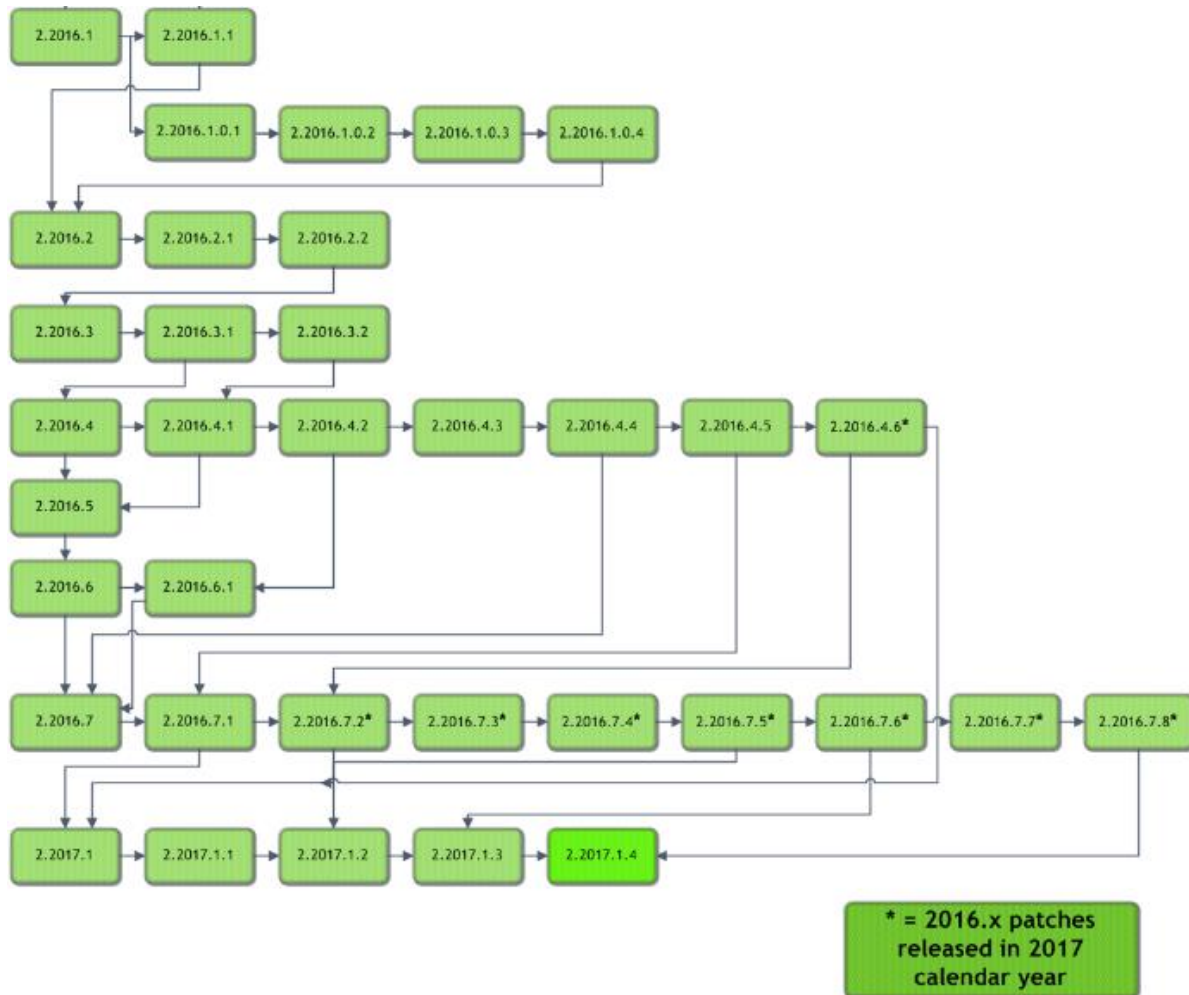
When creating/updating an entry in BrowserConfig, the URL can support using “filters” in the URL string. For example, to get the patient id into the URL of the portal page to be opened, the variable would be specified as {patient.c\_patient.patient\_id}. To strip the last character from the patient id, this would need to be changed to: {patient.c\_patient.patient\_id |StripLastChar}. The additional text in blue tells the RIS to send the patient\_id value through the StripLastChar filter before adding the value to the URL that passes the data to the external portal.

## RESOLVED ITEMS

## eRAD RIS

Redmine #	Subject
17061	Resolved an error that prevented the addition of a billing code which had been previously deleted.
17059	An intermittent error for referring physicians with imaging preferences no longer occurs.
16924	Resolved intermittent patient history errors that occurred when starting or completing an exam in technologist workflow.
16901	Selected attachment viewer in reporting screens can once again display the report.
16883	CSH images now close properly after closing Dictation.
16882	Restored the ability to open the IVT screen for a cancelled order.
16869	Resolved an issue that could cause billing code units to be null when scheduling an exam that was previously Saved as Order.
16997	Restored the ability to save attachments from the "Attachments" context menu item.
16983	Rescheduled studies with unknown referring are once again appearing on the Unknown Reconciliation WL as intended.
16965	Peer review button is available when the selected report is displayed on Selected Attachment data pane in the reporting screen, even after scrolling through other documents and returning to the report.
16984	Diagnostic report is no longer missing the report body when first retrieved by External Interface Service.



**CODE STREAM****Legend:**

Light Green = Previously Released software

Bright Green = Current Release

## ERAD RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Notes
2016.1	1	2.16.1.1.33672 (3GB)	2.16.1.0.33079	2.16.1.0.33419	2.16.1.0.33416				GUI.zip
2016.1	.0.1	2.16.1.0.1 (3GB)	2.16.1.0.33079	2.16.1.0.33419	2.16.1.0.33416				GUI.zip (This is not included in 2016.1.1, version directly above)
2016.1	.0.2	2.16.1.0.1 (3GB)	2.16.1.0.33079	2.16.1.0.2	2.16.1.0.33416				Wedge Web Services only
2016.1	.0.3	2.16.1.0.3 (3GB)	2.16.1.0.33079	2.16.1.0.3	2.16.1.0.3.00128918				GUI.zip, Web Services and DB
2016.1	.0.4	2.16.1.0.4 (3GB)	2.16.1.0.33079	2.16.1.0.4	2.16.1.0.3.00128918				GUI.zip, Web Services
2016.2	-	2.16.2.0 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00172540				Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge
2016.2	1	2.16.2.1 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00172540				GUI.zip and Citrix Bridge
2016.2	2	2.16.2.2 (3GB)	2.16.2.0	2.16.2.0	2.16.2.2.00243102				GUI.zip, DB and Citrix Bridge
2016.3	-	2.16.3.0 (3GB)	2.16.3.0	2.16.3.0	2.16.3.0.00257101	2.16.3.0			Full Version Release
2016.3	1	2.16.3.1	2.16.3.0	2.16.3.1	2.16.3.1.00298834	2.16.3.0			GUI.zip, Web Service and DB
2016.3	2	2.16.3.2	2.16.3.0	2.16.3.2	2.16.3.1.00298834	2.16.3.0			GUI.zip and Web Service
2016.4	-	2.16.4.0	2.16.4.0	2.16.4.0	2.16.4.0.00301943	2.16.4.0	1.16.4.0.310284		Full Version Release
2016.4	1	2.16.4.1	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	1.16.4.0.310284		GUI and Web Service updates
2016.4	2	2.16.4.2 (3GB)	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	1.16.4.2.460241		GUI and Patient Portal updates
2016.4	3	2.16.4.3 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	1.16.4.3.489120		GUI and Patient Portal updates
2016.4	4	2.16.4.4 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	1.16.4.3.489120		GUI
2016.4	5	2.16.4.5 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0			GUI
2016.4	6	2.16.4.6 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0			GUI
2016.5	-	2.16.5.0 (3GB)	2.16.5.0	2.16.5.0	2.16.5.0.00349303	2.16.5.0	1.16.5.0.362009		Full Version Release
2016.6	-	2.16.6.0 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	1.16.6.0.432471		Full Version Release
2016.6	1	2.16.6.1 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	1.16.6.1.468583		GUI and Patient Portal updated
2016.7	-	2.16.7.0 (3GB)	2.16.7.0	2.16.7.0	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	Full version release
2016.7	1	2.16.7.1 (3GB)	2.16.7.0	2.16.7.1	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	GUI and Web Service updates
2016.7	2	2.16.7.2 (3GB)	2.16.7.0	2.16.7.2	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	GUI and Web Service updates
2016.7	3	2.16.7.3 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	GUI and Web Service updates
2016.7	4	2.16.7.4 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	GUI
2016.7	5	2.16.7.5 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	GUI
2016.7	6	2.16.7.6 (3GB)	2.16.7.0	2.16.7.6	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	GUI and Web Service updates
2016.7	7	2.16.7.7 (3GB)	2.16.7.0	2.16.7.7	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	GUI and Web Service updates
2016.7	8	2.16.7.8 (3GB)	2.16.7.0	2.16.7.7	2.16.7.8.00683507	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	GUI and DB updates
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000	Full Version Release
2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000	GUI, Web Service and DB updates
2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000	GUI, Web Service and DB updates
2017.1	3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000	GUI, Web Service and DB updates
2017.1	4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000	GUI, Web Service, DB and Patient Portal updates

## INSTALLING

### CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD\_rRIS\_2017.1.4.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

### WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

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 128 files in the rRISService folder and 7 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). Folders ar (Arabic), he (Hebrew), pt\_BR (Brazilian Portuguese) and es-AR (Argentina Spanish) are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc...

#### **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, and 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"

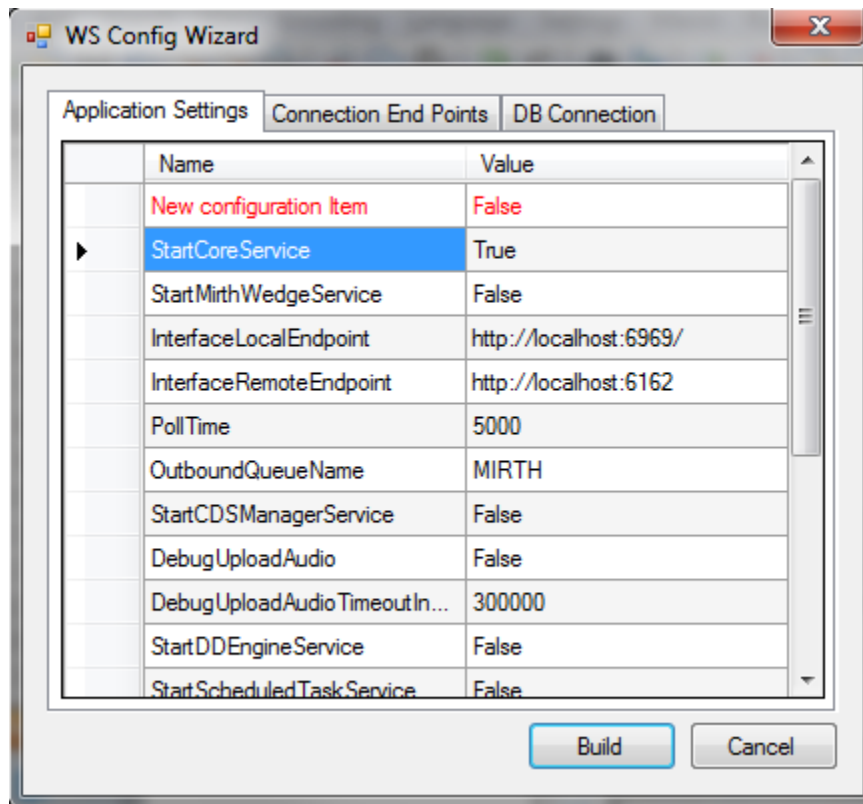
This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

---

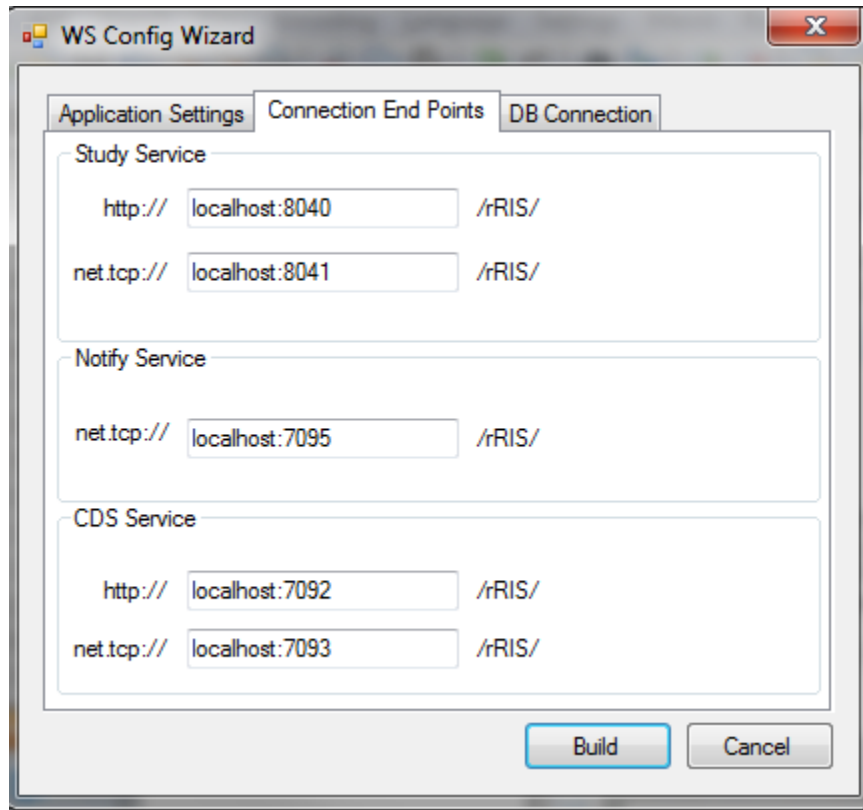
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in any form or by any means without the prior written permission from eRAD.

**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.



**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.



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## DATABASE UPDATES

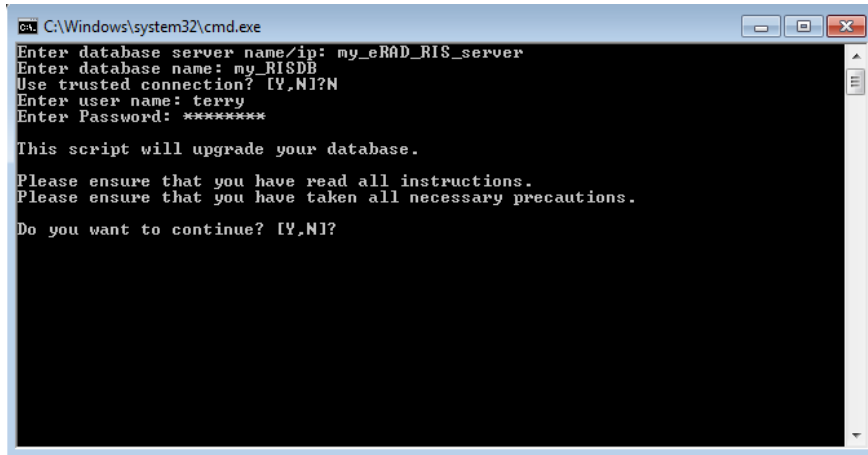
Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*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: 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]?
```

- 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

# Server Update

For eRAD RIS

Version 2.0

Build 2.2017.1

Update 2.2017.1.6

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## PACKAGE CONTENTS

 _ReleaseNotes	06/02/2017 2:45 PM
 DB	06/02/2017 2:44 PM
 ThickClient	06/02/2017 2:43 PM

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

## WHO IS AFFECTED

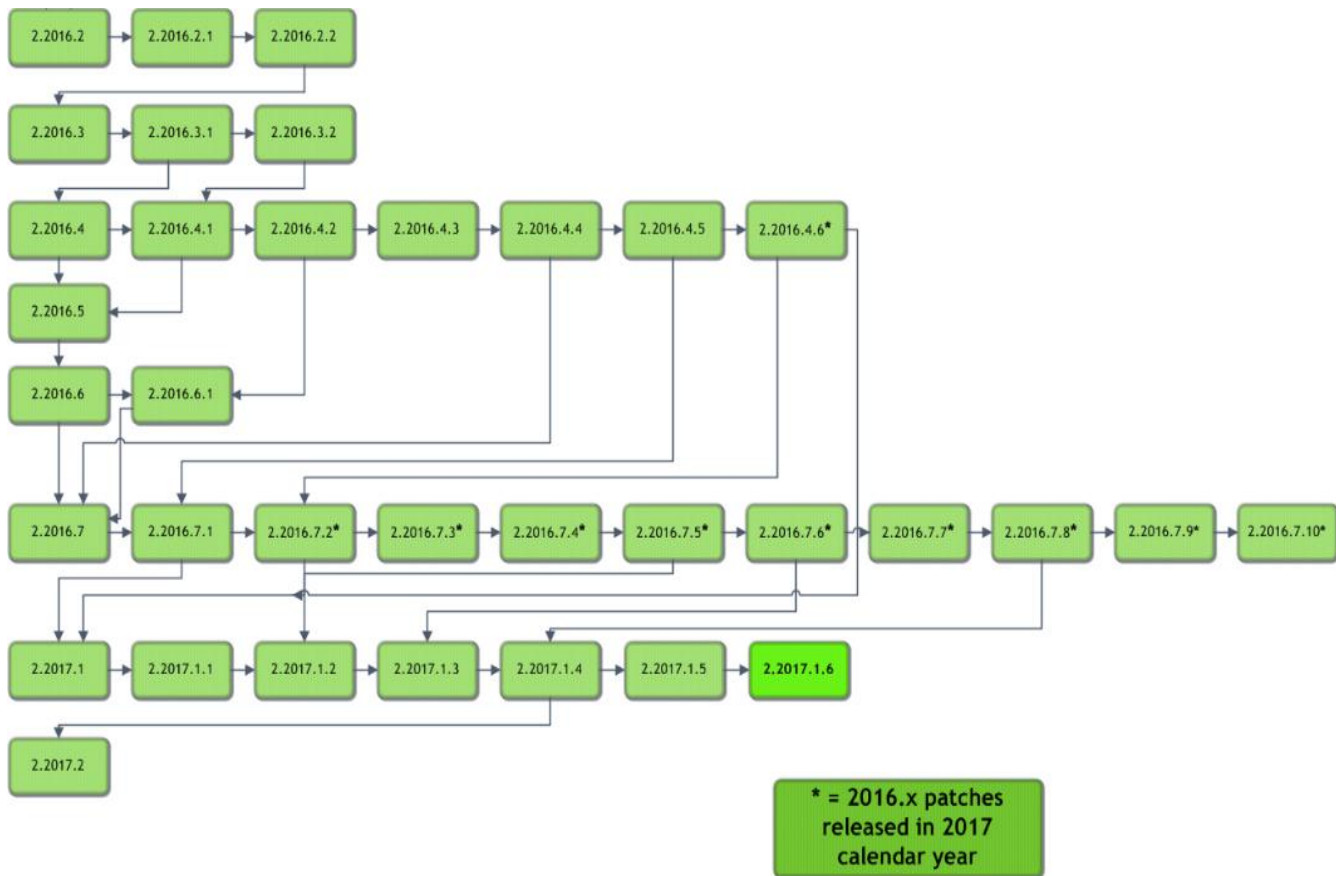
Build 2017.1 installs. This server update must be applied to 2017.1.5.

## RESOLVED ITEMS

**eRAD RIS**

Redmine #	Subject
17387	Restored the ability to select a value for a picklist field in the Create/Edit screen (from which it is possible for a technologist or transcriptionist to begin the report for the radiologist).
17409	Added two missing indexes that were originally part of the 2017.1.4 database upgrade.

## CODE STREAM

**Legend:**

Light Green = Previously Released software

Bright Green = Current Release

## ERAD RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2016.1	-	2.16.1.0.33419 (3GB)	2.16.1.0.33079	2.16.1.0.33419	2.16.1.0.33416					GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge
2016.1	1	2.16.1.1.33672 (3GB)	2.16.1.0.33079	2.16.1.0.33419	2.16.1.0.33416					GUI.zip
2016.1	.0.1	2.16.1.0.1 (3GB)	2.16.1.0.33079	2.16.1.0.33419	2.16.1.0.33416					GUI.zip (This is not included in 2016.1.1, version directly above)
2016.1	.0.2	2.16.1.0.1 (3GB)	2.16.1.0.33079	2.16.1.0.2	2.16.1.0.33416					Wedge Web Services only
2016.1	.0.3	2.16.1.0.3 (3GB)	2.16.1.0.33079	2.16.1.0.3	2.16.1.0.3.00128918					GUI.zip, Web Services and DB
2016.1	.0.4	2.16.1.0.4 (3GB)	2.16.1.0.33079	2.16.1.0.4	2.16.1.0.3.00128918					GUI.zip, Web Services
2016.2	-	2.16.2.0 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00172540					Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge
2016.2	1	2.16.2.1 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00172540					GUI.zip and Citrix Bridge
2016.2	2	2.16.2.2 (3GB)	2.16.2.0	2.16.2.0	2.16.2.2.00243102					GUI.zip, DB and Citrix Bridge
2016.3	-	2.16.3.0 (3GB)	2.16.3.0	2.16.3.0	2.16.3.0.00257101	2.16.3.0				Full Version Release
2016.3	1	2.16.3.1	2.16.3.0	2.16.3.1	2.16.3.1.00298834	2.16.3.0				GUI.zip, Web Service and DB
2016.3	2	2.16.3.2	2.16.3.0	2.16.3.2	2.16.3.1.00298834	2.16.3.0				GUI.zip and Web Service
2016.4	-	2.16.4.0	2.16.4.0	2.16.4.0	2.16.4.0.00301943	2.16.4.0	1.16.4.0.310284			Full Version Release
2016.4	1	2.16.4.1	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	1.16.4.0.310284			GUI and Web Service updates
2016.4	2	2.16.4.2 (3GB)	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	1.16.4.2.460241			GUI and Patient Portal updates
2016.4	3	2.16.4.3 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	1.16.4.3.489120			GUI and Patient Portal updates
2016.4	4	2.16.4.4 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	1.16.4.3.489120			GUI
2016.4	5	2.16.4.5 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0				GUI
2016.4	6	2.16.4.6 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0				GUI
2016.5	-	2.16.5.0 (3GB)	2.16.5.0	2.16.5.0	2.16.5.0.00349303	2.16.5.0	1.16.5.0.362009			Full Version Release
2016.6	-	2.16.6.0 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	1.16.6.0.432471			Full Version Release
2016.6	1	2.16.6.1 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	1.16.6.1.468583			GUI and Patient Portal updated
2016.7	-	2.16.7.0 (3GB)	2.16.7.0	2.16.7.0	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		Full version release
2016.7	1	2.16.7.1 (3GB)	2.16.7.0	2.16.7.1	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	2	2.16.7.2 (3GB)	2.16.7.0	2.16.7.2	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	3	2.16.7.3 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	4	2.16.7.4 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	5	2.16.7.5 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	6	2.16.7.6 (3GB)	2.16.7.0	2.16.7.6	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	7	2.16.7.7 (3GB)	2.16.7.0	2.16.7.7	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	8	2.16.7.8 (3GB)	2.16.7.0	2.16.7.7	2.16.7.8.00683507	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and DB updates
2016.7	9	2.16.7.9 (3GB)	2.16.7.0	2.16.7.9	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Services, DB updates and UM Portal
2016.7	10	2.16.7.10 (3GB)	2.16.7.0	2.16.7.10	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI and Web Service updates
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		Full Version Release
2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI, Web Service, DB and Patient Portal updates
2017.1	5	2.17.1.4 (3GB)	2.17.1.0	2.17.1.5	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		Web Service
2017.1	6	2.17.1.6 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and DB Updates
2017.2	-	2.17.2.0 (3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0	2.17.2.0.702238	2.17.2.0.702213	2.17.2.0.702226	Full Version Release. First release of Provider Portal

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## INSTALLING

### CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD\_rRIS\_2017.1.6.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

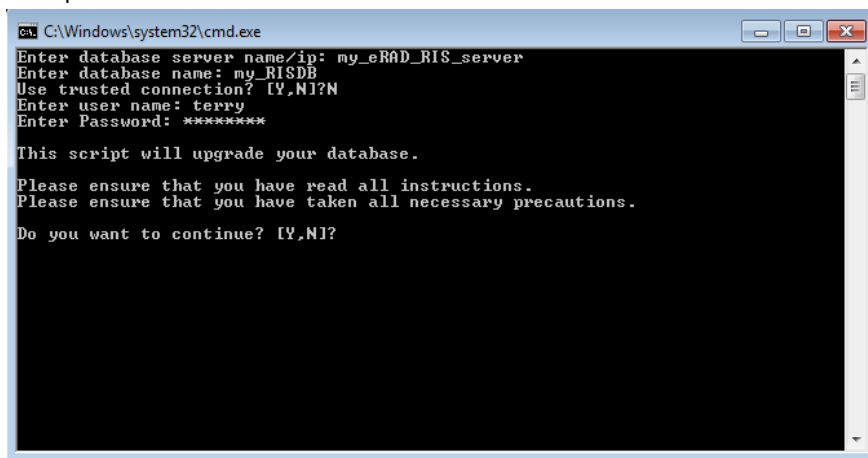
### DATABASE UPDATES

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: 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]?
```

- 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

# **Server Update**

For eRAD RIS

Version 2.0

Build 2.2017.1

Update 2.2017.1.7

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## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

## WHO IS AFFECTED

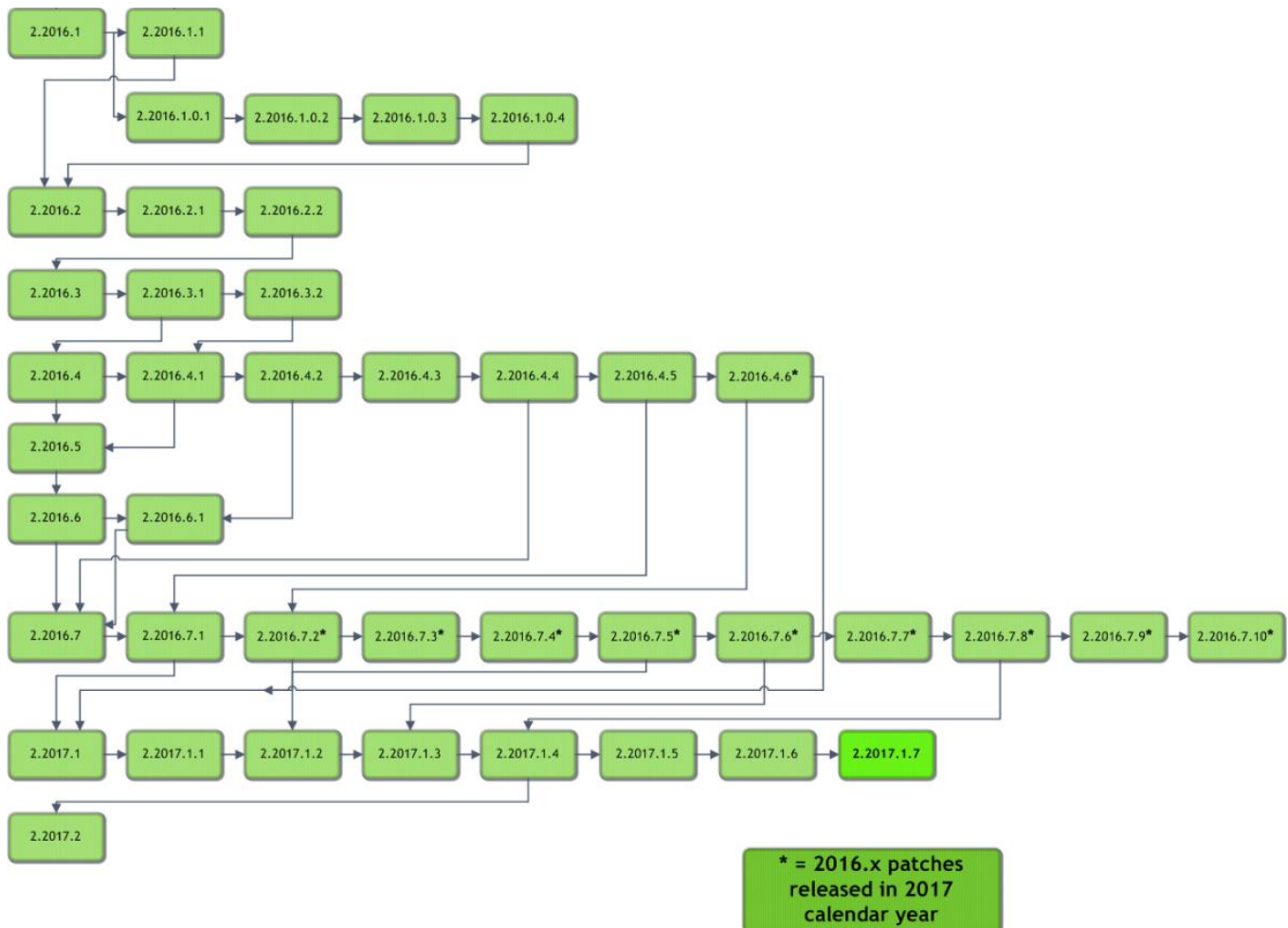
Build 2017.1 installs. This server update must be applied to 2017.1.6 (note there are web service changes in 2017.1.5 as well that will need to be applied).

## RESOLVED ITEMS

## eRAD RIS

Redmine #	Subject
17466	Instituted a new safeguard to ensure RIS doesn't add the same alternate ID to the patient ID grid more than once. This resolves an issue that occurred under a particular set of circumstances with electronic orders.

## CODE STREAM

**Legend:**

Light Green = Previously Released software

Bright Green = Current Release

## ERAD RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2016.1	-	2.16.1.0.33419 (3GB)	2.16.1.0.33079	2.16.1.0.33419	2.16.1.0.33416					GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge
2016.1	1	2.16.1.1.33672 (3GB)	2.16.1.0.33079	2.16.1.0.33419	2.16.1.0.33416					GUI.zip
2016.1	.0.1	2.16.1.0.1 (3GB)	2.16.1.0.33079	2.16.1.0.33419	2.16.1.0.33416					GUI.zip (This is not included in 2016.1.1, version directly above)
2016.1	.0.2	2.16.1.0.1 (3GB)	2.16.1.0.33079	2.16.1.0.2	2.16.1.0.33416					Wedge Web Services only
2016.1	.0.3	2.16.1.0.3 (3GB)	2.16.1.0.33079	2.16.1.0.3	2.16.1.0.3.00128918					GUI.zip, Web Services and DB
2016.1	.0.4	2.16.1.0.4 (3GB)	2.16.1.0.33079	2.16.1.0.4	2.16.1.0.3.00128918					GUI.zip, Web Services
2016.2	-	2.16.2.0 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00172540					Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge
2016.2	1	2.16.2.1 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00172540					GUI.zip and Citrix Bridge
2016.2	2	2.16.2.2 (3GB)	2.16.2.0	2.16.2.0	2.16.2.2.00243102					GUI.zip, DB and Citrix Bridge
2016.3	-	2.16.3.0 (3GB)	2.16.3.0	2.16.3.0	2.16.3.0.00257101	2.16.3.0				Full Version Release
2016.3	1	2.16.3.1	2.16.3.0	2.16.3.1	2.16.3.1.00298834	2.16.3.0				GUI.zip, Web Service and DB
2016.3	2	2.16.3.2	2.16.3.0	2.16.3.2	2.16.3.1.00298834	2.16.3.0				GUI.zip and Web Service
2016.4	-	2.16.4.0	2.16.4.0	2.16.4.0	2.16.4.0.00301943	2.16.4.0	1.16.4.0.310284			Full Version Release
2016.4	1	2.16.4.1	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	1.16.4.0.310284			GUI and Web Service updates
2016.4	2	2.16.4.2 (3GB)	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	1.16.4.2.460241			GUI and Patient Portal updates
2016.4	3	2.16.4.3 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	1.16.4.3.489120			GUI and Patient Portal updates
2016.4	4	2.16.4.4 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	1.16.4.3.489120			GUI
2016.4	5	2.16.4.5 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0				GUI
2016.4	6	2.16.4.6 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0				GUI
2016.5	-	2.16.5.0 (3GB)	2.16.5.0	2.16.5.0	2.16.5.0.00349303	2.16.5.0	1.16.5.0.362009			Full Version Release
2016.6	-	2.16.6.0 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	1.16.6.0.432471			Full Version Release
2016.6	1	2.16.6.1 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	1.16.6.1.468583			GUI and Patient Portal updated
2016.7	-	2.16.7.0 (3GB)	2.16.7.0	2.16.7.0	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		Full version release
2016.7	1	2.16.7.1 (3GB)	2.16.7.0	2.16.7.1	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	2	2.16.7.2 (3GB)	2.16.7.0	2.16.7.2	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	3	2.16.7.3 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	4	2.16.7.4 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	5	2.16.7.5 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	6	2.16.7.6 (3GB)	2.16.7.0	2.16.7.6	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	7	2.16.7.7 (3GB)	2.16.7.0	2.16.7.7	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	8	2.16.7.8 (3GB)	2.16.7.0	2.16.7.7	2.16.7.8.00683507	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and DB updates
2016.7	9	2.16.7.9 (3GB)	2.16.7.0	2.16.7.9	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Services, DB updates and UM Portal
2016.1	10	2.16.7.10 (3GB)	2.16.7.0	2.16.7.10	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI and Web Service updates
2016.1	11	2.16.7.11 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00746920	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Service and updates
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		Full Version Release
2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		GUI, Web Service and DB updates
2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		GUI, Web Service and DB updates
2017.1	3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		GUI, Web Service and DB updates
2017.1	4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI, Web Service, DB and Patient Portal updates
2017.1	5	2.17.1.4 (3GB)	2.17.1.0	2.17.1.5	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		Web Service
2017.1	6	2.17.1.6 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI and DB Updates
2017.1	7	2.17.1.7 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI update
2017.2	-	2.17.2.0 (3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0	2.17.2.0.702238	2.17.2.0.702213	2.17.2.0.702226	Full Version Release. First release of Provider Portal

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## INSTALLING

### CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD\_rRIS\_2017.1.7.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

# **Server Update**

For eRAD RIS

Version 2.0

Build 2.2017.1

Update 2.2017.1.8

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 _ReleaseNotes	6/14/2017 10:06 AM
 ThickClient	6/14/2017 10:07 AM

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

## WHO IS AFFECTED

Build 2017.1 installs. This server update must be applied to 2017.1.6 (note there are web service changes in 2017.1.5 as well that will need to be applied).



## NEW FEATURES

## FEATURE #17458 – USER PREFERENCES TO DISABLE INPUT DEVICES

User preferences were added to allow disabling the Input Devices.

The screenshot shows the 'User Preferences' dialog box with the 'Input Device' tab selected. The dialog is divided into several sections:

- Barcode Reader:** Action: Diagnose on accession number.
- Foot Pedal Actions:** ☒ Enable Foot Pedals. Below this, it says 'No supported devices connected.'
- Keyboard Key Actions:** Arrow Left: Do nothing; Arrow Right: Do nothing.
- SpeechMike™ Button Actions:** ☒ Enable SpeechMike. Below this are various buttons with their actions:
 

EOL	Submit audio
Instr	STAT
Ins/Ovr	Insert/Overwrite
Record	Record
Play	Play
RWD	Rewind
FWD	Next field
F1	Sign report
F2	Previous field
F3	Next field
F4	Do nothing
Trigger	Do nothing
- PowerMicll™ Button Actions:** ☒ Enable PowerMicll. Below this are various buttons with their actions:
 

Transcribe	Do nothing
Tab Backward	Do nothing
Tab Forward	Do nothing
Dictate	Record
Stop/Play	Play
Rewind	Rewind
Fast Forward	Fast forward
Custom Left	Do nothing
Custom Right	Do nothing
Enter/Select	Do nothing
Scan	Do nothing

At the bottom of the dialog are 'Save' and 'Close' buttons.

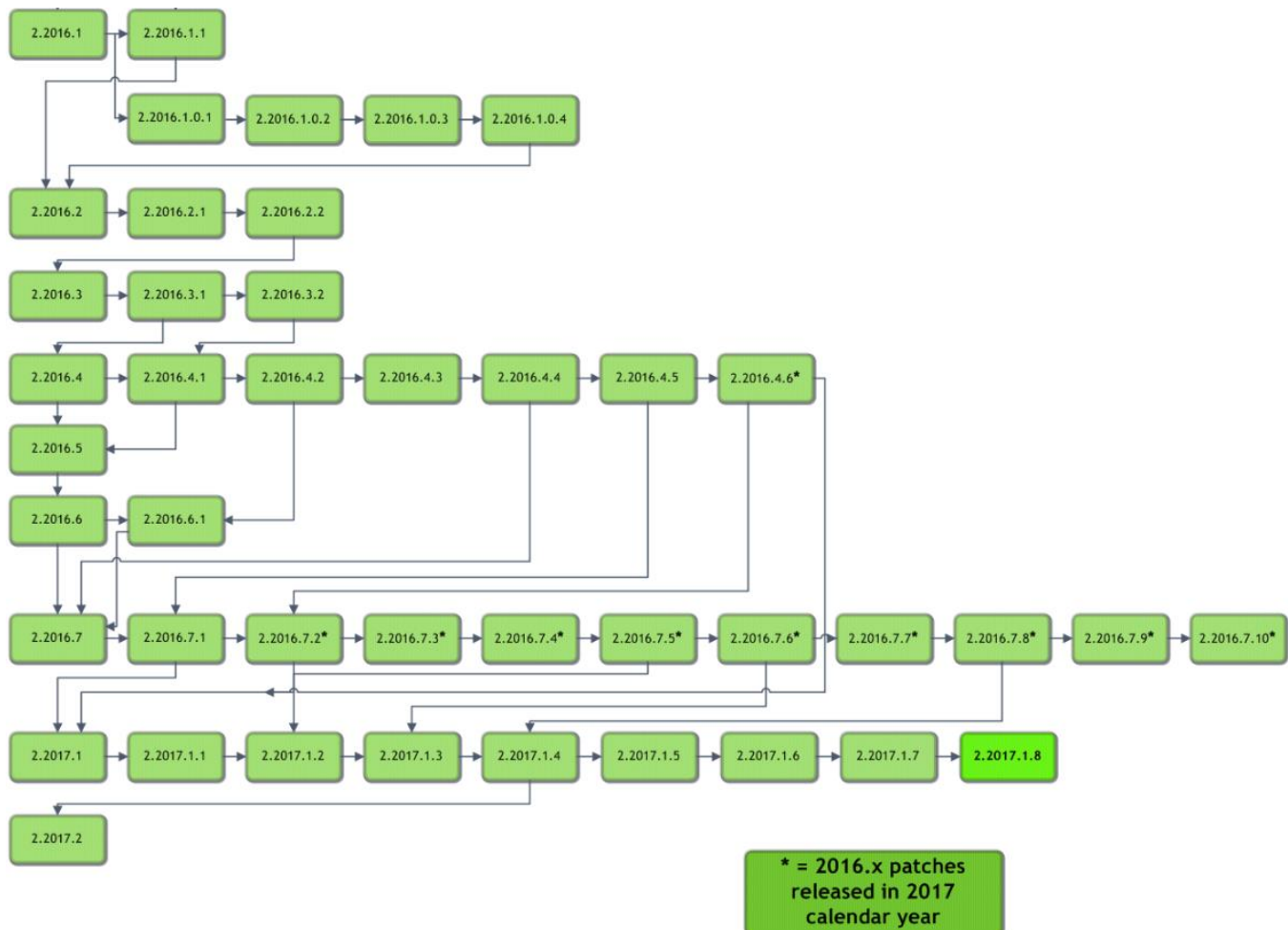
Note: “Enable Foot Pedals” and “Enable SpeechMike” are essentially the same. They will stay in sync and control what is essentially one user preference. However these were created as separate preferences because if the user is not a radiologist, they will not have access to the SpeechMike group box. Separating the preferences in this way will ensure that users are able to see and set the preference regardless of their exact role.

**RESOLVED ITEMS**

**eRAD RIS**

Redmine #	Subject
17458	Add User Preferences to Disable Input Devices

## CODE STREAM

**Legend:**

Light Green = Previously Released software

Bright Green = Current Release

## ERAD RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2016.2	-	2.16.2.0 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00172540					Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge
2016.2	1	2.16.2.1 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00172540					GUI.zip and Citrix Bridge
2016.2	2	2.16.2.2 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00243102					GUI.zip, DB and Citrix Bridge
2016.3	-	2.16.3.0 (3GB)	2.16.3.0	2.16.3.0	2.16.3.0.00257101	2.16.3.0				Full Version Release
2016.3	1	2.16.3.1	2.16.3.0	2.16.3.1	2.16.3.1.00298834	2.16.3.0				GUI.zip, Web Service and DB
2016.3	2	2.16.3.2	2.16.3.0	2.16.3.2	2.16.3.1.00298834	2.16.3.0				GUI.zip and Web Service
2016.4	-	2.16.4.0	2.16.4.0	2.16.4.0	2.16.4.0.00301943	2.16.4.0	1.16.4.0.310284			Full Version Release
2016.4	1	2.16.4.1	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	1.16.4.0.310284			GUI and Web Service updates
2016.4	2	2.16.4.2 (3GB)	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	1.16.4.2.460241			GUI and Patient Portal updates
2016.4	3	2.16.4.3 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	1.16.4.3.489120			GUI and Patient Portal updates
2016.4	4	2.16.4.4 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	1.16.4.3.489120			GUI
2016.4	5	2.16.4.5 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0				GUI
2016.4	6	2.16.4.6 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0				GUI
2016.5	-	2.16.5.0 (3GB)	2.16.5.0	2.16.5.0	2.16.5.0.00349303	2.16.5.0	1.16.5.0.362009			Full Version Release
2016.6	-	2.16.6.0 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	1.16.6.0.432471			Full Version Release
2016.6	1	2.16.6.1 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	1.16.6.1.468583			GUI and Patient Portal updated
2016.7	-	2.16.7.0 (3GB)	2.16.7.0	2.16.7.0	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		Full version release
2016.7	1	2.16.7.1 (3GB)	2.16.7.0	2.16.7.1	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	2	2.16.7.2 (3GB)	2.16.7.0	2.16.7.2	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	3	2.16.7.3 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	4	2.16.7.4 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	5	2.16.7.5 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	6	2.16.7.6 (3GB)	2.16.7.0	2.16.7.6	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	7	2.16.7.7 (3GB)	2.16.7.0	2.16.7.7	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	8	2.16.7.8 (3GB)	2.16.7.0	2.16.7.7	2.16.7.8.00683507	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and DB updates
2016.7	9	2.16.7.9 (3GB)	2.16.7.0	2.16.7.9	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Services, DB updates and UM Portal
2016.7	10	2.16.7.10 (3GB)	2.16.7.0	2.16.7.10	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI and Web Service updates
2016.7	11	2.16.7.11 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00746920	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Service and updates
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		Full Version Release
2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		GUI, Web Service and DB updates
2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		GUI, Web Service and DB updates
2017.1	3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		GUI, Web Service and DB updates
2017.1	4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI, Web Service, DB and Patient Portal updates
2017.1	5	2.17.1.4 (3GB)	2.17.1.0	2.17.1.5	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		Web Service
2017.1	6	2.17.1.6 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI and DB Updates
2017.1	7	2.17.1.7 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI update
2017.1	8	2.17.1.8 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI update
2017.2	-	2.17.2.0 (3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0	2.17.2.0.702238	2.17.2.0.702213	2.17.2.0.702226	Full Version Release. First release of Provider Portal

## INSTALLING

### CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD\_rRIS\_2017.1.8.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

# **Server Update**

For eRAD RIS

Version 2.0

Build 2.2017.1

Update 2.2017.1.9

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 _ReleaseNotes	7/21/2017 2:55 PM
 ThickClient	7/21/2017 2:54 PM

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

## WHO IS AFFECTED

Build 2017.1 installs. This server update must be applied to 2017.1.6 (note there are web service changes in 2017.1.5 as well that will need to be applied).

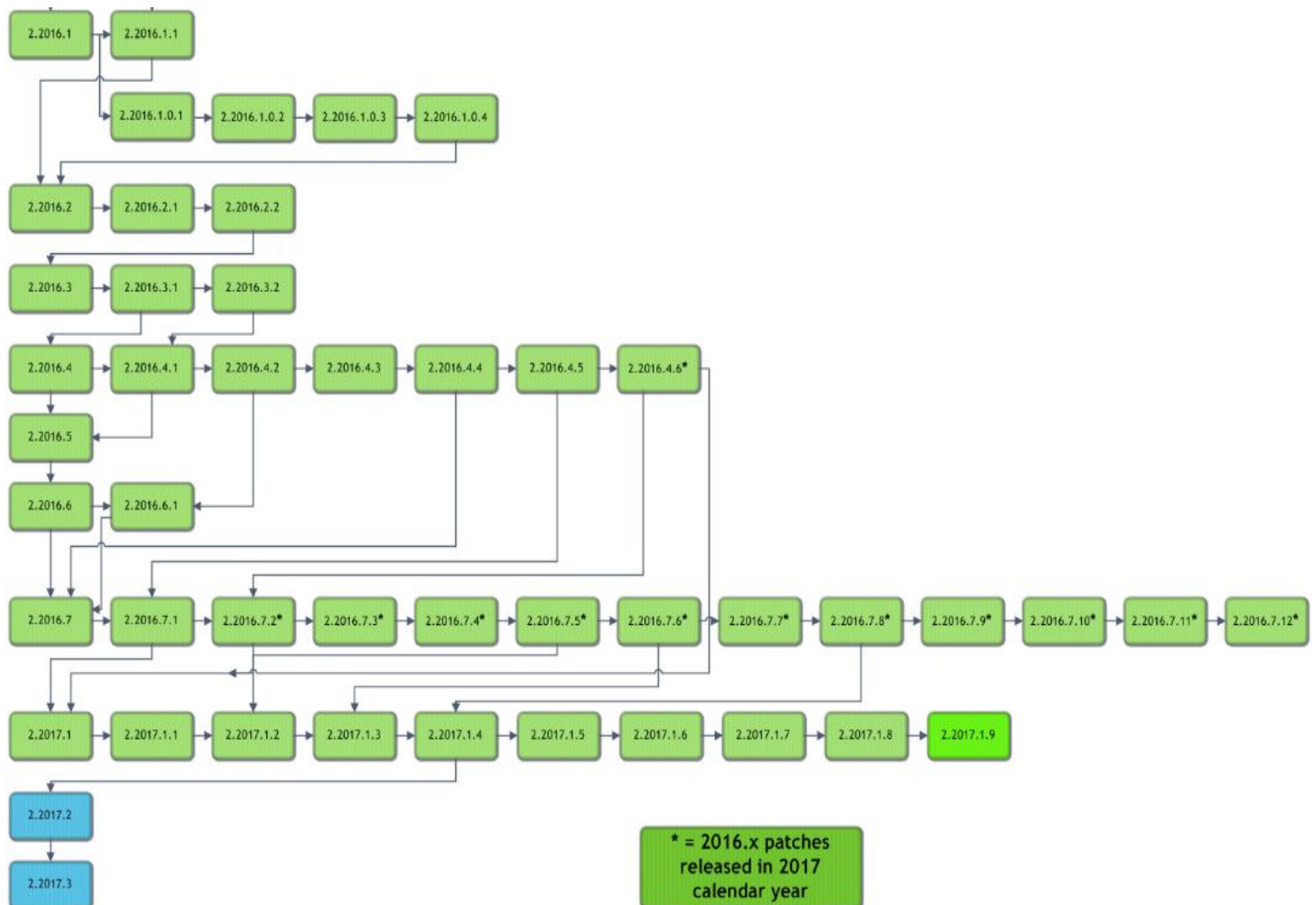


**RESOLVED ITEMS**

**eRAD RIS**

Redmine #	Subject
14408	24 hour clock settings are now handled properly in availability templates.

## CODE STREAM

**Legend:**

Light Green = Previously Released software

Bright Green = Current Release

Blue - Not commercially released

## ERAD RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2016.2	-	2.16.2.0 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00172540					Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge
2016.2	1	2.16.2.1 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00172540					GUI.zip and Citrix Bridge
2016.2	2	2.16.2.2 (3GB)	2.16.2.0	2.16.2.0	2.16.2.2.00243102					GUI.zip, DB and Citrix Bridge
2016.3	-	2.16.3.0 (3GB)	2.16.3.0	2.16.3.0	2.16.3.0.00257101	2.16.3.0				Full Version Release
2016.3	1	2.16.3.1	2.16.3.0	2.16.3.1	2.16.3.1.00298834	2.16.3.0				GUI.zip, Web Service and DB
2016.3	2	2.16.3.2	2.16.3.0	2.16.3.2	2.16.3.1.00298834	2.16.3.0				GUI.zip and Web Service
2016.4	-	2.16.4.0	2.16.4.0	2.16.4.0	2.16.4.0.00301943	2.16.4.0		1.16.4.0.310284		Full Version Release
2016.4	1	2.16.4.1	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0		1.16.4.0.310284		GUI and Web Service updates
2016.4	2	2.16.4.2 (3GB)	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0		1.16.4.2.460241		GUI and Patient Portal updates
2016.4	3	2.16.4.3 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0		1.16.4.3.489120		GUI and Patient Portal updates
2016.4	4	2.16.4.4 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0		1.16.4.3.489120		GUI
2016.4	5	2.16.4.5 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0				GUI
2016.4	6	2.16.4.6 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0				GUI
2016.5	-	2.16.5.0 (3GB)	2.16.5.0	2.16.5.0	2.16.5.0.00349303	2.16.5.0		1.16.5.0.362009		Full Version Release
2016.6	-	2.16.6.0 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0		1.16.6.0.432471		Full Version Release
2016.6	1	2.16.6.1 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0		1.16.6.1.468583		GUI and Patient Portal updated
2016.7	-	2.16.7.0 (3GB)	2.16.7.0	2.16.7.0	2.16.7.0.00490835	2.16.7.0		1.16.7.0.493031	2.16.7.0.493008	Full version release
2016.7	1	2.16.7.1 (3GB)	2.16.7.0	2.16.7.1	2.16.7.0.00490835	2.16.7.0		1.16.7.0.493031	2.16.7.0.493008	GUI and Web Service updates
2016.7	2	2.16.7.2 (3GB)	2.16.7.0	2.16.7.2	2.16.7.0.00490835	2.16.7.0		1.16.7.0.493031	2.16.7.0.493008	GUI and Web Service updates
2016.7	3	2.16.7.3 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0		1.16.7.0.493031	2.16.7.0.493008	GUI and Web Service updates
2016.7	4	2.16.7.4 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0		1.16.7.0.493031	2.16.7.0.493008	GUI
2016.7	5	2.16.7.5 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0		1.16.7.0.493031	2.16.7.0.493008	GUI
2016.7	6	2.16.7.6 (3GB)	2.16.7.0	2.16.7.6	2.16.7.0.00490835	2.16.7.0		1.16.7.0.493031	2.16.7.0.493008	GUI and Web Service updates
2016.7	7	2.16.7.7 (3GB)	2.16.7.0	2.16.7.7	2.16.7.0.00490835	2.16.7.0		1.16.7.0.493031	2.16.7.0.493008	GUI and Web Service updates
2016.7	8	2.16.7.8 (3GB)	2.16.7.0	2.16.7.7	2.16.7.8.00683507	2.16.7.0		1.16.7.0.493031	2.16.7.0.493008	GUI and DB updates
2016.7	9	2.16.7.9 (3GB)	2.16.7.0	2.16.7.9	2.16.7.9.00715012	2.16.7.0		1.16.7.0.493031	2.16.7.9.723457	GUI, Web Services, DB updates and UM Portal
2016.7	10	2.16.7.10 (3GB)	2.16.7.0	2.16.7.10	2.16.7.9.00715012	2.16.7.0		1.16.7.0.493031	2.16.7.9.723457	GUI and Web Service updates
2016.7	11	2.16.7.11 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0		1.16.7.0.493031	2.16.7.9.723457	GUI, Web Service and DB updates
2016.7	12	2.16.7.12 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0		1.16.7.0.493031	2.16.7.9.723457	GUI
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0		2.17.1.0.572290	2.17.1.0.000000	Full Version Release
2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0		2.17.1.0.572290	2.17.1.0.000000	GUI, Web Service and DB updates
2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0		2.17.1.0.572290	2.17.1.0.000000	GUI, Web Service and DB updates
2017.1	3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0		2.17.1.0.572290	2.17.1.0.000000	GUI, Web Service and DB updates
2017.1	4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0		2.17.1.4.701924	2.17.1.0.000000	GUI, Web Service, DB and Patient Portal updates
2017.1	5	2.17.1.4 (3GB)	2.17.1.0	2.17.1.5	2.17.1.4.00692239	2.17.1.0		2.17.1.4.701924	2.17.1.0.000000	Web Service
2017.1	6	2.17.1.6 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0		2.17.1.4.701924	2.17.1.0.000000	GUI and DB Updates
2017.1	7	2.17.1.7 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0		2.17.1.4.701924	2.17.1.0.000000	GUI update
2017.1	8	2.17.1.8 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0		2.17.1.4.701924	2.17.1.0.000000	GUI update
2017.1	9	2.17.1.9 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0		2.17.1.4.701924	2.17.1.0.000000	GUI update
2017.2	-	2.17.2.0 (3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0		2.17.2.0.702238	2.17.2.0.702213	Full Version Release. First release of Provider Portal
2017.3	-	2.17.3.0 (3GB)	2.17.3.0	2.17.3.0	2.17.3.0.00764112	2.17.3.0		2.17.3.0.321	2.17.3.0.321	Full Version Release. Including Patient, Provider and UM Portals

## INSTALLING

### CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD\_rRIS\_2017.1.9.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

# Server Update

For eRAD RIS

Version 2.0

Build 2.2017.1

Update 2.2017.1.10

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 _ReleaseNotes	08/28/2017 10:38 AM
 rRISService	08/22/2017 11:04 AM
 ThickClient	08/28/2017 10:09 AM

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

## WHO IS AFFECTED

Build 2017.1 installs. This server update must be applied to 2017.1.6 as it had a database update.

The server releases of 2017.1.7→2017.1.9 were GUI only. Server Update 2017.1.10 also has GUI included in release, but does not have DB updates.

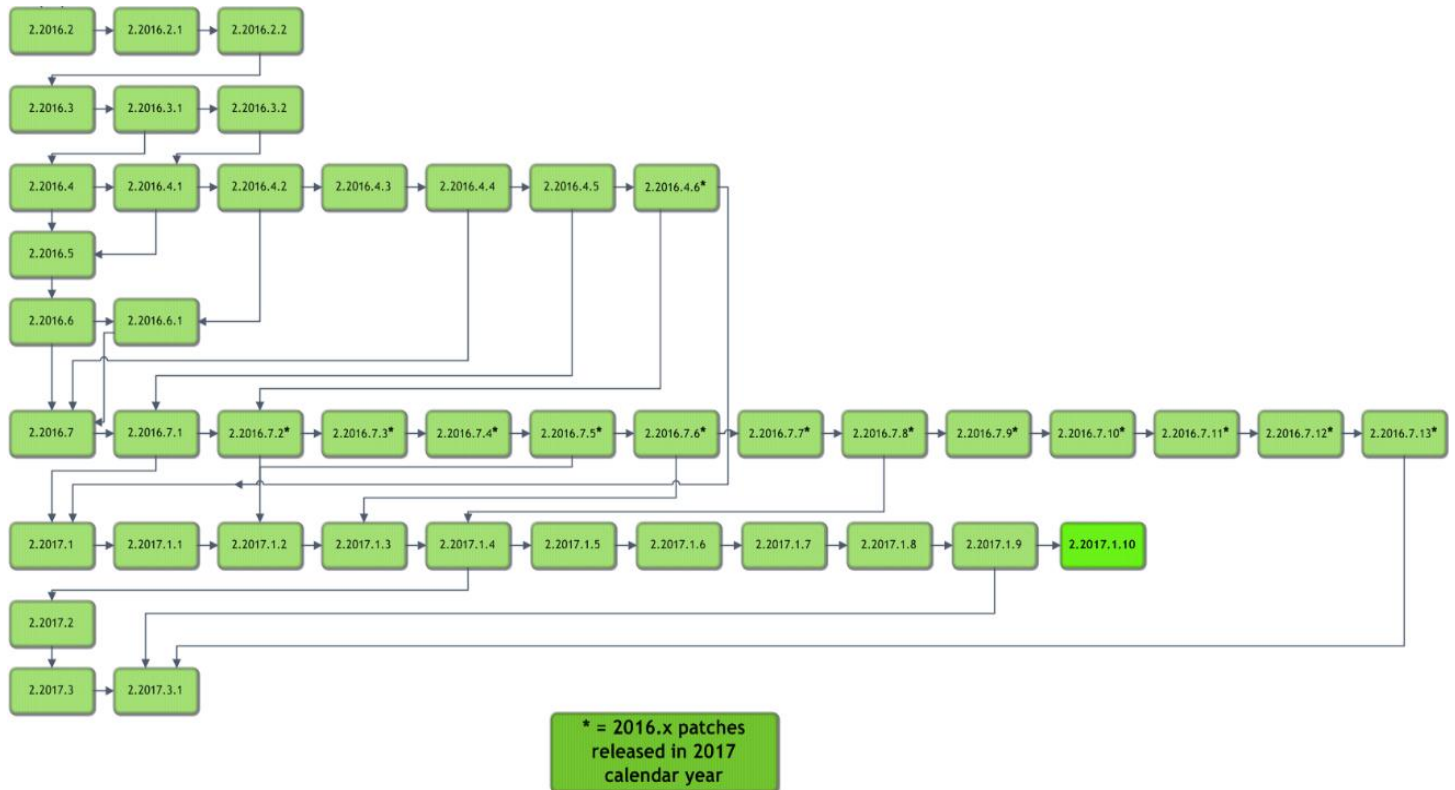
## RESOLVED ITEMS

## eRAD RIS

Redmine #	Subject
18077	When PACS images are opened from View/Edit or Perform Exam, the images will now properly close when the RIS tab for the patient is closed.
18076	Resolved an issue related to duplicate c_study_item entries for same study key.
18075	Resolved an issue in which a user could receive an error when adding an Unknown Referring under certain conditions.
18074	Print to RIS actions with multiple pages now have additional handling to account for timing issues that previously caused Print to RIS to stop working intermittently under certain conditions.



## CODE STREAM

**Legend:**

Light Green = Previously Released software

Bright Green = Current Release

## ERAD RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2016.2	-	2.16.2.0 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00172540					Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge
2016.2	1	2.16.2.1 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00172540					GUI.zip and Citrix Bridge
2016.2	2	2.16.2.2 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00243102					GUI.zip, DB and Citrix Bridge
2016.3	-	2.16.3.0 (3GB)	2.16.3.0	2.16.3.0	2.16.3.0.00257101	2.16.3.0				Full Version Release
2016.3	1	2.16.3.1	2.16.3.0	2.16.3.1	2.16.3.1.00298834	2.16.3.0				GUI.zip, Web Service and DB
2016.3	2	2.16.3.2	2.16.3.0	2.16.3.2	2.16.3.1.00298834	2.16.3.0				GUI.zip and Web Service
2016.4	-	2.16.4.0	2.16.4.0	2.16.4.0	2.16.4.0.00301943	2.16.4.0	1.16.4.0.310284			Full Version Release
2016.4	1	2.16.4.1	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	1.16.4.0.310284			GUI and Web Service updates
2016.4	2	2.16.4.2 (3GB)	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	1.16.4.2.460241			GUI and Patient Portal updates
2016.4	3	2.16.4.3 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	1.16.4.3.489120			GUI and Patient Portal updates
2016.4	4	2.16.4.4 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	1.16.4.3.489120			GUI
2016.4	5	2.16.4.5 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0				GUI
2016.4	6	2.16.4.6 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0				GUI
2016.5	-	2.16.5.0 (3GB)	2.16.5.0	2.16.5.0	2.16.5.0.00349303	2.16.5.0	1.16.5.0.362009			Full Version Release
2016.6	-	2.16.6.0 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	1.16.6.0.432471			Full Version Release
2016.6	1	2.16.6.1 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	1.16.6.1.468583			GUI and Patient Portal updated
2016.7	-	2.16.7.0 (3GB)	2.16.7.0	2.16.7.0	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		Full version release
2016.7	1	2.16.7.1 (3GB)	2.16.7.0	2.16.7.1	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	2	2.16.7.2 (3GB)	2.16.7.0	2.16.7.2	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	3	2.16.7.3 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	4	2.16.7.4 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	5	2.16.7.5 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	6	2.16.7.6 (3GB)	2.16.7.0	2.16.7.6	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	7	2.16.7.7 (3GB)	2.16.7.0	2.16.7.7	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	8	2.16.7.8 (3GB)	2.16.7.0	2.16.7.7	2.16.7.8.00683507	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and DB updates
2016.7	9	2.16.7.9 (3GB)	2.16.7.0	2.16.7.9	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Services, DB updates and UM Portal
2016.7	10	2.16.7.10 (3GB)	2.16.7.0	2.16.7.10	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI and Web Service updates
2016.7	11	2.16.7.11 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Service and DB updates
2016.7	12	2.16.7.12 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI
2016.7	13	2.16.7.13 (3GB)	2.16.7.0	2.16.7.13	2.16.7.13.00823274	2.16.7.0	2.16.7.13.805715	2.16.7.13.805717		GUI, Web Service, DB, Patient and UM Portal updates
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		Full Version Release
2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI, Web Service, DB and Patient Portal updates
2017.1	5	2.17.1.4 (3GB)	2.17.1.0	2.17.1.5	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		Web Service
2017.1	6	2.17.1.6 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and DB Updates
2017.1	7	2.17.1.7 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	8	2.17.1.8 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	9	2.17.1.9 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	10	2.17.1.10 (3GB)	2.17.1.0	2.17.1.10	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and Web Service update
2017.2	-	2.17.2.0 (3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0	2.17.2.0.702238	2.17.2.0.702213	2.17.2.0.702226	Full Version Release. First release of Provider Portal
2017.3	-	2.17.3.0 (3GB)	2.17.3.0	2.17.3.0	2.17.3.0.00764112	2.17.3.0	2.17.3.0.321	2.17.3.0.321	2.17.3.0.321	Full Version Release. Including Patient, Provider and UM Portals
2017.3	1	2.17.3.1 (3GB)	2.17.3.0	2.17.3.1	2.17.3.1.00846328	2.17.3.1	2.17.3.1.853299	2.17.3.1.853301	2.17.3.1.856171	GUI, Web Service, DB, Including Patient, Provider and UM Portals

## INSTALLING

### CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD\_rRIS\_2017.1.10.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

### WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

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 128 files in the rRISService folder and 7 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). Folders ar (Arabic), he (Hebrew), pt\_BR (Brazilian Portuguese) and es-AR (Argentina Spanish) are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc...

#### 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, and 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"

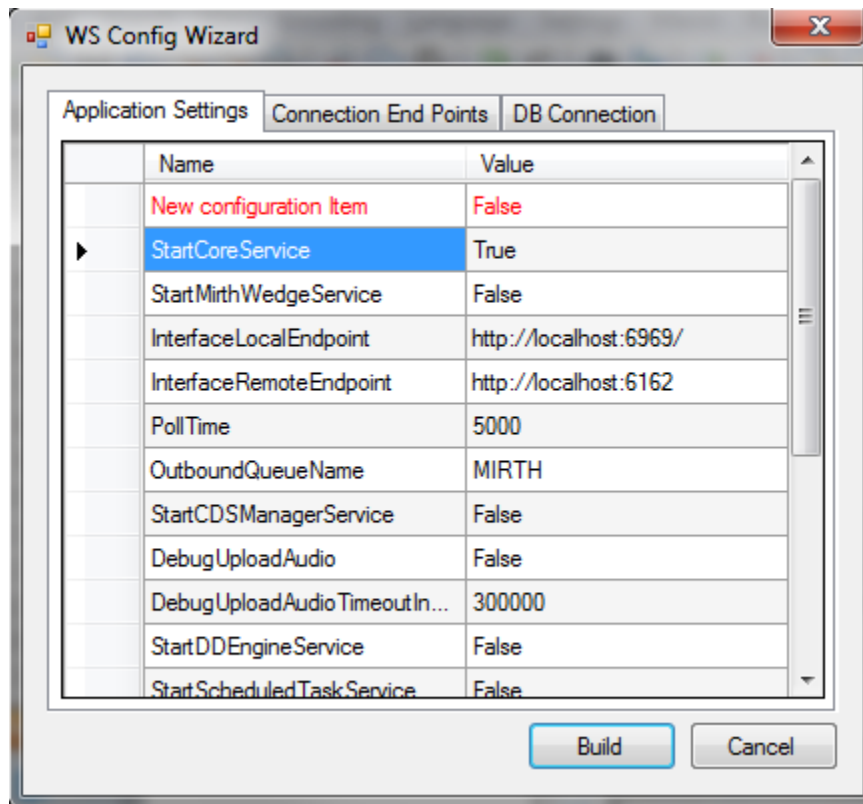
This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

---

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in any form or by any means without the prior written permission from eRAD.

**Application Settings:** all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.



**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

# **Customer Release Notes**

for eRAD RIS

Version 2

Build 2017.1

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## PURPOSE

This is the Customer Release Notes document for eRAD RIS Version 2.2017.1.

Not every feature will be described in this document. Typically, only features which can be visually demonstrated are outlined here.

## INTENDED AUDIENCE

This document was created by the eRAD RIS Development team and Product Management team for eRAD RIS customers.

## NEW SETTINGS

### NEW ACCESS STRINGS

Setting	Default	Purpose
Config.LookupEditor.GenderIdentity	None	Look-up table access for Gender Identity
Config.LookupEditor.SexualOrientation	None	Look-up table access for Sexual Orientation
Config.LookupEditor.StudyUpdateResponseInclusions	None	Look-up table access for Study Update Response Inclusions access
Flag.ContrastRequested	Full	Access to see the flag for ContrastRequested
Flag.SedationRequired	Full	Access to see the flag for SedationRequired
View.FindingFollowup  Replaces  View.FindingsFollowup	None	Access to see the Finding Followup menu item from View menu (visible when dictate window is open)
View.Preset.Administration.PresetCriticalResult	None	Access to preset layout administration for Critical Results
View.PresetCriticalResult	Full	Access to see the main menu item View/LoadLayout.../Critical Results
WL.MyFolder		Removed duplicate access string. Remaining access string is WL.Folders.

### NEW SYSTEM CONFIGURATION SETTINGS

Setting	Default	Purpose
UMOpinionLetterReportPath  Replaces  AuthorizationLetterReportPath		(value = path and name)The path and name of the Opinion Letter for Utilization Management.
UMTrackingNumberPrefix  Replaces  AuthorizationPrefix		(value = string) A prefix that will be added to UM Tracking numbers for Utilization Management.
AddUseLocationFilterToWorklistSiteGroups	True	(value = True/False) Determines if the list of

		sites/site groups on some worklists will include an option to use the location filter.
AllowPeerReviewOnInactiveRads	True	Determines if a case read by a now inactive radiologist can be peer reviewed.
DaysToKeepImageRequestActive	0	(value = int) The number of days to keep a request on the Image Request Worklist before automatically cancelling it. It will be based on the scheduled date or the image request date whichever is greater. A value of 0 will disable the automatic cancellation.
DaysToKeepWedgeInboundMessages	7	(value = number) This value informs the nightly cleanup job how many days old a Wedge inbound message log entry must be before removing it.
DaysToKeepWedgePerformanceTraceLogs	3	(value = number) This value informs the nightly cleanup job how many days old a Wedge inbound or outbound performance log entry must be before removing it.
ExternalReportsOnPendingDictationWL	False	(value = Y/N) This value determines whether external report verification studies go to the Pending Dictation worklists. If False, they will go to the Pending Signature worklists. Changes to this setting only apply to new studies. A maintenance script exists for system administrators to back-fill existing studies.
PortalOpinionLetterUnavailableMessage  <b>REPLACES</b>  PortalAuthLetterUnAvailableMessage	This opinion letter is currently unavailable on the portal. Please contact the medical group to request the letter.	The message to display to the UM Connect portal user when the Utilization Management Opinion Letter is not available due to unexpected error (e.g. SSRS report server is unavailable or not configured).
PortalNoSelectedInsuranceDayPadding	5	(value = int) This value is used by Portal online scheduling to add days to the start search criteria to allow time to gather insurance information from the patient prior to the appointment when it is not entered at the time of scheduling.
WedgeDuplicateInboundMessagePrevention	False	(value = bool) If true, we will prevent two messages with the same unique ID from processing twice.

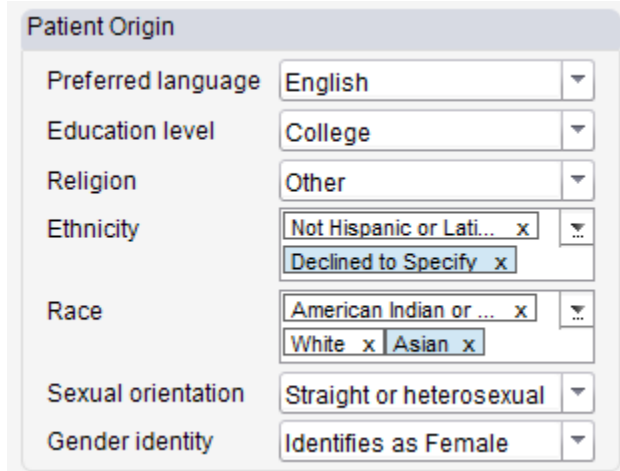
## NEW FEATURES

### SCHEDULING AND REGISTRATION

#### FEATURE #13650 – DEMOGRAPHIC UPDATES FOR PATIENT TAB

In preparation for the latest round of Certified Electronic Health Record Technology (CEHRT) certification, it was necessary to make some changes to the patient demographics on the Patient tab. The following changes have been made:

1. It is now possible to select more than one Ethnicity.
2. New fields have been added for *Sexual Orientation* and *Gender Identity*.



**Patient Origin**

Preferred language: English

Education level: College

Religion: Other

Ethnicity: Not Hispanic or Lati... x, Declined to Specify x

Race: American Indian or ... x, White x, Asian x

Sexual orientation: Straight or heterosexual

Gender identity: Identifies as Female

While it is required for certified electronic health technology to have the **ability** to collect the sexual orientation and gender identity information, it is likely that most customers will not wish to collect this data. Therefore, these new fields have been **hidden** by default. Please contact eRAD Support if you would like to make these fields visible.

When enabled, the *Sexual Orientation* and *Gender Identity* dropdown fields are populated by two new look-up tables.

Lookup Tables - SexualOrientation						
sex	Sexual Orientation Code	Description	Display Order	Snomed	Last Updated	Active
	Contains:	Contains:	Equals:	Equals:	Equals:	Contain
	Click here to add a new row					
	Heterosexual	Straight or heterosexual	1	20430005	11-07-2016 9:08 AM	Y
	Homosexual	Lesbian, gay, or homosexual	2	38628009	02-24-2017 12:26 AM	Y
	Bisexual	Bisexual	3	42035005	02-24-2017 12:26 AM	Y
	OTH	Something else	4		02-24-2017 12:26 AM	Y
	UNK	Don't know	5		02-24-2017 12:26 AM	Y
	Decline	Declined to answer	6		02-24-2017 12:26 AM	Y

Lookup Tables - GenderIdentity						
gen	Gender Identity Code	Description	Display Order	Snomed	Last Updated	Active
	Contains:	Contains:	Equals:	Equals:	Equals:	Contains:
	Click here to add a new row					
	F	Identifies as Female	1		11-07-2016 9:26 AM	Y
	M	Identifies as Male	1		11-07-2016 9:26 AM	Y
	TF	Male-to-Female (MTF)/Transgender Female	1	407376001	11-07-2016 10:21 AM	Y
	TM	Female-to-Male (FTM)/Transgender Male	1	407377005	11-07-2016 10:21 AM	Y
	Q	Genderqueer, neither exclusively male nor female	2		02-24-2017 12:30 AM	Y
	Other	Other	3		02-24-2017 12:30 AM	Y
	UNK	Don't know	4		02-24-2017 12:30 AM	Y
	Decline	Declined to answer	5		02-24-2017 12:30 AM	Y

## DIGITAL FORMS

## FEATURE #14828 – DIGITAL FORMS NOW SUPPORT GRIDS

Sometimes important patient information is stored in grids in eRAD RIS, such as the Contrast and Sedation grids.

**Contrast**

Name	Amount	Unit	Vials
Optiray 350	15	mL	1

Add Delete

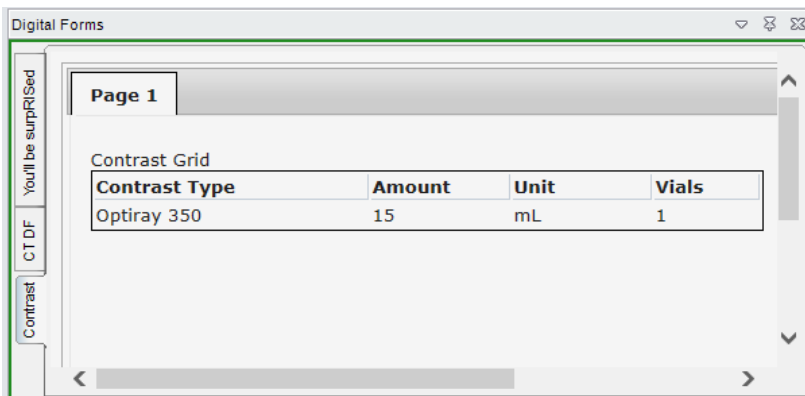
**Sedation**

Name	Amount	Unit
Ativan	200	test22

Add Delete

When this data is mapped into the diagnostic report, the information from this type of grid is visible to the radiologist. However, if there is information that is not mapped into the diagnostic report template or it is not part of the radiologist's workflow to view the report template when dictating, it was not previously possible for the radiologist to easily access this information.

To make it easier for radiologists to see data in a grid, it is now possible to create a grid inside a Digital Form that can be displayed to the radiologist. These grids can be set up by eRAD Support in the Digital Forms Editor. Once created, they can be configured to display in the eRAD RIS Reporting screen as read-only grids that auto-fill using the displayed study's data.



The screenshot shows the 'Digital Forms' editor interface. On the left is a sidebar with tabs labeled 'You'll be surprised', 'CT DF', and 'Contrast'. The main area displays 'Page 1' of a form. Inside the form, there is a section titled 'Contrast Grid' containing a table with the following data:

Contrast Type	Amount	Unit	Vials
Optiray 350	15	mL	1

SCANNED DOCUMENTS

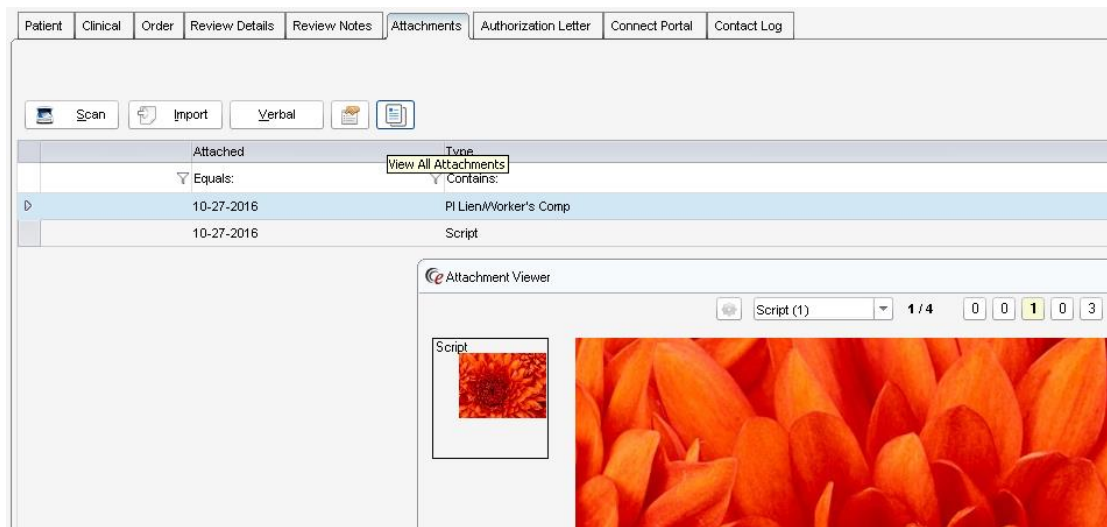
FEATURE #14545 – VIEW ATTACHMENTS ALONGSIDE RIS SCREENS WHILE ENTERING DATA

A new feature allows users to view an attachment in a floating window to facilitate data entry for the patient's exam. To open the floating attachment viewer, double click on the desired document in the Attachments tab. Once open, it is possible to re-size or re-position the viewer and then navigate between the sub-tabs for the selected patient.

The screenshot shows the eRAD software interface with the 'Documentation' tab selected. The main window contains various input fields for patient information, procedure details, and radiologist assignments. A floating window titled 'Lee, Anders : Attached Documents (Page: 1 / 1)' is open, displaying a 'DIGITAL MAMMOGRAPHY' scheduling form from 'The BREAST CARE CENTER of Temecula Valley'. The form includes fields for patient name, appointment date, and various checkboxes for screening and diagnostic procedures. A diagram of a breast with 'R' and 'L' markers is also visible. The floating window is positioned over the 'Documentation' tab, demonstrating the feature's functionality.

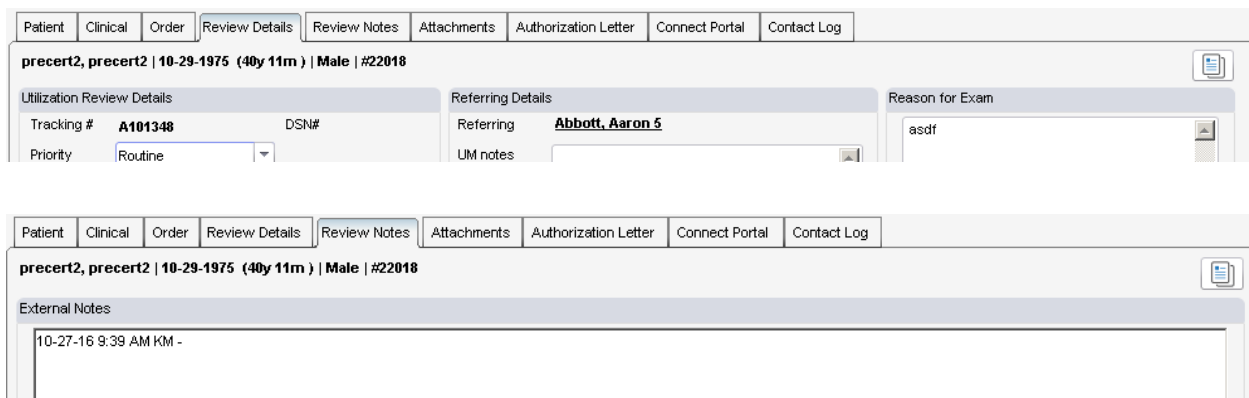
In the image above, the document is visible while entering data on the Documentation tab.

There is also a new button available on the Attachments screen which allows the user to open *all* of the patient's attachments: (📎) "View All Attachments."



This will open the same screen used by the Attachments data nugget from the Patient Folder. This viewer combines all of the patient's attachments, while also allowing the user to set preferences for which type of attachments to display and the preferred order, replicating the existing functionality used in the data nugget. When viewing attachments in this viewer, the content is read-only.

The *View All Attachments* icon is also available in the Utilization Management workflow: look for the icon on the "Review Details" and "Review Notes" tabs in the top right corner.



The floating attachment screen will remember its previous location; however, if it is partially off screen, the location will be ignored. This prevents a user from positioning the viewer almost completely off the screen, then not being able to see the screen when it is re-launched.

If new attachments are added while the *View All Attachments* viewer is open, it is necessary to close the screen and re-open it to see the new documents. If the button is clicked a second time and it is already open, the screen will close and re-open, refreshing its contents. When the button is clicked and there are no attachments, the user will receive a message that attachments are not available.



**February 28, 2017**

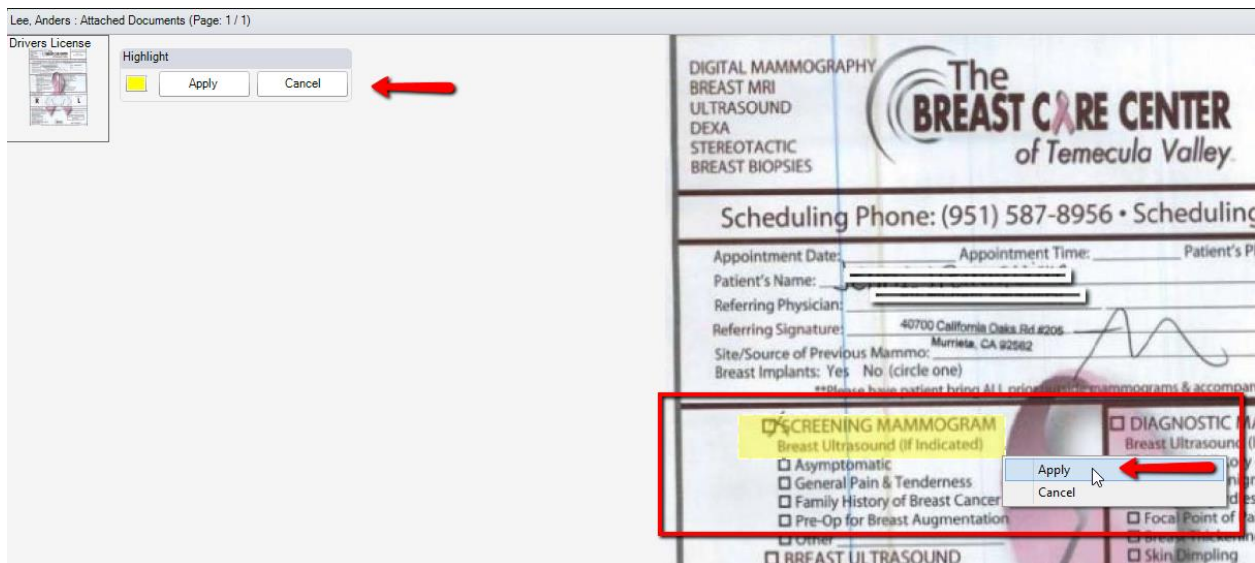
For both the Attachment Viewer and the [View All Attachments](#) viewer, navigating away from the selected patient will automatically close the viewer. This is done to minimize risk so that it is not possible to view one patient's attachments while entering data for a different patient.

Note: when launching via the Scan / Import buttons, it is not possible to float the document until it has been saved and re-opened from the Attachment tab.

## FEATURE #14996 – HIGHLIGHT AN AREA ON AN ATTACHMENT

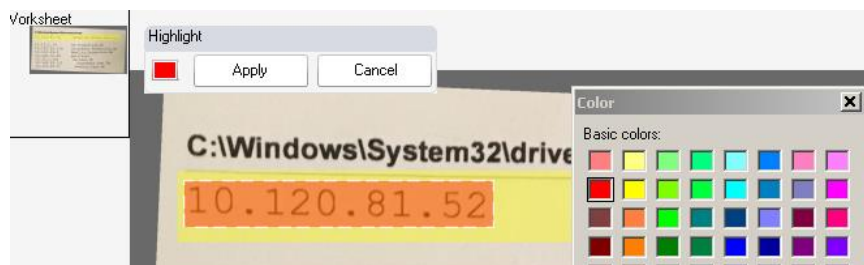
It is often helpful to be able to highlight a particular area of a scanned document, particularly for long documents such as clinical notes. Users now have the ability to highlight an area to make it easier to reference the attachment when communicating with radiologists or other RIS users (e.g. “see the pink highlighted text on page 9”).

The attachment viewer has been updated with a new right-click context menu called *Highlight*. With the document open, right-click and select Highlight. Then select an area of the attachment image by holding the left mouse button and dragging over the section to highlight. The color of the highlighted area can be modified by clicking on the color swatch displayed in the “Apply”/“Cancel” box. To complete the highlighting, the user must click on the “Apply” button or press the enter key.



When using the highlighting, cropping or straightening tools, as soon as the mouse button is released, a context menu to apply or cancel the operation is displayed nearby. Also, the user can simply click <enter> to apply.

In the following example, a second highlight was created with an alternate color.

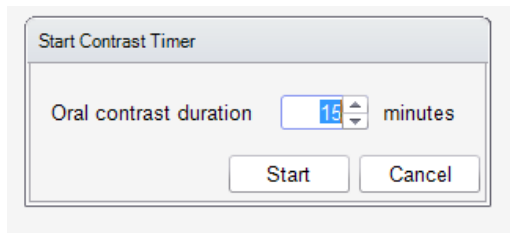


TECHNOLOGIST

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FEATURE #14568 – ADJUST THE DURATION OF CONTRAST TIMER FOR A PATIENT

Previously, the Contrast Timer could be started, stopped and re-started, but it was not possible to use an Oral Contrast Duration different than the default timer length for the selected procedure. To provide the ability to adjust the contrast timer duration for a particular patient, the user will be presented with a new dialog box when selecting the *Start Contrast Timer* option from the right-click menu.



The default Oral Contrast Duration (in minutes) for the procedure code will be provided to the user with the option to make adjustments as needed prior to clicking Start. The maximum duration possible is 5,000 minutes. To adjust the duration after starting, the user must stop the timer and start it again to make the change.

## RADIOLOGIST

### FEATURE #4123 – EXTERNAL REPORTS CAN NOW BE VERIFIED FROM PENDING DICTATION WL

Some customers who read studies with a different dictation system, outside of eRAD RIS, use the existing *External Report* workflow to allow a radiologist to verify the report created in the external system.

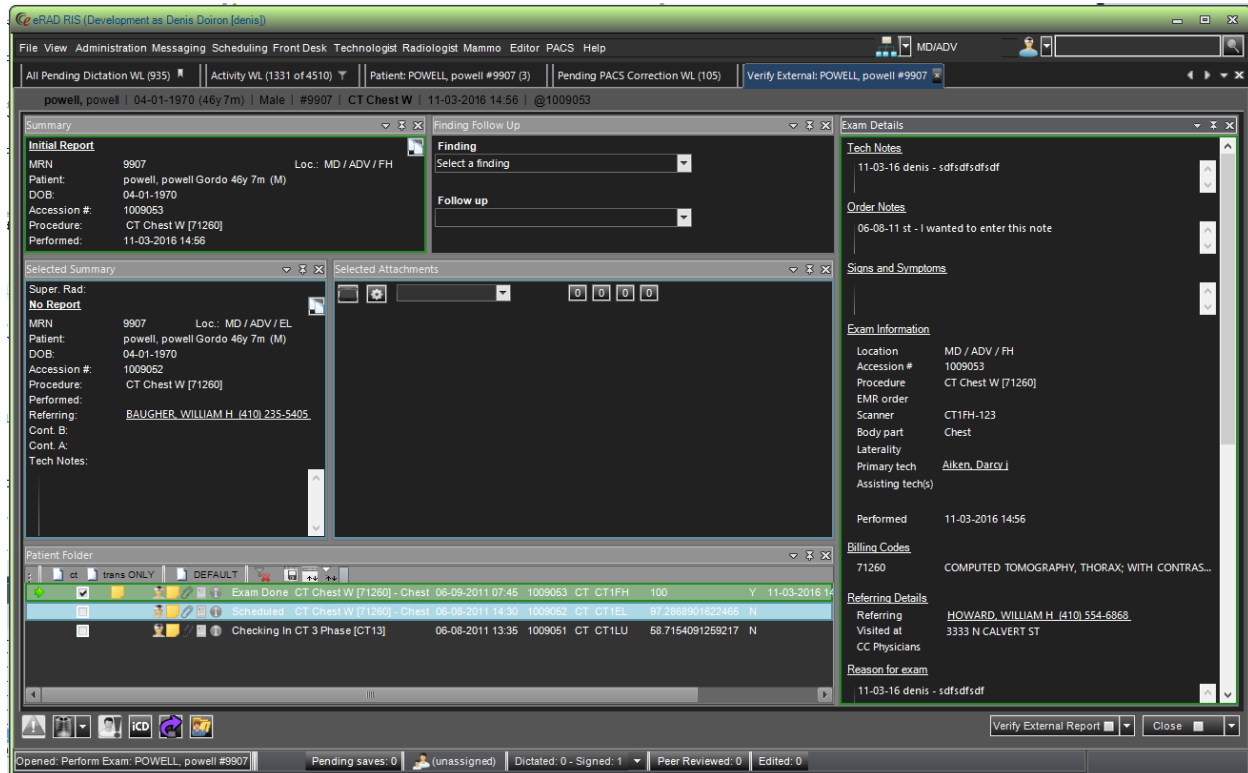
Previously, these studies would fall to the Pending Signature worklist. For External Reports, the screen that would open was a version of the View/Edit tab; from here, the radiologist would verify the report. However, radiologists have indicated that they would prefer to review these studies from the Pending Dictation WL, and would like to be able to access all of the information that they would see when dictating a report from within eRAD RIS, such as Digital Forms, attachments and prior reports.

In order to improve this workflow, two main changes have been made:

- There is a new System Configuration setting that will allow the studies to fall to the Pending Dictation WLs, instead of the Pending Signature WLs.
- The studies will now open in a Verify External screen that provides access to the reporting panels used for other reporting modes (Attachments, Digital Forms, etc.).

The new System Configuration setting is labeled *ExternalReportsOnPendingDictationWL*. The default is False, which means that by default, the external reports will continue to fall to the Pending Signature WLs. Change to True to move these to the Pending Dictation WLs. If this is done, only new studies will fall to the Pending Dictation WL; any outstanding external reports that were already on the Pending Signature WL will have to be reviewed there by using the right-click option to open Verify External. A script has been created to move any old studies at the time that this change is made. If your organization would like to change to using Pending Dictation for Verify External studies, please let eRAD Support know that you would like the script to be run.

For either worklist, the resulting screen will now look similar to the normal dictating screen, but with the Verify External Report button instead of Submit/Sign.



The screenshot displays the eRAD RIS interface with the following panels and data:

- Summary Panel:**
  - MRN: 9907
  - Patient: powell, powell Gordo 46y 7m (M)
  - DOB: 04-01-1970
  - Accession #: 1009053
  - Procedure: CT Chest W [71260]
  - Performed: 11-03-2016 14:56
- Selected Summary Panel:**
  - Super. Rad: No Report
  - MRN: 9907
  - Patient: powell, powell Gordo 46y 7m (M)
  - DOB: 04-01-1970
  - Accession #: 1009052
  - Procedure: CT Chest W [71260]
  - Performed: 11-03-2016 14:56
  - Referring: BAUGHER, WILLIAM H (410) 235-5405
  - Cont B:
  - Cont A:
  - Tech Notes:
- Exam Details Panel:**
  - Tech Notes:** 11-03-16 denis - sdfdsdfsdf
  - Order Notes:** 06-08-11 st - I wanted to enter this note
  - Signs and Symptoms:**
  - Exam Information:**
    - Location: MD / ADV / FH
    - Accession #: 1009053
    - Procedure: CT Chest W [71260]
    - EMR order:
    - Scanner: CT1FH-123
    - Body part: Chest
    - Laterality:
    - Primary tech: Aiken, Darci J
    - Assisting tech(s):
    - Performed: 11-03-2016 14:56
  - Billing Codes:**
    - 71260 COMPUTED TOMOGRAPHY, THORAX; WITH CONTRAS...
  - Referring Details:**
    - Referring: HOWARD, WILLIAM H (410) 554-6868
    - Visited at: 3333 N CALVERT ST
    - CC Physicians:
  - Reason for exam:** 11-03-16 denis - sdfdsdfsdf
- Patient Folder Panel:**

Exam Done	CT Chest W [71260]	Chest	06-09-2011 07:45	1009053	CT CT1FH	100	Y	11-03-2016
Scheduled	CT Chest W [71260]	Chest	06-08-2011 14:30	1009052	CT CT1EL	97 2658901822465	N	
Checking In	CT 3 Phase [CT13]		06-08-2011 13:35	1009051	CT CT1LU	58 7154091259217	N	

At the bottom, the status bar shows: Opened: Perform Exam: POWELL, powell #9907 | Pending saves: 0 | (unassigned) | Dictated: 0 - Signed: 1 | Peer Reviewed: 0 | Edited: 0

Panels can be rearranged according to the user's preference, as with normal dictation/signing.

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## FEATURE #15097 – DISABLE PEER REVIEW BUTTON FOR INACTIVE RADIOLOGISTS

When a radiologist account is deactivated in eRAD RIS, some customers prefer that active radiologists should not be able to perform Peer Reviews for the inactive radiologist's prior studies.

To accommodate for this, there is a new System Configuration setting called *AllowPeerReviewOnInactiveRads*. The default is True, which will maintain the existing functionality after upgrading. To prevent Peer Reviews for inactive radiologists, set the System Configuration to False.

When set to False, radiologists will no longer see the Peer Review button on prior studies that were signed by a radiologist who has since been marked as inactive.

## IMAGE REQUEST WORKFLOW

### FEATURE #15109 – AUTOMATICALLY CANCEL IMAGE REQUESTS THAT ARE NOT RESOLVED WITHIN A DEFINED TIME FRAME

Some customers have found that their Image Request worklists can grow to be larger than desired due to patients who neglect to pick up their images. There is now a system configuration setting of *DaysToKeepImageRequestActive*. By default, the value will be set to 0, which means that the feature is turned off and items will remain on the Image Request WL until they are manually resolved. To turn on the feature, enter the number of days that the Image Request should remain on the worklist. If 60 is entered, any Image Requests that are in a Pending or Ready status with a Requested Date that is more than 60 days old will be cancelled. If the request is made **prior** to the patient's appointment, the number of days will be applied to the Scheduled Date instead of the Requested Date.

Cancelled Image Requests will fall off of the Image Request WL, but will still be visible in the Previous Requests section for the patient.

Date	Req. By	Source	Format	Delivery	Status	Req. ID
11/19/2015 08:59	Test	Other	CD	Courier	Cancelled	1002

**Requested By**

☐ Patient
 ☐ Referring
 ☐ Other doctor
 ☒ Other

Doctor

Location

Name \*

Organization

Phone Number

**Details**

Requesting site: \*

Format \*

Notes

Delivery method \*

Delivery Instructions

**Deliver To / Pickup By**

☐ Patient
 ☐ Referring
 ☐ Other doctor
 ☒ Other

☒ Copy requested by

Doctor

Location

Prefix  Suffix

First name \*

Last name \*

Address

City

State

Country  Zip

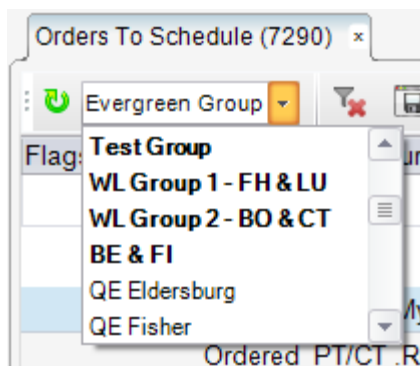
Phone Number

## GENERAL WORKLIST ENHANCEMENTS

### FEATURES #15106, 14587, 15226, 15427 – ALLOW FILTERING OF ADDITIONAL WORKLISTS BY SITE GROUP

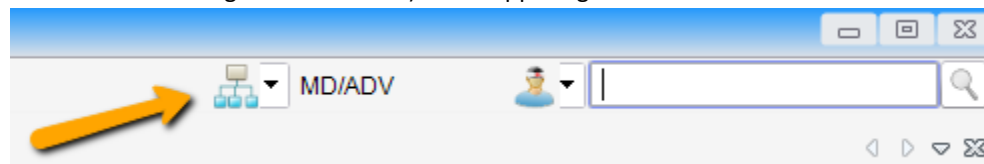
Site Groups, an existing feature, allow a RIS Administrator to create custom groupings of sites that are relevant for workflow purposes. In a previous build, 2016.2, a new strategy was implemented for filtering the IVT WL by *Site Group*, using a Site Group Type Code of *IVT Team*. One goal of this feature was to improve worklist performance by reducing the need for users to view an entire Practice when only a small number of sites were pertinent. Another benefit of being able to filter worklist content by Site Group is the ability to see data from sites that might span across multiple practices.

Now eRAD RIS has extended this framework to other worklists. As with the IVT WL, a dropdown list will be available to select a Site Group (shown at the top of the list in Bold) or an individual Site.



The Site Group options in the list are driven by the following circumstances:

- At least one site in the Site Group must belong to the Practice selected in the RIS Location Filter (sometimes known as the Organization Picker) in the upper right-hand corner of RIS.



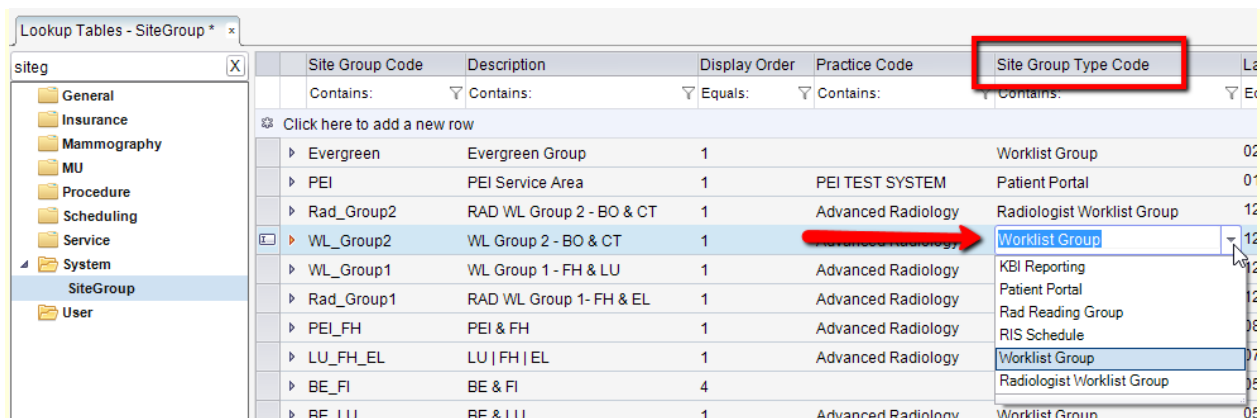
- Only the Site Groups that contain the currently selected site or at least one site from within the currently selected practice will be included.
  - Note that the list of sites and Site Groups will change as the user changes their selection in the Location Filter. The user's selected site or Site Group for each worklist will be reloaded from one login session to the next, so that users will only have to select their option once, unless their role requires them to switch between multiple site groups routinely.
  - If a user does not see a Site Group that is expected in the list, make sure that the RIS Location Filter is set to a Practice or Site that is included in the Site Group.
- If a Site Group contains sites across multiple Practices, the current user must have access to all Practices in order for that Site Group to appear in the list.



Only specific types of Site Groups are available in the dropdowns. There are two new Site Group Type Codes:

- **WORKLIST GROUP** – Use this to create Site Groups that will be available on all applicable worklists except those controlled by the Radiologist Worklist Group described below.
  - Orders to Schedule
  - No Show
  - Closed Rooms Reschedule
  - Confirmation
  - IVT
  - Activity
  - Labwork
  - Patient Merge Requests
  - Unknown Reconciliation
  - Pending PACS Correction
  - Pending Biopsy Result
  - Billing Exception
  - Billing Confirmation
  - Image Request
  - Distribution
  - Distribution History
  - Mammo Follow-up Orders
  - Mammo Letters
  - ACR Category 0 Follow-up
  - ACR Category 4/5 Follow-up
- **RADIOLOGIST WORKLIST GROUP** – Use this to create Site Groups that will be available on worklists used by radiologists and editors.
  - All worklists under the Radiologist menu
  - All worklists under the Editor menu

These Site Group Type Codes are assigned by the RIS Administrator in the Site Group table.



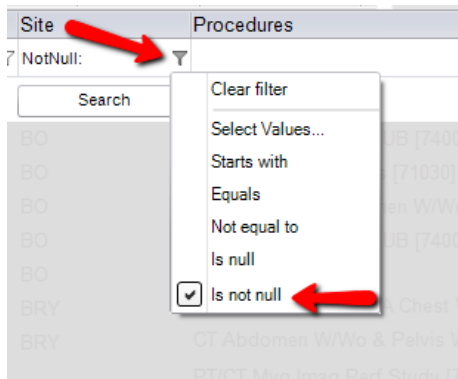
Site Group Code	Description	Display Order	Practice Code	Site Group Type Code	La
Contains:	Contains:	Equals:	Contains:	Contains:	Contains:
Click here to add a new row					
Evergreen	Evergreen Group	1		Worklist Group	02
PEI	PEI Service Area	1	PEI TEST SYSTEM	Patient Portal	01
Rad_Group2	RAD WL Group 2 - BO & CT	1	Advanced Radiology	Radiologist Worklist Group	12
WL_Group2	WL Group 2 - BO & CT	1	Advanced Radiology	Worklist Group	12
WL_Group1	WL Group 1 - FH & LU	1	Advanced Radiology	KBI Reporting	12
Rad_Group1	RAD WL Group 1 - FH & EL	1	Advanced Radiology	Patient Portal	12
PEI_FH	PEI & FH	1	Advanced Radiology	Rad Reading Group	08
LU_FH_EL	LU   FH   EL	1	Advanced Radiology	RIS Schedule	08
BE_FI	BE & FI	4		Worklist Group	07
RF   LU	RF & LU	1	Advanced Radiology	Radiologist Worklist Group	08
				Worklist Group	08

Site Groups must have one of these two Type Group codes in order to be available from the applicable worklist. The previously created “IVT Team” Site Group Type is now incorporated into the general Worklist Group category. Any Site Groups that have been created as “IVT Team” will be converted to the Worklist Group Site Group Type as part of the upgrade.

In an effort to eliminate any confusion when the upgrade is applied, the default option in the new worklist filter will be *Use Location Filter* which will maintain the same behavior from previous builds: the worklist contents will be controlled only by the main Location Filter and no Site Group filtering will be applied until the user makes a different selection from the dropdown to use a particular Site Group filter.

If it is desirable to remove this option after implementing worklist Site Groups, it is possible to remove the *Use Location Filter* option by changing the System Configuration setting *AddUseLocationFilterToWorklistSiteGroups* to False.

If there are any worklist items for the Practice in the Location Filter that do **not** have a Site assigned, those will also be included on the worklist. This is done to prevent studies without a location from being forgotten. It is possible to hide these by creating a Custom View on the worklist, with a filter of “Is not null” on the Site column. This will hide any worklist items without an assigned Site.



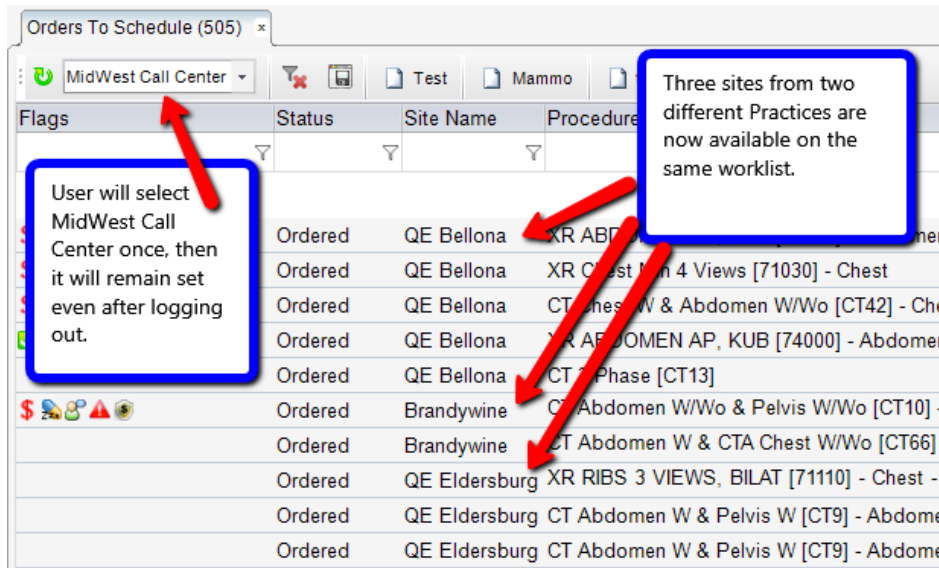
An example may help in understanding how to take advantage of this feature. Imagine there is an organization with two practices: Red Radiology and Blue Radiology. Each practice consists of 15 sites. MidWest Call Center is responsible for scheduling at three of those sites: two from Red Radiology and one from Blue Radiology. The staff would like to view all five sites on the Orders to Schedule WL at the same time. To allow this, the RIS Administrator will create a Site Group called MidWest Call Center. The Site Group Type Code will be Worklist Group. Each of the 3 desired sites will be associated to the new Site Group. In the image below, the first site, Brandywine, has been attached.

Remember to click the arrow and add all of the sites to be included in the Site Group.

Site Group Code	Description	Display Order	Practice Code	Site Group Type Code	Last Updated	Active
Contains:	Contains:	Equals:	Contains:	Contains:	Equals:	Contains: Y
Click here to add a new row						
MidWest Call Center	MidWest Call Center	1		Worklist Group		Y
Site Group Code	Site Code					
MidWest Call Center	Brandywine					
Click here to add a new row						

February 28, 2017

Now that the MidWest Call Center Site Group has been created, the Call Center scheduler can open the Orders to Schedule WL, select the MidWest Call Center option, and see all three sites on the worklist.



The screenshot shows the 'Orders To Schedule (505)' window. At the top, there is a dropdown menu currently set to 'MidWest Call Center'. Below this is a table with columns: Flags, Status, Site Name, and Procedure. The table contains several rows of orders. Annotations with red arrows point to specific elements:

- A blue box with text: "User will select MidWest Call Center once, then it will remain set even after logging out." with an arrow pointing to the 'MidWest Call Center' dropdown menu.
- A blue box with text: "Three sites from two different Practices are now available on the same worklist." with an arrow pointing to the 'Site Name' column, specifically highlighting 'QE Bellona', 'Brandywine', and 'QE Eldersburg'.

Flags	Status	Site Name	Procedure
	Ordered	QE Bellona	XR ABDOMEN AP, KUB [74000] - Abdomen
	Ordered	QE Bellona	XR Chest With 4 Views [71030] - Chest
	Ordered	QE Bellona	CT Chest W & Abdomen W/Wo [CT42] - Chest
	Ordered	QE Bellona	CT Phase [CT13]
	Ordered	Brandywine	CT Abdomen W/Wo & Pelvis W/Wo [CT10] - Abdomen
	Ordered	Brandywine	CT Abdomen W & CTA Chest W/Wo [CT66] - Abdomen
	Ordered	QE Eldersburg	XR RIBS 3 VIEWS, BILAT [71110] - Chest
	Ordered	QE Eldersburg	CT Abdomen W & Pelvis W [CT9] - Abdomen
	Ordered	QE Eldersburg	CT Abdomen W & Pelvis W [CT9] - Abdomen

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**FEATURE #14961 - UM PRIORITY COLUMN AVAILABLE ON ORDERS TO SCHEDULE WORKLIST**

For customers using Utilization Management functionality, the UM Priority is now available as a column on the Orders to Schedule WL. This will allow users to sort and filter based on the UM Priority.

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**FEATURE #15361 – NEW COLUMN AVAILABLE ON TECHNOLOGIST WL TO DISPLAY TIME OF CONTRAST INJECTION**

In some organizations, contrast injections are performed by a doctor instead of the technologist performing the scan. There is an existing workflow in eRAD RIS to accommodate the doctor “signing” the injection. For those using this workflow, an *Injected* column is now available on the Technologist worklist to display the time the injection was signed.

## INTERFACING

### FEATURE #14747 – EXTERNAL INTERFACE CAN NOW RETURN VALUES FOR SCHEDULE MESSAGE

To enhance workflow when an external scheduling system utilizes the RIS Scheduling engine, the External Interface Service (Wedge) now provides a new web method (similar to the StudyUpdate method) that returns information regarding the study or studies that were created or updated. Please contact eRAD Support to learn more about this functionality if applicable.

## MANAGEMENT REPORTS

### FEATURE #14511 – MANAGEMENT REPORTS AND DASHBOARDS FOR UTILIZATION MANAGEMENT

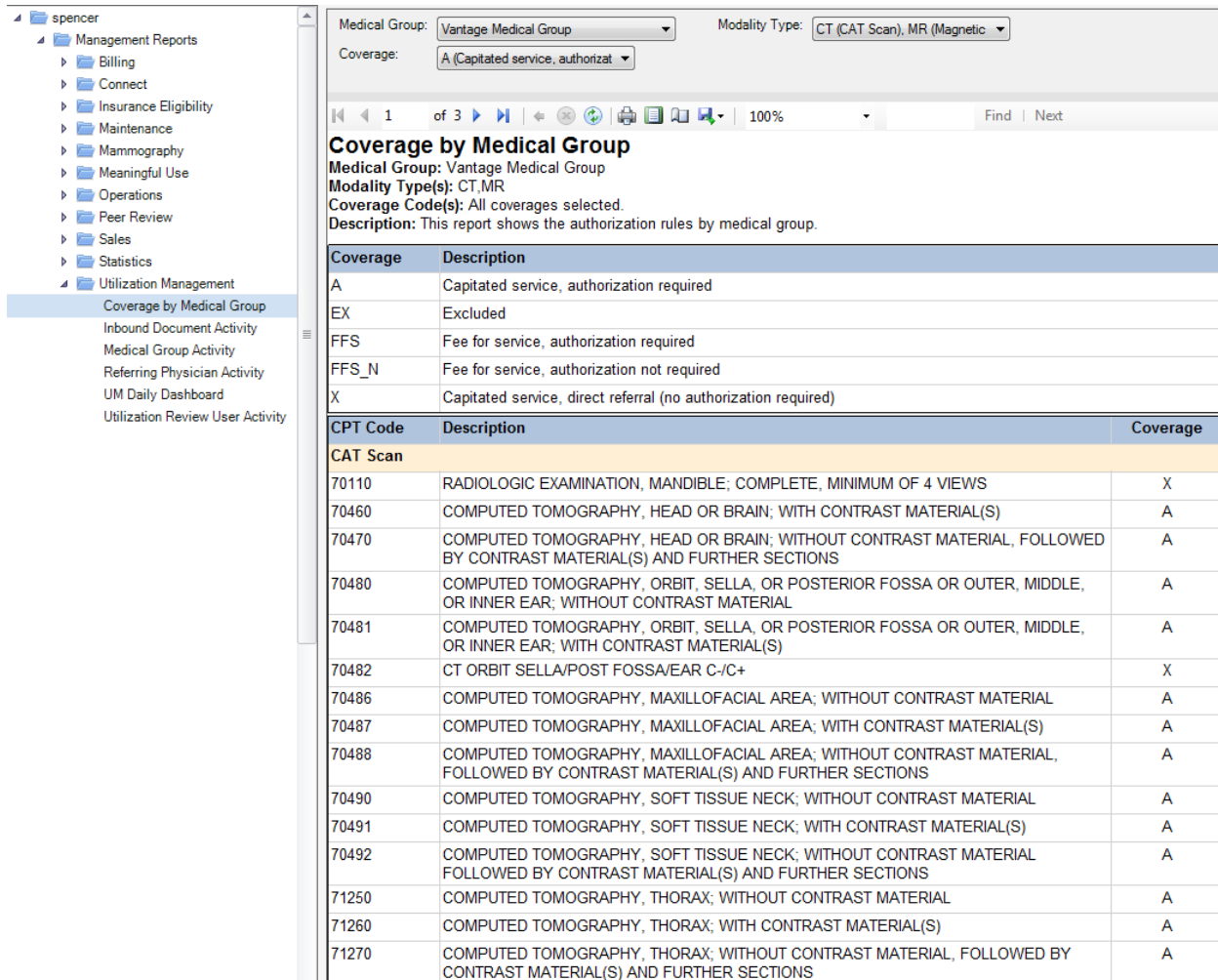
A collection of management reports for tracking statistics relevant to the new Utilization Management functionality in eRAD RIS is now available.

A new core folder called Utilization Management has been added to the Management Report structure in eRAD RIS. The following reports were added to the Utilization Management folder:

- **Coverage by Medical Group** – This will allow the user to select a Medical Group, Modality Type, and Coverage Type. In other words, it is a means to run a report against the UM authorization rules (matrices).
- **Inbound Document Activity** – This report will allow the user to select a date range and receive the following information:
  - The number of documents not processed and the average age in hours.
  - The number of documents discarded, sorted by reason (e.g. Junk Mail, Duplicate, etc.).
  - The number of documents processed by data entry user.
  - A breakdown of incoming vs processed documents by hour of day.
- **Medical Group Activity** – This report will allow the user to select a date range and get a listing of all medical group activity that required utilization review and are in a final UM status for the period:
  - A breakdown of STAT, Urgent, and Routine.
  - Total procedure count, average turnaround hours, and percent compliant.
  - Drill down capabilities from UM Status such as Recommended all the way down to Modality Type (CT, MR, etc.).
- **Referring Physician Activity** – This report will allow the user to select a date range and get a listing of all referring physician activity that required utilization review and are in a final UM status for the period:
  - A breakdown of STAT, Urgent, and Routine.
  - Total procedure count, average turnaround hours, and percent compliant.
  - Drill down capabilities from UM Status such as Recommended all the way down to Modality Type (CT, MR, etc.).
- **Utilization Review User Activity** – This report will allow the user to select a date range and get the following information:
  - A listing of all the reviewers who finalized an authorization request during the period.
  - Average hours to final status and percent of total.
  - Ability to drill-down to see the UM Statuses such as Recommended As Requested.
- **UM Daily Dashboard** – This report is limited to one day's activity and would typically be scheduled and distributed to the UM management team. It contains the following information:
  - Number of unprocessed inbound documents in the data entry queue.
  - Breakdown of the reviewer queue by priority and status.
  - Finalized procedure count by priority and status.
  - Finalized procedure count broken down by average turnaround time.
  - Finalized procedure seven day trend bar chart.
  - Breakdown of procedure count by Modality Type.

- Breakdown of procedure count by medical group.
- Top ten referring physician procedure count.

See below for examples of the management reports.



The screenshot displays the eRAD Management Reports interface. On the left, a navigation tree shows various report categories under 'spencer', with 'Utilization Management' and 'Coverage by Medical Group' selected. The main panel shows the 'Coverage by Medical Group' report for 'Vantage Medical Group'. The report filters are set to 'Modality Type: CT (CAT Scan), MR (Magnetic)' and 'Coverage: A (Capitated service, authorization required)'. The report title is 'Coverage by Medical Group' and it includes a description: 'This report shows the authorization rules by medical group.' The report contains two tables: one for 'Coverage' and one for 'CPT Code'.

Coverage	Description
A	Capitated service, authorization required
EX	Excluded
FFS	Fee for service, authorization required
FFS_N	Fee for service, authorization not required
X	Capitated service, direct referral (no authorization required)

CPT Code	Description	Coverage
<b>CAT Scan</b>		
70110	RADIOLOGIC EXAMINATION, MANDIBLE; COMPLETE, MINIMUM OF 4 VIEWS	X
70460	COMPUTED TOMOGRAPHY, HEAD OR BRAIN; WITH CONTRAST MATERIAL(S)	A
70470	COMPUTED TOMOGRAPHY, HEAD OR BRAIN; WITHOUT CONTRAST MATERIAL, FOLLOWED BY CONTRAST MATERIAL(S) AND FURTHER SECTIONS	A
70480	COMPUTED TOMOGRAPHY, ORBIT, SELLA, OR POSTERIOR FOSSA OR OUTER, MIDDLE, OR INNER EAR; WITHOUT CONTRAST MATERIAL	A
70481	COMPUTED TOMOGRAPHY, ORBIT, SELLA, OR POSTERIOR FOSSA OR OUTER, MIDDLE, OR INNER EAR; WITH CONTRAST MATERIAL(S)	A
70482	CT ORBIT SELLA/POST FOSSA/EAR C-/C+	X
70486	COMPUTED TOMOGRAPHY, MAXILLOFACIAL AREA; WITHOUT CONTRAST MATERIAL	A
70487	COMPUTED TOMOGRAPHY, MAXILLOFACIAL AREA; WITH CONTRAST MATERIAL(S)	A
70488	COMPUTED TOMOGRAPHY, MAXILLOFACIAL AREA; WITHOUT CONTRAST MATERIAL, FOLLOWED BY CONTRAST MATERIAL(S) AND FURTHER SECTIONS	A
70490	COMPUTED TOMOGRAPHY, SOFT TISSUE NECK; WITHOUT CONTRAST MATERIAL	A
70491	COMPUTED TOMOGRAPHY, SOFT TISSUE NECK; WITH CONTRAST MATERIAL(S)	A
70492	COMPUTED TOMOGRAPHY, SOFT TISSUE NECK; WITHOUT CONTRAST MATERIAL FOLLOWED BY CONTRAST MATERIAL(S) AND FURTHER SECTIONS	A
71250	COMPUTED TOMOGRAPHY, THORAX; WITHOUT CONTRAST MATERIAL	A
71260	COMPUTED TOMOGRAPHY, THORAX; WITH CONTRAST MATERIAL(S)	A
71270	COMPUTED TOMOGRAPHY, THORAX; WITHOUT CONTRAST MATERIAL, FOLLOWED BY CONTRAST MATERIAL(S) AND FURTHER SECTIONS	A

Figure 1 – Coverage by Medical Group Management Report

## Inbound Document Activity

Date Range: 08-27-2016 - 11-25-2016

Description: This report shows a breakdown of inbound document activity based on processed date.

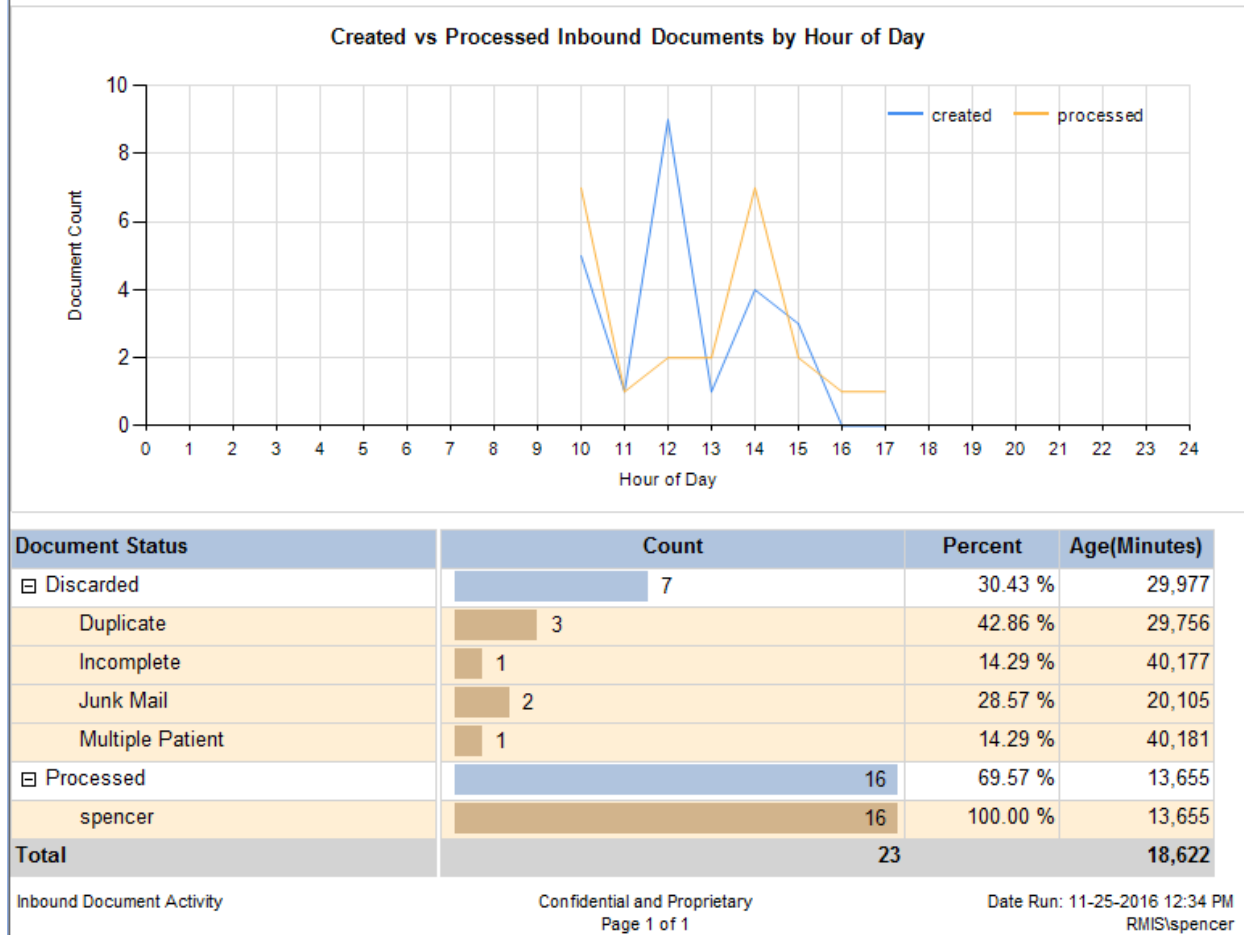


Figure 2 – Inbound Document Activity Management Report



### Medical Group Activity

Date Range: 01-01-2016 - 11-24-2016

Description: This report shows procedure count by medical group categorized by review priority, average turnaround time, and the percentage of reviews completed with the time allotted.

Medical Group	STAT			Urgent			Routine			Total		
	Count	Hours	Comp	Count	Hours	Comp	Count	Hours	Comp	Count	Hours	Comp
<input type="checkbox"/> Choice							1	1	100 %	1	1	100 %
<input type="checkbox"/> Prospect Medical Group							1	135	0 %	1	135	0 %
<input type="checkbox"/> Regal Medical Group							5	1	100 %	5	1	100 %
<input type="checkbox"/> Received							2	0	100 %	2	0	100 %
<input type="checkbox"/> Recommended							3	1	100 %	3	1	100 %
<input type="checkbox"/> As Added Exam							1	1	100 %	1	1	100 %
<input type="checkbox"/> As Alternative							1	1	100 %	1	1	100 %
<b>MRI and MRA</b>							1	1	100 %	1	1	100 %
<input type="checkbox"/> As Requested							1	1	100 %	1	1	100 %
<input type="checkbox"/> Riverside Physician Network				3	1	100 %				3	1	100 %
<input type="checkbox"/> Seaview IPA	2	25	100 %	7	79	71 %	23	4	91 %	32	21	88 %
<input type="checkbox"/> Vantage Medical Group	21	0	100 %	52	35	75 %	217	20	88 %	290	21	87 %
<b>Total</b>	<b>23</b>	<b>2</b>	<b>100 %</b>	<b>62</b>	<b>38</b>	<b>76 %</b>	<b>247</b>	<b>19</b>	<b>88 %</b>	<b>332</b>	<b>21</b>	<b>87 %</b>

Medical Group Activity

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Date Run: 11-24-2016 2:53 PM  
SpencerLaptp-HPFormsGuestUser

Figure 3 – Medical Group Activity Management Report

### Referring Physician Activity

Date Range: 01-01-2016 - 11-24-2016

Description: This report shows utilization management procedure counts by referring physician categorized by review priority, average turnaround time, and the percentage of reviews completed with the time allotted.

Referring Physician	STAT			Urgent			Routine			Total		
	Count	Hours	Comp	Count	Hours	Comp	Count	Hours	Comp	Count	Hours	Comp
<input type="checkbox"/> Abbott, Alberto3 24490							8	10	88 %	8	10	88 %
<input type="checkbox"/> Not Recommended							2	0	100 %	2	0	100 %
<input type="checkbox"/> Recommended							5	16	80 %	5	16	80 %
<input type="checkbox"/> As Requested							5	16	80 %	5	16	80 %
<b>Diagnostic CT</b>							4	20	75 %	4	20	75 %
<b>MRI and MRA</b>							1	0	100 %	1	0	100 %
<input type="checkbox"/> Withdrawn							1	0	100 %	1	0	100 %
<input type="checkbox"/> James, Alfred0 88052							1	1	100 %	1	1	100 %
<input type="checkbox"/> Jefferson, Abraham6 45231							3	55	67 %	3	55	67 %
<input type="checkbox"/> Jones, Aimee 04700							2	68	50 %	2	68	50 %
<input type="checkbox"/> Jones, Allan 64317							2	0	100 %	2	0	100 %
<input type="checkbox"/> Jones, Artur 12418							1	0	100 %	1	0	100 %
<input type="checkbox"/> ref, test							1	0	100 %	1	0	100 %
<input type="checkbox"/> Refer, Self							3	0	100 %	3	0	100 %
<input type="checkbox"/> Smith, Alfons	14	4	100 %	47	48	70 %	186	21	89 %	247	25	86 %
<input type="checkbox"/> Smith, Alliso 97245				3	1	100 %	4	1	100 %	7	1	100 %
<input type="checkbox"/> Smith, Amelia0 89165							4	1	100 %	4	1	100 %
<input type="checkbox"/> Smith, Bobbie 46382	9	0	100 %	12	7	92 %	27	8	85 %	48	6	90 %
<input type="checkbox"/> Williams, Alexis 24384							5	25	60 %	5	25	60 %
<b>Total</b>	<b>23</b>	<b>2</b>	<b>100 %</b>	<b>62</b>	<b>38</b>	<b>76 %</b>	<b>247</b>	<b>19</b>	<b>88 %</b>	<b>332</b>	<b>21</b>	<b>87 %</b>

Referring Physician Activity

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Date Run: 11-24-2016 2:55 PM  
SpencerLaptp-HPFormsGuestUser

Figure 4 – Referring Physician Activity Management Report

### Utilization Review User Activity

Date Range: 01-01-2016 - 11-24-2016

Description: This report shows utilization review procedure count by reviewer.

Review Finalized By	Proc Count	Avg Hours	% of Total
MacDougall, Spencer	243	30	99.18 %
MD Review	1	1	0.41 %
Not Recommended	50	18	20.58 %
Medical Necessity Not Established	43	17	86.00 %
Not Medically Necessary	7	24	14.00 %
Received	3	20	1.23 %
Recommended	173	27	71.19 %
Reopen	2	110	0.82 %
Returned, Review Completed	3	41	1.23 %
Returned, Review Not Initiated	1	299	0.41 %
Withdrawn	10	108	4.12 %
Mills, Terry	2	69	0.82 %
<b>Total</b>	<b>245</b>	<b>30</b>	

Utilization Review User Activity

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Page 1 of 1

Date Run: 11-24-2016 3:10 PM  
SpencerLaptp-HPFormsGuestUser

Figure 5 – Utilization Review User Activity Management Report

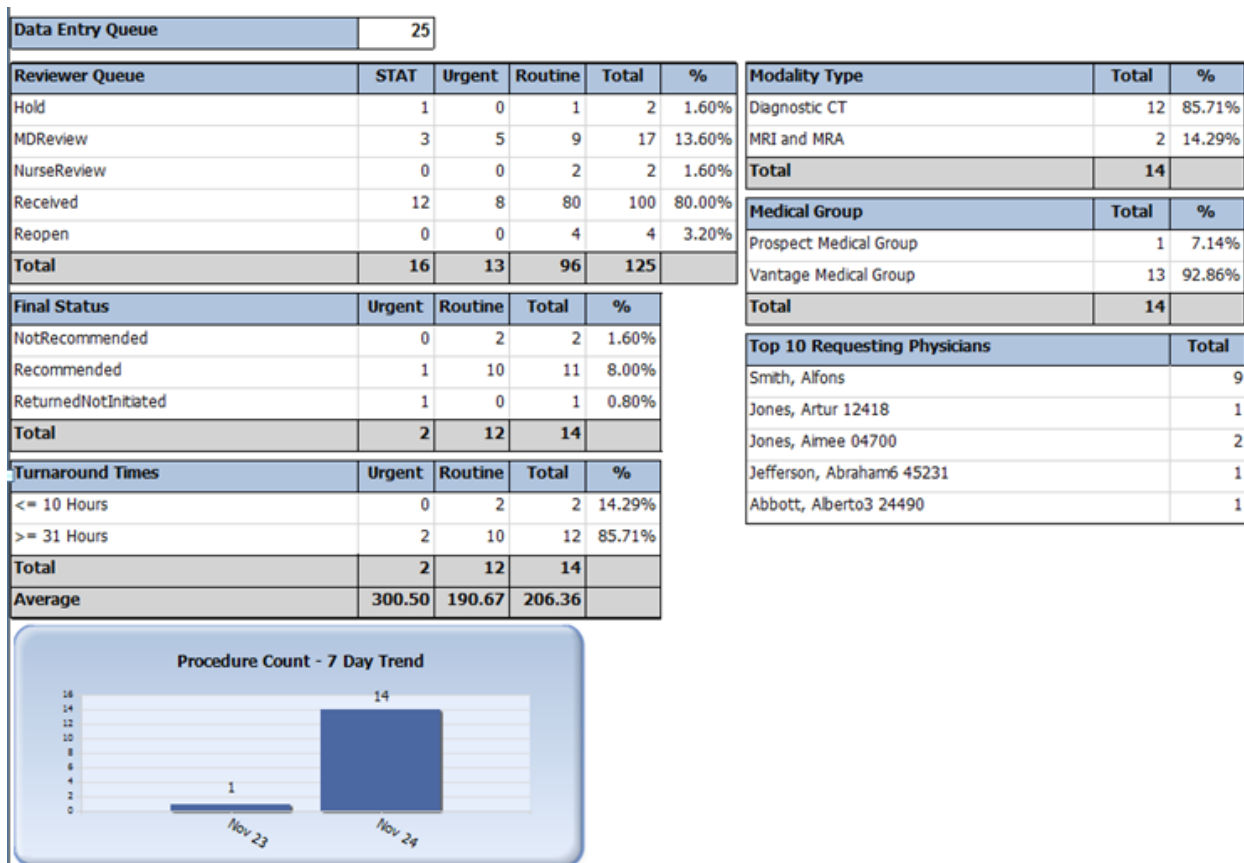


Figure 6 – UM Daily Dashboard

## RESOLVED DEFECTS

Bugs, support issues, and design optimizations resolved in build 2.2017.1.

Bug #	Category	Subject
15268	RADAR SecurePIC	An optional ris.exe.config setting for DBActionSignalRServiceEndpoint was added to be used when the IP address used for hosting on the server is different than the IP address used on the client.
15300	Insurance Eligibility	An issue with the Eligibility status icon becoming hidden on the Manage Policies grid when there is a long insurance carrier description has been resolved.
15301		Resolved issue with Amount to Collect field not refreshing if scheduling is completed before Eligibility finished running.
15307	Technologist	An exception no longer occurs when adding to the Contrast grid from View/Edit screen.
15023	Billing	Resolved an issue with Linked Reports where the non-primary studies would not receive an updated billing status and would not drop from the Activity WL.
15940	Cancel	It is now possible to cancel an order made as a guest in Patient Portal from the Reschedule workflow (previously caused RIS to crash).
15373	CD Burning	Resolved an issue where RIS could crash during CD Export under certain circumstances.
15311	CEHRT	ImportDataFileUpgradeDB has been modified for loading SNOMED codes to disable constraints related to new Gender Identity and Sexual Orientation tables.
15915	Citrix Bridge	Citrix version 7.9 needs the latest version of vcom API which requires a modification the the citrixbridge.exe. Also resolved a problem with the path for the verbose log in the citrixbridge.exe.config.
7613	Confirmation	Closed Room Reschedule WL now supports repeat rules, resolving an issue where studies could be filtered from the Confirmation worklist.
15359	DB	Resolved an issue where users could be allowed to re-use passwords even when the System Configuration setting does not allow it.
14450	Document Distribution	Improvements made to the logging of Document Distribution notes.
14782	Finding Followup	It is now possible to save Finding Follow-up selections when using PowerScribe reporting mode.
15037	Insurance Eligibility	If Eligible API provides a Spend Down amount, this is now

		displayed in the detailed eligibility return.
15286	Insurance Eligibility	Resolved an issue with the tooltip for the Eligibility worklist icon.
13521	Interfaces	Wedge will no longer crash when replying to an inbound message when connecting system (e.g. Mirth, Ensemble) has closed the connection.
14715	Interfaces	Wedge will now provide an alert if a plugin is misconfigured.
15092	Interfaces	Added support for openxml versions of MS Word and Excel to external interface. This will provide better support for RTL and formatting.
15449	Interfaces	An error in RadarConnect process message for practices with null values has been resolved.
15522	Log Control	The notes field context menu, including spellcheck options, is now available in textbox only mode.
15938	MRN	Assigning MRN during reschedule using guest Patient Portal study no longer throws an exception.
15068	Outside Read	A core validation rule has been added with a condition that allows Reason for Exam to be required on all studies <i>except</i> Outside Reads.
13888	PACS (eRAD) Int - RIS only	In the Patient Folder, it is now possible to launch images for a study, even if a different study was previously launched from the same Patient Folder and the PACS Viewer was closed. Previously, the Patient Folder would have to be closed and re-opened under those circumstances.
14066	PACS (Non - eRAD) Integration	Carestream PACS integration now supports appending studies in the viewer when double clicking a prior study from the mini-Patient Folder in the dictation screen.
14889	PACS (Non - eRAD) Integration	Resolved an issue with Carestream PACS integration in which studies loaded by External Study Identifier did not close properly.
15393	PACS (Non - eRAD) Integration	Resolved an issue with Carestream PACS integration in which viewing a second study from the Patient Folder does not display the Accession number.
14636	PACS (Non - eRAD) Integration	Resolved an issue with IW PACS integration in which images were not redisplayed when switching between tabs.
15676	Patient Merge	Merging external MRNs with internal RIS patients is once more possible during rescheduling workflow.
15149	Patient Portal	No longer issues with arriving or cancelling appointments made as a guest in the Patient Portal.
15102	Peer Review	Radiologists are now prevented from peer reviewing studies from outside of their current Practice.
12563	Person Management	RecentPasswordRestrictionCount set to -1 now fully disables the recent password feature, as designed.

13788	Powerscribe Integration	Resolved an issue with PowerScribe integration in which it was possible to unintentionally close a second study when dictating multiple cases and an addendum.
14867	RADAR	Resolved an issue for RADAR exam cancellations.
15232	RADAR	Audit records for RADAR messaging now include patient /order /study context.
15566	Radar - Nudge	Resolved a value cannot be null error for App.config RADARSecureMessagePort.
11929	Radiology Reporting	Switching between external reporting integration modes (PS360 or External) to internal reporting modes (eRAD or M*Modal) now occurs seamlessly without errors.
14757	Radiology Reporting	Resolved an index out of range error that occurred under certain conditions when using Next workflow during dictation.
15392	Radiology Reporting	All applicable tool window controls in reporting screens will now prompt if there are unsaved changes.
15553	Radiology Reporting	When using emergency access and RIS crashes, using autosave, clicking the emergency access again will no longer remove the auto saved report.
15975	Radiology Reporting	Selected Report panel is now properly saving in personal or system layouts.
14045	Scanning	"A lock is required to update this order" error is no longer occurring when saving scanned documents for an external prior report.
15240	Scanning	Resolved an issue with auto-cropping when using the Straighten tool on scanned documents.
15671	Scanning	Scanning no longer unexpectedly converts images to black and white.
14845	Scheduling	Foreign key exception when adding "Additional Data" to a procedure no longer occurs.
14948	Scheduling	A user without permission to reschedule a study can no longer do so from the context menu.
15104	Scheduling	When scheduling using Order A/Order B with different referring physicians, Order B now successfully receives the data from the Clinical tab.
15559	SecurePIC	SecurePIC requests are now successful from IVT screen for studies in an Ordered status.
15076	Technologist	Modifying a study that was performed before the Tech verified ID field was set as Required using validation rules has been resolved.
15155	Technologist	ExamDoneTechOnly - PACS correction flag can no longer be inadvertently set to Y after exam completion.
14971	Thick Client GUI	Resolved an issue where the RIS application could stay in view

		after RIS locks.
15363	Thick Client GUI	Resolved an issue that previously resulted in a 'Cannot access a disposed object. Object name: RadLabel' error/crash.
15371	Thick Client GUI	Resolved an issue that could cause a RIS crash while disposing PerformExam or ViewEdit.
14771	Utilization Management	When using the Quick Search box to search by UM authorization number, the applicable row will not be highlighted if the search is performed multiple times or with the Patient Folder already open.
15209	Worklists	Resolved an intermittent issue with RIS Crashing between scheduling under particular circumstances (Object reference not set to an instance of an object).

## KNOWN LIMITATIONS

The following are new bugs found in build 2.2017.1. Bugs reported in previous versions are not captured as Known Limitations in this document.

#	Subject
16068	Dictated by in Summary panel is not populated for reports created by technologist.
15974	Document Distribution jobs failing to send email via RADAR due to large file size.
15577	System configuration setting "Enforce zip code selection" set to True and "Enforce county selection" set to False, will require a zip code but the field will not appear.
16040	Attach Inbound Documents WL action buttons throw exception if pressed when highlighting a locked document row.
16072	The "Last Login By User ID" management report should display the date.
16060	TemplateMacro Editor- When using the assignment tab, after filtering available options, items that are not in the results are added to assigned column when using the right arrow to select.
16047	With preferences for reuse reporting screen (unchecked) and autofeed from worklist (checked), the Next workflow in the dictate screen is sometimes failing to open the next study.
16046	With the reuse reporting screen preference unchecked, Next workflow in the signing screen behaves as if in the Dictate screen.
16042	Unable to delete table rows from DocumentType look-up (? FK exception thrown).
16026	Removed/inactive order_items showing as disabled on Exam Details list when valid, active order_items present.
16024	Infinitt PACS - Images from Patient Folder are not always closing.
16023	Imported order-level documents are disabling the incorrect context menu option to switch document level.
16013	Clinical.ViewStudy access string does not control access to View Study button/context option on appropriate exams.
16005	When user has both Technologist and Editor resource types, it is possible for them to be assigned as radiologist if creating a report from perform exam screen.
16000	Inactive UM Resolution Codes are visible in the UM Alerts resolution code drop-down.
15991	Scheduling a study in OrderSigned status from within a Folder removes the study from Folder's WL.
15989	Multiple Studies flag gets carried through "Schedule From" action on single-procedure study.
15920	Contrast amounts are not defaulting when including multiple exams.
15900	When deleting the dictation /report and resetting status on a study that is suspended, _status_flags is not getting reset.
15884	Scan Document Notes option still available on non-modal attachment viewer without the option to save them.
15871	TemplateMacro Results grid is freezing when a change is initiated but not saved before attempting to open the editor window.
15820	Attach Inbound Documents - Opening context menu on rows other than the one selected throws an error.
15804	Changing the image request status for studies in Exam Done produces an error that "Signs and Symptoms" is required.

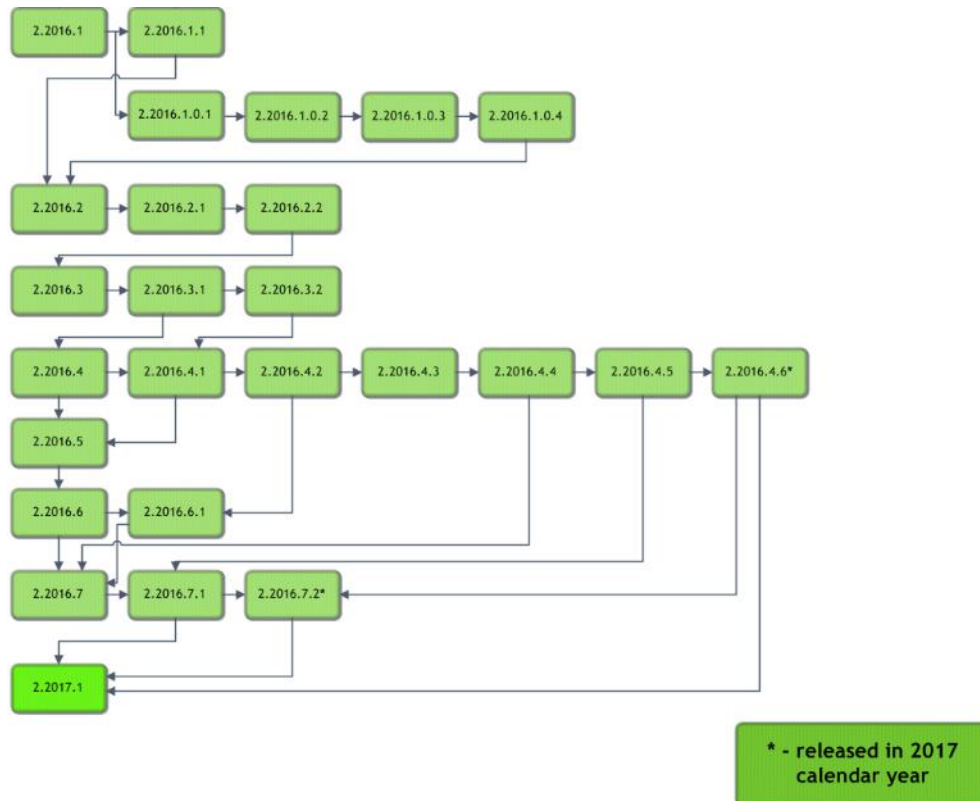
15800	Closing a study by clicking X on the tab will lock the images.
15796	An error is thrown in the "Adding a mammo biopsy" screen when cancelling the person search window.
16070	eRAD reporting mode - Create template from report creates double brackets for 2 <sup>nd</sup> auto macro field.
15963	Scheduling an order under Utilization Review from a Folder does not display a message informing the user that it is under UM Review.
15962	Unable to modify Additional/Alternative procedure status when default statuses are null.



**RIS RELEASE VERSION NUMBERS**

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Notes
2016.1	-	2.16.1.0.33419 (3GB)	2.16.1.0.33079	2.16.1.0.33419	2.16.1.0.33416		GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge
2016.1	1	2.16.1.1.33672 (3GB)	2.16.1.0.33079	2.16.1.0.33419	2.16.1.0.33416		GUI.zip
2016.1	.0.1	2.16.1.0.1 (3GB)	2.16.1.0.33079	2.16.1.0.33419	2.16.1.0.33416		GUI.zip (This is not included in 2016.1.1, version directly above)
2016.1	.0.2	2.16.1.0.1 (3GB)	2.16.1.0.33079	2.16.1.0.2	2.16.1.0.33416		Wedge Web Services only
2016.1	.0.3	2.16.1.0.3 (3GB)	2.16.1.0.33079	2.16.1.0.3	2.16.1.0.3.00128918		GUI.zip, Web Services and DB
2016.1	.0.4	2.16.1.0.4 (3GB)	2.16.1.0.33079	2.16.1.0.4	2.16.1.0.3.00128918		GUI.zip, Web Services
2016.2	-	2.16.2.0 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00172540		Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge
2016.2	1	2.16.2.1 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00172540		GUI.zip and Citrix Bridge
2016.2	2	2.16.2.2 (3GB)	2.16.2.0	2.16.2.0	2.16.2.2.00243102		GUI.zip, DB and Citrix Bridge
2016.3	-	2.16.3.0 (3GB)	2.16.3.0	2.16.3.0	2.16.3.0.00257101	2.16.3.0	Full Version Release
2016.3	1	2.16.3.1 (3GB)	2.16.3.0	2.16.3.1	2.16.3.1.00298834	2.16.3.0	GUI.zip, Web Service and DB
2016.4	-	2.16.4.0	2.16.4.0	2.16.4.0	2.16.4.0.00301943	2.16.4.0	Full Version Release
2016.4	1	2.16.4.1	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	GUI and Web Service updates
2016.4	2	2.16.4.2 (3GB)	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	GUI and Patient Portal updates
2016.4	3	2.16.4.3 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	GUI and Patient Portal updates
2016.4	4	2.16.4.4 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	GUI
2016.4	5	2.16.4.5 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	GUI
2016.4	6	2.16.4.6 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	GUI
2016.5	-	2.16.5.0 (3GB)	2.16.5.0	2.16.5.0	2.16.5.0.00349303	2.16.5.0	Full Version Release
2016.6	-	2.16.6.0 (3GB)	2016.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	Full Version Release
2016.6	1	2.16.6.1 (3GB)	2016.6.0	2016.6.0	2.16.6.0.00411295	2.16.6.0	GUI and Patient Portal updated
2016.7	-	2.16.7.0 (3GB)	2.16.7.0	2.16.7.0	2.16.7.0.00490835	2.16.7.0	Full Version Release
2016.7	1	2.16.7.1 (3GB)	2.16.7.0	2.16.7.1	2.16.7.0.00490835	2.16.7.0	GUI and Web Service updates
2016.7	2	2.16.7.2 (3GB)	2.16.7.0	2.16.7.2	2.16.7.0.00490835	2.16.7.0	GUI and Web Service updates
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	Full Version Release

## CODE STREAM DIAGRAM



# **Customer Release Notes**

for eRAD RIS

Version 2

Build 2017.3

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## PURPOSE

This is the Customer Release Notes document for eRAD RIS Version 2.2017.3.

Not every feature will be described in this document. Typically, only features which can be visually demonstrated are outlined here.

## INTENDED AUDIENCE

The intended audience for this document is the RIS Administration team for eRAD RIS customers.

## NEW SETTINGS

### NEW ACCESS STRINGS

Setting	Default	Purpose
Clinical.Schedule.AllowManualSchedulingInClosed	None	Allows appointments to be manually scheduled in closed (gray) appointment book time slots.
Clinical.Schedule.AllowManualSchedulingInHoliday	None	Allows appointments to be manually scheduled in holiday (pink) appointment book time slots.
Clinical.Schedule.AllowManualSchedulingInRestricted	None	Allows appointments to be manually scheduled in restricted (yellow) appointment book time slots.
Clinical.Schedule.AllowManualSchedulingInUnavailable	None	Allows appointments to be manually scheduled in unavailable (blue) appointment book time slots.
Clinical.Tech.AllowAddExam	None	Allows access to the "Add exam to current order" button on Perform Exam screen.
Config.LookupEditor.OrderExtraInfo	None	Controls access to the lookup table editor for Order Extra Info.
Config.LookupEditor.PortalProcedureGroup	None	Controls access to the lookup table editor for Portal Procedure Group.
Clinical.CTRM	None	Controls access to Edit button and context menu on the Critical Results worklists.
Clinical.ReceptionBarcodeWorkflow.DesktopScanner	Full	Controls access to the Scan ID button in Identify Patient workflow.
Clinical.ReceptionBarcodeWorkflow.MagneticStripe	None	Controls access to the Swipe Card button in Identify Patient workflow.
Config.LookupEditor.BrowserType	None	Controls access to the lookup table editor for Browser Type.
Config.LookupEditor.UrgencyLevel	None	Controls access to the lookup table editor for Urgency Level.
Custom.Visibility.Data.Organization.l_site.location_character	None	Controls the visibility of the location character introduced for the Australian market. Full access shows the fields in the Organization table, while any other level will hide them.
Custom.Visibility.Data.Personnel.l_person_address.location_character	None	Controls the visibility of the location character introduced for the Australian market. Full access shows the fields in the Personnel table, while any other level will hide them.
These access strings have been removed.		
Clinical.UserPreferences.CacheReportingScreen		
Clinical.UserPreferences.ReuseReportingScreen		

## NEW SYSTEM CONFIGURATION SETTINGS

Setting	Default	Purpose
AllowLZWImageCompression	True	(value = bool) Setting this to true will enable LZW Image Compression when saving attachments.
AppointmentSearchMaxResults	-1	(value = int) Specify the number of appointment slot results to be returned by the scheduling engine. -1 turns off the feature. Changing the default is only recommended for customers scheduling via an External Interface Service. These customers should use a number higher than the recommended minimum of 500.
AutoCopyPasteLinkedStudies	False	(value = True/False) Determines if data is copied to all linked studies when one study in a collection is saved on the Perform Exam screen.
AutoIncludeLinkedStudiesForTech	False	(value = True/False) Determines if linked studies are automatically included (checked) on Perform Exam screen when a linked study is opened.
EnableExtraCompressionOnStudyUpdates	True	(value = bool) Setting this to true will enable gzip and other compression techniques and is ideal for sites with limited upload bandwidth. Set it to false to default to the legacy Microsoft data serialization.
PortalEradPacsNewAccountTemplateUserI D		(value = string) The PACS user ID to be used as a template when creating eRAD PACS accounts for users on the Portal.
PortalEradPacsNewAccountUserGroup	Radiologist	(value = string) Default user group to use when creating eRAD PACS accounts for users on the Portal.
PortalFaxCoverSheetUnavailableMessage	This Fax cover sheet is currently unavailable on the portal. Please contact the imaging center to request the cover letter.	The message to display to the Connect portal user when the Fax Cover sheet is not available due to unexpected error (e.g. SSRS report server is unavailable or not configured). *This setting is for a CONNECT Provider Portal feature and will be explained in the Provider Portal user guide.
PortalFaxCovertLetterReportPath		(value = path and name) The path and name of the Fax Cover Sheet for the Provider Portal. *This setting is for a CONNECT Provider Portal feature and will be explained in the Provider Portal user guide.
CountyToZipCodeAutoFill	False	(value = bool) True to have zip and state fields auto-filled when entering a county.
MaxLogoFileSize	250000	(value = int) Maximum number of bytes for image files uploaded for Practice/Site logos and images uploaded via the ImageUploader configuration screen.



MaxLogoWidthOrHeight	1000	(value = int) Maximum number of pixels for Practice/Site logos and images uploaded via the ImageUploader configuration screen.
*Removed* TechContrastRequired		This was removed because the contrast required and CT dosage for techs is now controlled with Validation Rules. See feature #15150.
NPILength	0	(value = string) Required length of the NPI field. If blank or zero, any length is allowed up to 20, which is the maximum length of the column.
NPILengthErrorText	N/A	(value = string) Text to display when the NPI length is invalid. If blank or null, the default error text will be displayed.
PortalAllowEveningWeekendScheduling	True	(value = bool) If true, the portal will allow scheduling on evenings and weekends when appointments are available based on Availability Templates.
PortalAuthorizationNotRequiredHourPadding	0	(value = int) The number of hours before a patient can schedule through the portal if they do not have an Authorization.
PortalAuthorizationRequiredHourPadding	0	(value = int) The number of hours before a patient can schedule through the portal if they have an Authorization.
PortalMaxSearchDays	30	(value = int) When searching for an appointment time in the Portal, if no appointment times are available within this number of days, RIS will inform the user and display information to call the scheduling department.
PortalNoSelectedInsuranceHourPadding <b>REPLACES</b> PortalNoSelectedInsuranceDayPadding	5	(value = int) Used by online scheduling to add hours to the start search criteria to allow time to gather insurance from the patient for this appointment.
PPSchedulingNoPrescriptionHourPadding <b>REPLACES</b> PPSchedulingNoPrescription	0	(value = int) The number of hours before a patient can schedule through the portal if they do not have a prescription.
XmlIntegrationMainMenuText	Integrate	(value = string) The text that will appear on the XML Integration main menu item in RIS.

## NEW FEATURES

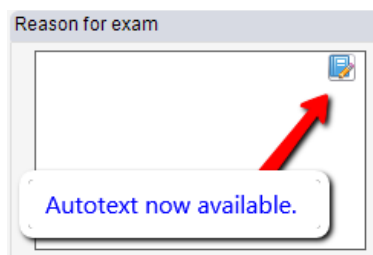
### SCHEDULING AND REGISTRATION

#### FEATURE #15086 – LOG CONTROL SUPPORTS AUTOTEXT ENTRY IN “DISPLAY AS TEXTBOX” MODE

Previously, it was only possible to utilize Autotext in notes fields that were configured to use Log Control.



It was not supported for Textbox style notes fields, which were not able to take advantage of the Autotext feature. It is now possible to turn on Autotext for a notes field that is set up as “Display as Textbox.”



To configure, open the Log Control configuration table. Locate any notes fields that are set to “Display as Textbox,” indicated with a Y. Enable Autotext by changing the Type to FreeAndAutoText. To restrict the user from entering anything **except** Autotext, choose a type of AutoText.

Log Control Code	Description	Type	Display As Textbox Flag	Spellcheck Enabled
Contains:	Contains:	Contains:	Contains:	Contains:
Click here to add a new row				
DDNotes	Document Distribution Notes	FreeText	N	N
SignsAndSymptoms	Signs And Symptoms	FreeAndAutoText	Y	Y
ReasonForExam	Reason For Exam	FreeAndAutoText	Y	Y
SchedulingNotes	Scheduling Notes	FreeAndAutoText	N	Y
TechNotes	Technologist Notes	FreeAndAutoText	N	Y
UMExternalNotes	Utilization Management External Notes	FreeAndAutoText	N	Y

If needed, configure Autotext options for the notes field in the Autotext table.

Description	Language Content	Log Control Code	Display Order
Contains: ▼	Contains: ▼	Contains: ▼	Equals: ▼
Click here to add a new row			
Screening	Annual screening. Asymptomatic.	ReasonForExam (Reason For Exam)	1
FUfromPrior	Follow-up from prior study dated	ReasonForExam (Reason For Exam)	1

## FEATURE #15026 – MAGNETIC STRIPE CARD INTERPRETATION ADDED TO IDENTIFY PATIENT WORKFLOW

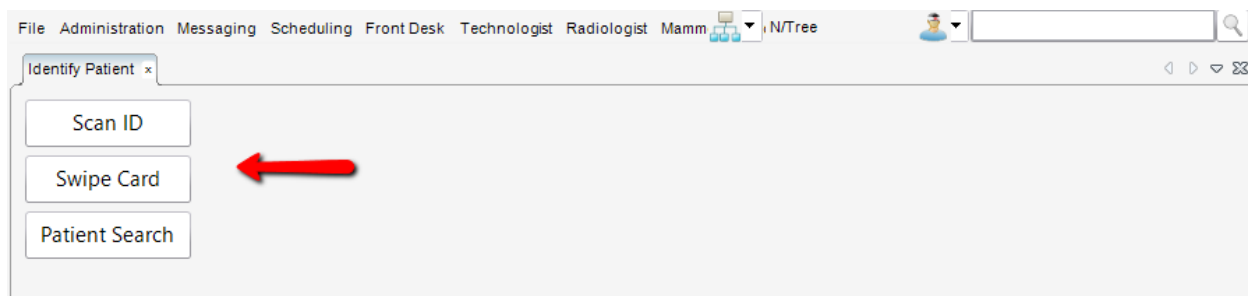
Some eRAD RIS customers are located in countries where government issued insurance cards with a magnetic stripe are common. This magnetic stripe contains information in a designated format, which can be interpreted to help identify the patient's account in RIS. To take advantage of this information, eRAD's Identify Patient feature has been expanded to support swiping cards with magnetic stripes.

Because different issuers will have different configurations for the data included on the magnetic stripe, RIS allows for different configurations to be defined in an XML file, which is included in the RIS zip file. At this time, the XML file contains configuration for Australian Medicare cards, as well as Prince Edward Island health cards. Contact eRAD Support to inquire about additional configurations.

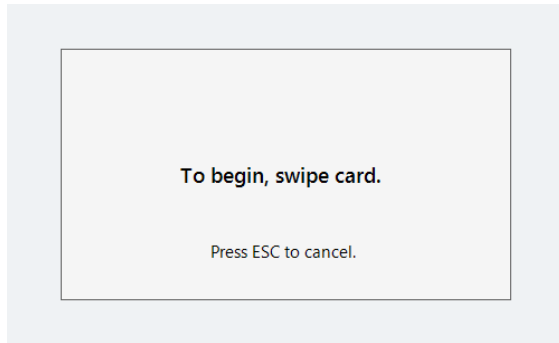
There are three Access Strings associated with the Identify Patient workflow:

- Clinical.ReceptionBarcodeWorkflow
  - This access string previously controlled access to the Identify Patient workflow. There are now two additional access strings that control the different types of searches.
- Clinical.ReceptionBarcodeWorkflow.DesktopScanner
  - This access string controls access to the existing feature in which Patient IDs with 2D barcodes are scanned using a desktop scanner.
  - The default setting is FULL to maintain existing behavior.
- Clinical.ReceptionBarcodeWorkflow.MagneticStripe
  - This access string controls access to the new magnetic stripe search.
  - The default setting is NONE.

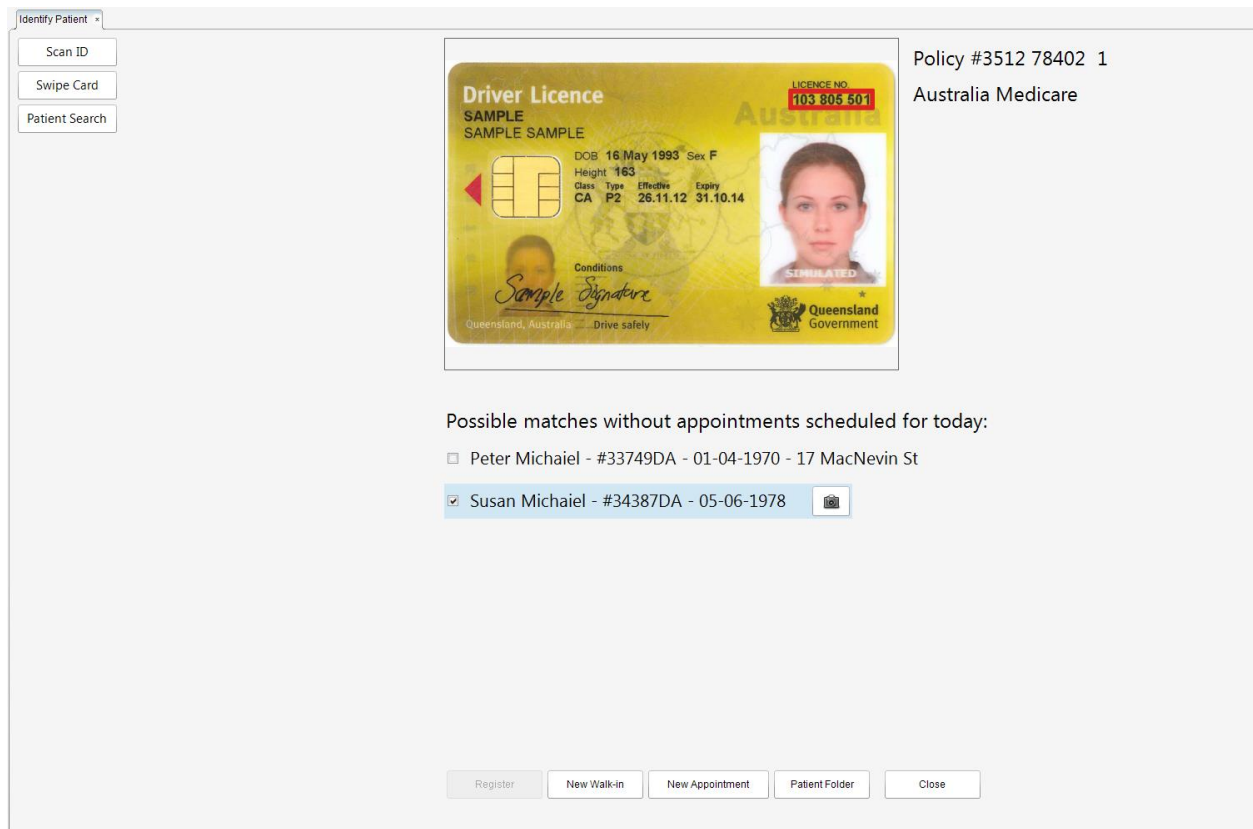
If a user has FULL access to all three of the above access strings, when opening the Identify Patient screen, they will have three options for initiating a search: Scan ID (which will scan an ID Card on the desktop scanner, as before), Swipe Card (will accept input from a magnetic card reader), and Patient Search (a new manual search option in the case that either of the previous options is unable to read the card).



When using the Swipe Card option, the user will be prompted with the following message:

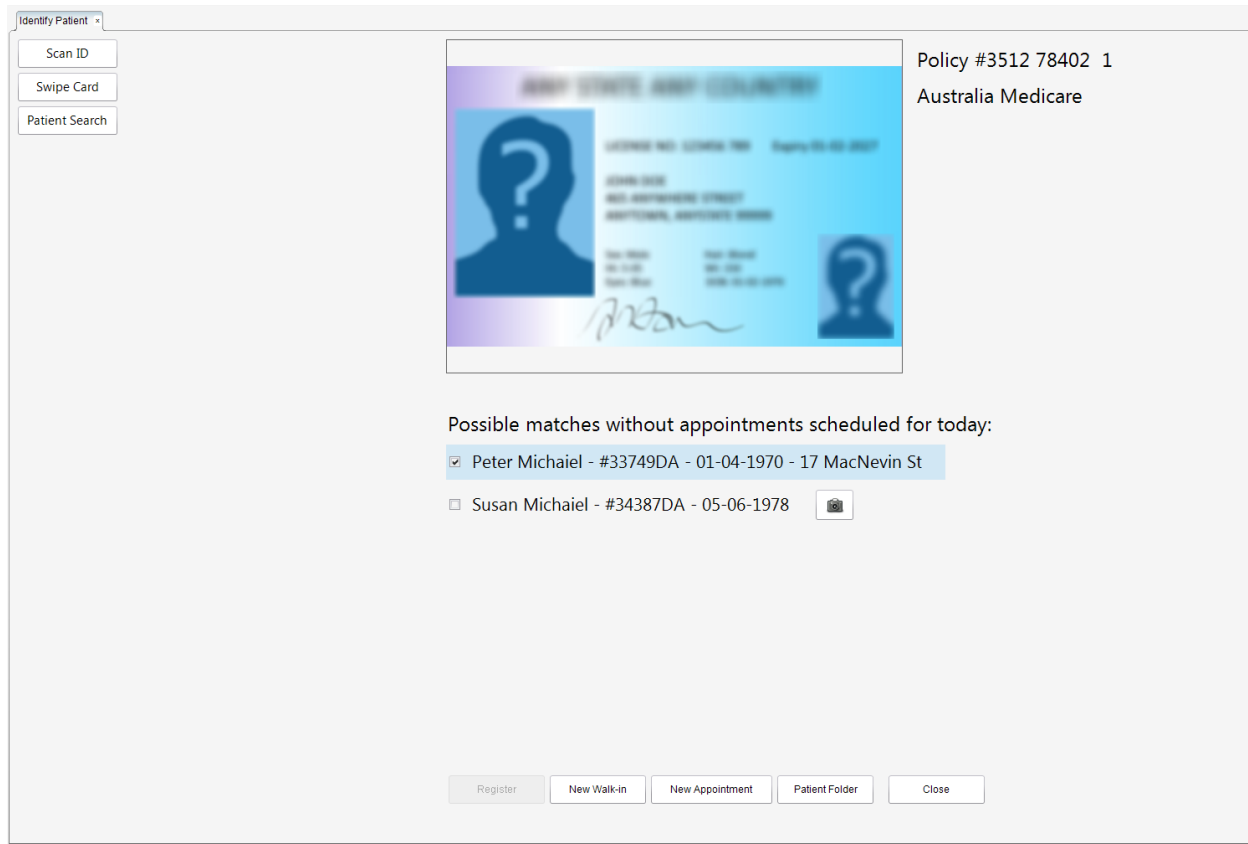


After RIS detects a successful read from the magnetic stripe reader, the results will display on the tab. The following example will refer to the configuration for an Australian Medicare card.



The upper right hand portion of the screen displays a summary of the information read from the Medicare card. At this time, the only information that can be interpreted from the card is the policy number and issue number. Though one or more patient names may be printed on the card, the magnetic stripe itself does not contain patient names.

The upper portion of the screen will show the most appropriate ID for the patient. In “Desktop Scanner” mode, this area shows the ID that was scanned. In Patient Search or Swipe Card mode, this area will show the most recent ID on file for the currently selected patient. In the event that a matching patient record does not have a patient ID on file, a generic image will be displayed to indicate No ID found.

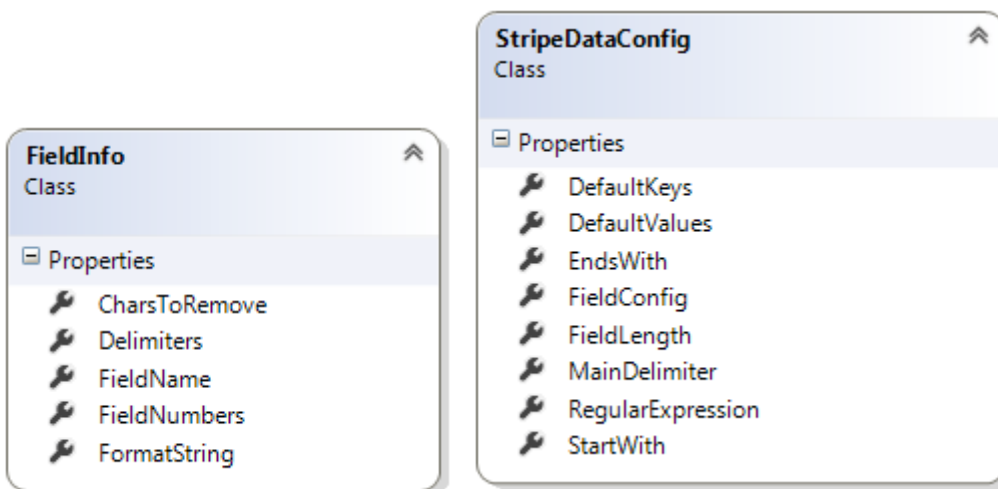


Because multiple patients can share the same Medicare card, RIS performs a search for all patients with a carrier code that represents Australia Medicare and the policy number read from the card. The issue number of the card (the last number on the right) is not included in this search as this number may have changed since the patient's last visit.

As with the Patient ID search, possible matches to the search will be displayed in the bottom half of the screen, with results that have an appointment scheduled that day at the top of the list. A patient from the search results can be selected with a checkmark. The buttons at the bottom of the screen can initiate the desired action.

### Magnetic Stripe Configuration

Different types of swipe cards may have the data stored in different formats. RIS allows for different configurations to be defined in an XML file which is included in the RIS zip file.



Each card type can be described in an XML file that contains a list of *StripeDataConfig* objects with the properties shown above. The *FieldConfig* property is a list of *FieldInfo* objects that provide a name for the field and some instructions to extract and format the data.

The released zip file presently contains an Australia Medicare card configuration and a PEI Health card configuration. These can be used for reference when building additional configurations.

## Field Names

The following case sensitive field names are given special meaning:

- LastName – The patient’s last name.
- FirstName – The patient’s first name.
- MRN – If present, will be displayed as the patient ID and used to trigger an MRN search.
- BirthDate – The patient’s date of birth.
- PolicyNumber – If present (and in the absence of MRN), will be displayed as the insurance policy number and used to trigger a “StartsWith” type policy number search for a specific carrier code.
- IssueNumber – If present, will be displayed along with the Policy Number. It is not included in the policy number search. If an insurance policy is recorded in RIS that includes the Issue Number as a suffix, searching by Insurance Policy StartsWith should still include a match.
- CarrierCode – Will be used together with the insurance policy for an insurance policy search. The carrier code will be displayed in the upper right search criteria area. Note that the packaged zip file presently includes the carrier code of “Australia Medicare,” but this can be configured by service with a text editor (see MagneticStripeConfig.xml).

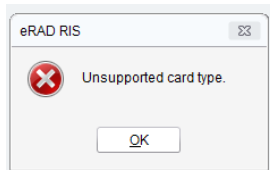
## Clipboard Conveniences

When a code is successfully detected by RIS, if the parsed fields contain an MRN, it will be copied to the clipboard. If there is no field called MRN but both PolicyNumber and IssueNumber exist, those numbers are copied to the

clipboard. If there is only a PolicyNumber, then PolicyNumber is copied to the clipboard. This data can then be pasted into a field if desired.

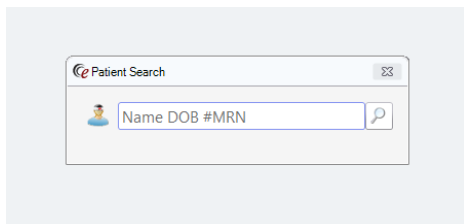
### Unrecognized Swipe Cards

If the user swipes a card that has a magnetic stripe that is not in one of the expected formats, a message will be displayed to the user:



### Patient Search

If the Card Swipe or Patient ID search is unsuccessful, users now have the ability to click the Patient Search button in the top right portion of the screen.



Rather than requiring the user to enter name and date of birth in different fields, Identify Patient's Patient Search uses an approach similar to the Quick Search box in the upper right hand corner of RIS. The user can enter partial name and DOB or MRN and see a list of matching patients; and the search results are categorized to show patients with exams today at the top.

Because this query with information on today's exams is heavier weight than the simple patient search, there are minimum requirements on the search criteria in order to ensure more specific results. The user is required to enter either the MRN with a # prefix, or enter at least part of the last name, part of the first name and the patient's date of birth. The full name portion of the search criteria needs to include at least 5 characters total with at least two characters in the first name and at least two characters in the last name.

Examples of valid search criteria are:

Jo Doe 040477

Doe, John 04-04-1977

#00836725

The Patient Search dialog can be dismissed by pressing the Escape key or clicking the X in the upper right of the dialog.



---

## FEATURE #15475 – PROVIDE AN ALERT IN RIS WHEN A PRIOR BALANCE EXISTS IN AN EXTERNAL BILLING SYSTEM

Customers have requested that eRAD RIS support the ability to receive messages from an external billing system in order to notify RIS users that an outstanding balance exists for the patient. This can now be supported using the Validation Rules capability.

An external billing system can now update a new Outstanding Balance field in the eRAD RIS database with a Y or N value via HL7. A validation rule has been added that will display an alert when the patient is marked as “Checking In” if a prior balance exists in the billing system.

The following alert will display to the RIS user: “Patient has an outstanding balance. Please review before proceeding with registration.” The timing and content of the alert can be adjusted to match customer preferences.

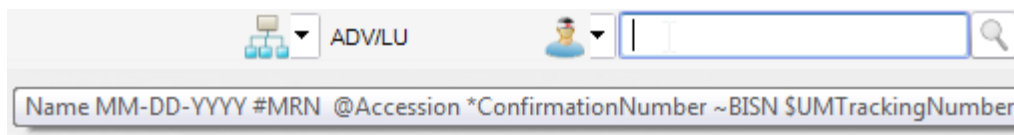
---

## FEATURE #14796 – ABILITY TO SEARCH BY BISN IN QUICK SEARCH

This feature is for customers using Imagine Billing. The BISN (Billing Interface Serial Number) used in the Billing Confirmation workflow should be searchable using the Quick Search. This will enable a user to quickly find a record when they only have a BISN.

To trigger this type of patient search, simply type a tilde (~) character before the number.

Hovering over the Quick Search box will provide a list of the search type indicators.



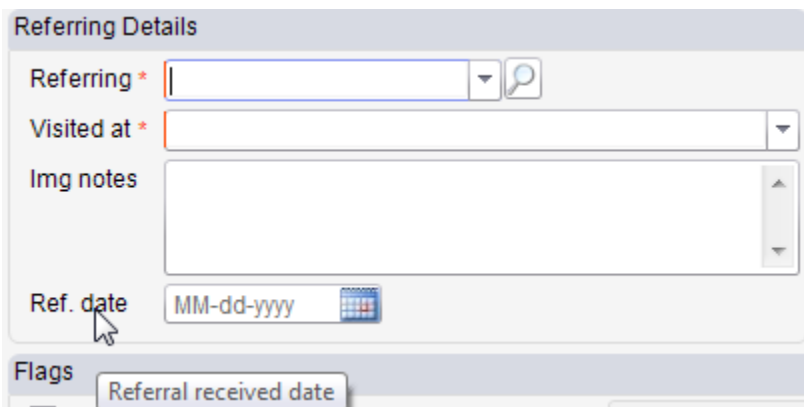
The search will bring up the Patient Folder for the matching patient and the exam row corresponding to the BISN will be highlighted.

---

## FEATURE #16603 – COLLECT THE DATE A REFERRAL WAS RECEIVED

In some markets, it is important to record the date that a referral was received from the patient's provider. In fact, in some areas it is even required that this date be provided in the billing file. A new field has been added to the Referring Details panel to capture the date when the patient received the referral from the doctor.

The field has an abbreviated label of "Ref. date" and the tool tip displays the full label for the field: *Referral Received Date*.

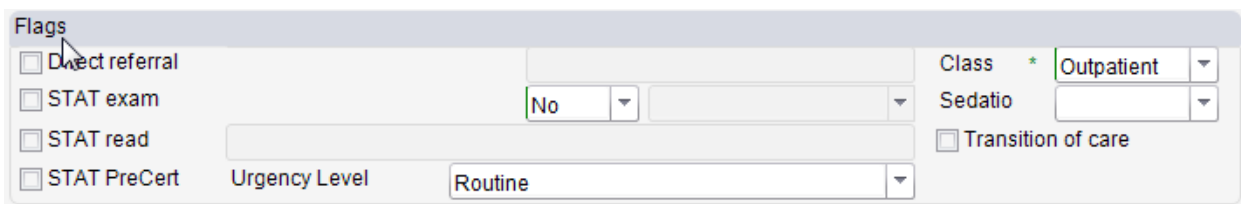


The date is manually entered into this field. It is possible to create a validation rule to require the field, if desired.

## FEATURE #15806 - SUPPORT A CONFIGURABLE URGENCY LEVEL

For hospital workflow, the existing fields for "STAT Read" and "STAT Exam" are not flexible or specific enough. There is a need to capture and display an "Urgency Level" at an Order level. This will allow customers to define their own specific levels of urgency that can then be displayed on worklists and sorted according to severity.

To this end, a new data field called *Urgency Level* has been added to Order tab within eRAD RIS. The data field has a dropdown control allowing a user to select from a configured list of urgency level values.



The options available in the dropdown are defined in a new lookup table, also labeled Urgency Level. When adding items to this configuration table, it is important to define the Display Order. This not only controls the display order in the field's dropdown, but also the sort order on the worklists. Display Order should be defined so that the most urgent option has a display order of 1.

eRAD RIS (Development as Gary Kindel [gary])

File Administration Messaging Scheduling Front Desk Technologist Radiologist Mammo Editor PACS Help

Lookup Tables - UrgencyLevel \* x

Search Lookups	Urgency Level Code	Description	Display Order	Last Updated	Active
BrowserConfig	Contains:	Contains:	Equals:	Contains:	Contains:
ContactLogMethod	Click here to add a new row				
ContactMethod	LT	Life Threatening	1	02-08-2017 1...	Y
Contrast	C	Critical	2	02-08-2017 1...	Y
CountryState	N	Normal	3	02-08-2017 1...	Y
CreditCardType	R	Routine	4	02-08-2017 1...	Y
CTRMCategory					
DeliveryMethod					

If an Urgency Level is selected for a patient's order, it will be displayed in a new column labeled Urgency Level available on the following worklists:

















































- Orders to Schedule WL
- Technologist WL
- Reception WL
- Pending Dictation WL
- All Pending Dictation WL
- Reports Drafted WL
- All Reports Drafted WL
- Activity WL
- Patient Folder

As mentioned above, when sorting this column, RIS will refer to the Display Order and sort according to this setting, instead of sorting alphabetically.

eRAD RIS (Development as Gary Kindel [gary])

File Administration Messaging Scheduling Front Desk Technologist Radiologist Mammo Ed

Lookup Tables - UrgencyLevel \* Patient Search Patient: KINDEL, Gary #32809PACS (12) x

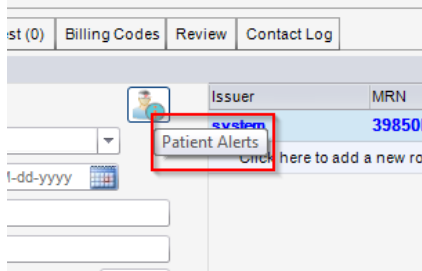
Flags	Nuggets	Status	Urgency Level	Procedures
\$	   	Scheduled	Life Threatening	CT Cervical Spine W [72126] - Cervical spine
\$	   	Cancelled	Life Threatening	CT Cervical Spine W [72126] - Cervical spine
\$	   	Cancelled	Life Threatening	CT Cervical Spine W [72126] - Cervical spine
\$	   	Cancelled	Life Threatening	CT Cervical Spine W [72126] - Cervical spine
	   	Ordered	Critical	Colonoscopy [45378]
	   	Scheduled	Normal	CT Abdomen W & CTA Chest W/Wo [CT66] - Abdom
	   	Cancelled	Normal	CT Abdomen W & CTA Chest W/Wo [CT66] - Abdom
\$	   	Signed	Routine	MR Thoracic Spine Wo [72146] - Lumbar spine
\$	   	Dictated	Routine	MR Thoracic Spine Wo [72146] - Lumbar spine
\$	   	Ordered	Routine	CT Cervical Spine W [72126] - Cervical spine
\$	   	Dictated		MR Thoracic Spine Wo [72146] - Lumbar spine
\$	   	Dictated		CT Cervical Spine W [72126] - Cervical spine

A new access string has been created to grant the appropriate users permission to edit the Urgency Level configuration table: *Config.LookupEditor.UrgencyLevel* (default = None).

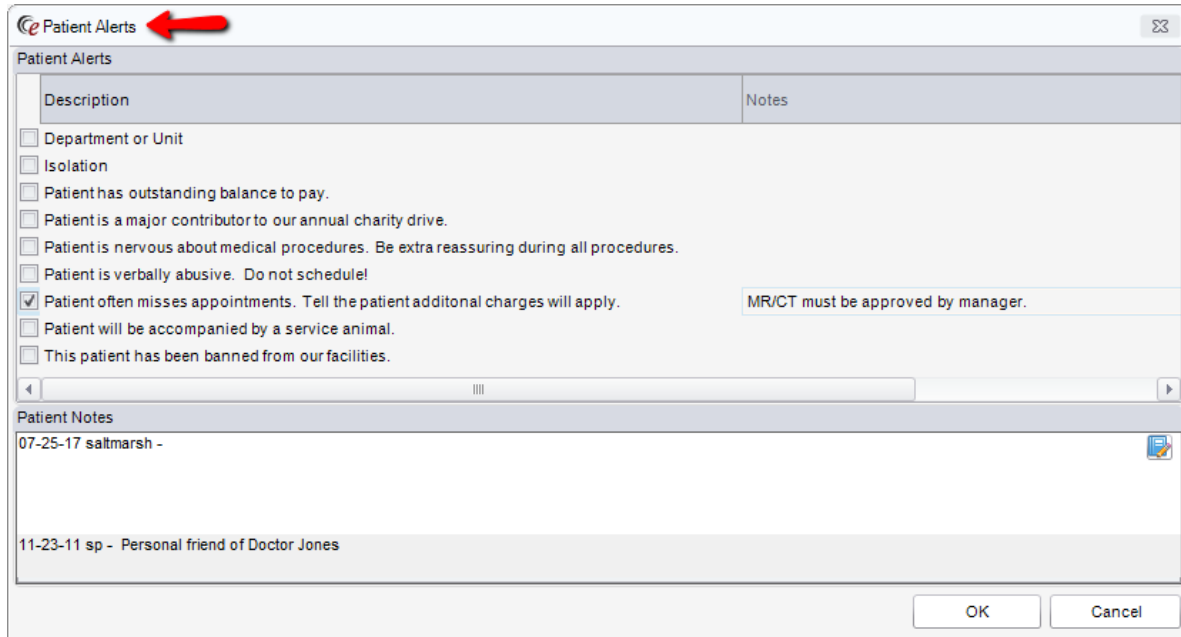
## FEATURE #11864 – “PATIENT FLAG” FUNTIONALITY IS NOW CALLED “PATIENT ALERTS”

eRAD RIS has the ability for users to add information about a patient that can be displayed to the user as a pop-up notification when the patient’s order or exam is opened. This was previously known as “Patient Flags.” The name did not accurately represent the intention of this feature, which is to **alert** the user about key information related to the patient. For this reason, the existing feature set has been renamed to “Patient Alerts.”

The tool tip on the button has been updated:



The title on the selection screen has also been updated:



The configuration table is temporarily still labeled with the underlying database label of Patient Flag, but this will be updated in a future build.

## FEATURE #9202 – NEW ACCESS STRINGS FOR APPOINTMENT BOOKING

In eRAD RIS, there are four different types of appointment slots that are outside of the routine:

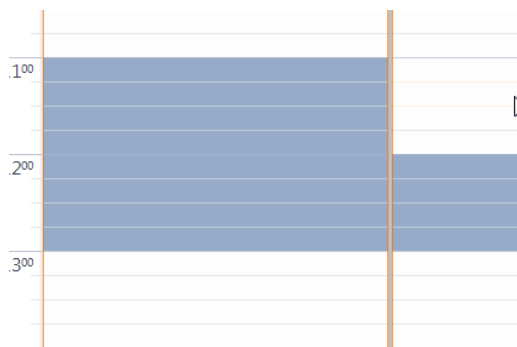
1. Room Closure
2. Holiday
3. Unavailable (outside of the configured hours for the room)
4. Restricted (configured to indicate to the scheduler that only certain appointments can be scheduled in a particular slot)

It may be undesirable to allow certain schedulers to access one or more of these special types of appointment slots. For instance, perhaps a new scheduler would be allowed to schedule in Restricted time slots, but not holidays, or times when the room is closed due to business hours or holidays. A scheduling manager may need to book in any of these slots on a case by case basis. To allow for this type of flexibility, new access strings have been added to allow or disallow users to schedule in unavailable, modality restricted, modality closed or holiday time slots.

The access strings will determine whether a given user can schedule using the Appointment Book, by manually entering the room/date/time in the scheduling screen, or by using the calendar view in the scheduling screen. All access strings are configured with defaults that replicate previous functionality, which can be adjusted to provide the desired permissions.

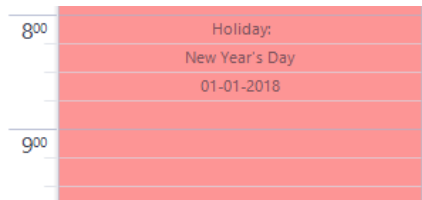
### Room/Modality Closure:

Access string *Clinical.Schedule.AllowManualSchedulingInUnavailable* must be set to FULL to schedule in unavailable time slots, which are time slots that are outside of the room's normal business hours. These time slots appear in blue in the appointment book. The default setting is FULL (scheduling *is* allowed).



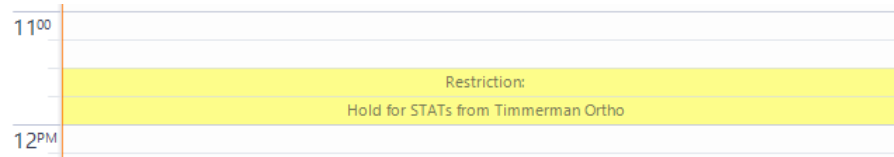
### Holiday:

Access string *Clinical.Schedule.AllowManualSchedulingInHoliday* must be set to FULL to schedule in the Holiday time slots. These time slots appear pink in the appointment book. The default setting is NONE (scheduling *not* allowed).



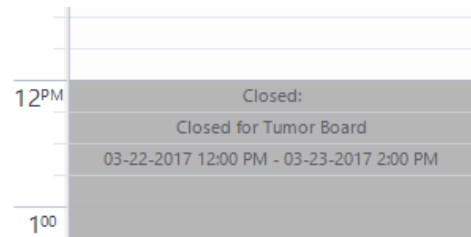
#### Restriction:

Access string *Clinical.Schedule.AllowManualSchedulingInRestricted* must be set to FULL to schedule in modality restricted time slots. These time slots appear yellow in the appointment book. The default setting is FULL (scheduling *is* allowed).



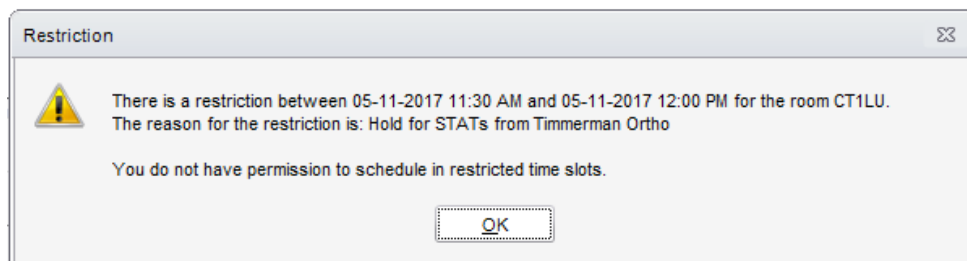
#### Closures:

Access string *Clinical.Schedule.AllowManualSchedulingInClosed* must be set to FULL to schedule in closed time slots. These time slots appear gray in the appointment book. The default setting is NONE (scheduling *not* allowed).



If a user without full permission to the applicable access string chooses an unavailable time slot, the user will receive an error that the room is unavailable and will not be able to schedule.

Modality Restrictions will continue to display the reason for the restriction, but without the appropriate permission, the user will be informed that they cannot schedule in restricted time slots.



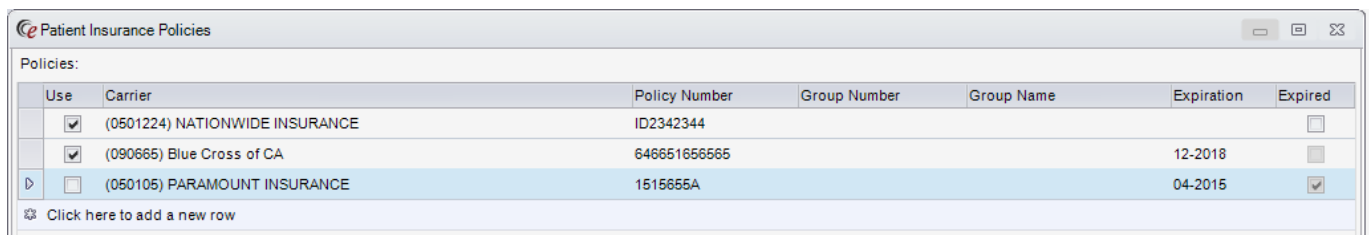


## INSURANCE

### FEATURE #16074 - INSURANCE POLICY EXPIRY DATE NOW AVAILABLE ON THE MANAGE POLICIES SCREEN

Some insurance policies have a listed Expiry Date which would be beneficial to collect on the Manage Policies screen. In fact, in some markets, the Expiry Date is required for billing.

To accommodate this, a new column, *Expiration*, has been added in the Policies grid on the Manage Policies screen. This is an optional field with a date format of MMYYYY. It can be displayed to the user as MM-YYYY or MM/YYYY depending upon whether “-” or “/” is used in the *DateFormat* System Configuration setting.



Use	Carrier	Policy Number	Group Number	Group Name	Expiration	Expired
<input checked="" type="checkbox"/>	(0501224) NATIONWIDE INSURANCE	ID2342344				<input type="checkbox"/>
<input checked="" type="checkbox"/>	(090665) Blue Cross of CA	646651656565			12-2018	<input type="checkbox"/>
<input type="checkbox"/>	(050105) PARAMOUNT INSURANCE	1515655A			04-2015	<input checked="" type="checkbox"/>

Click here to add a new row

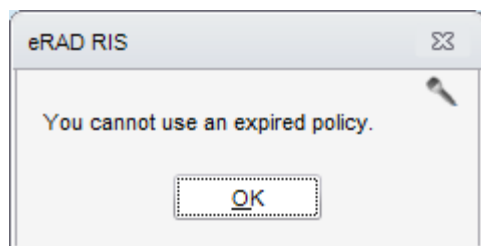
If an Expiry Date has been entered, RIS will now control whether the policy has expired and will prevent the user from using an expired policy. Each time the Manage Policies screen is opened, a new evaluation of the Expiration date will be performed and the Expired checkbox will be checked accordingly. Cards expire at midnight on the last day of the month entered as the expiry date.

Because the RIS is responsible for evaluating whether the policy is expired when a date has been entered, the Expired checkbox will be Read Only when a date has been entered in the Expiration column. If the patient's policy has a new expiry date, the user can update the expiration to a future date and the check will be removed from the Expired column.

Policies without an Expiration listed can still be manually expired (or un-expired) by checking the box.

When entering Expiration dates the user can enter MMY, MMYYY, MM-YYYY, MM-YY, MM/YY, MM/YYYY and many other variations where the month and year are separated by any non-numeric character. The RIS will attempt to parse the date and display it in a MMYYYY format.

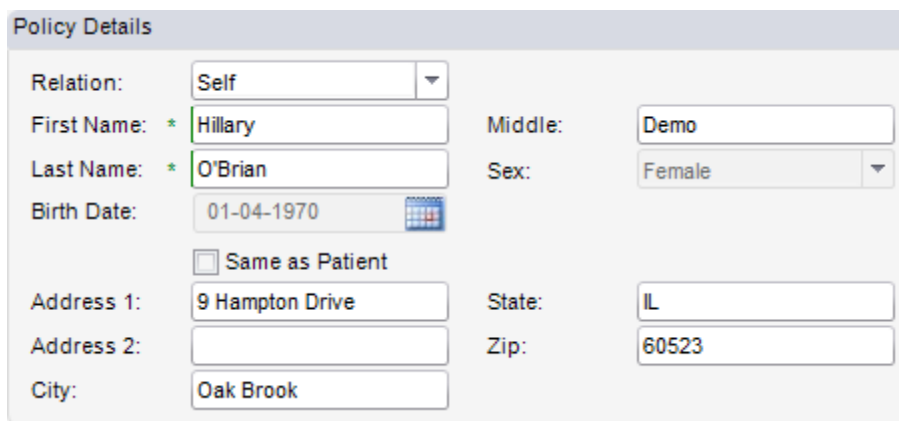
If the user attempts to use a policy that has been expired, a warning will be issued and the policy cannot be selected.



Updating the Expiration to a future date will make the policy available for use.

## FEATURE #16523 – STORE INSURANCE CARRIER’S PATIENT DATA WHEN PATIENT IS NOT SUBSCRIBER

This feature is for customers using the integration with Eligible API. When the patient is the subscriber to the insurance, we update the demographic information in the Policy Details section as it is known by the insurance carrier. For example, if we send the patient’s name as “Hillary O’Bryan” and the message from Eligible API indicates that the insurance carrier has the last name as “O’Brian,” the Policy Details screen will automatically update to store the version that matches the insurance policy.



Relation: Self	
First Name: * Hillary	Middle: Demo
Last Name: * O'Brian	Sex: Female
Birth Date: 01-04-1970	
<input type="checkbox"/> Same as Patient	
Address 1: 9 Hampton Drive	State: IL
Address 2:	Zip: 60523
City: Oak Brook	

When the patient is **not** the subscriber, the information in the Policy Details section is for the policy holder, so there was not a place to store the insurance version of the *patient's* information. eRAD RIS can now store this information in the background, so that the insurance carrier will receive the matching information when the study is billed. In the database, eRAD stores the last known patient information for the policy, including the patient’s first name, last name, middle name, birth date and gender. If the carrier changes, these fields will be cleared until they are updated with the information from the new carrier, if applicable.

## UTILIZATION MANAGEMENT

### FEATURE #15435 – CONFIRMATION WARNING MESSAGE FOR SCHEDULERS

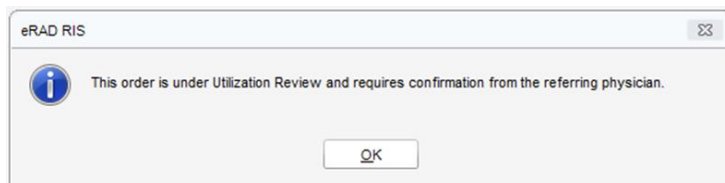
During the utilization review process, there can be certain scenarios that require confirmation from the referring physician before the order can proceed to be scheduled. For example, if the UM nurse or doctor recommends an alternative or additional procedure, confirmation by signature is required.

The confirmation workflow is determined by the Confirmation Required Flag in the UM Resolution look-up table. For example, “Recommended as Alternative” would typically have this flag enabled.

As soon as the ordered procedure is marked as “Recommended as Alternative,” eRAD RIS determines that this is a **final** status and advances the UM Flag from UM Required to UM Complete—even though confirmation has yet to be received. The reason behind this logic is that the reviewers are done with the review at this point. The clock stops and the order drops from the Utilization Management workload.

The Schedule functionality is disabled until confirmation is received. However, it is beneficial to notify schedulers that the order is waiting for confirmation when they open the schedule screen. This will help the user understand why scheduling is disabled.

RIS will now prompt the user:

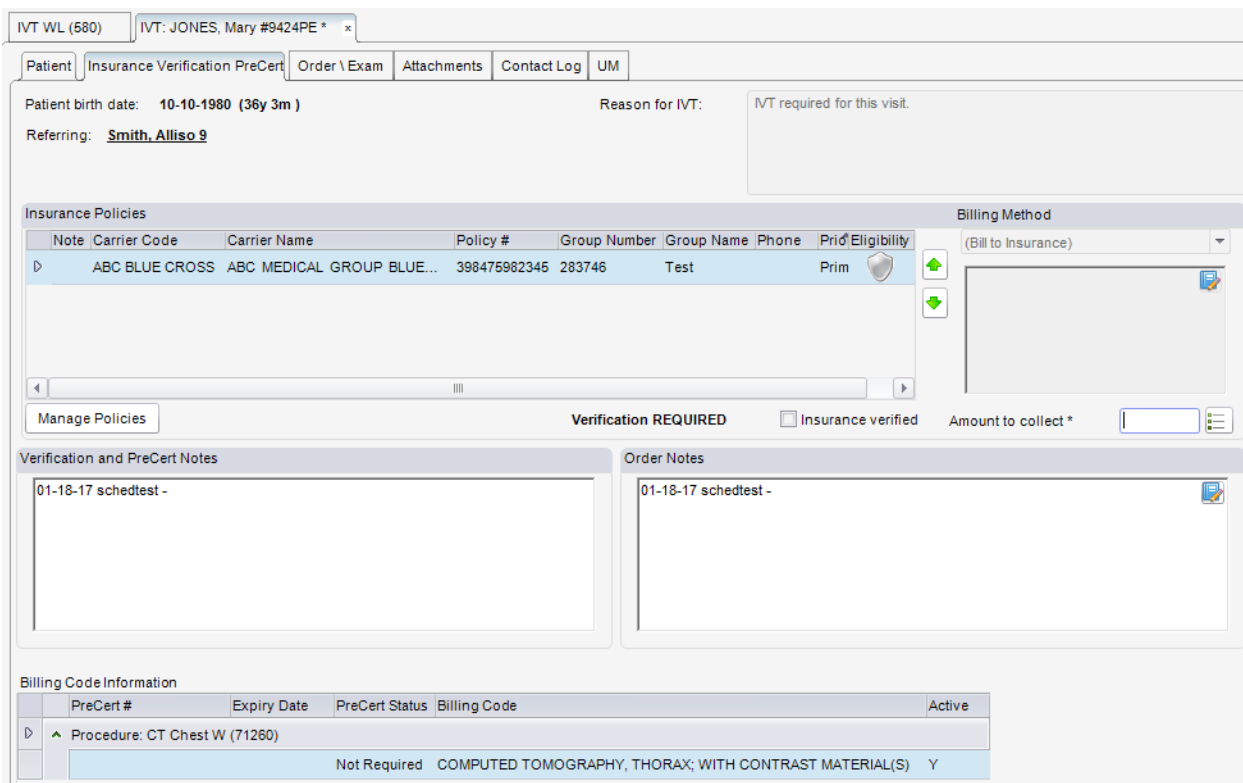


Once confirmation is received either from the inbound document workflow, verbally, or via the provider portal, the order can be scheduled.

## FEATURE #15892 – TRIGGER UTILIZATION REVIEW FROM THE IVT SCREEN

The eRAD RIS Utilization Management (UM) workflow is driven by the primary insurance that belongs to the order. Often orders will come into RIS either manually, from EMR integration, or eventually through the provider portal, *without an insurance carrier* assigned. RIS can be configured to push orders missing a primary insurance to the IVT Worklist. The IVT user will enter the insurance information at this point. It is important that a UM check takes place at this time and a visual indicator is supplied to the IVT user if review is required.

The eRAD RIS IVT screen now has the ability to trigger the UM workflow (UM Required Flag) based on an insurance addition or modification. To make the UM tab appear without a valid study assigned, the IVT screen will now show the UM tab based on the state of the UM Required Flag for the order. Once the insurance is added or modified, the system will review the value of the UM Required Flag and show the UM tab dynamically. This will allow the IVT user to see that UM is required for the insurance they have added or modified.



The screenshot displays the IVT screen for patient JONES, Mary #9424PE. The 'Insurance Verification PreCert' tab is active. The patient's birth date is 10-10-1980 (36y 3m). The referring provider is Smith, Alliso 9. The reason for IVT is 'IVT required for this visit.' The 'Insurance Policies' table shows a policy for ABC BLUE CROSS, ABC MEDICAL GROUP BLUE... with policy number 398475982345 and group number 283746. The billing method is '(Bill to Insurance)'. The 'Verification and PreCert Notes' and 'Order Notes' sections both contain the text '01-18-17 schedtest -'. The 'Billing Code Information' section shows a procedure code of CT Chest W (71260) with a status of 'Not Required' and a billing code of 'COMPUTED TOMOGRAPHY, THORAX; WITH CONTRAST MATERIAL(S)'.

Note	Carrier Code	Carrier Name	Policy #	Group Number	Group Name	Phone	Prim	Eligibility
▶	ABC BLUE CROSS	ABC MEDICAL GROUP BLUE...	398475982345	283746	Test		Prim	Shield icon

PreCert #	Expiry Date	PreCert Status	Billing Code	Active
▶ Procedure: CT Chest W (71260)		Not Required	COMPUTED TOMOGRAPHY, THORAX; WITH CONTRAST MATERIAL(S)	Y

The IVT user can view the UM tab as Read Only, unless they have UM permissions. The UM Required flag will also appear on the IVT WL.

## FEATURE #15219 – EXCLUDED EXAMS WORKFLOW

Capitation contracts with medical groups often contain procedures which are listed as “excluded.” This means that the procedure is excluded from capitation and the service is not available unless authorized by the medical group. eRAD RIS can now prevent scheduling or registration for any excluded procedures, unless a manager override is obtained. There is also an option to configure warning messages for other UM coverage types.

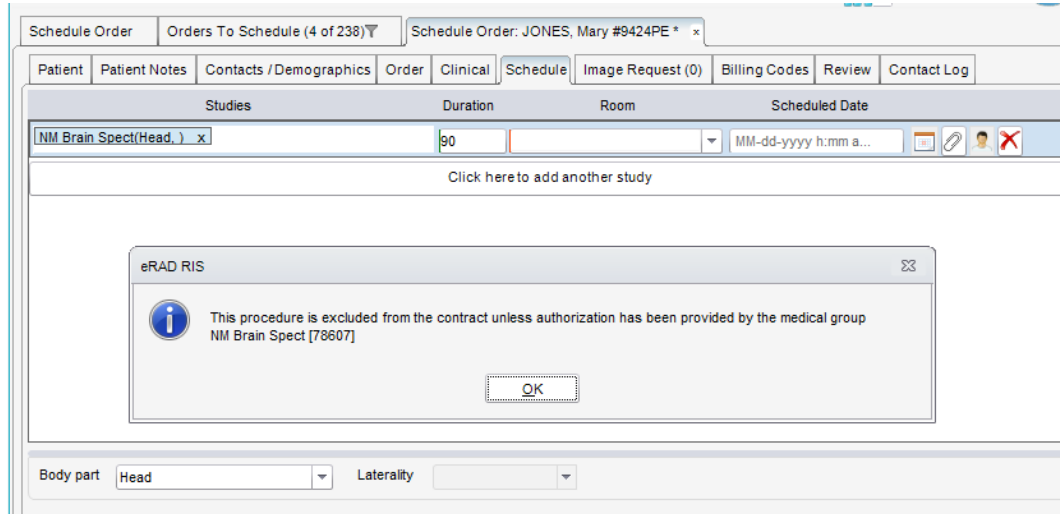
The eRAD RIS Utilization Management solution contains the authorization rules by medical group that determine which billing codes require utilization review. Although an excluded billing code typically does not require utilization review and the order will not be pushed to the Utilization Management Worklist, the UM solution will be utilized to identify excluded procedures.

The UM Coverage look-up table in eRAD RIS has been enhanced with the following two additional columns to drive the new workflow:

1. **Schedule Warning Type** – The following two options are available:
  - a. **Prevent** – A warning message is displayed and the user is *prevented* from scheduling the procedure.
  - b. **Prompt** – A warning message is displayed and the user is *allowed* to schedule the procedure.
2. **Schedule Warning Content** – The language content of the warning that is displayed to the scheduling user.

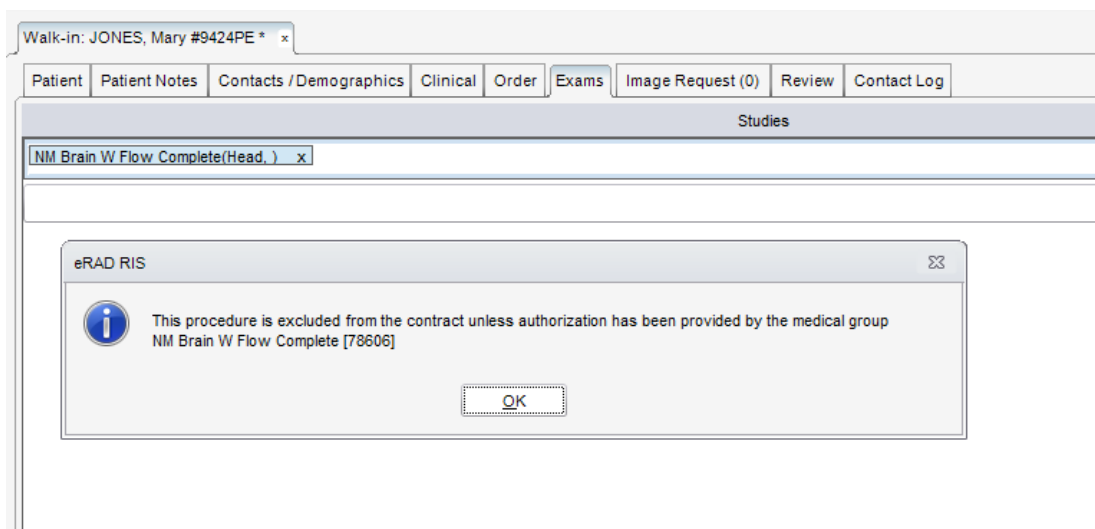
Um Coverage Code	Description	Schedule Warning Type	Schedule Warning Content
Contains: ▼	Contains: ▼	Contains: ▼	Contains: ▼
✚ Click here to add a new row			
▶ A	Capitated service, authorization required	Prompt	This procedure requires utilization review per the medical group.
FFS	Fee for service, authorization required	Prompt	This procedure is fee for service for the medical group. Ensure proper authorization has been received
EX	Excluded	Prevent	This procedure is excluded from the contract unless authorization has been provided by the medical group
CAP	In Cap		
FFS_N	Fee for service, authorization not required		
IN	In Cap		
TBD	To be determined		
X	Capitated service, direct referral (no authorization required)		

If the user is a RIS Administrator or has the *Clinical.UtilizationManagement.ScheduleOverride* permission, scheduling will not be prevented; however, the warning message will still be presented.



The screenshot shows the eRAD RIS interface. At the top, there's a tab bar with 'Schedule Order' selected. Below it, a patient selection dropdown shows 'JONES, Mary #9424PE'. The main area has tabs for 'Patient', 'Patient Notes', 'Contacts / Demographics', 'Order', 'Clinical', 'Schedule', 'Image Request (0)', 'Billing Codes', 'Review', and 'Contact Log'. The 'Schedule' tab is active, displaying a table with columns: 'Studies', 'Duration', 'Room', and 'Scheduled Date'. A row is visible for 'NM Brain Spect(Head, ) x' with a duration of '90'. Below the table, there's a link 'Click here to add another study'. A modal window titled 'eRAD RIS' is open, displaying an information icon and the message: 'This procedure is excluded from the contract unless authorization has been provided by the medical group NM Brain Spect [78607]'. An 'OK' button is at the bottom of the modal. At the bottom of the interface, there are dropdowns for 'Body part' (set to 'Head') and 'Laterality'.

This framework is also utilized by the Registration screen to account for Walk-ins or added procedures. The front desk user will not be permitted to Arrive or Check-In the patient if a configured Excluded procedure is added. However, saving is still permitted.



The screenshot shows the eRAD RIS interface. At the top, there's a tab bar with 'Walk-in: JONES, Mary #9424PE' selected. Below it, a patient selection dropdown shows 'JONES, Mary #9424PE'. The main area has tabs for 'Patient', 'Patient Notes', 'Contacts / Demographics', 'Clinical', 'Order', 'Exams', 'Image Request (0)', 'Review', and 'Contact Log'. The 'Exams' tab is active, displaying a table with columns: 'Studies'. A row is visible for 'NM Brain W Flow Complete(Head, ) x'. Below the table, there's a link 'Click here to add another study'. A modal window titled 'eRAD RIS' is open, displaying an information icon and the message: 'This procedure is excluded from the contract unless authorization has been provided by the medical group NM Brain W Flow Complete [78606]'. An 'OK' button is at the bottom of the modal.

The following is an example of utilizing the feature to provide a warning for a different UM Coverage Type, in order to inform the scheduler that authorization is required:


Schedule Order   Orders To Schedule (5 of 239)   Patient Search   Schedule Order: JONES, Mary #9424PE \* x

Patient   Patient Notes   Contacts / Demographics   Order   Clinical   Schedule   Image Request (0)   Billing Codes   Review   Contact Log   UM

Order	Studies	Duration	Room	Scheduled Date
A	CT Chest W(Chest.) x	45		MM-dd-yyyy h:mm a...
A	CT Head Wo(Head.) x	30		MM-dd-yyyy h:mm a...

Click here to add another study

eRAD RIS

 This procedure requires utilization review per the medical group.  
CT Chest W [71260]  
This procedure requires utilization review per the medical group.  
CT Head Wo [70450]

OK

Body part   Head   Laterality

When configuring Schedule Warnings in the UM Coverage look-up table, if a Schedule Warning Type is configured, the Schedule Warning Content becomes a required field.

The Utilization Management module must be enabled to utilize this functionality.



## CEHRT

Certification of Electronic Health Records Technology (CEHRT) is a program that defines standards of performance that must be met in order to be considered a Certified EHR. eRAD RIS is certified under version 2014, which (despite the misleading year) is the version under which EHRs must *currently* be certified in order to maintain their Certified EHR status. The standards for the latest version (2015) are available and eRAD RIS is preparing to obtain this latest certification by undergoing a testing process with an authorized certification body. Some new features related to the standards for version 2015 will be merged into the commercial RIS after certification has been completed. However, some components can be added now, in preparation for the certification testing. The following features have been added to the current eRAD RIS build as part of this effort.

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### FEATURE #16009 – MODIFICATIONS TO AUDIT LOG MANAGEMENT REPORT

The CEHRT requirement for 170.315(d)(3) states that the system must generate an audit report for a specific time period.

The system must also provide the ability to sort the following data elements in ascending or descending order:

- Date and time of event
- Patient identification
- User identification
- Type of action
- Identification of the patient data that is being accessed

The existing Audit Log management report in eRAD RIS has been modified to support the above requirement. Interactive sorting capabilities have been added to the table header. The User ID column has been removed, as only one user can be selected in the User parameter. Patient ID (MRN) and Patient Name columns have been added. This will allow the user to sort by either MRN or Name.

The revised Audit Log management report supports the following parameters:

- Date Range – This is based on the last updated date for the audit log entry.
- Exclude Inactive Users – This will filter the User(s) parameter by eliminating any users that are flagged as inactive in the RIS.
- User – The selected RIS users for which the Audit Log report is being generated.
- Include Login\Logout – Determines if Login and Logout audit events will be included in the report.

The columns represented in the Audit Log management report are as follows:

- Date\Time – This is the date and time the audit event was last updated.
- Patient ID – The ID or MRN of the audited patient.
- Patient Name – The last name and first name of the audited patient.
- Description – A description of the audit event.
- Audit Action – How the data was accessed or modified.
- Changes – A detailed description of what data was modified, if applicable.

From:	03-06-17	To:	03-07-17
Exclude Inactive Users:	Y	User:	MacDougall, Spencer (spencer)
Include Login/Logout:	Y		

1 of 6 100% Find | Next

### Audit Log

Date Range: 03-06-2017 - 03-07-2017  
 User: MacDougall, Spencer (spencer)  
 Description: This report displays the audit information for the period and user specified.

Date/Time	Patient ID	Patient Name	Description	Audit Actions	Changes
03-06-2017 9:18 AM			Login	Login	
03-06-2017 9:19 AM	9424PE	Jones, Mary	UI_OrderRetrieved_UtilizationManagement	Query	
03-06-2017 9:22 AM			Logout	Logout	
03-06-2017 10:31 AM			Login	Login	
03-06-2017 11:10 AM			Login	Login	
03-06-2017 11:45 AM			Login	Login	
03-06-2017 1:36 PM			Login	Login	
03-06-2017 1:36 PM	9424PE	Jones, Mary	Patient retrieved	Query	
03-06-2017 1:38 PM			Login	Login	
03-06-2017 1:48 PM	9424PE	Jones, Mary	Patient retrieved	Query	
03-06-2017 1:48 PM	9424PE	Jones, Mary	Patient retrieved	Query	
03-06-2017 1:48 PM	9424PE	Jones, Mary	Patient retrieved	Query	
03-06-2017 1:48 PM	9424PE	Jones, Mary	Patient retrieved	Query	
03-06-2017 1:49 PM	9424PE	Jones, Mary	Patient retrieved	Query	
03-06-2017 1:49 PM	9424PE	Jones, Mary	Patient retrieved	Query	
03-06-2017 1:49 PM	9424PE	Jones, Mary	Patient retrieved	Query	
03-06-2017 1:51 PM	9424PE	Jones, Mary	Order submitted	Order submitted	<Changes><AddedRows><c_visit /><c_visit_x_patient_insurance /></AddedRows></Changes>
03-06-2017 1:51 PM	9424PE	Jones, Mary	Order submitted	Order submitted	<Changes><AddedRows><c_order /><c_order_item procedure_code="71260" /><c_order_item procedure_code="70210" /><c_order_item_certification /><c_order_item_certification /></AddedRows></Changes>

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## FEATURE #16371- AUTOMATED MEASURES MANAGEMENT REPORTS WILL CALCULATE STATISTICS FOR EDUCATION RESOURCES USING 2017 ACI TRANSITION MEASURE CRITERIA

eRAD RIS has three management reports that are related to CEHRT: “Automated Measures,” “Automated Measures by Radiologist” and “Automated Measures Raw Data.” A new stored procedure has been created to calculate statistics for these reports differently for *2017 ACI Transition Measures*. There is a filter on the Management reports that can be selected to run the report using this methodology. Currently this filter is labeled *Stage 3*.

The changes in this feature are related to the requirement for eRAD RIS to identify patient-specific education resources based on the patient’s appointment. When Stage 3 is selected, the management reports will provide statistics displaying whether these education resources were provided to the patient for all exams/patients seen by the reporting radiologist during the reporting period. Under the current certification, these reports only count the number of patients given patient-specific education for procedures that were identified as “office visits” by the associated billing codes. After selecting the new Stage 3 option, these management reports will calculate statistics according to the following numerator (number of patients meeting the criteria) and denominator (all possible patients):

**Numerator:** Any unique patient seen by the reporting radiologist where either the Prep Instructions Reviewed checkbox has been checked **or** the Provided Educational Resources checkbox on the Documentation tab has been checked.

**Denominator:** Any unique patient seen by the reporting radiologist during the reporting period.

When the Prep Instructions Reviewed checkbox or the Provided Educational Resources checkbox has been checked, the system will automatically capture patient-specific education resources as a numerator/denominator for the measure.

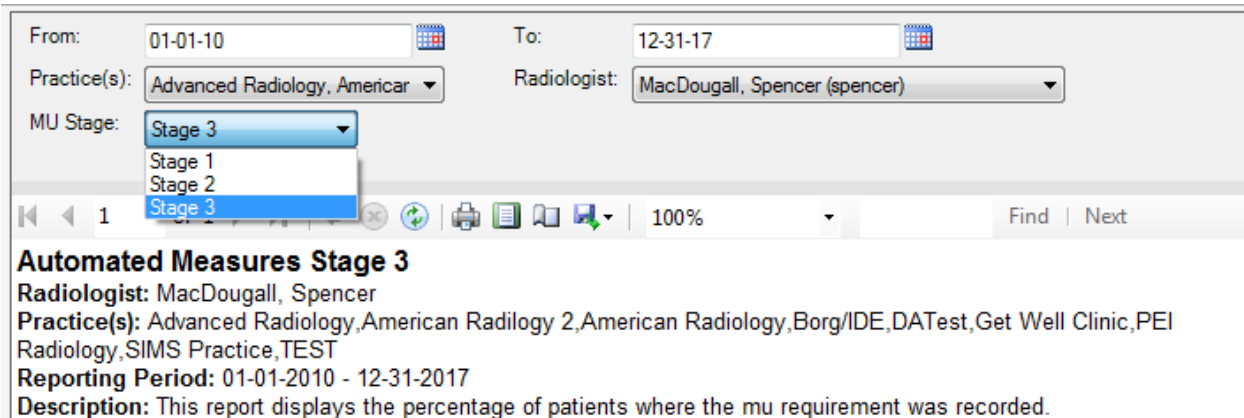
## FEATURE #16541 – AUTOMATED MEASURES REPORTS NOW INCLUDE SUB-REPORTS WITH PATIENT DETAILS

The CEHRT Automated Measures Report allows a provider to track which measures have been met. The report displays the numerator, denominator, percentage of the criteria the provider has met, and the threshold required to meet the measure.

The CEHRT requirement for 170.315(g)(2) states that the system must also provide details for the numerator and denominator values in the Automated Measures report.

The following core Management Reports in eRAD RIS have been updated to include a “Stage 3” option in the MU Stage parameter:

- Automated Measures
- Automated Measures by Radiologist
- Automated Measures Raw Data



From: 01-01-10 To: 12-31-17

Practice(s): Advanced Radiology, American Radiologist: MacDougall, Spencer (spencer)

MU Stage: Stage 3

1 100% Find | Next

**Automated Measures Stage 3**

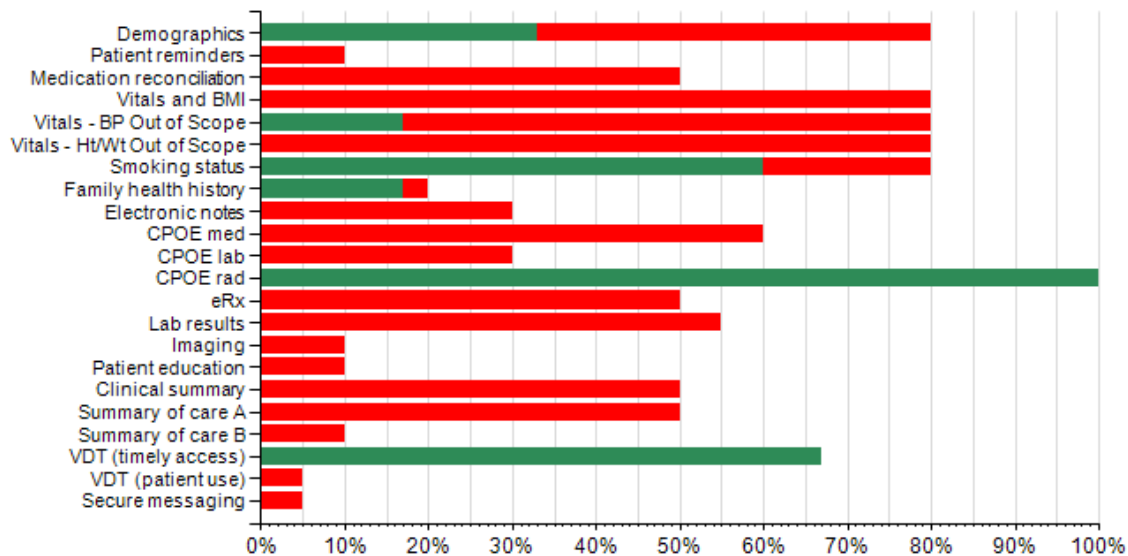
**Radiologist:** MacDougall, Spencer

**Practice(s):** Advanced Radiology, American Radiology 2, American Radiology, Borg/IDE, DATest, Get Well Clinic, PEI Radiology, SIMS Practice, TEST

**Reporting Period:** 01-01-2010 - 12-31-2017

**Description:** This report displays the percentage of patients where the mu requirement was recorded.

Both the *Automated Measures* and *Automated Measures by Radiologist* reports have been updated to include drill down capabilities to provide the necessary study details for the numerator and denominator, as well as the list of patients that make up the numbers. Clicking the blue hyperlinks, seen in the image below, will load the sub-report.



Meaningful Use Measure	Numerator	Denominator	%	Goal	Pass/Fail
<a href="#">Demographics</a>	2	6	33.00%	80%	
<a href="#">Patient reminders</a>	0	0	0.00%	10%	
<a href="#">Medication reconciliation</a>	0	0	0.00%	50%	
<a href="#">Vitals and BMI</a>	0	6	0.00%	80%	
<a href="#">Vitals - BP Out of Scope</a>	1	6	17.00%	80%	
<a href="#">Vitals - Ht/Wt Out of Scope</a>	0	6	0.00%	80%	
<a href="#">Smoking status</a>	3	5	60.00%	80%	
<a href="#">Family health history</a>	1	6	17.00%	20%	
<a href="#">Electronic notes</a>	0	6	0.00%	30%	
<a href="#">CPOE med</a>	0	0	0.00%	60%	
<a href="#">CPOE lab</a>	0	0	0.00%	30%	
<a href="#">CPOE rad</a>	2	2	100.00%	30%	
<a href="#">eRx</a>	0	0	0.00%	50%	
<a href="#">Lab results</a>	0	0	0.00%	55%	
<a href="#">Imaging</a>	0	0	0.00%	10%	
<a href="#">Patient education</a>	0	0	0.00%	10%	
<a href="#">Clinical summary</a>	0	0	0.00%	50%	
<a href="#">Summary of care A</a>	0	0	0.00%	50%	
<a href="#">Summary of care B</a>	0	0	0.00%	10%	
<a href="#">VDT (timely access)</a>	4	6	67.00%	50%	
<a href="#">VDT (patient use)</a>	0	6	0.00%	5%	
<a href="#">Secure messaging</a>	0	6	0.00%	5%	

The additional sub-report is referred to as *Automated Measures Details*. The user can return to the parent report simply by selecting the “Back” button in the reports title bar.

1 of 1 100% Find   Next								
<b>Stage 3 Automated Measures Details for Patient education</b>								
Radiologist: MacDougall, Spencer (spencer)								
Date Range: 01-01-2010 - 12-31-2017								
Practice(s): Advanced Radiology,American Radiology 2,American Radiology,Borg/IDE,DA Test,Get Well Clinic,PEI Radiology,SIMS								
Practice,TEST								
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	Patient Education
Carter, Jeff William	4	1	ADV	12-04-2014	12-05-2014	N	Signed1	N
		3398	ADV	07-20-2015	07-20-2015	N	Signed1	N
		4878	ADV	10-06-2015	11-02-2015	N	Signed1	N
		5105	ADV	10-22-2015	11-02-2015	N	Signed1	N
		5571	ADV	11-02-2015	11-02-2015	N	Signed1	N
Hextall, Ron	12	107	ADV	03-27-2015	06-29-2015	N	Signed1	N
		120	ADV	04-17-2015	06-29-2015	N	Signed1	N
Judson, Jenny	3392	1896	ADV	05-14-2015	10-28-2015	N	Signed1	Y
Obermann, Mary	654	4413	ADV	08-13-2015	09-02-2015	N	Signed1	N
		4510	ADV	08-27-2015	08-27-2015	N	Signed1	N
test, a12501 Ben	893247	5816	ADV	12-04-2015	12-04-2015	N	Signed1	N
Test, IVT	50							
		5108	ADV	10-22-2015	10-22-2015	N	Signed1	N

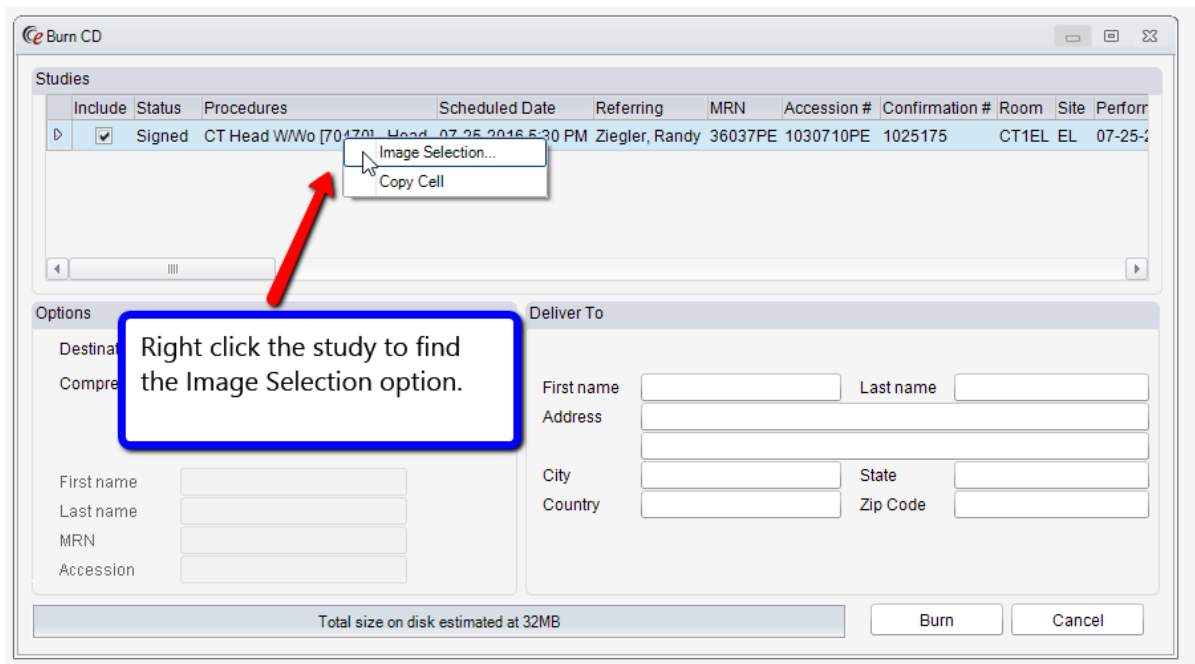
## MEDICAL RECORDS

### FEATURE #7258 – SELECT INDIVIDUAL IMAGES/SERIES WHEN BURNING CDS

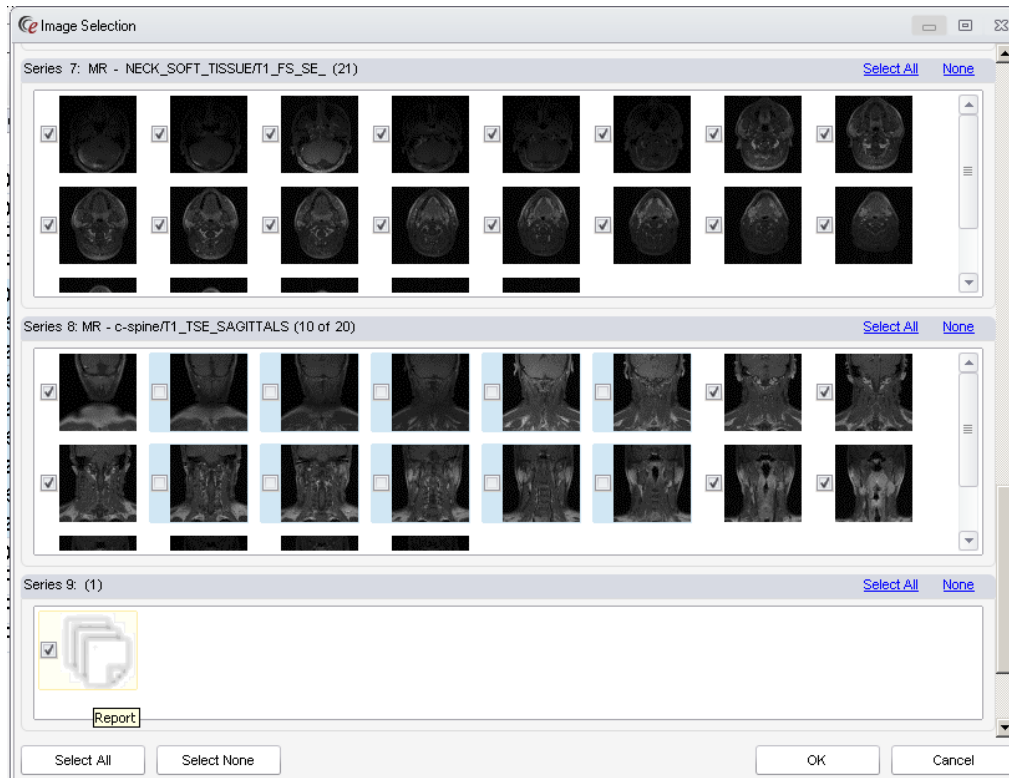
The following feature is applicable for customers using eRAD RIS with eRAD PACS.

When burning CDs, it is sometimes preferable to select only certain series or images to include. This allows the user to customize the contents of the CD to meet the referring provider's preferences, or to follow an established organizational protocol. It is now possible to specify individual images/series when burning CDs from eRAD RIS.

After opening the Burn CD window, the user will right-click the exam(s) to be included and choose "Image Selection."



The Image Selection screen will open, displaying PACS images in thumbnails that are grouped by series.



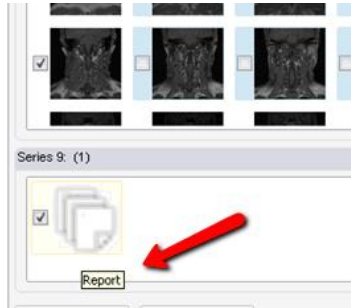
Each series group has a title, which is taken from the PACS study description field. In parentheses after the series name, there is an indication of how many images in that series are selected for burning. In the example above, Series 8 has 10 of 20 images selected. By default, all images in every series will be selected. Selected images have a check in the box to the left of each image thumbnail.

The blue link labeled “None” at the top of each series allows the user to easily uncheck all of the images in that series, in order to re-select the individual images or to remove the series from the CD altogether. Click the blue Select All link to re-select all of the images in the series. The user can also use the mouse to click and drag to select multiple images. Once multiple image thumbnails are selected, highlighted in light blue, click the checkbox to select or deselect the highlighted images.

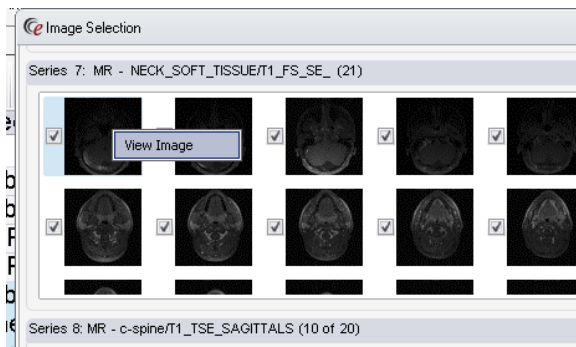
To quickly uncheck, or re-check, all of the images for the entire exam (all series), the user can click the Select All or Select None buttons at the bottom of the Image Selection window.

While most thumbnails in the Image Selection window are for PACS images, some thumbnails may represent other PACS items, such as diagnostic reports. Hovering over a thumbnail will display a tooltip that indicates the thumbnail’s type (e.g. Image, Report or RAWDATA).





Sometimes, it may be necessary to look more closely at an image to determine whether it should be included on the CD. To see a larger view of the image thumbnail, right-click on the thumbnail and choose “View Image.” This will download and display a larger version of the thumbnail.



If the user clicks “Cancel” on the Image Selection screen, the image selection will be re-set to what it was before the screen was opened. If the user chooses “OK” after modifying which images to include on the CD, then the Burn CD screen will show a new column with the text “(custom)” to indicate that a custom selection of images will be burned to the CD.

Burn CD				
Studies				
	Include	Status	Procedures	Scheduled Date
	<input checked="" type="checkbox"/> (custom)	Exam Done	CT Abdomen W [74160] - Abdomen	02-14-2015 8:30 AM
	<input checked="" type="checkbox"/>	Exam Done [Tech...	Another test [RA0004]	06-12-2015 2:04 PM
	<input checked="" type="checkbox"/>	Exam Done [Tech...	Another test [RA0004]	02-08-2015 9:54 AM

The Image Selection process is recorded in the Audit History.

Filters						
<input type="radio"/> Patient <input type="radio"/> Order <input checked="" type="radio"/> Study <input checked="" type="checkbox"/> Include retrievals						
Date	Action	Description	User	Linked Id	Accession #	Order #
Equals: ▾	Contains: ▾	Contains: ▾	Contains: ▾	Equals: ▾	Contains: ▾	Contains: ▾
01-17-2017 1:42 PM	Accessed audit history		Molyneaux, kevin (kevin)			
01-17-2017 1:42 PM	Viewed PACS Images	Custom image selection for CD Burning	Molyneaux, kevin (kevin)	21		
01-17-2017 1:42 PM	Study retrieved		Molyneaux, kevin (kevin)			9582

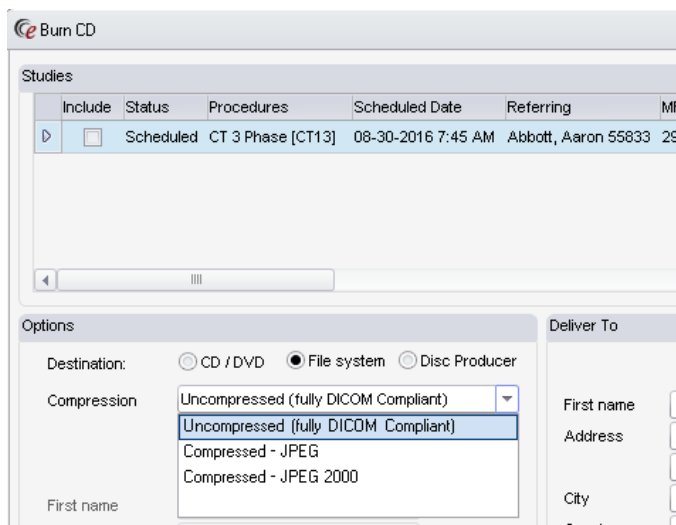
## FEATURE #9368, 12240 – OPTIONS FOR UNCOMPRESSED CD BURNING

This feature is applicable for customers using eRAD RIS with eRAD PACS.

Some physicians or other healthcare institutions require or prefer uncompressed images when reviewing a patient's imaging studies or importing them into an external system. In order to provide this option, eRAD RIS now supports three different compression options, including Uncompressed.

The compression field was added to the Burn CD dialog, as shown in the following image. Users have the option to select between Uncompressed, JPEG and JPEG 2000. In the Personnel editor, a referring physician's preferred Compression format can now be configured. By default, the Compression preference will be set to Compressed – JPEG, which is the compression format that was previously the only option when burning CDs from eRAD. If a referring physician indicates an alternative compression preference, this can be updated accordingly.

When burning a study from a worklist such as Patient Folder or from the Perform Exam screen, the default format for the CD will be based on the referring's preference. The user has the option to change the compression format manually on the Burn CD screen.



As stated above, at the time of the upgrade, all referring physicians will have “Compressed – JPEG” as their default compression preference. This can be updated in the Personnel table on the Referring Preferences tab.

General Resource Account Notes Attachments Preferences **Referring Preferences**

Preferred radiologists  
Saltmarsh (Rad), Hilary

Add Radiologist  
Add Modality  
Add Procedure  
Remove

Image request preference  
CD - Courier

Add Format  
Add Modality  
Add Procedure  
Remove

Compression preference: Compressed (JPEG)

The compression format was also added to the Image Request screen. Again, the compression will default based on the selected study's referring physician's preference. The compression will update if a different referring physician is selected as the recipient and that doctor's compression preference is different.

Image Request

Studies (1)

Date	Last Name	First Name	Study
11-15-2016 4:20 PM	Molyneaux	Kevin	Another test [RA0004]

Previous Requests (2)

Date	Req. By	Source	Format	Delivery	Status
01-03-2017 10:36...	TEST	Other	CD	Courier	Pending
01-03-2017 10:35...	TEST	Other	CD	Courier	Pending

Requested By

☐ Patient ☐ Referring ☒ Other doctor ☐ Other

Doctor: Abbott, Aaron S.

Location: Rocky Milton St., Denver, Iowa, 72068

Name: Aaron Abbott

Organization:

Phone Number: () -

Details

Requesting site: (EL) PT QE PT QE Eldersburg

Format: CD

Compression: Uncompressed (fully DICOM Compliant)

Deliver To / Pickup By

☐ Patient ☐ Referring ☒ Other doctor

☒ Copy requested by

Doctor:

Location:

Prefix: Suffix:

First name: Aaron

Last name: Abbott

Address: 150 White Cowley Road  
135 Rocky Milton St.

City:

When right-clicking on the Image Request WL and choosing "Burn CD," the default compression will be based on what had been specified in the image request.

If a user selects multiple Image Requests or Studies, the active row at the time of the right click will be used to determine the default compression.

A CD can only have one compression setting; therefore, the Image request worklist was modified to include compression level in its grouping logic.

For example, in the following image, there are multiple image requests, all going to the doctor “Test ABC.” Two have been requested as Compressed JPEG and the other is Uncompressed.

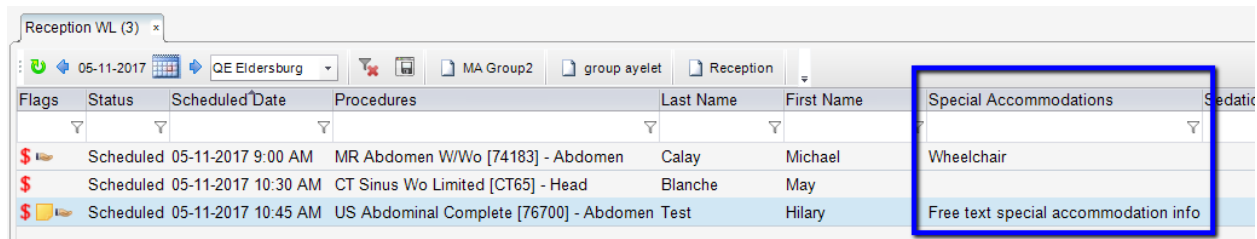
Patient: MOLYNEAUX, Kevin # (370)		Image Request VIL (2 of 3)				
(use location filter)		test1 test2				
Group by: Request						
Exam Status	Procedures	Deliver To	Delivery Instructions	Request Date	Compression	
Kevin Molyneaux (2)						
Signed1	Another test [RA0004]	TEST ABC : ,		01-03-2017 10:35 AM	jpeg	
Signed1	XR .RECALL NO DICTATION IN...	TEST ABC : ,		01-03-2017 10:35 AM	jpeg	
Kevin Molyneaux (1)						
Signed1	FL Arthrogram Knee Fluoro [735...	TEST ABC : ,		01-03-2017 10:42 AM	uncompressed	

The grouping is there to prevent users from inadvertently trying to burn all three studies on the same CD. Instead, they need to burn two CDs: one for the JPEG compression and another for the uncompressed.

## GENERAL WORKLIST ENHANCEMENTS

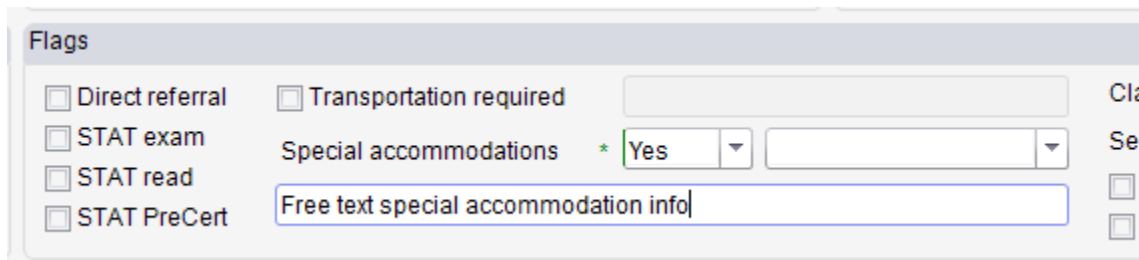
### FEATURE #15710 – SPECIAL ACCOMMODATIONS COLUMN AVAILABLE ON WORKLISTS

Some users may find it beneficial to see any Special Accommodations when reviewing patients on a worklist. A new column labeled *Special Accommodations* is now available for the Receptionist, Technologist and Orders to Schedule worklists. This will allow a user to create a custom view to display particular accommodations. For example, a user responsible for making arrangements for translation services may want to have a custom view on the Reception WL to find all of the appointments requiring translation for a given day.



Flags	Status	Scheduled Date	Procedures	Last Name	First Name	Special Accommodations	Sedation
\$	Scheduled	05-11-2017 9:00 AM	MR Abdomen W/Wo [74183] - Abdomen	Calay	Michael	Wheelchair	
\$	Scheduled	05-11-2017 10:30 AM	CT Sinus Wo Limited [CT65] - Head	Blanche	May		
\$	Scheduled	05-11-2017 10:45 AM	US Abdominal Complete [76700] - Abdomen Test	Hilary		Free text special accommodation info	

In the blue highlighted row in the above image, there is an example illustrating that it is also possible to display free text special accommodation information from the Special Accommodation Notes field, if the dropdown for the type of Special Accommodation is not selected.



Flags

☐ Direct referral ☐ Transportation required

☐ STAT exam ☐ Special accommodations \* Yes

☐ STAT read

☐ STAT PreCert

Free text special accommodation info

For this to be possible, it would be necessary to disable any validation rules that require the dropdown to be filled in when Special Accommodations is set to Yes. If the type of special accommodation is selected in the dropdown, only this information will be displayed in the column.

## FEATURE #16111– RELATIVE DATE AND TIME FILTERING FOR WORKLIST COLUMNS

Often eRAD RIS users wish to create a worklist filter that will display items on the worklist for a certain date/time range. For example, a radiologist may want to have an “Overdue” Custom View saved for the Pending Dictation worklist that shows exams that have been waiting for a report for more than 5 days. A lead technologist may want to have a Custom View saved on the Reception worklist that shows only exams scheduled between tomorrow and 2 days in the future, so that upcoming appointments can be reviewed for accuracy. A manager may want to see a list of STAT exams on the IVT worklist that have been pending for more than 3 hours.

In any of these scenarios, eRAD RIS previously had limited options. A user could re-set a new date/time range whenever they wanted to view the information **or** they could rely on columns such as “Elapsed Time Suspended” that would display the number of minutes suspended. The user would then need to figure out the number of minutes in their desired time range (e.g. 2.5 days equals 3,600 minutes) and create a filter.

Now eRAD RIS has a **new option** that will allow a user to filter worklists based on a **relative** date/time. This will allow the user to easily create Custom Views with filters like “last 3 hours” that will continually update to show the last 3 hours from the current time.

To accomplish this, worklists have been enhanced with a new filter type that will allow the creation of these relative date/time filters for relevant worklist columns. This can be accessed via the filter type dropdown, using the “Relative date/time” option.

Procedures	Scheduled Date	Referring	MRN	Pat
Contains: ct				
CT Chest W Abdomen W/Wo & Pelvis W [CT25]	03-03-2016 2:54..	Clear filter		ar
PT/CT.OR Tumor Img Sk Th (Outside Read) [PT2]	03-03-2016 2:53..	<input checked="" type="checkbox"/> Equals		u.
CT Abdomen W & Pelvis W [CT9]	03-03-2016 2:53..	Not equal to		rt
CT Shoulder Arthrogram [CT26]	03-03-2016 2:53..	Greater than		ra
CT Head W & Ear, Orbit, Sella W [CT33]	03-03-2016 2:53..	Less than		ac
PT/CT Tumor Img Sk Th [78815]	03-03-2016 2:53..	Greater than or equal to		ac
PT/CT Myo Imag Perf Study [78459]	03-03-2016 2:53..	Less than or equal to		dl
FL Arthrocentesis Inject Intermediate Jt [20605]	03-03-2016 2:53..	Is null		ar
CT Shoulder Arthrogram [CT26]	03-03-2016 2:53..	Is not null		or
CTA Abdomen W/Wo [74175]	03-03-2016 2:53..	Between		ra
PT/CT.OR Tumor Img Sk Th (Outside Re	03-03-2016 2:53..	Not between		e
CT Head W/Wo & Soft Tissue Neck W [CT10]	03-03-2016 2:50..	Relative date/time		na

Clicking the new option opens the following screen where the user can create the new filters:

The screenshot shows the 'Relative Date/Time Filters' dialog box. It includes a 'Unit' dropdown set to 'Calendar days', and three buttons: 'Yesterday', 'Today', and 'Tomorrow'. Below these are two spin controls for 'From' and 'to' dates, with 'From' set to 'today' and 'to' set to '1 day in the future'. A list of quick links is provided for both spin controls, including 'today', '1 day', '7 days', '30 days', '90 days', and 'forever'. At the bottom, a 'Filter description' field shows the resulting filter: 'Scheduled Date is greater than or equal to 02-06-2017' and 'Scheduled Date is less than 02-08-2017'. Callouts identify the 'Unit selection', 'Quick links for setting up a filter for the previous, current and next unit', 'Filter description builder', 'Quick links to populate most frequently used options for both spin controls above', and 'Filter description'.

The user starts by choosing what unit to utilize for their filter. There are two types of choices:

- Options that relate to **right now**, as in this very minute:
  - Minutes
  - Hours
  - Days
  - Weeks
  - Months

Example: “From now to 1 week in the past” will return all the values between right now, and 7 days ago up to the minute. If it is currently 12:51 pm, the worklist would **not** display an item from 7 days ago at 12:50 pm.

- Options that return only **whole units**:
  - Calendar days
  - Calendar weeks
  - Calendar months

Example: “From this week to 1 week in the past” will return all of this week and all of the previous week.

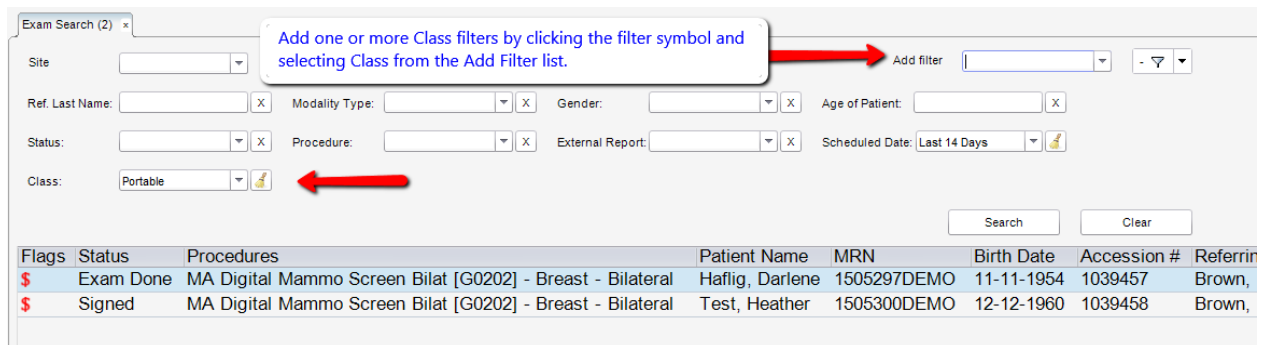
After selecting the preferred option, the user then populates the different controls to reflect the date/time ranges they want to have returned. A plain language description of what the filter will display will be shown at the bottom of the window to help the user understand what the result will be. Once satisfied with the filter, the user can click “OK” to set the filter or at any point click “Cancel” to leave the screen without changing the column’s current filter.



As with other Worklist filters, a Custom View must be saved in order to access the saved filter in the future. When this has been done, the filters are recalculated when the Custom View is loaded and whenever the worklist refreshes, so that they always reflect a **relative** date/time period.

## FEATURE #16059 – PATIENT CLASS IS AVAILABLE AS A SEARCH FILTER FOR EXAM SEARCH

Patient Class has been added to the list of possible filters for the Exam Search screen. To add one or more Class filters to an Exam Search, click the filter symbol in the top right corner and find Class in the “Add filter” dropdown. Once added, the Class dropdown will contain the options from the Patient Class look-up table.



Exam Search (2) x

Site:  X

Ref. Last Name:  X Modality Type:  X Gender:  X Age of Patient:  X

Status:  X Procedure:  X External Report:  X Scheduled Date: Last 14 Days X

Class:  X

Add one or more Class filters by clicking the filter symbol and selecting Class from the Add Filter list.

Add filter:  - X

Search Clear

Flags	Status	Procedures	Patient Name	MRN	Birth Date	Accession #	Referrin
\$	Exam Done	MA Digital Mammo Screen Bilat [G0202] - Breast - Bilateral	Haflig, Darlene	1505297DEMO	11-11-1954	1039457	Brown,
\$	Signed	MA Digital Mammo Screen Bilat [G0202] - Breast - Bilateral	Test, Heather	1505300DEMO	12-12-1960	1039458	Brown,

Results matching the search criteria will be displayed in the list below after searching.

## INTERFACING

### FEATURE #16082 – STUDY EXTRA INFO FEATURE EXTENDED TO INCLUDE ORDER EXTRA INFO

eRAD RIS has had the ability to store extra information received from an external ordering system at the study level, using a feature called *StudyExtraInfo*. In this build, this functionality has been extended to store information at the **order** level.

Sometimes there is a need to store additional information that may be customer specific, particularly information received from one system that also needs to be passed to corresponding systems at certain points in the workflow.

A new lookup table labeled *OrderExtraInfo* was created to specify the Code with which the RIS will be receiving information to be stored. Access to the table is controlled by a new access string titled *Config.LookupEditor.OrderExtraInfo* with a default of None. The table consists of the Order Extra Info Code, Display Name, Description, Display Order, Last Updated and Active columns.

Order Extra Info Code	Display Name	Description	Display Order	Last Updated	Active
Contains:	Contains:	Contains:	Equals:	Contains:	Contains:
Click here to add a new row					
Test external system	Test external system	Test external system	1	02-22-2017 11:22 AM	Y
-BACKUP	BACKUP	Backup Order Extra Info Code	1	02-15-2017 1:38 PM	Y
-OEIC1	-OEIC1	Order Extra Info Code 1	1	02-15-2017 1:38 PM	Y

Messages sent will specify the Order Extra Info Code and have a value field. These messages will be stored in another new Database table *c\_order\_extra\_info* that is not accessible from the GUI.

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## FEATURE #16591 – STRIP LAST CHARACTER FROM VARIABLES PASSED TO EXTERNAL PORTALS

The existing portal feature in eRAD RIS allows the customer to pass patient data to external portals, such as a Health Information Exchange (HIE), in order to pull up records in the external portal. There was an international requirement to strip the last character from the MRN before passing it to the portal.

A new plugin has been added which allows the user to strip the last character from any variable.

When creating/updating an entry in BrowserConfig, the URL can support using “filters” in the URL string. For example, to get the patient id into the URL of the portal page to be opened, the variable would be specified as {patient.c\_patient.patient\_id}. To strip the last character from the patient id, this would need to be changed to: {patient.c\_patient.patient\_id | [StripLastChar](#)}. The additional text in blue tells the RIS to send the patient\_id value through the StripLastChar filter before adding the value to the URL that passes the data to the external portal.

## FEATURE #16527 - ENHANCE DROP XML FILE FUNCTIONALITY

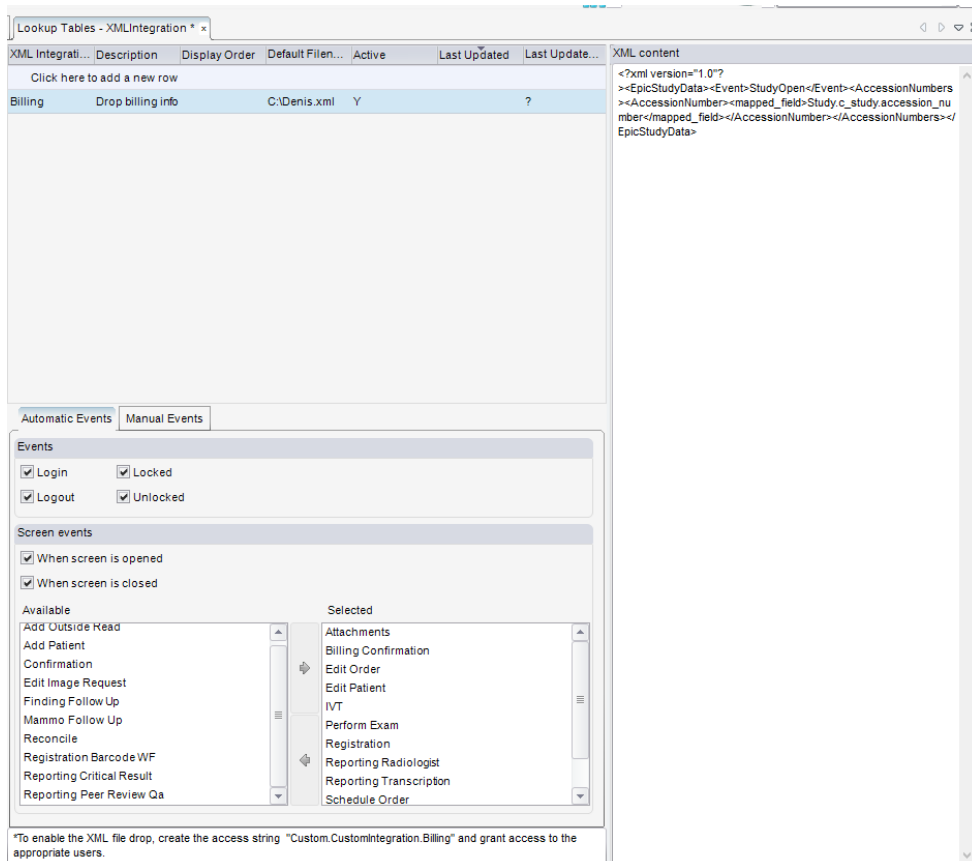
eRAD RIS has markedly enhanced its XML file drop functionality. Custom configuration in the XML Integration editor now allows administrators to:

- Create custom menu items, Patient Folder view buttons, context menu items and worklist action buttons that will allow a permissioned user to manually drop an XML file.
- Configure automatic XML file drops for events, including login, logout, RIS locked, RIS unlocked, screen activated and screen deactivated.

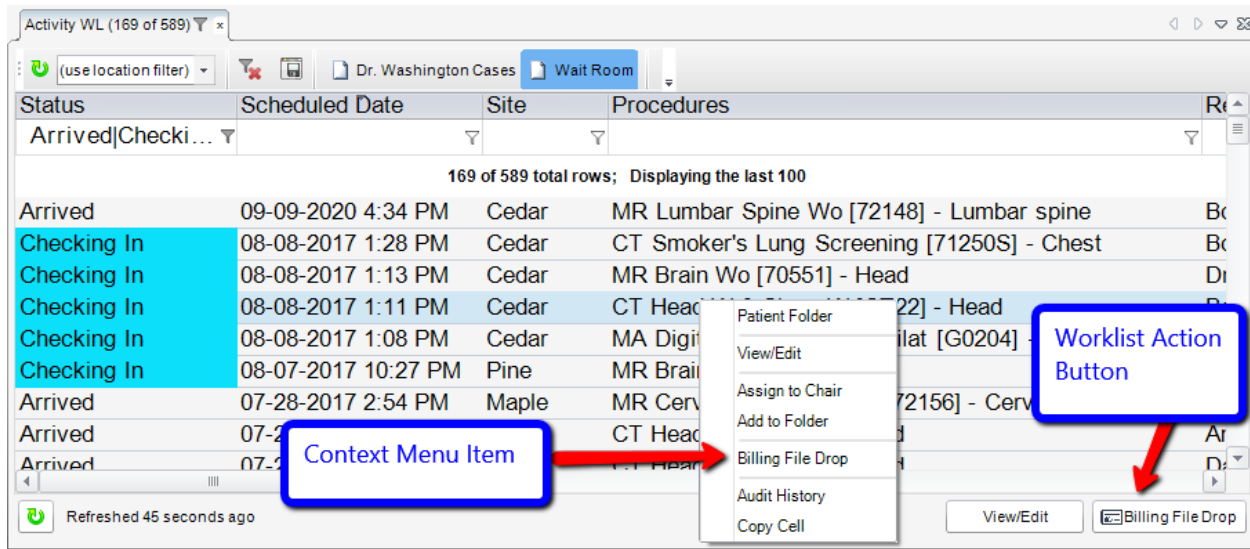
A new panel has been added to the XML integration lookup table editor. It displays two tabbed pages: one for automatic, or event driven, XML drops, the other for manual drop via customizable controls available to the user, such as context menus or buttons. Each page allows the selection of different drop options via checkboxes.

For the options that are screen or worklist dependent, it is possible to choose the specific screens or worklists for the action to occur by moving available options to the Selected section.

For instance, in the screenshot below, RIS will drop an XML file when any of the selected screens are opened and closed. This is in addition to the automatic file drops that will occur upon login and logout, as well as locking or unlocking RIS, as the checkboxes for these events are also checked.

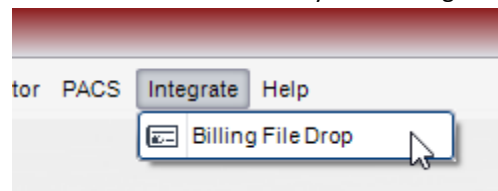


On the Manual Events tab, the same Available/Selected section will control whether a particular worklist has a context menu item and/or an action button for the file drop.

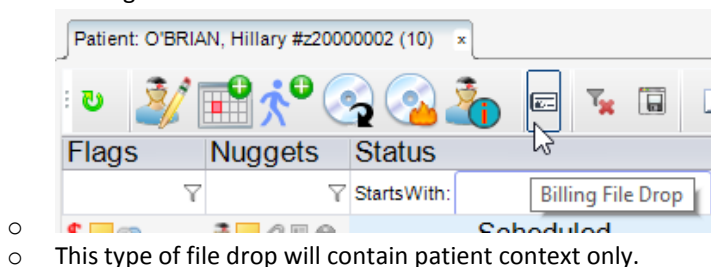


In the Item Location section, it is also possible to add:

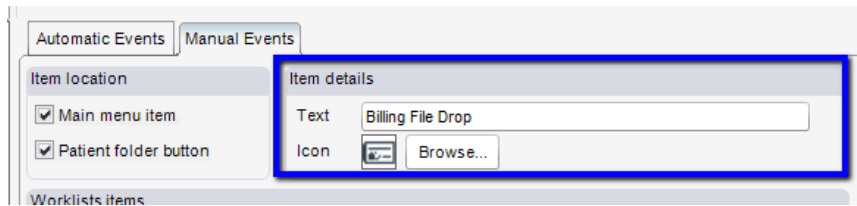
- Main Menu Item – This will add a file drop option to a new menu at the top of the RIS screen to the left of the Help menu.
  - By default, the name of the menu will be *Integrate* and the menu items for all configured XML file drops with the “Main menu item” option checked will be found here. It is possible to re-name this menu via a new System Configuration setting labeled *XmlIntegrationMainMenuText*.



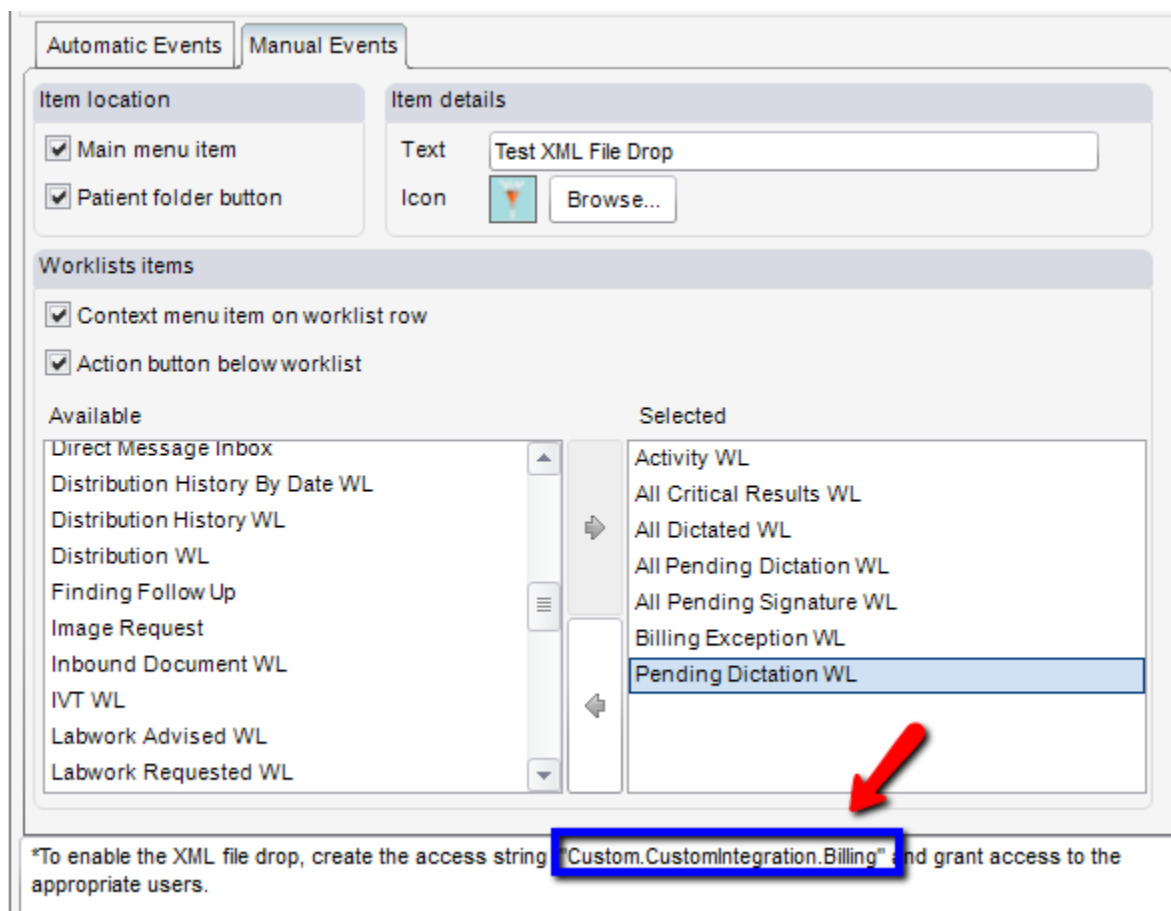
- This type of file drop action will not contain patient or study context.
- Patient Folder Button – This will add a file drop option as an action button at the top of the Patient Folder screen to the right of the Patient Alerts button.



In the Item Details section, the associated icon can be uploaded and the name of the XML file drop can be defined. Free icons are available for download on the internet or users can create their own icons. Clicking the Browse button will allow the administrator to select the image from their computer's file system.



Access strings must be used to enable access to each XML integration file drop. The access string uses the Custom Access String framework. To assist the user in creating the correct access string, the XML Integration lookup editor will provide the name for the access string, as illustrated in the image below. If an access string is not created and assigned to the appropriate User Groups, then the XML file will not be available to any users.



While the rest of the XML Integration editor remains mostly unchanged, there is one other piece of new functionality: the ability to add non-study container driven fields to the XML content. The two possibilities are:

- %Event% - displays the **name** of the XML integration option that dropped the flag.
  - None
  - MenuItem
  - PatientFolderButton
  - WIContentMenu
  - WIActionButton

- OnLogin
  - OnLogout
  - OnLockScreen
  - OnUnlockScreen
  - OnScreenActivated
  - OnScreenDeactivated
- %CURRENT\_USER\_ID% - displays the user id of the currently logged in user.

Customers who are interested in taking advantage of this new functionality are welcome to contact eRAD Support for assistance.



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## FEATURE #16137 – CARESTREAM PACS INTEGRATION – OPEN PRIOR STUDIES WHEN PRIMARY STUDY IS NOT AVAILABLE

This feature is applicable for customers using our integration with Carestream PACS.

Before an exam is performed, it is sometimes necessary for the radiologist to view the prior images for the patient. Previously, when a radiologist opened the reporting screen, the *view session* would not be initiated if the current study was unavailable. Without this, the prior studies could not be launched from the reporting screen.

To allow for this functionality, a new setting is now available in the CSHConfig.xml file:  
*empty\_view\_session\_on\_fail*.

Changing this setting to True will adjust the CSH integration behavior to make the *ShowStudy* call to PACS act as if the primary study opened correctly, even if it has failed because current images do not yet exist. Please note that with this setting turned on, the radiologist will not be prompted that the primary study failed to open and the mini-Patient Folder will indicate that the PACS status for the primary study is Open. At this point, the radiologist can double click on the desired prior study. RIS will ask the PACS what studies have loaded and upon finding that nothing is loaded, the normal Append call will be replaced with a ShowStudy call. At this point, images for the prior will open, and both current and prior studies will be listed as Open.

To support this behavior, the *supports\_append* setting in the CSHConfig.xml file needs to be set to True.

## INFRASTRUCTURE

### FEATURE #14351, 15615 – NEW RIS SETTINGS TO REDUCE BANDWIDTH FOR UPDATES

Two new System Configuration settings have been created in an effort to reduce the amount of bandwidth consumed by saving/uploading updates to the server. Both features will be automatically enabled at the time of the upgrade to version 2.2017.3, but will present no detectable changes to the RIS user.

Both of these configuration options will decrease the network bandwidth utilization, which will deliver some performance benefits for networks which have slow upload speeds.

#### Uploading patient/order updates:

When saving edits to screens such as ViewEdit or Registration, the data is sent to the server in an XML format, which is fairly bulky and uses more bandwidth than necessary. For example, saving a change to a patient's middle name costs approximately 60KB when sent via XML. A new system configuration setting will enable a *binary serializer* to send the update data in binary format, which reduces the size of the data to be uploaded. When sending in binary format, the same update that cost 60KB when sent via XML is reduced to approximately 8KB. To enable this feature, the new System Configuration setting, *EnableExtraCompressionOnStudyUpdates*, must be set to True. The default for this setting is True, so it will be enabled at the time of the upgrade, unless the setting is changed to False.

#### Uploading Attachments:

Another new System Configuration setting is available to reduce the size of **attachments** for upload. Attachments are typically saved as a JPEG file. However, in many cases, a smaller file size could be achieved by applying LZW compression and saving the attachment as a TIFF file. The image quality on the resulting TIFF file is typically equal or superior to the JPEG image.

When *AllowLZWImageCompression* is set to True, RIS will compress attachments twice: once as a JPEG and once, using LZW Compression, as a TIFF file. The version with a smaller file size will be used for the attachment, unless the compressed TIFF image is significantly different from the original. If 80% of the pixels are different between the JPEG and the TIFF, RIS will choose the JPEG compression for that attachment.

The default for this System Configuration setting is True, which means that this compression process will be enabled at the time of upgrade, unless the setting is changed to False.

## CONNECT PATIENT PORTAL

Note: There are some Patient Portal features that are related to the new CONNECT Provider Portal which will be announced in the near future. These features are not described here and will be described in detail at the time that the CONNECT Provider Portal is released.

### FEATURE #14260 – PUSH OUT THE FIRST AVAILABLE APPOINTMENT BASED ON CONDITIONS

When patients schedule appointments online in the Patient Portal, it is sometimes helpful to add padding to ensure that the first appointment offered to the patient will be a certain number of hours into the future. This allows the imaging center staff time to review appointments that are scheduled online, in case any changes need to be made or additional actions taken. Without padding, the patient could theoretically schedule the appointment within minutes or hours of the scheduling event, which would not allow staff adequate time to prepare.

Additional padding to the first available appointment may be indicated due to:

- Selection of a certain type of Procedure.
- Indicating a Special Accommodation.
- Giving a certain answer to an exam question.
- Selection of a particular Insurance Carrier.
- Choosing an Unknown Insurance.
- Not having a referral/prescription.
- Not having an Insurance Authorization number.
- Scheduling on weekends or evening hours.

Time slot padding is responsive to weekends and holidays defined by the portal Imaging Group. For example, if padding of 48 hours is indicated for a patient scheduling on Friday, Monday will not be available because 48 business hours would not have elapsed.

Three new System Configuration settings have been created for this feature. Two are replacements for older settings that previously handled Padding using days. These are now replaced with settings that will handle Padding using hours instead.

1. *PortalNoSelectedInsuranceHourPadding*
  - a. Replaces *PortalNoSelectedInsuranceDayPadding*
  - b. Will use hours instead of days.
  - c. Adds hours to the start search criteria to allow time to gather insurance from the patient when no insurance information is available.
2. *PPSchedulingNoPrescriptionHourPadding*
  - a. Replaces *PPSchedulingNoPrescription*.

- b. Will use hours instead of days.
  - c. Adds hours to the start search criteria if the patient indicates that they do not have a prescription (referral).
- 3. *PortalAllowEveningWeekendScheduling*
  - a. Brand new setting.
  - b. If set to N, the Portal will always prevent scheduling on the weekend or outside business hours.
  - c. This can be overridden at the Imaging Group level.
  - d. RIS will determine weekends and evenings according to the existing system configuration settings *WeekEndDays*, *ScheduleMorningTimeOfDay*, and *ScheduleEveningTimeOfDay*.

The above settings cover scenarios when the patient's insurance information or prescription is not available, as well as evening/weekend scheduling. Padding adjustment for the remaining scenarios is as follows:

**-By Carrier:**

To allow padding to occur based on a particular insurance which may require additional time, the Carrier table has a new column: *portal\_schedule\_hour\_padding*. Previously, a setting existed for padding by number of days; this will be deprecated in a future build. This can be overridden at an Imaging Group configuration level.

**-By Procedure:**

A new column called *portal\_schedule\_hour\_padding* has been added to the Procedure Code table. This will define the number of hours to pad the available search results for the procedure. If there are certain procedures that require extra preparation or verification, this will ensure that enough time is available for these activities. An additional column, *portal\_schedule\_allow\_evening\_weekend\_flag*, will prevent the procedure from being scheduled on the weekend or evening via the Portal when set to N. If the availability template does not contain weekend or evening hours, this is not necessary. However, if there are procedures that schedulers are allowed to schedule in the evening or weekend hours, but online users should not have access to these time slots, this setting will be beneficial. This can be overridden at an Imaging Group configuration level.

**-By Special Accommodation:**

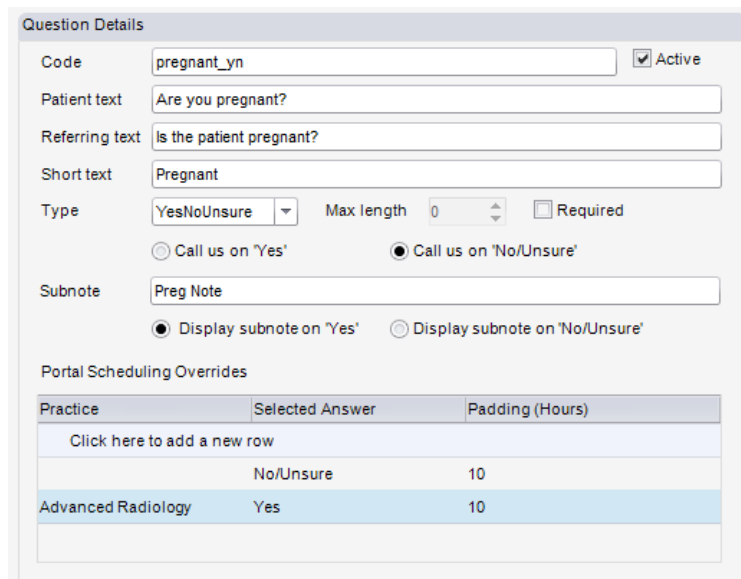
The new column called *portal\_schedule\_hour\_padding* has been added to the Special Accommodations table. This will define the number of hours to pad the available search results for a particular accommodation. The rule will check all Special Accommodations selected by the patient and the highest value will be used for the applied padding. An additional column, *portal\_schedule\_allow\_evening\_weekend\_flag*, will prevent appointments with the selected Special Accommodation from being scheduled during evening and weekends when the necessary staff might not be available to accommodate the patient's need. The setting can be configured separately for each Special Accommodation. This can be overridden at an Imaging Group configuration level.

**-By Authorization:**

Two new system configurations have been created for different padding depending on the patient's answer to the question of whether they have an authorization number.

### -By Exam Question:

For exam questions that are defined in the Procedure Picker, a new section is now available on the Question Details screen.



Question Details

Code:  ☒ Active

Patient text: 

Referring text: 

Short text:

Type:  Max length:  ☐ Required

☐ Call us on 'Yes' ☒ Call us on 'No/Unsure'

Subnote:

☒ Display subnote on 'Yes' ☐ Display subnote on 'No/Unsure'

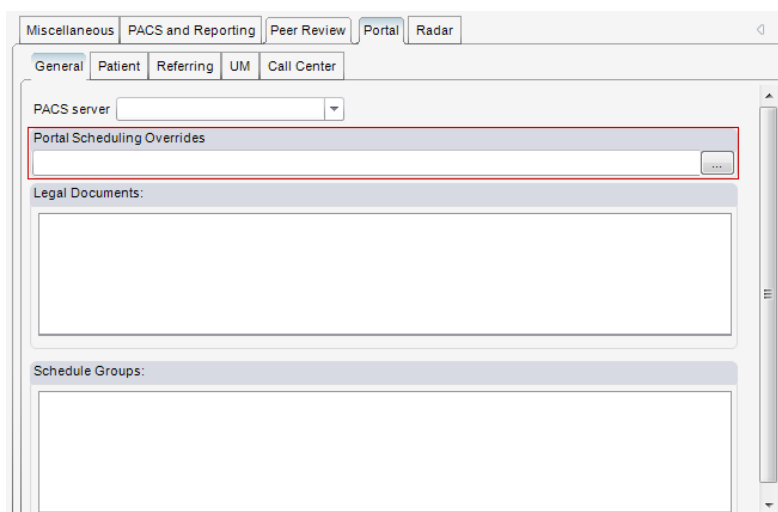
Portal Scheduling Overrides

Practice	Selected Answer	Padding (Hours)
Click here to add a new row		
	No/Unsure	10
Advanced Radiology	Yes	10

The section allows padding to be defined to the yes/no and yes/no/unsure type questions, with a different value depending on the patient's answer.

Due to the structure of these questions, the Imaging Group (practice) padding can be defined inside the Procedure Picker exams question screen, as additional entries can be added for any Imaging Groups that require different settings.

For other settings, Imaging Group differences in the amount of hours to pad are handled via override settings in the Organization table. Under the Practice section, on the Portal tab, there is a section called *Portal Scheduling Overrides*.



Miscellaneous PACS and Reporting Peer Review Portal Radar

General Patient Referring UM Call Center

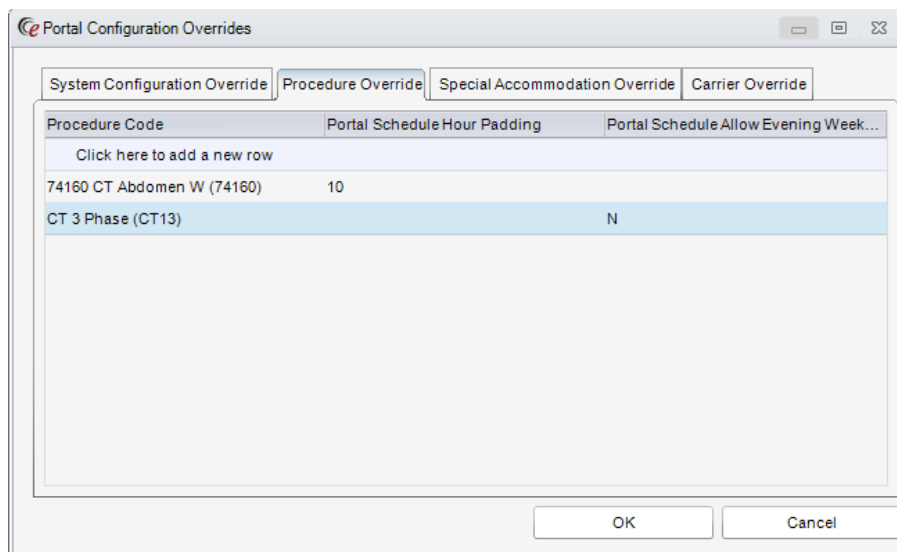
PACS server:

Portal Scheduling Overrides

Legal Documents:

Schedule Groups:

Clicking the button [...] will open a new window with tabs for the various types of overrides. The settings for the Imaging Group that are different from the main settings described above can be overridden here.



Procedure Code	Portal Schedule Hour Padding	Portal Schedule Allow Evening Week...
Click here to add a new row		
74160 CT Abdomen W (74160)	10	
CT 3 Phase (CT13)	N	

With such a variety of ways to pad the first appointment offered to the patient, RIS needs to determine which padding rule to follow when an appointment contains more than one characteristic that requires padding. To do this, the system will evaluate all applicable rules and apply the padding with the greatest number of hours.

After calculating the first appointment based on the padding hours, RIS will then evaluate whether there is a setting that prevents weekend/evening appointments as well as whether the appointment slot is in one of those time slots. If so, the first available time slot will be pushed to the next business day for the configured morning hours. Holidays are also evaluated and will push out the first available appointment to the next applicable day.

After determining the first time slot that would be appropriate to allow the patient to schedule, RIS will begin to look for an available time slot. If no results are found, RIS will continue searching for a predefined number of days, based on the System Configuration setting *PortalMaxSearchDays*. If no results are available within the allotted number of days, the patient will be presented with a message.

There are no available time slots for your appointment in the next 30 days. Call us for assistance or continue to search for available time slots using the calendar controls.

(443) 436-1100

**Call Center Hours:**

MRN: 1000001841

Please provide us with this ID so that we can quickly locate your appointment when you call.

[CANCEL APPOINTMENT](#) [CONTINUE TO SCHEDULE](#)

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## FEATURE #16480 – STREET NUMBER WATERMARK REMOVED FROM STREET NUMBER FIELD IN ACCOUNT CREATION WORKFLOW

When patients see the three watermarks ( ### ) in the street number input field during Account Creation workflow, they often assume the field will only accept three digits even though the field is very wide. This can cause the patient to abandon the workflow and contact the Portal Administration team to ask what they should do if their address is more than three digits.

What are the last four digits of your phone number?

####

☐ I did not provide my phone number.

What is your street number? \*

###



NEXT

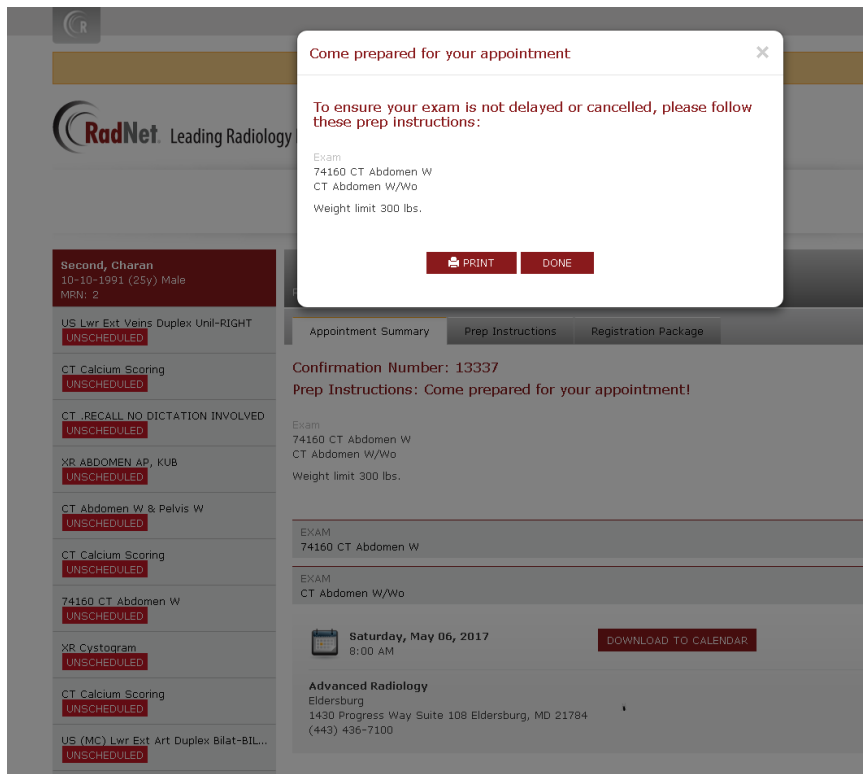
CANCEL

To eliminate confusion, the watermarks in the image above have been removed from the street number input field.



## FEATURE #13708 – PREPARATION INSTRUCTIONS DISPLAY IN A POP-UP WINDOW AFTER SCHEDULING IN THE PATIENT PORTAL

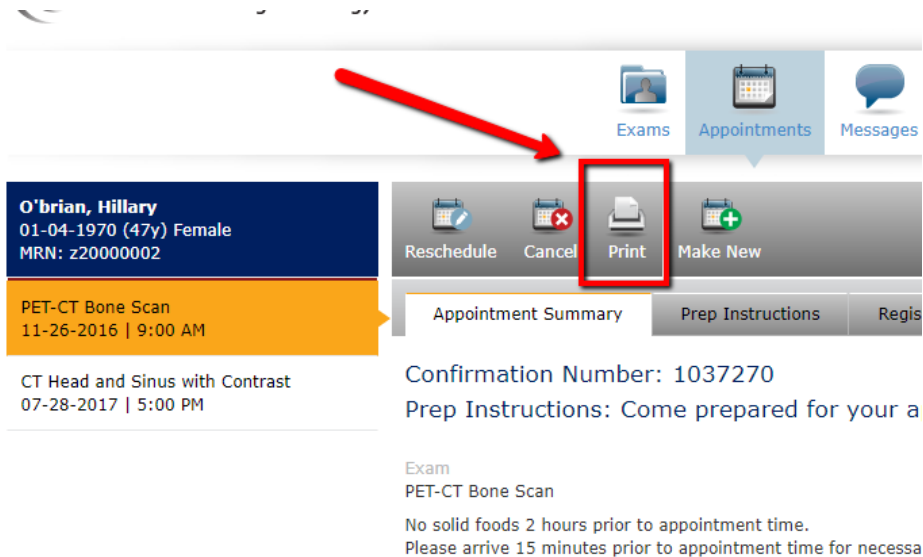
A common problem in radiology is that patients can arrive for their appointment without having followed the preparation instructions. In order to further emphasize the importance of following prep instructions, the portal will now present the preparation instructions in a pop-up window that must be acknowledged by the patient before they can continue.



After the patient clicks the Confirm Appointment button, the dialog box will appear with the instructions in order for the patient to be fully aware of those instructions before their appointment. There is also a **PRINT** button on the window, so that the patient could choose to print the instructions for an additional reminder. Clicking the print button will dismiss the dialog box and initiate the browser's print function.

## FEATURE #14535 – PRINT A SUMMARY OF APPOINTMENT INCLUDING PREPARATION INSTRUCTIONS

A printer icon has been added to the Appointment Confirmation page. The patient can print a copy of their Appointment Summary, including Preparation Instructions. Previously, only the webpage could be printed.



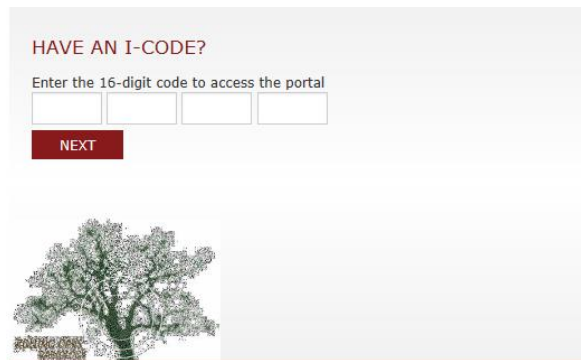
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## FEATURE #8310 - PATIENT PORTAL LOGIN PAGE PICTURE IS NOW CONFIGURABLE

Customers would like to have the option to insert their own image on the Patient Portal login page, instead of using the default image of a group of patients.



It is now possible to substitute a custom image in this area of the screen. Different images can be used for specific Imaging Group portals, so that the Treesdale Radiology portal can have a different image than the Spectrum Radiology portal.



Please contact the eRAD Support Team to set this up for your Connect Patient Portal.

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## FEATURE #15025 – REPORTS PRINTED FROM THE PORTAL WILL CONTAIN A FOOTER INDICATING THE PRINT DETAILS

A footer is now added to all reports when they are printed from the portal. The footer will read:

“This report was printed from the {Practice Name of selected image group} - {Patient/UM/Referring} portal on {Date}{Time}.”

For example, “This report was printed from Advanced Radiology – Patient portal on 08-14-2017 5:23 PM.”

The Date and Time reflect when the report was generated in the portal. If the patient opened the report at 5:23 PM but did not print it for another 10 minutes, the time would still read 5:23 PM. This will ensure that if an addendum was signed within those 10 minutes, the hard copy printed version will not be stamped with a date/time that occurs after the addendum.

This section will only appear on the printed document at the bottom of each page.

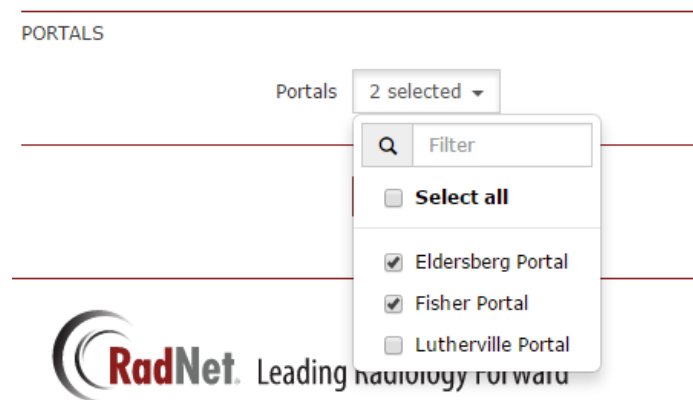
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## FEATURE #12827 – PROVIDE SYSTEM MESSAGES TO INDIVIDUAL IMAGING GROUPS

Previously, Portal System Messages could only be applied for all Imaging Groups at once. This did not allow for the flexibility to provide custom messages that were specific to a particular Imaging Group, which equates to a specific target **portal** with its own branding and target audience.

It is now possible to select the specific Portals/Imaging Groups that should receive the message.

When creating a new System Message in the Admin Portal, it will be applied to all Portals by default. The administrator can click the dropdown to select a subset of Portals.

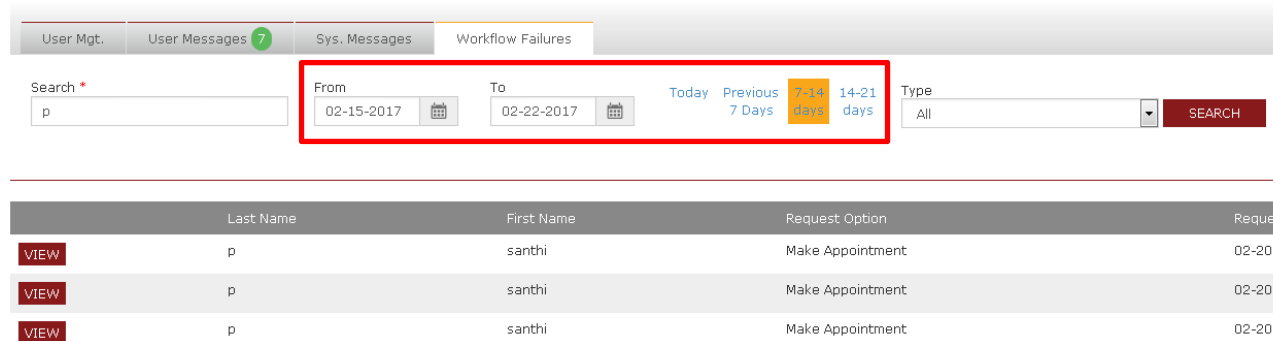


This can be helpful when there are alerts or marketing campaigns that are specific to one instance of the portal.

## FEATURE #13253 – SEARCH WORKFLOW FAILURES BY DATE RANGE IN ADMIN PORTAL

It is now possible to specify a date range on the Workflow Failures tab in the Patient Portal Admin Portal.

Specific dates can be entered or the user can use quick links to select common choices like “Today” or “Previous 7 Days.”



The screenshot shows the Patient Portal Admin Portal interface. The 'Workflow Failures' tab is selected. A search bar on the left contains the letter 'p'. A date range filter is highlighted with a red box, showing 'From' and 'To' date pickers. The 'From' date is 02-15-2017 and the 'To' date is 02-22-2017. Quick links for 'Today', 'Previous 7 Days', '7-14 days', and '14-21 days' are also visible. A 'Type' dropdown menu is set to 'All'. A 'SEARCH' button is located to the right of the date range filter.

	Last Name	First Name	Request Option	Request Date
<a href="#">VIEW</a>	p	santhi	Make Appointment	02-20-2017
<a href="#">VIEW</a>	p	santhi	Make Appointment	02-20-2017
<a href="#">VIEW</a>	p	santhi	Make Appointment	02-20-2017

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## FEATURE #13960 - AUDIT OPENING PATIENT EXAM LIST IN THE ADMIN PORTAL

The Patient Portal Admin Portal will now record an audit event for the opening and viewing of a patient record (Exam list), even if no other actions are taken.

When the user visits the Exam list in the CONNECT Patient Portal, an audit entry will be made in the database (c\_audit). This audit action can be pulled into management reports and database queries.

## FEATURE #16590 - DOB IS A VALID SEARCH IN THE ADMIN PORTAL

On the User Management tab in the Patient Portal Admin Portal, it is now possible to use Date of Birth as part of the search criteria. It is possible to search by DOB, first name, last name, telephone, or MRN. Using Date of Birth is an easy way to narrow down a Name search.

The DOB search will accept a variety of date formats, similar to searching by date of birth in the RIS.

Search

Status

All

▼

SEARCH

	Last Name	First Name	Date Of Birth	Issuer	MRN
EDIT	Molyneaux	Kevin	10-29-1975	system	29006PE
VIEW	Molyneaux	Kevin	10-29-1975	Portal	14865
VIEW	Molyneaux	Kevin	10-29-1975	system	26891



## FEATURE #15702 - PASSWORD FAILURE INFORMATION NOW LISTED IN ADMIN PORTAL ACTIVITY TAB

When supporting patients who are experiencing difficulty logging into the Patient Portal, it is helpful to know that they have entered an invalid password. The Admin Portal will now display this information in the patient's Activity Log.

Verify	Profile	Account	Authorized Users	iCode	Activity
--------	---------	---------	------------------	-------	----------

ACTIVITY LOG		
03-21-20	To 03-21-20	REFRESH
Today	Previous	7-14
7 Days	days	days

Date ↑	Activity	Detail	
03-21-2017   9:59 AM	Patient retrieved	Patient: second, charan	<a href="#">VIEW</a>
03-21-2017   9:59 AM	Patient Portal: Failed Login	Invalid Password for UserID:veeranjan URL: http://localhost:45926/ UserIdentity: RMIS\vboina Computer Name: Veeranjan-HP.rmis.pei IP Address:fe80::6dda:8c6e:f3ab:c753%11 - fe80::900a:659d:fe8a:6cc9%20 - 10.100.16.169 - 10.100.16.236	<a href="#">VIEW</a>
03-21-2017   12:45 AM	Patient retrieved	Patient: second, charan	<a href="#">VIEW</a>
03-21-2017   12:43 AM	Patient Portal: Failed Login	Invalid Password for UserID:veeranjan URL: http://localhost:45926/Home UserIdentity: RMIS\vboina Computer Name: Veeranjan-HP.rmis.pei IP Address:fe80::6dda:8c6e:f3ab:c753%11 - fe80::900a:659d:fe8a:6cc9%20 - 10.100.16.169 - 10.100.16.236	<a href="#">VIEW</a>
03-21-2017   12:41 AM	Patient retrieved	Patient: second, charan	<a href="#">VIEW</a>
03-21-2017   12:41 AM	Patient Portal: Failed	Invalid Password for UserID:veeranjan URL: http://localhost:45926/ UserIdentity: RMIS\vboina Computer Name: Veeranjan-HP.rmis.pei IP Address:fe80::6dda:8c6e:f3ab:c753%11 - fe80::900a:659d:fe8a:6cc9%20 - 10.100.16.169 - 10.100.16.236	<a href="#">VIEW</a>

## FEATURE #16066 - SECURITY TAB AND ACCOUNT TAB NOW COMBINED IN ADMIN PORTAL

To reduce the need to flip between multiple tabs when supporting the Patient Portal, the Admin Portal has eliminated the Security tab and added the information from this tab to the existing Account tab.

User Mgt.
User Messages 1
Sys. Messages
Workflow Failures

Search
Status

username:veeranjan
All
SEARCH

User ID
veeranjan

Verify
Profile
Account
Authorized Users
iCode
Activity

PASSWORD

User ID
veeranjan

Last Updated
05-03-2017 | 5:11 PM

Password

☐ Force reset on next login
☐ Allow Simple Password

SAVE
CANCEL

ACCOUNT STATUS

☒ Active
☐ Disabled

SAVE

ACCOUNT RESET

RESET ACCOUNT

EULA

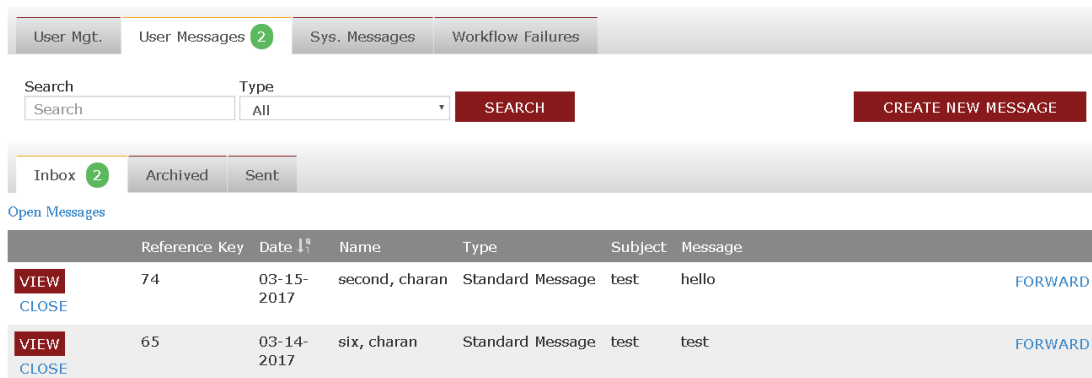
Version	Last Signed
5.6	03-31-2017 01:36 PM

Reset

## FEATURE #16358 – REFERENCE KEY IS NOW ADDED TO PORTAL NOTIFICATION EMAILS

When a Portal administrator views secure messages that have been sent from the Patient Portal via notification emails, it is difficult to match up the email with the patient information, as identifying information is not included in the email for privacy reasons. For this reason, a Reference Key has been added in the subject line and body of the secure emails.

The portal administrator can log into the Admin Portal and sort by the Reference Key in question to find the message with the patient information associated, after securely logging into the portal where the patient information can be safely displayed.

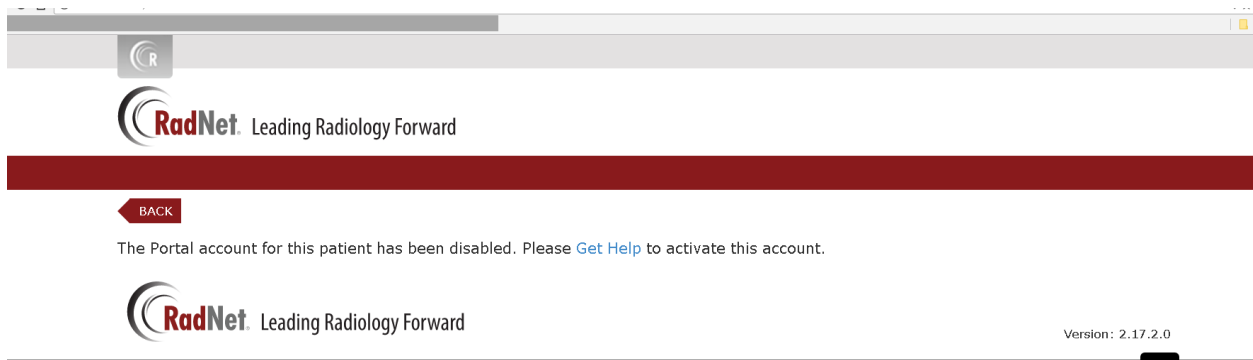


The screenshot shows the 'User Messages' tab in the Admin Portal. It includes a search bar, a 'Type' dropdown set to 'All', and a 'CREATE NEW MESSAGE' button. Below the search bar are tabs for 'Inbox' (with a count of 2), 'Archived', and 'Sent'. The 'Open Messages' section displays a table of messages:

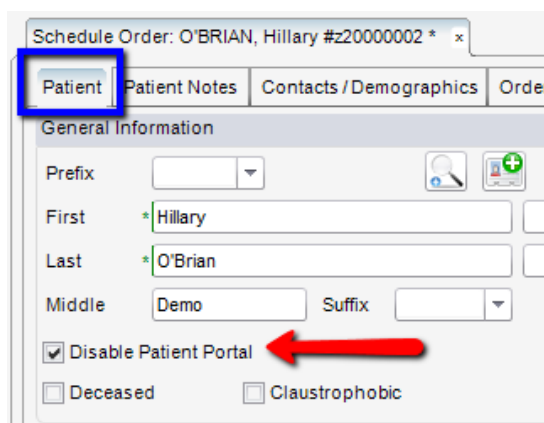
	Reference Key	Date ↓↑	Name	Type	Subject	Message	
<a href="#">VIEW</a> <a href="#">CLOSE</a>	74	03-15-2017	second, charan	Standard Message	test	hello	<a href="#">FORWARD</a>
<a href="#">VIEW</a> <a href="#">CLOSE</a>	65	03-14-2017	six, charan	Standard Message	test	test	<a href="#">FORWARD</a>

## FEATURE #16449 – FORCE PATIENT TO USE GET HELP TO CREATE/REACTIVATE THEIR PORTAL ACCOUNT IF THE ACCOUNT HAS BEEN DISABLED IN THE ADMIN PORTAL OR IN RIS

Previously, an administrator could disable a patient’s portal account via the Admin Portal; however, it was still possible for the patient to go through the “create an account” workflow and reactivate their account. The portal will now prevent the patient from continuing with a message indicating that their account is disabled and to “Get Help” to activate the account.



It is also now possible to disable a Patient Portal account from the RIS. A new checkbox has been added to the Patient tab to *Disable Patient Portal*.



When checked, the patient will not be able to create a new account or access an existing account. They will receive the same message that is displayed when the account is disabled via the Admin Portal.

## RIS ADMINISTRATION

### FEATURE #16299 - ERAD RIS NOW SUPPORTS BOTH DEFAULT AND "RECOMMENDED" BILLING CODES

Note: this functionality was originally introduced in the previous patch, 2017.1.2. The description is included here because there have been further changes to the feature.

Previously, all billing codes associated to a procedure were active by default. In some cases, it may be useful to also associate billing codes that are *sometimes* used for a particular procedure. For example, some customers use a workflow in which procedure codes are broad, such as CT Sinus. In this case, the billing code might be the CPT for CT Sinus "with contrast," "without contrast," or "with and without contrast." Also, the CPT for contrast material may or may not be relevant depending on what is performed.

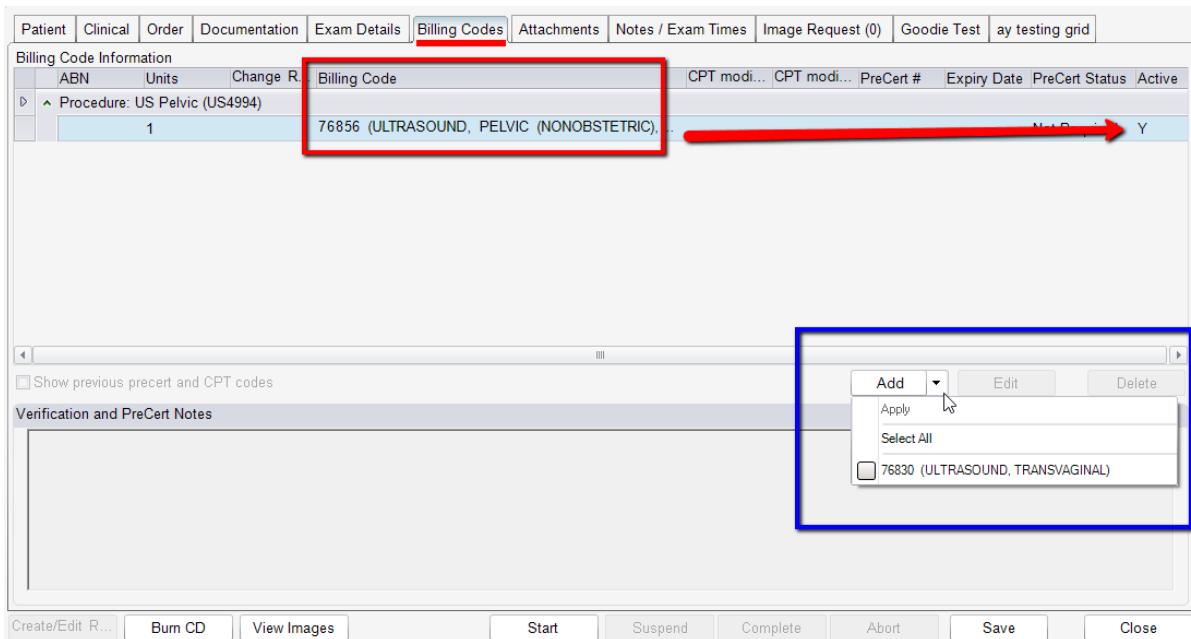
In these cases, being able to associate the billing codes that are most likely to be used for a particular procedure is more beneficial than creating default billing codes that are always active for the exam and have to be deactivated by the technologist.

To allow for this workflow, a new column has been added to the `I_procedure_code_x_billing_code` sub-table, which is found in the Procedure Code lookup table. The column, **Add By Default**, will default to Y, meaning that the billing code will be associated and active for that procedure. This is the same as the previous behavior.

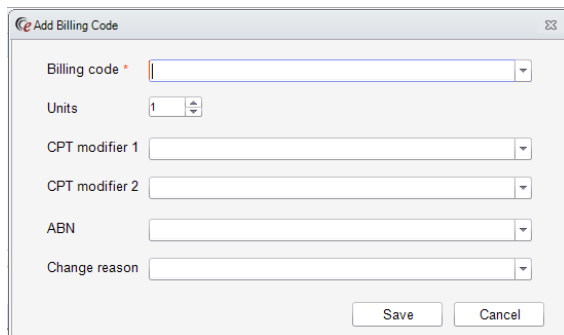
To associate billing codes without actively adding them to the procedure, set the Add By Default column to N. As you can see in the table below, it is possible to have a combination of Default billing codes and recommended/possible billing codes.

Lookup Tables - ProcedureCode		Perform Exam: TEST, Hilary #34689PE			
Procedure...	Description	Body Part...	Laterality Code	Body Part	
Contains:	Contains:	Contains:	Contains:	Contains:	
Click here to add a new row					
US4994	US Pelvic		N		
I_procedure_code_x_billing_code		I_procedure_code_x_body_part	I_procedure_x_genera		
Procedure Code	Billing Code		Add By Default Flag		
US4994	76856 (ULTRASOUND, PELVIC (NONOBSTETRIC...		Y		
US4994	76830 (ULTRASOUND, TRANSVAGINAL)		N		
Click here to add a new row					

In the example above, the only billing code that will be automatically added for the US Pelvic procedure is 76856. The billing code 76830 will now be available from a quick pick list, as shown below.

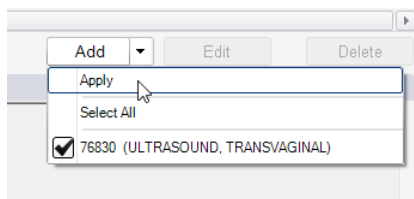


When suggested codes are available for a procedure, the Add button will have a dropdown arrow allowing the user to quickly select and apply the suggested billing codes. Clicking the main Add button, instead of the dropdown arrow, will open the normal Add Billing Code screen where the entire list of Billing Codes can be accessed.



If no recommendations exist, the Add button will not have the dropdown arrow and the Add Billing Code screen is the only option for adding additional billing codes.

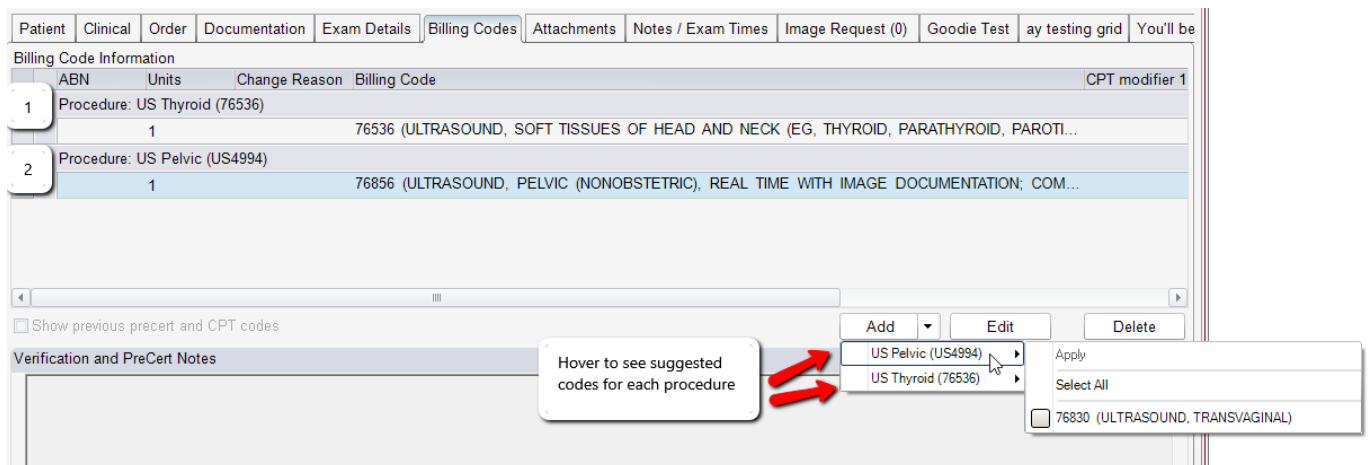
To use suggested billing codes, click the dropdown arrow and check the box(es) to be added. Then click Apply.



This will add the billing code to the procedure in an Active status.

Exam Details	Billing Codes	Attachments	Notes / Exam Times	Image Request (0)	Goodie Test	ay testing grid
Billing Code	CPT modi...	CPT modi...	PreCert #	Expiry Date	PreCert Status	Active
76856 (ULTRASOUND, PELVIC (NONOBSTETRIC),...					Not Required	Y
76830 (ULTRASOUND, TRANSVAGINAL)					Not Required	Y

If a technologist is performing multiple exams at once using the “Include” workflow, suggested billing codes will be available for each included procedure (if any).



The screenshot shows the 'Billing Codes' tab in the eRAD interface. It displays a table with columns: ABN, Units, Change Reason, Billing Code, and CPT modifier 1. Two procedures are listed: 'Procedure: US Thyroid (76536)' and 'Procedure: US Pelvic (US4994)'. Below the table, there is a section for 'Verification and PreCert Notes'. A tooltip with the text 'Hover to see suggested codes for each procedure' points to the 'Add' button. A dropdown menu is open, showing suggested billing codes: 'US Pelvic (US4994)', 'US Thyroid (76536)', and '76830 (ULTRASOUND, TRANSVAGINAL)'. The dropdown menu also includes options for 'Apply', 'Select All', and a checkbox for '76830 (ULTRASOUND, TRANSVAGINAL)'.

Suggested billing codes will not trigger IVT workflow. Once the suggested billing code has been added to the exam, it will be treated like normal active billing codes and IVT workflow will apply.

It is also now possible to select multiple lines in the active Billing Codes grid in order to delete them all at once, if needed. Selecting rows and clicking the Delete key on the keyboard is also allowed. The user will be prompted to confirm that they want to delete the selected billing code(s). Deleting a saved billing code row is the same as marking the row as “Active = N”. If suggested billing codes are added, but deleted *before* the exam is saved, the row will simply be deleted.

The billing codes associated to any procedure code prior to this upgrade will all be set as Add By Default = Y, which means that they will continue to behave as they did prior to upgrading.

---

## FEATURE #16310 – VALIDATION RULE TO ALERT USER WHEN NO BILLING CODES ARE PRESENT

Previously, the RIS had a hard coded warning when there were no active billing codes for a procedure. Because the workflow for the above feature includes the possibility that some procedures will legitimately have no active billing codes at the time of scheduling or registration, the hard coded warning has been replaced with a validation rule that allows the customer to customize the timing for the warning (or change it to a hard stop if desired).

The original hard coded rule looked at procedure codes to see if any billing codes were mapped by the RIS administrators. The previous warning that stated: “There Are No Billing (CPT) Codes Mapped To This Procedure” has been removed and a new configurable rule has been added. The new rule does not look at Procedure/Billing Code mappings, but actually checks whether there are any studies that do not currently have billing codes attached.

The new rule will be enabled by default to replicate existing functionality.



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## FEATURE #16138 - VALIDATION RULES FRAMEWORK HAS BEEN EXTENDED TO CONSIDER TABLES

Validation rules can now be created based off of patient/exam information that exists in tables, such as associated insurance carriers, MRNs and attachments.

Using the enhanced capability, the following validation rules are now possible:

1. Ability to require that at least one insurance is added if Self Pay is not selected.
2. Ability to warn the user, or prevent them from continuing, if a particular issuer of MRN has not been added for the patient.
3. Ability to warn the user, or prevent them from continuing, if a particular scanned document type (such as Referral) is not associated to an order.

As with all validation rules, the timing of the warning or hard stop can be customized.

These are only a few examples of rules that can be created. Please contact eRAD Support to inquire about creating validation rules for your organization.

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## FEATURE #14171 – VALIDATION RULES CAN DISPLAY BASED ON PATIENT ALERTS

It is now possible to utilize Validation Rules to support custom logic based on Patient Alerts. Rules can be built to either allow or prevent an action in RIS based on whether a patient has a given Alert.

There are two types of rules that are now possible:

1. Prevent actions in RIS when a Patient Alert is present.
  - a. Example: Prevent scheduling if the patient has an Alert of “Lifetime Ban.”
2. Conditionally allow actions in RIS based on a Patient Alert.
  - a. Example: Prevent arriving a minor when the Responsible Party is “Self” unless the patient has an Alert of “Emancipated Minor.”

For example #1, it was previously only possible to alert a user that a patient had been banned from the facility. The Validation Rule will allow an administrator to actually **prevent** scheduling. When the rule is configured, the user will receive the usual Alert informing them of the ban. However, if they attempt to schedule anyway, the Validation Rule warning will display and will prevent them from scheduling the appointment.

For example #2, it is now possible to create a Validation Rule that does not apply to all types of patients. Previously, a rule requiring a Responsible Party other than Self for minors was not possible because there was no way to get around the rule for emancipated minors. Now a condition can be created that excludes patients with an Emancipated alert.

These are just examples of what is possible using the new Validation Rule functionality. If you are interested in setting up Validation Rules, please contact eRAD Support.

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## FEATURE #15150 – HARD-CODED CONTRAST AND CT DOSAGE REQUIREMENTS ARE NOW VALIDATION RULES

Previously, it was possible to require the technologist to enter Contrast and CT dose information, but the timing of the requirements could not be altered. Because the requirement was enforced at the time the technologist *started* the exam, many customers chose not to use the requirements (or to use Digital Forms instead) because the technologist could not know the information before starting the exam.

To allow more flexibility and a more practical approach, Contrast and CT Dosage requirements can now be controlled using Validation Rules, which will allow the timing of the requirement to be changed to when the technologist *completes* the exam (or any other desired point in the workflow). Custom validation rules have been created to reproduce the logic of the previously hard coded rules with the added flexibility to alter them according to preference.

At the time of the upgrade, your current configuration will be evaluated and the new Validation Rules will be applied accordingly with one exception: All rules will be enforced at the time the technologist **completes** the exam. This is done with the understanding that this will be the most common point at which customers will want to require this information, though this can be changed if desired. If you are not using this functionality today, the Validation Rules will be added with the upgrade but will be set to Inactive.

Please let eRAD Support know if you would like to start requiring either Contrast or CT Dose now that the more flexible framework is available. They can assist in getting this set up according to your needs.

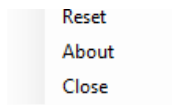
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## FEATURE #12141 – ABILITY TO VIEW THE CITRIX BRIDGE VERSION NUMBER

Previously, Citrix Bridge users did not have an option to view the current version number.

Changes have been made to the Citrix Bridge context menu to allow the user to access an “About” screen very similar to the RIS Help/About screen. This screen lists the version number and additional details.

Clicking the Citrix Bridge icon in the system tray will now open the following context menu:



Selecting the About option will bring up the following screen:

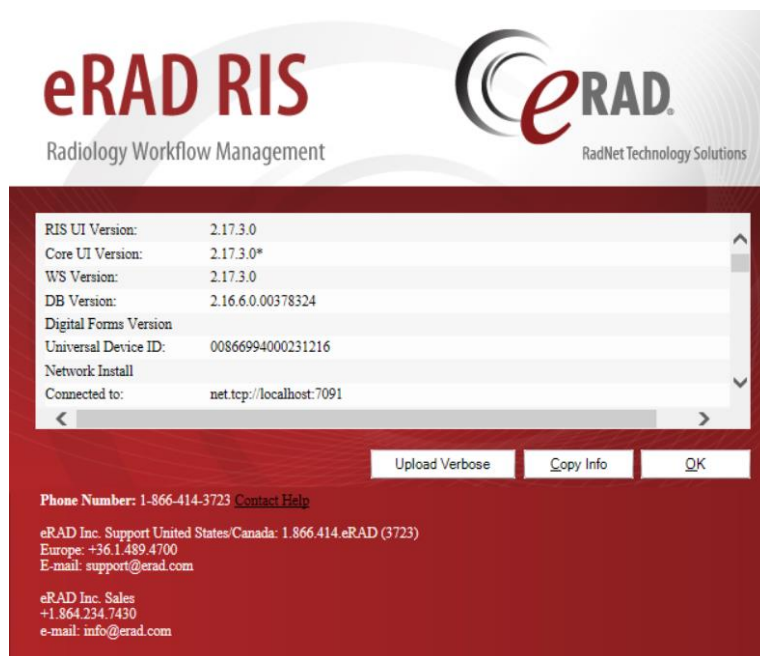


Note the Citrix Bridge Version on the first line. It is also possible to view the version number from within the *RIS* Help/About screen, provided that the Citrix Bridge is up and running.

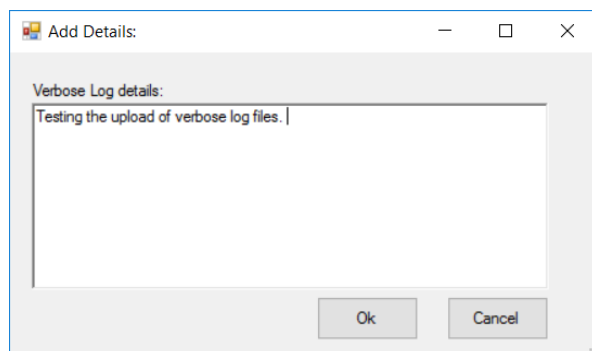
## FEATURE #14681 – UPLOAD A WORKSTATION’S VERBOSE FILES TO THE SERVER FROM HELP/ABOUT SCREEN

When troubleshooting an issue, eRAD Support often needs to view a workstation’s log files, referred to as “verbose files.” Previously, users had to follow instructions to navigate to the files in an Appdata\eRAD folder in order to find the files, then go to the trouble of sending them to Support. To make this process easier and allow eRAD Support to quickly access the information needed to troubleshoot an issue, it is now possible for a user to upload their verbose logs to the database by clicking a button on the Help/About screen.

The Help/About screen has a new button labeled “Upload Verbose.” If instructed by the eRAD Support team, all the user has to do is go to the Help screen and click the button.



The user will have the option to enter details regarding the reason the Verbose logs are being uploaded.



Upon clicking OK, the verbose files and a relative message log will be uploaded to the database, where the eRAD Support team can retrieve them. The verbose files are compressed when added to the database.

## FEATURE #16109 - RIS WILL PREVENT UPLOADING EXCESSIVELY LARGE FILES FOR LOGOS

Excessive file sizes can cause document distribution to fail, particularly for encrypted email reports. This can happen if the logo used on a report is too large. To prevent this from occurring, two new System Configuration settings have been created to indicate the maximum file size and the maximum file dimension. If an image or logo is uploaded that exceeds either of these settings, the user will be warned.

The new settings are as follows:

- **MaxLogoFileSize** – maximum number of bytes for image files uploaded for Practice or Site logos, as well as images uploaded via the ImageUploader configuration screen.
- **MaxLogoWidthOrHeight** – maximum number of pixels for Practice or Site logos, as well as images uploaded via the ImageUploader configuration screen.

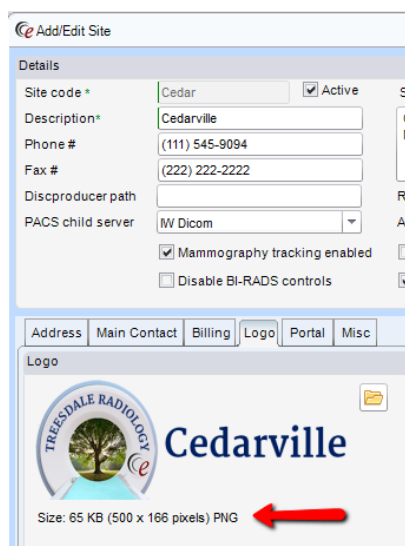


System Config Code	Value	Default	Desc
MaxLogoFileSize	250000	250000	(valu
MaxLogoWidthOrHeight	1000	1000	(valu

If either setting is exceeded when uploading an image, the upload will be prevented and the user will be presented with a warning displaying the maximum for the value that was exceeded:

- The selected image file must be less than 250,000 bytes.
- The selected image's width must be less than 1,000 pixels.
- The selected image's height must be less than 1,000 pixels.

A label has been added to the image preview window, so that file sizes and dimensions are visible for uploaded images. The file type is also listed.



## TECHNOLOGIST

### FEATURE #16292 – TECHNOLOGIST CAN NOW ADD ADDITIONAL EXAMS TO THE ORDER FROM PERFORM EXAM TAB

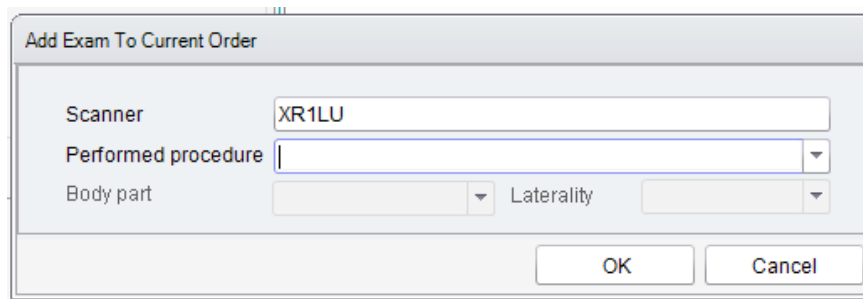
Technologists often need to add additional studies to the order when the patient is already on the table, after receiving feedback from the radiologist or upon realizing that the referral contains a separate exam that was not registered. Technologists need a method to add additional studies with fewer steps, as long as the study belongs to the same order (which would also necessitate the same referring physician and payment method).

To increase efficiency for this workflow, users can be granted a new access string named *Clinical.Tech.AllowAddExam*. The default for this access string is None. If set to Full, a technologist will have access to a new button on the Perform Exam tab labeled “Add exam to current order.” The button is located beneath the list of today’s exams at the top of the Perform Exam tab.

Patient: LEMARCHE, Carl #4747pm (2)		Perform Exam: LEMARCHE, Carl #4747pm x											
	Include	Flags	Status	Procedures	Scheduled Date	Referring	Sedation	Room	Accession #	STAT Read	STAT Exam	Modality Type	Ready To Read
	<input checked="" type="checkbox"/>		Arrived	XR Chest Min 4 Views [71030] - Chest	03-07-2017 13:35	Mac Donald, Dana60 96909		XR1LU	2781			XR	<input checked="" type="checkbox"/>
	<input type="checkbox"/>		Arrived	CT Head W & STN W [CT17] - Head	03-07-2017 13:05	Mac Donald, Dana60 96909		CT1LU	2782			CT	<input checked="" type="checkbox"/>
Add exam to current order													

Clicking the “Add exam to current order” button will allow the technologist to add a new exam to the currently selected Order without going through the registration process.

A new window will open for the technologist to select the procedure, along with Body Part and Laterality if applicable.



The dialog box titled "Add Exam To Current Order" contains the following fields:

- Scanner:** A text field with the value "XR1LU".
- Performed procedure:** A dropdown menu.
- Body part:** A dropdown menu.
- Laterality:** A dropdown menu.
- Buttons:** "OK" and "Cancel" buttons at the bottom right.

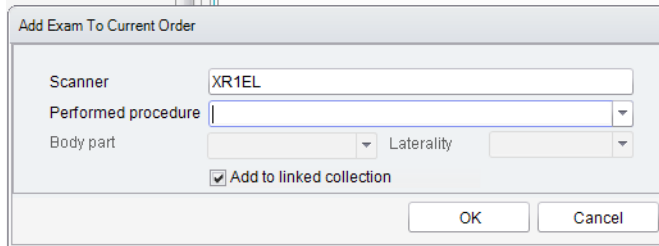
Currently, the scanner (room) is hard coded to match the same scanner as the existing procedure. In the next phase, this will be expanded to allow the technologist to select a different scanner.

The procedures available in the dropdown will include any procedure code that is part of the Schedule Group for the scanner.

Upon clicking OK, a new exam will be added to the existing order. The Date and Time will default to the current date and time, similar to a Walk In.



For customers using Linked Reports, another option will be available if the current study is part of a set of linked studies.

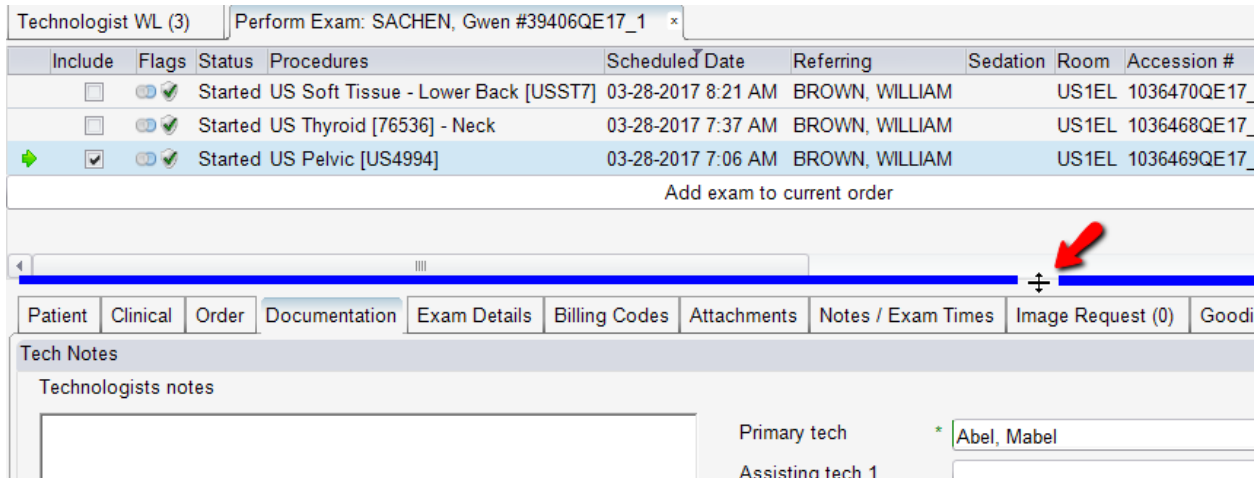


The dialog box titled "Add Exam To Current Order" contains the following fields and controls:

- Scanner: Text field with "XR1EL" entered.
- Performed procedure: Dropdown menu.
- Body part: Dropdown menu.
- Laterality: Dropdown menu.
- ☒ Add to linked collection
- OK button
- Cancel button

Checking the "Add to linked collection" checkbox will automatically add the new procedure to the linked set. RIS will set the linked id and display the linked flag for the new study. This box will be checked by default.

It has always been possible to adjust the height of the list of today's procedures at the top of the Perform Exam tab by hovering on the dividing line and click/dragging when the double arrow appears. RIS will now remember this position and re-open with the same height for the next patient.



The interface shows the "Perform Exam" tab for patient SACHEN, Gwen #39406QE17\_1. It includes a table of procedures and a section for adding exams to the current order.

Include	Flags	Status	Procedures	Scheduled Date	Referring	Sedation	Room	Accession #
<input type="checkbox"/>			Started US Soft Tissue - Lower Back [USST7]	03-28-2017 8:21 AM	BROWN, WILLIAM		US1EL	1036470QE17_
<input type="checkbox"/>			Started US Thyroid [76536] - Neck	03-28-2017 7:37 AM	BROWN, WILLIAM		US1EL	1036468QE17_
<input checked="" type="checkbox"/>			Started US Pelvic [US4994]	03-28-2017 7:06 AM	BROWN, WILLIAM		US1EL	1036469QE17_

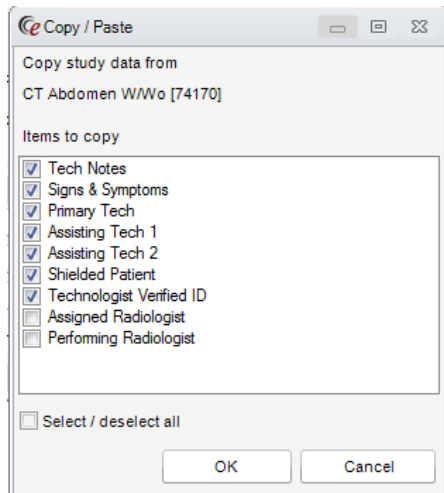
Below the table is a section titled "Add exam to current order" with a double-headed arrow icon and a red arrow pointing to it.

The interface also includes tabs for Patient, Clinical, Order, Documentation, Exam Details, Billing Codes, Attachments, Notes / Exam Times, Image Request (0), and Goodi. The "Tech Notes" section is visible, showing "Technologists notes" and fields for Primary tech (Abel, Mabel) and Assisting tech 1.

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FEATURE #16294 – COPY/PASTE FEATURE NOW INCLUDES “TECHNOLOGIST VERIFIED ID”

On the Perform Exam screen (Documentation tab), there is an option to Copy/Paste certain data elements to other included studies (via the Include checkbox). An option to include the “Technologist Verified ID” field in the Copy/Paste options has been added. This option will be checked by default.



## FEATURE #16293 – TECHNOLOGIST INFORMATION CAN AUTOMATICALLY COPY TO ALL LINKED STUDIES

When using the Linked Reporting feature, linked studies are not sent to the radiologist for dictation until all studies are completed by the technologist. For customers using linked reporting for exams that are performed on different days or in different modalities, it is preferable to prevent the radiologist from dictating before all of the images are available. However, for customers who routinely use Linked Reporting for multiple x-ray exams performed at the same time by the same technologist, this can cause workflow problems for linked reporting if the technologist forgets to complete one of the studies. In these environments, it is also desirable for certain information, such as primary technologist, technologist notes, and pregnancy status, to automatically copy to all of the studies that are part of the linked set.

For these purposes, the following System Configuration options are now available:

- *AutoIncludeLinkedStudiesForTech* – When set to True, RIS will automatically “include” all studies in a linked collection when the perform exam window is opened. This allows the technologist to Start and Complete all of the exams together. The default for this setting is False. In a future build, RIS will exclude studies in the linked collection if they have a different Modality Type. For this first phase, this behavior will apply to all studies in the linked collection **regardless** of Modality Type.
- *AutoCopyPasteLinkedStudies* – When set to True, RIS will automatically copy/paste all available fields from the most recently saved exam to all other checked exams in the linked collection. The Copy/Paste will occur any time a user saves any of the studies in the linked set from the Perform Exam screen. The default for this setting is False. To use this setting, the first setting, *AutoIncludeLinkedStudiesForTech*, must also be set to True.

Setting both of the above System Configuration settings to True will make the following workflow possible:

The technologist can open a study from the Technologist worklist and other studies that are part of the linked set will automatically be Included.

Include	Flags	Status	Procedures	S
<input type="checkbox"/>		Arrived	MA DIGITAL MAMMO CB DIAG BIL & US BREAST [G0204...	0
<input checked="" type="checkbox"/>		Arrived	CT Chest W & Abdomen W/Wo [CT42] - Chest	0
<input checked="" type="checkbox"/>		Arrived	CT Chest W [71260] - Chest	0

The technologist can fill in any fields that are required upon Start (e.g. entering the Primary Technologist). Clicking Start will copy the information to all of the checked studies and all of the studies will move to Started status.

<input checked="" type="checkbox"/>			Started	KR TIBIA FIBULA 2 VIEWS [73590] - Leg
<input checked="" type="checkbox"/>			Started	KR KNEE 1-2 VIEWS, UNILAT [73560] - K
<input checked="" type="checkbox"/>			Started	KR FEMUR 2 VIEWS [73550] - Leg

Additional information can be added on the Documentation tab and upon the next action which includes a save, such as Complete, Suspend or Save, the fields will copy to all of the included exams that are part of the linked set.

Fields that will be copied include: Tech Notes, Signs & Symptoms, Primary Tech, Assisting Tech 1, Assisting Tech 2, Shielded Patient, Pregnancy Status information, Technologist Verified ID, Assigned Radiologist, and Performing Radiologist. These are the same fields that are available for manual (optional) copy/paste workflow, which is still available for customers who would not benefit from this new feature.

Please note that when the new feature is used, it is not possible to handle any of the linked studies separately. In other words, they cannot be de-selected from the Include workflow if they are part of the linked set.

## RADIOLOGIST

### FEATURE #15107 – DECREASED LIKELIHOOD THAT A RADIOLOGIST COULD SELF-REVIEW A LEGACY STUDY

Typically, imported legacy studies do not contain a User ID for dictating, signing, or contributing radiologists. This can cause an issue for Peer Review because RIS does not identify that Sue Smith without a User ID is actually the same person as Sue Smith with User ID smiths. This lack of recognition means that eRAD RIS would allow the radiologist to review their own legacy study, which is not appropriate.

To decrease the likelihood of this issue for legacy reports, new logic has been added that will evaluate the first and last names of the involved radiologists when there is no User ID available for comparison.

If the name of any radiologist for the legacy study contains both the first and last name of the current user, eRAD RIS will disable Peer Review. While this can lead to some amount of false positives or negatives, it will greatly reduce the risk of a radiologist doing peer review inappropriately.

Data migrations typically insert the full name of the radiologist into the applicable fields without any manipulation of that name (e.g. attempts to parse out what is first or last name or suffix, etc.). Therefore, the names can be found in any order when evaluating for a match. If a radiologist name was imported as Dr. Kate Ellington or Ellington, Kate, M.D. or Kate Ann Ellington, the match will still be made because each contains the current user's first name (Kate) and last name (Ellington) somewhere in the field.

As mentioned above, it is possible to have false negatives and false positives with this strategy. For example, if Kate Ellington and Katerina Ellington are two different doctors, Kate will be prevented from peer reviewing Katerina's legacy studies because the name Katerina contains the name Kate. This would be a false positive. If Sheila Warring was listed in the legacy system with her maiden name Sheila Thomas, eRAD RIS would not catch the match, which would lead to a false negative and Dr. Sheila would be permitted to review her own legacy report.

Despite the potential for some amount of discrepancy, this change will drastically reduce the potential for an inappropriate Peer Review. If it is identified that a mismatch is occurring (either a false negative or false positive) for a particular radiologist, this can be addressed by running a script to add the current user's User ID to the legacy studies.

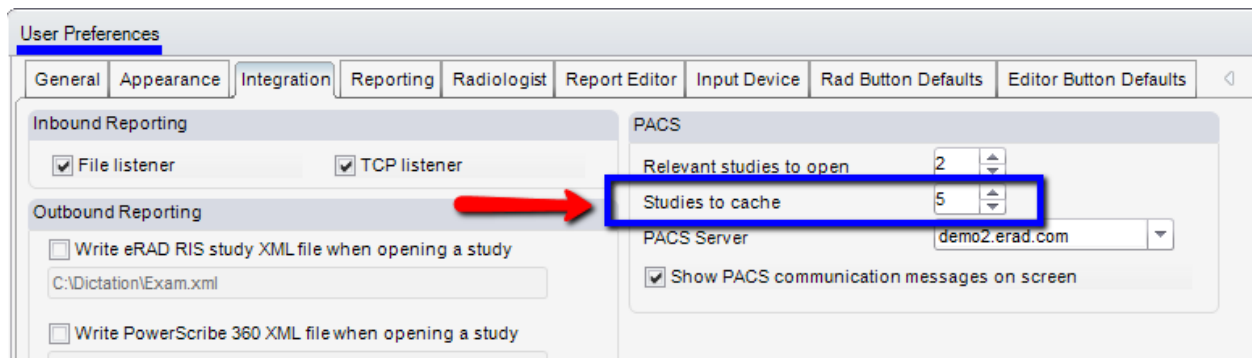
## FEATURE #15330 – IMPROVEMENTS TO MANUAL CACHING AND CACHING WORKLIST VIEWS

Three important changes related to the caching of PACS images on the Pending Dictation worklist have been added with this feature.

1. Improvements have been made to selecting studies for manual caching.
2. It is now possible to toggle automatic caching on and off.
3. Custom views on Worklists can be created with a setting to either include or exclude caching.

Previously, when studies were selected for manual caching, the manual request would override the studies that were supposed to automatically cache. Now, the manual cache requests will be added *in addition* to the automatic PACS requests.

Some new settings are also in place for the number of studies that can be manually cached. The user will be allowed to manually cache the same number of studies as their user preference for automatic study caching.



In other words, if the user preference is configured to allow 5 studies to be automatically cached, as illustrated in the above screenshot, the user will be able to add an additional 5 studies manually to the cache list for a maximum total of 10 cached studies.

If the user selects more than their allowed number of studies for manual caching, the newest requests will be cached and will bump the oldest manual requests off the list of studies to cache, so that the number of manual studies to be cached is not higher than their limit. Depending on the timing, the oldest manual requests may have already finished caching.

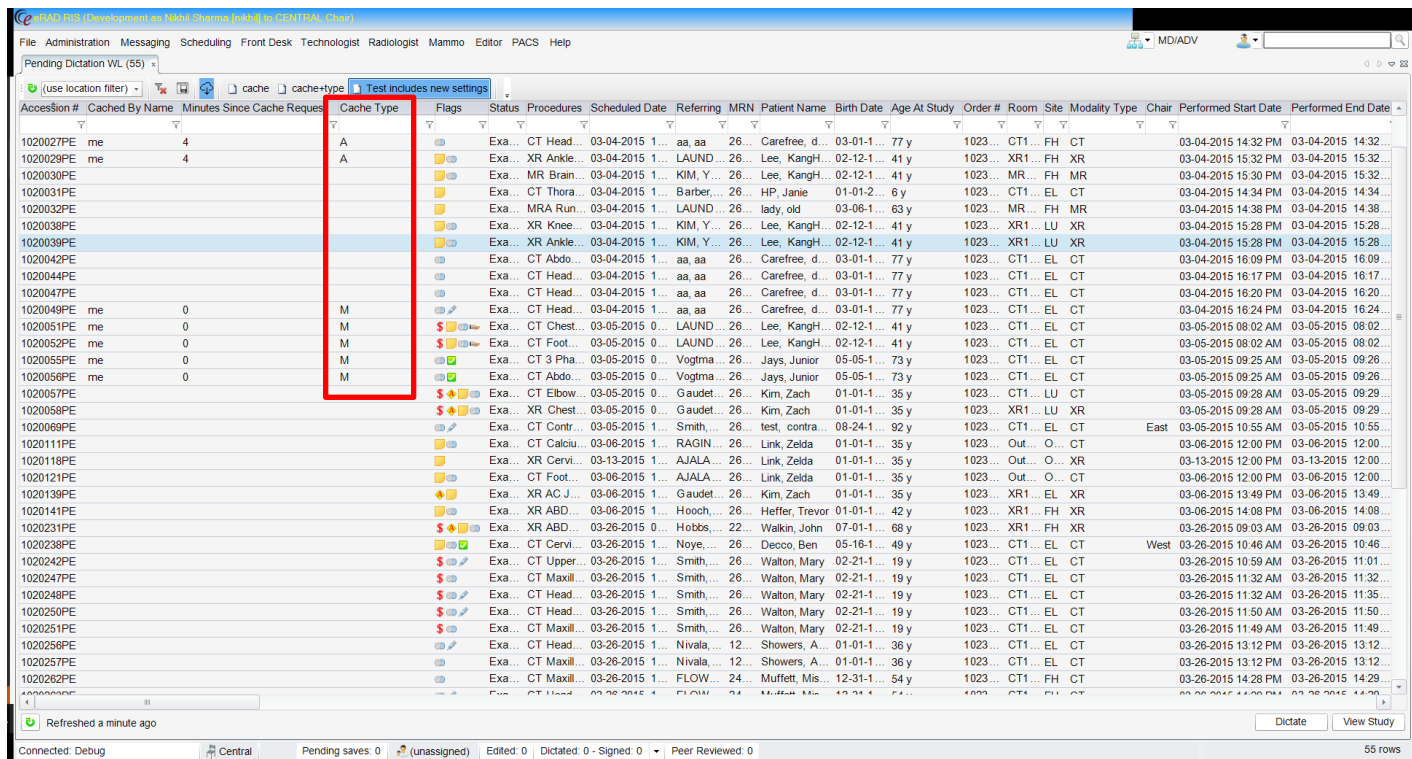
For example, consider the following scenario:

- Dr. Ko has a user preference for Studies to Cache = 5.
- She opens the Pending Dictation WL and the first 5 studies begin to cache automatically.
- She selects 5 additional studies to manually cache, using the existing context menu item “Add to PACS Cache.”

- After some time elapses, Dr. Ko selects 2 additional studies for manual caching. She has now exceeded her allowed number of studies to manually cache. The two oldest manual cache requests will be cleared, though in this example, they have already finished caching.
  - ~~Manual Cache #1~~ - Complete
  - ~~Manual Cache #2~~ - Complete
  - Manual Cache #3 - Complete
  - Manual Cache #4
  - Manual Cache #5
  - Manual Cache #6
  - Manual Cache #7

When the user selects more than their allowed number of studies, a notification will inform the radiologist that the list has been modified and the studies that were added. The notification style message does not need to be acknowledged by the user.

A new column has been added to display which studies have been selected for caching, with an A to indicate Automatic Caching and an M to indicate Manual Cache requests.



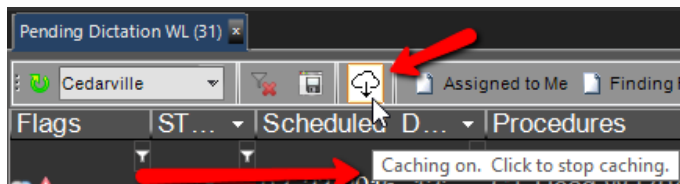
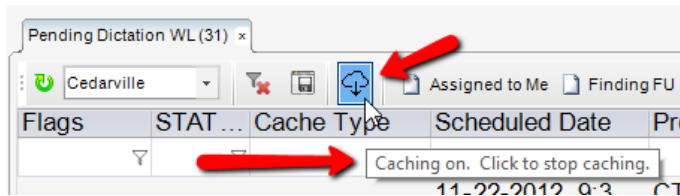
Accession #	Cached By Name	Minutes Since Cache Request	Cache Type	Flags	Status	Procedures	Scheduled Date	Referring	MRN	Patient Name	Birth Date	Age At Study	Order #	Room	Site	Modality Type	Chair	Performed Start Date	Performed End Date
1020027PE	me	4	A			Exa... CT Head...	03-04-2015 1...	aa, aa	26...	Carefree, d...	03-01-1...	77 y	1023...	CT1...	FH	CT		03-04-2015 14:32 PM	03-04-2015 14:32
1020029PE	me	4	A			Exa... XR Ankle...	03-04-2015 1...	LAUND...	26...	Lee, KangH...	02-12-1...	41 y	1023...	XR1...	FH	XR		03-04-2015 15:32 PM	03-04-2015 15:32
1020030PE						Exa... MR Brain...	03-04-2015 1...	KIM, Y...	26...	Lee, KangH...	02-12-1...	41 y	1023...	MR...	FH	MR		03-04-2015 15:30 PM	03-04-2015 15:32
1020031PE						Exa... CT Thora...	03-04-2015 1...	Barber...	26...	HP, Janie	01-01-2...	6 y	1023...	CT1...	EL	CT		03-04-2015 14:34 PM	03-04-2015 14:34
1020032PE						Exa... MRA Run...	03-04-2015 1...	LAUND...	26...	lady, old	03-06-1...	63 y	1023...	MR...	FH	MR		03-04-2015 14:38 PM	03-04-2015 14:38
1020038PE						Exa... XR Knee...	03-04-2015 1...	KIM, Y...	26...	Lee, KangH...	02-12-1...	41 y	1023...	XR1...	LU	XR		03-04-2015 15:28 PM	03-04-2015 15:28
1020039PE						Exa... XR Ankle...	03-04-2015 1...	KIM, Y...	26...	Lee, KangH...	02-12-1...	41 y	1023...	XR1...	LU	XR		03-04-2015 15:28 PM	03-04-2015 15:28
1020042PE						Exa... CT Abdo...	03-04-2015 1...	aa, aa	26...	Carefree, d...	03-01-1...	77 y	1023...	CT1...	EL	CT		03-04-2015 16:09 PM	03-04-2015 16:09
1020044PE						Exa... CT Head...	03-04-2015 1...	aa, aa	26...	Carefree, d...	03-01-1...	77 y	1023...	CT1...	EL	CT		03-04-2015 16:17 PM	03-04-2015 16:17
1020047PE						Exa... CT Head...	03-04-2015 1...	aa, aa	26...	Carefree, d...	03-01-1...	77 y	1023...	CT1...	EL	CT		03-04-2015 16:20 PM	03-04-2015 16:20
1020049PE	me	0	M			Exa... CT Head...	03-04-2015 1...	aa, aa	26...	Carefree, d...	03-01-1...	77 y	1023...	CT1...	EL	CT		03-04-2015 16:24 PM	03-04-2015 16:24
1020051PE	me	0	M			Exa... CT Chest...	03-05-2015 0...	LAUND...	26...	Lee, KangH...	02-12-1...	41 y	1023...	CT1...	EL	CT		03-05-2015 08:02 AM	03-05-2015 08:02
1020052PE	me	0	M			Exa... CT Foot...	03-05-2015 0...	LAUND...	26...	Lee, KangH...	02-12-1...	41 y	1023...	CT1...	EL	CT		03-05-2015 08:02 AM	03-05-2015 08:02
1020055PE	me	0	M			Exa... CT 3 Pha...	03-05-2015 0...	Vogtma...	26...	Jays, Junior	05-05-1...	73 y	1023...	CT1...	EL	CT		03-05-2015 09:25 AM	03-05-2015 09:26
1020056PE	me	0	M			Exa... CT Abdo...	03-05-2015 0...	Vogtma...	26...	Jays, Junior	05-05-1...	73 y	1023...	CT1...	EL	CT		03-05-2015 09:25 AM	03-05-2015 09:26
1020057PE						Exa... CT Elbow...	03-05-2015 0...	Gaudet...	26...	Kim, Zach	01-01-1...	35 y	1023...	CT1...	LU	CT		03-05-2015 09:28 AM	03-05-2015 09:29
1020058PE						Exa... XR Chest...	03-05-2015 0...	Gaudet...	26...	Kim, Zach	01-01-1...	35 y	1023...	XR1...	LU	XR		03-05-2015 09:28 AM	03-05-2015 09:29
1020069PE						Exa... CT Contr...	03-05-2015 1...	Smith...	26...	test, contra	08-24-1...	92 y	1023...	CT1...	EL	CT	East	03-05-2015 10:55 AM	03-05-2015 10:55
1020111PE						Exa... CT Calcii...	03-06-2015 1...	RAGIN...	26...	Link, Zelda	01-01-1...	35 y	1023...	Out...	O...	CT		03-06-2015 12:00 PM	03-06-2015 12:00
1020118PE						Exa... XR Cervi...	03-13-2015 1...	AJALA...	26...	Link, Zelda	01-01-1...	35 y	1023...	Out...	O...	XR		03-13-2015 12:00 PM	03-13-2015 12:00
1020121PE						Exa... CT Foot...	03-06-2015 1...	AJALA...	26...	Link, Zelda	01-01-1...	35 y	1023...	Out...	O...	CT		03-06-2015 12:00 PM	03-06-2015 12:00
1020139PE						Exa... XR AC J...	03-06-2015 1...	Gaudet...	26...	Kim, Zach	01-01-1...	35 y	1023...	XR1...	EL	XR		03-06-2015 13:49 PM	03-06-2015 13:49
1020141PE						Exa... XR ABD...	03-06-2015 1...	Hooch...	26...	Heffer, Trevor	01-01-1...	42 y	1023...	XR1...	FH	XR		03-06-2015 14:08 PM	03-06-2015 14:08
1020231PE						Exa... XR ABD...	03-26-2015 0...	Hobbs...	22...	Walkin, John	07-01-1...	68 y	1023...	XR1...	FH	XR		03-26-2015 09:03 AM	03-26-2015 09:03
1020238PE						Exa... CT Cervi...	03-26-2015 1...	Noye...	26...	Decco, Ben	05-16-1...	49 y	1023...	CT1...	EL	CT	West	03-26-2015 10:46 AM	03-26-2015 10:46
1020242PE						Exa... CT Upper...	03-26-2015 1...	Smith...	26...	Walton, Mary	02-21-1...	19 y	1023...	CT1...	EL	CT		03-26-2015 10:59 AM	03-26-2015 11:01
1020247PE						Exa... CT Maxill...	03-26-2015 1...	Smith...	26...	Walton, Mary	02-21-1...	19 y	1023...	CT1...	EL	CT		03-26-2015 11:32 AM	03-26-2015 11:32
1020248PE						Exa... CT Maxill...	03-26-2015 1...	Smith...	26...	Walton, Mary	02-21-1...	19 y	1023...	CT1...	EL	CT		03-26-2015 11:32 AM	03-26-2015 11:35
1020250PE						Exa... CT Head...	03-26-2015 1...	Smith...	26...	Walton, Mary	02-21-1...	19 y	1023...	CT1...	EL	CT		03-26-2015 11:50 AM	03-26-2015 11:50
1020251PE						Exa... CT Head...	03-26-2015 1...	Smith...	26...	Walton, Mary	02-21-1...	19 y	1023...	CT1...	EL	CT		03-26-2015 11:49 AM	03-26-2015 11:49
1020256PE						Exa... CT Head...	03-26-2015 1...	Nivala...	12...	Showers, A...	01-01-1...	36 y	1023...	CT1...	EL	CT		03-26-2015 13:12 PM	03-26-2015 13:12
1020257PE						Exa... CT Maxill...	03-26-2015 1...	Nivala...	12...	Showers, A...	01-01-1...	36 y	1023...	CT1...	EL	CT		03-26-2015 13:12 PM	03-26-2015 13:12
1020262PE						Exa... CT Maxill...	03-26-2015 1...	FLOW...	24...	Muffett, Mis...	12-31-1...	54 y	1023...	CT1...	FH	CT		03-26-2015 14:26 PM	03-26-2015 14:29

The user can remove a cache request by right-clicking the study and choosing the context menu option “Remove from Cache.”

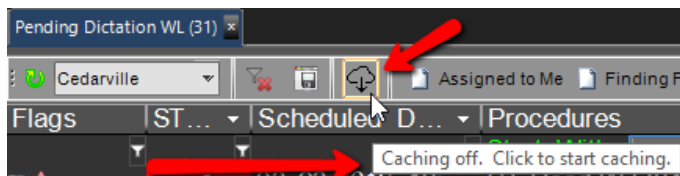
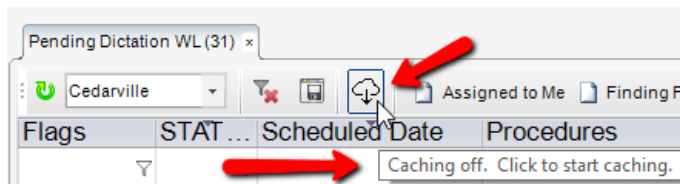
The next important part of this feature is the ability to turn caching on or off using a new Caching button. This button can be toggled on or off at the user’s discretion. The background color of the button will change when

caching is turned on. Additionally, there is a tooltip that will describe the current setting. The images below illustrate the button in Caching On and Caching Off states, for light and dark modes.

#### Caching On:



#### Caching Off:



This toggle button will turn off **automatic** caching; however, the user is still able to add Manual Cache requests by right-clicking a study and selecting the “Add to PACS cache” context menu item.

Note that this Caching toggle button will not be available if the User Preference for Studies to Cache is set to 0. Users with this setting will also not have the option to manually add to cache. Therefore, if the user prefers not to use Automatic Caching but would like to manually cache, they should set the Studies to Cache preference to be greater than 0, then toggle off the Cache button. This will allow the user to select studies to manually cache without any automatic caching.

Another advantage to the new caching feature is that the Custom Views on worklists will now save the status of the Caching toggle button. This allows users to determine whether caching is used or not for a particular list. As a simple example, a user can have a main Custom View with automatic caching turned on and a secondary Custom View with caching turned off. In this case, the user can periodically switch from their main Custom View to check



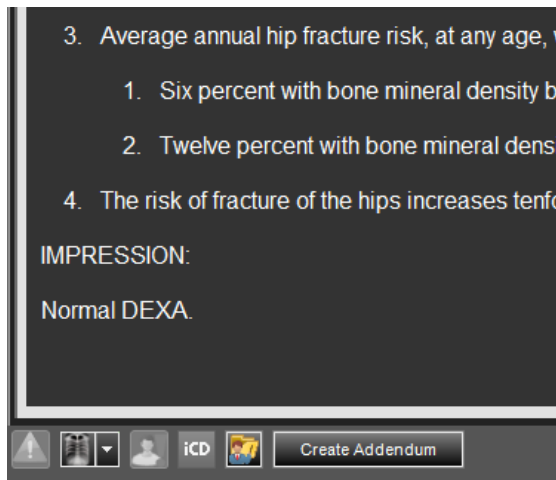
the secondary Custom View without any changes to their list of studies to cache. The studies from the main Custom View will continue caching while the user is on the secondary view.

Any Custom Views that were saved prior to the upgrade will automatically include a Caching On status, assuming the user has more than 0 studies configured to cache. To adjust, the user can turn the toggle to the OFF status, right-click the Custom View button, then select Overwrite. This will update the Custom View so that caching will be turned off.

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## FEATURE #15696 – CREATE AN ADDENDUM FROM THE VIEW STUDY SCREEN

The recently added **View Study** screen replicates the radiologist dictation screen in a “view only” mode. One of the advantages of this screen is that it allows radiologists to view Signed studies without initiating an addendum. However, there are times when a radiologist may find it necessary to complete an addendum when viewing studies in this mode. Closing the View Study screen and re-opening in Dictate mode is not efficient, so a **Create Addendum** button has been added to the View Study screen.



The Create Addendum button is in the bottom left corner of the screen, next to the Folders button. Clicking this button will automatically reload the screen in addendum mode and will **not** show the prompt asking if the radiologist wishes to make an addendum.

If an addendum has been requested for the study, the Addendum Request notes will be displayed in a pop-up message.

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## FEATURE #10975 – ACCURATE AUDIO LENGTH IN WORKLIST COLUMNS

In some cases, previous audio length columns on various worklists did not precisely reflect the length of the dictation recording.

In order to correct this issue, a property was created for all recording systems: M\*Modal Interactive, M\*Modal Batch and eRAD Batch. This property will return the actual length of the audio file as recognized by the recording system. The value will update each time a radiologist inserts or otherwise updates the audio recording. The value is then converted from milliseconds to a display format of hh:mm:ss.

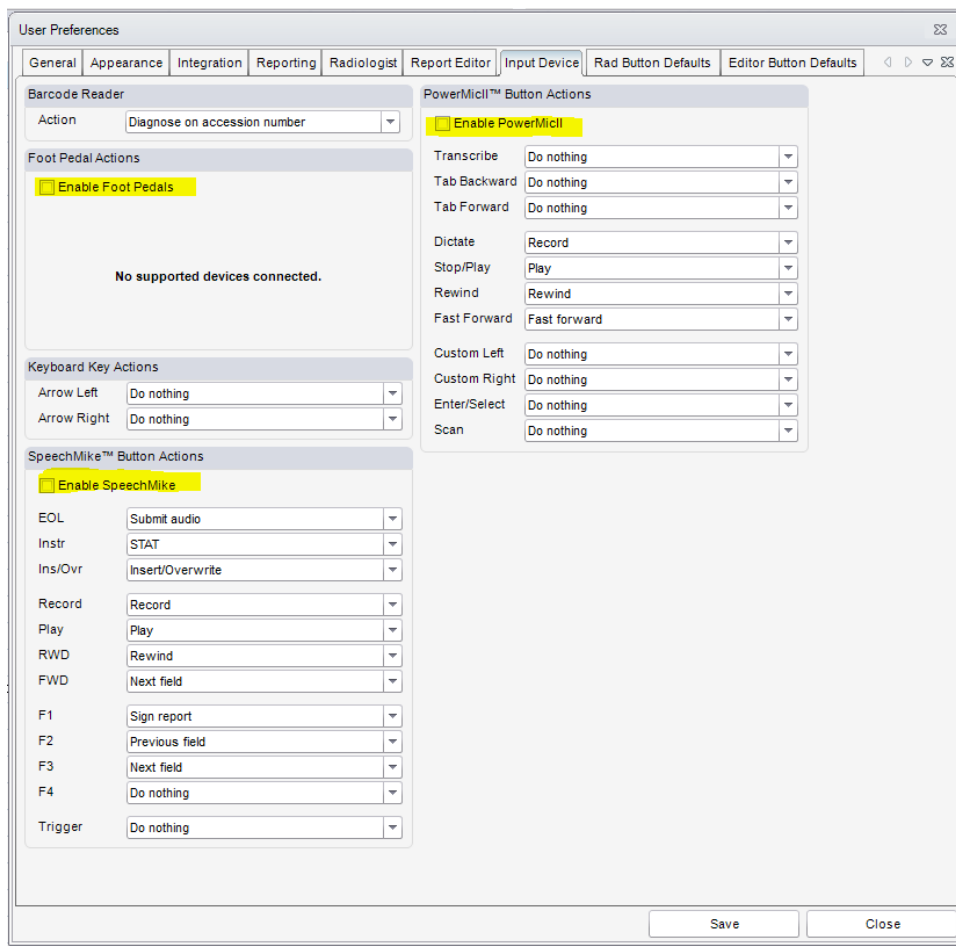
Audio Size (bytes)	Audio Length
933122	00:00:42
483822	00:00:21
452940	00:01:59

All worklists that previously displayed audio length in *bytes* have been updated to show both the Audio Size in bytes as well as the Audio Length in a format of hh:mm:ss.

Only audio files that are dictated after the upgrade to version 2.2017.3 will be shown in the new format. Dictations recorded prior to the upgrade will be displayed in their original format.

## FEATURE #17458 – USER PREFERENCES TO DISABLE INPUT DEVICES

User preferences were added to allow disabling the Input Devices. The checkboxes illustrated below on the Input Device tab of the User Preferences screen control whether the device is enabled or disabled.



The screenshot shows the 'User Preferences' dialog box with the 'Input Device' tab selected. The dialog contains several sections for configuring input devices:

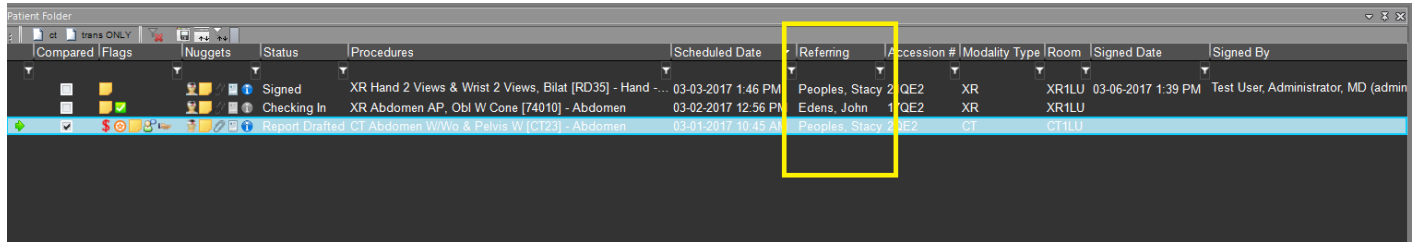
- Barcode Reader:** Action: Diagnose on accession number.
- Foot Pedal Actions:** ☒ Enable Foot Pedals. Below this, it says 'No supported devices connected.'
- Keyboard Key Actions:** Arrow Left: Do nothing; Arrow Right: Do nothing.
- SpeechMike™ Button Actions:** ☒ Enable SpeechMike. Below this, various buttons are mapped to actions: EOL (Submit audio), Instr (STAT), Ins/Ovr (Insert/Overwrite), Record (Record), Play (Play), RWD (Rewind), FWD (Next field), F1 (Sign report), F2 (Previous field), F3 (Next field), F4 (Do nothing), and Trigger (Do nothing).
- PowerMic™ Button Actions:** ☒ Enable PowerMic. Below this, various buttons are mapped to actions: Transcribe (Do nothing), Tab Backward (Do nothing), Tab Forward (Do nothing), Dictate (Record), Stop/Play (Play), Rewind (Rewind), Fast Forward (Fast forward), Custom Left (Do nothing), Custom Right (Do nothing), Enter/Select (Do nothing), and Scan (Do nothing).

At the bottom of the dialog are 'Save' and 'Close' buttons.

Note: “Enable Foot Pedals” and “Enable SpeechMike” are essentially the same. They will stay in sync and control what is essentially one user preference. However these were created as separate preferences because if the user is not a radiologist, they will not have access to the SpeechMike group box. Separating the preferences in this way will ensure that users are able to see and set the preference regardless of their exact role.

## FEATURE #15643 – REFERRING COLUMN ADDED TO MINI-PATIENT FOLDER ON REPORTING SCREEN

The referring physician is now visible in the mini-Patient Folder panel on the Reporting screen with the addition of a Referring column. This will benefit radiologists who wish to see which doctor referred prior studies without having to look at the Selected Summary panel for each study.

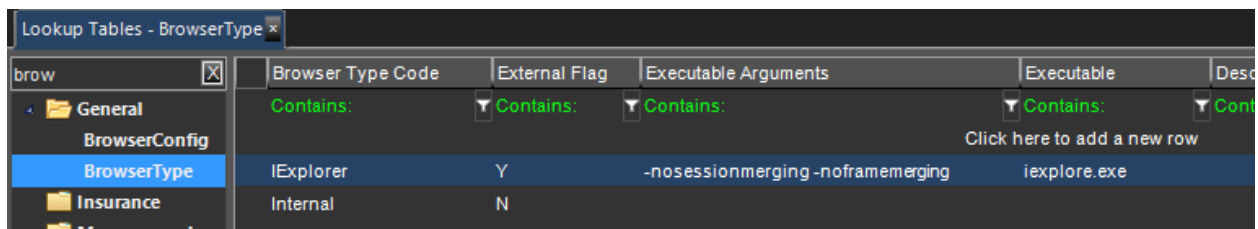


Compared	Flags	Nuggets	Status	Procedures	Scheduled Date	Referring	Accession #	Modality Type	Room	Signed Date	Signed By
			Signed	XR Hand 2 Views & Wrist 2 Views, Bilat [RD35] - Hand	03-03-2017 1:46 PM	Peoples, Stacy	QE2	XR	XR1LU	03-06-2017 1:39 PM	Test User, Administrator, MD (admin)
			Checking In	XR Abdomen AP, Obl W Cone [74010] - Abdomen	03-02-2017 12:56 PM	Edens, John	QE2	XR	XR1LU		
			Report Drafted	CT Abdomen W/Wo & Pelvis W [C723] - Abdomen	03-01-2017 10:45 AM	Peoples, Stacy	QE2	CT	CT1LU		

## FEATURE #15812 - ALLOW RADIOLOGIST PORTAL FEATURE TO LAUNCH URLS IN EXTERNAL BROWSERS (SUPPORT GE ZFP USING THE PORTAL SCREEN)

Previously, the Portal panel that appears on the radiologist Dictation screen only used the internal .net WebBrowser object for opening pages. This does not support all of the websites customers wish to open using the Portals feature. For example, certain websites, such as the GE Zero Footprint Viewer, require a full Internet Explorer 11 or a modern browser like Firefox or Chrome. eRAD RIS can now support launching and closing pages in external web browsers for the Portal feature.

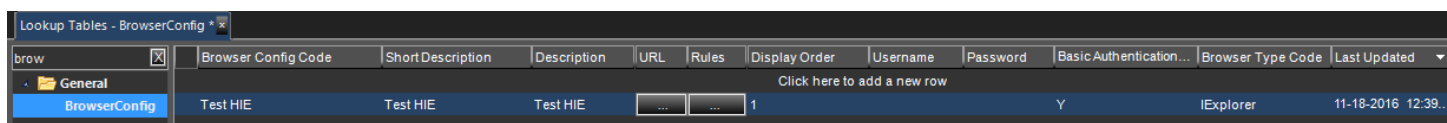
First, an administrator can add browser types to a new look-up editor labeled *Browser Type*. There are two default entries in the browser type table. One is for the Internal browser, which is the same method previously used to display Portals in the panel within the Dictation screen. The second is Internet Explorer, launched in unshared frame and session modes. Additional browsers can be added. The *External* flag should be Y if the browser is not the default internal browser.



Browser Type Code	External Flag	Executable Arguments	Executable	Description
IExplorer	Y	-nosessionmerging -noframemerging	iexplore.exe	
Internal	N			

In order for an administrator to access the Browser Type lookup editor, the new access string *Config.LookupEditor.BrowserType* must be set to Full.

The existing *Browser Config* editor has been updated to allow any of the Browser Types to be selected from a dropdown menu.



Browser Config Code	Short Description	Description	URL	Rules	Display Order	Username	Password	Basic Authentication	Browser Type Code	Last Updated
Test HIE	Test HIE	Test HIE			1			Y	IExplorer	11-18-2016 12:39:00

For each URL defined in the Browser Config editor, the corresponding Browser Type will be used when the portal is opened.

Whenever the Browser Type for a Portal's URL is an External browser, the Portal tab in the Dictation screen will begin with an [EXT] label. Clicking on the panel will simply provide the user with a message that the page for the portal has been opened in an external browser. Additionally, when the tab is clicked, RIS will attempt to move the related browser to the front of all windows.

It should be noted that an administrator will need to configure the browser of choice to run in single window/session per URL mode in order for the “bring to front” functionality to apply. It will not work with shared sessions or windows.

## RESOLVED DEFECTS

Bugs and support issues resolved in build 2.2017.3.

### eRAD RIS:

Bug #	Category	Subject
14218		Resolved issue where configuration Editor did not properly handle null values.
15460		Resolved issue where a RIS failure on exit would prevent the uploading of trace data.
7459		Updated log control's border to more closely match other RIS controls.
15855	Access strings	Added access string for CTRN (Clinical.Ctrn).
15481	Admin-Clinical Data	Procedure Picker Import tool now correctly selects only active items.
15309	Admin-Other	Resolved small memory leak in reporting options editor.
2151	Admin-Other	Updated many audit log "action" values to be more descriptive.
6840	Admin-Other	Improved error handling when a holiday was entered without specifying a practice.
7594	Admin-Other	Internal person search now correctly bolds the first resource type for the person.
7965	Admin-Other	Add/Edit practice - Delete Logo button is now only enabled when there is a logo to delete.
8181	Admin-Other	Resolved issue for which doing a person search, receiving no results, then pressing enter would display an error.
12944	Admin-Other	In organization editor, the map will now display the location of the site without needing to first click on the map.
15550	Admin-Other	Updated procedure plan lookup to allow apostrophes in any of the fields.
13554	Billing	Resolved billing exception issue where patient phone # was required, and the user had to post twice to get it to resolve.
16497	CCDA	All administered medications are now added to CCDA.
11157	CD Import	Import CD - If the study fails to import because the study was already in PACS, RIS no longer creates a blank row in the patient folder.
14321	CD Import	Loading from CD progress bar is no longer cut off in Windows 10.



16348	CD Import	Upgraded to the latest fo-dicom toolkit (used for CD Import).
15742	CEHRT	Get automated measures report now returning patient portal(vdt) numerator.
16285	CEHRT	Fixed incorrect tool tip for sexual orientation field.
16751	CEHRT	Added appropriate SNOMED codes to the l_gender_identity and l_sexual_orientation lookups using the 2015 US SNOMED codes.
15546	Citrix Bridge	LOG FILE reader- Resolved issue when using Citrix bridge where log file reader would continually add the same information including the same time when refreshed.
15731	Citrix Bridge	Citrix Bridge - Uninstaller now removes reference to VcCom API.
16770	Citrix Bridge	Resolved error when launching Citrix Bridge.exe.
15727	Citrix Bridge	Citrix Bridge - Updated the manufacturer code to 'eRAD.'
15730	Citrix Bridge	Citrix Bridge - Changed the default icon so that it can be placed on the desktop and not confused with eRAD RIS.
15841	Citrix Bridge	Citrix only - Issue corrected where PACS Login window could appear behind RIS.
16160	Client Install	Help - About screen is now showing the correct CORE UI version.
16314	Client Login	User_ID can now exceed 20 characters.
14815	Connect Portal - Referring Ordering/Scheduling	Added ability to view the order details from an Order that is Pending Approval or Order Drafted in the patient folder.
15552	CTRM	Resolved issue where CTRM dialog would remain open when PowerScribe 360 issued a close command to RIS.
13490	CTRM	Corrected issue where close button on Critical Result window would not work.
15077	Digital Forms	Resolved issue where cancelling an exam with the Red X would not remove the associated digital form.
15538	Digital Forms	Resolved issue where digital form data was not saving if preceded by validation failure.
15983	Digital Forms	Corrected condition where digital forms could silently fail to save data.
16336	Digital Forms	Digital Forms Import/Export tool now copies new grid tables.
16725	Document Distribution	Resolved intermittent error when trying to Start / Retry job in Distribution History by Date WL.
16120	Exam Search	Resolved intermittent "DoSearch" error in the Exam search screen.

14338	Exam Search	Exam search screen has dropdowns for multiple 'id' fields - these fields would sometimes have what appeared to be identical values.
15468	Flags	Resolved intermittent issue where eligibility flag tooltip was stuck in "In Progress."
15879	ICD	Resolved issue where ICD codes could vanish from Medical History Grid when pressing Start on Perform Exam screen.
15804	Image Request	Resolved issue where changing the image request status for studies in Exam Done status produced an error that 'Signs and Symptoms' is required.
15208	Inbound Document Processing	Attach Inbound Document "Your lock was broken by another user" message will now only appear when the user is focused on the Attach Inbound Document window.
16040	Inbound Document Processing	Resolved issue where selecting an action button when a locked row was highlighted would throw a 'no row at position 0' error.
16406	Inbound Document Processing	Inbound Document workflow now supports both .TIF and .TIFF files.
15488	Installer	Prevented situation where the installer can be invoked more than once, which will intermittently produce a corrupt zip file error message.
13940	Insurance Eligibility	Improved error handling on misconfigured EligibilitySpecialCondition values.
7468	Insurance Eligibility	Eligible API checked studies are now not appearing on the IVT work list.
8616	Insurance Eligibility	Plan end date: date of service now includes that day.
16602	IVT / Precert	IVT - Corrected error when opening an item 'Ordered' status.
15409	Localization	Localized the Critical Results screen.
15325	Localization	Updated customer requested changes to Hebrew localization.
15383	Localization	Localized several missed fields in the dictation window.
10321	Localization	In Hebrew, add/edit region dialog box says Add/Edit Site in the title bar.
12520	Localization	Corrected issue in Right to Left mode, in the drawing tool - the yellow X icon did not have padding between it and the radio button.
14538	Localization	In the Hebrew RIS, DOB is now localized.
16778	Localization	In Hebrew, the localization of Height and Weight have been corrected.
16167	Locking	Creating a Critical Result will no longer lock the entire order.

16106	Log Control	Log Control with spellcheck enabled will no longer identify the user_id as a typo.
16481	Log Control	Resolved issue where typing beyond visible boundaries in a text box would cause the cursor to disappear.
15853	Logging	Corrected issue where trace files appeared on c:\ instead of their proper location.
15959	Lookup Tables	Corrected issue where System Config value 'UMPDefaultOrderTabCriteria' would not save.
8569	Mammography	Mammo drawing tool - Breast diagram does not change between male and female templates if the sex is altered after the drawing tool is initially opened.
14518	Management Reports	Payments Received report now works with site codes containing a dash '-'.
15294	Management Reports	Updated Mammo Annual Radiologist Summary to support future years.
15808	Management Reports	Removed an old MU Archive Reports from core folder.
15811	Management Reports	Management Report "Front Desk Activity" is corrected to only show data on selected dates.
16270	Management Reports	Management Report "Front Desk Detailed Activity by Hour" now includes all appropriate users in the user dropdown list.
16487	Management Reports	Management Report "Scheduler Activity" - Now correctly grouping on the user, not the scheduler.
15252	Mgt Reports	Improved performance of c_GetRadStatsForTodayByUserID used by management reports.
16169	Mgt Reports	Service: SSRS deployment is now uploading Verbal Order forms to the reporting server.
16409	M*Modal	Corrected "object reference error" after importing and saving an M*Modal template.
16652	MRN	Issue resolved where system could generate a 'Duplicate key row exception' when adding secondary issuer required by new validation rule.
16428	Ordering	EMR orders that are not matched to a RIS procedure code will now not allow the print dialog to appear (which was producing an error).
16968	Ordering	Corrected inadvertent change of 'Reason for exam' control to be a log control when upgrading to 2016.7 or newer.
15254	PACS (eRAD) Int - RIS only	Resolved intermittent issue where manager class could wait indefinitely.
7032	PACS (eRAD) Int - RIS only	Corrected issue where prefetch would not work if the user did not have a user preference set for

		'MaxRelevantPriors.'
7947	PACS (eRAD) Integration	Resolved issue where closing a caching worklist could throw a null reference exception.
15365/15367/15368	PACS (eRAD) Integration	Resolved an event viewer log error when RIS was unable to find PACS window.
15452	PACS (eRAD) Integration	Resolved intermittent issue where a user may be prompted for PACS login credentials even after disabling PACS integration.
15821	PACS (eRAD) Integration	Resolved a rare 'row has been removed' error.
17337	PACS (eRAD) Integration	Resolved issue where a user could not cache studies if another user cached the studies at the top of the worklist.
15558	PACS (Non - eRAD) Integration	Enabled the InfinitConfig.xml to be read when test mode is set to true.
16757	PACS (Non - eRAD) Integration	CSH PACS - Resolved issue where a 'close session' was not being sent.
16758	PACS (Non - eRAD) Integration	CSH PACS - Resolved issue where incorrect message was sent to PACS to open a 2nd study for same patient.
13880	PACS Citrix Bridge	Citrix - Resolved issue when using RIS over Citrix and working with multiple studies in the dictation window. Images can no longer get out of sync.
15960	Patient Folder	Resolved issue where County name would not persist under specific circumstances.
13928	Patient Folder	Resolved issue where 'Patient Race Required' would still be displayed, even when a race was entered.
15976	Patient Merge	Corrected issue where after an external patient was matched to an internal patient, the merge dataset was not properly populated in the external message container.
6984	Patient Search	Removed the "New Patient/New Appointment" from the patient search split button as it's already on the main button.
16642	Peer Review	Added PeerReview layout to default install.
16520	Peer Review	Changed the All Peer Review Pending Action WL to display 'Interpretation Type.'
16525	Peer Review	When using skip (next ) workflow, the RIS now skips over studies that are currently open in review window.
16526	Peer Review	Peer Review - Corrected issue where the user was able to view the preliminary report even when they did not have permission to do so.
14355	Performance	Improved performance of exam search screen when searching by ID fields.
13835	PowerScribe Integration	Resolved issue where RIS reporting screen would remain open if PowerScribe is opened then quickly

		closed.
16197	PowerScribe Integration	Resolved issue where the View Study window was opened on a study that was signed in PS360 after initial RIS login, PS360 was not automatically launched.
13975	RADAR	WedgePlugin for RADAR now passes the display name for the "from" email address.
16110	RADAR	Resolved RADAR API exception which prevented a reschedule/cancel appointment.
16345	RADAR	RIS now prevents email message requests without a practice code from being added to the RADAR queue.
15210	RADAR - Nudge	Resolved an issue where the user could still preview the report via Nudge even if PreviewPreliminaryReport permission was set to None.
16189	RADAR - Secure PIC	RADAR Plugin - Added a configurable delay before attempting to reconnect if the connection was interrupted.
15217	Radiology Reporting	VR2 - Resolved issue where a new procedure code added by the inbound interface would cause the client to hang when opening via the XML file drop.
15525	Radiology Reporting	Configurable reporting options are now written into the verbose log file to assist with troubleshooting.
16080	Radiology Reporting	Resolved 3.5 minute timeout when a table is added to a report and print preview is used to view it.
16129	Radiology Reporting	Resolved an issue where audio files were not being deleted for editors.
6277	Radiology Reporting	RIS now prevents the creation of section titles with >1000 characters, which was causing document distribution to fail.
15981	Radiology Reporting	Removed user preference to reuse reporting screen since it is no longer required (re-use is always on).
16068	Radiology Reporting	Resolved issue where 'Dictated by' in the summary panel was not populated for reports initially created by a technologist.
16087	Radiology Reporting	RIS now hides the floating report history window if another patient record is opened.
16179	Radiology Reporting	Resolved error when technologist attempts to open a suspended study in View Study window.
16483	Radiology Reporting	Re-enabled the set/remove 'stat read' flag in the editor screen.
16513	Radiology Reporting	Resolved issue where original study was created in one reporting mode, then user switches to a different reporting mode and creates an addendum. The addendum can now be re-opened.

15840	Reception	Improved signature capture feature on MS-Surface device.
16761	Reception	Resolved issue where the 'Visited at:' required field could be bypassed.
16797	Reception	Resolved issue where after adding a scanned document to a Walk-in, user was sometimes required to re-enter the 'Special Accommodations' field.
15670	Scanning	Resolved intermittent issue where scanning in duplex mode sometimes flipped the second page of a license.
16768	Scanning	Resolved the error "A Lock Is required to update this order" when saving attachments in the Add Attachment screen.
16023	Scanning	Resolved issue where an order level scanned document would show only the 'move to order' context menu instead of 'move to patient level.'
16277	Scanning	Increased the size of attached date column in attachment list so date can always be seen.
14206	Scheduling	Resolved error when scheduling if the ProcedureGeneralDescription - Description column is empty.
15462	Scheduling	Resolved an error that could occur on the reschedule screen if a different order was selected.
15779	Scheduling	Resolved issue where Cancelled procedure (black X) was still evaluated for contrast required validation.
16458	Scheduling	Added appropriate error when attempting to overbook by a user who does not have the overbooking permission.
7175	Scheduling	Added 'reschedule' option on the context menu of a cancelled study.
7830	Scheduling	Modality Closure - Prevented the end time from being earlier than the start time.
11273	Scheduling	Resolved issue where height/weight were not required on reschedule.
16275	Scheduling	Scheduling calendar view now allows drag and drop of appointments, as was already possible in the main Appointment Book.
15327	Technologist	Resolved issue where the technologist could not delete an existing sedation.
15544	Technologist	Removed unnecessary message regarding external report workflow from the View/Edit window.
16608	Technologist	Resolved issue where a procedure that requires contrast is included in a procedure plan and the contrast amount was not populating on the Perform Exam screen.

12842	Technologist	Resolved issue where Verify Credentials feature could leave the wait cursor on the screen even though it was not waiting (spinning blue wheel).
16005	Technologist	Resolved issue where users with both Technologist and Editor resources could be assigned as the radiologist when creating a report from the Perform Exam window.
16159	Technologist	RIS now supports decimals in the contrast and sedation grids.
16614	Technologist	Resolved an error that could occur when discontinuing the primary study in a linked set when in Exam Done status.
15364	Thick Client GUI	Resolved an event viewer log error when an error occurred during a save.
15372	Thick Client GUI	Resolved an event viewer log error "Invalid cast of Appointment to AppointmentExtended."
15723	Thick Client GUI	Resolved issue where Addendum Request control in reporting screen was not reloading data after button was clicked.
16022	Thick Client GUI	Resolved a hidden memory leak in Reschedule Order screen.
16055	Thick Client GUI	If network or services are down, the client will no longer retry all collected service calls at once, which could flood the server.
16251	Thick Client GUI	Resolved issue where RIS lock screen could be invoked twice, requiring user to enter password two times.
1125	Thick Client GUI	Corrected tab order issue in schedule tab.
1352	Thick Client GUI	RIS now prevents duplicate holidays from being added to the same practice for the same day.
2529	Thick Client GUI	Made the description a required field when entering indication codes into the RIS admin screen.
3158	Thick Client GUI	Corrected issue where the laterality field was available for studies where it was not required when entering Outside Reads.
5444	Thick Client GUI	Resolved intermittent issue where null prep instructions could cause an error.
5482	Thick Client GUI	Differentiated between 'identically named' worklists in the 'Open on Login' dropdown.
5770	Thick Client GUI	Added a Cancel button to the 'Report on Accession Number' screen.
5946	Thick Client GUI	Added patient notes to Outside Read screen.
5947	Thick Client GUI	Corrected tab order issue on Outside Read screen.
6117	Thick Client GUI	Resolved intermittent issue where attachments would not save from the 'Edit Billing' window.



7153	Thick Client GUI	When removing ICD codes from an order, there is no longer a scenario in which the codes could appear to be removed but were in fact still attached to the order.
16399	Thick Client GUI	Resolved issue where if the user held the TAB key on certain RIS screens, the RIS would appear to hang.
15701	UI Look and feel	Resolved issue with Font Size not changing in Hebrew Environment.
9266	UI Look and feel	Corrected an issue where double clicking a person on the Resolve Problem screen could cause an error.
9647	UI Look and feel	Corrected ZIP code auto-populate city-state-country on the IVT screen.
15842	UI Look and feel	Amount to Collect screen - all money fields are now right justified.
16339	UI Look and feel	When correcting a spellcheck error in dark mode (which had red text), the text now returns to white instead of black.
16479	UI Look and feel	Log control spellchecking now leaves punctuation in place if it was adjacent to a corrected word.
16618	UI Look and feel	When replacing a phone number by selecting the text, the newly keyed number is now correctly entered.
15837	Unknown Reconcile	Rescheduled studies with unknown referrals are now (correctly) appearing on the Unknown Reconciliation WL.
15776	Utilization Management	UM Alert now contains both the original and alternative procedure.
16000	Utilization Management	Removed inactive UM Resolution Codes in the UM Alerts resolution code dropdown.
16002	Utilization Management	Changed 'Authorization Letter' to 'Opinion letter' in Distribution History WL.
16007	Utilization Management	Changed 'Authorization Letter' to 'Opinion letter' in Organization editor.
16026	Utilization Management	Removed the inactive orders that could show as disabled orders in the UM portal.
16177	Utilization Management	Race field no longer becomes required during UM workflow without the ability to save.
16759	Utilization Management	Resolved issue where the config value to "Bypass UM for Stat exams" would not bypass if the order was already saved with Stat flag turned off.
17060	Utilization Management	Resolved issue where the Authorization Required prompt would remain even after UM Status has been changed.
15963	Utilization Management	Scheduling an order under Utilization Review from a folder now displays the correct "this study is under utilization review" message.



16170	Utilization Management	Resolved an error in utilization review when a UM status was set to inactive.
16349	Utilization Management	Removed the 'Utilization Review' context menu option in patient folder when the study is in 'Order Pending Approval' status.
17150	Utilization Management	Updated Utilization Review to now be able to save work in progress with the status still blank.
15413	View Edit	Resolved issue when launching View Edit screen from a Management Report. RIS was once again shows the Report Tab.
16328	Web Services	Added config setting to specify whether a wedge should abort the changes associated with an http inbound request.
15945	Web Services	Resolved issue where InitPersonnelLookupByUserID didn't include the expected user.
16165	Web Services	Improved the error message to the user if a SQL error occurs while setting flags.
14620	Worklists	Resolved issue where filtering on Calculated Columns in a work list would show an error message and fail to properly filter worklist.
15895	Worklists	Resolved intermittent Issue when setting "Locked By Name" filter to "Is me."
15900	Worklists	When deleting the dictation /report and resetting status on a study that is suspended, the <u>_status_flags</u> are now properly reset.
15904	Worklists	Resolved error when using date filtering on worklists including keywords "or", "not" or "and."
16528	Worklists	Resolved issue in which Problem flag was not getting removed from studies in WLs when the problem was resolved.
16744	Worklists	The new audio length column now shows the correct audio length for older studies as well as new studies.
15961	Worklists	Added 'Accession number' to the Image Request WL.
16152	Worklists	Image Request WL can now be set as an Auto Open worklist.
16173	Worklists	Corrected worklist filter errors when using the 'Between' filter.
16775	Worklists	Resolved issue where worklist customization (columns, colors, etc.) might not re-apply when worklist is reopened.

**CONNECT Patient Portal:**

Bug #	Category	Subject
15950	Pat Admin - Activity Log	Patient Connect Admin - Activity log filter 'previous 7 days' now also includes today.
15798	Pat Admin - User Mgmt:Detail	Patient Connect Admin - Resolved error that occurred when attempting to view 'Patient Detail.'
13976	Patient Email	Patient Portal emails can now have a configured "from" email display name.
15199	Patient Exam Detail Page	Images Tab now disappears when PACS is not configured.
15703	Patient Exam Detail Page	Legacy Exams - Images will now appear in portal for legacy exams.
15179	Patient Exam Detail View	Resolved issue where a wait cursor could display indefinitely when no images were available.
15180	Patient Exam Detail View	Created a consistent mechanism to show when the report would be available on the portal.
15287	Patient Form	On the exam question review screen the question can no longer overlap the answer field.
14523	Patient Messages	Removed the 'Please verify you are a human' message on the bottom of the screen after test is successfully passed.
15440	Patient Security	Added a permission so that only authorized users can expire the lookups in the portal projects.
14705	Patient WF: Account Access	Removed case sensitivity check on answers to security questions.
15749	Patient WF: Create Account	Updated and clarified the 'required age' message displayed to minors when they are try to create an account.
15024	Patient WF: Make Appointment	When adding insurance, Policy number is now a required field.
15284	Patient WF: Make Appointment	Portal no longer allows 'Menstruation date' to be set in the future.
15415	Patient WF: Make Appointment	Fixed issue where the patient could not advance from Select Provider page when using "My provider is not listed" and searching for provider with special characters.
17012	Patient WF: Portal Pass iCode	Fixed intermittent issue with iCode (duplicate iCodes could be generated for different patients over time).
15512	Patient WF: Provider Invite to Make Appointment	Map tool now works when scheduling from an iCode.
15514	Patient WF: Provider Invite to	Clicking 'Make Appointment' during invitation

	Make Appointment	workflow will no longer return user to the login page.
15528	Patient WF: View Provider-Ordered Appointment	Scheduling in the Patient Portal via an invitation no longer defaults 12:00 AM at the top of the Review screen.
14589		Resolved error attempting to load PACS images that did not have a study instance UID.
15530		Corrected an issue with the portal's .ics file which was generating a 404 error.
15536		Corrected issue where scheduling from an invitation would not connect the new study to the existing order.
16136		Resolved issue with Get Help link.
15004	Admin-Other	Added ability to de-activate attributes in the procedure picker builder.
15978	Pat Admin - User Mgmt	DOB column can now be sorted.
16069	Pat Admin - User Mgmt	Resetting an account now clears the email field.
17087	Pat Admin - User Mgmt	After saving changes to the user profile, the profile is shown instead of hidden.
15064	Pat Admin - User Mssgs	Resolved issue where a forwarded message could get truncated.
16025	Patient Exam Detail Page	Resolved issue where thumbnail Images occasionally didn't load.
16196	Patient Exam Detail Page	Corrected issue where prep instructions would not show when the appointment was not made in the portal.
14089	Patient Exam Detail View	Resolved issue displaying an accession number contains only alpha characters.
14074	Patient General Display	Patient Portal Logo is now configurable for each portal instance per practice.
15080	Patient General Display	On mobile device, the email field and retype email field now are recognized as email fields so the keyboard will default the @ and .com.
15081	Patient General Display	Increased width of iCode verification code on mobile screen.
16039	Patient Logon	After using the incorrect password X times, tell the user at X+1 times that they have locked out their account.
16064	Patient WF: Account Access	Generalized the center names that appear in the "select the center where you had your recent appointment" to reduce unnecessary failures.

16449	Patient WF: Account Access	A user who has had their access to the portal revoked can no longer try to re-create that account.
16037	Patient WF: Authorized Access	Corrected issue where the user could press NEXT before entering the verification code, therefore disabling the Next button.
13068	Patient WF: Make Appointment	Entering insurance has 2 steps - if the user enters insurance, then authorization, then presses BACK, they are now brought to insurance step 2/2 instead of starting over on insurance.
16061	Patient WF: Make Appointment	Worker's compensation 'date of injury' field no longer allows dates in the future.
17299	Patient WF: Make Appointment	Resolved issue where the 'PortalAllowEveningWeekendScheduling' feature allowed the user to schedule timeslots earlier than 'now.'
16062	Patient WF: Portal Pass iCode	Resolved issue where 2 or more studies related to the same iCode would cause an error.
16439	System	eRAD portals now support time zones that are + UTC.

**Utilization Management Portal:**

Bug #	Category	Subject
16053	Exam Detail Page	The 'Opinion letter unavailable' message now supports the Get Help link.
15965	Get Help Page (Outside & Inside)	The 'Get Help' email confirmation to the user who requested no longer has the 'Sincerely' section repeated.
16012	Orders Page	Worklist will now show the paperclip icon when the record has attachments.
16051	Orders Page	Finalized date on the Orders - Pending tab now only shows valid dates.
17011	Orders Page	Improved performance of the worklist.
15510	Search Page	Resolved issues with DOB search in certain browsers.
15511	Search Page	If the user selects a date range filter, studies are filtered appropriately.
15515	Search Page	'Exam Type' search filter is no longer ignored.
15595	Themes	Ensured all deployed themes are compatible with the portal.

16736	Exam Detail Page	Resolved issue where report tab and quick-launch icon failed to load the diagnostic report.
16188	Orders Page	Now preventing more than one 'attachment' pop-up to appear at a time.
17230	Provider Utilization Management Page	Resolved issue with exam type filter not filtering properly.
16705	Web Portal Agreement Page	Updated text on Web Agreement (EULA) Page.

## KNOWN LIMITATIONS

The following are new bugs found in build 2.2017.3. Bugs reported in previous versions are not captured as Known Limitations in this document.

#	Category	Subject
17119	RIS	Returned tab Status filter needs a "SELECT ALL" option.
17088	RIS	User Mgt. > Edit > Preferences - Save button does not save changes for default landing page.
17547	RIS	Numbered or bulleted list in a report are not getting transferred to PACS.
17541	RIS	The displayed Cache time can sometimes be inaccurate but corrects itself after a minute or two.
17536	RIS	The Citrix Bridge icon has been changed to the 2 circles but in the Windows tray it is still the eRAD icon.
17532	RIS	Cancelling when RIS attempts to install updates throws an error.
17518	RIS	Exception thrown when clicking "Skip Labwork Advised WL" in Utilization Review.
17494	RIS	Windows docking inside of the patient folder.
17492	RIS	PACS Integration - View Images from Patient Folder does not order studies correctly.
17487	RIS	Duplicate Issuer/MRN in grid does not trigger validation error when scheduling/creating order.
17486	RIS	Diagnostic Report lists "Copy to" providers in diagnostic report even if the CC provider is configured for no report delivery for Courtesy Copies.
17484	RIS	Provided Educational Resources checkboxes should stay in sync, with both being either checked or not checked.
17448	RIS	Loading patient with existing US address information may result in incorrect Zip Code.
17437	RIS	When user preferences fail to save, no error is shown to the user.
17427	RIS	Client performance issue when populating calculated columns.
17341	RIS	Browser Config lookup editor will not allow removing an existing value from URL without replacing it.
17010	RIS	Problem reloading dictation after an error occurs upon saving.
16250	RIS	Any dictation that fails to save, throws out the dictation on reloading.

17044	RIS	Burn CD - when studies with status 'Order pending approval' are selected, an error occurs.
17028	RIS	A number of columns are not populating in Radiologist - Signed By Date WL.
17020	RIS	UM tab remains visible after procedure change.
16995	RIS	After displaying the message that RIS is already running, an object reference error message is displayed.
16990	RIS	I_message_group > external_notification_email_address does not appear to be forwarding messages.
16970	RIS	Cannot Retry Job in Distribution History WL.
16960	RIS	When turning off the STAT flag after order is saved, UM status behaves differently depending on the screen.
16850	RIS	Body Parts not populating when adding a new procedure from the Perform Exam window.
16843	RIS	Windows 10 - Unlocking / waking PC hides locked RIS splash login in the background.
16836	RIS	For external reports, when previewing the report in the Report nugget, if the report is not available a message should be displayed to the user.
16796	RIS	Infinitt PACS - login screen flashes for each study when using next workflow.
16782	RIS	Sectra PACS - when two patient folders are open with view images, a close call is not issued when one folder is closed and focus goes to the other folder.
16742	RIS	Autotext field values get saved when switching orders, even though the order is not saved yet.
16735	RIS	If a user's system does not have a Recording device, a null value can be saved for I_user_config settings MciInputDevice which makes the account unusable.
16726	RIS	Selecting a 'named' color in Portal Worklist configuration editor throws exception when selecting worklist tab row.
16717	RIS	When a patient has multiple studies in Pending Dictation WL, after the 1st study is signed, subsequent studies may have the wrong status for the prior study in the mini Patient Folder.
16488	RIS	Context Menu in Patient Search only lists New Appointment, New Walk-in for external results.

16418	RIS	View Study Workflow opening wrong window when using Skip and Continue after creating an Addendum in View Study.
16407	RIS	When editing medical record access, cancelling out still saves information.
16401	RIS	M*Modal Text Expander not validating entries, allows duplicates.
16300	RIS	Error deleting rows from Medical History grid when rescheduling order.
16235	RIS	The function c_getBiopsyTechnique is getting only the last row for the mammo_biopsy_technique_code when multiple rows are possible from the query results.
16221	RIS	UM - UMBypassSTAT workflow requires extra step to search for scheduling times if "STAT exam" flag selected after the procedure.
16192	RIS	When trying to schedule on a holiday, the visual is wrong in the Procedure Picker.
16149	RIS	An error can be displayed when IVT window is opened alongside Utilization Review window.
17062	RIS	Age label is not present next to DOB when rescheduling.
17474	Patient Portal	Unable to delete Padding Override codes and Report and Image Hold Values.
17200	Patient Portal	When creating new appointment in Patient Portal, entering data and hitting back button doesn't retain data.
16301	Patient Portal	Need to add countermeasures for CSRF.
17144	Patient Portal	When most recent exam is "CDImport," patient account creation can't be completed.
16343	Patient Portal	Ordering Provider tool-tips do not match up with their respective ordering providers.
17496	UM Portal	Need to resolve a memory leak with portal attachments.
17119	UM Portal	Returned tab Status filter needs a "SELECT ALL" option.
17088	UM Portal	User Mgt. > Edit > Preferences - Save button does not save changes for default landing page.
17071	UM Portal	By Status' filter does not appear to be working.
17022	UM Portal	Search - 'CC'd Ordering Provider's Last Name' field is not working.
17014	UM Portal	By Timeframe' filter's state [visually] set to last selected tab's configuration.
16712	UM Portal	Page titles shown in browser tabs are incorrect or provider specific.

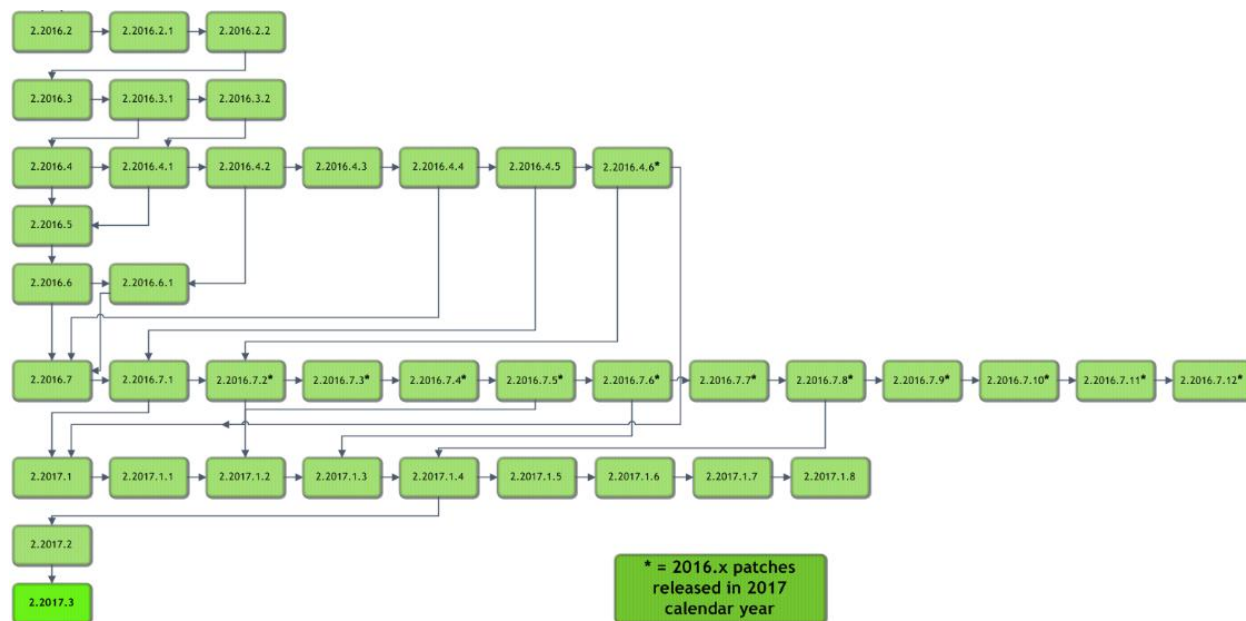


16298	UM Portal	UM Connect's page titles inappropriately mimic Provider Connect's.
17023	UM Portal	Admin - When a user with a locked account logs into Portal Administration, an error is displayed.
16035	UM Portal	Modifying tab filtering options in Account > Settings can remove inappropriate exams from the orders list.

## RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2016.2	-	2.16.2.0 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00172540					Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge
2016.2	1	2.16.2.1 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00172540					GUI.zip and Citrix Bridge
2016.2	2	2.16.2.2 (3GB)	2.16.2.0	2.16.2.0	2.16.2.2.00243102					GUI.zip, DB and Citrix Bridge
2016.3	-	2.16.3.0 (3GB)	2.16.3.0	2.16.3.0	2.16.3.0.00257101	2.16.3.0				Full Version Release
2016.3	1	2.16.3.1	2.16.3.0	2.16.3.1	2.16.3.1.00298834	2.16.3.0				GUI.zip, Web Service and DB
2016.3	2	2.16.3.2	2.16.3.0	2.16.3.2	2.16.3.1.00298834	2.16.3.0				GUI.zip and Web Service
2016.4	-	2.16.4.0	2.16.4.0	2.16.4.0	2.16.4.0.00301943	2.16.4.0	1.16.4.0.310284			Full Version Release
2016.4	1	2.16.4.1	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	1.16.4.0.310284			GUI and Web Service updates
2016.4	2	2.16.4.2 (3GB)	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	1.16.4.2.460241			GUI and Patient Portal updates
2016.4	3	2.16.4.3 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	1.16.4.3.489120			GUI and Patient Portal updates
2016.4	4	2.16.4.4 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	1.16.4.3.489120			GUI
2016.4	5	2.16.4.5 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0				GUI
2016.4	6	2.16.4.6 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0				GUI
2016.5	-	2.16.5.0 (3GB)	2.16.5.0	2.16.5.0	2.16.5.0.00349303	2.16.5.0	1.16.5.0.362009			Full Version Release
2016.6	-	2.16.6.0 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	1.16.6.0.432471			Full Version Release
2016.6	1	2.16.6.1 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	1.16.6.1.468583			GUI and Patient Portal updated
2016.7	-	2.16.7.0 (3GB)	2.16.7.0	2.16.7.0	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		Full version release
2016.7	1	2.16.7.1 (3GB)	2.16.7.0	2.16.7.1	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	2	2.16.7.2 (3GB)	2.16.7.0	2.16.7.2	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	3	2.16.7.3 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	4	2.16.7.4 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	5	2.16.7.5 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	6	2.16.7.6 (3GB)	2.16.7.0	2.16.7.6	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	7	2.16.7.7 (3GB)	2.16.7.0	2.16.7.7	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	8	2.16.7.8 (3GB)	2.16.7.0	2.16.7.7	2.16.7.8.00683507	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and DB updates
2016.7	9	2.16.7.9 (3GB)	2.16.7.0	2.16.7.9	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Services, DB updates and UM Portal
2016.7	10	2.16.7.10 (3GB)	2.16.7.0	2.16.7.10	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI and Web Service updates
2016.7	11	2.16.7.11 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Service and DB updates
2016.7	13	2.16.7.12 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		Full Version Release
2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI, Web Service, DB and Patient Portal updates
2017.1	5	2.17.1.4 (3GB)	2.17.1.0	2.17.1.5	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		Web Service
2017.1	6	2.17.1.6 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and DB Updates
2017.1	7	2.17.1.7 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	8	2.17.1.8 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.2	-	2.17.2.0 (3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0	2.17.2.0.702238	2.17.2.0.702213	2.17.2.0.702226	Full Version Release. First release of Provider Portal
2017.3	-	2.17.3.0 (3GB)	2.17.3.0	2.17.3.0	2.17.3.0.00764112	2.17.3.0	2.17.3.0.321	2.17.3.0.321	2.17.3.0.321	Full Version Release. Including Patient, Provider and UM Portals

## CODE STREAM DIAGRAM



# Server Update

For eRAD RIS

Version 2.0














Build 2.2017.3

Update 2.2017.3.1

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## PACKAGE CONTENTS

 _Documentation	8/15/2017 1:47 PM
 _ReleaseNotes	8/16/2017 9:05 AM
 DB	8/15/2017 1:46 PM
 PACS Citrix Bridge	8/15/2017 1:47 PM
 PatientConnect	8/15/2017 1:45 PM
 Questionnaires	8/15/2017 1:46 PM
 ReferringConnect	8/15/2017 1:45 PM
 rRISService	8/15/2017 1:45 PM
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 ThickClient	8/15/2017 1:44 PM
 UM_Portal	8/15/2017 1:44 PM
 RIServerMasterCert	3/31/2016 1:38 PM

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.3 installs. This server update must be applied to 2017.3.

## NEW FEATURES

The features included with this eRAD RIS Server Update were originally released in 2016.7.13 and are now being merged into the 2017.3 build. The feature number listed first is the 2017.3.1 Redmine tracking number, followed by the associated 2016.7.13 Redmine number.

### FEATURE #17896 / 17597/17544 - SCHEDULED START DATE ADDED TO CHAIR API, WHICH WILL SORT CHRONOLOGICALLY

This feature is for customers using the Chair API. The Chair API now includes the Scheduled Start Date and returns the oldest studies first. This enables the Chair workflow engine to assign aging studies first.

Scheduled Start Date was added as a field in the output of two Chair API requests. Additionally, the results of any requests to obtain an exam list by chair and by status are now sorted by Scheduled Start Date, with the oldest dates listed first.

A change has also been made to make the previously hard coded "7 day filter" configurable. Previously, the Chair API limited query results by chair and status to include exams that had been scheduled within the past 7 days. An optional parameter, *IncludeAllDates*, has been added to bypass the 7 day filter on Scheduled Start Date. This parameter will default to false if not specified and the original behavior will be maintained.

Figures 1 through 3, below, illustrate the XML:

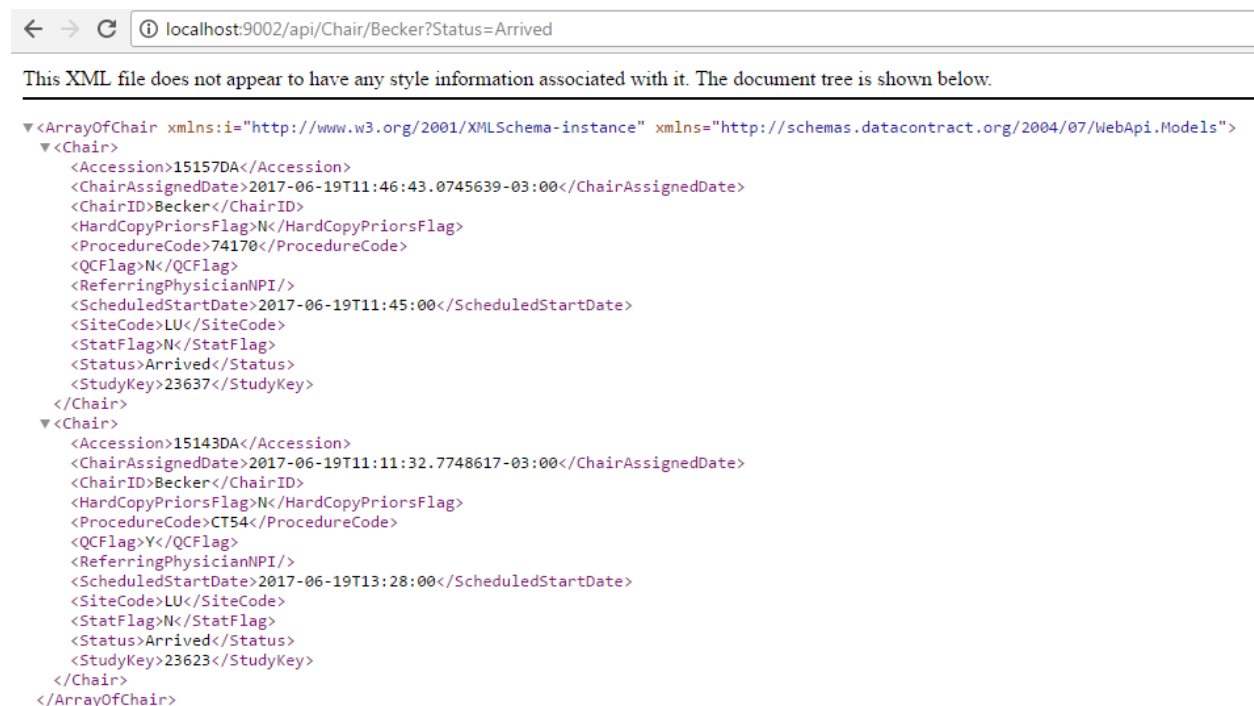


Figure 1 – Get Exam list by chair and status



Figure 2a – Get Exam list by chair and status with ReturnAllDates = true to include older studies

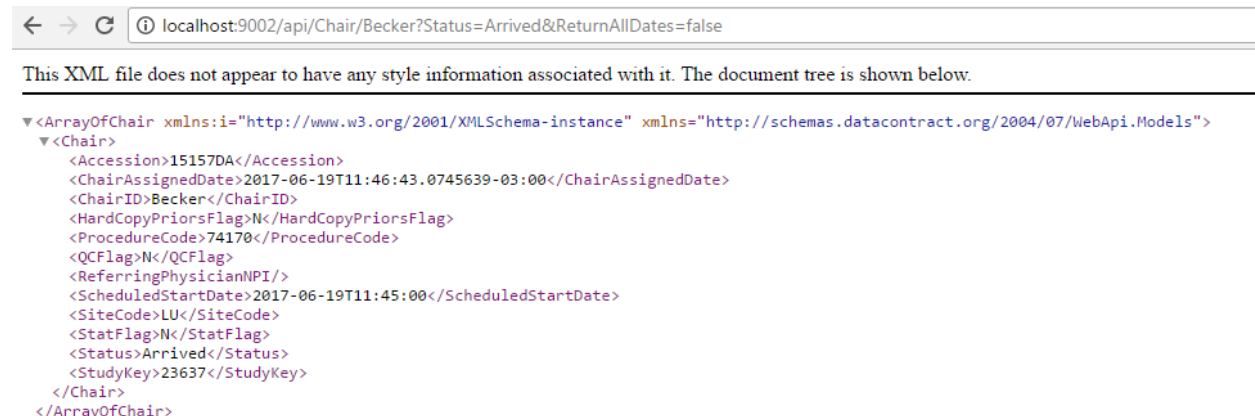


Figure 2b – Get Exam list by chair and status with ReturnAllDates = false to exclude older studies (compare to Figure 2a)



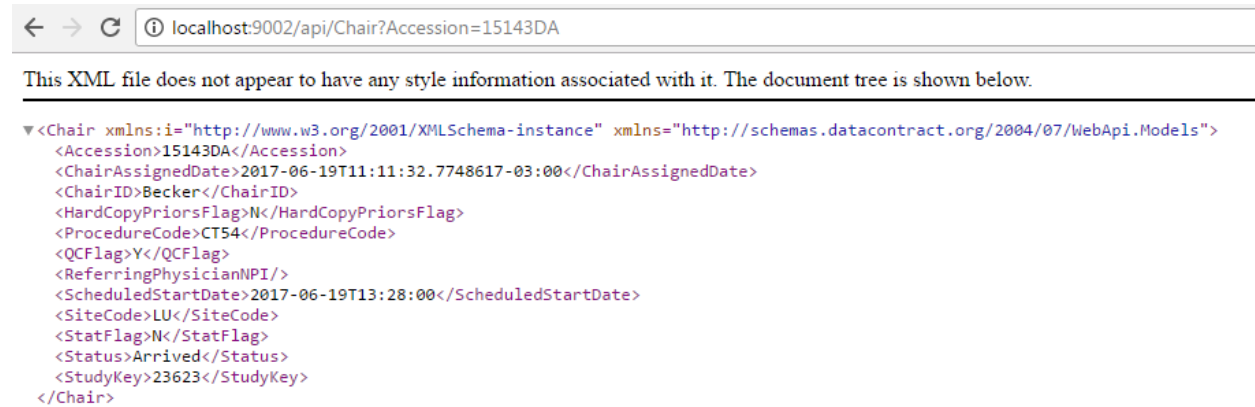


Figure 3 - Get Chair Data by Accession

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**FEATURE #17865 / 17829 - CONFIGURABLE OPTION TO SUPPRESS UNPRINTED BI-RADS 0 LAY LETTERS WHEN NEWER BI-RADS IS AVAILABLE FOR THE PATIENT**

There is now a System Configuration setting that will suppress unprinted BI-RADS 0 Lay Letters when a more current BI-RADS exists for the same patient. For example, if a patient's BI-RADS 0 Lay Letter has not been printed by the time they return for their additional imaging, the new exam's Lay Letter would effectively replace the original BI-RADS 0 Lay Letter when the BI-RADS for the new report is anything other than 0.

The default for this new setting will be False. The recommendation for U.S. customers is to leave this setting as false to ensure that patients receive Lay Letters for every BI-RADS exam.

The new System Configuration setting is named *SuppressAllUnprintedBIRADS0LayLetters*.

Please note that this setting does not impact the workflow for unprinted Lay Letters when an addendum is done for the *same* study. If a Lay Letter has not been printed and an addendum is done on that study, the Lay Letter will continue to be replaced with an updated Lay Letter if the BI-RADS information has been updated. This System Configuration setting has no impact on this workflow, which remains unchanged.

---

**FEATURE #17879 / 17748 – ALLOW ERAD RIS SERVICE AND SUPPORT TO ADD COLUMNS TO RETRIEVE FOR PATIENT FOLDER**

ALERT: This feature is meant to be used by eRAD Support only. Adjustments should only be made under the direction of an eRAD Support team member.

Recently, a change was made to the way eRAD RIS retrieves data for the Patient Folder, which had been retrieving more data from the database than was necessary to display the information needed in the visible columns.

In reducing the data retrieved for the Patient Folder, it became evident that some information that is not displayed in the worklist columns is nevertheless used for certain functions, such as determining which context menu options should be available. If the data was not available, the user could receive an error or lose access to certain functionality that is dependent upon the data.

eRAD RIS is once again retrieving the data that was identified as supporting such functions; however, it is beneficial to have a method for eRAD Support to add additional database columns to the set for retrieval, in case it is discovered in the field that additional data is required for an unforeseen function.

To support this, a new System Configuration setting has been added: *PatientFolderExtraColumnsToGet*. This setting will allow a comma separated list of columns to retrieve from the database in addition to the hard coded set. Any column names that are not part of the c\_vw\_PatientFolder view are deemed invalid and are not retrieved. This will prevent an exception from occurring in the Patient Folder if an invalid column name is entered in System Configuration.

RIS Development should be notified anytime eRAD Support resorts to adding a column to this System Configuration setting, so that adjustments can be made in the next release.

---

**FEATURE #17997 / 17460 - UM CLOCK SHOULD START COUNTING WHEN THE ORDER FIRST QUALIFIES AS UTILIZATION REVIEW REQUIRED**

The UM Clock previously used an order's requested date as the start value (time stamp). Typically, this is the date the order was created in RIS. There are some scenarios where the UM Clock should not use the requested date of the order as a starting point, but rather the date the procedure became qualified for utilization review.

For example, an order exists for an X-Ray (UM not required). The X-Ray is changed to a CT procedure 2 days later, which requires utilization review. Since the procedure did not require utilization review until it was changed to a CT, the UM Clock will not use the date that the original order (X-Ray) was created. The UM Clock will instead start as soon as the order first required utilization management (i.e. the date it was changed to a CT).

**Service Notes:**

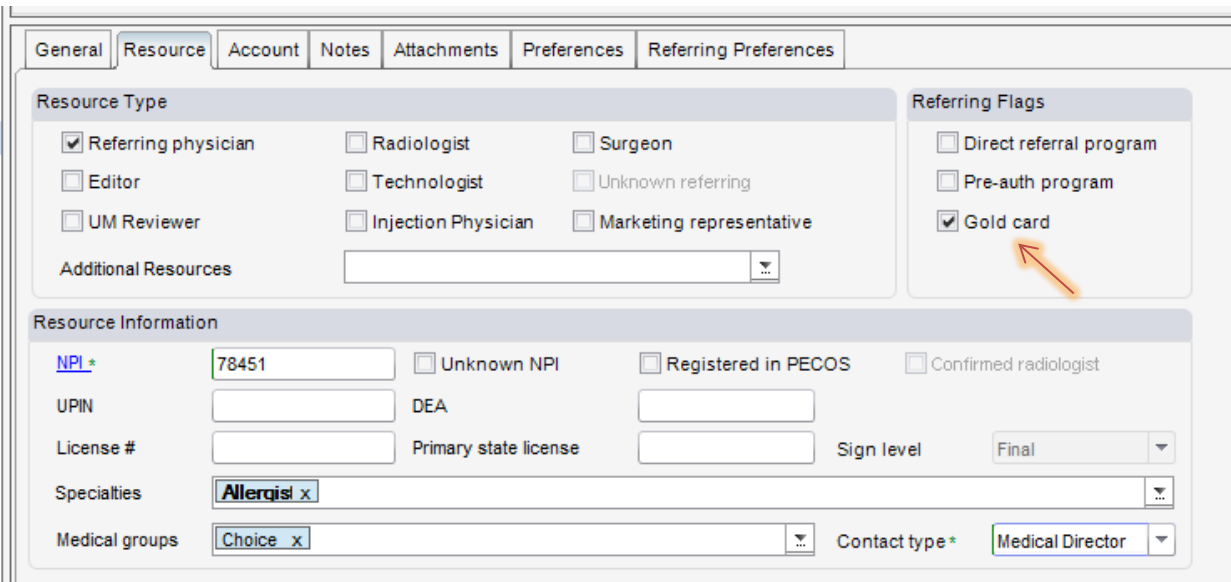
A new column called *um\_received\_date* has been added to the c\_order\_item table. This date/time column will be set anytime a procedure is flagged for utilization review. The UM Clock will use the Received Date as the start parameter.

If an order has multiple procedures that require utilization review, the system will use the oldest Received Date.

If for some reason there is not a Received Date available, the system will revert back to using the Requested Date at the order level which is always available.

## FEATURE #17999 / 17394 - ORDERS FROM GOLD CARD PHYSICIANS THAT REQUIRE UTILIZATION REVIEW SHOULD AUTOMATICALLY ROUTE TO SCHEDULING

Previously, when a referring physician was flagged as “Gold Card,” eRAD RIS would display this flag and the corresponding notes, but it was up to the UM reviewer to evaluate the notes and determine whether the order should bypass the utilization review process.



The screenshot shows the 'Referring Flags' section of the eRAD RIS interface. The 'Gold card' checkbox is selected, indicated by an orange arrow. Other checkboxes include 'Direct referral program', 'Pre-auth program', 'Referring physician', 'Editor', 'UM Reviewer', 'Radiologist', 'Technologist', 'Injection Physician', 'Surgeon', 'Unknown referring', and 'Marketing representative'. The 'Resource Information' section below contains fields for NPI, UPIN, License #, Specialties, Medical groups, and Contact type.

It is now possible to configure eRAD RIS to automatically bypass the Utilization Review workflow when the referring physician is flagged as Gold Card. With this configuration, schedulers can proceed immediately to scheduling the procedure without waiting for the utilization review process. The order is automatically flagged as UM Complete and a UM Tracking Number is assigned.

To enable this workflow, a new system configuration value called *UMGoldCardAutoApprove* with a default value of “True” has been added to the system.

When *UMGoldCardAutoApprove* is enabled, any orders for Gold Card physicians that require utilization review will be given a new UM Tracking Number and marked as UM Complete, so they can advance to scheduling immediately.

When *UMGoldCardAutoApprove* is *disabled*, any orders for Gold Card physicians that require utilization review will be given a new UM Tracking Number and marked as UM Required, so they can advance to the Utilization Management Worklist to be reviewed.

Schedulers will be able to identify that a referring physician is part of Gold Card by looking at the label next to the referring physician’s name on the Order tab. It will appear in the same location as the existing label for “Pre-auth program.” A referring physician can be labeled as Gold Card, Pre-auth program, or both.

Orders To Schedule (497) Schedule Order: UM, Diana #8977PE x

Patient Patient Notes Contacts / Demographics Order Clinical Schedule Image Request (0) Billing Codes Review Contact Log UM

Reason for exam  
chest pain

Referring Details  
Referring \*Smith, Alfons, (Gold card)  
Visited at \*Milton Road, 167 White Hague St., Seattle, Vermont, 48941  
Img notes Test Notes

CC Physicians  
Visit location for CO  
☐ Copy to patient

Preferred Location  
Practice \* (ADV) Advanced Radiology  
Site (EL) Eldersburg

Flags  
☐ Direct referral ☐ Transportation required  
☐ STAT exam Special accommodations \* No  
☐ STAT read  
☐ STAT PreCert  
Class \* Unknown  
Sedation  
☐ Transition of care  
☐ Provided educational res.

## NEW CONFIGURATION SETTINGS

## SYSTEM CONFIGURATION SETTINGS

Setting	Default	Purpose
PatientFolderExtraColumnsToGet	n/a	(value = string) Comma separated list of additional columns to retrieve for the patient folder. Columns must exist in the patient folder view. SERVICE ONLY. Please report to RIS Development when used.
SuppressAllUnprintedBIRADSOLay Letters	False	Suppresses all unprinted BI-RADS 0 Lay Letters if a new report is signed for the patient with any BI-RADS other than 0. Recommendation for this setting is False.

## RESOLVED ITEMS

## eRAD RIS

Redmine #	Subject
18012	Corrected issue with slow performance after updating to 2016.7.13.
17940	Resolved an issue in which billing codes were not added after changing the procedure under certain conditions.
17932	It is again possible to remove the QA Flag on the All Pending Signature WL.
17762	No longer receive an error when taking the default action from Exam Search.
17771	Resolved an error related to an empty updateservers.txt which could prevent RIS from loading.
17680	Reverted the c_audit cluster index change that was made in 2017.3 from the upgrade scripts. Some changes are required before this can be implemented.

The following list contains bugs or features that have been resolved in previous RIS versions and have been added to this version of eRAD RIS to provide an upgrade path. Features are also described in the New Features section.

Redmine #	Subject	Original Resolved Version
17906	Log file from deployment script differentiates which management reports use the "Real-Time" and which use the "Alternate" reporting server.	2017.4 (future version)
17872	Resolved an issue with contrast requirements when patient has multiple studies.	2016.7.13
17887	Database option pack created to backfill _primary_study_key prior to upgrade to prevent the upgrade from taking an	2016.7.13

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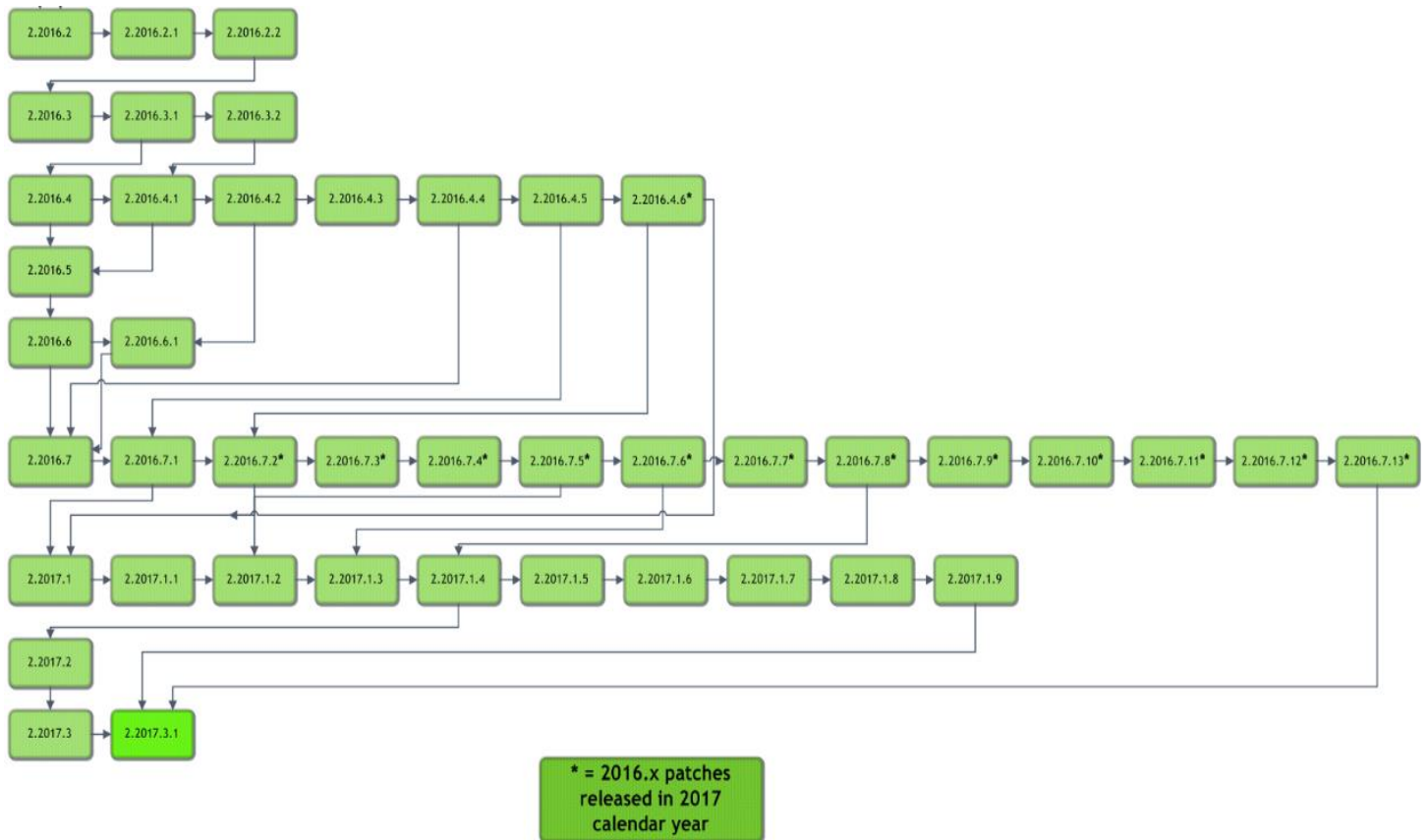
in any form or by any means without the prior written permission from eRAD.



	excessively long time for large data centers.	
17888	An alias was added for the Reading Group column in the view c_vw_WL_Dictated, as it was noticed that the alias had changed.	2016.7.13
17889	An upgrade script was added for resolved defect #16617.	2017.4 (future version)
17893	Addressed an issue with performance problems in the PreCert Group Editor.	2016.7.13
17894	Resolved an issue with exams scheduled from Cancelled appointments inappropriately retaining their PreCert status. Also revised check on expiry date to ensure that PreCert status will be set to Required if the Expiry Date is prior to the new scheduled date <i>or</i> the Expiry Date was blank when rescheduling from an Approved exam.	2016.7.13
17895	Temporarily disabled <i>EnableExtraCompressionOnStudyUpdates</i> until further changes are made.	2016.7.13
17897	An index was added to improve performance during a patient search (previously caused excessive IO).	2016.7.13
17898	Changed an index to improve efficiency of a Chair workflow query.	2016.7.13
17899	Index used by UM Management Reports is now only referencing UM Finalized dates that are not null.	2016.7.13
17900	Added a missing index on c_study_item_sedation for study_item_key.	2016.7.13
17901	The study dataset has been updated to take advantage of a new computed column to increase efficiency when determining the primary study.	2016.7.13

17902	Eliminated unnecessary database calls for linked interpretation rows to improve performance.	2016.7.13
17903	No longer retrieving unnecessary database columns for Patient Folder.	2016.7.13
17904	Resolved a performance issue with excessive service calls when searching for carriers.	2016.7.13
17908	The increased time for RIS GUI GetData calls to RIS Services has been reduced.	2016.7.13

## CODE STREAM

**Legend:**

Light Green = Previously Released software

Bright Green = Current Release

## ERAD RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2016.2	-	2.16.2.0 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00172540					Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge
2016.2	1	2.16.2.1 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00172540					GUI.zip and Citrix Bridge
2016.2	2	2.16.2.2 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00243102					GUI.zip, DB and Citrix Bridge
2016.3	-	2.16.3.0 (3GB)	2.16.3.0	2.16.3.0	2.16.3.0.00257101	2.16.3.0				Full Version Release
2016.3	1	2.16.3.1	2.16.3.0	2.16.3.1	2.16.3.1.00298834	2.16.3.0				GUI.zip, Web Service and DB
2016.3	2	2.16.3.2	2.16.3.0	2.16.3.2	2.16.3.1.00298834	2.16.3.0				GUI.zip and Web Service
2016.4	-	2.16.4.0	2.16.4.0	2.16.4.0	2.16.4.0.00301943	2.16.4.0	1.16.4.0.310284			Full Version Release
2016.4	1	2.16.4.1	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	1.16.4.0.310284			GUI and Web Service updates
2016.4	2	2.16.4.2 (3GB)	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	1.16.4.2.460241			GUI and Patient Portal updates
2016.4	3	2.16.4.3 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	1.16.4.3.489120			GUI and Patient Portal updates
2016.4	4	2.16.4.4 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	1.16.4.3.489120			GUI
2016.4	5	2.16.4.5 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0				GUI
2016.4	6	2.16.4.6 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0				GUI
2016.5	-	2.16.5.0 (3GB)	2.16.5.0	2.16.5.0	2.16.5.0.00349303	2.16.5.0	1.16.5.0.362009			Full Version Release
2016.6	-	2.16.6.0 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	1.16.6.0.432471			Full Version Release
2016.6	1	2.16.6.1 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	1.16.6.1.468583			GUI and Patient Portal updated
2016.7	-	2.16.7.0 (3GB)	2.16.7.0	2.16.7.0	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		Full version release
2016.7	1	2.16.7.1 (3GB)	2.16.7.0	2.16.7.1	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	2	2.16.7.2 (3GB)	2.16.7.0	2.16.7.2	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	3	2.16.7.3 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	4	2.16.7.4 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	5	2.16.7.5 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	6	2.16.7.6 (3GB)	2.16.7.0	2.16.7.6	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	7	2.16.7.7 (3GB)	2.16.7.0	2.16.7.7	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	8	2.16.7.8 (3GB)	2.16.7.0	2.16.7.7	2.16.7.8.00683507	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and DB updates
2016.7	9	2.16.7.9 (3GB)	2.16.7.0	2.16.7.9	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Services, DB updates and UM Portal
2016.7	10	2.16.7.10 (3GB)	2.16.7.0	2.16.7.10	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI and Web Service updates
2016.7	11	2.16.7.11 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Service and DB updates
2016.7	12	2.16.7.12 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI
2016.7	13	2.16.7.13 (3GB)	2.16.7.0	2.16.7.13	2.16.7.13.00823274	2.16.7.0	2.16.7.13.805715	2.16.7.13.805717		GUI, Web Service, DB, Patient and UM Portal updates
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		Full Version Release
2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI, Web Service, DB and Patient Portal updates
2017.1	5	2.17.1.4 (3GB)	2.17.1.0	2.17.1.5	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		Web Service
2017.1	6	2.17.1.6 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and DB Updates
2017.1	7	2.17.1.7 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	8	2.17.1.8 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	9	2.17.1.9 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.2	-	2.17.2.0 (3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0	2.17.2.0.702238	2.17.2.0.702213	2.17.2.0.702226	Full Version Release. First release of Provider Portal
2017.3	-	2.17.3.0 (3GB)	2.17.3.0	2.17.3.0	2.17.3.0.00764112	2.17.3.0	2.17.3.0.321	2.17.3.0.321	2.17.3.0.321	Full Version Release. Including Patient, Provider and UM Portals
2017.3	1	2.17.3.1 (3GB)	2.17.3.0	2.17.3.1	2.17.3.1.00846328	2.17.3.1	2.17.3.1.853299	2.17.3.1.853301	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals

## INSTALLING

### CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD\_rRIS\_2017.3.1.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

### WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

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 129 files in the rRISService folder and 7 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). Folders ar (Arabic), he (Hebrew), pt\_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and en\_AU (Australian English) are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc...

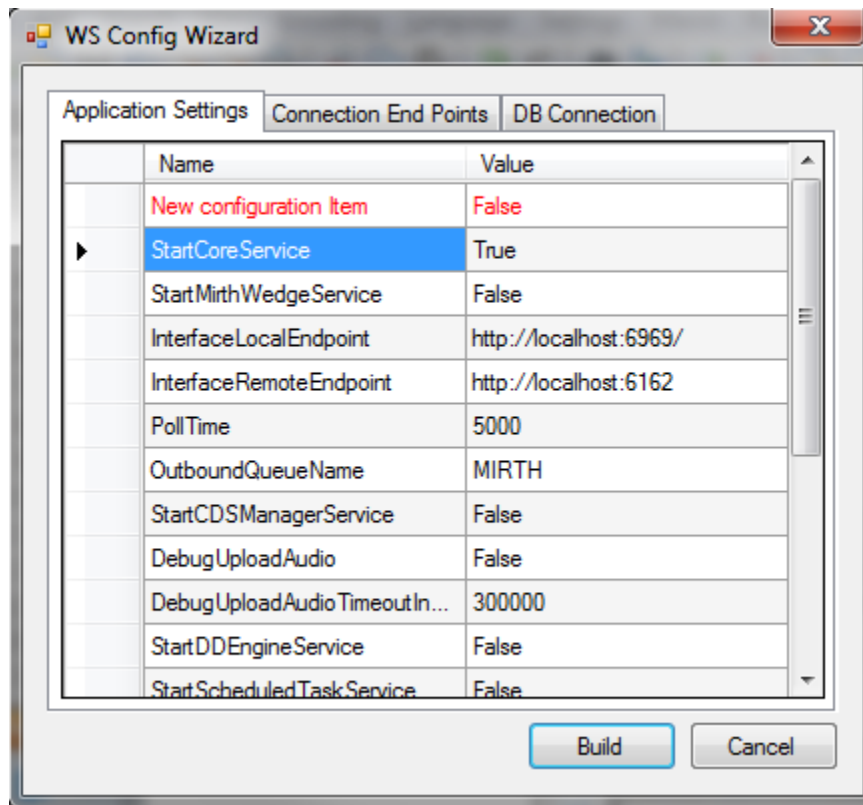
#### Services Configuration Wizard

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, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

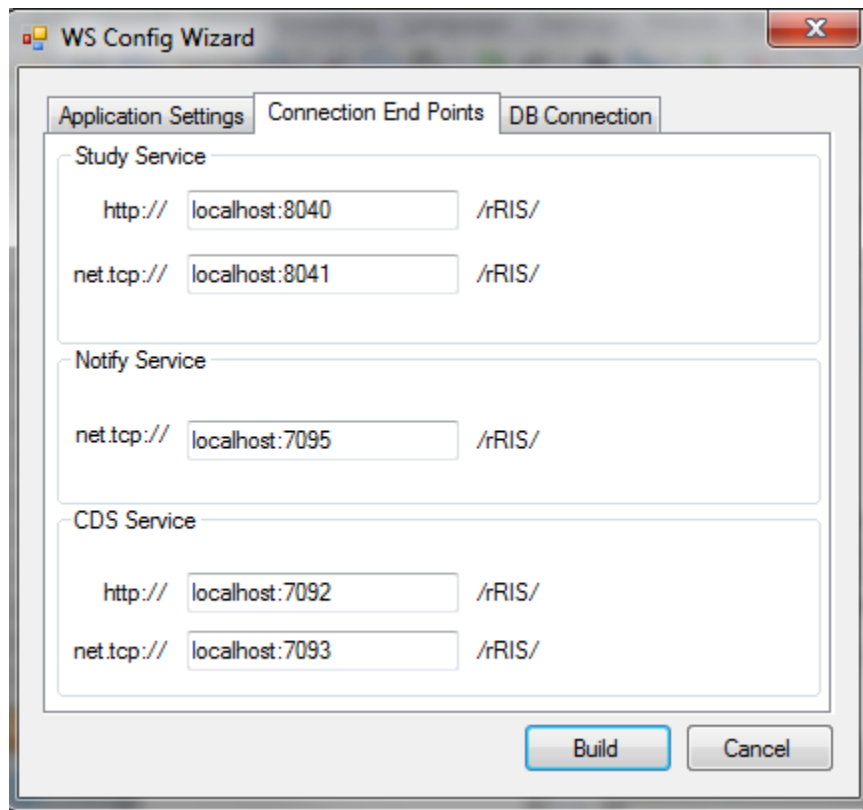
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

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.



**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.



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## DATABASE UPDATES

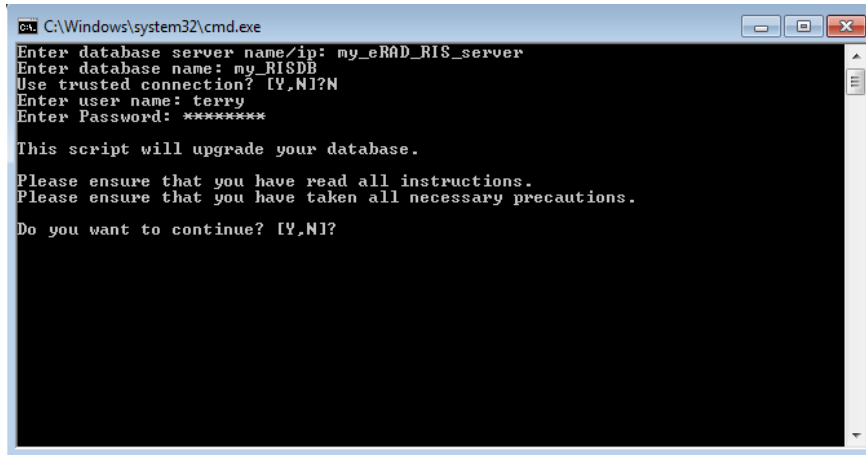
Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*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: 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]?
```

- 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



# Server Update

For eRAD RIS

Version 2.0

Build 2.2017.3

Update 2.2017.3.2.2

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## PACKAGE CONTENTS

 _ReleaseNotes	5/22/2018 4:57 PM
 rRISService	5/22/2018 11:45 AM

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team. It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.3 installs. This server update must be applied to 2017.3.2.1

## NEW SETTINGS

## APPLICATIONSETTINGS.CONFIG

Setting	Default	Purpose
GenerateRTLPDFForDiagnosticReports	False	When set to true, diagnostic reports will be generated in PDF format from the SSRS using the conversion library that supports specific character mappings that were problematic in the previous conversion method.

## NEW FEATURES

### FEATURE #20319 – COPY AND PASTE RTL CHARACTERS FOR A PDF DIAGNOSTIC REPORT

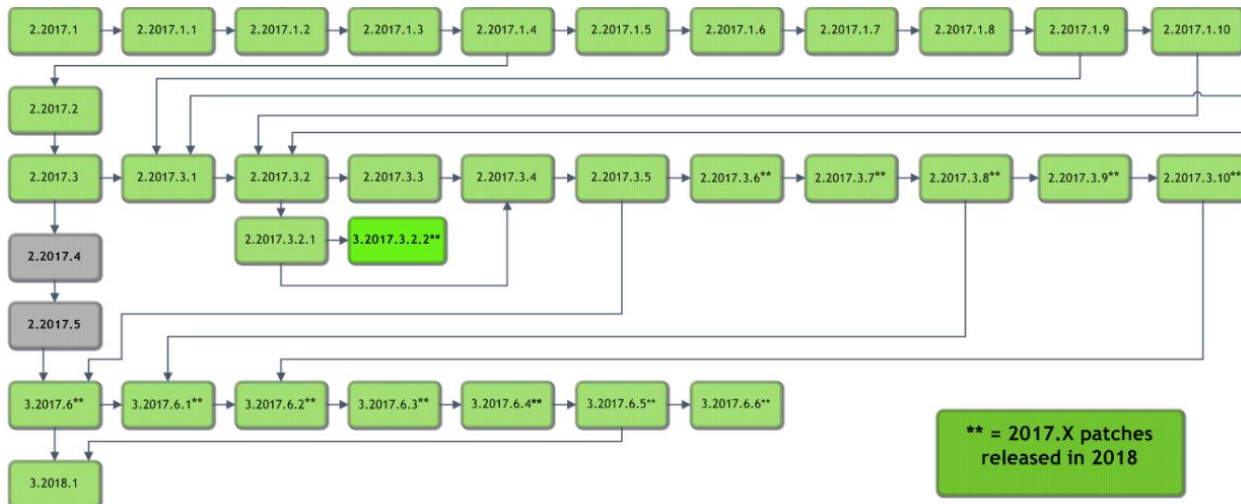
Previously, the [GenerateDiagnosticReport](#) web method on the External Interface Service (EIS) provided the option to export a PDF; however the file provided did not allow copy/pasting of Hebrew characters, which are rendered by SSRS as bitmap objects. To support this functionality for any customers using right to left languages, a new solution has been added to eRAD RIS that will provide the ability to export to a document from which text can be copy/pasted.

New functionality has been added to the core logic which generates diagnostic report PDFs from the SSRS. Instead of returning the PDF bytes received from the SSRs server, a new method of generating a PDF representation of the report has been implemented. A DOCX is requested from the reporting services, which is then passed to a DLL called DPN. The DPN DLL is a conversion library provided by Sub Systems, the company which supplies the RTL editor for reporting. This process eliminates problems with embedding certain character mappings which are required for proper copy and paste support. Because the conversion library is able to convert a DOCX to a PDF without using MS Office, it is more reliable under a heavy workload.

A new applicationsettings.config setting has been created to enable this new PDF generation functionality.

[GenerateRTLPDFForDiagnosticReports](#): Default = False

To enable the new functionality, this setting must be set to True for the service which is hosting the External Interface Service.

**CODE STREAM****Legend:**

Light Green = Previously Released software

Bright Green = Current Release

## ERAD RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		Full Version Release
2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		GUI, Web Service and DB updates
2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		GUI, Web Service and DB updates
2017.1	3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		GUI, Web Service and DB updates
2017.1	4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI, Web Service, DB and Patient Portal updates
2017.1	5	2.17.1.4 (3GB)	2.17.1.0	2.17.1.5	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		Web Service
2017.1	6	2.17.1.6 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI and DB Updates
2017.1	7	2.17.1.7 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI update
2017.1	8	2.17.1.8 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI update
2017.1	9	2.17.1.9 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI update
2017.1	10	2.17.1.10 (3GB)	2.17.1.0	2.17.1.10	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI and Web Service update
2017.2	-	2.17.2.0 (3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0	2.17.2.0.702238	2.17.2.0.702213	2.17.2.0.702226	Full Version Release. First release of Provider Portal
2017.3	-	2.17.3.0 (3GB)	2.17.3.0	2.17.3.0	2.17.3.0.00764112	2.17.3.0	2.17.3.0.321	2.17.3.0.321	2.17.3.0.321	Full Version Release. Including Patient, Provider and UM Portals
2017.3	1	2.17.3.1 (3GB)	2.17.3.0	2.17.3.1	2.17.3.1.00846328	2.17.3.1	2.17.3.1.853299	2.17.3.1.853301	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2	2.17.3.2 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2.1	2.17.3.2.1 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI Only
2017.3	2.2	2.17.3.2.1 (3GB)	2.17.3.0	2.17.3.2.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	Web Services only
2017.3	3	2.17.3.3 (3GB)	2.17.3.0	2.17.3.3	2.17.3.3.00954008	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	4	2.17.3.4 (3GB)	2.17.3.0	2.17.3.4	2.17.3.4.00987562	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service and DB
2017.3	5	2.17.3.5 (3GB)	2.17.3.0	2.17.3.5	2.17.3.5.01023250	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB, Patient Portal, Referring Portal, UM Portal
2017.3	6	2.17.3.6 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB,
2017.3	7	2.17.3.7 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI
2017.3	8	2.17.3.8 (3GB)	2.17.3.0	2.17.3.8	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI and Web Service
2017.3	9	2.17.3.8 (3GB)	2.17.3.0	2.17.3.9	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	Web Service
2017.3	10	2.17.3.10 (3GB)	2.17.3.0	2.17.3.10	2.17.3.10.01125764	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service and DB updates
2017.6	-	3.17.6.0 (3GB)	3.17.6.0	3.17.6.0	3.17.6.0.01037550	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	Full Version Release. Including Patient, Provider and UM Portals
2017.6	1	3.17.6.1 (3GB)	3.17.6.0	3.17.6.1	3.17.6.1.01094077	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	GUI, Web Service and DB updates
2017.6	2	3.17.6.2 (3GB)	3.17.6.0	3.17.6.2	3.17.6.2.01130171	3.17.6.2	3.17.6.2.1138297	3.17.6.2.1138298	3.17.6.2.1138298	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	3	3.17.6.3 (3GB)	3.17.6.0	3.17.6.3	3.17.6.3.01166033	3.17.6.3	3.17.6.3.1168622	3.17.6.3.1168622	3.17.6.3.1168623	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	4	3.17.6.4 (3GB)	3.17.6.0	3.17.6.4	3.17.6.4.01187509	3.17.6.4	3.17.6.4.1190295	3.17.6.4.1190295	3.17.6.4.1190295	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	5	3.17.6.5 (3GB)	3.17.6.0	3.17.6.5	3.17.6.4.01187509	3.17.6.4	3.17.6.5.1199064	3.17.6.5.1199063	3.17.6.5.1199064	GUI, Web Service, Patient, Provider and UM Portals
2017.6	6	3.17.6.6 (3GB)	3.17.6.0	3.17.6.6	3.17.6.6.01236363	3.17.6.4	3.17.6.5.1199064	3.17.6.5.1199063	3.17.6.5.1199064	GUI, Web Service and DB updates
2018.1	-	3.18.1.0 (3GB)	3.18.1.0	3.18.1.0	3.17.6.4.01187509	3.18.1.0	3.18.1.0.1229289	3.18.1.0.1229290	3.18.1.0.1229290	Full version release

## 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 122 files in the rRISService folder and 12 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). Folders are (Arabic), en\_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt\_BR (Brazilian Portuguese), es (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc...

#### Services Configuration Wizard

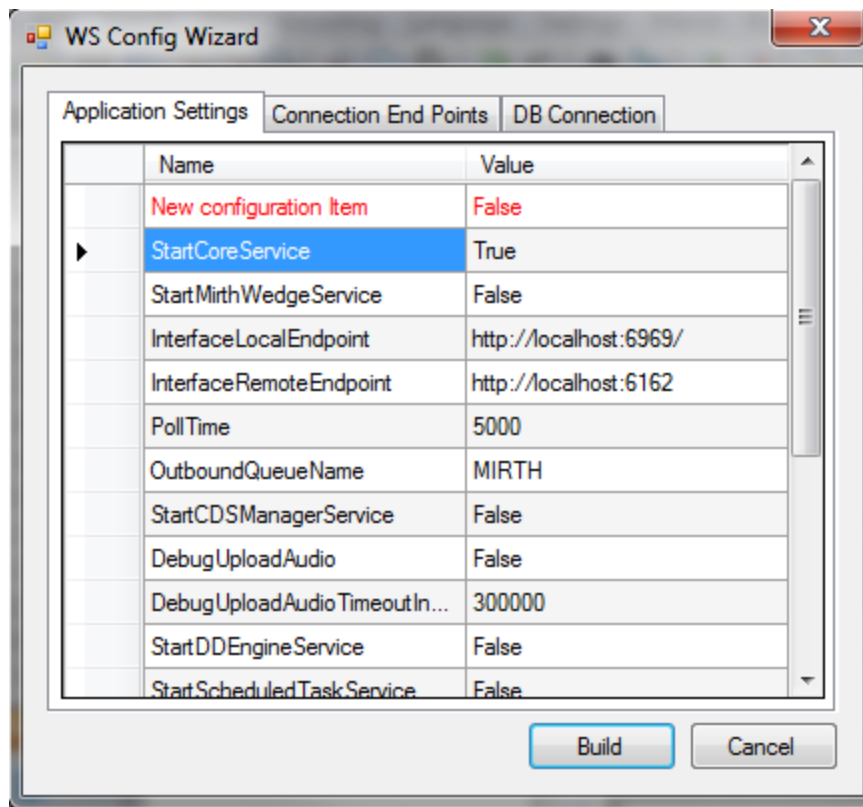
With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and 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.





**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

# **Server Update**

For eRAD RIS

Version 2.0

Build 2.2017.3

Update 2.2017.3.2













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## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.3 installs. This server update must be applied to 2017.3.1

## NEW FEATURES

Some of the features included with this eRAD RIS Server Update were originally released in 2016.7.14 or 2017.1.10 and are now being merged into the 2017.3.2 build. The feature number listed first is the 2017.3.2 Redmine tracking number, followed by the associated 2016.7.14 or 2017.1.10 Redmine number.

There are additional items that were added from the current development cycle that has not yet been released. The purpose of adding these items is to make them available sooner. See Resolved Items section of this document for original origin of these listed features.

### FEATURE #18220 / #17708 – SET DEFAULT UM STATUS AND RESOLUTION CODES FOR GOLD CARD AND STAT ORDERS

When configured, special handling for Gold Card or STAT orders requires that the orders be advanced to scheduling, bypassing the UM process. Previously, the UM flag was set to “Y” to allow scheduling, but the order would remain in Received status.

It is now possible to configure which Status and Resolution codes will be used in these scenarios. The defaults are defined by the following System Configuration settings:

- UMDefaultSTATStatusCode
- UMDefaultSTATResolutionCode
- UMDefaultGoldCardStatusCode
- UMDefaultGoldCardResolutionCode

If either UMByPassSTAT or UMGoldCardAutoApprove is set to Y, the order’s status code and resolution code will be immediately changed to match the System Configuration values. In addition, the following values are automatically set:

- UM Finalized Date = Current Date/Time
- UM Finalized by User ID = “system”
- UM Final Status Hours = 0

---

**FEATURE #18218 / 17580 - AUTOMATICALLY UPDATE EXAM STATUS BASED ON ATTRIBUTES OF SELECTED UM STATUS**

Previously, when a UM Reviewer marked all procedures in an order as Not Recommended, the Patient Folder continued to display the order in an Ordered status, with the Procedure column displaying as blank due to the fact that no active procedures were associated. This could be confusing in cases where the UM Reviewer needed to go back to the case (e.g. they receive a call from the referring provider) or to other RIS users.

For this reason, a new System Configuration value has been added called *UMDefaultCancelledReasonCode*. This configuration value is dependent on a corresponding entry in the *CancelStudyReason* look-up table.

The workflow will proceed as follows: First, the system will look at the order once it is marked as UM Complete. UM Complete is determined by looking at each ordered procedure that requires utilization review to see if it is in a final UM Status. Next, the system will determine if the final UM Status can advance to scheduling or not. For example, Recommended can be scheduled while Not Recommended typically cannot. This is determined by verifying that the Final Flag on the UM Status is set to "Y" and the Schedule Flag is set to "N."

If it is determined that all the procedures for the order require utilization review and none can advance to be scheduled, the system will perform the following tasks:

1. Set the Status Code for the order to Order Cancelled.
2. Set the Cancelled by User ID field for the Order to "system."
3. Set the Cancelled Date for the order to the current date and time.
4. Set the Cancelled Reason Code for the order to the *UMDefaultCancelledReasonCode*.

The following is an example of the audit log for the above scenario.



Event Time: 08-21-2017 03:38:15.836 PM Client IP Address: ::1

Changed c\_order  
 status\_code: 'OrderCancelled' (was 'OrderSigned')  
 cancelled\_by\_user\_id: 'system' (was 'nothing')  
 cancelled\_reason\_code: 'UMDenied' (was 'nothing')  
 um\_complete\_flag: 'Y' (was 'N')  
 um\_owner\_user\_id: 'chasinl' (was 'nothing')  
 cancelled\_date: '08-21-17 3:38:14 PM -03:00' (was 'nothing')

Changed c\_order\_item  
 procedure\_code: '70488'  
 um\_status\_code: 'NotRecommended' (was 'Received')  
 um\_resolution\_code: 'MedNec' (was 'nothing')  
 um\_finalized\_date: '08-21-17 3:38:14 PM -03:00' (was 'nothing')  
 um\_final\_status\_hours: '40' (was 'nothing')  
 um\_finalized\_by\_user\_id: 'spencer' (was 'nothing')  
 um\_reviewed\_date: '08-21-17 3:38:14 PM -03:00' (was 'nothing')  
 um\_reviewed\_by\_user\_id: 'spencer' (was 'nothing')  
 um\_procedure: 'CT Maxillofacial W/Wo [70488] - Chest' (was 'nothing')  
 um\_status: 'Not Recommended - Medical Necessity Not Established' (was 'nothing')  
 um\_clock: '40 of 30' (was 'nothing')

Below is an example of a UM order for which all exams on the order are moved to a Final UM status that indicates no scheduling is possible.

Utilization Management WL (61) Patient: UM, Diana #8977PE (172)

Flags Nuggets Status Procedures

Flags	Nuggets	Status	Procedures
\$		Order Cancelled	CT Maxillofacial W/Wo [70488] - Chest
\$	UM Complete (e)		CT Chest Wo [71250] - Chest
	<b>104622 - Routine</b>		CT Chest Wo [71250] - Chest
	CT Maxillofacial W/Wo [70488]		CT Chest Wo [71250] - Chest
	Not Recommended - Medical Necessity Not Established		CT Chest Wo [71250] - Chest

## FEATURE #18215 / 17529 - UM REVIEWERS CAN NOW CHANGE THE REQUESTED PROCEDURE

When adding UM orders to RIS, the data entry team sometimes mistakenly adds the wrong procedure to the order. The UM reviewer would previously have to modify the existing order via the Schedule Order screen because adding the correct procedure as an Alternative exam for a simple data entry error would skew the statistics. It is now possible for the reviewer to modify the ordered procedure from the Utilization Review screen.

The context menu on the Requested Procedure(s) grid on the Review Details tab has been enhanced to include both **Edit Procedure** and **Remove Procedure** menu items.

The screenshot shows the 'Utilization Review: TEST, um #8463PE' screen. The 'Review Details' tab is active. The 'Requested Procedure(s)' grid contains two rows:

UM	Procedure	UM Status	UM Clock	Original Procedure
✓	CT Chest W [71260] - Chest	Received	2 of 30	
✓	CT Soft Tissue Neck Wo [70490] - Neck	Received	2 of 30	

A context menu is open over the second row, showing options: Content Preview, Edit Procedure, Remove Procedure, and Copy Cell. The 'Remove Procedure' option is highlighted.

For the Remove Procedure option, the following logic is used to determine if the user can delete the procedure from the order.

1. If the procedure is the only one for the order, the user is prevented from removing it and prompted with "At least one procedure is required."
2. If the procedure being removed already has a study associated with it (has been scheduled or is further in the workflow), the user is prevented from removing it and is prompted with "The procedure you are deleting is currently in Scheduled status. Please notify the appropriate person to make adjustments to the appointment."

For the Edit Procedure option, similar logic applies. If the procedure being removed already has a study associated with it (has been scheduled or is further in the workflow), the user is prevented from removing it and is prompted with "The procedure you are deleting is currently in Scheduled status. Please notify the appropriate person to make adjustments to the appointment". Note that the word "Scheduled" will be replaced with the actual status of the study.

While adding the above logic to not adjust ordered procedures that have studies associated, it was decided to also prevent and display a message to the user for the following scenarios:

1. When specifying an alternative procedure for an order item that already has a study associated, the user is prompted with: "The procedure you are recommending an alternative to is currently in scheduled status. Please notify the appropriate person to make adjustments to the appointment."
2. When removing an alternative procedure for an order item that already has a study associated, the user is prompted with: "The procedure you are deleting is currently in Scheduled status. Please notify the appropriate person to make adjustments to the appointment."
3. When adding an additional procedure for an order that already has at least one study associated, the user is prompted with: "The order you are adding an additional procedure to has a procedure in scheduled status. Please notify the appropriate person to make adjustments to the appointment."
4. When removing an additional procedure for an order item that already has a study associated, the user is prompted with: "The procedure you are deleting is currently in Scheduled status. Please notify the appropriate person to make adjustments to the appointment."

If the above validation passes when editing a procedure, the user is presented with a procedure picker so he or she can modify the procedure and replace it at the order item level.

When selecting Remove Procedure, the user is prompted with "Are you sure you want to remove the procedure?" Selecting yes will delete the order item.

## FEATURE #18217 / 17579 - UM REVIEWERS CAN NOW CHOOSE ANY ACTIVE PROCEDURE, UNLIMITED BY THE CURRENT SITE'S SCHEDULE GROUP

When a UM Reviewer wishes to recommend an alternative procedure, or add an additional procedure, or edit the procedure, sometimes it is not a procedure that can be performed at the practice or site for which the order was created. Currently, there are some restrictions on what procedures are available in the dropdown when selecting Alternative or Additional procedures. The UM Reviewer should have access to any active procedure when choosing the procedure via UM workflow.

The utilization review procedure picker has been enhanced to include dropdowns for both Practice and Site. When editing the existing procedure or specifying an alternative procedure, the Procedure dropdown will default to the original ordered procedure.

If the user changes the Procedure dropdown to a procedure that cannot be performed at the site or practice specified with the order, he or she is prompted with “The selected procedure cannot be performed at this Site or Practice. Please select a new Practice and Site from the list.”

If the user changes the Procedure dropdown to a procedure that cannot be performed at the site but is available at the practice specified with the order, he or she is prompted with “The selected procedure cannot be performed at this Site. Please select a new Site from the list.”

The Practice and Site dropdowns are then filtered to present the user with only practices and sites that can perform the newly selected procedure. This is accomplished by comparing active procedure codes against the configured schedule groups.

When adding additional procedures, the reviewer is not limited by the practice and site selection and will not be prompted if the procedure cannot be performed.

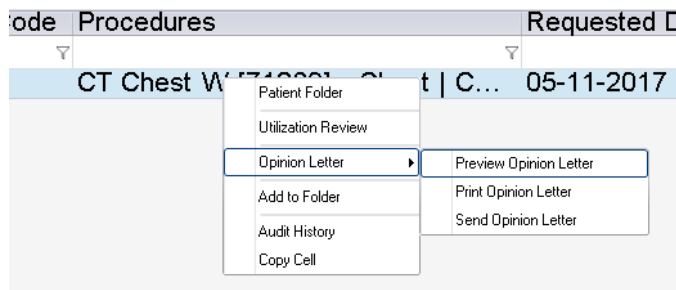
---

**FEATURE #18216 / 17530 - RIS USERS CAN NOW PREVIEW AND DISTRIBUTE THE UM OPINION LETTER**

Previously, the UM Opinion Letter was only available to be previewed from the Utilization Review screen via the UM Opinion Letter tab. Sometimes it is necessary for other RIS users to preview or distribute the UM Opinion Letter. To accomplish this, a new context menu item has been added to the Patient Folder and UM WL called "Opinion Letter." This option will be available when the UM Required Flag = Y and the user has FULL access to a new access string: [Clinical.OpinionLetter](#).

The Opinion Letter context menu item will have three options:

1. Preview Opinion Letter
2. Print Opinion Letter
3. Send Opinion Letter



Access to these three sub-menu options can be controlled via the access strings:

- [Clinical.OpinionLetter.Preview](#)
- [Clinical.OpinionLetter.Print](#)
- [Clinical.OpinionLetter.Send](#)

**FEATURE #18263 / 16398 – CEHRT 170.315(C)(4): TAX ID FIELD AT PRACTICE & SITE LEVELS**

For CEHRT 170.315(c)(4), a Tax ID field was created at the Practice and Site levels in order to provide CQM management reports with the appropriate filters.

On the Practice Add/Edit screen, the Tax ID # field has been added to the Other section of the Miscellaneous tab.

The screenshot shows the 'Miscellaneous' tab selected. Under the 'Other' section, the 'Tax ID #' field is highlighted with a red box. The field is a text input with a hyphen and a blank space for the second digit. Other fields visible include 'Track CPOE pathology requests in Lab WL for 33 days', 'Eligible customer ID', 'MU Required', 'CT dosage tracking enabled', and 'Automatically attach photo to scan documents'.

On the Site Add/Edit screen, the Tax ID # field has been added to the Other section of the Misc tab.

The screenshot shows the 'Misc' tab selected. Under the 'Other' section, the 'Tax ID #' field is highlighted with a red box. The field is a text input with a hyphen and a blank space for the second digit. Other fields visible include 'PIX/PDQ Configuration' with 'PIX Server' and 'PDQ Server' dropdowns.

If the Tax ID has been added at the Practice and Site level, the Site level Tax ID will be used. If a Site level Tax ID is not present, the Site's Practice level Tax ID will be used.

For both Tax ID # fields, a mask has been applied to ensure that Tax ID #s are entered in the appropriate format of XX-XXXXXXX. A hyphen will be inserted after the second character and a blank line will be displayed until all of the digits have been entered.

The close-up shows the 'Tax ID #' label and the input field. The field contains the text '76-87' followed by a blank space, indicating the mask is applied.

Only numeric digits (0-9) can be entered into the field.

## FEATURE #18232 / 16877 – CEHRT 170.315(B)(4): FUNCTIONAL/COGNITIVE STATUS FIELD ADDED TO CLINICAL TAB

To qualify as a certified EHR System under the latest CEHRT requirements, eRAD RIS must be capable of collecting a patient's Functional and Cognitive status, as well as providing this information in the C-CDA.

Because this data is unlikely to be collected in radiology, the fields were added in an out of the way area in the RIS. It is accessed using the Info button on the Clinical Tab.

Register: AGUILAR, Dan #1753

Patient Patient Notes Contacts / Demographics **Clinical** Order Exams Image Request

Demographics at Encounter

Height  cm Weight  lbs Smoking status Heavy tobacco smoker BMI  Is pregnant ☐

Medical History

After opening, the Functional/Cognitive Status can be entered as seen below. Up to 500 characters of free text are allowed.

Meaningful Use

☐ Medical Reconciliation ☐ Administered Influenza Vaccine 0

☒ Electronic Access to Health Record ☐ BMI Follow Up Plan 0

☐ Transition of Care to Another Provider ☐ BMI Dietary Consultation 0

☐ Transition of Care Summary Provided ☐ Cessation Counseling 0

Referral type To radiologist

Blood pressure 130 / 140 Heart rate  BPM Res

Body temperature  deg Oxygen saturation  % Oxy

Conditions No impairment x

Functional / Cognitive status Here is an example of a functional or cognitive status message.

This field will appear on the C-CDA in the Functional and Cognitive Status section as a Functional Status Observation:

### FUNCTIONAL AND COGNITIVE STATUS

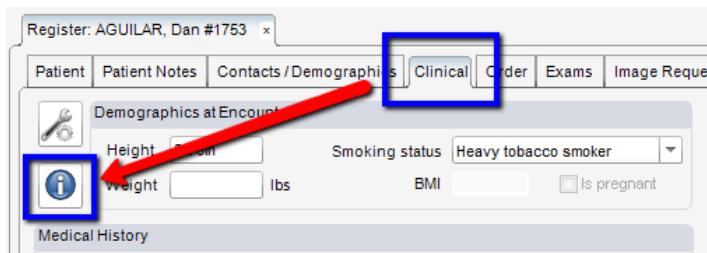
Condition	Date	Status
No impairment	05-05-2017	Active
<b>Other</b>		
Here is an example of a functional or cognitive status message.		



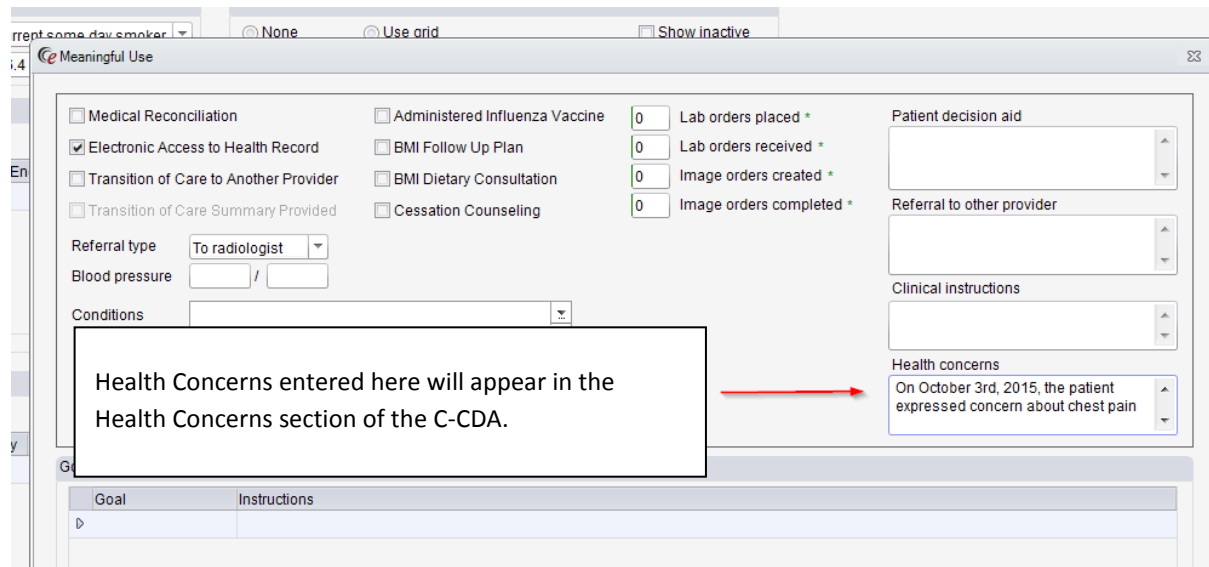
## FEATURE #18230 / 16866 – CEHRT 170.315(B)(4): HEALTH CONCERNS FIELD ADDED TO CLINICAL TAB

To qualify as a certified EHR System under the latest CEHRT requirements, eRAD RIS must be capable of collecting a patient's Health Concerns in a separate field that can be pulled into the C-CDA.

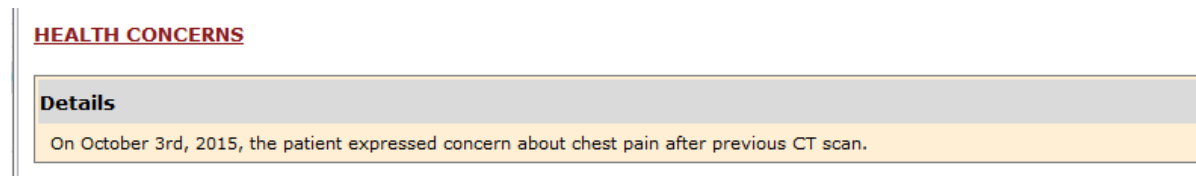
Because this data is unlikely to be separately collected in radiology, the fields were added in an out of the way area in the RIS. It is accessed using the Info button on the Clinical Tab.



After opening, the Health Concerns can be entered as seen below. Up to 500 characters of free text are allowed.



If this field is populated, the C-CDA will display the information:



If left blank, the C-CDA will indicate that health concerns were not recorded:

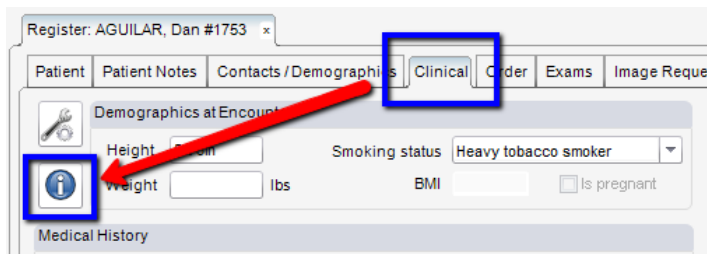
<b><u>SOCIAL HISTORY</u></b>			
<b>Description</b>	<b>Status</b>		
Smoking Status	Never smoker (Never Smoked)		
<b><u>VITAL SIGNS</u></b>			
<b>Date</b>	<b>Height</b>	<b>Weight</b>	<b>BMI</b>
04-27-2017	65 in	153 lbs	25.46
<b><u>HEALTH CONCERNS</u></b>			
No health concerns recorded			

## FEATURE #18229 / 16222 - CEHRT 170.315(B)(4): ADDITIONAL FIELDS ADDED TO CLINICAL TAB FOR C-CDA

To qualify as a certified EHR System under the latest CEHRT requirements, eRAD RIS must be capable of collecting the following information that can be pulled into the C-CDA:

- Heart rate - {beats}/min (LOINC 8302-2)
- Respiratory rate - /min (LOINC 9279-1)
- Body temperature – deg (LOINC 8310-5)
- Oxygen saturation – Percent (LOINC 2710-2)
- Oxygen concentration - mL/dL (LOINC 3150-0)

Because this data is unlikely to be separately collected in radiology, the fields were added in an out of the way area in the RIS. It is accessed using the Info button on the Clinical Tab.



After opening, the new information can be entered as seen below.

If these new fields are populated, the data will be displayed in the C-CDA.

**Weight** 23.31 lbs **BMI** 13.4 ☐ Is pregnant

**Medical History**  
☐ None ☐ Use grid  

Problem	Start Date	End Date	Status
(C22.0) Liver cell carcinoma	03-22-2017		Active

[Click here to add a new row](#)

**Allergies**  
☐ None ☐ Use grid  

Allergy	Reaction	Severity	Status	Start Date

**Continuity of Care Record (CCR)** **Clinical Document (C-CDA)**

**Lab Orders**  
**Test** **Status** **Value**  
  
☒ Patient Folder  
**Procedures**  
☐ CT RECALL NO DICTATION INVOLVED [CT5]  
☐ CT 3 Phase Liver [CT13]  
☒ CT 4 Phase [ct04]  
☐ CT 3 Phase Liver [CT13]  
☐ CT 3 Phase Liver [CT13]  
☐ CT 3 Phase Liver [CT13]  
☐ CT 3 Phase Liver [CT13]  
☐ CT 4 Phase [ct04]  
☐ CT 3 Phase Liver [CT13]

**CCDA Preview**  
**REASON FOR VISIT**  
 03-24-17 kevin - asdf 03-22-17 kevin - test  
**DETAILS**  

Test Name	Value
Hemoglobin [30313-1]	Pending

**VITAL SIGNS**  

Date	Height	Weight	BMI
03-22-2017	35 in	23.31 lbs	13.38

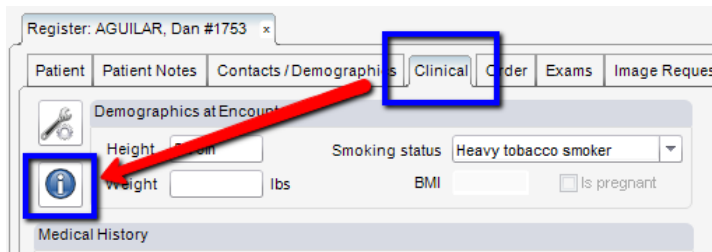
 Blood Pressure: 232/23 mm[Hg]  
 Heart Rate: 23.2 BPM  
 Respirations: 12.21 /min  
 Body Temperature: 12 deg  
 Oxygen Saturation: 12.121 %  
 Oxygen Concentration: 12.12 mL/dL

03-27-2017 Scheduled

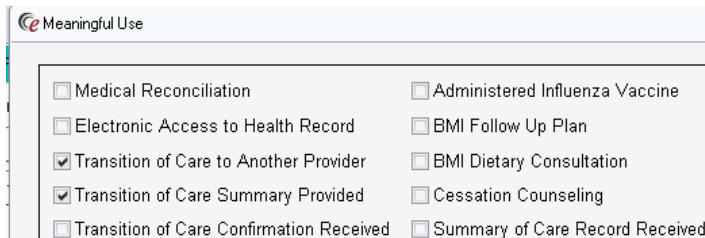
## FEATURE #18234 / 18039 – CEHRT: TRANSITION OF CARE CONFIRMATION RECEIVED

To qualify as a certified EHR System under the latest CEHRT requirements, eRAD RIS must be capable of recording that a Transition of Care Confirmation has been received.

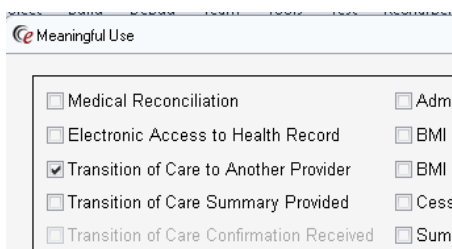
A new checkbox has been added for this purpose. It is accessed using the Info button on the Clinical Tab.



The checkbox will be available on the resulting screen, as shown:



The checkbox for Transition of Care Summary Provided must be checked to enable the Transition of Care Confirmation Received checkbox. If it is not checked, the new Confirmation Received checkbox will be disabled.



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FEATURE #18233 / 18008 – CEHRT: SUMMARY OF CARE RECORD RECEIVED

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To qualify as a certified EHR System under the latest CEHRT requirements, eRAD RIS must be capable of recording that a Summary of Care Record has been received.

A new checkbox has been added for this purpose. It is accessed using the Info button on the Clinical Tab.

The screenshot shows the eRAD RIS interface for a patient named AGUILAR, Dan #1753. The 'Clinical' tab is selected and highlighted with a blue box. Below the tabs, the 'Demographics at Encounter' section is visible. A red arrow points to the 'Info' button, which is also highlighted with a blue box. The 'Info' button is located in the bottom left corner of the 'Demographics at Encounter' section. The 'Smoking status' is set to 'Heavy tobacco smoker'.

The checkbox will be available on the resulting screen, as shown:

The screenshot shows the eRAD RIS interface for a patient named AGUILAR, Dan #1753. The 'Summary of Care Record Received' checkbox is checked. The 'Referral type' is set to 'To radiologist'. The 'Blood pressure' is 120/80 mmHg and the 'Heart rate' is 75 BPM. The 'Summary of Care Record Received' checkbox is highlighted with a blue box.

Feature	Status
Medical Reconciliation	<input checked="" type="checkbox"/>
Electronic Access to Health Record	<input type="checkbox"/>
Transition of Care to Another Provider	<input type="checkbox"/>
Transition of Care Summary Provided	<input type="checkbox"/>
Summary of Care Record Received	<input checked="" type="checkbox"/>
Administered Influenza Vaccine	<input type="checkbox"/>
BMI Follow Up Plan	<input type="checkbox"/>
BMI Dietary Consultation	<input type="checkbox"/>
Cessation Counseling	<input checked="" type="checkbox"/>

---

**FEATURE #18237 / 16978 - 170.315(G)(2) AUTOMATED MEASURES REPORTING - UPDATE TO TRANSITIONAL MEASURES FOR 2017**

A new management report has been created to provide information for ACI Transition Measures. It is located in the Meaningful Use folder. The report will provide the numerator, denominator and percentage, alongside the Base and Performance score for each of the following measures:

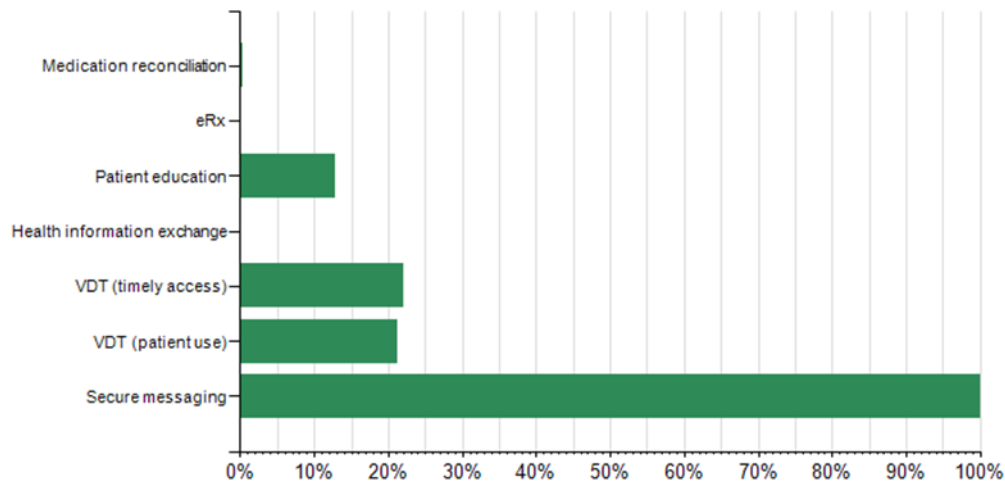
- Medication Reconciliation
- eRx
- Patient Education
- Health Information Exchange
- VDT (timely access)
- VDT (patient use)
- Secure Messaging

It is also possible to enter in the report criteria that a Security Risk Analysis has been completed, which will be reflected in the report. The report can be run to display individual radiologist data or an aggregate of “provider group” data for selected radiologists.

The Performance score is the numerator divided by the denominator multiplied by 20 for VDT (timely access) and Health Information Exchange. For Medication Reconciliation, VDT (patient use), Secure Messaging and Patient Education, the Performance score is the numerator divided by the denominator multiplied by 10.

The Base score is set at 50 if the following are true:

- Security Risk Analysis has been completed (per report criteria filters).
- Numerator is at least 1 for Health Information Exchange and VDT (timely access).
- Numerator is at least 1 for eRx when the denominator is at least 100.

**ACI Transition Measures****Radiologist:** Aiken, Darcy ([darcy](#))**Practice(s):** Advanced Radiology**Site(s):** ADV: New Lutherville**Reporting Period:** 1/1/2017 12:00:00 AM - 12/31/2017 12:00:00 AM**Description:** This report displays the percentage of patients where the mu requirement was recorded.

Meaningful Use Measure	Numerator	Denominator	%	Base**	Performance*
Security risk analysis				Y	
<a href="#">Medication reconciliation</a>	1	419	0.24%	N	0 / 10
<a href="#">eRx</a>	0	0	0.00%	N	0 / 0
<a href="#">Patient education</a>	33	259	12.74%	N	1 / 10
<a href="#">Health information exchange</a>	0	1	0.00%	N	0 / 20
<a href="#">VDT (timely access)</a>	57	259	22.01%	Y	4 / 20
<a href="#">VDT (patient use)</a>	55	259	21.24%	N	2 / 10
<a href="#">Secure messaging</a>	259	259	100.00%	N	10 / 10
<b>Total Score: 0 / 130</b>				<b>0</b>	<b>0</b>

\*Performance score is the numerator divided by the denominator multiplied by 20 for VDT (Timely Access) and Health Information Exchange and the numerator divided by the denominator multiplied by 10 for Medication Reconciliation, VDT (Patient Use), Secure Messaging, and Patient Education.

\*\*Base score is set at 50 if Security Risk Analysis has been confirmed, numerator is at least 1 for Health Information Exchange and VDT (Timely Access), and numerator is at least 1 for eRx when denominator is at least 100.



Confidential and Proprietary  
Page 1 of 1

Date Run: 5:59 PM  
RMS\FormsGuestUser

Each measure, with the exception of Security Risk Analysis, has a sub-report that include the patient details underlying each score. To access the patient details, click the blue hyperlink for the measure. An example of the Medication Reconciliation patient details is displayed below.



Patient Name	Patient ID	Accession #	Practice Code	Scheduled Date	Signed Date	Status Code	Birth Date	Referral Type Code	Medication Reconciliation
Adams, Grizzly	42004QE2	1039258QE2	ADV	5/3/2017 12:00:00 AM	5/3/2017 12:00:00 AM	Signed1	3/15/1965 12:00:00 AM	306299005	N
		1041237QE2	ADV	6/19/2017 12:00:00 AM	6/19/2017 12:00:00 AM	Signed1	3/15/1965 12:00:00 AM	306299005	N
Agnew, Agnes	40994QE2	1037574QE2	ADV	4/4/2017 12:00:00 AM	4/20/2017 12:00:00 AM	Signed1	5/5/1980 12:00:00 AM	306299005	N
Alonso, Fernando	41462QE2	1038400QE2	ADV	4/18/2017 12:00:00 AM	8/1/2017 12:00:00 AM	Signed1	7/29/1981 12:00:00 AM	306299005	N
Appleton, Betsy Bayna	43697QE2	1041140QE2	ADV	6/12/2017 12:00:00 AM	6/12/2017 12:00:00 AM	Signed1	1/10/1946 12:00:00 AM	306299005	N
		1041272QE2	ADV	6/21/2017 12:00:00 AM	6/21/2017 12:00:00 AM	Signed1	1/10/1946 12:00:00 AM	306299005	N

---

**FEATURE #18280 - ACCESS STRING WILL ALLOW EDITS TO DIGITAL FORMS AFTER THE REPORT IS SIGNED**

Permissioned users sometimes need to make changes to Digital Forms after the report has been signed, when mistakes need to be corrected or additional information needs to be added. Appropriately trained staff can make a determination whether the changes necessitate an addendum and/or notification to the radiologist.

A new access string has been added to enable this functionality: *Clinical.DigitalForms.AllowEditPostSignature*.

Users with full access can now edit digital forms for studies in Signed status.

## NEW CONFIGURATION SETTINGS

## SYSTEM CONFIGURATION SETTINGS

Setting	Default	Purpose
UMDefaultCancelledReasonCode	N/A	(value = string) The default cancelled reason code for orders denied during the utilization review process.
UMDefaultGoldCardResolutionCode	N/A	(value = string) The default gold card utilization review resolution code.
UMDefaultGoldCardStatusCode	N/A	(value = string) The default gold card utilization review status code.
UMDefaultSTATResolutionCode	N/A	(value = string) The default STAT utilization review resolution code.
UMDefaultSTATStatusCode	N/A	(value = string) The default STAT utilization review status.

## ACCESS STRINGS

Setting	Default	Purpose
Clinical.DigitalForms.AllowEditPost Signature	None	Allows user to edit digital forms after the report is signed.
Clinical.OpinionLetter	Full	Controls access to the WL context menu Opinion Letter.
Clinical.OpinionLetter.Preview	Full	Controls access to the WL context menu Opinion Letter/Preview Opinion Letter.
Clinical.OpinionLetter.Print	Full	Controls access to the WL context menu Opinion Letter/Print Opinion Letter.
Clinical.OpinionLetter.Send	Full	Controls access to the WL context menu Opinion Letter/Send Opinion Letter.

## RESOLVED ITEMS

## eRAD RIS

Redmine #	Subject
18264	An exception that prevented the dictation audio file archive process from running has been resolved.
18341	Eligibility tables added back into the Outbound message.
18340	WPR workflow – Resolved an exception that prevented submission for review if the accession number was not linked to a patient.

The following list contains bugs or features that have been resolved in previous RIS versions and have been added to this version of eRAD RIS to provide an upgrade path. Features are also described in the New Features section.

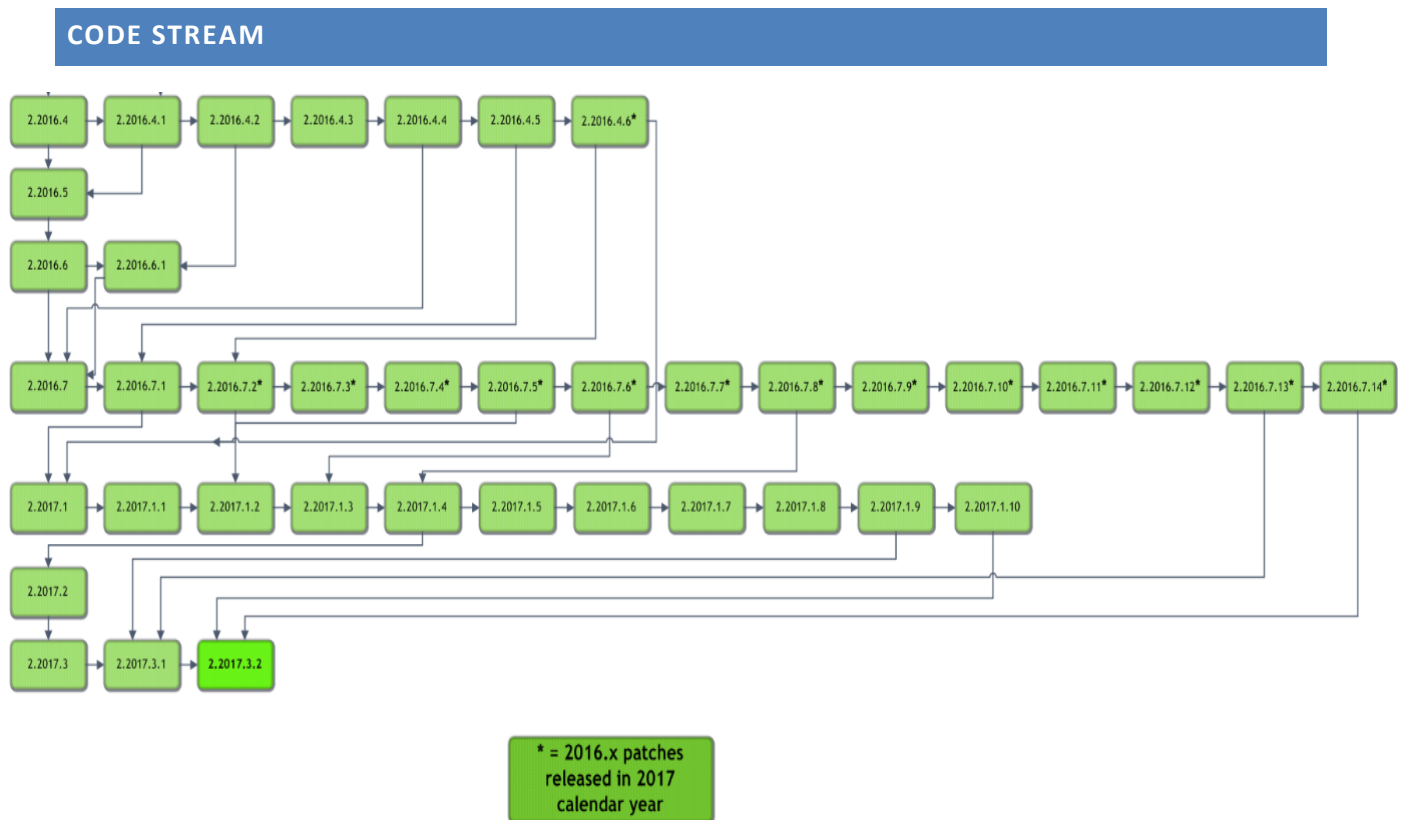
Some of these items have been taken from current new development (intended to be released in a future version).

Redmine #	Subject	Original Resolved Version
18261	C_type_bigint_key_list has been added.	2.2016.7.14
18224	Corrected an issue where EMR orders from the existing orders prompt with New Appointment or Walk-In icon in Patient Folder did not save all information appropriately.	2.2016.7.14
18223	Slow performance after updating to 2016.7.13 has been resolved.	2.2016.7.14
18222	UM Portal “get list of orders” is now a more efficient database query.	2.2016.7.14

18221	An issue with the query used by RIS Wedge has been addressed to prevent back-ups of the c_action_queue.	2.2016.7.14
18220	UM - When specifying Gold Card or STAT orders, the system should auto-approve the order and set the UM Status and UM Resolution.	2.2016.7.14
18219	UM – Resolved an issue where the UM Required flag could inappropriately change from Y to N when removing a procedure using the red or black “x.”	2.2016.7.14
18218	Feature: Automatically update Exam Status based on attributes of selected UM Status.	2.2016.7.14
18217	Feature: Allow a UM Reviewer to choose any active procedure, unlimited by the current site's Schedule Group.	2.2016.7.14
18216	Feature: Allow RIS users to preview and distribute the UM Opinion Letter.	2.2016.7.14
18215	Feature: Allow Reviewers to change the requested procedure (without recommending an alternative).	2.2016.7.14
18228	Corrected a timing issue that could cause Print to RIS to stop working intermittently.	2.2017.1.10
18227	Resolved a rare issue in which a user could receive an error when adding an Unknown Referring.	2.2017.1.10
18226	Resolved an issue related to duplicate c_study_item entries for same study key.	2.2017.1.10
18225	PACS images are now closing appropriately after viewing from the View/Edit screen.	2.2017.1.10

18263	Feature: 170.315(c)(4) Created a Tax ID field at Practice and Site levels	2.2017.4
18235	Feature: Capture both Timely Access and VDT(View, Download and Transmit) statistics. Transitional Measures Report.	2.2017.4
18232	Feature: 170.315(b)(4) Added Cognitive Status and Functional Status Fields to Clinical tab	2.2017.4
18230	Feature: 170.315(b)(4) Added Health Concerns Field to Clinical Tab.	2.2017.4
18229	Feature: 170.315(b)(4) Additional C-CDA fields added.	2.2017.4
18245	Feature: 170.315(g)(2) Automated Measures ACI Transitional and ACI "Standard" reports provide ability to display aggregated "provider group" data.	3.2017.6
18244	Feature: 170.315(g)(2) Automated Measures Medication Reconciliation Update added to ACI Transition Measures report.	3.2017.6
18243	Feature: 170.315(g)(2) Automated Measures Reporting - Secure Electronic Messaging added to ACI Transition Measures report.	3.2017.6
18242	Feature: 170.315(g)(2) Automated Measures Reporting - View Download Transmit added to ACI Transition Measures report.	3.2017.6
18241	Feature: 170.315(g)(2) Automated Measures Reporting - Health Information Exchange added to ACI Transition Measures report.	3.2017.6

18240	Feature: 170.315(g)(2) Automated Measures Reporting - Patient Specific Education added to ACI Transition Measures report.	3.2017.6
18239	Feature: 170.315(g)(2) Automated Measures Reporting - Medication Reconciliation added to ACI Transition Measures report.	3.2017.6
18238	Feature: 170.315(g)(2) Automated Measures Reporting - Patient Timely Access added to ACI Transition Measures report.	3.2017.6
18237	Feature: 170.315(g)(2) Automated Measures Reporting - Updated to Transitional Measures for 2017	3.2017.6
18234	Feature: Transition of Care Confirmation Received checkbox has been added.	3.2017.6
18233	Feature: Summary of Care Record Received checkbox has been added.	3.2017.6
18280	Feature: Access string will allow edits to digital forms after the report is signed.	3.2018.1

**Legend:**

Light Green = Previously Released software

Bright Green = Current Release



## ERAD RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2016.4	-	2.16.4.0	2.16.4.0	2.16.4.0	2.16.4.0.00301943	2.16.4.0	1.16.4.0.310284			Full Version Release
2016.4	1	2.16.4.1	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	1.16.4.0.310284			GUI and Web Service updates
2016.4	2	2.16.4.2 (3GB)	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	1.16.4.2.460241			GUI and Patient Portal updates
2016.4	3	2.16.4.3 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	1.16.4.3.489120			GUI and Patient Portal updates
2016.4	4	2.16.4.4 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	1.16.4.3.489120			GUI
2016.4	5	2.16.4.5 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0				GUI
2016.4	6	2.16.4.6 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0				GUI
2016.5	-	2.16.5.0 (3GB)	2.16.5.0	2.16.5.0	2.16.5.0.00349303	2.16.5.0	1.16.5.0.362009			Full Version Release
2016.6	-	2.16.6.0 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	1.16.6.0.432471			Full Version Release
2016.6	1	2.16.6.1 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	1.16.6.1.468583			GUI and Patient Portal updated
2016.7	-	2.16.7.0 (3GB)	2.16.7.0	2.16.7.0	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		Full version release
2016.7	1	2.16.7.1 (3GB)	2.16.7.0	2.16.7.1	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	2	2.16.7.2 (3GB)	2.16.7.0	2.16.7.2	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	3	2.16.7.3 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	4	2.16.7.4 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	5	2.16.7.5 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	6	2.16.7.6 (3GB)	2.16.7.0	2.16.7.6	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	7	2.16.7.7 (3GB)	2.16.7.0	2.16.7.7	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	8	2.16.7.8 (3GB)	2.16.7.0	2.16.7.7	2.16.7.8.00683507	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and DB updates
2016.7	9	2.16.7.9 (3GB)	2.16.7.0	2.16.7.9	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Services, DB updates and UM Portal
2016.7	10	2.16.7.10 (3GB)	2.16.7.0	2.16.7.10	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI and Web Service updates
2016.7	11	2.16.7.11 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Service and DB updates
2016.7	12	2.16.7.12 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI
2016.7	13	2.16.7.13 (3GB)	2.16.7.0	2.16.7.13	2.16.7.13.00823274	2.16.7.0	2.16.7.13.805715	2.16.7.13.805717		GUI, Web Service, DB, Patient and UM Portal updates
2016.7	14	2.16.7.14 (3GB)	2.16.7.0	2.16.7.14	2.16.7.14.00888220	2.16.7.0	2.16.7.14.897644	2.16.7.14.897646		GUI, Web Service, DB, Patient and UM Portal updates
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		Full Version Release
2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		GUI, Web Service and DB updates
2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		GUI, Web Service and DB updates
2017.1	3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		GUI, Web Service and DB updates
2017.1	4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI, Web Service, DB and Patient Portal updates
2017.1	5	2.17.1.4 (3GB)	2.17.1.0	2.17.1.5	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		Web Service
2017.1	6	2.17.1.6 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI and DB Updates
2017.1	7	2.17.1.7 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI update
2017.1	8	2.17.1.8 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI update
2017.1	9	2.17.1.9 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI update
2017.1	10	2.17.1.10 (3GB)	2.17.1.0	2.17.1.10	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI and Web Service update
2017.2	-	2.17.2.0 (3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0	2.17.2.0.702238	2.17.2.0.702213	2.17.2.0.702226	Full Version Release. First release of Provider Portal
2017.3	-	2.17.3.0 (3GB)	2.17.3.0	2.17.3.0	2.17.3.0.00764112	2.17.3.0	2.17.3.0.321	2.17.3.0.321	2.17.3.0.321	Full Version Release. Including Patient, Provider and UM Portals
2017.3	1	2.17.3.1 (3GB)	2.17.3.0	2.17.3.1	2.17.3.1.00846328	2.17.3.1	2.17.3.1.853299	2.17.3.1.853301	2.17.3.1.856171	GUI, Web Service, DB, Including Patient, Provider and UM Portals
2017.3	2	2.17.3.2 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI, Web Service, DB, Including Patient, Provider and UM Portals

## INSTALLING

### CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD\_rRIS\_2017.3.2.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

### WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

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 131 files in the rRISService folder and 7 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). Folders are (Arabic), en\_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt\_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc...

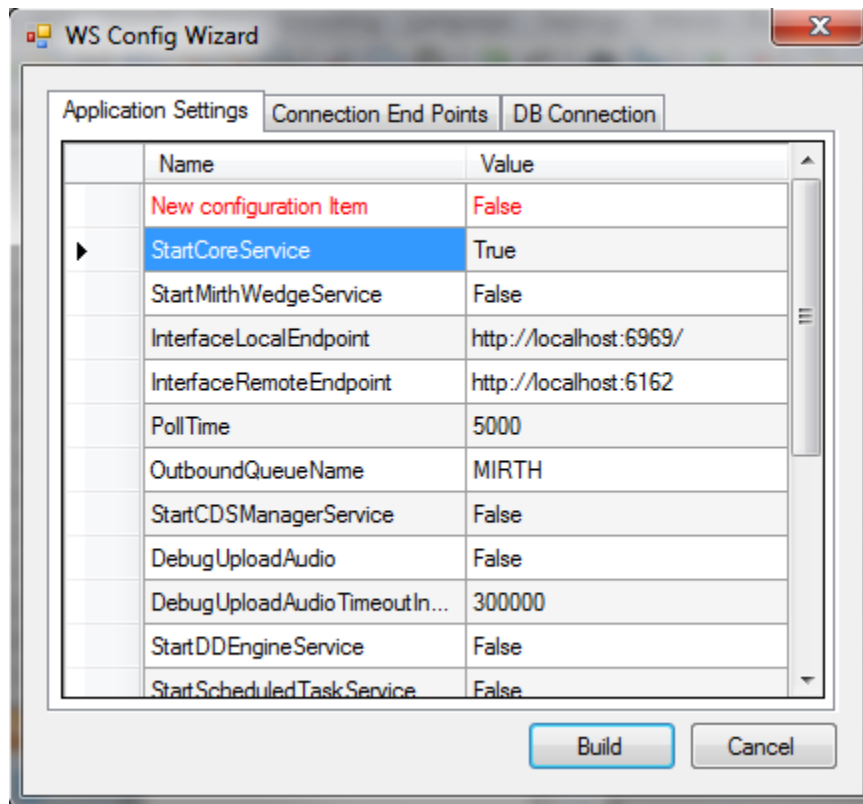
#### Services Configuration Wizard

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, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

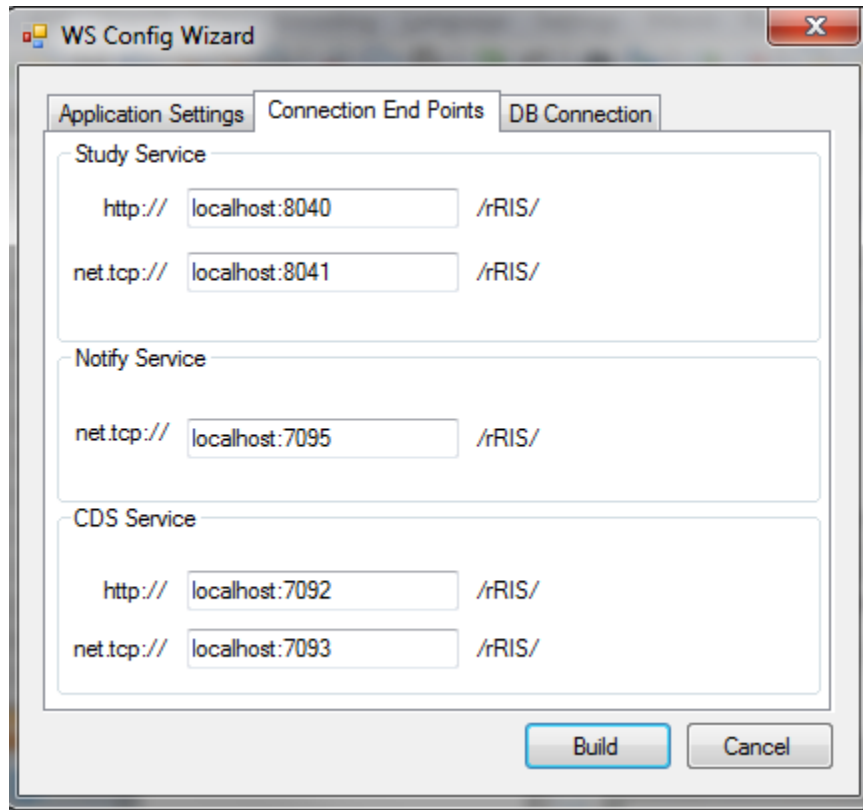
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

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.



**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.



---

## DATABASE UPDATES

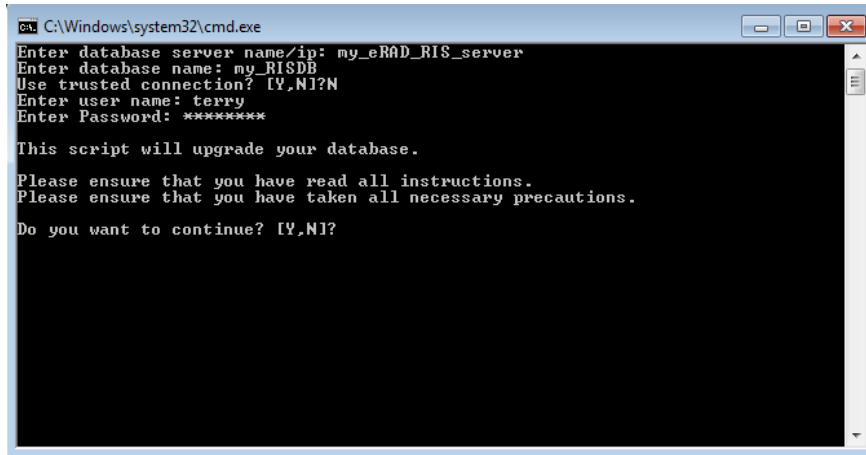
Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*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: 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]?
```

- 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

# **Server Update**

For eRAD RIS

Version 2.0













Build 2.2017.3

Update 2.2017.3.3

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## PACKAGE CONTENTS

 _Documentation	10/30/2017 3:54 PM
 _ReleaseNotes	10/31/2017 4:24 PM
 DB	10/30/2017 3:53 PM
 PACS Citrix Bridge	10/30/2017 3:54 PM
 PatientConnect	10/30/2017 3:52 PM
 Questionnaires	10/30/2017 3:54 PM
 ReferringConnect	10/30/2017 3:52 PM
 rRISService	10/30/2017 3:52 PM
 Service Tools	10/30/2017 3:54 PM
 SQLReporting	10/30/2017 3:53 PM
 ThickClient	10/30/2017 3:52 PM
 UM_Portal	10/30/2017 3:52 PM

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.3 installs. This server update must be applied to 2017.3.3



## NEW FEATURES

FEATURE #18483 - ZIP CODE SHOULD AUTO POPULATE CITY/STATE ON THE INSURANCE RESPONSIBLE PARTY

## NEW CONFIGURATION SETTINGS

## SYSTEM CONFIGURATION SETTINGS

Setting	Default	Purpose

## ACCESS STRINGS

Setting	Default	Purpose

## RESOLVED ITEMS

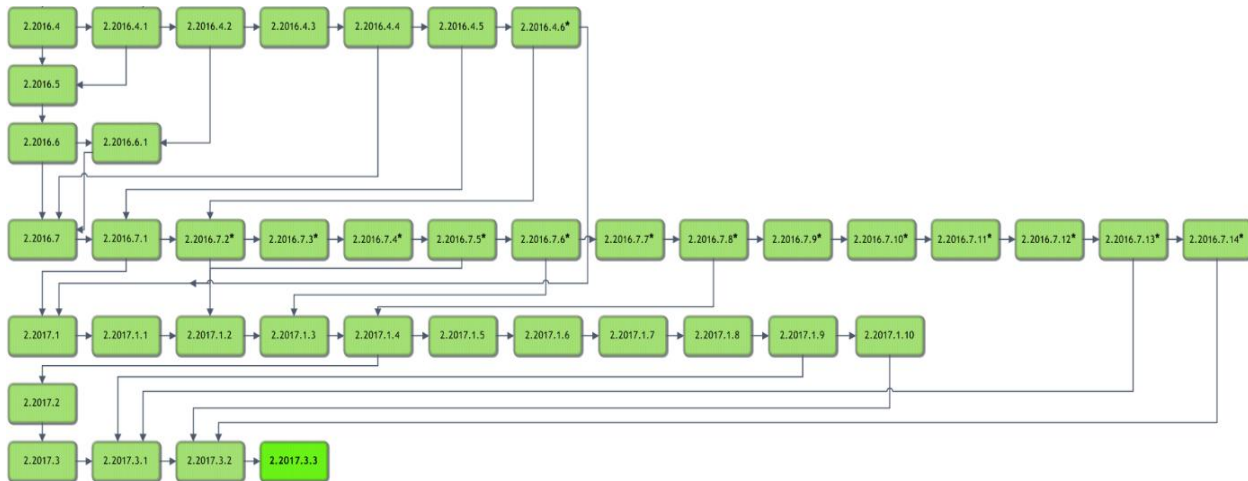
## eRAD RIS

Redmine #	Subject
18374	Wrong Diagnostic Report is showing for order that required utilization review and has multiple procedures
18462	Precert not assigned while scheduling EMR order.
18372	Not Recommended OrderCancelled orders not showing in UM Connect
18546	Log control issue in dark mode.
18601	UM - Excluded Exams Workflow may not prompt user if procedure has billing codes with multiple UM Coverages
18375	Issue previewing attachments with multiple pages
18318	The counters framework is only tracking Error Pages and Failed Login Passwords for UM Connect - not tracking Logins
18271	Change verbiage for CD Burning "error"
18670	UM Portal - Imaging Launching Does not load Images
18652	verbal order generator not functioning
18515	Reno - Patient Connect HeaderLogo - incorrect applicationsconfig setting
18556	c_mgmt_mqsa view does not return data when it is expected.
18639	index plan for popping items from c_action_queue causes a key lookup

18496	External Interface Schema incorrect for some tables
18542	many DB queries are timing out.
18512	Notes fields not appending properly with inbound message
18580	Reno - Laterality and Body Part Required change in behaviour
18604	Problems with Patient Insurance DOB and Name Synchronization
18608	Naming issues with systems in upgrade structure
18381	HTTP deployment method times out after 120 seconds
18359	UM Admin users cannot respond to messages in the User Messages inbox
18377	Practice Override not overriding application settings

The following list are items have been taken from current new development (intended to be released in a future version).

Redmine #	Subject	Original Resolved Version
18509	ExpirationMonthYear exception making it difficult to schedule a cancelled order	3.2017.6

**CODE STREAM****Legend:**

Light Green = Previously Released software

Bright Green = Current Release

## ERAD RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2016.4	-	2.16.4.0	2.16.4.0	2.16.4.0	2.16.4.0.00301943	2.16.4.0	1.16.4.0.310284			Full Version Release
2016.4	1	2.16.4.1	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	1.16.4.0.310284			GUI and Web Service updates
2016.4	2	2.16.4.2 (3GB)	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	1.16.4.2.460241			GUI and Patient Portal updates
2016.4	3	2.16.4.3 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	1.16.4.3.489120			GUI and Patient Portal updates
2016.4	4	2.16.4.4 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	1.16.4.3.489120			GUI
2016.4	5	2.16.4.5 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0				GUI
2016.4	6	2.16.4.6 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0				GUI
2016.5	-	2.16.5.0 (3GB)	2.16.5.0	2.16.5.0	2.16.5.0.00349303	2.16.5.0	1.16.5.0.362009			Full Version Release
2016.6	-	2.16.6.0 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	1.16.6.0.432471			Full Version Release
2016.6	1	2.16.6.1 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	1.16.6.1.468583			GUI and Patient Portal updated
2016.7	-	2.16.7.0 (3GB)	2.16.7.0	2.16.7.0	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		Full version release
2016.7	1	2.16.7.1 (3GB)	2.16.7.0	2.16.7.1	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	2	2.16.7.2 (3GB)	2.16.7.0	2.16.7.2	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	3	2.16.7.3 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	4	2.16.7.4 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	5	2.16.7.5 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	6	2.16.7.6 (3GB)	2.16.7.0	2.16.7.6	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	7	2.16.7.7 (3GB)	2.16.7.0	2.16.7.7	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	8	2.16.7.8 (3GB)	2.16.7.0	2.16.7.7	2.16.7.8.00683507	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and DB updates
2016.7	9	2.16.7.9 (3GB)	2.16.7.0	2.16.7.9	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Services, DB updates and UM Portal
2016.7	10	2.16.7.10 (3GB)	2.16.7.0	2.16.7.10	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI and Web Service updates
2016.7	11	2.16.7.11 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Service and DB updates
2016.7	12	2.16.7.12 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI
2016.7	13	2.16.7.13 (3GB)	2.16.7.0	2.16.7.13	2.16.7.13.00823274	2.16.7.0	2.16.7.13.805715	2.16.7.13.805717		GUI, Web Service, DB, Patient and UM Portal updates
2016.7	14	2.16.7.14 (3GB)	2.16.7.0	2.16.7.14	2.16.7.14.00888220	2.16.7.0	2.16.7.14.897644	2.16.7.14.897646		GUI, Web Service, DB, Patient and UM Portal updates
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		Full Version Release
2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI, Web Service, DB and Patient Portal updates
2017.1	5	2.17.1.4 (3GB)	2.17.1.0	2.17.1.5	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		Web Service
2017.1	6	2.17.1.6 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and DB Updates
2017.1	7	2.17.1.7 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	8	2.17.1.8 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	9	2.17.1.9 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	10	2.17.1.10 (3GB)	2.17.1.0	2.17.1.10	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and Web Service update
2017.2	-	2.17.2.0 (3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0	2.17.2.0.702238	2.17.2.0.702213	2.17.2.0.702226	Full Version Release. First release of Provider Portal
2017.3	-	2.17.3.0 (3GB)	2.17.3.0	2.17.3.0	2.17.3.0.00764112	2.17.3.0	2.17.3.0.321	2.17.3.0.321		Full Version Release. Including Patient, Provider and UM Portals
2017.3	1	2.17.3.1 (3GB)	2.17.3.0	2.17.3.1	2.17.3.1.00846328	2.17.3.1	2.17.3.1.853299	2.17.3.1.853301	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2	2.17.3.2 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	3	2.17.3.3 (3GB)	2.17.3.0	2.17.3.3	2.17.3.3.00954008	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service, DB. Including Patient, Provider and UM Portals

## INSTALLING

### CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD\_rRIS\_2017.3.3.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

### WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

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 134 files in the rRISService folder and 7 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). Folders are (Arabic), en\_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt\_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc...

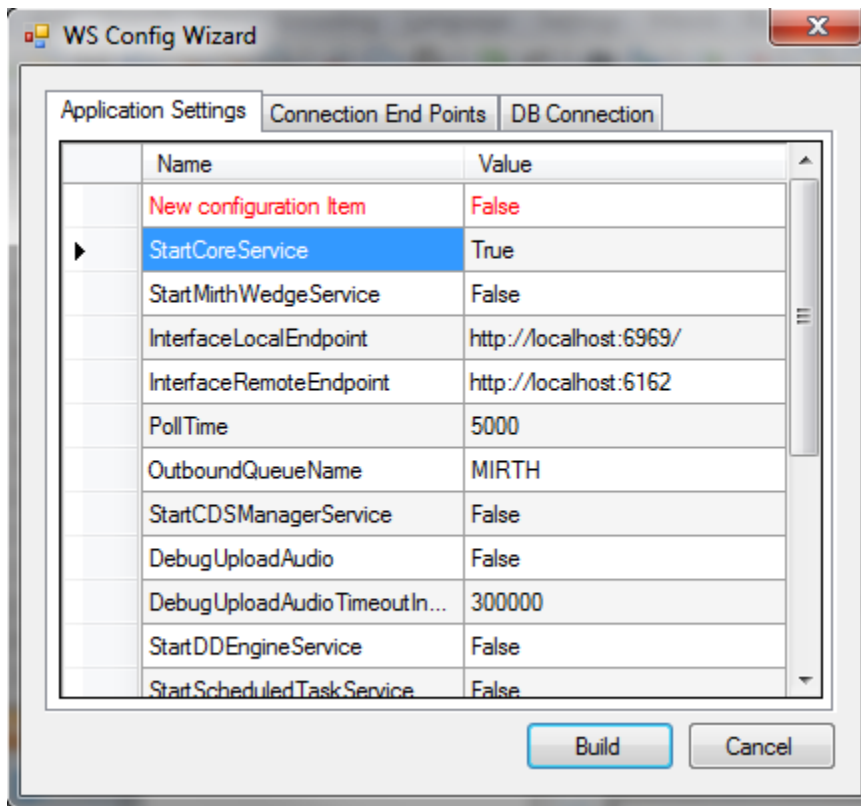
#### Services Configuration Wizard

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, and 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.





**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 /rIS/

net.tcp:// localhost:8041 /rIS/

**Notify Service**

net.tcp:// localhost:7095 /rIS/

**CDS Service**

http:// localhost:7092 /rIS/

net.tcp:// localhost:7093 /rIS/

Build Cancel

---

## DATABASE UPDATES

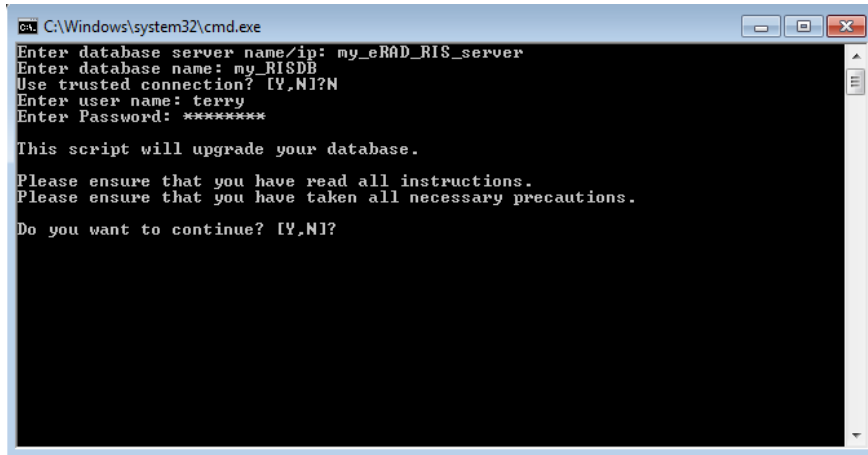
Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*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: 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]?
```

- 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

# **Server Update**

For eRAD RIS

Version 2.0

Build 2.2017.3

Update 2.2017.3.4

## **Table of Contents**

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## PACKAGE CONTENTS

 _ReleaseNotes	11/21/2017 11:35 AM
 DB	11/21/2017 9:43 AM
 rRISService	11/21/2017 9:42 AM
 Service Tools	11/21/2017 9:44 AM
 ThickClient	11/21/2017 11:32 AM

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.3 installs. This server update must be applied to 2017.3.3

## RESOLVED ITEMS

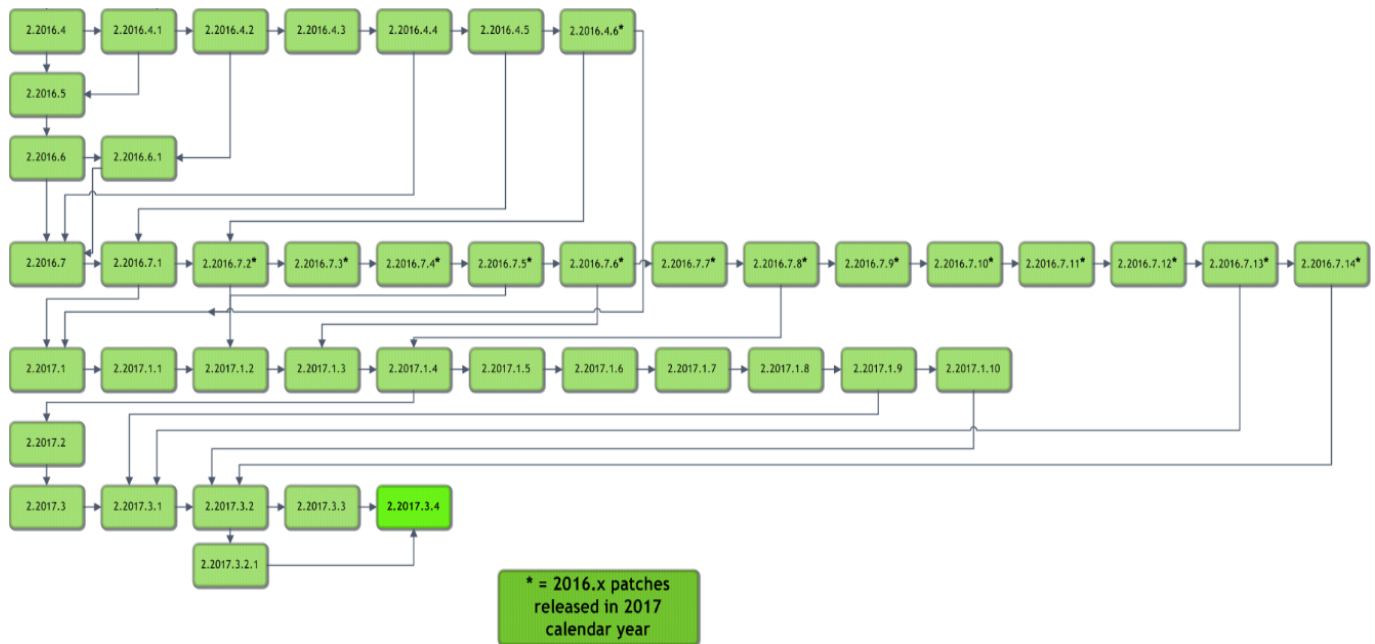
## eRAD RIS

Redmine #	Subject
18938	RIS is unable to find time slots for multi-day procedures plans
18964	Some multi-day procedure plans cause an exception when opened
18958	Intermittent error message "The commit transaction has no corresponding begin transaction"

The following list of items have been taken from current new development (originally intended to be released in a future version).

Redmine #	Subject	Original Resolved Version
18987	Import CD intermittently causes error "No codec registered for transfer syntax: JPEG Lossless..."	3.2017.6

## CODE STREAM

**Legend:**

Light Green = Previously Released software

Bright Green = Current Release

## ERAD RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2016.4	-	2.16.4.0	2.16.4.0	2.16.4.0	2.16.4.0.00301943	2.16.4.0	1.16.4.0.310284			Full Version Release
2016.4	1	2.16.4.1	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	1.16.4.0.310284			GUI and Web Service updates
2016.4	2	2.16.4.2 (3GB)	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	1.16.4.2.460241			GUI and Patient Portal updates
2016.4	3	2.16.4.3 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	1.16.4.3.489120			GUI and Patient Portal updates
2016.4	4	2.16.4.4 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	1.16.4.3.489120			GUI
2016.4	5	2.16.4.5 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0				GUI
2016.4	6	2.16.4.6 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0				GUI
2016.5	-	2.16.5.0 (3GB)	2.16.5.0	2.16.5.0	2.16.5.0.00349303	2.16.5.0	1.16.5.0.362009			Full Version Release
2016.6	-	2.16.6.0 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	1.16.6.0.432471			Full Version Release
2016.6	1	2.16.6.1 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	1.16.6.1.468583			GUI and Patient Portal updated
2016.7	-	2.16.7.0 (3GB)	2.16.7.0	2.16.7.0	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		Full version release
2016.7	1	2.16.7.1 (3GB)	2.16.7.0	2.16.7.1	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	2	2.16.7.2 (3GB)	2.16.7.0	2.16.7.2	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	3	2.16.7.3 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	4	2.16.7.4 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	5	2.16.7.5 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	6	2.16.7.6 (3GB)	2.16.7.0	2.16.7.6	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	7	2.16.7.7 (3GB)	2.16.7.0	2.16.7.7	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	8	2.16.7.8 (3GB)	2.16.7.0	2.16.7.7	2.16.7.8.00683507	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and DB updates
2016.7	9	2.16.7.9 (3GB)	2.16.7.0	2.16.7.9	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Services, DB updates and UM Portal
2016.7	10	2.16.7.10 (3GB)	2.16.7.0	2.16.7.10	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI and Web Service updates
2016.7	11	2.16.7.11 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Service and DB updates
2016.7	12	2.16.7.12 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI
2016.7	13	2.16.7.13 (3GB)	2.16.7.0	2.16.7.13	2.16.7.13.00823274	2.16.7.0	2.16.7.13.805715	2.16.7.13.805717		GUI, Web Service, DB, Patient and UM Portal updates
2016.7	14	2.16.7.14 (3GB)	2.16.7.0	2.16.7.14	2.16.7.14.00888220	2.16.7.0	2.16.7.14.897644	2.16.7.14.897646		GUI, Web Service, DB, Patient and UM Portal updates
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		Full Version Release
2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI, Web Service, DB and Patient Portal updates
2017.1	5	2.17.1.4 (3GB)	2.17.1.0	2.17.1.5	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		Web Service
2017.1	6	2.17.1.6 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and DB Updates
2017.1	7	2.17.1.7 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	8	2.17.1.8 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	9	2.17.1.9 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	10	2.17.1.10 (3GB)	2.17.1.0	2.17.1.10	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and Web Service update
2017.2	-	2.17.2.0 (3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0	2.17.2.0.702238	2.17.2.0.702213	2.17.2.0.702226	Full Version Release. First release of Provider Portal
2017.3	-	2.17.3.0 (3GB)	2.17.3.0	2.17.3.0	2.17.3.0.00764112	2.17.3.0	2.17.3.0.321	2.17.3.0.321		Full Version Release. Including Patient, Provider and UM Portals
2017.3	1	2.17.3.1 (3GB)	2.17.3.0	2.17.3.1	2.17.3.1.00846328	2.17.3.1	2.17.3.1.853399	2.17.3.1.853301	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2	2.17.3.2 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2.1	2.17.3.2.1 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI Only
2017.3	3	2.17.3.3 (3GB)	2.17.3.0	2.17.3.3	2.17.3.3.00954008	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	4	2.17.3.4 (3GB)	2.17.3.0	2.17.3.4	2.17.3.4.00987562	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service and DB



## INSTALLING

### CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD\_rRIS\_2017.3.4.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

### WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

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 134 files in the rRISService folder and 7 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). Folders are (Arabic), en\_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt\_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc...

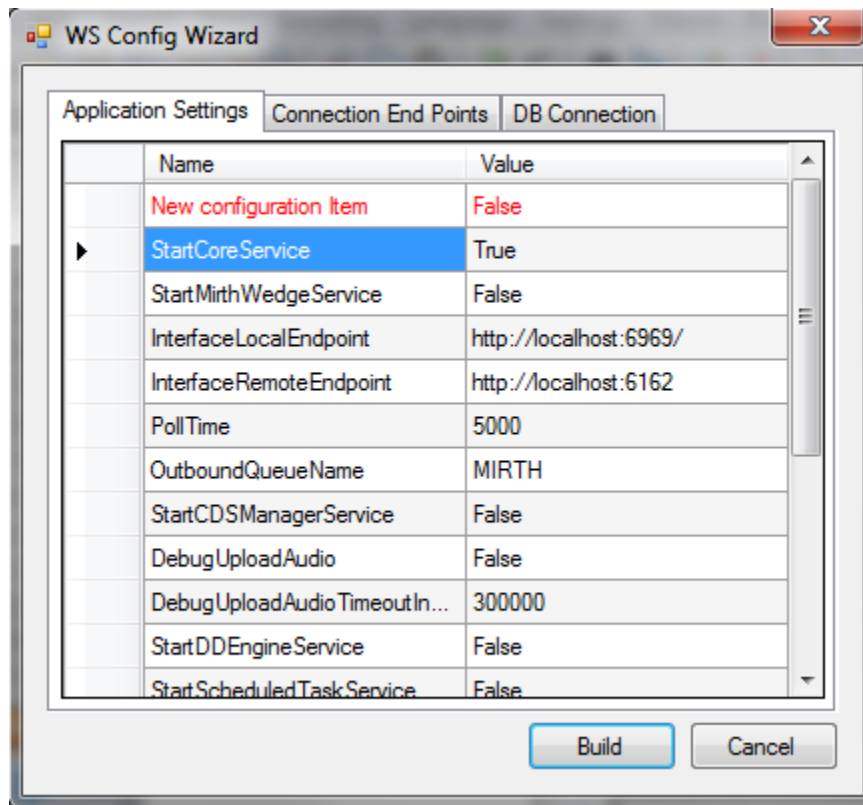
#### Services Configuration Wizard

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, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

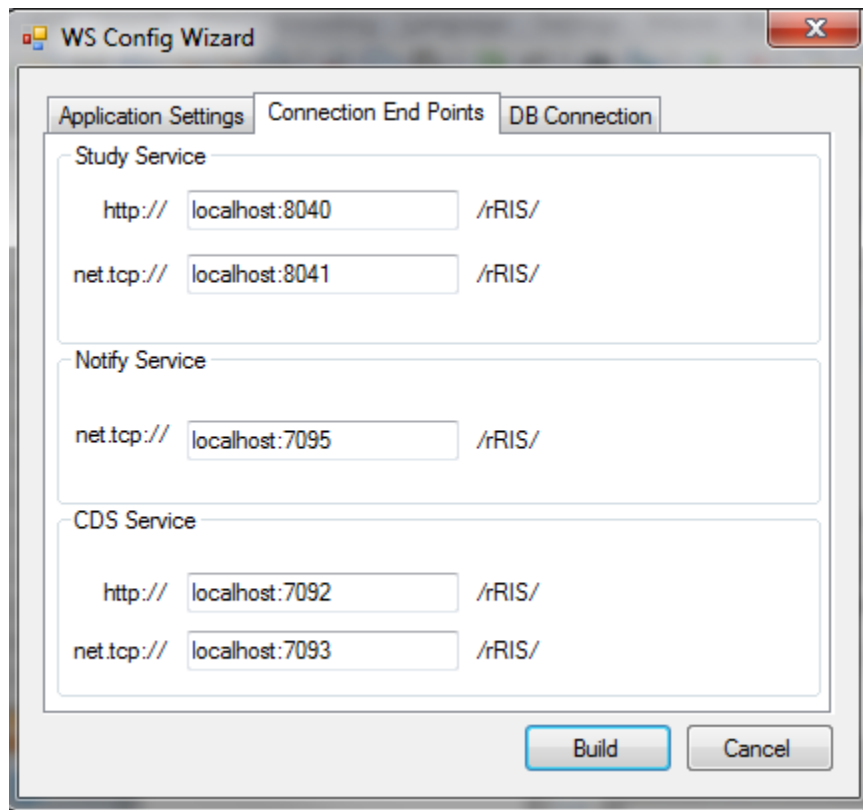
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application “ServicesConfigWizard.exe”

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.



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## DATABASE UPDATES

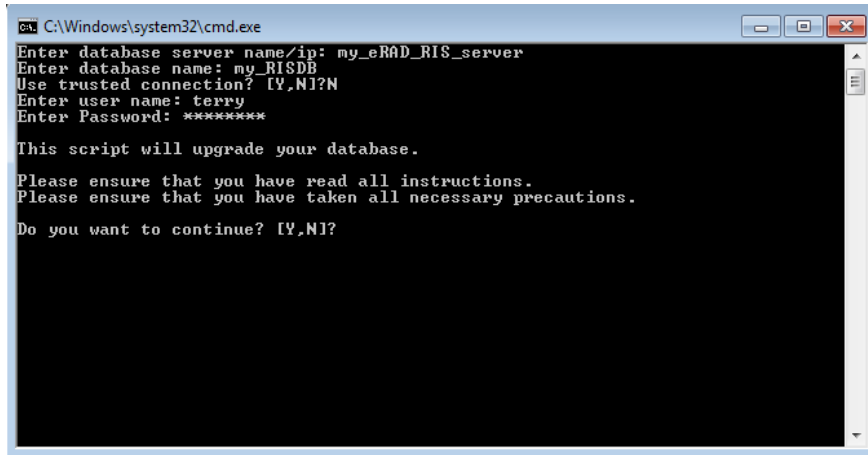
Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*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: 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]?
```

- 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

# **Server Update**

For eRAD RIS

Version 2.0











Build 2.2017.3

Update 2.2017.3.5

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## PACKAGE CONTENTS

 _ReleaseNotes	12/15/2017 4:59 PM
 DB	12/13/2017 9:44 AM
 PACS Citrix Bridge	12/13/2017 9:45 AM
 PatientConnect	12/15/2017 5:02 PM
 Questionnaires	12/13/2017 9:45 AM
 ReferringConnect	12/15/2017 4:40 PM
 rRISService	12/13/2017 9:44 AM
 Service Tools	12/13/2017 9:46 AM
 ThickClient	12/13/2017 9:43 AM
 UM_Portal	12/13/2017 9:43 AM

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.3 installs. This server update must be applied to 2017.3.4

## NEW FEATURES

### FEATURE #18849 – CAPTURE “ORDERING DEPARTMENT” FROM INTERFACE AND DISPLAY ON WORKLISTS

There is a customer requirement to capture and display an Ordering Department, which is populated to RIS via interface. The data will be displayed in a new column labeled *Ordering Department* on the following worklists:

- Orders to Schedule
- Reception
- Technologist
- Pending Dictation
- All Pending Dictation

While the Ordering Organization column may be visible on other radiologist worklists, the data is only configured to be displayed on the worklists above.

The Ordering Organization cannot be edited in eRAD RIS; updates will occur in the originating system and are populated via the interface.

Users who have saved Custom Views on their worklists will need to add the new column and re-save their Custom View in order to see this data on their worklists.



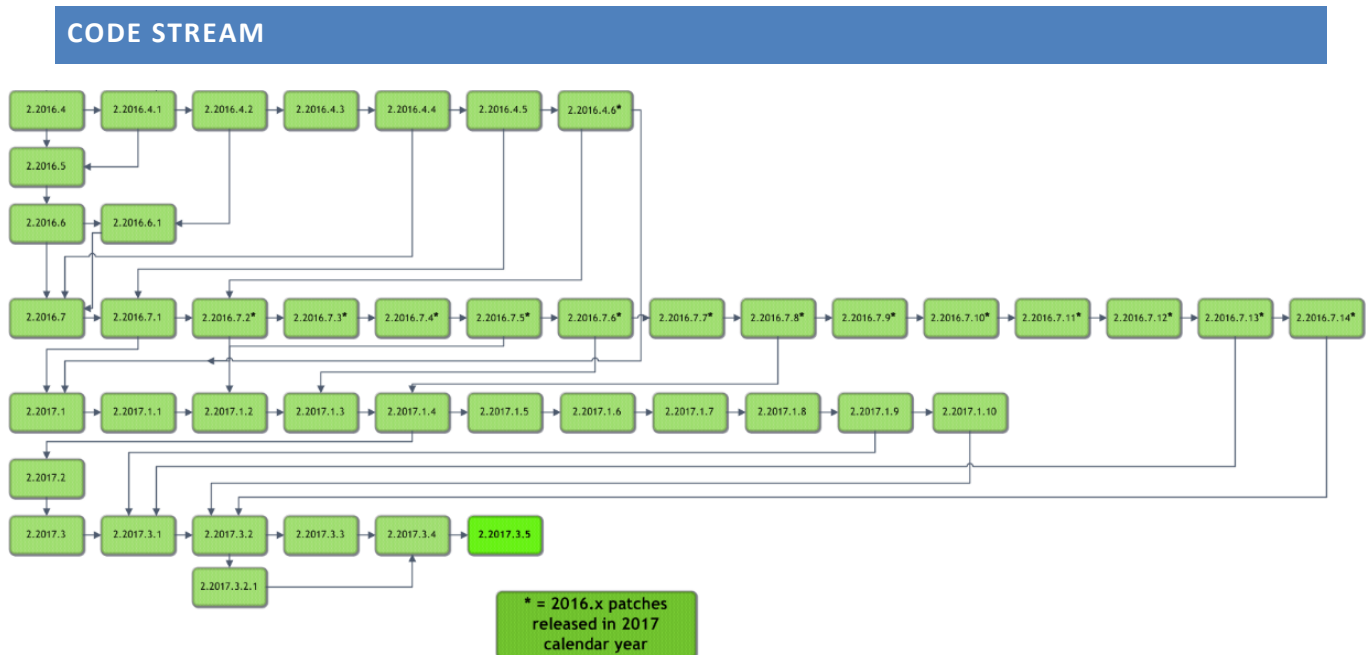
## RESOLVED ITEMS

## eRAD RIS

Redmine #	Subject
19192	MRNs with an Issuer using Mod10 or Mod10PrePad Identity Validation Type will appropriately fail to save when validation rules are not met.
19222	When checking for existing MRNs for Issuers with Mod10PrePad Identity Validation Type, the leading zeros will be added prior to the check, ensuring that a duplicate MRN cannot be created.
19151	The Administration Portal header is now correctly applying the configuration value for "Portal Name."
19153	Resolved a Portal timing issue which could sometimes result in PACS image thumbnails failing to load.
19152	Corrected a discrepancy in web address (URL) when setting up a new UM Portal account, which previously prevented a user from entering their verification code when opening the page from the email.
19091	Resolved an excessive CPU issue related to c_ProcessPostEvents.
19090	Resolved a performance issue on the IVT worklist by preventing parallel queries.
19089	A new index was added to improve performance of the Labwork Requested worklist.
19088	A new index was added to improve performance of Document Distribution queries.

The following items, developed for future RIS versions, have been released early in this patch, so that customers can benefit from the changes more quickly.

Redmine #	Subject	Original Resolved Version
19066	Eligibility - Removed Carefirst (BCMDC) trigger logic that set remaining deductible to null.	3.2018.1
19077	Lab observations are now available in the outbound action container for interface messages.	3.2018.1
19117	Resolved an issue that could cause the Issuer of ID to be hidden after making changes to the current selection.	2.2017.4
19104	Resolved an issue that could result in a time out of a Patient Search under certain conditions.	3.2018.1
19078	Resolved an issue that could cause users to receive an Assign Credentials error.	3.2018.1
17815	It is now possible to select a midnight (00:00) time slot when scheduling, if the Availability Template is configured to allow it.	3.2018.1

**Legend:**

Light Green = Previously Released software

Bright Green = Current Release

## ERAD RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2016.7	-	2.16.7.0 (3GB)	2.16.7.0	2.16.7.0	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		Full version release
2016.7	1	2.16.7.1 (3GB)	2.16.7.0	2.16.7.1	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	2	2.16.7.2 (3GB)	2.16.7.0	2.16.7.2	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	3	2.16.7.3 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	4	2.16.7.4 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	5	2.16.7.5 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	6	2.16.7.6 (3GB)	2.16.7.0	2.16.7.6	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	7	2.16.7.7 (3GB)	2.16.7.0	2.16.7.7	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	8	2.16.7.8 (3GB)	2.16.7.0	2.16.7.7	2.16.7.8.00683507	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and DB updates
2016.7	9	2.16.7.9 (3GB)	2.16.7.0	2.16.7.9	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Services, DB updates and UM Portal
2016.7	10	2.16.7.10 (3GB)	2.16.7.0	2.16.7.10	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI and Web Service updates
2016.7	11	2.16.7.11 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Service and DB updates
2016.7	12	2.16.7.12 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI
2016.7	13	2.16.7.13 (3GB)	2.16.7.0	2.16.7.13	2.16.7.13.00823274	2.16.7.0	2.16.7.13.805715	2.16.7.13.805717		GUI, Web Service, DB, Patient and UM Portal updates
2016.7	14	2.16.7.14 (3GB)	2.16.7.0	2.16.7.14	2.16.7.14.00888220	2.16.7.0	2.16.7.14.897644	2.16.7.14.897646		GUI, Web Service, DB, Patient and UM Portal updates
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		Full Version Release
2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI, Web Service, DB and Patient Portal updates
2017.1	5	2.17.1.4 (3GB)	2.17.1.0	2.17.1.5	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		Web Service
2017.1	6	2.17.1.6 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and DB Updates
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2017.1	9	2.17.1.9 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
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2017.2	-	2.17.2.0 (3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0	2.17.2.0.702238	2.17.2.0.702213	2.17.2.0.702226	Full Version Release. First release of Provider Portal
2017.3	-	2.17.3.0 (3GB)	2.17.3.0	2.17.3.0	2.17.3.0.00764112	2.17.3.0	2.17.3.0.321	2.17.3.0.321	2.17.3.0.321	Full Version Release. Including Patient, Provider and UM Portals
2017.3	1	2.17.3.1 (3GB)	2.17.3.0	2.17.3.1	2.17.3.1.00846328	2.17.3.1	2.17.3.1.853299	2.17.3.1.853301	2.17.3.1.856171	GUI, Web Service, DB, Including Patient, Provider and UM Portals
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2017.3	2.1	2.17.3.2.1 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI Only
2017.3	3	2.17.3.3 (3GB)	2.17.3.0	2.17.3.3	2.17.3.3.00954008	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service, DB, Including Patient, Provider and UM Portals
2017.3	4	2.17.3.4 (3GB)	2.17.3.0	2.17.3.4	2.17.3.4.00987562	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service and DB
2017.3	5	2.17.3.5 (3GB)	2.17.3.0	2.17.3.5	2.17.3.5.01023250	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB, Patient Portal, Referring Portal, UM Portal

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in any form or by any means without the prior written permission from eRAD.

## INSTALLING

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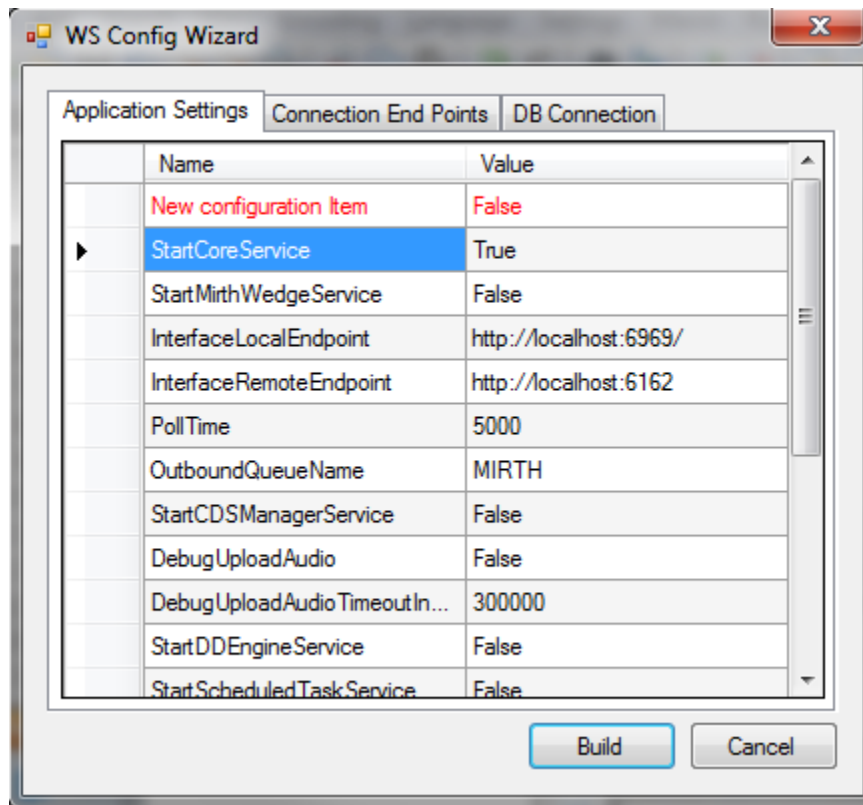
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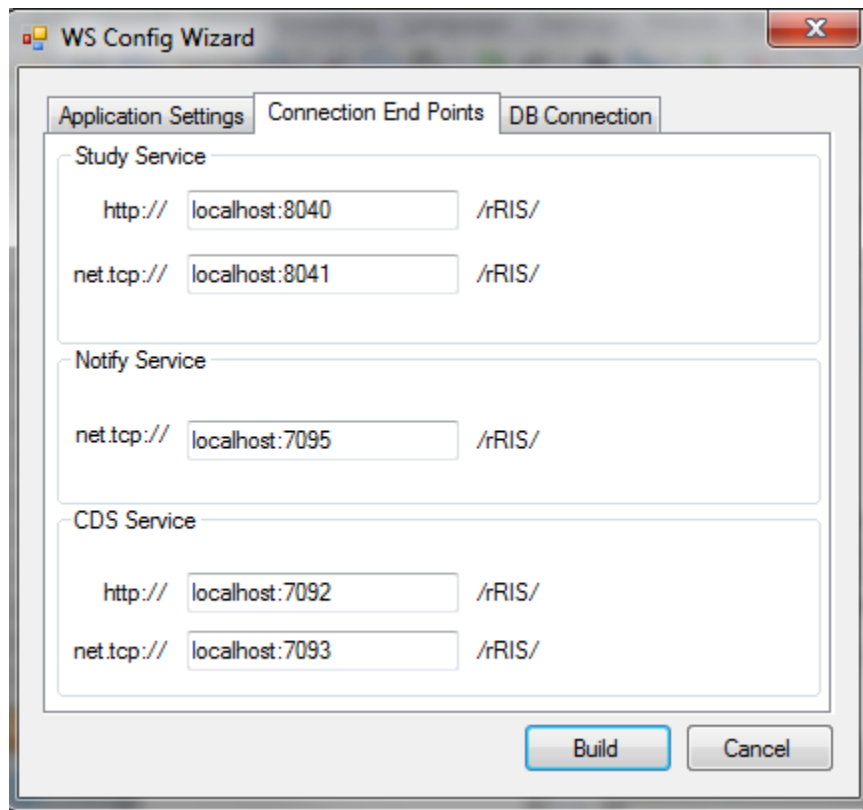
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**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of “Study Service” or “CDS Service” if both http and net.tcp were not provided then that endpoint will not be created at all.



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## DATABASE UPDATES

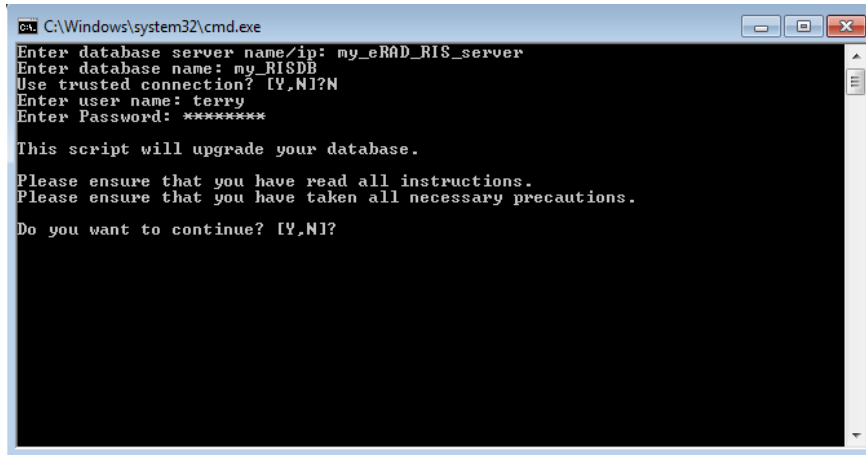
Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

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- 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: 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]?
```

- 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



# **Server Update**

For eRAD RIS

Version 2.0






Build 2.2017.3

Update 2.2017.3.6

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 _ReleaseNotes	01/12/2018 4:51 PM
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 Service Tools	01/12/2018 1:41 PM
 ThickClient	01/12/2018 1:38 PM

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

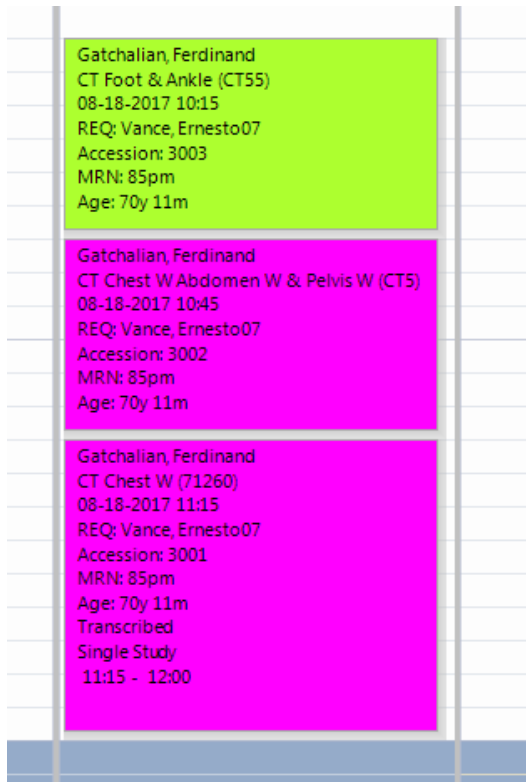
## WHO IS AFFECTED

Build 2017.3 installs. This server update must be applied to 2017.3.5

## NEW FEATURES

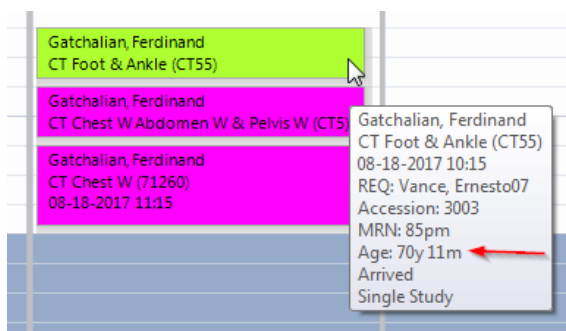
## FEATURE 19374 / 17864 – PATIENT'S AGE ADDED TO THE APPOINTMENT BOOK

The appointment description now displays the patient's age, in the same format as on the Patient tab of the Schedule screen.



Gatchalian, Ferdinand CT Foot & Ankle (CT55) 08-18-2017 10:15 REQ: Vance, Ernesto07 Accession: 3003 MRN: 85pm Age: 70y 11m
Gatchalian, Ferdinand CT Chest W Abdomen W & Pelvis W (CT5) 08-18-2017 10:45 REQ: Vance, Ernesto07 Accession: 3002 MRN: 85pm Age: 70y 11m
Gatchalian, Ferdinand CT Chest W (71260) 08-18-2017 11:15 REQ: Vance, Ernesto07 Accession: 3001 MRN: 85pm Age: 70y 11m Transcribed Single Study 11:15 - 12:00

The full description will always display in the tooltip, and will only display in the appointment block if enough space is available.



Gatchalian, Ferdinand CT Foot & Ankle (CT55)	Gatchalian, Ferdinand CT Foot & Ankle (CT55) 08-18-2017 10:15 REQ: Vance, Ernesto07 Accession: 3003 MRN: 85pm Age: 70y 11m Arrived Single Study
Gatchalian, Ferdinand CT Chest W Abdomen W & Pelvis W (CT5)	
Gatchalian, Ferdinand CT Chest W (71260) 08-18-2017 11:15	

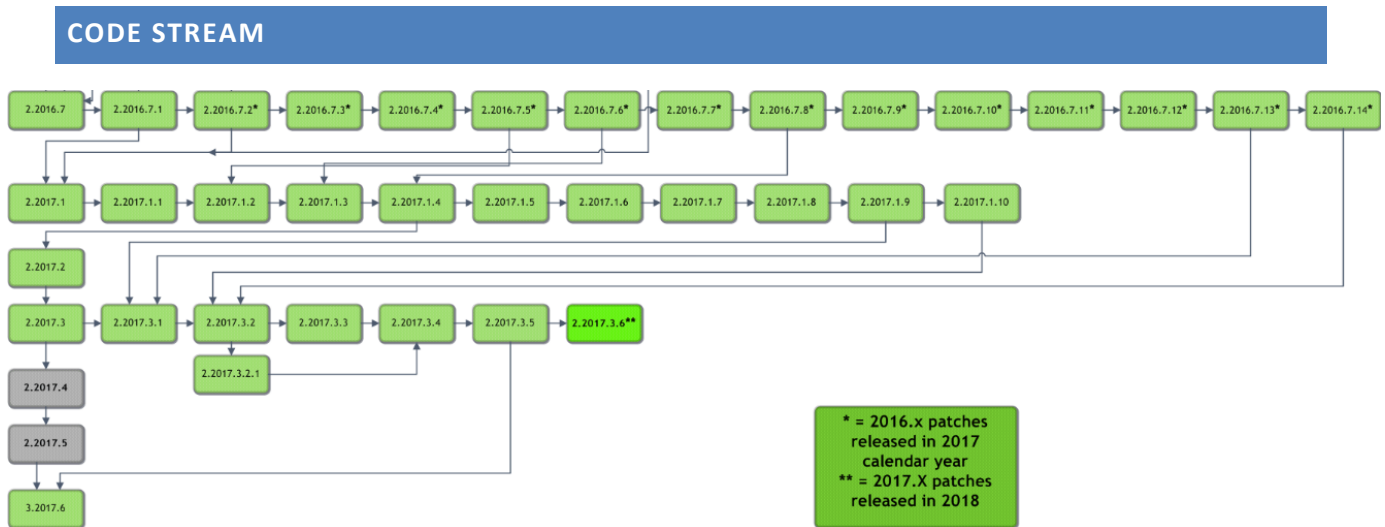
## RESOLVED ITEMS

## eRAD RIS

Redmine #	Subject
19347	Resolved an issue which could cause incorrect studies to cache when switching worklist views.
19343	No longer submit a call to prefetch PACS studies when closing the Pending Dictation WL, which could cause a delay in closing the worklist.
19105	Made a change to the way worklist flags are updated to decrease risk of deadlock errors.
19440	Additional index created to reduce deadlock risk when updating worklist flags.
19388	Changed index and release lock logic to resolve deadlock issues on c_locked_item.
19380	Corrected an issue with External Verify workflow so that these exams fall to the correct worklist according to System Configuration setting.
19349	No longer receive errors when saving EMR patients without an MRN issuer in the look-up table.
19169	Resolved an Imagine payment voiding issue that could occur when a study has moved to a new Practice between the time of collecting the payment and voiding it. The void will now always be issued with the same Imagine Data Set ID that was used when the payment was collected.
19428	Ensemble plugin is now able to handle self-referencing tables in outbound schema.

The following items, developed for future RIS versions, have been released early in this patch, so that customers can benefit from the changes more quickly.

Redmine #	Subject	Original Resolved Version
19395	When using multiple reporting modes, the Autofeed option for PS360 will appropriately appear when the reporting mode switches back to PS360.	3.2017.6
19374	Patient's age has been added to the appointment description and tooltip in the Appointment Book. See Features section of this document for more information.	3.2017.6
19373	Added a NULL check to resolve an issue that could occur when a certain set of actions was performed during scheduling that could cause the save/close/schedule actions to become unresponsive for that tab.	3.2018.1

**Legend:**

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

## ERAD RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2016.7	-	2.16.7.0 (3GB)	2.16.7.0	2.16.7.0	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	2.16.7.0.493008	Full version release
2016.7	1	2.16.7.1 (3GB)	2.16.7.0	2.16.7.1	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	2.16.7.0.493008	GUI and Web Service updates
2016.7	2	2.16.7.2 (3GB)	2.16.7.0	2.16.7.2	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	2.16.7.0.493008	GUI and Web Service updates
2016.7	3	2.16.7.3 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	2.16.7.0.493008	GUI and Web Service updates
2016.7	4	2.16.7.4 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	2.16.7.0.493008	GUI
2016.7	5	2.16.7.5 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	2.16.7.0.493008	GUI
2016.7	6	2.16.7.6 (3GB)	2.16.7.0	2.16.7.6	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	2.16.7.0.493008	GUI and Web Service updates
2016.7	7	2.16.7.7 (3GB)	2.16.7.0	2.16.7.7	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	2.16.7.0.493008	GUI and Web Service updates
2016.7	8	2.16.7.8 (3GB)	2.16.7.0	2.16.7.7	2.16.7.8.00683507	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	2.16.7.0.493008	GUI and DB updates
2016.7	9	2.16.7.9 (3GB)	2.16.7.0	2.16.7.9	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457	2.16.7.9.723457	GUI, Web Services, DB updates and UM Portal
2016.7	10	2.16.7.10 (3GB)	2.16.7.0	2.16.7.10	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457	2.16.7.9.723457	GUI and Web Service updates
2016.7	11	2.16.7.11 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457	2.16.7.9.723457	GUI, Web Service and DB updates
2016.7	12	2.16.7.12 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457	2.16.7.9.723457	GUI
2016.7	13	2.16.7.13 (3GB)	2.16.7.0	2.16.7.13	2.16.7.13.00823274	2.16.7.0	2.16.7.13.805715	2.16.7.13.805717	2.16.7.13.805717	GUI, Web Service, DB, Patient and UM Portal updates
2016.7	14	2.16.7.14 (3GB)	2.16.7.0	2.16.7.14	2.16.7.14.00888220	2.16.7.0	2.16.7.14.897644	2.16.7.14.897646	2.16.7.14.897646	GUI, Web Service, DB, Patient and UM Portal updates
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000	2.17.1.0.000000	Full Version Release
2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000	2.17.1.0.000000	GUI, Web Service and DB updates
2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000	2.17.1.0.000000	GUI, Web Service and DB updates
2017.1	3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000	2.17.1.0.000000	GUI, Web Service and DB updates
2017.1	4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000	2.17.1.0.000000	GUI, Web Service, DB and Patient Portal updates
2017.1	5	2.17.1.4 (3GB)	2.17.1.0	2.17.1.5	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000	2.17.1.0.000000	Web Service
2017.1	6	2.17.1.6 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000	2.17.1.0.000000	GUI and DB Updates
2017.1	7	2.17.1.7 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000	2.17.1.0.000000	GUI update
2017.1	8	2.17.1.8 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000	2.17.1.0.000000	GUI update
2017.1	9	2.17.1.9 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000	2.17.1.0.000000	GUI update
2017.1	10	2.17.1.10 (3GB)	2.17.1.0	2.17.1.10	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000	2.17.1.0.000000	GUI and Web Service update
2017.2	-	2.17.2.0 (3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0	2.17.2.0.702238	2.17.2.0.702213	2.17.2.0.702226	Full Version Release. First release of Provider Portal
2017.3	-	2.17.3.0 (3GB)	2.17.3.0	2.17.3.0	2.17.3.0.00764112	2.17.3.0	2.17.3.0.321	2.17.3.0.321	2.17.3.0.321	Full Version Release. Including Patient, Provider and UM Portals
2017.3	1	2.17.3.1 (3GB)	2.17.3.0	2.17.3.1	2.17.3.1.00846328	2.17.3.1	2.17.3.1.853299	2.17.3.1.853301	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2	2.17.3.2 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2.1	2.17.3.2.1 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI Only
2017.3	3	2.17.3.3 (3GB)	2.17.3.0	2.17.3.3	2.17.3.3.00954008	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	4	2.17.3.4 (3GB)	2.17.3.0	2.17.3.4	2.17.3.4.00987562	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service and DB
2017.3	5	2.17.3.5 (3GB)	2.17.3.0	2.17.3.5	2.17.3.5.01023250	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1023862	2.17.3.5.1023087	GUI, Web Service, DB, Patient Portal, Referring Portal, UM Portal
2017.3	6	2.17.3.6 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB.
2017.6	-	3.17.6.0 (3GB)	3.17.6.0	3.17.6.0	3.17.6.0.01037550	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	Full Version Release. Including Patient, Provider and UM Portals



## INSTALLING

### CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD\_rRIS\_2017.3.6.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

### WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

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 134 files in the rRISService folder and 7 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). Folders are (Arabic), en\_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt\_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc...

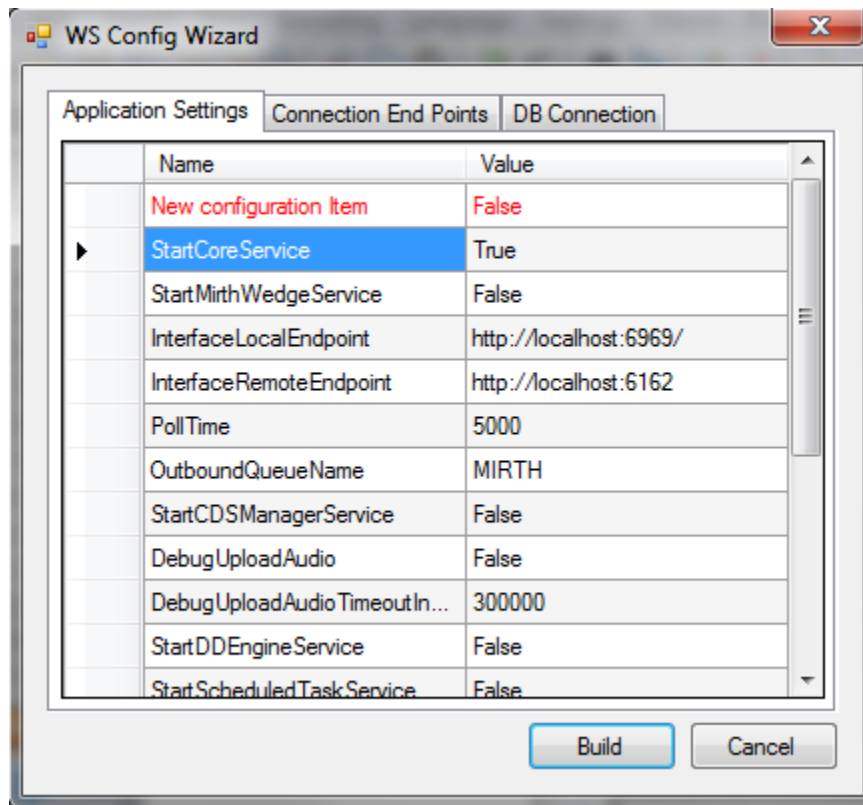
#### Services Configuration Wizard

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, and 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.



**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 /rIS/

net.tcp:// localhost:8041 /rIS/

**Notify Service**

net.tcp:// localhost:7095 /rIS/

**CDS Service**

http:// localhost:7092 /rIS/

net.tcp:// localhost:7093 /rIS/

Build Cancel

---

## DATABASE UPDATES

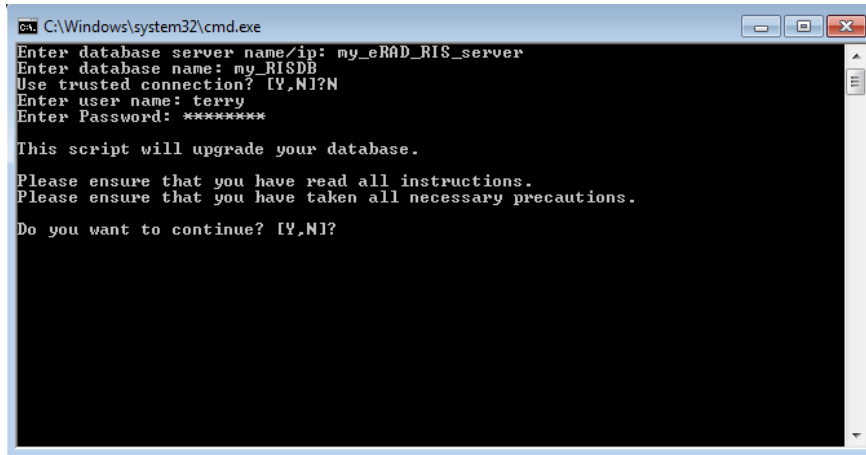
Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*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: 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]?
```

- 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

# **Server Update**

For eRAD RIS

Version 2.0

Build 2.2017.3

Update 2.2017.3.7

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## PACKAGE CONTENTS

 _ReleaseNotes	01/18/2018 3:33 PM
 ThickClient	01/17/2018 3:54 PM

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

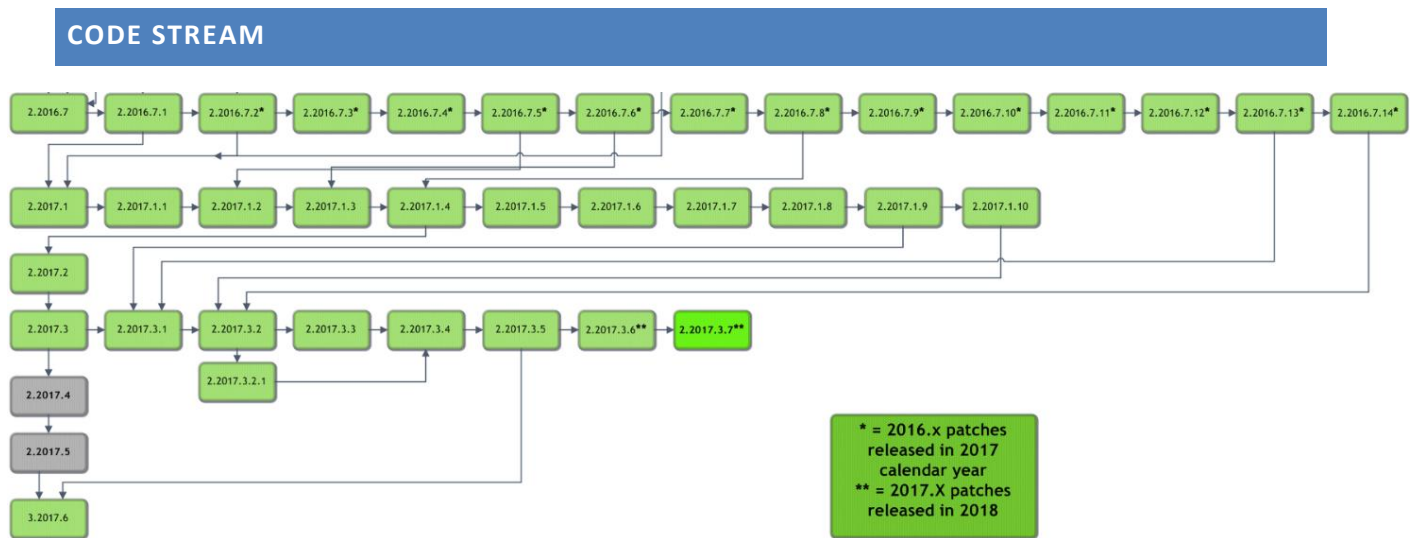
## WHO IS AFFECTED

Build 2017.3 installs. This server update must be applied to 2017.3.6

**RESOLVED ITEMS****eRAD RIS**

Redmine #	Subject
19510	Resolved exception related to caching thrown from various worklists
19553	Added um_status_code to filter criteria for portal tab configuration.



**Legend:**

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

## ERAD RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2016.7	-	2.16.7.0 (3GB)	2.16.7.0	2.16.7.0	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		Full version release
2016.7	1	2.16.7.1 (3GB)	2.16.7.0	2.16.7.1	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	2	2.16.7.2 (3GB)	2.16.7.0	2.16.7.2	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	3	2.16.7.3 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	4	2.16.7.4 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	5	2.16.7.5 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	6	2.16.7.6 (3GB)	2.16.7.0	2.16.7.6	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	7	2.16.7.7 (3GB)	2.16.7.0	2.16.7.7	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	8	2.16.7.8 (3GB)	2.16.7.0	2.16.7.7	2.16.7.8.00683507	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and DB updates
2016.7	9	2.16.7.9 (3GB)	2.16.7.0	2.16.7.9	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Services, DB updates and UM Portal
2016.7	10	2.16.7.10 (3GB)	2.16.7.0	2.16.7.10	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI and Web Service updates
2016.7	11	2.16.7.11 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Service and DB updates
2016.7	12	2.16.7.12 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI
2016.7	13	2.16.7.13 (3GB)	2.16.7.0	2.16.7.13	2.16.7.13.00823274	2.16.7.0	2.16.7.13.805715	2.16.7.13.805717		GUI, Web Service, DB, Patient and UM Portal updates
2016.7	14	2.16.7.14 (3GB)	2.16.7.0	2.16.7.14	2.16.7.14.00888220	2.16.7.0	2.16.7.14.897644	2.16.7.14.897646		GUI, Web Service, DB, Patient and UM Portal updates
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		Full Version Release
2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI, Web Service, DB and Patient Portal updates
2017.1	5	2.17.1.4 (3GB)	2.17.1.0	2.17.1.5	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		Web Service
2017.1	6	2.17.1.6 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and DB Updates
2017.1	7	2.17.1.7 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	8	2.17.1.8 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	9	2.17.1.9 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	10	2.17.1.10 (3GB)	2.17.1.0	2.17.1.10	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and Web Service update
2017.2	-	2.17.2.0 (3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0	2.17.2.0.702238	2.17.2.0.702213	2.17.2.0.702226	Full Version Release. First release of Provider Portal
2017.3	-	2.17.3.0 (3GB)	2.17.3.0	2.17.3.0	2.17.3.0.00764112	2.17.3.0	2.17.3.0.321	2.17.3.0.321	2.17.3.0.321	Full Version Release. Including Patient, Provider and UM Portals
2017.3	1	2.17.3.1 (3GB)	2.17.3.0	2.17.3.1	2.17.3.1.00846328	2.17.3.1	2.17.3.1.853299	2.17.3.1.853301	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2	2.17.3.2 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2.1	2.17.3.2.1 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI Only
2017.3	3	2.17.3.3 (3GB)	2.17.3.0	2.17.3.3	2.17.3.3.00954008	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	4	2.17.3.4 (3GB)	2.17.3.0	2.17.3.4	2.17.3.4.00987562	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service and DB
2017.3	5	2.17.3.5 (3GB)	2.17.3.0	2.17.3.5	2.17.3.5.01023250	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB, Patient Portal, Referring Portal, UM Portal
2017.3	6	2.17.3.6 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB
2017.3	7	2.17.3.7 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI
2017.6	-	3.17.6.0 (3GB)	3.17.6.0	3.17.6.0	3.17.6.0.01037550	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	Full Version Release. Including Patient, Provider and UM Portals

## INSTALLING

### CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD\_rRIS\_2017.3.7.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

# **Server Update**

For eRAD RIS

Version 2.0

Build 2.2017.3

Update 2.2017.3.8

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 _ReleaseNotes	01/26/2018 4:37 PM
 rRISService	01/26/2018 2:54 PM
 ThickClient	01/26/2018 2:53 PM

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.3 installs. This server update must be applied to 2017.3.6.

## RESOLVED ITEMS

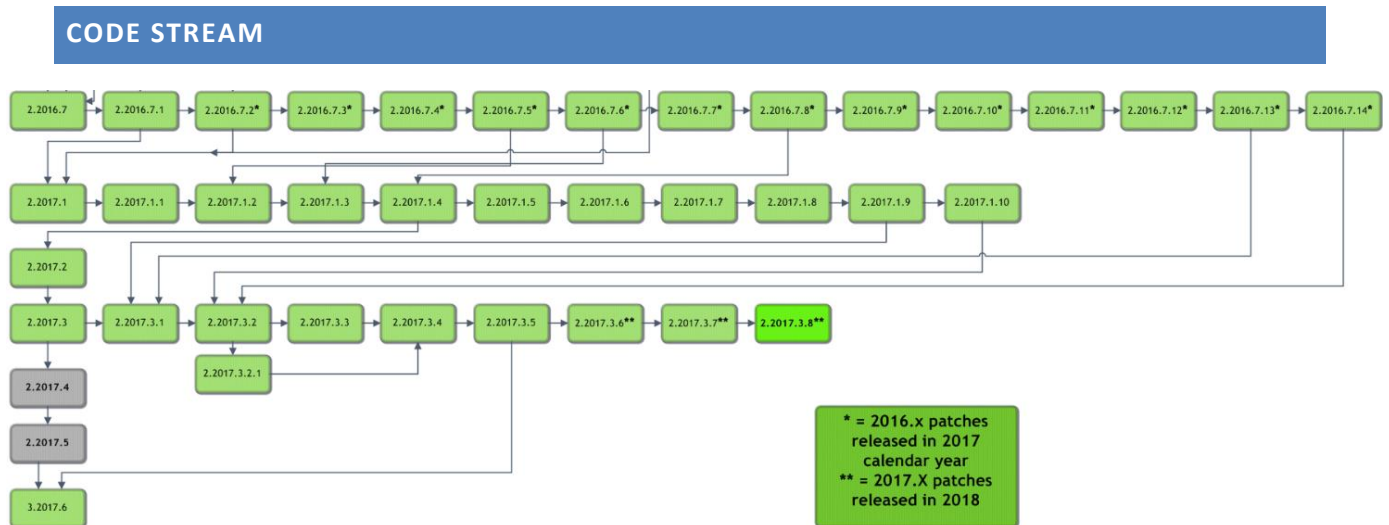
## eRAD RIS

Redmine #	Subject
19601	Resolved an issue in which adding multiple CC Physicians could result in additional physicians being associated with the first CC physician's report delivery address.
19575	Procedure code General Description is now located in the correct place in messages sent from the Wedge.
19570	Changed the way in which Imagine payments are saved, reducing the risk of failing to save a record of the payment in RIS, which could result in staff inappropriately collecting a duplicate payment. If there is an issue that prevents a payment record from saving, the RIS user will receive a warning message containing the Imagine Reference # and will be instructed to contact an administrator.
19494	Resolved an issue that caused the Save and Close buttons to disappear from the Add Mammo Biopsy screen when more than 4 rows of pathology codes were entered in the Pathology Codes field.
19454	Changed the method of searching the RIS database by UM Tracking Number, in order to prevent time out errors.
19417	Resolved an issue that could cause validation rules to behave improperly when the rule and conditions for the rule referred to information stored in different datasets.
19415	Reduced frequency of an Eligible API call (getCarrierDSByCode), which was previously called excessively and could impact system performance.

The following items, developed for future RIS versions, have been released early in this patch, so that customers can benefit from the changes more quickly.

Redmine #	Subject	Original Resolved Version
19599	Error no longer occurs when opening the Print Forms screen for procedures without a Body Part selected.	2018.1
19600	Resolved an issue that could cause the same CC Physician to be added multiple times in a loop under certain conditions.	2018.1



**Legend:**

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

## ERAD RIS RELEASE VERSION NUMBERS

Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
-	2.16.7.0 (3GB)	2.16.7.0	2.16.7.0	2.16.7.0.00490835	2.16.7.0	2.16.7.0.493031	2.16.7.0.493008		Full version release
1	2.16.7.1 (3GB)	2.16.7.0	2.16.7.1	2.16.7.0.00490835	2.16.7.0	2.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2	2.16.7.2 (3GB)	2.16.7.0	2.16.7.2	2.16.7.0.00490835	2.16.7.0	2.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
3	2.16.7.3 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	2.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
4	2.16.7.4 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	2.16.7.0.493031	2.16.7.0.493008		GUI
5	2.16.7.5 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	2.16.7.0.493031	2.16.7.0.493008		GUI
6	2.16.7.6 (3GB)	2.16.7.0	2.16.7.6	2.16.7.0.00490835	2.16.7.0	2.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
7	2.16.7.7 (3GB)	2.16.7.0	2.16.7.7	2.16.7.0.00490835	2.16.7.0	2.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
8	2.16.7.8 (3GB)	2.16.7.0	2.16.7.7	2.16.7.8.00683507	2.16.7.0	2.16.7.0.493031	2.16.7.0.493008		GUI and DB updates
9	2.16.7.9 (3GB)	2.16.7.0	2.16.7.9	2.16.7.9.00715012	2.16.7.0	2.16.7.0.493031	2.16.7.9.723457		GUI, Web Services, DB updates and UM Portal
10	2.16.7.10 (3GB)	2.16.7.0	2.16.7.10	2.16.7.9.00715012	2.16.7.0	2.16.7.0.493031	2.16.7.9.723457		GUI and Web Service updates
11	2.16.7.11 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	2.16.7.0.493031	2.16.7.9.723457		GUI, Web Service and DB updates
12	2.16.7.12 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	2.16.7.0.493031	2.16.7.9.723457		GUI
13	2.16.7.13 (3GB)	2.16.7.0	2.16.7.13	2.16.7.13.00823274	2.16.7.0	2.16.7.13.805715	2.16.7.13.805717		GUI, Web Service, DB, Patient and UM Portal updates
14	2.16.7.14 (3GB)	2.16.7.0	2.16.7.14	2.16.7.14.00888220	2.16.7.0	2.16.7.14.897644	2.16.7.14.897646		GUI, Web Service, DB, Patient and UM Portal updates
-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		Full Version Release
1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI, Web Service, DB and Patient Portal updates
5	2.17.1.4 (3GB)	2.17.1.0	2.17.1.5	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		Web Service
6	2.17.1.6 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and DB Updates
7	2.17.1.7 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
8	2.17.1.8 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
9	2.17.1.9 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
10	2.17.1.10 (3GB)	2.17.1.0	2.17.1.10	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and Web Service update
-	2.17.2.0 (3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0	2.17.2.0.702238	2.17.2.0.702213	2.17.2.0.702226	Full Version Release. First release of Provider Portal
-	2.17.3.0 (3GB)	2.17.3.0	2.17.3.0	2.17.3.0.00764112	2.17.3.0	2.17.3.0.321	2.17.3.0.321	2.17.3.0.321	Full Version Release. Including Patient, Provider and UM Portals
1	2.17.3.1 (3GB)	2.17.3.0	2.17.3.1	2.17.3.1.00846328	2.17.3.1	2.17.3.1.853299	2.17.3.1.853301	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2	2.17.3.2 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2.1	2.17.3.2.1 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI Only
3	2.17.3.3 (3GB)	2.17.3.0	2.17.3.3	2.17.3.3.00954008	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service, DB. Including Patient, Provider and UM Portals
4	2.17.3.4 (3GB)	2.17.3.0	2.17.3.4	2.17.3.4.00987562	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service and DB
5	2.17.3.5 (3GB)	2.17.3.0	2.17.3.5	2.17.3.5.01023250	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB, Patient Portal, Referring Portal, UM Portal
6	2.17.3.6 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB,
7	2.17.3.7 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI
7	2.17.3.8 (3GB)	2.17.3.0	2.17.3.8	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI and Web Service
-	3.17.6.0 (3GB)	3.17.6.0	3.17.6.0	3.17.6.0.01037550	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	Full Version Release. Including Patient, Provider and UM Portals

## INSTALLING

### CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD\_rRIS\_2017.3.7.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

### WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

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 134 files in the rRISService folder and 7 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). Folders are (Arabic), en\_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt\_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc...

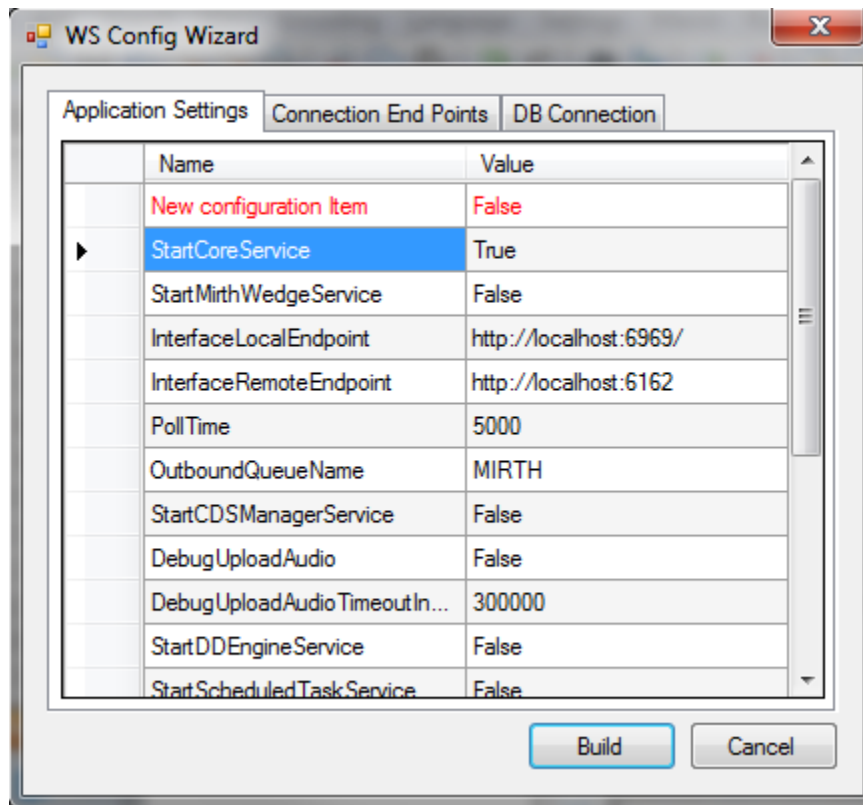
#### Services Configuration Wizard

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, and 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.



**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

# **Server Update**

For eRAD RIS

Version 2.0

Build 2.2017.3

Update 2.2017.3.9

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**PACKAGE CONTENTS**

 _ReleaseNotes	2/14/2018 8:24 AM
 rRISService	2/13/2018 2:44 PM
 Service Tools	2/13/2018 2:46 PM

**INTENDED AUDIENCE**

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

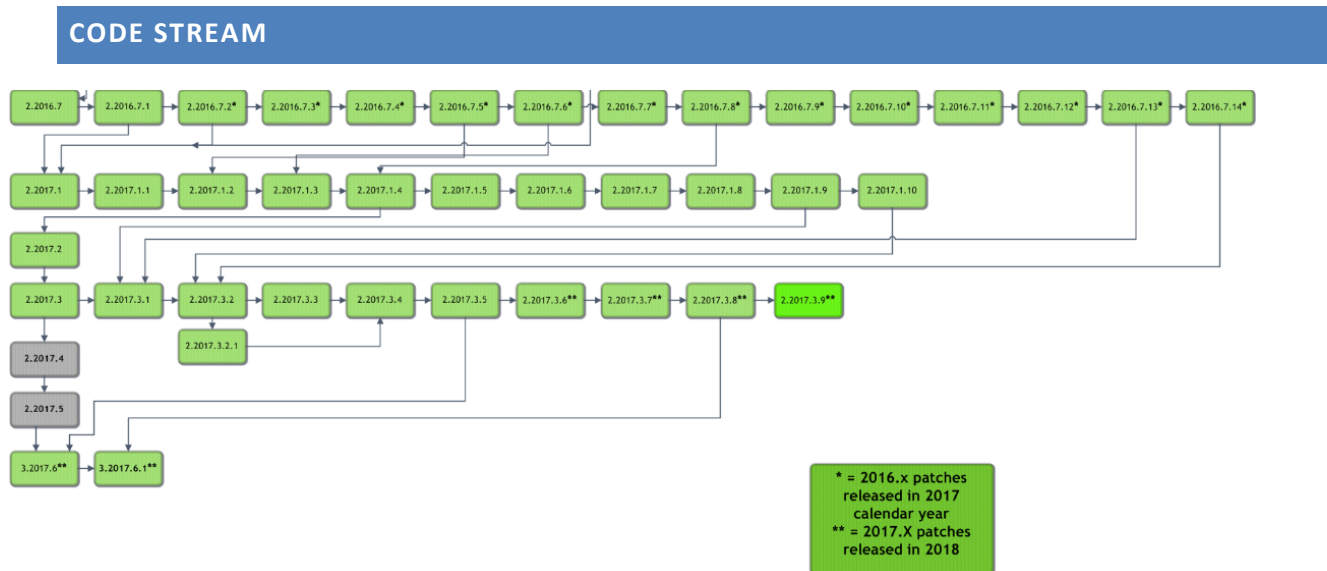
**WHO IS AFFECTED**

Build 2017.3 installs. This server update must be applied to 2017.3.8.



**RESOLVED ITEMS****eRAD RIS**

Redmine #	Subject
19901	All Carrier codes are once again expanded in outbound messages, which resolves issues experienced with PowerScribe and Billing.

**Legend:**

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

## ERAD RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2016.7	-	2.16.7.0 (3GB)	2.16.7.0	2.16.7.0	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		Full version release
2016.7	1	2.16.7.1 (3GB)	2.16.7.0	2.16.7.1	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	2	2.16.7.2 (3GB)	2.16.7.0	2.16.7.2	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	3	2.16.7.3 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	4	2.16.7.4 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	5	2.16.7.5 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	6	2.16.7.6 (3GB)	2.16.7.0	2.16.7.6	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	7	2.16.7.7 (3GB)	2.16.7.0	2.16.7.7	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	8	2.16.7.8 (3GB)	2.16.7.0	2.16.7.7	2.16.7.8.00683507	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and DB updates
2016.7	9	2.16.7.9 (3GB)	2.16.7.0	2.16.7.9	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Services, DB updates and UM Portal
2016.7	10	2.16.7.10 (3GB)	2.16.7.0	2.16.7.10	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI and Web Service updates
2016.7	11	2.16.7.11 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Service and DB updates
2016.7	12	2.16.7.12 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI
2016.7	13	2.16.7.13 (3GB)	2.16.7.0	2.16.7.13	2.16.7.13.00823274	2.16.7.0	2.16.7.13.805715	2.16.7.13.805717		GUI, Web Service, DB, Patient and UM Portal updates
2016.7	14	2.16.7.14 (3GB)	2.16.7.0	2.16.7.14	2.16.7.14.00888220	2.16.7.0	2.16.7.14.897644	2.16.7.14.897646		GUI, Web Service, DB, Patient and UM Portal updates
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		Full Version Release
2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI, Web Service, DB and Patient Portal updates
2017.1	5	2.17.1.4 (3GB)	2.17.1.0	2.17.1.5	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		Web Service
2017.1	6	2.17.1.6 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and DB Updates
2017.1	7	2.17.1.7 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	8	2.17.1.8 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	9	2.17.1.9 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	10	2.17.1.10 (3GB)	2.17.1.0	2.17.1.10	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and Web Service update
2017.2	-	2.17.2.0 (3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0	2.17.2.0.702238	2.17.2.0.702213	2.17.2.0.702226	Full Version Release. First release of Provider Portal
2017.3	-	2.17.3.0 (3GB)	2.17.3.0	2.17.3.0	2.17.3.0.00764112	2.17.3.0	2.17.3.0.321	2.17.3.0.321	2.17.3.0.321	Full Version Release. Including Patient, Provider and UM Portals
2017.3	1	2.17.3.1 (3GB)	2.17.3.0	2.17.3.1	2.17.3.1.00846328	2.17.3.1	2.17.3.1.853299	2.17.3.1.853301	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2	2.17.3.2 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2.1	2.17.3.2.1 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI Only
2017.3	3	2.17.3.3 (3GB)	2.17.3.0	2.17.3.3	2.17.3.3.00954008	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	4	2.17.3.4 (3GB)	2.17.3.0	2.17.3.4	2.17.3.4.00987562	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service and DB
2017.3	5	2.17.3.5 (3GB)	2.17.3.0	2.17.3.5	2.17.3.5.01023250	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB, Patient Portal, Referring Portal, UM Portal
2017.3	6	2.17.3.6 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB,
2017.3	7	2.17.3.7 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI
2017.3	8	2.17.3.8 (3GB)	2.17.3.0	2.17.3.8	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI and Web Service
2017.3	9	2.17.3.8 (3GB)	2.17.3.0	2.17.3.9	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	Web Service
2017.6	-	3.17.6.0 (3GB)	3.17.6.0	3.17.6.0	3.17.6.0.01037550	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	Full Version Release. Including Patient, Provider and UM Portals
2017.6	1	3.17.6.1 (3GB)	3.17.6.0	3.17.6.1	3.17.6.1.01094077	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	GUI, Web Service and DB updates

## INSTALLING

### WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

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 134 files in the rRISService folder and 12 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 use of the file called “ServicesConfigWizard.exe” (see instructions below). Folders are (Arabic), en\_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt\_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc...

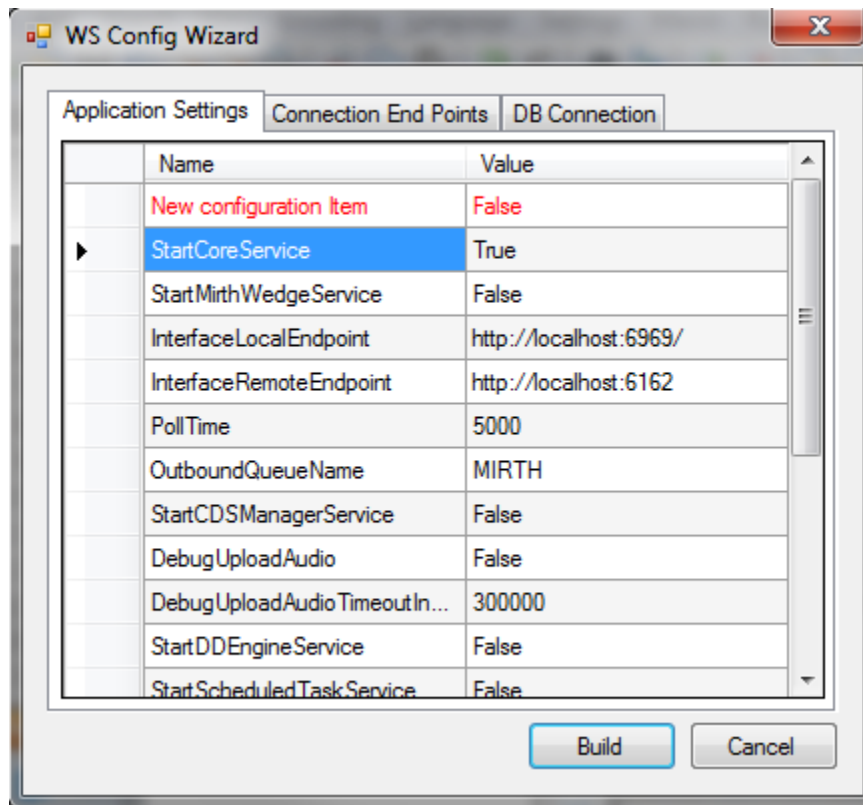
#### **Services Configuration Wizard**

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, and 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.



**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 /rIS/

net.tcp:// localhost:8041 /rIS/

**Notify Service**

net.tcp:// localhost:7095 /rIS/

**CDS Service**

http:// localhost:7092 /rIS/

net.tcp:// localhost:7093 /rIS/

Build Cancel

# **Server Update**

For eRAD RIS

Version 2.0

Build 2.2017.3

Update 2.2017.3.10

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## PACKAGE CONTENTS

 _ReleaseNotes	2/21/2018 4:59 PM
 DB	2/20/2018 3:40 PM
 rRISService	2/20/2018 3:40 PM
 Service Tools	2/20/2018 3:41 PM
 ThickClient	2/20/2018 3:39 PM

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.3 installs. This server update must be applied to 2017.3.5.

## NEW FEATURES

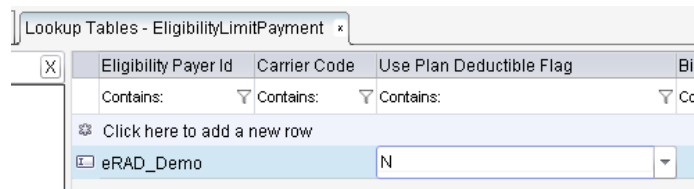
## FEATURE #18698 – ABILITY TO CONFIGURE WHETHER PLAN LEVEL DEDUCTIBLE WILL BE USED IN AMOUNT TO COLLECT CALCULATION

When using automated Eligibility workflow, problems can sometimes arise due to differences in how payers return plan information related to the patient's financial responsibility. These differences often require administrators to use the [Eligibility Limit Payment](#) table to configure exceptions to accommodate for these differences. The Eligibility Limit Payment table has been enhanced to allow for configuration related to variation in how deductible amounts are returned.

Many payers will return deductible amounts in the general plan section of the coverage, Plan Maximums and Deductibles; then if there are specific deductible conditions for X-ray/MRI, these will be specified in the service type section. If the service type section does not contain a more specific deductible, the plan deductible applies.

However, there are other payers who are an exception to this rule. For these payers, the deductible does not apply if it is not specifically listed in the service type section. For these payers, eRAD RIS should ignore the Plan-level deductible.

A new column, [Use Plan Deductible Flag](#), has been added to the Eligibility Limit Payment table.



Eligibility Payer Id	Carrier Code	Use Plan Deductible Flag	Bi
Contains:	Contains:	Contains:	Cc
Click here to add a new row			
eRAD_Demo		N	

This setting is configurable by Payer ID or by Carrier Code. When Use Plan Deductible is set to Y (for Yes), the Plan-level deductible will be used for the Amount to Collect calculation, if no specific service type deductible is specified. For any payers that are exceptions to this standard approach, the column's value can be set to N (for No). With this configuration, if the payer does not list the deductible in the service type section, no deductible will be applied when calculating the payment.

The Amount to Collect – Details screen will list \$0.00 for the Remaining Deductible. As with other Eligibility Limit Payment settings, a notation will indicate that the information in the return was adjusted.

CPT	Units	Usual & Custom...	Actual Rate	Total
3120F - 12-LEAD ECG PERFORME...	1			
4165F - 3-DIMENSIONAL CONFOR...	1			
4559F - 1BODY TEMP MEAS>=35.5...	1			
54328 - 1 STAGE DSTL HYPOSPADI...	1			
70482 - CT ORBIT SELLA/POST FO...	100	430.17	430.17	43017.00

Estimated visit cost:  ☐ Override

Co-pay \*\*\*:  Co-pay portion:

Remaining Deductible \*\*\*:  Deductible portion:

Co-insurance \*\*\*:  Co-insurance portion:

Amount to collect:

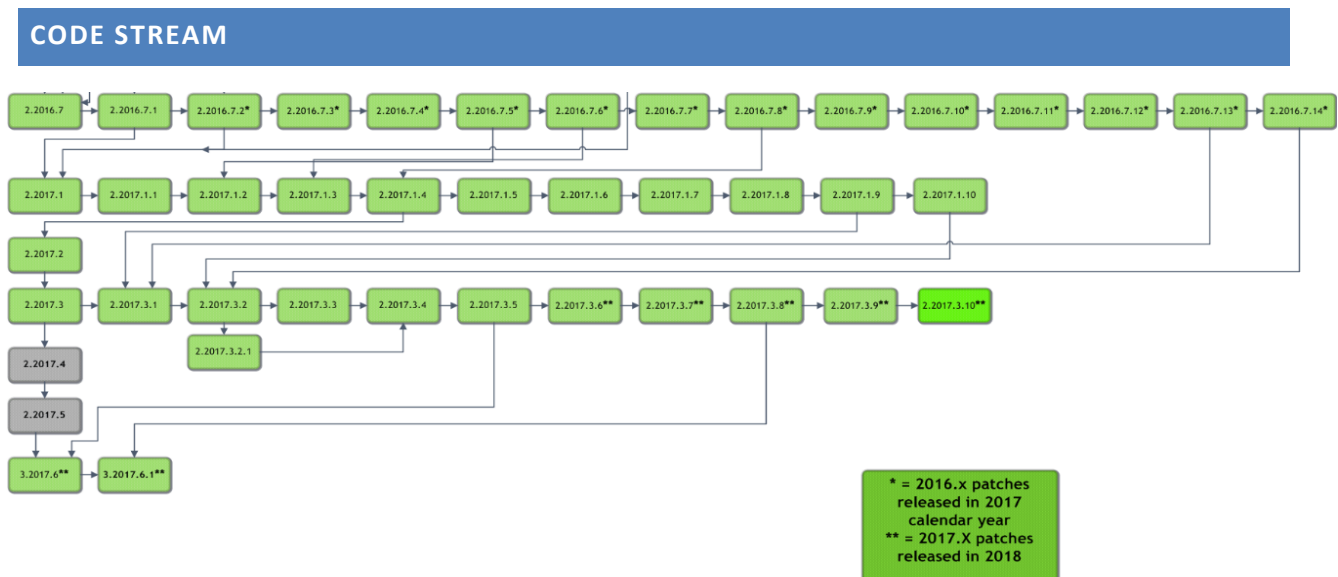
\*\*\* An adjustment was made based on the modality and carrier.

OK Cancel

## RESOLVED ITEMS

## eRAD RIS

Redmine #	Subject
19951	Resolved an issue that caused a "Billing codes are required" warning when registering studies that were scheduled from an existing cancelled study, if a validation rule was configured to require Billing Codes. Billing Codes are no longer being deactivated at the time of cancellation/rescheduling.
19938	When a patient has multiple exams and a scenario where the patient financial responsibility is different for the two exams (such as CT vs XR), the Amount to Collect will now display accurately when View/Edit is opened after the exam is performed, regardless of which study is opened. Previously, the amount could change depending on which study was used for the View/Edit (the less expensive modality would display a smaller Amount to Collect, for example).
19794	It is now possible to add new alternate MRNs for a patient who has multiple MRNs from the same Issuer. Previously, this caused an error and prevented new MRNs from being added.
19414	When a partial worklist refresh occurs to update a specific patient's information after a save, RIS is no longer requesting an unnecessary count of the items on the worklist, which reduces the number of database calls.

**Legend:**

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

## ERAD RIS RELEASE VERSION NUMBERS

Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
-	2.16.7.0 (3GB)	2.16.7.0	2.16.7.0	2.16.7.0.00490835	2.16.7.0	2.16.7.0.493031	2.16.7.0.493008		Full version release
1	2.16.7.1 (3GB)	2.16.7.0	2.16.7.1	2.16.7.0.00490835	2.16.7.0	2.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2	2.16.7.2 (3GB)	2.16.7.0	2.16.7.2	2.16.7.0.00490835	2.16.7.0	2.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
3	2.16.7.3 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	2.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
4	2.16.7.4 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	2.16.7.0.493031	2.16.7.0.493008		GUI
5	2.16.7.5 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	2.16.7.0.493031	2.16.7.0.493008		GUI
6	2.16.7.6 (3GB)	2.16.7.0	2.16.7.6	2.16.7.0.00490835	2.16.7.0	2.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
7	2.16.7.7 (3GB)	2.16.7.0	2.16.7.7	2.16.7.0.00490835	2.16.7.0	2.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
8	2.16.7.8 (3GB)	2.16.7.0	2.16.7.7	2.16.7.8.00683507	2.16.7.0	2.16.7.0.493031	2.16.7.0.493008		GUI and DB updates
9	2.16.7.9 (3GB)	2.16.7.0	2.16.7.9	2.16.7.9.00715012	2.16.7.0	2.16.7.0.493031	2.16.7.9.723457		GUI, Web Services, DB updates and UM Portal
10	2.16.7.10 (3GB)	2.16.7.0	2.16.7.10	2.16.7.9.00715012	2.16.7.0	2.16.7.0.493031	2.16.7.9.723457		GUI and Web Service updates
11	2.16.7.11 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	2.16.7.0.493031	2.16.7.9.723457		GUI, Web Service and DB updates
12	2.16.7.12 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	2.16.7.0.493031	2.16.7.9.723457		GUI
13	2.16.7.13 (3GB)	2.16.7.0	2.16.7.13	2.16.7.13.00823274	2.16.7.0	2.16.7.13.805715	2.16.7.13.805717		GUI, Web Service, DB, Patient and UM Portal updates
14	2.16.7.14 (3GB)	2.16.7.0	2.16.7.14	2.16.7.14.00888220	2.16.7.0	2.16.7.14.897644	2.16.7.14.897646		GUI, Web Service, DB, Patient and UM Portal updates
-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		Full Version Release
1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI, Web Service, DB and Patient Portal updates
5	2.17.1.4 (3GB)	2.17.1.0	2.17.1.5	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		Web Service
6	2.17.1.6 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and DB Updates
7	2.17.1.7 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
8	2.17.1.8 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
9	2.17.1.9 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
10	2.17.1.10 (3GB)	2.17.1.0	2.17.1.10	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and Web Service update
-	2.17.2.0 (3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0	2.17.2.0.702238	2.17.2.0.702213	2.17.2.0.702226	Full Version Release. First release of Provider Portal
-	2.17.3.0 (3GB)	2.17.3.0	2.17.3.0	2.17.3.0.00764112	2.17.3.0	2.17.3.0.321	2.17.3.0.321	2.17.3.0.321	Full Version Release. Including Patient, Provider and UM Portals
1	2.17.3.1 (3GB)	2.17.3.0	2.17.3.1	2.17.3.1.00846328	2.17.3.1	2.17.3.1.853299	2.17.3.1.853301	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2	2.17.3.2 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2.1	2.17.3.2.1 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI Only
3	2.17.3.3 (3GB)	2.17.3.0	2.17.3.3	2.17.3.3.00954008	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service, DB. Including Patient, Provider and UM Portals
4	2.17.3.4 (3GB)	2.17.3.0	2.17.3.4	2.17.3.4.00987562	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service and DB
5	2.17.3.5 (3GB)	2.17.3.0	2.17.3.5	2.17.3.5.01023250	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB, Patient Portal, Referring Portal, UM Portal
6	2.17.3.6 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB
7	2.17.3.7 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI
8	2.17.3.8 (3GB)	2.17.3.0	2.17.3.8	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI and Web Service
9	2.17.3.8 (3GB)	2.17.3.0	2.17.3.9	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	Web Service
10	2.17.3.10 (3GB)	2.17.3.0	2.17.3.10	2.17.3.10.01125764	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service and DB updates
-	3.17.6.0 (3GB)	3.17.6.0	3.17.6.0	3.17.6.0.01037550	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	Full Version Release. Including Patient, Provider and UM Portals
1	3.17.6.1 (3GB)	3.17.6.0	3.17.6.1	3.17.6.1.01094077	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	GUI, Web Service and DB updates

## INSTALLING

### CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD\_rRIS\_2017.3.10.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

### WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

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 134 files in the rRISService folder and 7 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). Folders are (Arabic), en\_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt\_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc...

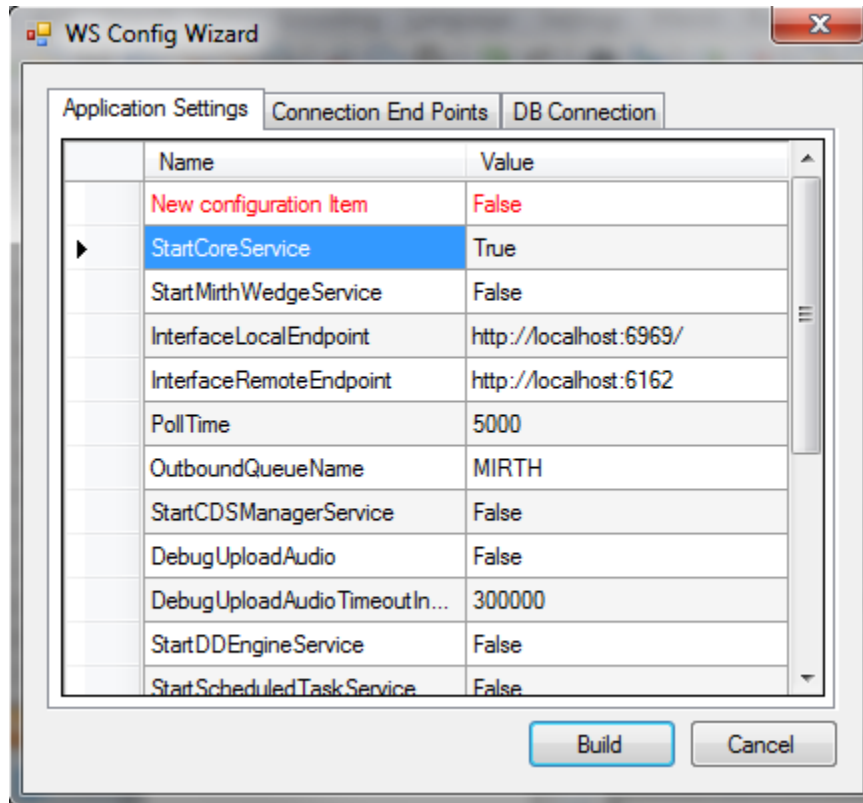
#### **Services Configuration Wizard**

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, and 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.





**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 /rIS/

net.tcp:// localhost:8041 /rIS/

**Notify Service**

net.tcp:// localhost:7095 /rIS/

**CDS Service**

http:// localhost:7092 /rIS/

net.tcp:// localhost:7093 /rIS/

Build Cancel

---

## DATABASE UPDATES

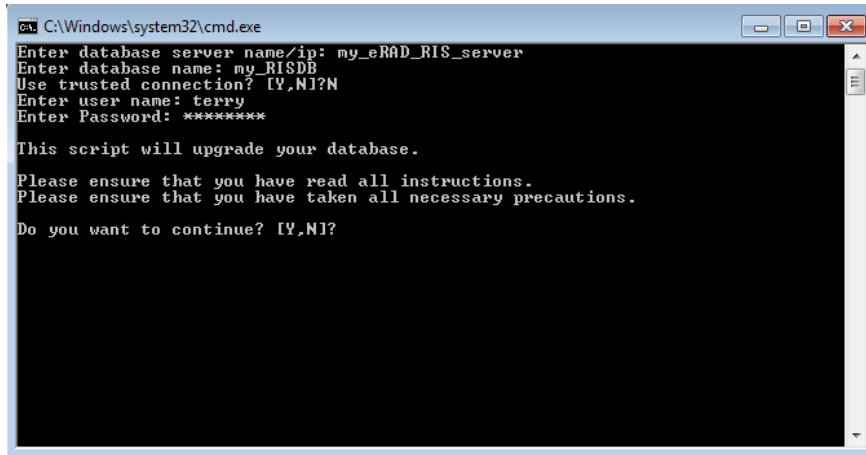
Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*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: 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]?
```

- 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

# **Customer Release Notes**

for eRAD RIS

Version 2

Build 2017.3

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## PURPOSE

This is the Customer Release Notes document for eRAD RIS Version 2.2017.3.

Not every feature will be described in this document. Typically, only features which can be visually demonstrated are outlined here.

## INTENDED AUDIENCE

The intended audience for this document is the RIS Administration team for eRAD RIS customers.

## NEW SETTINGS

### NEW ACCESS STRINGS

Setting	Default	Purpose
Clinical.Schedule.AllowManualSchedulingInClosed	None	Allows appointments to be manually scheduled in closed (gray) appointment book time slots.
Clinical.Schedule.AllowManualSchedulingInHoliday	None	Allows appointments to be manually scheduled in holiday (pink) appointment book time slots.
Clinical.Schedule.AllowManualSchedulingInRestricted	None	Allows appointments to be manually scheduled in restricted (yellow) appointment book time slots.
Clinical.Schedule.AllowManualSchedulingInUnavailable	None	Allows appointments to be manually scheduled in unavailable (blue) appointment book time slots.
Clinical.Tech.AllowAddExam	None	Allows access to the "Add exam to current order" button on Perform Exam screen.
Config.LookupEditor.OrderExtraInfo	None	Controls access to the lookup table editor for Order Extra Info.
Config.LookupEditor.PortalProcedureGroup	None	Controls access to the lookup table editor for Portal Procedure Group.
Clinical.CTRM	None	Controls access to Edit button and context menu on the Critical Results worklists.
Clinical.ReceptionBarcodeWorkflow.DesktopScanner	Full	Controls access to the Scan ID button in Identify Patient workflow.
Clinical.ReceptionBarcodeWorkflow.MagneticStripe	None	Controls access to the Swipe Card button in Identify Patient workflow.
Config.LookupEditor.BrowserType	None	Controls access to the lookup table editor for Browser Type.
Config.LookupEditor.UrgencyLevel	None	Controls access to the lookup table editor for Urgency Level.
Custom.Visibility.Data.Organization.l_site.location_character	None	Controls the visibility of the location character introduced for the Australian market. Full access shows the fields in the Organization table, while any other level will hide them.
Custom.Visibility.Data.Personnel.l_person_address.location_character	None	Controls the visibility of the location character introduced for the Australian market. Full access shows the fields in the Personnel table, while any other level will hide them.
These access strings have been removed.		
Clinical.UserPreferences.CacheReportingScreen		
Clinical.UserPreferences.ReuseReportingScreen		

## NEW SYSTEM CONFIGURATION SETTINGS

Setting	Default	Purpose
AllowLZWImageCompression	True	(value = bool) Setting this to true will enable LZW Image Compression when saving attachments.
AppointmentSearchMaxResults	-1	(value = int) Specify the number of appointment slot results to be returned by the scheduling engine. -1 turns off the feature. Changing the default is only recommended for customers scheduling via an External Interface Service. These customers should use a number higher than the recommended minimum of 500.
AutoCopyPasteLinkedStudies	False	(value = True/False) Determines if data is copied to all linked studies when one study in a collection is saved on the Perform Exam screen.
AutoIncludeLinkedStudiesForTech	False	(value = True/False) Determines if linked studies are automatically included (checked) on Perform Exam screen when a linked study is opened.
EnableExtraCompressionOnStudyUpdates	True	(value = bool) Setting this to true will enable gzip and other compression techniques and is ideal for sites with limited upload bandwidth. Set it to false to default to the legacy Microsoft data serialization.
PortalEradPacsNewAccountTemplateUserI D		(value = string) The PACS user ID to be used as a template when creating eRAD PACS accounts for users on the Portal.
PortalEradPacsNewAccountUserGroup	Radiologist	(value = string) Default user group to use when creating eRAD PACS accounts for users on the Portal.
PortalFaxCoverSheetUnavailableMessage	This Fax cover sheet is currently unavailable on the portal. Please contact the imaging center to request the cover letter.	The message to display to the Connect portal user when the Fax Cover sheet is not available due to unexpected error (e.g. SSRS report server is unavailable or not configured). *This setting is for a CONNECT Provider Portal feature and will be explained in the Provider Portal user guide.
PortalFaxCovertLetterReportPath		(value = path and name) The path and name of the Fax Cover Sheet for the Provider Portal. *This setting is for a CONNECT Provider Portal feature and will be explained in the Provider Portal user guide.
CountyToZipCodeAutoFill	False	(value = bool) True to have zip and state fields auto-filled when entering a county.
MaxLogoFileSize	250000	(value = int) Maximum number of bytes for image files uploaded for Practice/Site logos and images uploaded via the ImageUploader configuration screen.



MaxLogoWidthOrHeight	1000	(value = int) Maximum number of pixels for Practice/Site logos and images uploaded via the ImageUploader configuration screen.
*Removed* TechContrastRequired		This was removed because the contrast required and CT dosage for techs is now controlled with Validation Rules. See feature #15150.
NPILength	0	(value = string) Required length of the NPI field. If blank or zero, any length is allowed up to 20, which is the maximum length of the column.
NPILengthErrorText	N/A	(value = string) Text to display when the NPI length is invalid. If blank or null, the default error text will be displayed.
PortalAllowEveningWeekendScheduling	True	(value = bool) If true, the portal will allow scheduling on evenings and weekends when appointments are available based on Availability Templates.
PortalAuthorizationNotRequiredHourPadding	0	(value = int) The number of hours before a patient can schedule through the portal if they do not have an Authorization.
PortalAuthorizationRequiredHourPadding	0	(value = int) The number of hours before a patient can schedule through the portal if they have an Authorization.
PortalMaxSearchDays	30	(value = int) When searching for an appointment time in the Portal, if no appointment times are available within this number of days, RIS will inform the user and display information to call the scheduling department.
PortalNoSelectedInsuranceHourPadding <b>REPLACES</b> PortalNoSelectedInsuranceDayPadding	5	(value = int) Used by online scheduling to add hours to the start search criteria to allow time to gather insurance from the patient for this appointment.
PPSchedulingNoPrescriptionHourPadding <b>REPLACES</b> PPSchedulingNoPrescription	0	(value = int) The number of hours before a patient can schedule through the portal if they do not have a prescription.
XmlIntegrationMainMenuText	Integrate	(value = string) The text that will appear on the XML Integration main menu item in RIS.

## NEW FEATURES

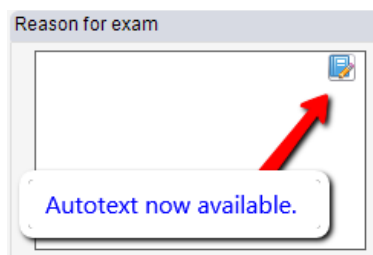
### SCHEDULING AND REGISTRATION

#### FEATURE #15086 – LOG CONTROL SUPPORTS AUTOTEXT ENTRY IN “DISPLAY AS TEXTBOX” MODE

Previously, it was only possible to utilize Autotext in notes fields that were configured to use Log Control.



It was not supported for Textbox style notes fields, which were not able to take advantage of the Autotext feature. It is now possible to turn on Autotext for a notes field that is set up as “Display as Textbox.”



To configure, open the Log Control configuration table. Locate any notes fields that are set to “Display as Textbox,” indicated with a Y. Enable Autotext by changing the Type to FreeAndAutoText. To restrict the user from entering anything **except** Autotext, choose a type of AutoText.

Log Control Code	Description	Type	Display As Textbox Flag	Spellcheck Enabled
Contains:	Contains:	Contains:	Contains:	Contains:
Click here to add a new row				
DDNotes	Document Distribution Notes	FreeText	N	N
SignsAndSymptoms	Signs And Symptoms	FreeAndAutoText	Y	Y
ReasonForExam	Reason For Exam	FreeAndAutoText	Y	Y
SchedulingNotes	Scheduling Notes	FreeAndAutoText	N	Y
TechNotes	Technologist Notes	FreeAndAutoText	N	Y
UMExternalNotes	Utilization Management External Notes	FreeAndAutoText	N	Y

If needed, configure Autotext options for the notes field in the Autotext table.

Description	Language Content	Log Control Code	Display Order
Contains: ▼	Contains: ▼	Contains: ▼	Equals: ▼
Click here to add a new row			
Screening	Annual screening. Asymptomatic.	ReasonForExam (Reason For Exam)	1
FUfromPrior	Follow-up from prior study dated	ReasonForExam (Reason For Exam)	1

## FEATURE #15026 – MAGNETIC STRIPE CARD INTERPRETATION ADDED TO IDENTIFY PATIENT WORKFLOW

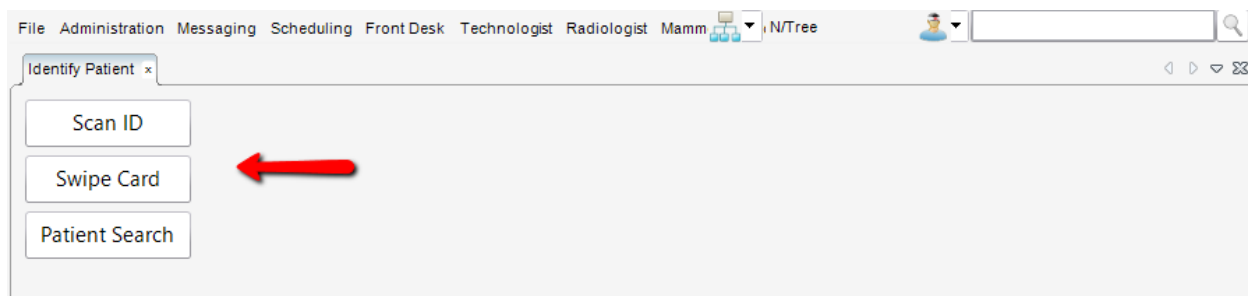
Some eRAD RIS customers are located in countries where government issued insurance cards with a magnetic stripe are common. This magnetic stripe contains information in a designated format, which can be interpreted to help identify the patient's account in RIS. To take advantage of this information, eRAD's Identify Patient feature has been expanded to support swiping cards with magnetic stripes.

Because different issuers will have different configurations for the data included on the magnetic stripe, RIS allows for different configurations to be defined in an XML file, which is included in the RIS zip file. At this time, the XML file contains configuration for Australian Medicare cards, as well as Prince Edward Island health cards. Contact eRAD Support to inquire about additional configurations.

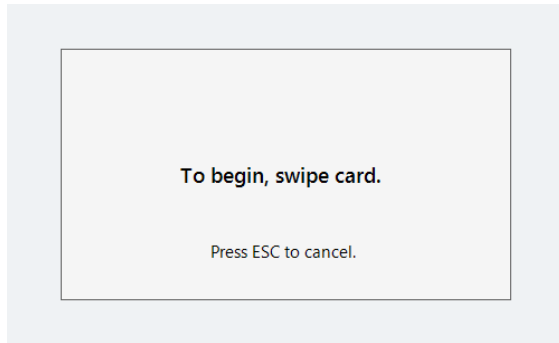
There are three Access Strings associated with the Identify Patient workflow:

- Clinical.ReceptionBarcodeWorkflow
  - This access string previously controlled access to the Identify Patient workflow. There are now two additional access strings that control the different types of searches.
- Clinical.ReceptionBarcodeWorkflow.DesktopScanner
  - This access string controls access to the existing feature in which Patient IDs with 2D barcodes are scanned using a desktop scanner.
  - The default setting is FULL to maintain existing behavior.
- Clinical.ReceptionBarcodeWorkflow.MagneticStripe
  - This access string controls access to the new magnetic stripe search.
  - The default setting is NONE.

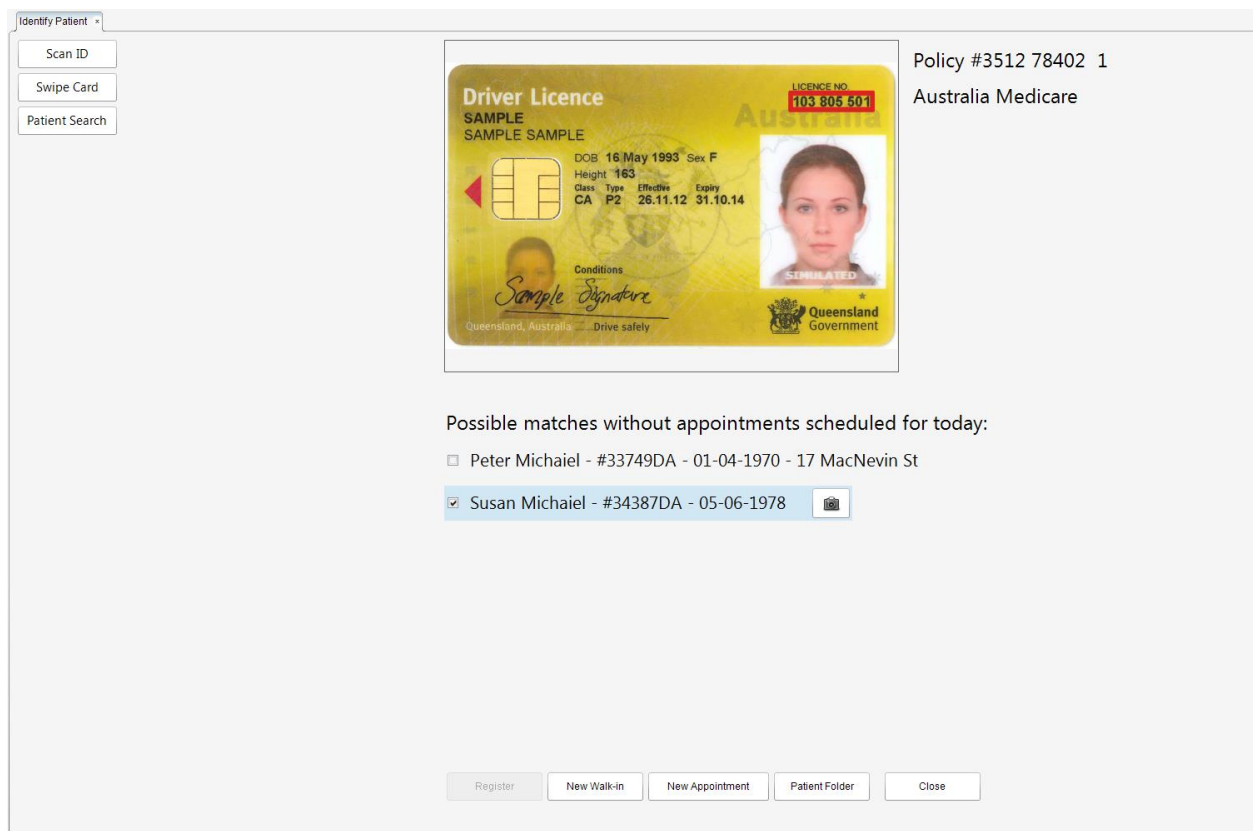
If a user has FULL access to all three of the above access strings, when opening the Identify Patient screen, they will have three options for initiating a search: Scan ID (which will scan an ID Card on the desktop scanner, as before), Swipe Card (will accept input from a magnetic card reader), and Patient Search (a new manual search option in the case that either of the previous options is unable to read the card).



When using the Swipe Card option, the user will be prompted with the following message:

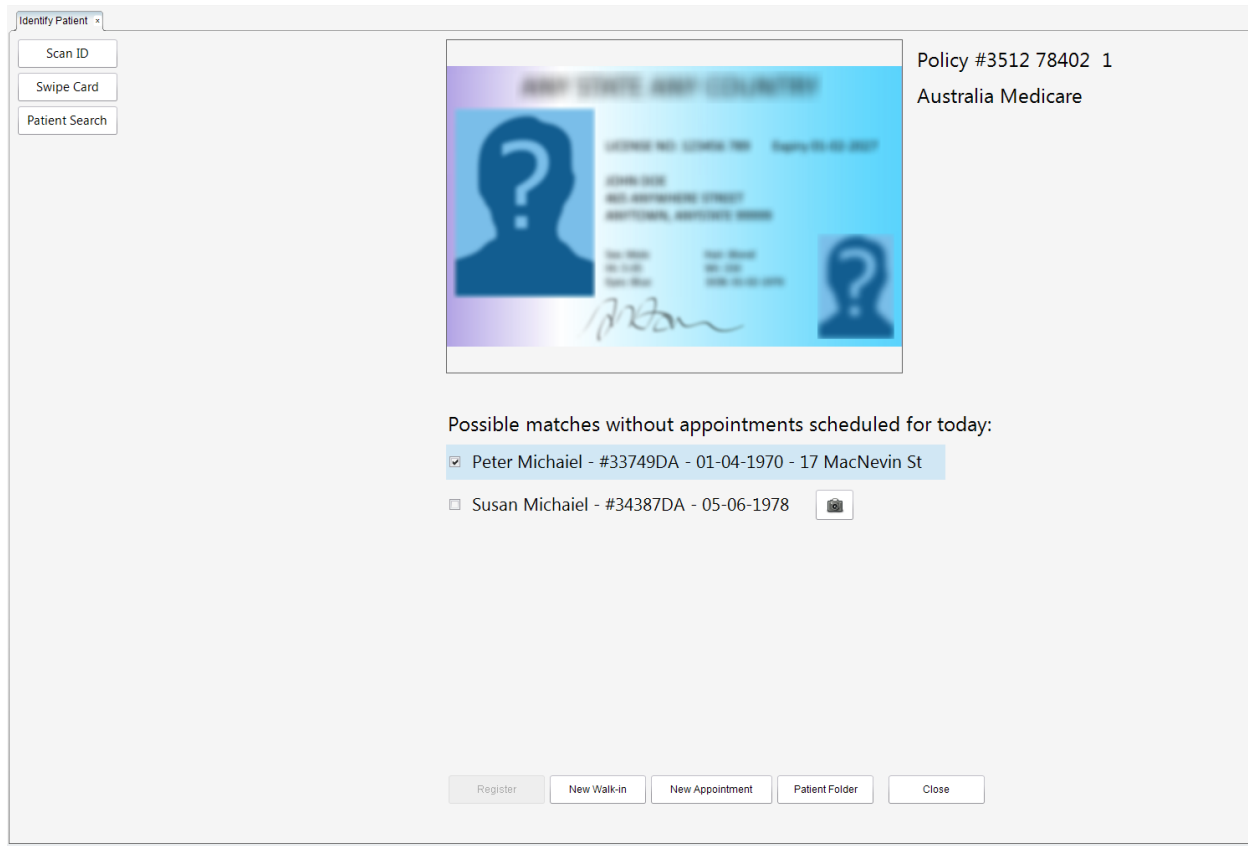


After RIS detects a successful read from the magnetic stripe reader, the results will display on the tab. The following example will refer to the configuration for an Australian Medicare card.



The upper right hand portion of the screen displays a summary of the information read from the Medicare card. At this time, the only information that can be interpreted from the card is the policy number and issue number. Though one or more patient names may be printed on the card, the magnetic stripe itself does not contain patient names.

The upper portion of the screen will show the most appropriate ID for the patient. In “Desktop Scanner” mode, this area shows the ID that was scanned. In Patient Search or Swipe Card mode, this area will show the most recent ID on file for the currently selected patient. In the event that a matching patient record does not have a patient ID on file, a generic image will be displayed to indicate No ID found.

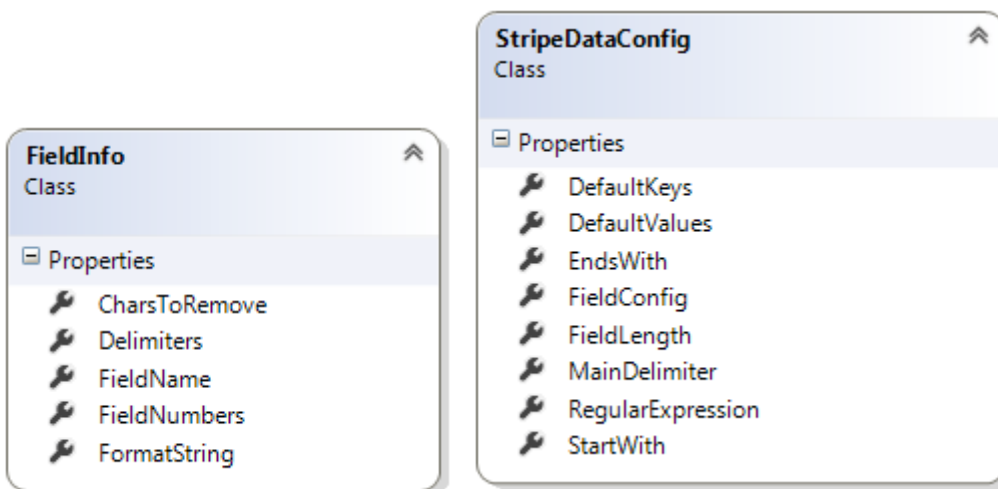


Because multiple patients can share the same Medicare card, RIS performs a search for all patients with a carrier code that represents Australia Medicare and the policy number read from the card. The issue number of the card (the last number on the right) is not included in this search as this number may have changed since the patient's last visit.

As with the Patient ID search, possible matches to the search will be displayed in the bottom half of the screen, with results that have an appointment scheduled that day at the top of the list. A patient from the search results can be selected with a checkmark. The buttons at the bottom of the screen can initiate the desired action.

### Magnetic Stripe Configuration

Different types of swipe cards may have the data stored in different formats. RIS allows for different configurations to be defined in an XML file which is included in the RIS zip file.



Each card type can be described in an XML file that contains a list of *StripeDataConfig* objects with the properties shown above. The *FieldConfig* property is a list of *FieldInfo* objects that provide a name for the field and some instructions to extract and format the data.

The released zip file presently contains an Australia Medicare card configuration and a PEI Health card configuration. These can be used for reference when building additional configurations.

## Field Names

The following case sensitive field names are given special meaning:

- LastName – The patient’s last name.
- FirstName – The patient’s first name.
- MRN – If present, will be displayed as the patient ID and used to trigger an MRN search.
- BirthDate – The patient’s date of birth.
- PolicyNumber – If present (and in the absence of MRN), will be displayed as the insurance policy number and used to trigger a “StartsWith” type policy number search for a specific carrier code.
- IssueNumber – If present, will be displayed along with the Policy Number. It is not included in the policy number search. If an insurance policy is recorded in RIS that includes the Issue Number as a suffix, searching by Insurance Policy StartsWith should still include a match.
- CarrierCode – Will be used together with the insurance policy for an insurance policy search. The carrier code will be displayed in the upper right search criteria area. Note that the packaged zip file presently includes the carrier code of “Australia Medicare,” but this can be configured by service with a text editor (see MagneticStripeConfig.xml).

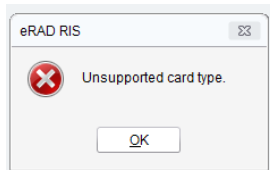
## Clipboard Conveniences

When a code is successfully detected by RIS, if the parsed fields contain an MRN, it will be copied to the clipboard. If there is no field called MRN but both PolicyNumber and IssueNumber exist, those numbers are copied to the

clipboard. If there is only a PolicyNumber, then PolicyNumber is copied to the clipboard. This data can then be pasted into a field if desired.

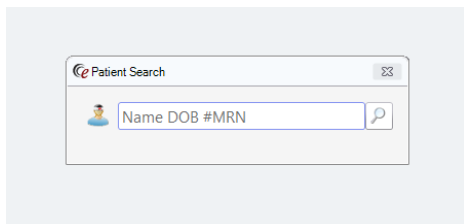
### Unrecognized Swipe Cards

If the user swipes a card that has a magnetic stripe that is not in one of the expected formats, a message will be displayed to the user:



### Patient Search

If the Card Swipe or Patient ID search is unsuccessful, users now have the ability to click the Patient Search button in the top right portion of the screen.



Rather than requiring the user to enter name and date of birth in different fields, Identify Patient's Patient Search uses an approach similar to the Quick Search box in the upper right hand corner of RIS. The user can enter partial name and DOB or MRN and see a list of matching patients; and the search results are categorized to show patients with exams today at the top.

Because this query with information on today's exams is heavier weight than the simple patient search, there are minimum requirements on the search criteria in order to ensure more specific results. The user is required to enter either the MRN with a # prefix, or enter at least part of the last name, part of the first name and the patient's date of birth. The full name portion of the search criteria needs to include at least 5 characters total with at least two characters in the first name and at least two characters in the last name.

Examples of valid search criteria are:

Jo Doe 040477

Doe, John 04-04-1977

#00836725

The Patient Search dialog can be dismissed by pressing the Escape key or clicking the X in the upper right of the dialog.



---

## FEATURE #15475 – PROVIDE AN ALERT IN RIS WHEN A PRIOR BALANCE EXISTS IN AN EXTERNAL BILLING SYSTEM

Customers have requested that eRAD RIS support the ability to receive messages from an external billing system in order to notify RIS users that an outstanding balance exists for the patient. This can now be supported using the Validation Rules capability.

An external billing system can now update a new Outstanding Balance field in the eRAD RIS database with a Y or N value via HL7. A validation rule has been added that will display an alert when the patient is marked as “Checking In” if a prior balance exists in the billing system.

The following alert will display to the RIS user: “Patient has an outstanding balance. Please review before proceeding with registration.” The timing and content of the alert can be adjusted to match customer preferences.

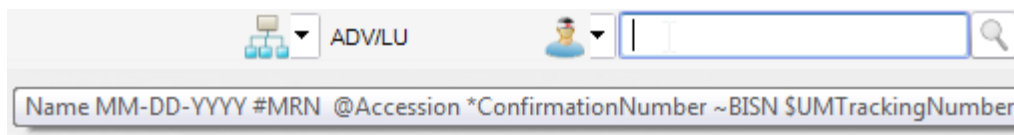
---

## FEATURE #14796 – ABILITY TO SEARCH BY BISN IN QUICK SEARCH

This feature is for customers using Imagine Billing. The BISN (Billing Interface Serial Number) used in the Billing Confirmation workflow should be searchable using the Quick Search. This will enable a user to quickly find a record when they only have a BISN.

To trigger this type of patient search, simply type a tilde (~) character before the number.

Hovering over the Quick Search box will provide a list of the search type indicators.



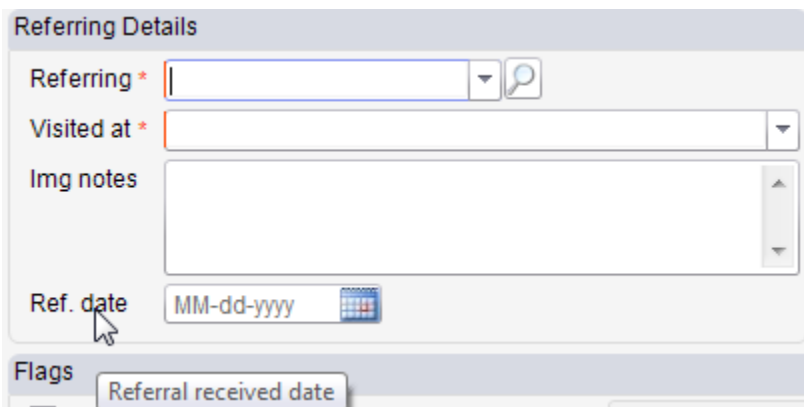
The search will bring up the Patient Folder for the matching patient and the exam row corresponding to the BISN will be highlighted.

---

## FEATURE #16603 – COLLECT THE DATE A REFERRAL WAS RECEIVED

In some markets, it is important to record the date that a referral was received from the patient's provider. In fact, in some areas it is even required that this date be provided in the billing file. A new field has been added to the Referring Details panel to capture the date when the patient received the referral from the doctor.

The field has an abbreviated label of "Ref. date" and the tool tip displays the full label for the field: *Referral Received Date*.

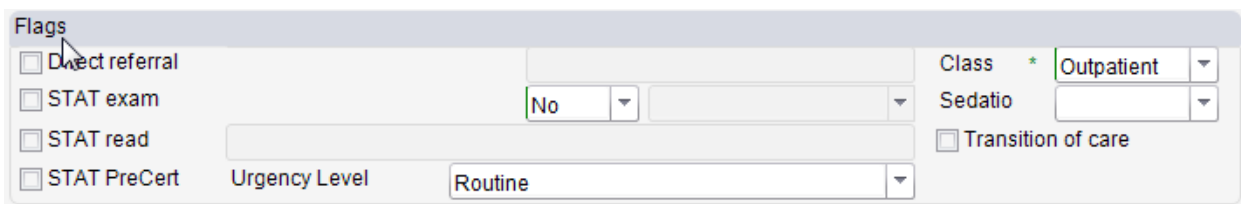


The date is manually entered into this field. It is possible to create a validation rule to require the field, if desired.

## FEATURE #15806 - SUPPORT A CONFIGURABLE URGENCY LEVEL

For hospital workflow, the existing fields for "STAT Read" and "STAT Exam" are not flexible or specific enough. There is a need to capture and display an "Urgency Level" at an Order level. This will allow customers to define their own specific levels of urgency that can then be displayed on worklists and sorted according to severity.

To this end, a new data field called *Urgency Level* has been added to Order tab within eRAD RIS. The data field has a dropdown control allowing a user to select from a configured list of urgency level values.



The options available in the dropdown are defined in a new lookup table, also labeled Urgency Level. When adding items to this configuration table, it is important to define the Display Order. This not only controls the display order in the field's dropdown, but also the sort order on the worklists. Display Order should be defined so that the most urgent option has a display order of 1.

eRAD RIS (Development as Gary Kindel [gary])

File Administration Messaging Scheduling Front Desk Technologist Radiologist Mammo Editor PACS Help

Lookup Tables - UrgencyLevel \* x

Search Lookups	Urgency Level Code	Description	Display Order	Last Updated	Active
BrowserConfig	Contains:	Contains:	Equals:	Contains:	Contains:
ContactLogMethod	Click here to add a new row				
ContactMethod	LT	Life Threatening	1	02-08-2017 1...	Y
Contrast	C	Critical	2	02-08-2017 1...	Y
CountryState	N	Normal	3	02-08-2017 1...	Y
CreditCardType	R	Routine	4	02-08-2017 1...	Y
CTRMCategory					
DeliveryMethod					

If an Urgency Level is selected for a patient's order, it will be displayed in a new column labeled Urgency Level available on the following worklists:

















































- Orders to Schedule WL
- Technologist WL
- Reception WL
- Pending Dictation WL
- All Pending Dictation WL
- Reports Drafted WL
- All Reports Drafted WL
- Activity WL
- Patient Folder

As mentioned above, when sorting this column, RIS will refer to the Display Order and sort according to this setting, instead of sorting alphabetically.

eRAD RIS (Development as Gary Kindel [gary])

File Administration Messaging Scheduling Front Desk Technologist Radiologist Mammo Ed

Lookup Tables - UrgencyLevel \* Patient Search Patient: KINDEL, Gary #32809PACS (12) x

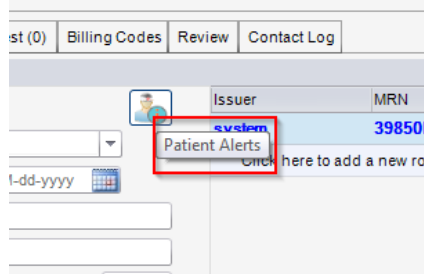
Flags	Nuggets	Status	Urgency Level	Procedures
\$	   	Scheduled	Life Threatening	CT Cervical Spine W [72126] - Cervical spine
\$	   	Cancelled	Life Threatening	CT Cervical Spine W [72126] - Cervical spine
\$	   	Cancelled	Life Threatening	CT Cervical Spine W [72126] - Cervical spine
\$	   	Cancelled	Life Threatening	CT Cervical Spine W [72126] - Cervical spine
	   	Ordered	Critical	Colonoscopy [45378]
	   	Scheduled	Normal	CT Abdomen W & CTA Chest W/Wo [CT66] - Abdom
	   	Cancelled	Normal	CT Abdomen W & CTA Chest W/Wo [CT66] - Abdom
\$	   	Signed	Routine	MR Thoracic Spine Wo [72146] - Lumbar spine
\$	   	Dictated	Routine	MR Thoracic Spine Wo [72146] - Lumbar spine
\$	   	Ordered	Routine	CT Cervical Spine W [72126] - Cervical spine
\$	   	Dictated		MR Thoracic Spine Wo [72146] - Lumbar spine
\$	   	Dictated		CT Cervical Spine W [72126] - Cervical spine

A new access string has been created to grant the appropriate users permission to edit the Urgency Level configuration table: *Config.LookupEditor.UrgencyLevel* (default = None).

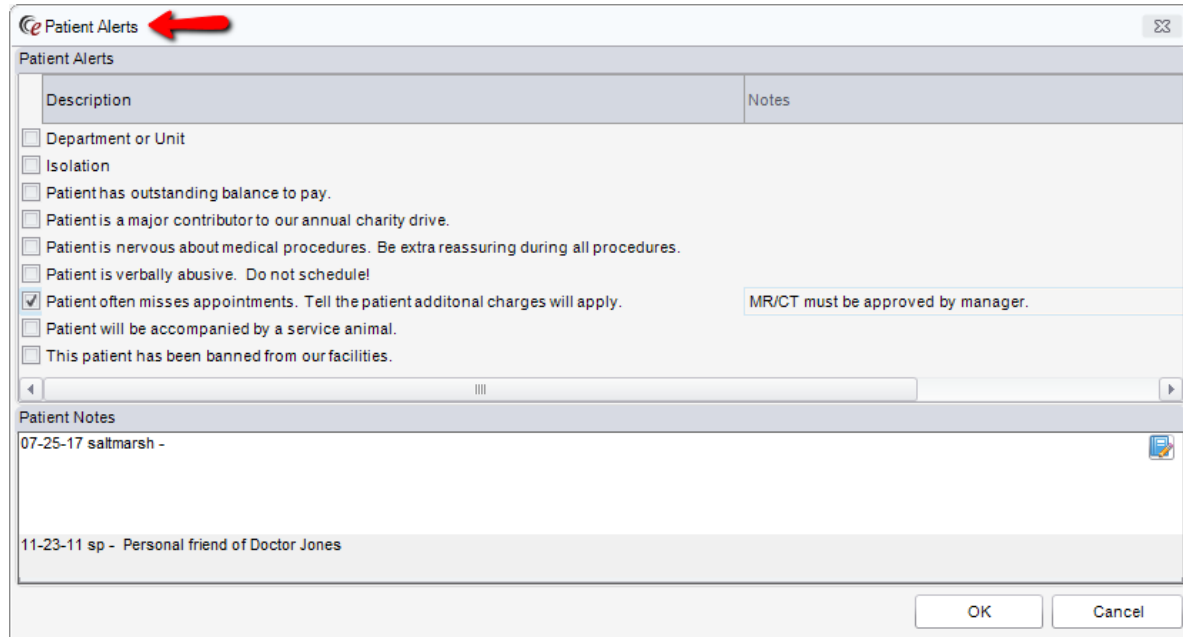
## FEATURE #11864 – “PATIENT FLAG” FUNTIONALITY IS NOW CALLED “PATIENT ALERTS”

eRAD RIS has the ability for users to add information about a patient that can be displayed to the user as a pop-up notification when the patient’s order or exam is opened. This was previously known as “Patient Flags.” The name did not accurately represent the intention of this feature, which is to **alert** the user about key information related to the patient. For this reason, the existing feature set has been renamed to “Patient Alerts.”

The tool tip on the button has been updated:



The title on the selection screen has also been updated:



The configuration table is temporarily still labeled with the underlying database label of Patient Flag, but this will be updated in a future build.

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## FEATURE #9202 – NEW ACCESS STRINGS FOR APPOINTMENT BOOKING

In eRAD RIS, there are four different types of appointment slots that are outside of the routine:

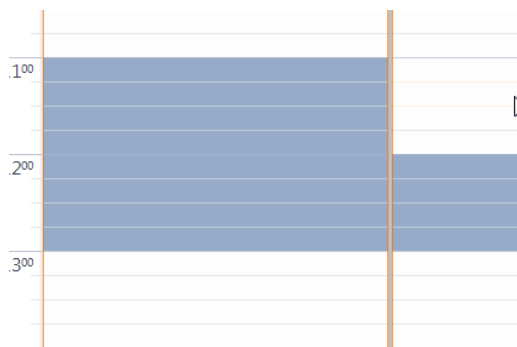
1. Room Closure
2. Holiday
3. Unavailable (outside of the configured hours for the room)
4. Restricted (configured to indicate to the scheduler that only certain appointments can be scheduled in a particular slot)

It may be undesirable to allow certain schedulers to access one or more of these special types of appointment slots. For instance, perhaps a new scheduler would be allowed to schedule in Restricted time slots, but not holidays, or times when the room is closed due to business hours or holidays. A scheduling manager may need to book in any of these slots on a case by case basis. To allow for this type of flexibility, new access strings have been added to allow or disallow users to schedule in unavailable, modality restricted, modality closed or holiday time slots.

The access strings will determine whether a given user can schedule using the Appointment Book, by manually entering the room/date/time in the scheduling screen, or by using the calendar view in the scheduling screen. All access strings are configured with defaults that replicate previous functionality, which can be adjusted to provide the desired permissions.

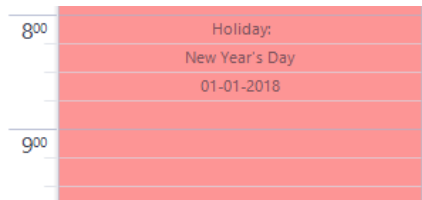
### Room/Modality Closure:

Access string *Clinical.Schedule.AllowManualSchedulingInUnavailable* must be set to FULL to schedule in unavailable time slots, which are time slots that are outside of the room's normal business hours. These time slots appear in blue in the appointment book. The default setting is FULL (scheduling *is* allowed).



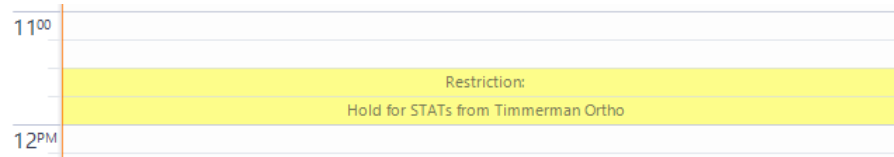
### Holiday:

Access string *Clinical.Schedule.AllowManualSchedulingInHoliday* must be set to FULL to schedule in the Holiday time slots. These time slots appear pink in the appointment book. The default setting is NONE (scheduling *not* allowed).



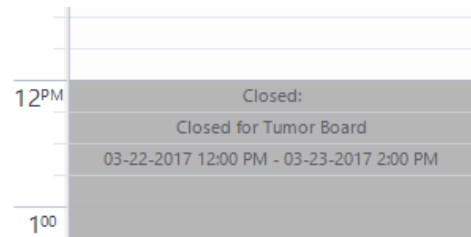
#### Restriction:

Access string *Clinical.Schedule.AllowManualSchedulingInRestricted* must be set to FULL to schedule in modality restricted time slots. These time slots appear yellow in the appointment book. The default setting is FULL (scheduling *is* allowed).



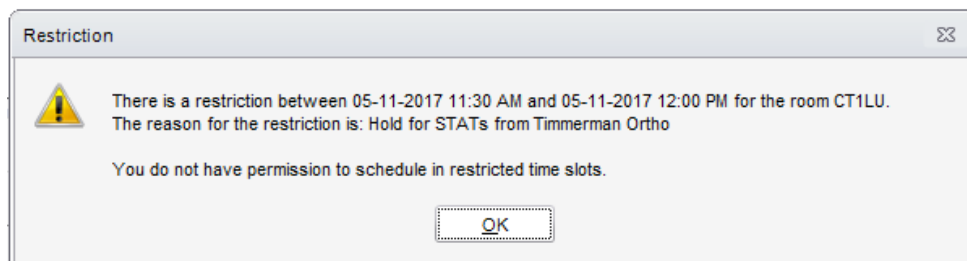
#### Closures:

Access string *Clinical.Schedule.AllowManualSchedulingInClosed* must be set to FULL to schedule in closed time slots. These time slots appear gray in the appointment book. The default setting is NONE (scheduling *not* allowed).



If a user without full permission to the applicable access string chooses an unavailable time slot, the user will receive an error that the room is unavailable and will not be able to schedule.

Modality Restrictions will continue to display the reason for the restriction, but without the appropriate permission, the user will be informed that they cannot schedule in restricted time slots.



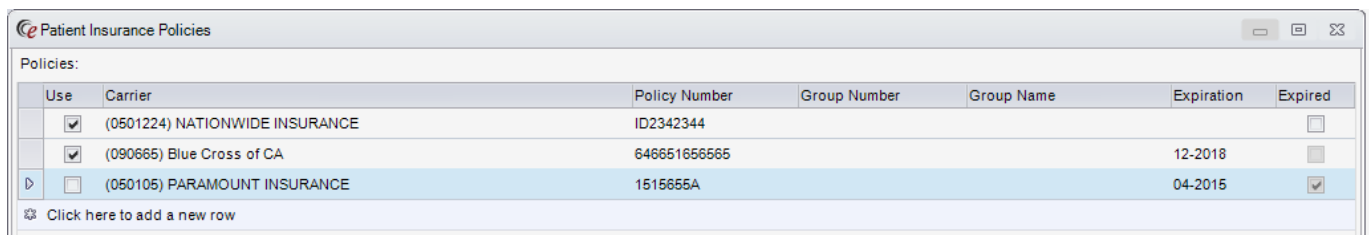


## INSURANCE

### FEATURE #16074 - INSURANCE POLICY EXPIRY DATE NOW AVAILABLE ON THE MANAGE POLICIES SCREEN

Some insurance policies have a listed Expiry Date which would be beneficial to collect on the Manage Policies screen. In fact, in some markets, the Expiry Date is required for billing.

To accommodate this, a new column, *Expiration*, has been added in the Policies grid on the Manage Policies screen. This is an optional field with a date format of MMYYYY. It can be displayed to the user as MM-YYYY or MM/YYYY depending upon whether “-” or “/” is used in the *DateFormat* System Configuration setting.



Use	Carrier	Policy Number	Group Number	Group Name	Expiration	Expired
<input checked="" type="checkbox"/>	(0501224) NATIONWIDE INSURANCE	ID2342344				<input type="checkbox"/>
<input checked="" type="checkbox"/>	(090665) Blue Cross of CA	646651656565			12-2018	<input type="checkbox"/>
<input type="checkbox"/>	(050105) PARAMOUNT INSURANCE	1515655A			04-2015	<input checked="" type="checkbox"/>

Click here to add a new row

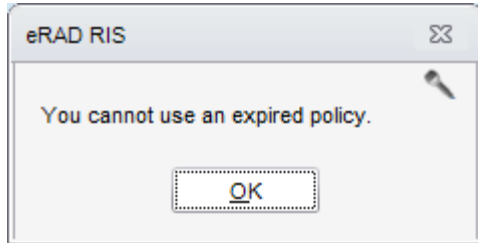
If an Expiry Date has been entered, RIS will now control whether the policy has expired and will prevent the user from using an expired policy. Each time the Manage Policies screen is opened, a new evaluation of the Expiration date will be performed and the Expired checkbox will be checked accordingly. Cards expire at midnight on the last day of the month entered as the expiry date.

Because the RIS is responsible for evaluating whether the policy is expired when a date has been entered, the Expired checkbox will be Read Only when a date has been entered in the Expiration column. If the patient's policy has a new expiry date, the user can update the expiration to a future date and the check will be removed from the Expired column.

Policies without an Expiration listed can still be manually expired (or un-expired) by checking the box.

When entering Expiration dates the user can enter MMY, MMYYY, MM-YYYY, MM-YY, MM/YY, MM/YYYY and many other variations where the month and year are separated by any non-numeric character. The RIS will attempt to parse the date and display it in a MMYYYY format.

If the user attempts to use a policy that has been expired, a warning will be issued and the policy cannot be selected.

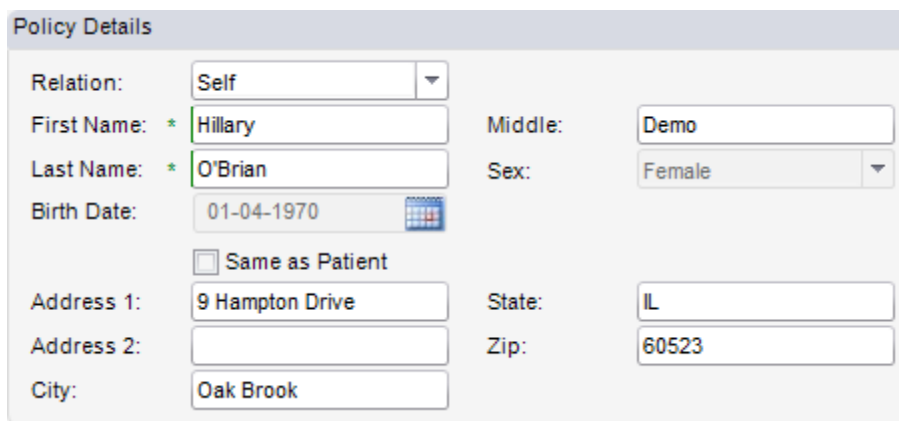


Updating the Expiration to a future date will make the policy available for use.

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## FEATURE #16523 – STORE INSURANCE CARRIER’S PATIENT DATA WHEN PATIENT IS NOT SUBSCRIBER

This feature is for customers using the integration with Eligible API. When the patient is the subscriber to the insurance, we update the demographic information in the Policy Details section as it is known by the insurance carrier. For example, if we send the patient’s name as “Hillary O’Bryan” and the message from Eligible API indicates that the insurance carrier has the last name as “O’Brian,” the Policy Details screen will automatically update to store the version that matches the insurance policy.



**Policy Details**

Relation:	Self	
First Name: *	Hillary	Middle: Demo
Last Name: *	O'Brian	Sex: Female
Birth Date:	01-04-1970	
<input type="checkbox"/> Same as Patient		
Address 1:	9 Hampton Drive	State: IL
Address 2:		Zip: 60523
City:	Oak Brook	

When the patient is **not** the subscriber, the information in the Policy Details section is for the policy holder, so there was not a place to store the insurance version of the *patient's* information. eRAD RIS can now store this information in the background, so that the insurance carrier will receive the matching information when the study is billed. In the database, eRAD stores the last known patient information for the policy, including the patient’s first name, last name, middle name, birth date and gender. If the carrier changes, these fields will be cleared until they are updated with the information from the new carrier, if applicable.

## UTILIZATION MANAGEMENT

### FEATURE #15435 – CONFIRMATION WARNING MESSAGE FOR SCHEDULERS

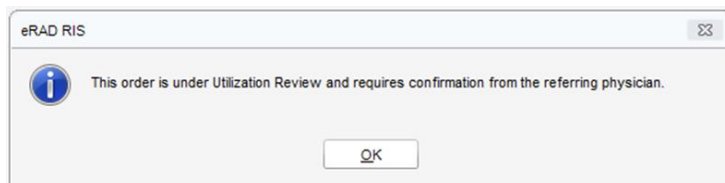
During the utilization review process, there can be certain scenarios that require confirmation from the referring physician before the order can proceed to be scheduled. For example, if the UM nurse or doctor recommends an alternative or additional procedure, confirmation by signature is required.

The confirmation workflow is determined by the Confirmation Required Flag in the UM Resolution look-up table. For example, “Recommended as Alternative” would typically have this flag enabled.

As soon as the ordered procedure is marked as “Recommended as Alternative,” eRAD RIS determines that this is a **final** status and advances the UM Flag from UM Required to UM Complete—even though confirmation has yet to be received. The reason behind this logic is that the reviewers are done with the review at this point. The clock stops and the order drops from the Utilization Management workload.

The Schedule functionality is disabled until confirmation is received. However, it is beneficial to notify schedulers that the order is waiting for confirmation when they open the schedule screen. This will help the user understand why scheduling is disabled.

RIS will now prompt the user:

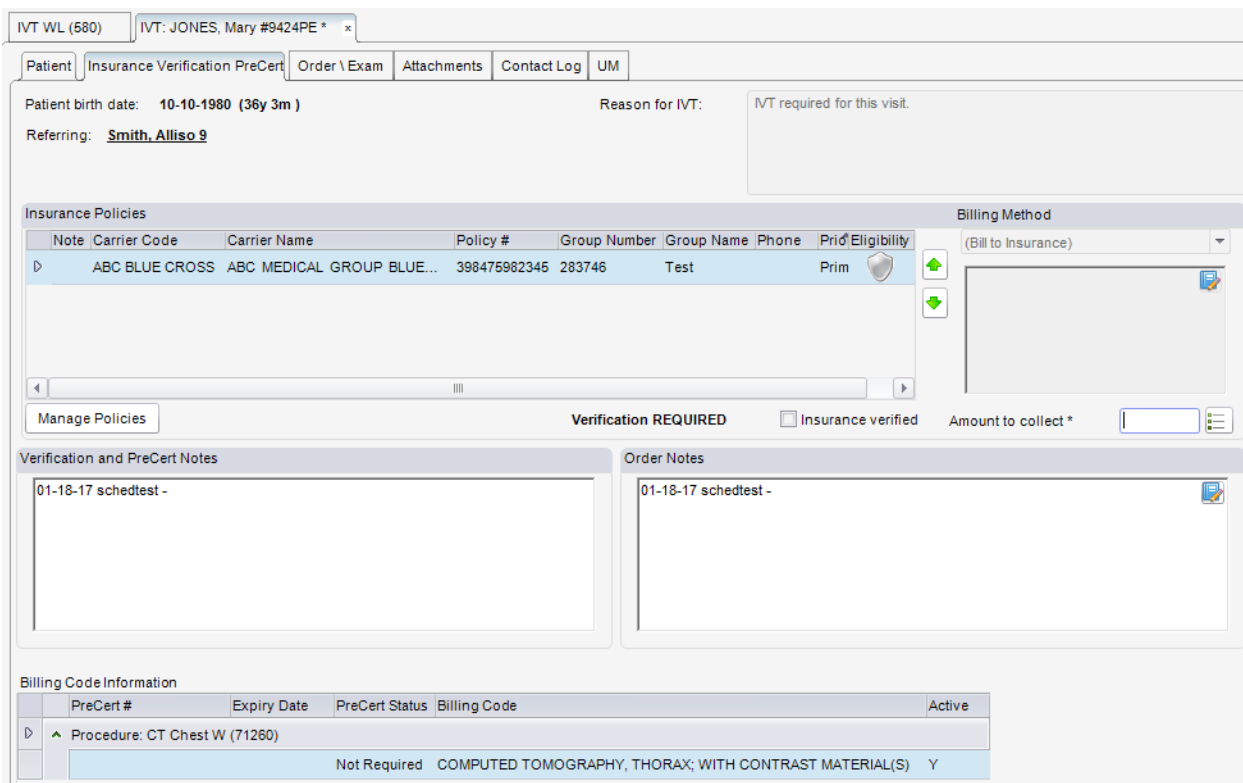


Once confirmation is received either from the inbound document workflow, verbally, or via the provider portal, the order can be scheduled.

## FEATURE #15892 – TRIGGER UTILIZATION REVIEW FROM THE IVT SCREEN

The eRAD RIS Utilization Management (UM) workflow is driven by the primary insurance that belongs to the order. Often orders will come into RIS either manually, from EMR integration, or eventually through the provider portal, *without an insurance carrier* assigned. RIS can be configured to push orders missing a primary insurance to the IVT Worklist. The IVT user will enter the insurance information at this point. It is important that a UM check takes place at this time and a visual indicator is supplied to the IVT user if review is required.

The eRAD RIS IVT screen now has the ability to trigger the UM workflow (UM Required Flag) based on an insurance addition or modification. To make the UM tab appear without a valid study assigned, the IVT screen will now show the UM tab based on the state of the UM Required Flag for the order. Once the insurance is added or modified, the system will review the value of the UM Required Flag and show the UM tab dynamically. This will allow the IVT user to see that UM is required for the insurance they have added or modified.



The screenshot displays the IVT screen for patient JONES, Mary #9424PE. The 'Insurance Verification PreCert' tab is active. The patient's birth date is 10-10-1980 (36y 3m). The referring provider is Smith, Alliso 9. The reason for IVT is 'IVT required for this visit.' The 'Insurance Policies' section shows a table with one policy: ABC BLUE CROSS, ABC MEDICAL GROUP BLUE..., Policy # 398475982345, Group Number 283746, Group Name Test, Phone, and Prim Eligibility. The 'Billing Method' is set to (Bill to Insurance). The 'Verification and PreCert Notes' and 'Order Notes' sections both contain the text '01-18-17 schedtest -'. The 'Billing Code Information' section shows a table with one row: Procedure: CT Chest W (71260), Not Required, COMPUTED TOMOGRAPHY, THORAX; WITH CONTRAST MATERIAL(S), and Active Y.

Note	Carrier Code	Carrier Name	Policy #	Group Number	Group Name	Phone	Prim Eligibility
▶	ABC BLUE CROSS	ABC MEDICAL GROUP BLUE...	398475982345	283746	Test		Prim

PreCert #	Expiry Date	PreCert Status	Billing Code	Active
▶			Procedure: CT Chest W (71260)	
		Not Required	COMPUTED TOMOGRAPHY, THORAX; WITH CONTRAST MATERIAL(S)	Y

The IVT user can view the UM tab as Read Only, unless they have UM permissions. The UM Required flag will also appear on the IVT WL.

## FEATURE #15219 – EXCLUDED EXAMS WORKFLOW

Capitation contracts with medical groups often contain procedures which are listed as “excluded.” This means that the procedure is excluded from capitation and the service is not available unless authorized by the medical group. eRAD RIS can now prevent scheduling or registration for any excluded procedures, unless a manager override is obtained. There is also an option to configure warning messages for other UM coverage types.

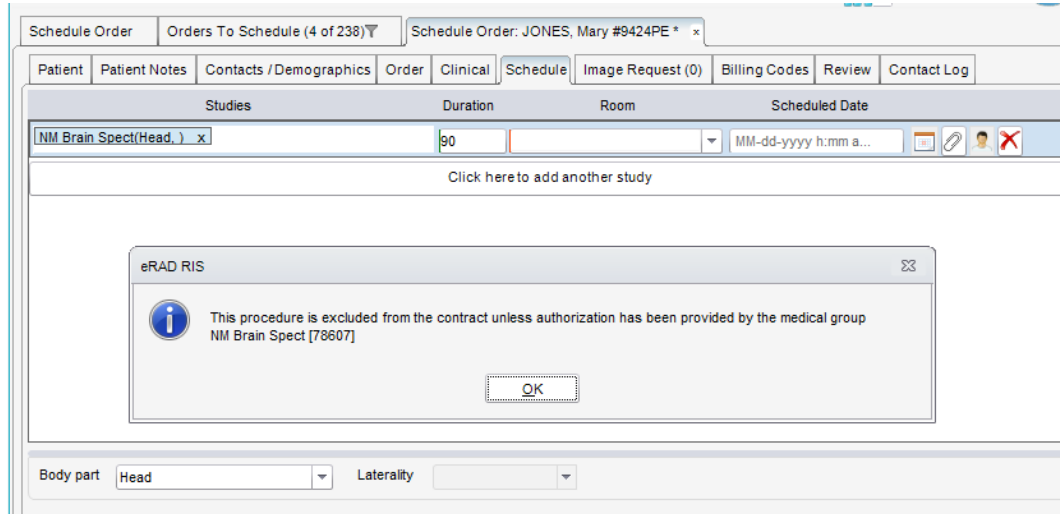
The eRAD RIS Utilization Management solution contains the authorization rules by medical group that determine which billing codes require utilization review. Although an excluded billing code typically does not require utilization review and the order will not be pushed to the Utilization Management Worklist, the UM solution will be utilized to identify excluded procedures.

The UM Coverage look-up table in eRAD RIS has been enhanced with the following two additional columns to drive the new workflow:

1. **Schedule Warning Type** – The following two options are available:
  - a. **Prevent** – A warning message is displayed and the user is *prevented* from scheduling the procedure.
  - b. **Prompt** – A warning message is displayed and the user is *allowed* to schedule the procedure.
2. **Schedule Warning Content** – The language content of the warning that is displayed to the scheduling user.

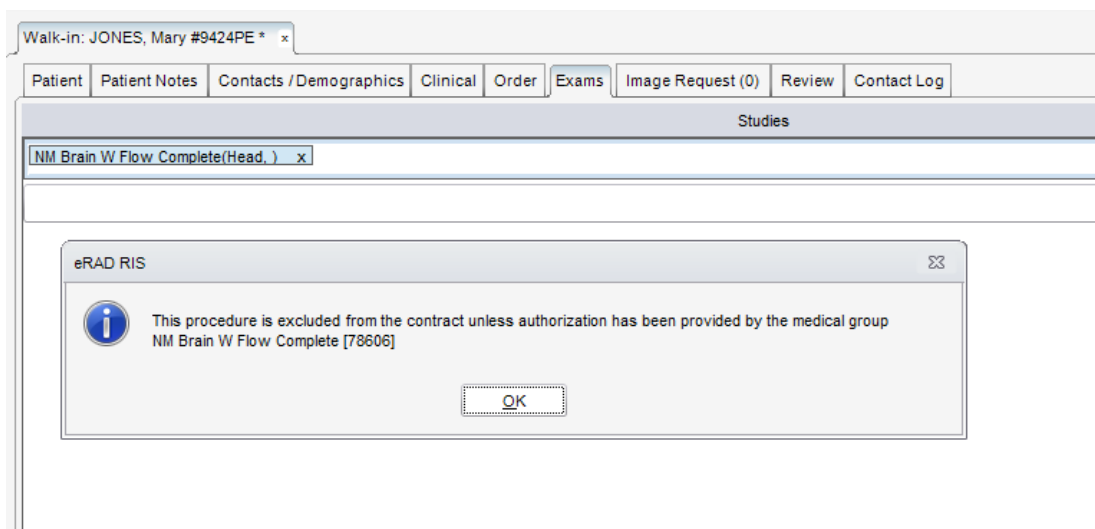
Um Coverage Code	Description	Schedule Warning Type	Schedule Warning Content
Contains: ▼	Contains: ▼	Contains: ▼	Contains: ▼
✚ Click here to add a new row			
▶ A	Capitated service, authorization required	Prompt	This procedure requires utilization review per the medical group.
FFS	Fee for service, authorization required	Prompt	This procedure is fee for service for the medical group. Ensure proper authorization has been received
EX	Excluded	Prevent	This procedure is excluded from the contract unless authorization has been provided by the medical group
CAP	In Cap		
FFS_N	Fee for service, authorization not required		
IN	In Cap		
TBD	To be determined		
X	Capitated service, direct referral (no authorization required)		

If the user is a RIS Administrator or has the *Clinical.UtilizationManagement.ScheduleOverride* permission, scheduling will not be prevented; however, the warning message will still be presented.



The screenshot shows the eRAD RIS interface. At the top, there's a tab bar with 'Schedule Order' selected. Below it, a patient selection dropdown shows 'JONES, Mary #9424PE'. The main area has tabs for 'Patient', 'Patient Notes', 'Contacts / Demographics', 'Order', 'Clinical', 'Schedule', 'Image Request (0)', 'Billing Codes', 'Review', and 'Contact Log'. The 'Schedule' tab is active, displaying a table with columns: 'Studies', 'Duration', 'Room', and 'Scheduled Date'. A row is visible for 'NM Brain Spect(Head, ) x' with a duration of '90'. Below the table, there's a link 'Click here to add another study'. A modal window titled 'eRAD RIS' is open, displaying an information icon and the message: 'This procedure is excluded from the contract unless authorization has been provided by the medical group NM Brain Spect [78607]'. An 'OK' button is at the bottom of the modal. At the bottom of the interface, there are dropdowns for 'Body part' (set to 'Head') and 'Laterality'.

This framework is also utilized by the Registration screen to account for Walk-ins or added procedures. The front desk user will not be permitted to Arrive or Check-In the patient if a configured Excluded procedure is added. However, saving is still permitted.



The screenshot shows the eRAD RIS interface. At the top, there's a tab bar with 'Walk-in: JONES, Mary #9424PE' selected. Below it, a patient selection dropdown shows 'JONES, Mary #9424PE'. The main area has tabs for 'Patient', 'Patient Notes', 'Contacts / Demographics', 'Clinical', 'Order', 'Exams', 'Image Request (0)', 'Review', and 'Contact Log'. The 'Exams' tab is active, displaying a table with columns: 'Studies'. A row is visible for 'NM Brain W Flow Complete(Head, ) x'. Below the table, there's a link 'Click here to add another study'. A modal window titled 'eRAD RIS' is open, displaying an information icon and the message: 'This procedure is excluded from the contract unless authorization has been provided by the medical group NM Brain W Flow Complete [78606]'. An 'OK' button is at the bottom of the modal.

The following is an example of utilizing the feature to provide a warning for a different UM Coverage Type, in order to inform the scheduler that authorization is required:


Schedule Order   Orders To Schedule (5 of 239)   Patient Search   Schedule Order: JONES, Mary #9424PE \* x

Patient   Patient Notes   Contacts / Demographics   Order   Clinical   Schedule   Image Request (0)   Billing Codes   Review   Contact Log   UM

Order	Studies	Duration	Room	Scheduled Date
A	CT Chest W(Chest.) x	45		MM-dd-yyyy h:mm a...
A	CT Head Wo(Head.) x	30		MM-dd-yyyy h:mm a...

Click here to add another study

**eRAD RIS**

 This procedure requires utilization review per the medical group.  
CT Chest W [71260]  
This procedure requires utilization review per the medical group.  
CT Head Wo [70450]

OK

Body part   Head   Laterality

When configuring Schedule Warnings in the UM Coverage look-up table, if a Schedule Warning Type is configured, the Schedule Warning Content becomes a required field.

The Utilization Management module must be enabled to utilize this functionality.



## CEHRT

Certification of Electronic Health Records Technology (CEHRT) is a program that defines standards of performance that must be met in order to be considered a Certified EHR. eRAD RIS is certified under version 2014, which (despite the misleading year) is the version under which EHRs must *currently* be certified in order to maintain their Certified EHR status. The standards for the latest version (2015) are available and eRAD RIS is preparing to obtain this latest certification by undergoing a testing process with an authorized certification body. Some new features related to the standards for version 2015 will be merged into the commercial RIS after certification has been completed. However, some components can be added now, in preparation for the certification testing. The following features have been added to the current eRAD RIS build as part of this effort.

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### FEATURE #16009 – MODIFICATIONS TO AUDIT LOG MANAGEMENT REPORT

The CEHRT requirement for 170.315(d)(3) states that the system must generate an audit report for a specific time period.

The system must also provide the ability to sort the following data elements in ascending or descending order:

- Date and time of event
- Patient identification
- User identification
- Type of action
- Identification of the patient data that is being accessed

The existing Audit Log management report in eRAD RIS has been modified to support the above requirement. Interactive sorting capabilities have been added to the table header. The User ID column has been removed, as only one user can be selected in the User parameter. Patient ID (MRN) and Patient Name columns have been added. This will allow the user to sort by either MRN or Name.

The revised Audit Log management report supports the following parameters:

- Date Range – This is based on the last updated date for the audit log entry.
- Exclude Inactive Users – This will filter the User(s) parameter by eliminating any users that are flagged as inactive in the RIS.
- User – The selected RIS users for which the Audit Log report is being generated.
- Include Login\Logout – Determines if Login and Logout audit events will be included in the report.

The columns represented in the Audit Log management report are as follows:

- Date\Time – This is the date and time the audit event was last updated.
- Patient ID – The ID or MRN of the audited patient.
- Patient Name – The last name and first name of the audited patient.
- Description – A description of the audit event.
- Audit Action – How the data was accessed or modified.
- Changes – A detailed description of what data was modified, if applicable.

From:	03-06-17	To:	03-07-17
Exclude Inactive Users:	Y	User:	MacDougall, Spencer (spencer)
Include Login/Logout:	Y		

1 of 6 100% Find | Next

### Audit Log

**Date Range:** 03-06-2017 - 03-07-2017  
**User:** MacDougall, Spencer (spencer)  
**Description:** This report displays the audit information for the period and user specified.

Date/Time	Patient ID	Patient Name	Description	Audit Actions	Changes
03-06-2017 9:18 AM			Login	Login	
03-06-2017 9:19 AM	9424PE	Jones, Mary	UI_OrderRetrieved_UtilizationManagement	Query	
03-06-2017 9:22 AM			Logout	Logout	
03-06-2017 10:31 AM			Login	Login	
03-06-2017 11:10 AM			Login	Login	
03-06-2017 11:45 AM			Login	Login	
03-06-2017 1:36 PM			Login	Login	
03-06-2017 1:36 PM	9424PE	Jones, Mary	Patient retrieved	Query	
03-06-2017 1:38 PM			Login	Login	
03-06-2017 1:48 PM	9424PE	Jones, Mary	Patient retrieved	Query	
03-06-2017 1:48 PM	9424PE	Jones, Mary	Patient retrieved	Query	
03-06-2017 1:48 PM	9424PE	Jones, Mary	Patient retrieved	Query	
03-06-2017 1:48 PM	9424PE	Jones, Mary	Patient retrieved	Query	
03-06-2017 1:49 PM	9424PE	Jones, Mary	Patient retrieved	Query	
03-06-2017 1:49 PM	9424PE	Jones, Mary	Patient retrieved	Query	
03-06-2017 1:49 PM	9424PE	Jones, Mary	Patient retrieved	Query	
03-06-2017 1:51 PM	9424PE	Jones, Mary	Order submitted	Order submitted	<Changes><AddedRows><c_visit /><c_visit_x_patient_insurance /></AddedRows></Changes>
03-06-2017 1:51 PM	9424PE	Jones, Mary	Order submitted	Order submitted	<Changes><AddedRows><c_order /><c_order_item procedure_code="71260" /><c_order_item procedure_code="70210" /><c_order_item_certification /><c_order_item_certification /></AddedRows></Changes>

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## FEATURE #16371- AUTOMATED MEASURES MANAGEMENT REPORTS WILL CALCULATE STATISTICS FOR EDUCATION RESOURCES USING 2017 ACI TRANSITION MEASURE CRITERIA

eRAD RIS has three management reports that are related to CEHRT: “Automated Measures,” “Automated Measures by Radiologist” and “Automated Measures Raw Data.” A new stored procedure has been created to calculate statistics for these reports differently for *2017 ACI Transition Measures*. There is a filter on the Management reports that can be selected to run the report using this methodology. Currently this filter is labeled *Stage 3*.

The changes in this feature are related to the requirement for eRAD RIS to identify patient-specific education resources based on the patient’s appointment. When Stage 3 is selected, the management reports will provide statistics displaying whether these education resources were provided to the patient for all exams/patients seen by the reporting radiologist during the reporting period. Under the current certification, these reports only count the number of patients given patient-specific education for procedures that were identified as “office visits” by the associated billing codes. After selecting the new Stage 3 option, these management reports will calculate statistics according to the following numerator (number of patients meeting the criteria) and denominator (all possible patients):

**Numerator:** Any unique patient seen by the reporting radiologist where either the Prep Instructions Reviewed checkbox has been checked **or** the Provided Educational Resources checkbox on the Documentation tab has been checked.

**Denominator:** Any unique patient seen by the reporting radiologist during the reporting period.

When the Prep Instructions Reviewed checkbox or the Provided Educational Resources checkbox has been checked, the system will automatically capture patient-specific education resources as a numerator/denominator for the measure.

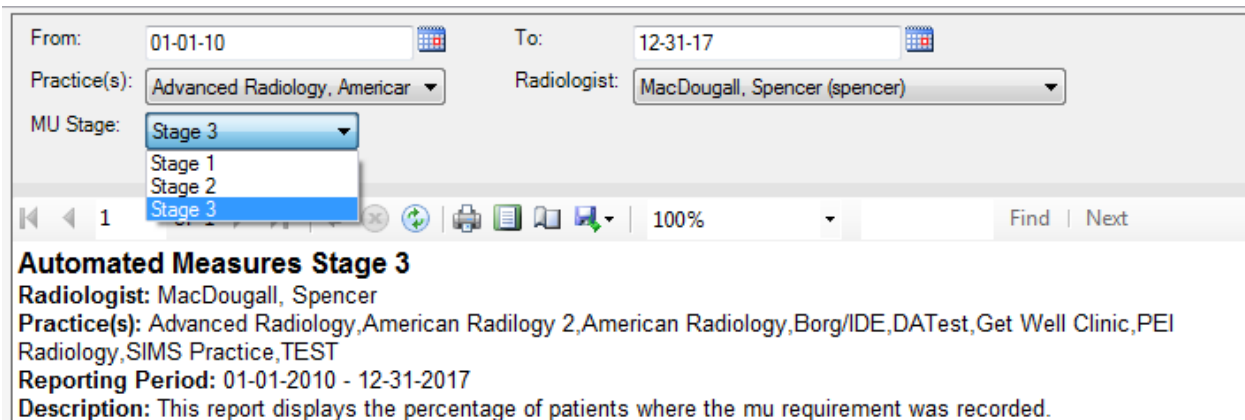
## FEATURE #16541 – AUTOMATED MEASURES REPORTS NOW INCLUDE SUB-REPORTS WITH PATIENT DETAILS

The CEHRT Automated Measures Report allows a provider to track which measures have been met. The report displays the numerator, denominator, percentage of the criteria the provider has met, and the threshold required to meet the measure.

The CEHRT requirement for 170.315(g)(2) states that the system must also provide details for the numerator and denominator values in the Automated Measures report.

The following core Management Reports in eRAD RIS have been updated to include a “Stage 3” option in the MU Stage parameter:

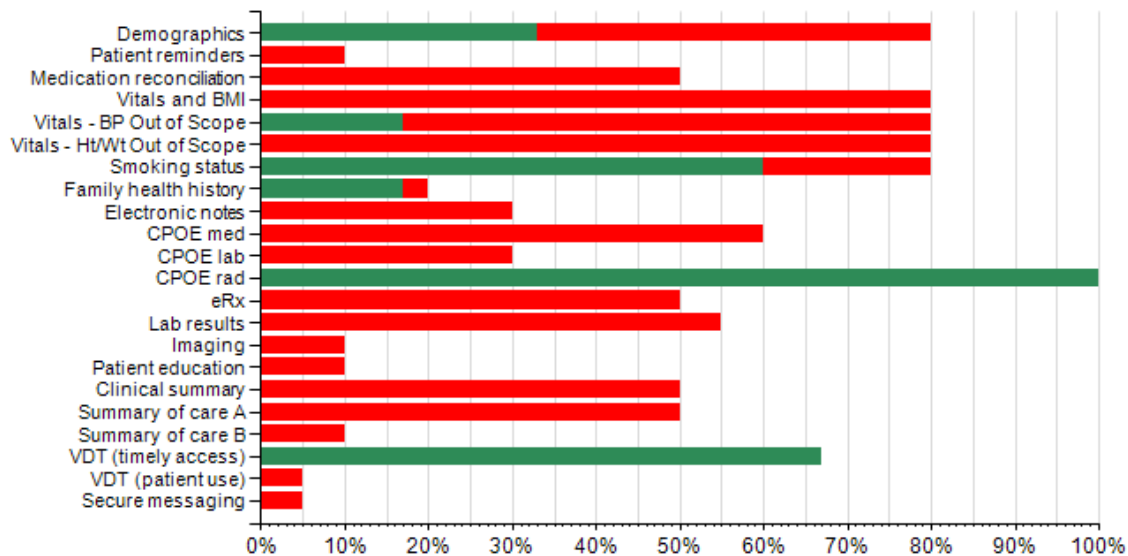
- Automated Measures
- Automated Measures by Radiologist
- Automated Measures Raw Data



The screenshot shows the eRAD RIS interface for configuring an Automated Measures report. The 'From' date is 01-01-10 and the 'To' date is 12-31-17. The 'Practice(s)' dropdown is set to 'Advanced Radiology, American'. The 'Radiologist' dropdown is set to 'MacDougall, Spencer (spencer)'. The 'MU Stage' dropdown is set to 'Stage 3', with a list of options (Stage 1, Stage 2, Stage 3) visible below it. The interface includes a toolbar with icons for navigation, search, and printing. Below the configuration fields, the report title 'Automated Measures Stage 3' is displayed, followed by the radiologist's name, the list of practices, the reporting period, and a description of the report.

**Automated Measures Stage 3**  
**Radiologist:** MacDougall, Spencer  
**Practice(s):** Advanced Radiology, American Radology 2, American Radiology, Borg/IDE, DATest, Get Well Clinic, PEI Radiology, SIMS Practice, TEST  
**Reporting Period:** 01-01-2010 - 12-31-2017  
**Description:** This report displays the percentage of patients where the mu requirement was recorded.

Both the *Automated Measures* and *Automated Measures by Radiologist* reports have been updated to include drill down capabilities to provide the necessary study details for the numerator and denominator, as well as the list of patients that make up the numbers. Clicking the blue hyperlinks, seen in the image below, will load the sub-report.



Meaningful Use Measure	Numerator	Denominator	%	Goal	Pass/Fail
<a href="#">Demographics</a>	2	6	33.00%	80%	
<a href="#">Patient reminders</a>	0	0	0.00%	10%	
<a href="#">Medication reconciliation</a>	0	0	0.00%	50%	
<a href="#">Vitals and BMI</a>	0	6	0.00%	80%	
<a href="#">Vitals - BP Out of Scope</a>	1	6	17.00%	80%	
<a href="#">Vitals - Ht/Wt Out of Scope</a>	0	6	0.00%	80%	
<a href="#">Smoking status</a>	3	5	60.00%	80%	
<a href="#">Family health history</a>	1	6	17.00%	20%	
<a href="#">Electronic notes</a>	0	6	0.00%	30%	
<a href="#">CPOE med</a>	0	0	0.00%	60%	
<a href="#">CPOE lab</a>	0	0	0.00%	30%	
<a href="#">CPOE rad</a>	2	2	100.00%	30%	
<a href="#">eRx</a>	0	0	0.00%	50%	
<a href="#">Lab results</a>	0	0	0.00%	55%	
<a href="#">Imaging</a>	0	0	0.00%	10%	
<a href="#">Patient education</a>	0	0	0.00%	10%	
<a href="#">Clinical summary</a>	0	0	0.00%	50%	
<a href="#">Summary of care A</a>	0	0	0.00%	50%	
<a href="#">Summary of care B</a>	0	0	0.00%	10%	
<a href="#">VDT (timely access)</a>	4	6	67.00%	50%	
<a href="#">VDT (patient use)</a>	0	6	0.00%	5%	
<a href="#">Secure messaging</a>	0	6	0.00%	5%	

The additional sub-report is referred to as *Automated Measures Details*. The user can return to the parent report simply by selecting the “Back” button in the reports title bar.

1 of 1 100% Find   Next								
<b>Stage 3 Automated Measures Details for Patient education</b>								
Radiologist: MacDougall, Spencer (spencer)								
Date Range: 01-01-2010 - 12-31-2017								
Practice(s): Advanced Radiology,American Radiology 2,American Radiology,Borg/IDE,DAtest,Get Well Clinic,PEI Radiology,SIMS								
Practice,TEST								
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	Patient Education
Carter, Jeff William	4	1	ADV	12-04-2014	12-05-2014	N	Signed1	N
		3398	ADV	07-20-2015	07-20-2015	N	Signed1	N
		4878	ADV	10-06-2015	11-02-2015	N	Signed1	N
		5105	ADV	10-22-2015	11-02-2015	N	Signed1	N
		5571	ADV	11-02-2015	11-02-2015	N	Signed1	N
Hextall, Ron	12	107	ADV	03-27-2015	06-29-2015	N	Signed1	N
		120	ADV	04-17-2015	06-29-2015	N	Signed1	N
Judson, Jenny	3392	1896	ADV	05-14-2015	10-28-2015	N	Signed1	Y
Obermann, Mary	654	4413	ADV	08-13-2015	09-02-2015	N	Signed1	N
		4510	ADV	08-27-2015	08-27-2015	N	Signed1	N
test, a12501 Ben	893247	5816	ADV	12-04-2015	12-04-2015	N	Signed1	N
Test, IVT	50							
		5108	ADV	10-22-2015	10-22-2015	N	Signed1	N

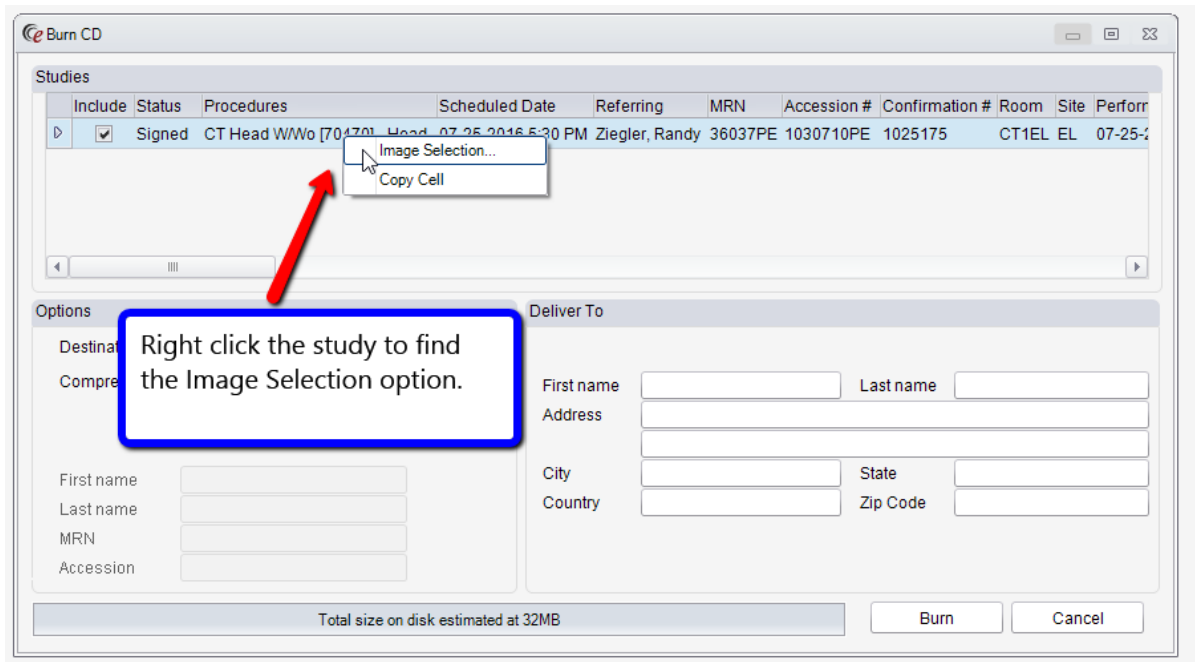
## MEDICAL RECORDS

### FEATURE #7258 – SELECT INDIVIDUAL IMAGES/SERIES WHEN BURNING CDS

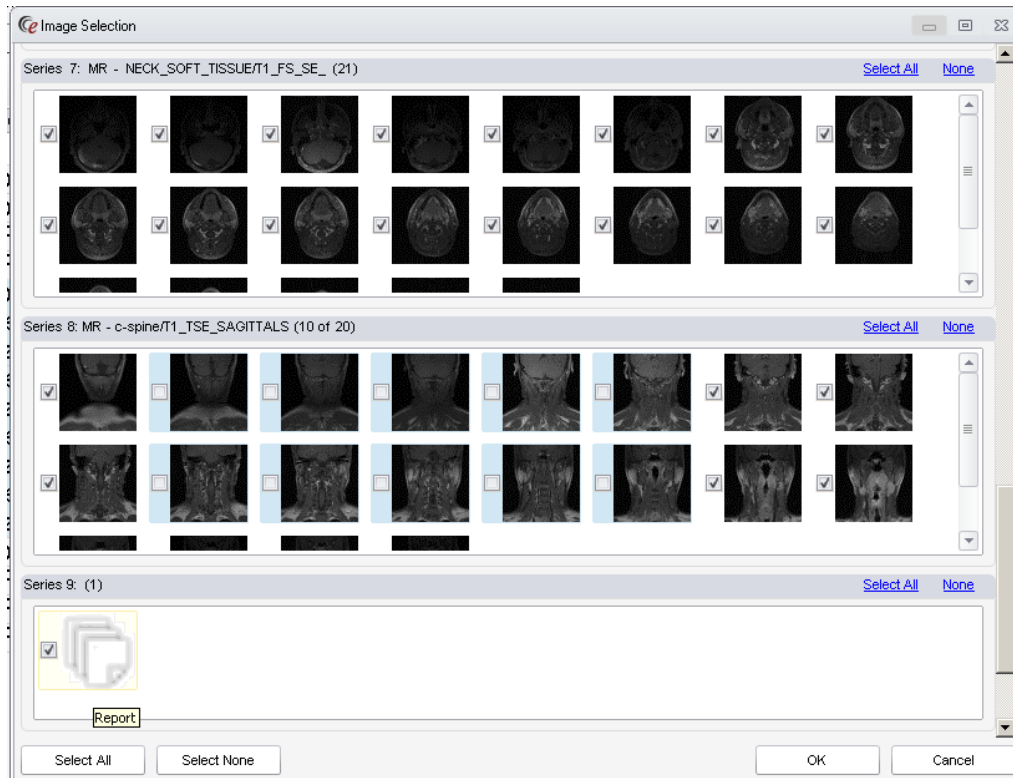
The following feature is applicable for customers using eRAD RIS with eRAD PACS.

When burning CDs, it is sometimes preferable to select only certain series or images to include. This allows the user to customize the contents of the CD to meet the referring provider's preferences, or to follow an established organizational protocol. It is now possible to specify individual images/series when burning CDs from eRAD RIS.

After opening the Burn CD window, the user will right-click the exam(s) to be included and choose "Image Selection."



The Image Selection screen will open, displaying PACS images in thumbnails that are grouped by series.



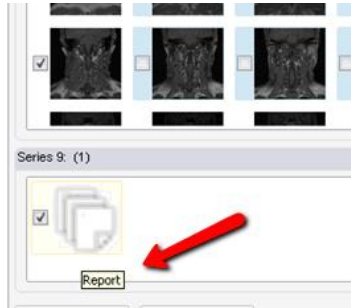
Each series group has a title, which is taken from the PACS study description field. In parentheses after the series name, there is an indication of how many images in that series are selected for burning. In the example above, Series 8 has 10 of 20 images selected. By default, all images in every series will be selected. Selected images have a check in the box to the left of each image thumbnail.

The blue link labeled “None” at the top of each series allows the user to easily uncheck all of the images in that series, in order to re-select the individual images or to remove the series from the CD altogether. Click the blue Select All link to re-select all of the images in the series. The user can also use the mouse to click and drag to select multiple images. Once multiple image thumbnails are selected, highlighted in light blue, click the checkbox to select or deselect the highlighted images.

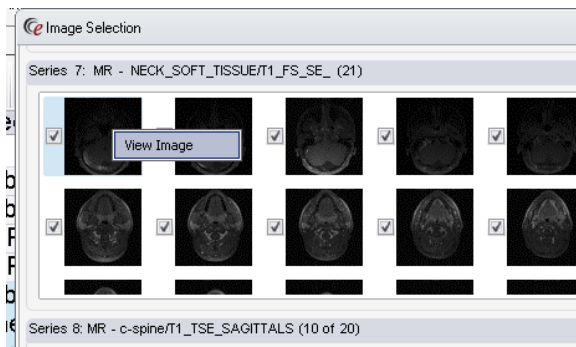
To quickly uncheck, or re-check, all of the images for the entire exam (all series), the user can click the Select All or Select None buttons at the bottom of the Image Selection window.

While most thumbnails in the Image Selection window are for PACS images, some thumbnails may represent other PACS items, such as diagnostic reports. Hovering over a thumbnail will display a tooltip that indicates the thumbnail’s type (e.g. Image, Report or RAWDATA).





Sometimes, it may be necessary to look more closely at an image to determine whether it should be included on the CD. To see a larger view of the image thumbnail, right-click on the thumbnail and choose “View Image.” This will download and display a larger version of the thumbnail.



If the user clicks “Cancel” on the Image Selection screen, the image selection will be re-set to what it was before the screen was opened. If the user chooses “OK” after modifying which images to include on the CD, then the Burn CD screen will show a new column with the text “(custom)” to indicate that a custom selection of images will be burned to the CD.

Burn CD				
Studies				
	Include	Status	Procedures	Scheduled Date
	<input checked="" type="checkbox"/> (custom)	Exam Done	CT Abdomen W [74160] - Abdomen	02-14-2015 8:30 AM
	<input checked="" type="checkbox"/>	Exam Done [Tech...	Another test [RA0004]	06-12-2015 2:04 PM
	<input checked="" type="checkbox"/>	Exam Done [Tech...	Another test [RA0004]	02-08-2015 9:54 AM

The Image Selection process is recorded in the Audit History.

Filters						
<input type="radio"/> Patient	<input type="radio"/> Order	<input checked="" type="radio"/> Study	<input checked="" type="checkbox"/> Include retrievals			
Date	Action	Description	User	Linked Id	Accession #	Order #
Equals: ▾	Contains: ▾	Contains: ▾	Contains: ▾	Equals: ▾	Contains: ▾	Contains: ▾
01-17-2017 1:42 PM	Accessed audit history		Molyneaux, kevin (kevin)			
01-17-2017 1:42 PM	Viewed PACS Images	Custom image selection for CD Burning	Molyneaux, kevin (kevin)	21		
01-17-2017 1:42 PM	Study retrieved		Molyneaux, kevin (kevin)			9582

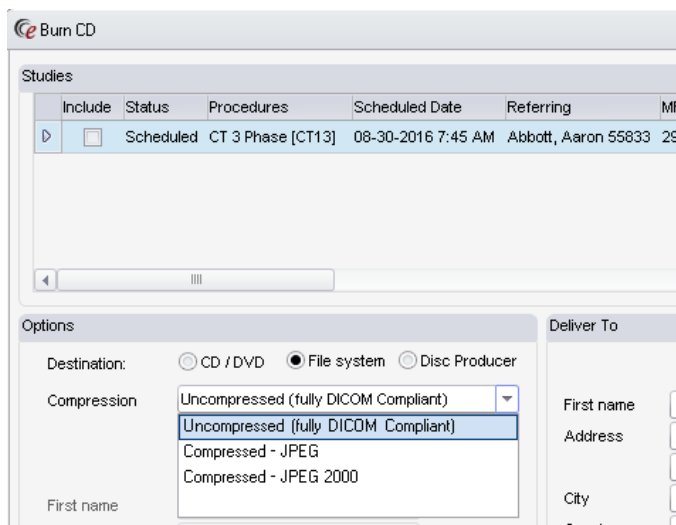
## FEATURE #9368, 12240 – OPTIONS FOR UNCOMPRESSED CD BURNING

This feature is applicable for customers using eRAD RIS with eRAD PACS.

Some physicians or other healthcare institutions require or prefer uncompressed images when reviewing a patient’s imaging studies or importing them into an external system. In order to provide this option, eRAD RIS now supports three different compression options, including Uncompressed.

The compression field was added to the Burn CD dialog, as shown in the following image. Users have the option to select between Uncompressed, JPEG and JPEG 2000. In the Personnel editor, a referring physician’s preferred Compression format can now be configured. By default, the Compression preference will be set to Compressed – JPEG, which is the compression format that was previously the only option when burning CDs from eRAD. If a referring physician indicates an alternative compression preference, this can be updated accordingly.

When burning a study from a worklist such as Patient Folder or from the Perform Exam screen, the default format for the CD will be based on the referring's preference. The user has the option to change the compression format manually on the Burn CD screen.



As stated above, at the time of the upgrade, all referring physicians will have “Compressed – JPEG” as their default compression preference. This can be updated in the Personnel table on the Referring Preferences tab.

General Resource Account Notes Attachments Preferences **Referring Preferences**

Preferred radiologists

Saltmarsh (Rad), Hilary

Add Radiologist  
Add Modality  
Add Procedure  
Remove

Image request preference

CD - Courier

Add Format  
Add Modality  
Add Procedure  
Remove

Compression preference: Compressed (JPEG)

The compression format was also added to the Image Request screen. Again, the compression will default based on the selected study's referring physician's preference. The compression will update if a different referring physician is selected as the recipient and that doctor's compression preference is different.

Image Request

Studies (1)

Date	Last Name	First Name	Study
11-15-2016 4:20 PM	Molyneaux	Kevin	Another test [RA0004]

Previous Requests (2)

Date	Req. By	Source	Format	Delivery	Status
01-03-2017 10:36...	TEST	Other	CD	Courier	Pending
01-03-2017 10:35...	TEST	Other	CD	Courier	Pending

Requested By

☐ Patient ☐ Referring ☒ Other doctor ☐ Other

Doctor: Abbott, Aaron S.

Location: Rocky Milton St., Denver, Iowa, 72068

Name: Aaron Abbott

Organization:

Phone Number: () -

Details

Requesting site: (EL) PT QE PT QE Eldersburg

Format: CD

Compression: Uncompressed (fully DICOM Compliant)

Deliver To / Pickup By

☐ Patient ☐ Referring ☒ Other doctor

☒ Copy requested by

Doctor:

Location:

Prefix: Suffix:

First name: Aaron

Last name: Abbott

Address: 150 White Cowley Road  
135 Rocky Milton St.

City:

When right-clicking on the Image Request WL and choosing "Burn CD," the default compression will be based on what had been specified in the image request.

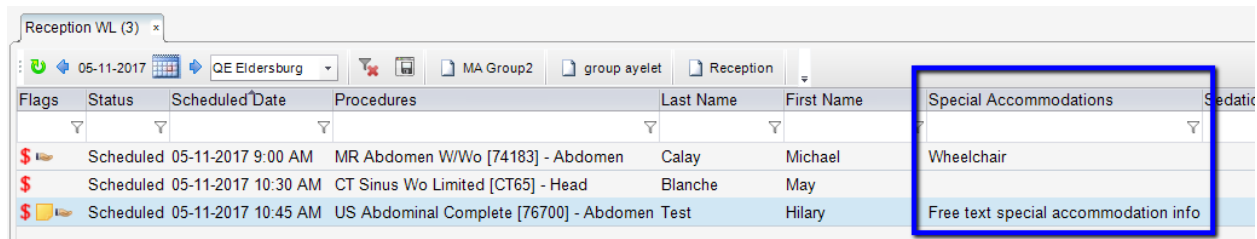
If a user selects multiple Image Requests or Studies, the active row at the time of the right click will be used to determine the default compression.



## GENERAL WORKLIST ENHANCEMENTS

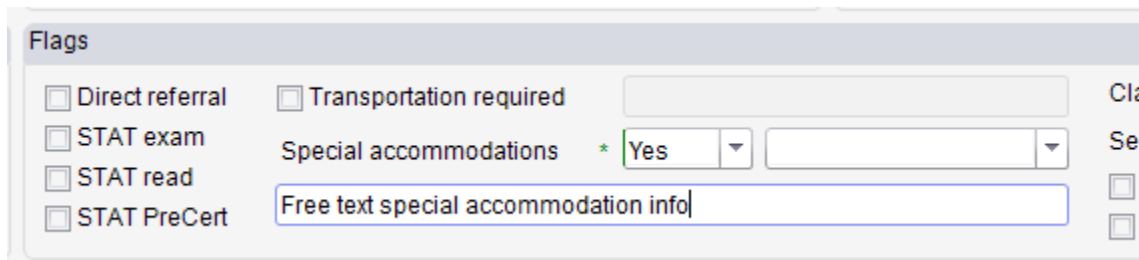
### FEATURE #15710 – SPECIAL ACCOMMODATIONS COLUMN AVAILABLE ON WORKLISTS

Some users may find it beneficial to see any Special Accommodations when reviewing patients on a worklist. A new column labeled *Special Accommodations* is now available for the Receptionist, Technologist and Orders to Schedule worklists. This will allow a user to create a custom view to display particular accommodations. For example, a user responsible for making arrangements for translation services may want to have a custom view on the Reception WL to find all of the appointments requiring translation for a given day.



Flags	Status	Scheduled Date	Procedures	Last Name	First Name	Special Accommodations	Sedation
\$	Scheduled	05-11-2017 9:00 AM	MR Abdomen W/Wo [74183] - Abdomen	Calay	Michael	Wheelchair	
\$	Scheduled	05-11-2017 10:30 AM	CT Sinus Wo Limited [CT65] - Head	Blanche	May		
\$	Scheduled	05-11-2017 10:45 AM	US Abdominal Complete [76700] - Abdomen Test	Hilary		Free text special accommodation info	

In the blue highlighted row in the above image, there is an example illustrating that it is also possible to display free text special accommodation information from the Special Accommodation Notes field, if the dropdown for the type of Special Accommodation is not selected.



Flags

☐ Direct referral ☐ Transportation required

☐ STAT exam ☐ Special accommodations \* Yes

☐ STAT read

☐ STAT PreCert

Free text special accommodation info

For this to be possible, it would be necessary to disable any validation rules that require the dropdown to be filled in when Special Accommodations is set to Yes. If the type of special accommodation is selected in the dropdown, only this information will be displayed in the column.

## FEATURE #16111– RELATIVE DATE AND TIME FILTERING FOR WORKLIST COLUMNS

Often eRAD RIS users wish to create a worklist filter that will display items on the worklist for a certain date/time range. For example, a radiologist may want to have an “Overdue” Custom View saved for the Pending Dictation worklist that shows exams that have been waiting for a report for more than 5 days. A lead technologist may want to have a Custom View saved on the Reception worklist that shows only exams scheduled between tomorrow and 2 days in the future, so that upcoming appointments can be reviewed for accuracy. A manager may want to see a list of STAT exams on the IVT worklist that have been pending for more than 3 hours.

In any of these scenarios, eRAD RIS previously had limited options. A user could re-set a new date/time range whenever they wanted to view the information **or** they could rely on columns such as “Elapsed Time Suspended” that would display the number of minutes suspended. The user would then need to figure out the number of minutes in their desired time range (e.g. 2.5 days equals 3,600 minutes) and create a filter.

Now eRAD RIS has a **new option** that will allow a user to filter worklists based on a **relative** date/time. This will allow the user to easily create Custom Views with filters like “last 3 hours” that will continually update to show the last 3 hours from the current time.

To accomplish this, worklists have been enhanced with a new filter type that will allow the creation of these relative date/time filters for relevant worklist columns. This can be accessed via the filter type dropdown, using the “Relative date/time” option.

Procedures	Scheduled Date	Referring	MRN	Pat
Contains: ct				
CT Chest W Abdomen W/Wo & Pelvis W [CT25]	03-03-2016 2:54..	Clear filter		ar
PT/CT. OR Tumor Img Sk Th (Outside Read) [PT2]	03-03-2016 2:53..	<input checked="" type="checkbox"/> Equals		u.
CT Abdomen W & Pelvis W [CT9]	03-03-2016 2:53..	Not equal to		rt
CT Shoulder Arthrogram [CT26]	03-03-2016 2:53..	Greater than		ra
CT Head W & Ear, Orbit, Sella W [CT33]	03-03-2016 2:53..	Less than		ac
PT/CT Tumor Img Sk Th [78815]	03-03-2016 2:53..	Greater than or equal to		ac
PT/CT Myo Imag Perf Study [78459]	03-03-2016 2:53..	Less than or equal to		dl
FL Arthrocentesis Inject Intermediate Jt [20605]	03-03-2016 2:53..	Is null		ar
CT Shoulder Arthrogram [CT26]	03-03-2016 2:53..	Is not null		or
CTA Abdomen W/Wo [74175]	03-03-2016 2:53..	Between		ra
PT/CT. OR Tumor Img Sk Th (Outside Re	03-03-2016 2:53..	Not between		e
CT Head W/Wo & Soft Tissue Neck W [CT10]	03-03-2016 2:50..	Relative date/time		na

Clicking the new option opens the following screen where the user can create the new filters:

The screenshot shows the 'Relative Date/Time Filters' dialog box. It includes a 'Unit' dropdown set to 'Calendar days', and three buttons: 'Yesterday', 'Today', and 'Tomorrow'. Below these are two spin controls for 'From' and 'to' dates, with 'From' set to 'today' and 'to' set to '1 day in the future'. A list of quick links is provided for both spin controls, including 'today', '1 day', '7 days', '30 days', '90 days', and 'forever'. At the bottom, a 'Filter description' field shows the resulting filter: 'Scheduled Date is greater than or equal to 02-06-2017' and 'Scheduled Date is less than 02-08-2017'. Callouts identify the 'Unit selection', 'Quick links for setting up a filter for the previous, current and next unit', 'Filter description builder', 'Quick links to populate most frequently used options for both spin controls above', and 'Filter description'.

The user starts by choosing what unit to utilize for their filter. There are two types of choices:

- Options that relate to **right now**, as in this very minute:
  - Minutes
  - Hours
  - Days
  - Weeks
  - Months

Example: “From now to 1 week in the past” will return all the values between right now, and 7 days ago up to the minute. If it is currently 12:51 pm, the worklist would **not** display an item from 7 days ago at 12:50 pm.

- Options that return only **whole units**:
  - Calendar days
  - Calendar weeks
  - Calendar months

Example: “From this week to 1 week in the past” will return all of this week and all of the previous week.

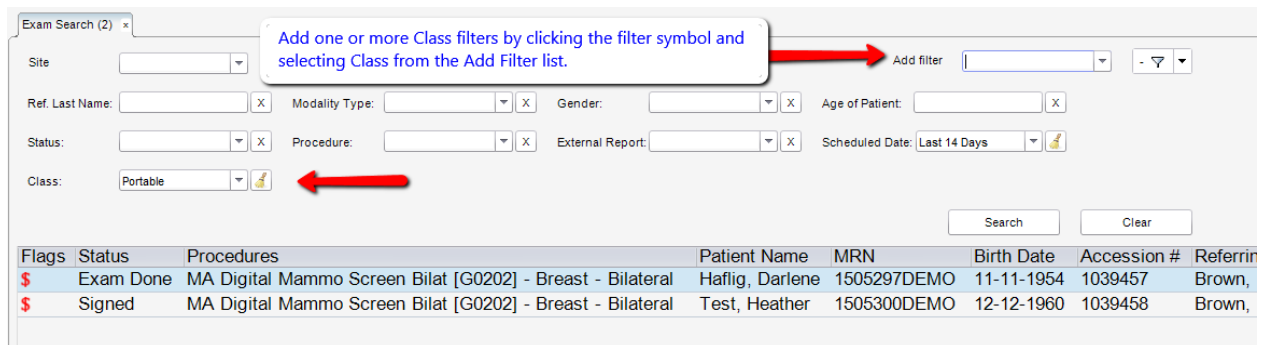
After selecting the preferred option, the user then populates the different controls to reflect the date/time ranges they want to have returned. A plain language description of what the filter will display will be shown at the bottom of the window to help the user understand what the result will be. Once satisfied with the filter, the user can click “OK” to set the filter or at any point click “Cancel” to leave the screen without changing the column’s current filter.



As with other Worklist filters, a Custom View must be saved in order to access the saved filter in the future. When this has been done, the filters are recalculated when the Custom View is loaded and whenever the worklist refreshes, so that they always reflect a **relative** date/time period.

## FEATURE #16059 – PATIENT CLASS IS AVAILABLE AS A SEARCH FILTER FOR EXAM SEARCH

Patient Class has been added to the list of possible filters for the Exam Search screen. To add one or more Class filters to an Exam Search, click the filter symbol in the top right corner and find Class in the “Add filter” dropdown. Once added, the Class dropdown will contain the options from the Patient Class look-up table.



Exam Search (2) x

Add one or more Class filters by clicking the filter symbol and selecting Class from the Add Filter list.

Site:  X

Ref. Last Name:  X Modality Type:  X Gender:  X Age of Patient:  X

Status:  X Procedure:  X External Report:  X Scheduled Date: Last 14 Days X

Class: Portable X

Add filter:  - X

Search Clear

Flags	Status	Procedures	Patient Name	MRN	Birth Date	Accession #	Referrin
\$	Exam Done	MA Digital Mammo Screen Bilat [G0202] - Breast - Bilateral	Haflig, Darlene	1505297DEMO	11-11-1954	1039457	Brown,
\$	Signed	MA Digital Mammo Screen Bilat [G0202] - Breast - Bilateral	Test, Heather	1505300DEMO	12-12-1960	1039458	Brown,

Results matching the search criteria will be displayed in the list below after searching.

## INTERFACING

### FEATURE #16082 – STUDY EXTRA INFO FEATURE EXTENDED TO INCLUDE ORDER EXTRA INFO

eRAD RIS has had the ability to store extra information received from an external ordering system at the study level, using a feature called *StudyExtraInfo*. In this build, this functionality has been extended to store information at the **order** level.

Sometimes there is a need to store additional information that may be customer specific, particularly information received from one system that also needs to be passed to corresponding systems at certain points in the workflow.

A new lookup table labeled *OrderExtraInfo* was created to specify the Code with which the RIS will be receiving information to be stored. Access to the table is controlled by a new access string titled *Config.LookupEditor.OrderExtraInfo* with a default of None. The table consists of the Order Extra Info Code, Display Name, Description, Display Order, Last Updated and Active columns.

Order Extra Info Code	Display Name	Description	Display Order	Last Updated	Active
Contains:	Contains:	Contains:	Equals:	Contains:	Contains:
Click here to add a new row					
Test external system	Test external system	Test external system	1	02-22-2017 11:22 AM	Y
-BACKUP	BACKUP	Backup Order Extra Info Code	1	02-15-2017 1:38 PM	Y
-OEIC1	-OEIC1	Order Extra Info Code 1	1	02-15-2017 1:38 PM	Y

Messages sent will specify the Order Extra Info Code and have a value field. These messages will be stored in another new Database table *c\_order\_extra\_info* that is not accessible from the GUI.

---

## FEATURE #16591 – STRIP LAST CHARACTER FROM VARIABLES PASSED TO EXTERNAL PORTALS

The existing portal feature in eRAD RIS allows the customer to pass patient data to external portals, such as a Health Information Exchange (HIE), in order to pull up records in the external portal. There was an international requirement to strip the last character from the MRN before passing it to the portal.

A new plugin has been added which allows the user to strip the last character from any variable.

When creating/updating an entry in BrowserConfig, the URL can support using “filters” in the URL string. For example, to get the patient id into the URL of the portal page to be opened, the variable would be specified as {patient.c\_patient.patient\_id}. To strip the last character from the patient id, this would need to be changed to: {patient.c\_patient.patient\_id | [StripLastChar](#)}. The additional text in blue tells the RIS to send the patient\_id value through the StripLastChar filter before adding the value to the URL that passes the data to the external portal.

## FEATURE #16527 - ENHANCE DROP XML FILE FUNCTIONALITY

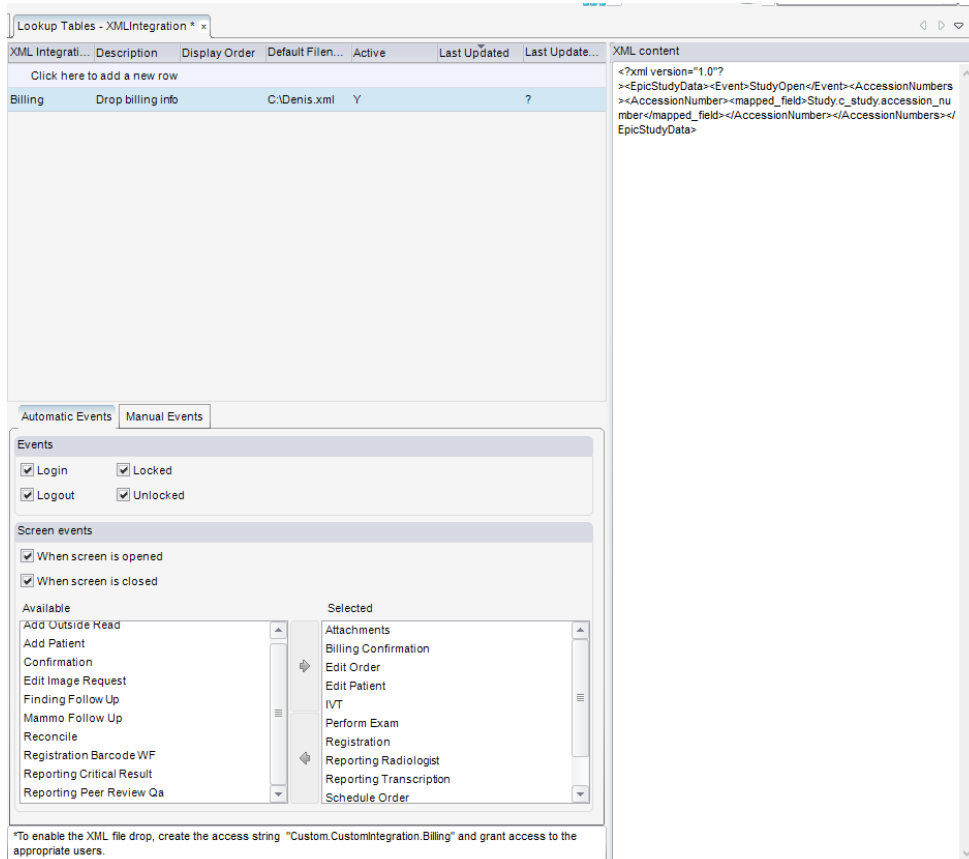
eRAD RIS has markedly enhanced its XML file drop functionality. Custom configuration in the XML Integration editor now allows administrators to:

- Create custom menu items, Patient Folder view buttons, context menu items and worklist action buttons that will allow a permissioned user to manually drop an XML file.
- Configure automatic XML file drops for events, including login, logout, RIS locked, RIS unlocked, screen activated and screen deactivated.

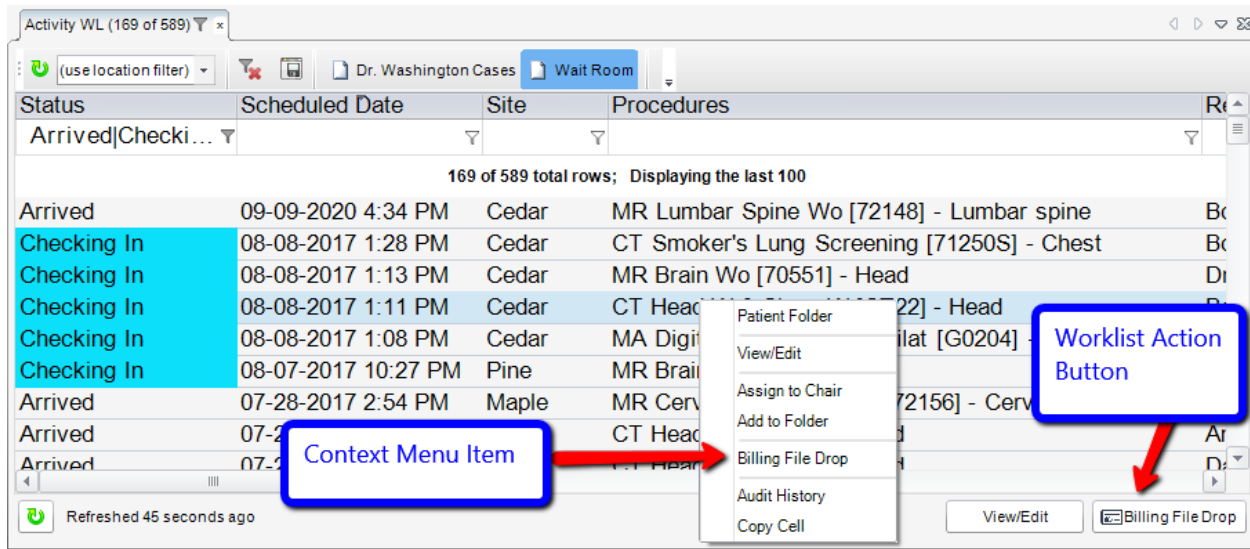
A new panel has been added to the XML integration lookup table editor. It displays two tabbed pages: one for automatic, or event driven, XML drops, the other for manual drop via customizable controls available to the user, such as context menus or buttons. Each page allows the selection of different drop options via checkboxes.

For the options that are screen or worklist dependent, it is possible to choose the specific screens or worklists for the action to occur by moving available options to the Selected section.

For instance, in the screenshot below, RIS will drop an XML file when any of the selected screens are opened and closed. This is in addition to the automatic file drops that will occur upon login and logout, as well as locking or unlocking RIS, as the checkboxes for these events are also checked.

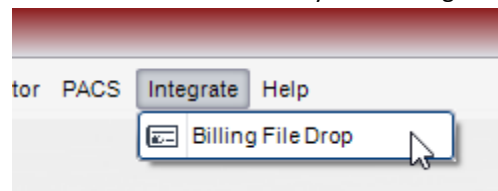


On the Manual Events tab, the same Available/Selected section will control whether a particular worklist has a context menu item and/or an action button for the file drop.

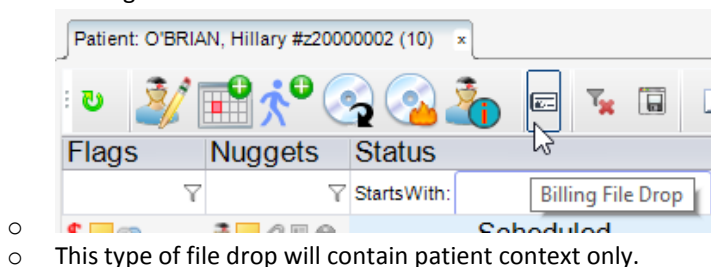


In the Item Location section, it is also possible to add:

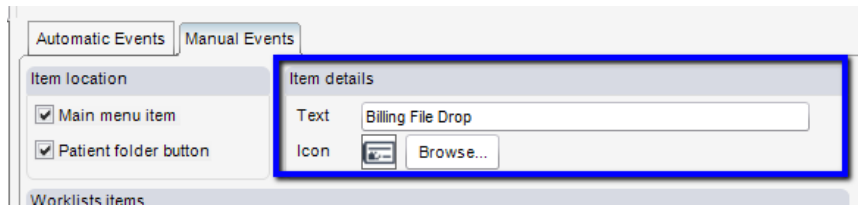
- Main Menu Item – This will add a file drop option to a new menu at the top of the RIS screen to the left of the Help menu.
  - By default, the name of the menu will be *Integrate* and the menu items for all configured XML file drops with the “Main menu item” option checked will be found here. It is possible to re-name this menu via a new System Configuration setting labeled *XmlIntegrationMainMenuText*.



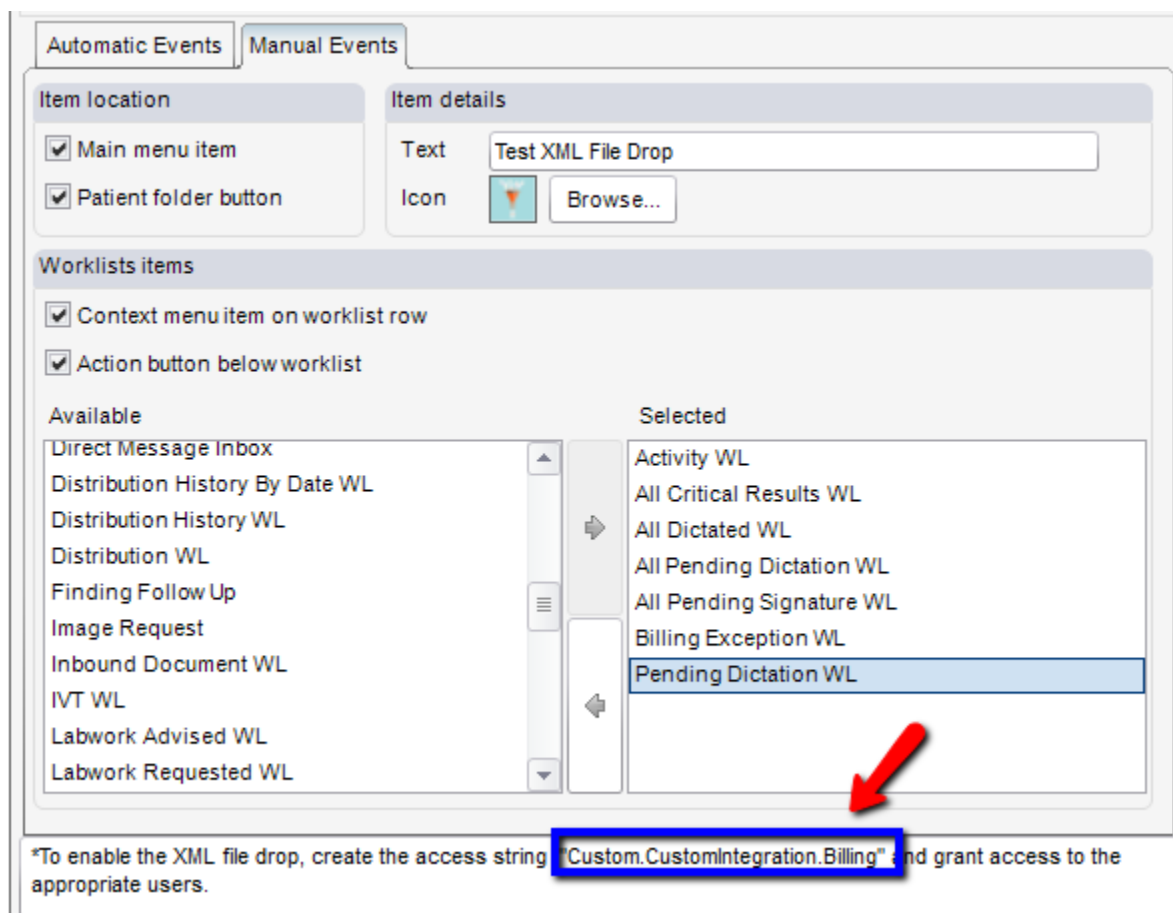
- This type of file drop action will not contain patient or study context.
- Patient Folder Button – This will add a file drop option as an action button at the top of the Patient Folder screen to the right of the Patient Alerts button.



In the Item Details section, the associated icon can be uploaded and the name of the XML file drop can be defined. Free icons are available for download on the internet or users can create their own icons. Clicking the Browse button will allow the administrator to select the image from their computer's file system.



Access strings must be used to enable access to each XML integration file drop. The access string uses the Custom Access String framework. To assist the user in creating the correct access string, the XML Integration lookup editor will provide the name for the access string, as illustrated in the image below. If an access string is not created and assigned to the appropriate User Groups, then the XML file will not be available to any users.



While the rest of the XML Integration editor remains mostly unchanged, there is one other piece of new functionality: the ability to add non-study container driven fields to the XML content. The two possibilities are:

- %Event% - displays the **name** of the XML integration option that dropped the flag.
  - None
  - MenuItem
  - PatientFolderButton
  - WIContentMenu
  - WIActionButton

- OnLogin
  - OnLogout
  - OnLockScreen
  - OnUnlockScreen
  - OnScreenActivated
  - OnScreenDeactivated
- %CURRENT\_USER\_ID% - displays the user id of the currently logged in user.

Customers who are interested in taking advantage of this new functionality are welcome to contact eRAD Support for assistance.



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## FEATURE #16137 – CARESTREAM PACS INTEGRATION – OPEN PRIOR STUDIES WHEN PRIMARY STUDY IS NOT AVAILABLE

This feature is applicable for customers using our integration with Carestream PACS.

Before an exam is performed, it is sometimes necessary for the radiologist to view the prior images for the patient. Previously, when a radiologist opened the reporting screen, the *view session* would not be initiated if the current study was unavailable. Without this, the prior studies could not be launched from the reporting screen.

To allow for this functionality, a new setting is now available in the CSHConfig.xml file:  
*empty\_view\_session\_on\_fail*.

Changing this setting to True will adjust the CSH integration behavior to make the *ShowStudy* call to PACS act as if the primary study opened correctly, even if it has failed because current images do not yet exist. Please note that with this setting turned on, the radiologist will not be prompted that the primary study failed to open and the mini-Patient Folder will indicate that the PACS status for the primary study is Open. At this point, the radiologist can double click on the desired prior study. RIS will ask the PACS what studies have loaded and upon finding that nothing is loaded, the normal Append call will be replaced with a ShowStudy call. At this point, images for the prior will open, and both current and prior studies will be listed as Open.

To support this behavior, the *supports\_append* setting in the CSHConfig.xml file needs to be set to True.

## INFRASTRUCTURE

### FEATURE #14351, 15615 – NEW RIS SETTINGS TO REDUCE BANDWIDTH FOR UPDATES

Two new System Configuration settings have been created in an effort to reduce the amount of bandwidth consumed by saving/uploading updates to the server. Both features will be automatically enabled at the time of the upgrade to version 2.2017.3, but will present no detectable changes to the RIS user.

Both of these configuration options will decrease the network bandwidth utilization, which will deliver some performance benefits for networks which have slow upload speeds.

#### Uploading patient/order updates:

When saving edits to screens such as ViewEdit or Registration, the data is sent to the server in an XML format, which is fairly bulky and uses more bandwidth than necessary. For example, saving a change to a patient's middle name costs approximately 60KB when sent via XML. A new system configuration setting will enable a *binary serializer* to send the update data in binary format, which reduces the size of the data to be uploaded. When sending in binary format, the same update that cost 60KB when sent via XML is reduced to approximately 8KB. To enable this feature, the new System Configuration setting, *EnableExtraCompressionOnStudyUpdates*, must be set to True. The default for this setting is True, so it will be enabled at the time of the upgrade, unless the setting is changed to False.

#### Uploading Attachments:

Another new System Configuration setting is available to reduce the size of **attachments** for upload. Attachments are typically saved as a JPEG file. However, in many cases, a smaller file size could be achieved by applying LZW compression and saving the attachment as a TIFF file. The image quality on the resulting TIFF file is typically equal or superior to the JPEG image.

When *AllowLZWImageCompression* is set to True, RIS will compress attachments twice: once as a JPEG and once, using LZW Compression, as a TIFF file. The version with a smaller file size will be used for the attachment, unless the compressed TIFF image is significantly different from the original. If 80% of the pixels are different between the JPEG and the TIFF, RIS will choose the JPEG compression for that attachment.

The default for this System Configuration setting is True, which means that this compression process will be enabled at the time of upgrade, unless the setting is changed to False.

## CONNECT PATIENT PORTAL

Note: There are some Patient Portal features that are related to the new CONNECT Provider Portal which will be announced in the near future. These features are not described here and will be described in detail at the time that the CONNECT Provider Portal is released.

### FEATURE #14260 – PUSH OUT THE FIRST AVAILABLE APPOINTMENT BASED ON CONDITIONS

When patients schedule appointments online in the Patient Portal, it is sometimes helpful to add padding to ensure that the first appointment offered to the patient will be a certain number of hours into the future. This allows the imaging center staff time to review appointments that are scheduled online, in case any changes need to be made or additional actions taken. Without padding, the patient could theoretically schedule the appointment within minutes or hours of the scheduling event, which would not allow staff adequate time to prepare.

Additional padding to the first available appointment may be indicated due to:

- Selection of a certain type of Procedure.
- Indicating a Special Accommodation.
- Giving a certain answer to an exam question.
- Selection of a particular Insurance Carrier.
- Choosing an Unknown Insurance.
- Not having a referral/prescription.
- Not having an Insurance Authorization number.
- Scheduling on weekends or evening hours.

Time slot padding is responsive to weekends and holidays defined by the portal Imaging Group. For example, if padding of 48 hours is indicated for a patient scheduling on Friday, Monday will not be available because 48 business hours would not have elapsed.

Three new System Configuration settings have been created for this feature. Two are replacements for older settings that previously handled Padding using days. These are now replaced with settings that will handle Padding using hours instead.

1. *PortalNoSelectedInsuranceHourPadding*
  - a. Replaces *PortalNoSelectedInsuranceDayPadding*
  - b. Will use hours instead of days.
  - c. Adds hours to the start search criteria to allow time to gather insurance from the patient when no insurance information is available.
2. *PPSchedulingNoPrescriptionHourPadding*
  - a. Replaces *PPSchedulingNoPrescription*.

- b. Will use hours instead of days.
  - c. Adds hours to the start search criteria if the patient indicates that they do not have a prescription (referral).
- 3. *PortalAllowEveningWeekendScheduling*
  - a. Brand new setting.
  - b. If set to N, the Portal will always prevent scheduling on the weekend or outside business hours.
  - c. This can be overridden at the Imaging Group level.
  - d. RIS will determine weekends and evenings according to the existing system configuration settings *WeekEndDays*, *ScheduleMorningTimeOfDay*, and *ScheduleEveningTimeOfDay*.

The above settings cover scenarios when the patient's insurance information or prescription is not available, as well as evening/weekend scheduling. Padding adjustment for the remaining scenarios is as follows:

**-By Carrier:**

To allow padding to occur based on a particular insurance which may require additional time, the Carrier table has a new column: *Portal\_schedule\_hour\_padding*. Previously, a setting existed for padding by number of days; this will be deprecated in a future build. This can be overridden at an Imaging Group configuration level.

**-By Procedure:**

A new column called *portal\_schedule\_hour\_padding* has been added to the Procedure Code table. This will define the number of hours to pad the available search results for the procedure. If there are certain procedures that require extra preparation or verification, this will ensure that enough time is available for these activities. An additional column, *portal\_schedule\_allow\_evening\_weekend\_flag*, will prevent the procedure from being scheduled on the weekend or evening via the Portal when set to N. If the availability template does not contain weekend or evening hours, this is not necessary. However, if there are procedures that schedulers are allowed to schedule in the evening or weekend hours, but online users should not have access to these time slots, this setting will be beneficial. This can be overridden at an Imaging Group configuration level.

**-By Special Accommodation:**

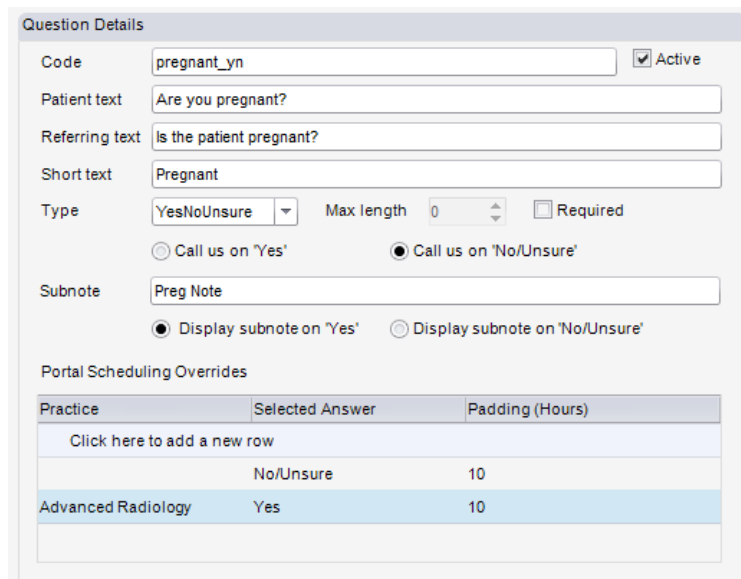
The new column called *portal\_schedule\_hour\_padding* has been added to the Special Accommodations table. This will define the number of hours to pad the available search results for a particular accommodation. The rule will check all Special Accommodations selected by the patient and the highest value will be used for the applied padding. An additional column, *portal\_schedule\_allow\_evening\_weekend\_flag*, will prevent appointments with the selected Special Accommodation from being scheduled during evening and weekends when the necessary staff might not be available to accommodate the patient's need. The setting can be configured separately for each Special Accommodation. This can be overridden at an Imaging Group configuration level.

**-By Authorization:**

Two new system configurations have been created for different padding depending on the patient's answer to the question of whether they have an authorization number.

### -By Exam Question:

For exam questions that are defined in the Procedure Picker, a new section is now available on the Question Details screen.



Question Details

Code:  ☒ Active

Patient text:

Referring text:

Short text:

Type:  Max length:  ☐ Required

☐ Call us on 'Yes' ☒ Call us on 'No/Unsure'

Subnote:

☒ Display subnote on 'Yes' ☐ Display subnote on 'No/Unsure'

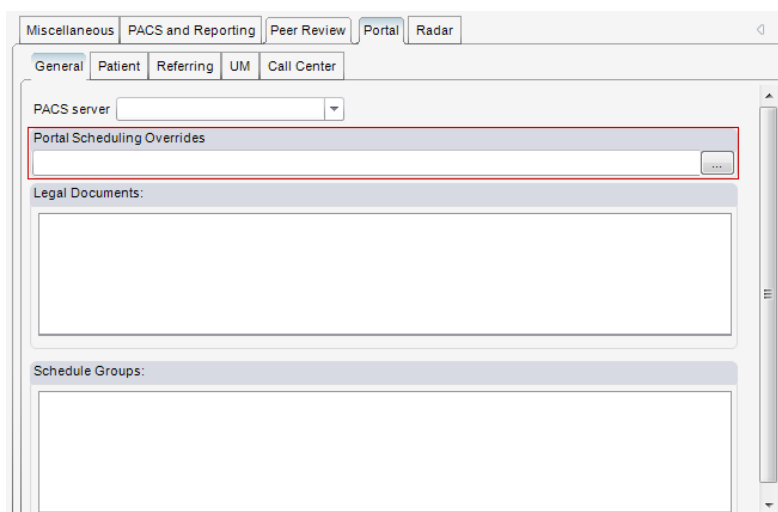
Portal Scheduling Overrides

Practice	Selected Answer	Padding (Hours)
Click here to add a new row		
	No/Unsure	10
Advanced Radiology	Yes	10

The section allows padding to be defined to the yes/no and yes/no/unsure type questions, with a different value depending on the patient's answer.

Due to the structure of these questions, the Imaging Group (practice) padding can be defined inside the Procedure Picker exams question screen, as additional entries can be added for any Imaging Groups that require different settings.

For other settings, Imaging Group differences in the amount of hours to pad are handled via override settings in the Organization table. Under the Practice section, on the Portal tab, there is a section called *Portal Scheduling Overrides*.



Miscellaneous PACS and Reporting Peer Review Portal Radar

General Patient Referring UM Call Center

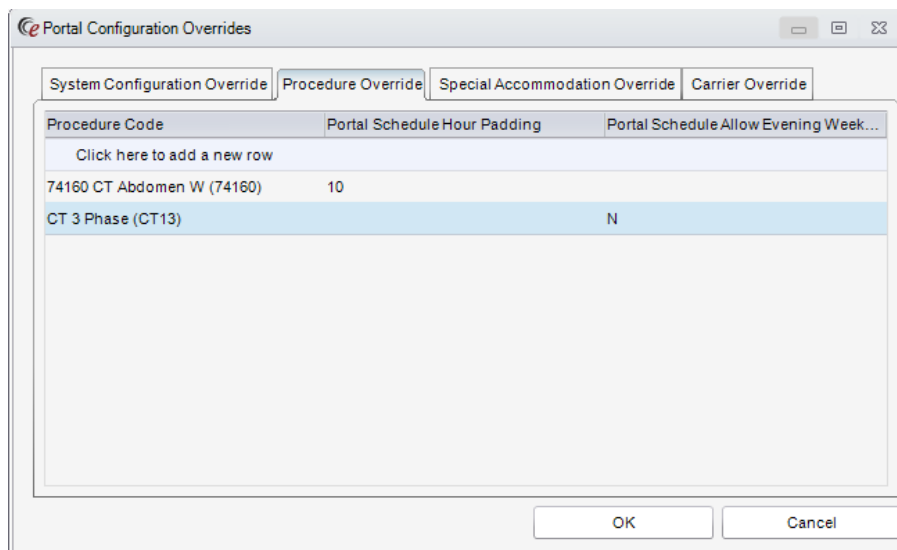
PACS server:

Portal Scheduling Overrides:

Legal Documents:

Schedule Groups:

Clicking the button [...] will open a new window with tabs for the various types of overrides. The settings for the Imaging Group that are different from the main settings described above can be overridden here.



Procedure Code	Portal Schedule Hour Padding	Portal Schedule Allow Evening Week...
Click here to add a new row		
74160 CT Abdomen W (74160)	10	
CT 3 Phase (CT13)		N

With such a variety of ways to pad the first appointment offered to the patient, RIS needs to determine which padding rule to follow when an appointment contains more than one characteristic that requires padding. To do this, the system will evaluate all applicable rules and apply the padding with the greatest number of hours.

After calculating the first appointment based on the padding hours, RIS will then evaluate whether there is a setting that prevents weekend/evening appointments as well as whether the appointment slot is in one of those time slots. If so, the first available time slot will be pushed to the next business day for the configured morning hours. Holidays are also evaluated and will push out the first available appointment to the next applicable day.

After determining the first time slot that would be appropriate to allow the patient to schedule, RIS will begin to look for an available time slot. If no results are found, RIS will continue searching for a predefined number of days, based on the System Configuration setting *PortalMaxSearchDays*. If no results are available within the allotted number of days, the patient will be presented with a message.

There are no available time slots for your appointment in the next 30 days. Call us for assistance or continue to search for available time slots using the calendar controls.

(443) 436-1100

**Call Center Hours:**

MRN: 1000001841

Please provide us with this ID so that we can quickly locate your appointment when you call.

[CANCEL APPOINTMENT](#) [CONTINUE TO SCHEDULE](#)

## FEATURE #16480 – STREET NUMBER WATERMARK REMOVED FROM STREET NUMBER FIELD IN ACCOUNT CREATION WORKFLOW

When patients see the three watermarks ( ### ) in the street number input field during Account Creation workflow, they often assume the field will only accept three digits even though the field is very wide. This can cause the patient to abandon the workflow and contact the Portal Administration team to ask what they should do if their address is more than three digits.

What are the last four digits of your phone number?

###

☐ I did not provide my phone number.

What is your street number? \*

###



NEXT

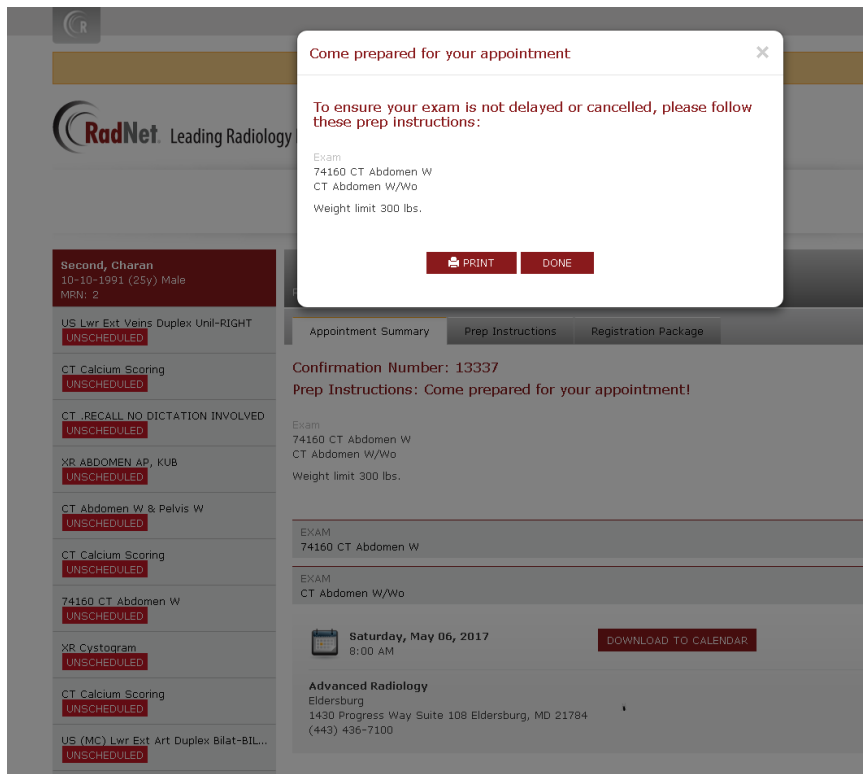
CANCEL

To eliminate confusion, the watermarks in the image above have been removed from the street number input field.



## FEATURE #13708 – PREPARATION INSTRUCTIONS DISPLAY IN A POP-UP WINDOW AFTER SCHEDULING IN THE PATIENT PORTAL

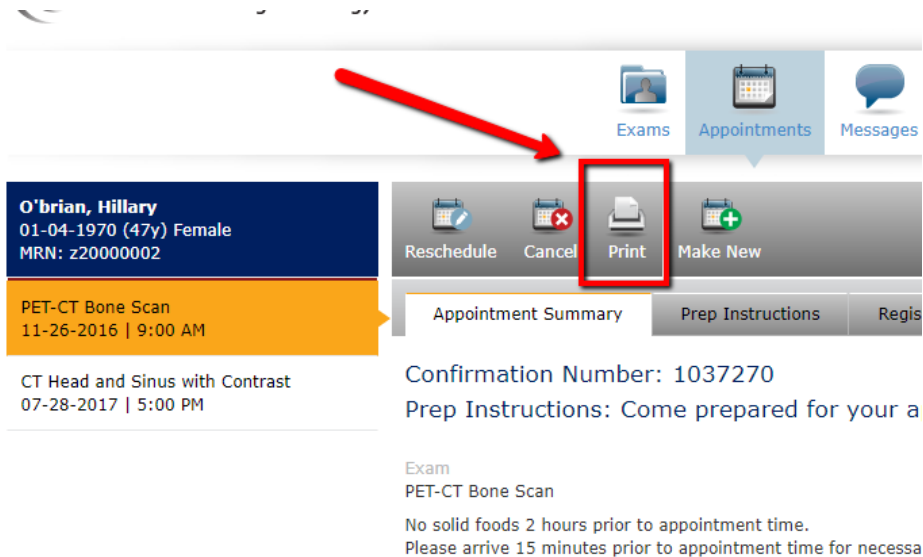
A common problem in radiology is that patients can arrive for their appointment without having followed the preparation instructions. In order to further emphasize the importance of following prep instructions, the portal will now present the preparation instructions in a pop-up window that must be acknowledged by the patient before they can continue.



After the patient clicks the Confirm Appointment button, the dialog box will appear with the instructions in order for the patient to be fully aware of those instructions before their appointment. There is also a **PRINT** button on the window, so that the patient could choose to print the instructions for an additional reminder. Clicking the print button will dismiss the dialog box and initiate the browser's print function.

## FEATURE #14535 – PRINT A SUMMARY OF APPOINTMENT INCLUDING PREPARATION INSTRUCTIONS

A printer icon has been added to the Appointment Confirmation page. The patient can print a copy of their Appointment Summary, including Preparation Instructions. Previously, only the webpage could be printed.



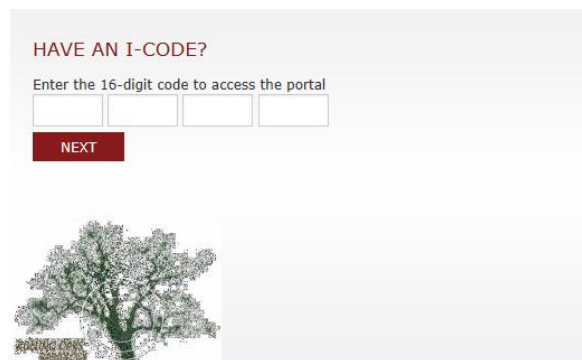
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## FEATURE #8310 - PATIENT PORTAL LOGIN PAGE PICTURE IS NOW CONFIGURABLE

Customers would like to have the option to insert their own image on the Patient Portal login page, instead of using the default image of a group of patients.



It is now possible to substitute a custom image in this area of the screen. Different images can be used for specific Imaging Group portals, so that the Treesdale Radiology portal can have a different image than the Spectrum Radiology portal.



Please contact the eRAD Support Team to set this up for your Connect Patient Portal.

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## FEATURE #15025 – REPORTS PRINTED FROM THE PORTAL WILL CONTAIN A FOOTER INDICATING THE PRINT DETAILS

A footer is now added to all reports when they are printed from the portal. The footer will read:

“This report was printed from the {Practice Name of selected image group} - {Patient/UM/Referring} portal on {Date}{Time}.”

For example, “This report was printed from Advanced Radiology – Patient portal on 08-14-2017 5:23 PM.”

The Date and Time reflect when the report was generated in the portal. If the patient opened the report at 5:23 PM but did not print it for another 10 minutes, the time would still read 5:23 PM. This will ensure that if an addendum was signed within those 10 minutes, the hard copy printed version will not be stamped with a date/time that occurs after the addendum.

This section will only appear on the printed document at the bottom of each page.

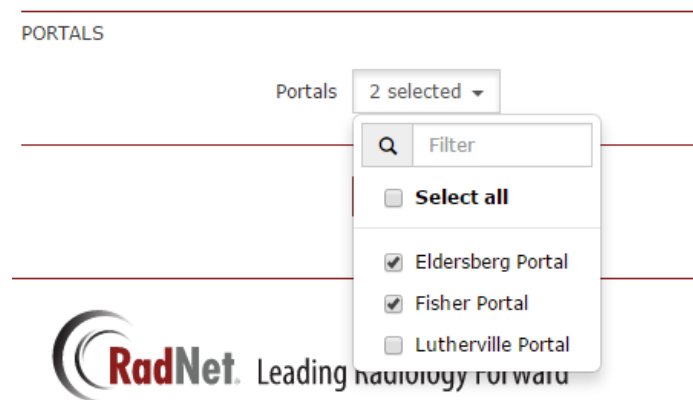
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## FEATURE #12827 – PROVIDE SYSTEM MESSAGES TO INDIVIDUAL IMAGING GROUPS

Previously, Portal System Messages could only be applied for all Imaging Groups at once. This did not allow for the flexibility to provide custom messages that were specific to a particular Imaging Group, which equates to a specific target **portal** with its own branding and target audience.

It is now possible to select the specific Portals/Imaging Groups that should receive the message.

When creating a new System Message in the Admin Portal, it will be applied to all Portals by default. The administrator can click the dropdown to select a subset of Portals.

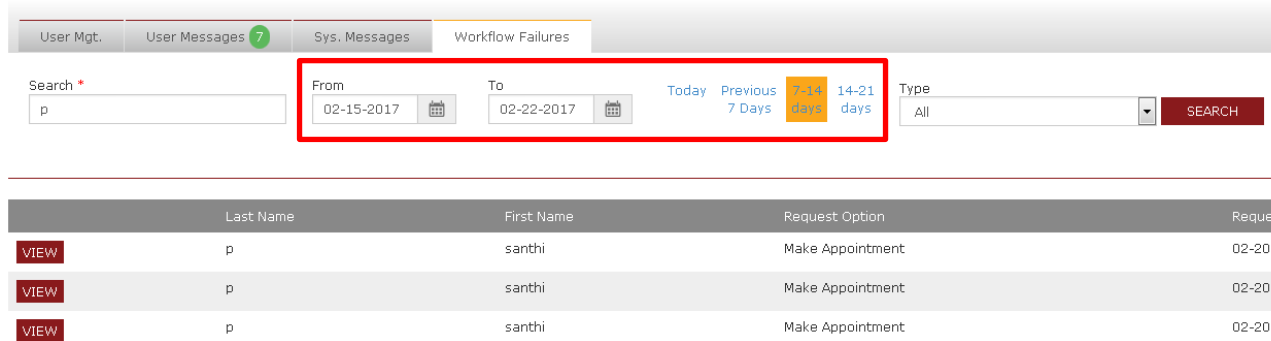


This can be helpful when there are alerts or marketing campaigns that are specific to one instance of the portal.

## FEATURE #13253 – SEARCH WORKFLOW FAILURES BY DATE RANGE IN ADMIN PORTAL

It is now possible to specify a date range on the Workflow Failures tab in the Patient Portal Admin Portal.

Specific dates can be entered or the user can use quick links to select common choices like “Today” or “Previous 7 Days.”



The screenshot shows the Patient Portal Admin Portal interface. The 'Workflow Failures' tab is selected. A search filter is applied with the text 'p'. The date range search section is highlighted with a red box, showing 'From' and 'To' date pickers set to 02-15-2017 and 02-22-2017 respectively. Quick links for 'Today', 'Previous 7 Days', '7-14 days', and '14-21 days' are also visible. The 'Type' dropdown is set to 'All'. A 'SEARCH' button is present.

	Last Name	First Name	Request Option	Request Date
<a href="#">VIEW</a>	p	santhi	Make Appointment	02-20-2017
<a href="#">VIEW</a>	p	santhi	Make Appointment	02-20-2017
<a href="#">VIEW</a>	p	santhi	Make Appointment	02-20-2017

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## FEATURE #13960 - AUDIT OPENING PATIENT EXAM LIST IN THE ADMIN PORTAL

The Patient Portal Admin Portal will now record an audit event for the opening and viewing of a patient record (Exam list), even if no other actions are taken.

When the user visits the Exam list in the CONNECT Patient Portal, an audit entry will be made in the database (c\_audit). This audit action can be pulled into management reports and database queries.

## FEATURE #16590 - DOB IS A VALID SEARCH IN THE ADMIN PORTAL

On the User Management tab in the Patient Portal Admin Portal, it is now possible to use Date of Birth as part of the search criteria. It is possible to search by DOB, first name, last name, telephone, or MRN. Using Date of Birth is an easy way to narrow down a Name search.

The DOB search will accept a variety of date formats, similar to searching by date of birth in the RIS.

Search

Status

All

▼

SEARCH

	Last Name	First Name	Date Of Birth	Issuer	MRN
EDIT	Molyneaux	Kevin	10-29-1975	system	29006PE
VIEW	Molyneaux	Kevin	10-29-1975	Portal	14865
VIEW	Molyneaux	Kevin	10-29-1975	system	26891





## FEATURE #15702 - PASSWORD FAILURE INFORMATION NOW LISTED IN ADMIN PORTAL ACTIVITY TAB


When supporting patients who are experiencing difficulty logging into the Patient Portal, it is helpful to know that they have entered an invalid password. The Admin Portal will now display this information in the patient's Activity Log.

Verify	Profile	Account	Authorized Users	iCode	Activity
--------	---------	---------	------------------	-------	----------

ACTIVITY LOG		
03-21-20 	To 03-21-20 	<a href="#">REFRESH</a>
<a href="#">Today</a> <a href="#">Previous 7 Days</a> <a href="#">7-14 days</a> <a href="#">14-21 days</a>		

Date 	Activity	Detail	
03-21-2017   9:59 AM	Patient retrieved	Patient: second, charan	<a href="#">VIEW</a>
03-21-2017   9:59 AM	Patient Portal: Failed Login	Invalid Password for UserID:veeranjan URL: http://localhost:45926/ UserIdentity: RMIS\vboina Computer Name: Veeranjan-HP.rmis.pei IP Address:fe80::6dda:8c6e:f3ab:c753%11 - fe80::900a:659d:fe8a:6cc9%20 - 10.100.16.169 - 10.100.16.236	<a href="#">VIEW</a>
03-21-2017   12:45 AM	Patient retrieved	Patient: second, charan	<a href="#">VIEW</a>
03-21-2017   12:43 AM	Patient Portal: Failed Login	Invalid Password for UserID:veeranjan URL: http://localhost:45926/Home UserIdentity: RMIS\vboina Computer Name: Veeranjan-HP.rmis.pei IP Address:fe80::6dda:8c6e:f3ab:c753%11 - fe80::900a:659d:fe8a:6cc9%20 - 10.100.16.169 - 10.100.16.236	<a href="#">VIEW</a>
03-21-2017   12:41 AM	Patient retrieved	Patient: second, charan	<a href="#">VIEW</a>
03-21-2017   12:41 AM	Patient Portal: Failed	Invalid Password for UserID:veeranjan URL: http://localhost:45926/ UserIdentity: RMIS\vboina Computer Name: Veeranjan-HP.rmis.pei IP Address:fe80::6dda:8c6e:f3ab:c753%11 - fe80::900a:659d:fe8a:6cc9%20 - 10.100.16.169 - 10.100.16.236	<a href="#">VIEW</a>

## FEATURE #16066 - SECURITY TAB AND ACCOUNT TAB NOW COMBINED IN ADMIN PORTAL

To reduce the need to flip between multiple tabs when supporting the Patient Portal, the Admin Portal has eliminated the Security tab and added the information from this tab to the existing Account tab.

User Mgt.

User Messages 1

Sys. Messages

Workflow Failures

Search

username:veeranjana

Status

All

SEARCH

User ID **veeranjana**

Verify

Profile

Account

Authorized Users

iCode

Activity

PASSWORD

User ID *veeranjana*

Last Updated *05-03-2017 | 5:11 PM*

Password

☐ Force reset on next login
 ☐ Allow Simple Password

SAVE

CANCEL

ACCOUNT STATUS

☒ Active
 ☐ Disabled

SAVE

ACCOUNT RESET

RESET ACCOUNT

EULA

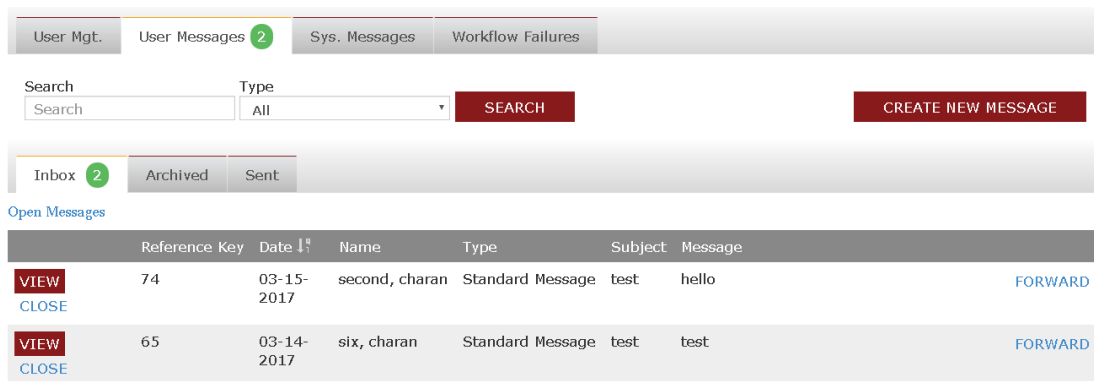
Version	Last Signed
5.6	03-31-2017 01:36 PM

Reset

## FEATURE #16358 – REFERENCE KEY IS NOW ADDED TO PORTAL NOTIFICATION EMAILS

When a Portal administrator views secure messages that have been sent from the Patient Portal via notification emails, it is difficult to match up the email with the patient information, as identifying information is not included in the email for privacy reasons. For this reason, a Reference Key has been added in the subject line and body of the secure emails.

The portal administrator can log into the Admin Portal and sort by the Reference Key in question to find the message with the patient information associated, after securely logging into the portal where the patient information can be safely displayed.

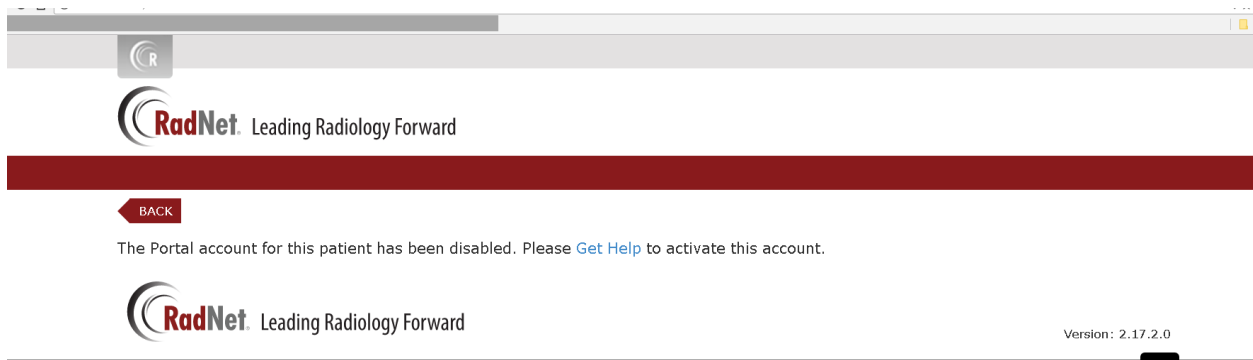


The screenshot shows the 'User Messages' tab in the Admin Portal. It includes a search bar, a 'Type' dropdown set to 'All', and a 'CREATE NEW MESSAGE' button. Below the search bar are tabs for 'Inbox' (with a count of 2), 'Archived', and 'Sent'. The 'Open Messages' section displays a table of messages:

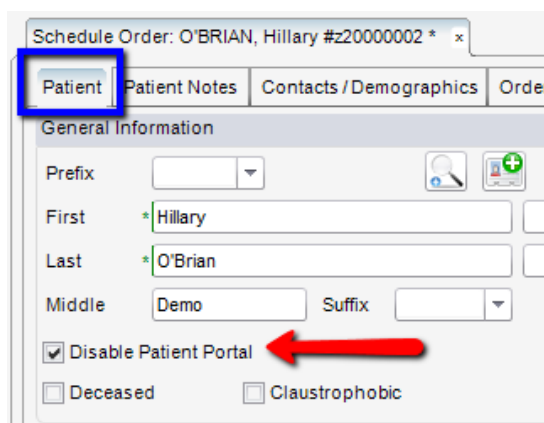
	Reference Key	Date ↓↑	Name	Type	Subject	Message	
<a href="#">VIEW</a> <a href="#">CLOSE</a>	74	03-15-2017	second, charan	Standard Message	test	hello	<a href="#">FORWARD</a>
<a href="#">VIEW</a> <a href="#">CLOSE</a>	65	03-14-2017	six, charan	Standard Message	test	test	<a href="#">FORWARD</a>

## FEATURE #16449 – FORCE PATIENT TO USE GET HELP TO CREATE/REACTIVATE THEIR PORTAL ACCOUNT IF THE ACCOUNT HAS BEEN DISABLED IN THE ADMIN PORTAL OR IN RIS

Previously, an administrator could disable a patient’s portal account via the Admin Portal; however, it was still possible for the patient to go through the “create an account” workflow and reactivate their account. The portal will now prevent the patient from continuing with a message indicating that their account is disabled and to “Get Help” to activate the account.



It is also now possible to disable a Patient Portal account from the RIS. A new checkbox has been added to the Patient tab to *Disable Patient Portal*.



When checked, the patient will not be able to create a new account or access an existing account. They will receive the same message that is displayed when the account is disabled via the Admin Portal.

## RIS ADMINISTRATION

### FEATURE #16299 - ERAD RIS NOW SUPPORTS BOTH DEFAULT AND "RECOMMENDED" BILLING CODES

Note: this functionality was originally introduced in the previous patch, 2017.1.2. The description is included here because there have been further changes to the feature.

Previously, all billing codes associated to a procedure were active by default. In some cases, it may be useful to also associate billing codes that are *sometimes* used for a particular procedure. For example, some customers use a workflow in which procedure codes are broad, such as CT Sinus. In this case, the billing code might be the CPT for CT Sinus "with contrast," "without contrast," or "with and without contrast." Also, the CPT for contrast material may or may not be relevant depending on what is performed.

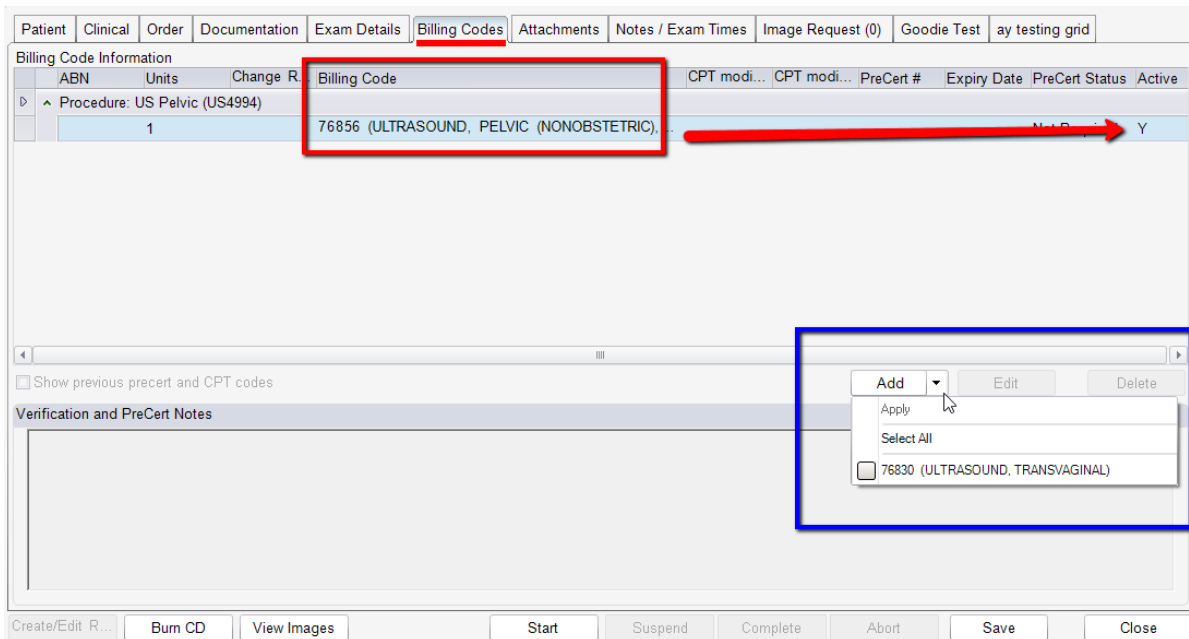
In these cases, being able to associate the billing codes that are most likely to be used for a particular procedure is more beneficial than creating default billing codes that are always active for the exam and have to be deactivated by the technologist.

To allow for this workflow, a new column has been added to the `I_procedure_code_x_billing_code` sub-table, which is found in the Procedure Code lookup table. The column, **Add By Default**, will default to Y, meaning that the billing code will be associated and active for that procedure. This is the same as the previous behavior.

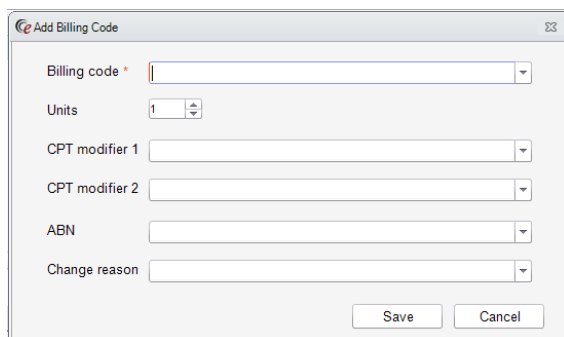
To associate billing codes without actively adding them to the procedure, set the Add By Default column to N. As you can see in the table below, it is possible to have a combination of Default billing codes and recommended/possible billing codes.

Lookup Tables - ProcedureCode		Perform Exam: TEST, Hilary #34689PE			
Procedure...	Description	Body Part...	Laterality Code	Body Part	
Contains:	Contains:	Contains:	Contains:	Contains:	
Click here to add a new row					
US4994	US Pelvic		N		
I_procedure_code_x_billing_code		I_procedure_code_x_body_part	I_procedure_x_genera		
Procedure Code	Billing Code		Add By Default Flag		
US4994	76856 (ULTRASOUND, PELVIC (NONOBSTETRIC...		Y		
US4994	76830 (ULTRASOUND, TRANSVAGINAL)		N		
Click here to add a new row					

In the example above, the only billing code that will be automatically added for the US Pelvic procedure is 76856. The billing code 76830 will now be available from a quick pick list, as shown below.

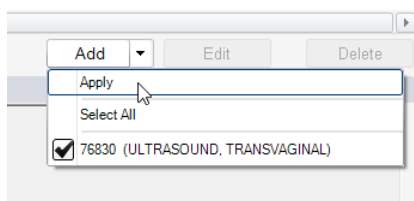


When suggested codes are available for a procedure, the Add button will have a dropdown arrow allowing the user to quickly select and apply the suggested billing codes. Clicking the main Add button, instead of the dropdown arrow, will open the normal Add Billing Code screen where the entire list of Billing Codes can be accessed.



If no recommendations exist, the Add button will not have the dropdown arrow and the Add Billing Code screen is the only option for adding additional billing codes.

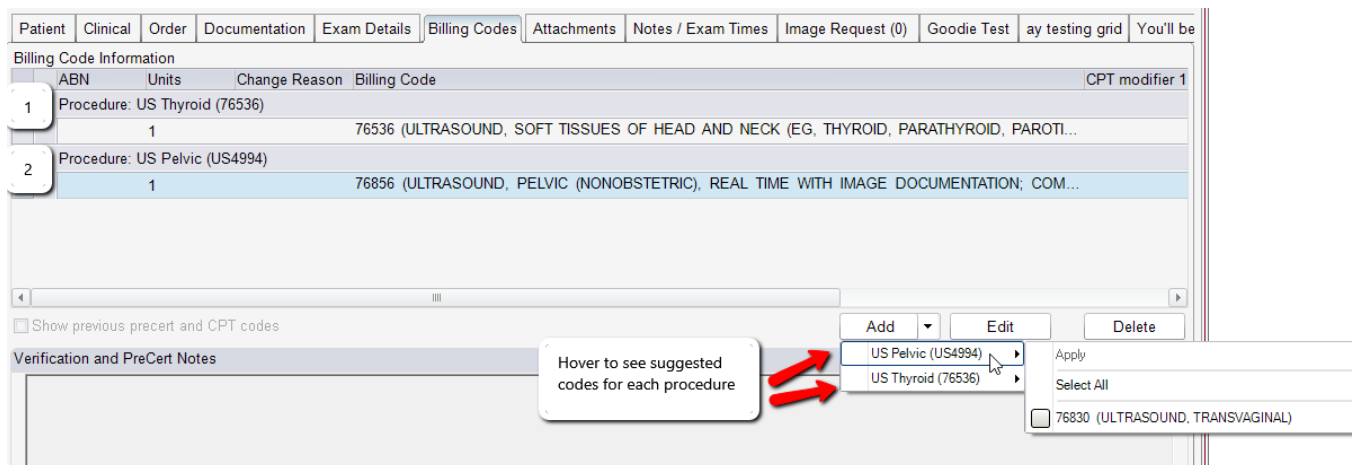
To use suggested billing codes, click the dropdown arrow and check the box(es) to be added. Then click Apply.



This will add the billing code to the procedure in an Active status.

Exam Details	Billing Codes	Attachments	Notes / Exam Times	Image Request (0)	Goodie Test	ay testing grid		
Billing Code			CPT modi...	CPT modi...	PreCert #	Expiry Date	PreCert Status	Active
76856 (ULTRASOUND, PELVIC (NONOBSTETRIC), ...							Not Required	Y
76830 (ULTRASOUND, TRANSVAGINAL)							Not Required	Y

If a technologist is performing multiple exams at once using the “Include” workflow, suggested billing codes will be available for each included procedure (if any).



The screenshot shows the 'Billing Codes' tab in the eRAD interface. It displays a table with columns: ABN, Units, Change Reason, Billing Code, and CPT modifier 1. Two procedures are listed: 'Procedure: US Thyroid (76536)' and 'Procedure: US Pelvic (US4994)'. Below the table, there is a section for 'Verification and PreCert Notes'. A tooltip with the text 'Hover to see suggested codes for each procedure' points to the 'Add' button. A dropdown menu is open, showing suggested billing codes: 'US Pelvic (US4994)', 'US Thyroid (76536)', and '76830 (ULTRASOUND, TRANSVAGINAL)'. The dropdown also includes options for 'Apply', 'Select All', and a checkbox for '76830 (ULTRASOUND, TRANSVAGINAL)'.

Suggested billing codes will not trigger IVT workflow. Once the suggested billing code has been added to the exam, it will be treated like normal active billing codes and IVT workflow will apply.

It is also now possible to select multiple lines in the active Billing Codes grid in order to delete them all at once, if needed. Selecting rows and clicking the Delete key on the keyboard is also allowed. The user will be prompted to confirm that they want to delete the selected billing code(s). Deleting a saved billing code row is the same as marking the row as “Active = N”. If suggested billing codes are added, but deleted *before* the exam is saved, the row will simply be deleted.

The billing codes associated to any procedure code prior to this upgrade will all be set as Add By Default = Y, which means that they will continue to behave as they did prior to upgrading.

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## FEATURE #16310 – VALIDATION RULE TO ALERT USER WHEN NO BILLING CODES ARE PRESENT

Previously, the RIS had a hard coded warning when there were no active billing codes for a procedure. Because the workflow for the above feature includes the possibility that some procedures will legitimately have no active billing codes at the time of scheduling or registration, the hard coded warning has been replaced with a validation rule that allows the customer to customize the timing for the warning (or change it to a hard stop if desired).

The original hard coded rule looked at procedure codes to see if any billing codes were mapped by the RIS administrators. The previous warning that stated: “There Are No Billing (CPT) Codes Mapped To This Procedure” has been removed and a new configurable rule has been added. The new rule does not look at Procedure/Billing Code mappings, but actually checks whether there are any studies that do not currently have billing codes attached.

The new rule will be enabled by default to replicate existing functionality.



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## FEATURE #16138 - VALIDATION RULES FRAMEWORK HAS BEEN EXTENDED TO CONSIDER TABLES

Validation rules can now be created based off of patient/exam information that exists in tables, such as associated insurance carriers, MRNs and attachments.

Using the enhanced capability, the following validation rules are now possible:

1. Ability to require that at least one insurance is added if Self Pay is not selected.
2. Ability to warn the user, or prevent them from continuing, if a particular issuer of MRN has not been added for the patient.
3. Ability to warn the user, or prevent them from continuing, if a particular scanned document type (such as Referral) is not associated to an order.

As with all validation rules, the timing of the warning or hard stop can be customized.

These are only a few examples of rules that can be created. Please contact eRAD Support to inquire about creating validation rules for your organization.

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## FEATURE #14171 – VALIDATION RULES CAN DISPLAY BASED ON PATIENT ALERTS

It is now possible to utilize Validation Rules to support custom logic based on Patient Alerts. Rules can be built to either allow or prevent an action in RIS based on whether a patient has a given Alert.

There are two types of rules that are now possible:

1. Prevent actions in RIS when a Patient Alert is present.
  - a. Example: Prevent scheduling if the patient has an Alert of “Lifetime Ban.”
2. Conditionally allow actions in RIS based on a Patient Alert.
  - a. Example: Prevent arriving a minor when the Responsible Party is “Self” unless the patient has an Alert of “Emancipated Minor.”

For example #1, it was previously only possible to alert a user that a patient had been banned from the facility. The Validation Rule will allow an administrator to actually **prevent** scheduling. When the rule is configured, the user will receive the usual Alert informing them of the ban. However, if they attempt to schedule anyway, the Validation Rule warning will display and will prevent them from scheduling the appointment.

For example #2, it is now possible to create a Validation Rule that does not apply to all types of patients. Previously, a rule requiring a Responsible Party other than Self for minors was not possible because there was no way to get around the rule for emancipated minors. Now a condition can be created that excludes patients with an Emancipated alert.

These are just examples of what is possible using the new Validation Rule functionality. If you are interested in setting up Validation Rules, please contact eRAD Support.

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## FEATURE #15150 – HARD-CODED CONTRAST AND CT DOSAGE REQUIREMENTS ARE NOW VALIDATION RULES

Previously, it was possible to require the technologist to enter Contrast and CT dose information, but the timing of the requirements could not be altered. Because the requirement was enforced at the time the technologist *started* the exam, many customers chose not to use the requirements (or to use Digital Forms instead) because the technologist could not know the information before starting the exam.

To allow more flexibility and a more practical approach, Contrast and CT Dosage requirements can now be controlled using Validation Rules, which will allow the timing of the requirement to be changed to when the technologist *completes* the exam (or any other desired point in the workflow). Custom validation rules have been created to reproduce the logic of the previously hard coded rules with the added flexibility to alter them according to preference.

At the time of the upgrade, your current configuration will be evaluated and the new Validation Rules will be applied accordingly with one exception: All rules will be enforced at the time the technologist **completes** the exam. This is done with the understanding that this will be the most common point at which customers will want to require this information, though this can be changed if desired. If you are not using this functionality today, the Validation Rules will be added with the upgrade but will be set to Inactive.

Please let eRAD Support know if you would like to start requiring either Contrast or CT Dose now that the more flexible framework is available. They can assist in getting this set up according to your needs.

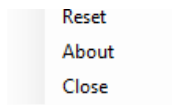
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## FEATURE #12141 – ABILITY TO VIEW THE CITRIX BRIDGE VERSION NUMBER

Previously, Citrix Bridge users did not have an option to view the current version number.

Changes have been made to the Citrix Bridge context menu to allow the user to access an “About” screen very similar to the RIS Help/About screen. This screen lists the version number and additional details.

Clicking the Citrix Bridge icon in the system tray will now open the following context menu:



Selecting the About option will bring up the following screen:

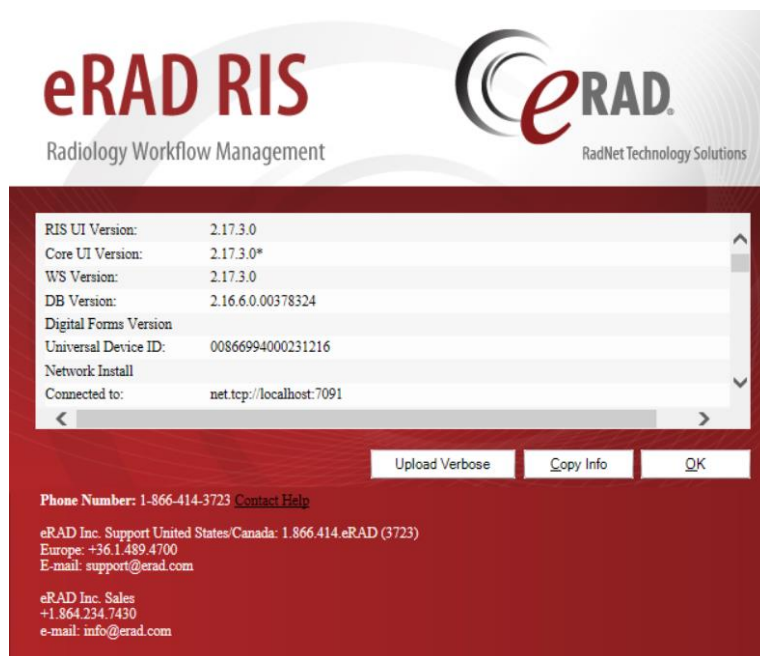


Note the Citrix Bridge Version on the first line. It is also possible to view the version number from within the *RIS* Help/About screen, provided that the Citrix Bridge is up and running.

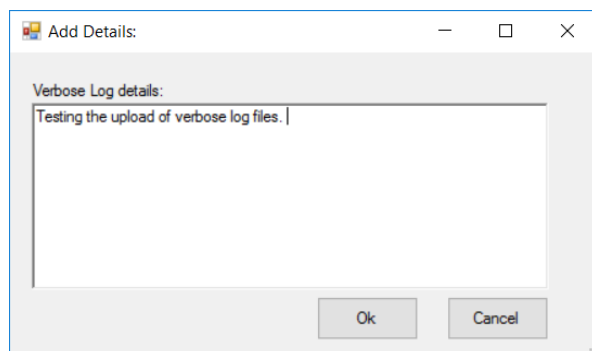
## FEATURE #14681 – UPLOAD A WORKSTATION’S VERBOSE FILES TO THE SERVER FROM HELP/ABOUT SCREEN

When troubleshooting an issue, eRAD Support often needs to view a workstation’s log files, referred to as “verbose files.” Previously, users had to follow instructions to navigate to the files in an Appdata\eRAD folder in order to find the files, then go to the trouble of sending them to Support. To make this process easier and allow eRAD Support to quickly access the information needed to troubleshoot an issue, it is now possible for a user to upload their verbose logs to the database by clicking a button on the Help/About screen.

The Help/About screen has a new button labeled “Upload Verbose.” If instructed by the eRAD Support team, all the user has to do is go to the Help screen and click the button.



The user will have the option to enter details regarding the reason the Verbose logs are being uploaded.



Upon clicking OK, the verbose files and a relative message log will be uploaded to the database, where the eRAD Support team can retrieve them. The verbose files are compressed when added to the database.

## FEATURE #16109 - RIS WILL PREVENT UPLOADING EXCESSIVELY LARGE FILES FOR LOGOS

Excessive file sizes can cause document distribution to fail, particularly for encrypted email reports. This can happen if the logo used on a report is too large. To prevent this from occurring, two new System Configuration settings have been created to indicate the maximum file size and the maximum file dimension. If an image or logo is uploaded that exceeds either of these settings, the user will be warned.

The new settings are as follows:

- **MaxLogoFileSize** – maximum number of bytes for image files uploaded for Practice or Site logos, as well as images uploaded via the ImageUploader configuration screen.
- **MaxLogoWidthOrHeight** – maximum number of pixels for Practice or Site logos, as well as images uploaded via the ImageUploader configuration screen.

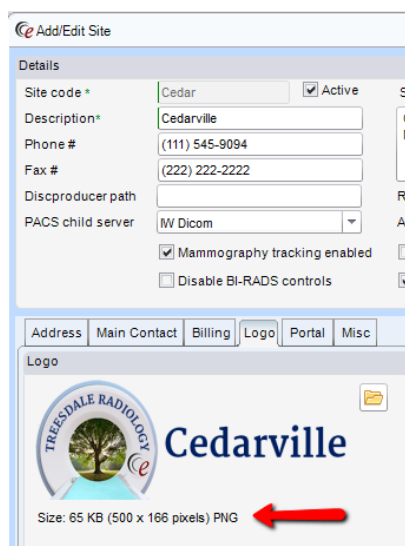


System Config Code	Value	Default	Desc
Contains: maxl	Contains:	Contains:	Conte
MaxLogoFileSize	250000	250000	{valu
MaxLogoWidthOrHeight	1000	1000	{valu

If either setting is exceeded when uploading an image, the upload will be prevented and the user will be presented with a warning displaying the maximum for the value that was exceeded:

- The selected image file must be less than 250,000 bytes.
- The selected image's width must be less than 1,000 pixels.
- The selected image's height must be less than 1,000 pixels.

A label has been added to the image preview window, so that file sizes and dimensions are visible for uploaded images. The file type is also listed.



## TECHNOLOGIST

### FEATURE #16292 – TECHNOLOGIST CAN NOW ADD ADDITIONAL EXAMS TO THE ORDER FROM PERFORM EXAM TAB

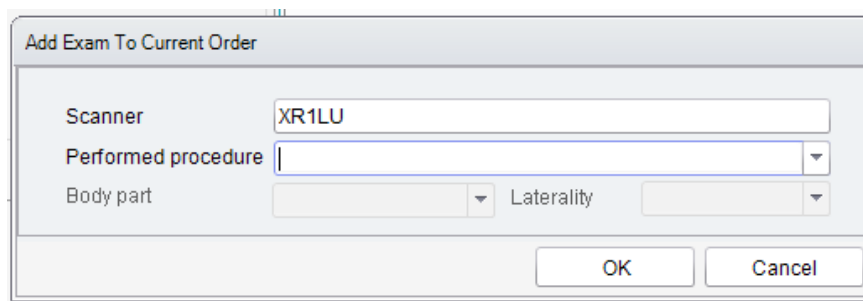
Technologists often need to add additional studies to the order when the patient is already on the table, after receiving feedback from the radiologist or upon realizing that the referral contains a separate exam that was not registered. Technologists need a method to add additional studies with fewer steps, as long as the study belongs to the same order (which would also necessitate the same referring physician and payment method).

To increase efficiency for this workflow, users can be granted a new access string named *Clinical.Tech.AllowAddExam*. The default for this access string is None. If set to Full, a technologist will have access to a new button on the Perform Exam tab labeled “Add exam to current order.” The button is located beneath the list of today’s exams at the top of the Perform Exam tab.

Patient: LEMARCHE, Carl #4747pm (2)		Perform Exam: LEMARCHE, Carl #4747pm x											
	Include	Flags	Status	Procedures	Scheduled Date	Referring	Sedation	Room	Accession #	STAT Read	STAT Exam	Modality Type	Ready To Read
	<input checked="" type="checkbox"/>		Arrived	XR Chest Min 4 Views [71030] - Chest	03-07-2017 13:35	Mac Donald, Dana60 96909		XR1LU	2781			XR	<input checked="" type="checkbox"/>
	<input type="checkbox"/>		Arrived	CT Head W & STN W [CT17] - Head	03-07-2017 13:05	Mac Donald, Dana60 96909		CT1LU	2782			CT	<input checked="" type="checkbox"/>
Add exam to current order													

Clicking the “Add exam to current order” button will allow the technologist to add a new exam to the currently selected Order without going through the registration process.

A new window will open for the technologist to select the procedure, along with Body Part and Laterality if applicable.



The dialog box titled "Add Exam To Current Order" contains the following fields:

- Scanner:** A text field with the value "XR1LU".
- Performed procedure:** A dropdown menu.
- Body part:** A dropdown menu.
- Laterality:** A dropdown menu.
- Buttons:** "OK" and "Cancel" buttons at the bottom right.

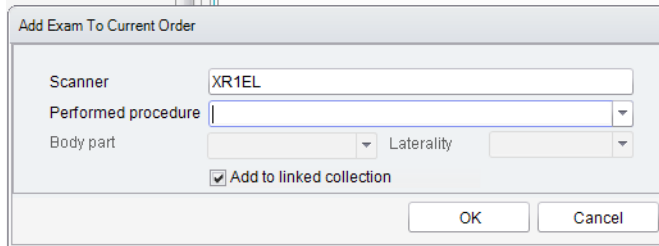
Currently, the scanner (room) is hard coded to match the same scanner as the existing procedure. In the next phase, this will be expanded to allow the technologist to select a different scanner.

The procedures available in the dropdown will include any procedure code that is part of the Schedule Group for the scanner.

Upon clicking OK, a new exam will be added to the existing order. The Date and Time will default to the current date and time, similar to a Walk In.



For customers using Linked Reports, another option will be available if the current study is part of a set of linked studies.

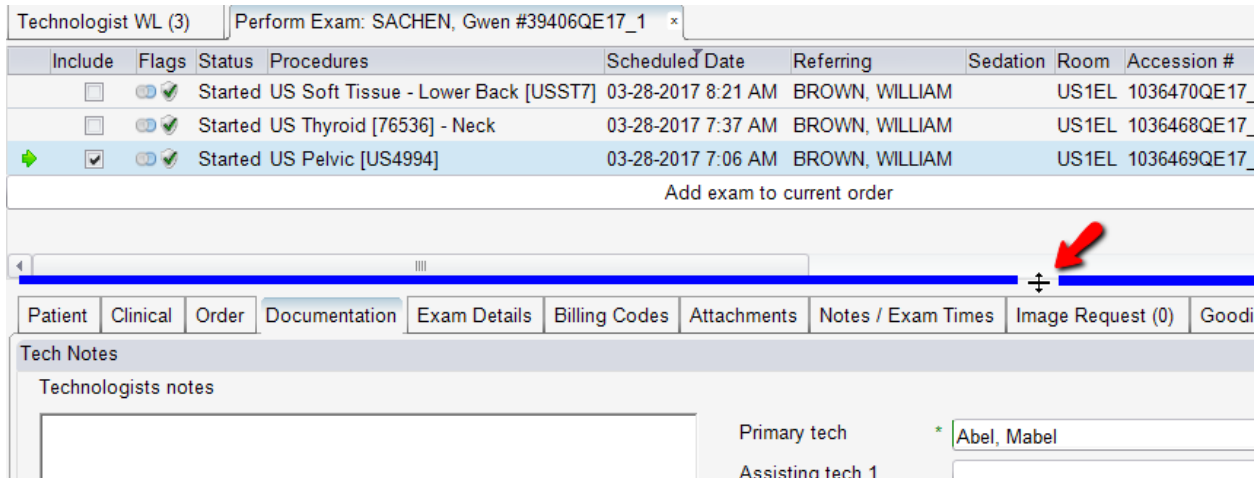


The dialog box titled "Add Exam To Current Order" contains the following fields and controls:

- Scanner: Text field with value "XR1EL"
- Performed procedure: Dropdown menu
- Body part: Dropdown menu
- Laterality: Dropdown menu
- ☒ Add to linked collection
- OK button
- Cancel button

Checking the "Add to linked collection" checkbox will automatically add the new procedure to the linked set. RIS will set the linked id and display the linked flag for the new study. This box will be checked by default.

It has always been possible to adjust the height of the list of today's procedures at the top of the Perform Exam tab by hovering on the dividing line and click/dragging when the double arrow appears. RIS will now remember this position and re-open with the same height for the next patient.



The interface shows the "Perform Exam" tab for patient SACHEN, Gwen #39406QE17\_1. It includes a table of procedures and a section for adding exams to the current order.

Include	Flags	Status	Procedures	Scheduled Date	Referring	Sedation	Room	Accession #
<input type="checkbox"/>			Started US Soft Tissue - Lower Back [USST7]	03-28-2017 8:21 AM	BROWN, WILLIAM		US1EL	1036470QE17_
<input type="checkbox"/>			Started US Thyroid [76536] - Neck	03-28-2017 7:37 AM	BROWN, WILLIAM		US1EL	1036468QE17_
<input checked="" type="checkbox"/>			Started US Pelvic [US4994]	03-28-2017 7:06 AM	BROWN, WILLIAM		US1EL	1036469QE17_

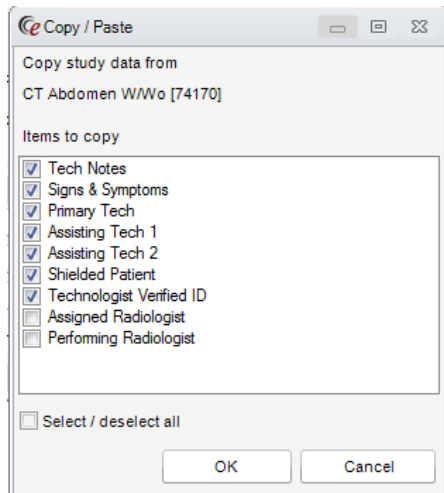
Below the table is a section titled "Add exam to current order" with a double-headed arrow icon and a red arrow pointing to it.

The interface also includes tabs for Patient, Clinical, Order, Documentation, Exam Details, Billing Codes, Attachments, Notes / Exam Times, Image Request (0), and Goodi. The "Tech Notes" section is visible, showing "Technologists notes" and fields for Primary tech (Abel, Mabel) and Assisting tech 1.

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FEATURE #16294 – COPY/PASTE FEATURE NOW INCLUDES “TECHNOLOGIST VERIFIED ID”

On the Perform Exam screen (Documentation tab), there is an option to Copy/Paste certain data elements to other included studies (via the Include checkbox). An option to include the “Technologist Verified ID” field in the Copy/Paste options has been added. This option will be checked by default.



## FEATURE #16293 – TECHNOLOGIST INFORMATION CAN AUTOMATICALLY COPY TO ALL LINKED STUDIES

When using the Linked Reporting feature, linked studies are not sent to the radiologist for dictation until all studies are completed by the technologist. For customers using linked reporting for exams that are performed on different days or in different modalities, it is preferable to prevent the radiologist from dictating before all of the images are available. However, for customers who routinely use Linked Reporting for multiple x-ray exams performed at the same time by the same technologist, this can cause workflow problems for linked reporting if the technologist forgets to complete one of the studies. In these environments, it is also desirable for certain information, such as primary technologist, technologist notes, and pregnancy status, to automatically copy to all of the studies that are part of the linked set.

For these purposes, the following System Configuration options are now available:

- *AutoIncludeLinkedStudiesForTech* – When set to True, RIS will automatically “include” all studies in a linked collection when the perform exam window is opened. This allows the technologist to Start and Complete all of the exams together. The default for this setting is False. In a future build, RIS will exclude studies in the linked collection if they have a different Modality Type. For this first phase, this behavior will apply to all studies in the linked collection **regardless** of Modality Type.
- *AutoCopyPasteLinkedStudies* – When set to True, RIS will automatically copy/paste all available fields from the most recently saved exam to all other checked exams in the linked collection. The Copy/Paste will occur any time a user saves any of the studies in the linked set from the Perform Exam screen. The default for this setting is False. To use this setting, the first setting, *AutoIncludeLinkedStudiesForTech*, must also be set to True.

Setting both of the above System Configuration settings to True will make the following workflow possible:

The technologist can open a study from the Technologist worklist and other studies that are part of the linked set will automatically be Included.

Include	Flags	Status	Procedures	S
<input type="checkbox"/>		Arrived	MA DIGITAL MAMMO CB DIAG BIL & US BREAST [G0204...	0
<input checked="" type="checkbox"/>		Arrived	CT Chest W & Abdomen W/Wo [CT42] - Chest	0
<input checked="" type="checkbox"/>		Arrived	CT Chest W [71260] - Chest	0

The technologist can fill in any fields that are required upon Start (e.g. entering the Primary Technologist). Clicking Start will copy the information to all of the checked studies and all of the studies will move to Started status.

<input checked="" type="checkbox"/>			Started	KR TIBIA FIBULA 2 VIEWS [73590] - Leg
<input checked="" type="checkbox"/>			Started	KR KNEE 1-2 VIEWS, UNILAT [73560] - K
<input checked="" type="checkbox"/>			Started	KR FEMUR 2 VIEWS [73550] - Leg

Additional information can be added on the Documentation tab and upon the next action which includes a save, such as Complete, Suspend or Save, the fields will copy to all of the included exams that are part of the linked set.

Fields that will be copied include: Tech Notes, Signs & Symptoms, Primary Tech, Assisting Tech 1, Assisting Tech 2, Shielded Patient, Pregnancy Status information, Technologist Verified ID, Assigned Radiologist, and Performing Radiologist. These are the same fields that are available for manual (optional) copy/paste workflow, which is still available for customers who would not benefit from this new feature.

Please note that when the new feature is used, it is not possible to handle any of the linked studies separately. In other words, they cannot be de-selected from the Include workflow if they are part of the linked set.

## RADIOLOGIST

### FEATURE #15107 – DECREASED LIKELIHOOD THAT A RADIOLOGIST COULD SELF-REVIEW A LEGACY STUDY

Typically, imported legacy studies do not contain a User ID for dictating, signing, or contributing radiologists. This can cause an issue for Peer Review because RIS does not identify that Sue Smith without a User ID is actually the same person as Sue Smith with User ID smiths. This lack of recognition means that eRAD RIS would allow the radiologist to review their own legacy study, which is not appropriate.

To decrease the likelihood of this issue for legacy reports, new logic has been added that will evaluate the first and last names of the involved radiologists when there is no User ID available for comparison.

If the name of any radiologist for the legacy study contains both the first and last name of the current user, eRAD RIS will disable Peer Review. While this can lead to some amount of false positives or negatives, it will greatly reduce the risk of a radiologist doing peer review inappropriately.

Data migrations typically insert the full name of the radiologist into the applicable fields without any manipulation of that name (e.g. attempts to parse out what is first or last name or suffix, etc.). Therefore, the names can be found in any order when evaluating for a match. If a radiologist name was imported as Dr. Kate Ellington or Ellington, Kate, M.D. or Kate Ann Ellington, the match will still be made because each contains the current user's first name (Kate) and last name (Ellington) somewhere in the field.

As mentioned above, it is possible to have false negatives and false positives with this strategy. For example, if Kate Ellington and Katerina Ellington are two different doctors, Kate will be prevented from peer reviewing Katerina's legacy studies because the name Katerina contains the name Kate. This would be a false positive. If Sheila Warring was listed in the legacy system with her maiden name Sheila Thomas, eRAD RIS would not catch the match, which would lead to a false negative and Dr. Sheila would be permitted to review her own legacy report.

Despite the potential for some amount of discrepancy, this change will drastically reduce the potential for an inappropriate Peer Review. If it is identified that a mismatch is occurring (either a false negative or false positive) for a particular radiologist, this can be addressed by running a script to add the current user's User ID to the legacy studies.

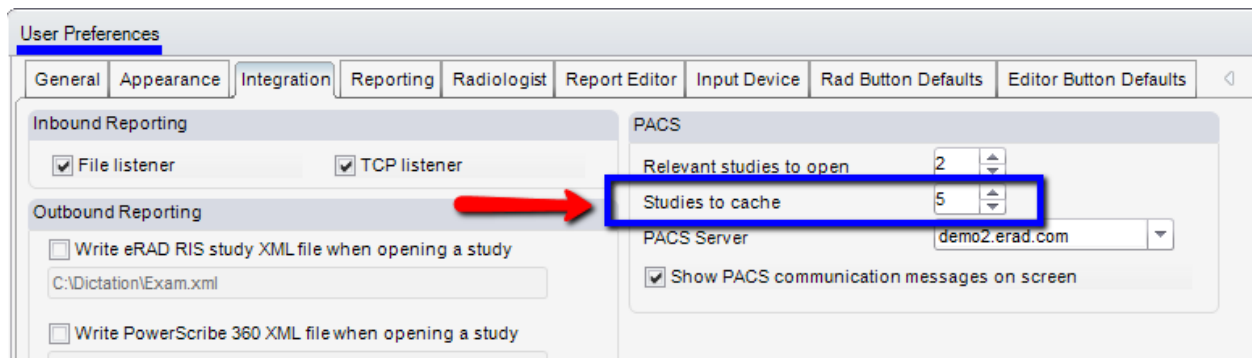
## FEATURE #15330 – IMPROVEMENTS TO MANUAL CACHING AND CACHING WORKLIST VIEWS

Three important changes related to the caching of PACS images on the Pending Dictation worklist have been added with this feature.

1. Improvements have been made to selecting studies for manual caching.
2. It is now possible to toggle automatic caching on and off.
3. Custom views on Worklists can be created with a setting to either include or exclude caching.

Previously, when studies were selected for manual caching, the manual request would override the studies that were supposed to automatically cache. Now, the manual cache requests will be added *in addition* to the automatic PACS requests.

Some new settings are also in place for the number of studies that can be manually cached. The user will be allowed to manually cache the same number of studies as their user preference for automatic study caching.



In other words, if the user preference is configured to allow 5 studies to be automatically cached, as illustrated in the above screenshot, the user will be able to add an additional 5 studies manually to the cache list for a maximum total of 10 cached studies.

If the user selects more than their allowed number of studies for manual caching, the newest requests will be cached and will bump the oldest manual requests off the list of studies to cache, so that the number of manual studies to be cached is not higher than their limit. Depending on the timing, the oldest manual requests may have already finished caching.

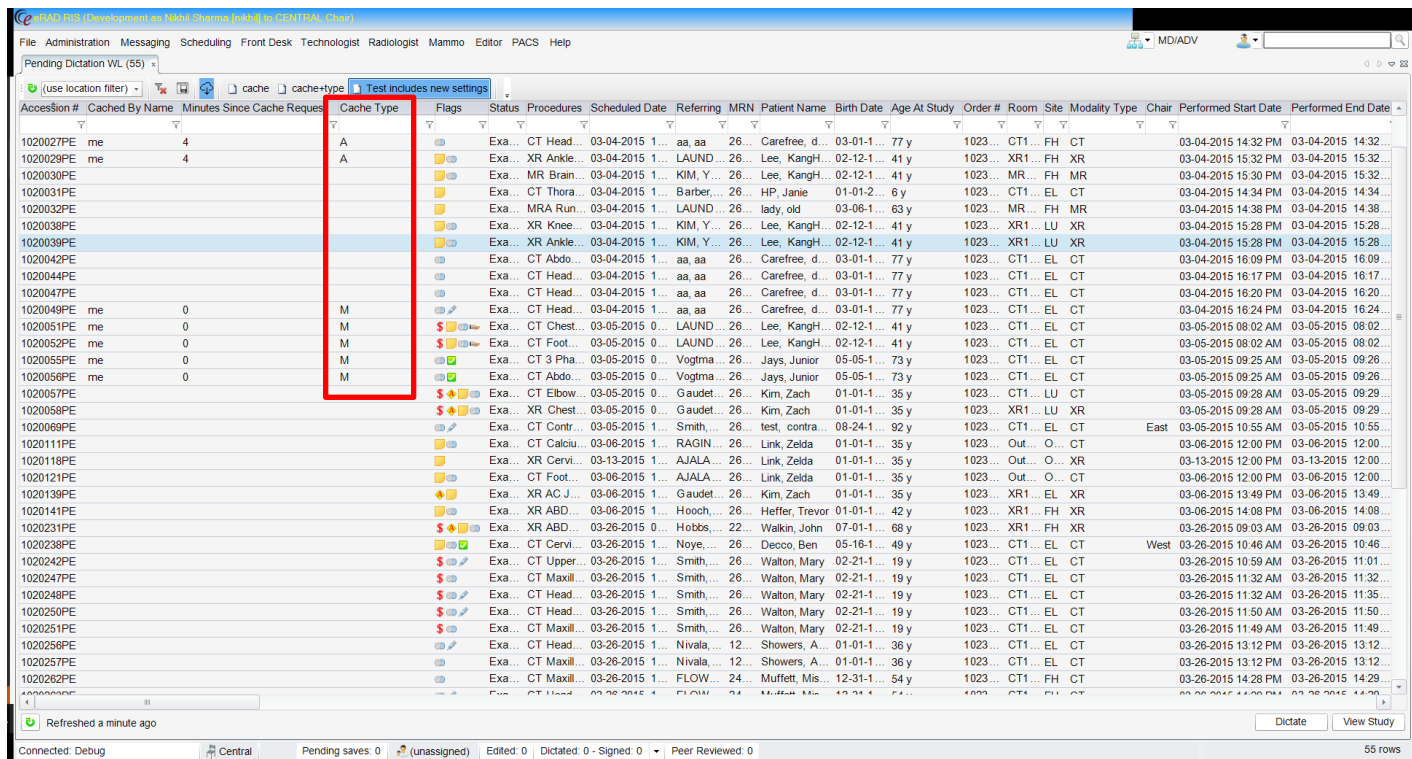
For example, consider the following scenario:

- Dr. Ko has a user preference for Studies to Cache = 5.
- She opens the Pending Dictation WL and the first 5 studies begin to cache automatically.
- She selects 5 additional studies to manually cache, using the existing context menu item “Add to PACS Cache.”

- After some time elapses, Dr. Ko selects 2 additional studies for manual caching. She has now exceeded her allowed number of studies to manually cache. The two oldest manual cache requests will be cleared, though in this example, they have already finished caching.
  - ~~Manual Cache #1~~ - Complete
  - ~~Manual Cache #2~~ - Complete
  - Manual Cache #3 - Complete
  - Manual Cache #4
  - Manual Cache #5
  - Manual Cache #6
  - Manual Cache #7

When the user selects more than their allowed number of studies, a notification will inform the radiologist that the list has been modified and the studies that were added. The notification style message does not need to be acknowledged by the user.

A new column has been added to display which studies have been selected for caching, with an A to indicate Automatic Caching and an M to indicate Manual Cache requests.



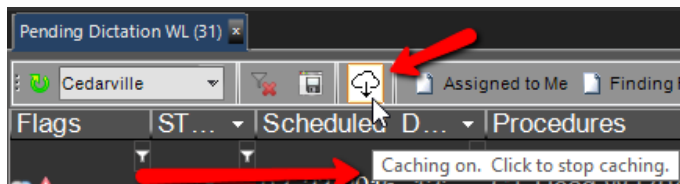
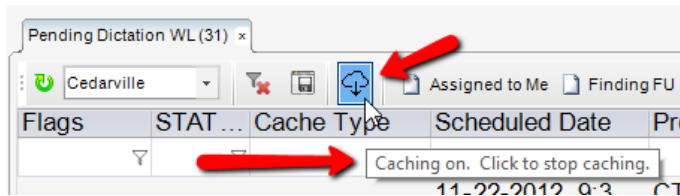
Accession #	Cached By Name	Minutes Since Cache Request	Cache Type	Flags	Status	Procedures	Scheduled Date	Referring	MRN	Patient Name	Birth Date	Age At Study	Order #	Room	Site	Modality Type	Chair	Performed Start Date	Performed End Date
1020027PE	me	4	A			Exa... CT Head...	03-04-2015 1...	aa, aa	26...	Carefree, d...	03-01-1...	77 y	1023...	CT1...	FH	CT		03-04-2015 14:32 PM	03-04-2015 14:32
1020029PE	me	4	A			Exa... XR Ankle...	03-04-2015 1...	LAUND...	26...	Lee, KangH...	02-12-1...	41 y	1023...	XR1...	FH	XR		03-04-2015 15:32 PM	03-04-2015 15:32
1020030PE						Exa... MR Brain...	03-04-2015 1...	KIM, Y...	26...	Lee, KangH...	02-12-1...	41 y	1023...	MR...	FH	MR		03-04-2015 15:30 PM	03-04-2015 15:32
1020031PE						Exa... CT Thora...	03-04-2015 1...	Barber...	26...	HP, Janie	01-01-2...	6 y	1023...	CT1...	EL	CT		03-04-2015 14:34 PM	03-04-2015 14:34
1020032PE						Exa... MRA Run...	03-04-2015 1...	LAUND...	26...	lady, old	03-06-1...	63 y	1023...	MR...	FH	MR		03-04-2015 14:38 PM	03-04-2015 14:38
1020038PE						Exa... XR Knee...	03-04-2015 1...	KIM, Y...	26...	Lee, KangH...	02-12-1...	41 y	1023...	XR1...	LU	XR		03-04-2015 15:28 PM	03-04-2015 15:28
1020039PE						Exa... XR Ankle...	03-04-2015 1...	KIM, Y...	26...	Lee, KangH...	02-12-1...	41 y	1023...	XR1...	LU	XR		03-04-2015 15:28 PM	03-04-2015 15:28
1020042PE						Exa... CT Abdo...	03-04-2015 1...	aa, aa	26...	Carefree, d...	03-01-1...	77 y	1023...	CT1...	EL	CT		03-04-2015 16:09 PM	03-04-2015 16:09
1020044PE						Exa... CT Head...	03-04-2015 1...	aa, aa	26...	Carefree, d...	03-01-1...	77 y	1023...	CT1...	EL	CT		03-04-2015 16:17 PM	03-04-2015 16:17
1020047PE						Exa... CT Head...	03-04-2015 1...	aa, aa	26...	Carefree, d...	03-01-1...	77 y	1023...	CT1...	EL	CT		03-04-2015 16:20 PM	03-04-2015 16:20
1020049PE	me	0	M			Exa... CT Head...	03-04-2015 1...	aa, aa	26...	Carefree, d...	03-01-1...	77 y	1023...	CT1...	EL	CT		03-04-2015 16:24 PM	03-04-2015 16:24
1020051PE	me	0	M			Exa... CT Chest...	03-05-2015 0...	LAUND...	26...	Lee, KangH...	02-12-1...	41 y	1023...	CT1...	EL	CT		03-05-2015 08:02 AM	03-05-2015 08:02
1020052PE	me	0	M			Exa... CT Foot...	03-05-2015 0...	LAUND...	26...	Lee, KangH...	02-12-1...	41 y	1023...	CT1...	EL	CT		03-05-2015 08:02 AM	03-05-2015 08:02
1020055PE	me	0	M			Exa... CT 3 Pha...	03-05-2015 0...	Vogtma...	26...	Jays, Junior	05-05-1...	73 y	1023...	CT1...	EL	CT		03-05-2015 09:25 AM	03-05-2015 09:26
1020056PE	me	0	M			Exa... CT Abdo...	03-05-2015 0...	Vogtma...	26...	Jays, Junior	05-05-1...	73 y	1023...	CT1...	EL	CT		03-05-2015 09:25 AM	03-05-2015 09:26
1020057PE						Exa... CT Elbow...	03-05-2015 0...	Gaudet...	26...	Kim, Zach	01-01-1...	35 y	1023...	CT1...	LU	CT		03-05-2015 09:28 AM	03-05-2015 09:29
1020058PE						Exa... XR Chest...	03-05-2015 0...	Gaudet...	26...	Kim, Zach	01-01-1...	35 y	1023...	XR1...	LU	XR		03-05-2015 09:28 AM	03-05-2015 09:29
1020069PE						Exa... CT Contr...	03-05-2015 1...	Smith...	26...	test, contra	08-24-1...	92 y	1023...	CT1...	EL	CT	East	03-05-2015 10:55 AM	03-05-2015 10:55
1020111PE						Exa... CT Calcii...	03-06-2015 1...	RAGIN...	26...	Link, Zelda	01-01-1...	35 y	1023...	Out...	O...	CT		03-06-2015 12:00 PM	03-06-2015 12:00
1020118PE						Exa... XR Cervi...	03-13-2015 1...	AJALA...	26...	Link, Zelda	01-01-1...	35 y	1023...	Out...	O...	XR		03-13-2015 12:00 PM	03-13-2015 12:00
1020121PE						Exa... CT Foot...	03-06-2015 1...	AJALA...	26...	Link, Zelda	01-01-1...	35 y	1023...	Out...	O...	CT		03-06-2015 12:00 PM	03-06-2015 12:00
1020139PE						Exa... XR AC J...	03-06-2015 1...	Gaudet...	26...	Kim, Zach	01-01-1...	35 y	1023...	XR1...	EL	XR		03-06-2015 13:49 PM	03-06-2015 13:49
1020141PE						Exa... XR ABD...	03-06-2015 1...	Hooch...	26...	Heffer, Trevor	01-01-1...	42 y	1023...	XR1...	FH	XR		03-06-2015 14:08 PM	03-06-2015 14:08
1020231PE						Exa... XR ABD...	03-26-2015 0...	Hobbs...	22...	Walkin, John	07-01-1...	68 y	1023...	XR1...	FH	XR		03-26-2015 09:03 AM	03-26-2015 09:03
1020238PE						Exa... CT Cervi...	03-26-2015 1...	Noye...	26...	Decco, Ben	05-16-1...	49 y	1023...	CT1...	EL	CT	West	03-26-2015 10:46 AM	03-26-2015 10:46
1020242PE						Exa... CT Upper...	03-26-2015 1...	Smith...	26...	Walton, Mary	02-21-1...	19 y	1023...	CT1...	EL	CT		03-26-2015 10:59 AM	03-26-2015 11:01
1020247PE						Exa... CT Maxill...	03-26-2015 1...	Smith...	26...	Walton, Mary	02-21-1...	19 y	1023...	CT1...	EL	CT		03-26-2015 11:32 AM	03-26-2015 11:32
1020248PE						Exa... CT Maxill...	03-26-2015 1...	Smith...	26...	Walton, Mary	02-21-1...	19 y	1023...	CT1...	EL	CT		03-26-2015 11:32 AM	03-26-2015 11:35
1020250PE						Exa... CT Head...	03-26-2015 1...	Smith...	26...	Walton, Mary	02-21-1...	19 y	1023...	CT1...	EL	CT		03-26-2015 11:50 AM	03-26-2015 11:50
1020251PE						Exa... CT Head...	03-26-2015 1...	Smith...	26...	Walton, Mary	02-21-1...	19 y	1023...	CT1...	EL	CT		03-26-2015 11:49 AM	03-26-2015 11:49
1020256PE						Exa... CT Head...	03-26-2015 1...	Nivala...	12...	Showers, A...	01-01-1...	36 y	1023...	CT1...	EL	CT		03-26-2015 13:12 PM	03-26-2015 13:12
1020257PE						Exa... CT Maxill...	03-26-2015 1...	Nivala...	12...	Showers, A...	01-01-1...	36 y	1023...	CT1...	EL	CT		03-26-2015 13:12 PM	03-26-2015 13:12
1020262PE						Exa... CT Maxill...	03-26-2015 1...	FLOW...	24...	Muffett, Mis...	12-31-1...	54 y	1023...	CT1...	FH	CT		03-26-2015 14:26 PM	03-26-2015 14:29

The user can remove a cache request by right-clicking the study and choosing the context menu option “Remove from Cache.”

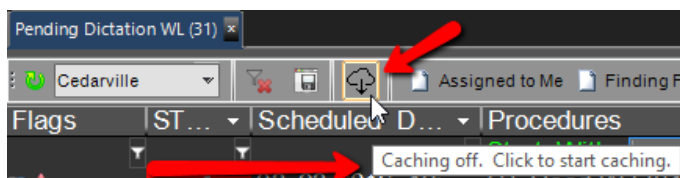
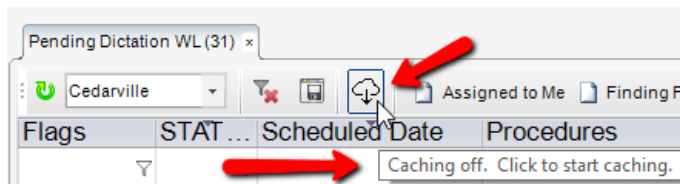
The next important part of this feature is the ability to turn caching on or off using a new Caching button. This button can be toggled on or off at the user’s discretion. The background color of the button will change when

caching is turned on. Additionally, there is a tooltip that will describe the current setting. The images below illustrate the button in Caching On and Caching Off states, for light and dark modes.

#### Caching On:



#### Caching Off:



This toggle button will turn off **automatic** caching; however, the user is still able to add Manual Cache requests by right-clicking a study and selecting the “Add to PACS cache” context menu item.

Note that this Caching toggle button will not be available if the User Preference for Studies to Cache is set to 0. Users with this setting will also not have the option to manually add to cache. Therefore, if the user prefers not to use Automatic Caching but would like to manually cache, they should set the Studies to Cache preference to be greater than 0, then toggle off the Cache button. This will allow the user to select studies to manually cache without any automatic caching.

Another advantage to the new caching feature is that the Custom Views on worklists will now save the status of the Caching toggle button. This allows users to determine whether caching is used or not for a particular list. As a simple example, a user can have a main Custom View with automatic caching turned on and a secondary Custom View with caching turned off. In this case, the user can periodically switch from their main Custom View to check



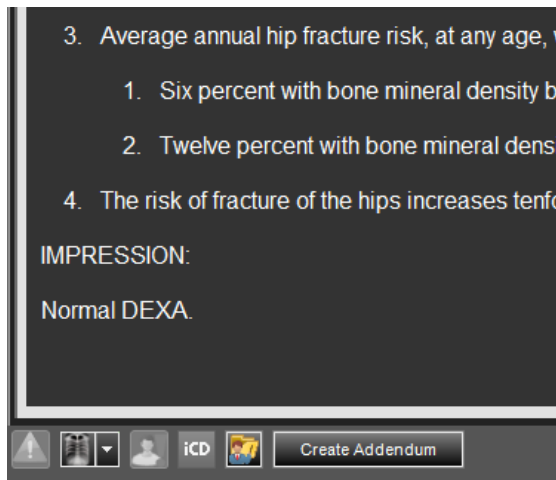
the secondary Custom View without any changes to their list of studies to cache. The studies from the main Custom View will continue caching while the user is on the secondary view.

Any Custom Views that were saved prior to the upgrade will automatically include a Caching On status, assuming the user has more than 0 studies configured to cache. To adjust, the user can turn the toggle to the OFF status, right-click the Custom View button, then select Overwrite. This will update the Custom View so that caching will be turned off.

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## FEATURE #15696 – CREATE AN ADDENDUM FROM THE VIEW STUDY SCREEN

The recently added **View Study** screen replicates the radiologist dictation screen in a “view only” mode. One of the advantages of this screen is that it allows radiologists to view Signed studies without initiating an addendum. However, there are times when a radiologist may find it necessary to complete an addendum when viewing studies in this mode. Closing the View Study screen and re-opening in Dictate mode is not efficient, so a **Create Addendum** button has been added to the View Study screen.



The Create Addendum button is in the bottom left corner of the screen, next to the Folders button. Clicking this button will automatically reload the screen in addendum mode and will **not** show the prompt asking if the radiologist wishes to make an addendum.

If an addendum has been requested for the study, the Addendum Request notes will be displayed in a pop-up message.

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## FEATURE #10975 – ACCURATE AUDIO LENGTH IN WORKLIST COLUMNS

In some cases, previous audio length columns on various worklists did not precisely reflect the length of the dictation recording.

In order to correct this issue, a property was created for all recording systems: M\*Modal Interactive, M\*Modal Batch and eRAD Batch. This property will return the actual length of the audio file as recognized by the recording system. The value will update each time a radiologist inserts or otherwise updates the audio recording. The value is then converted from milliseconds to a display format of hh:mm:ss.

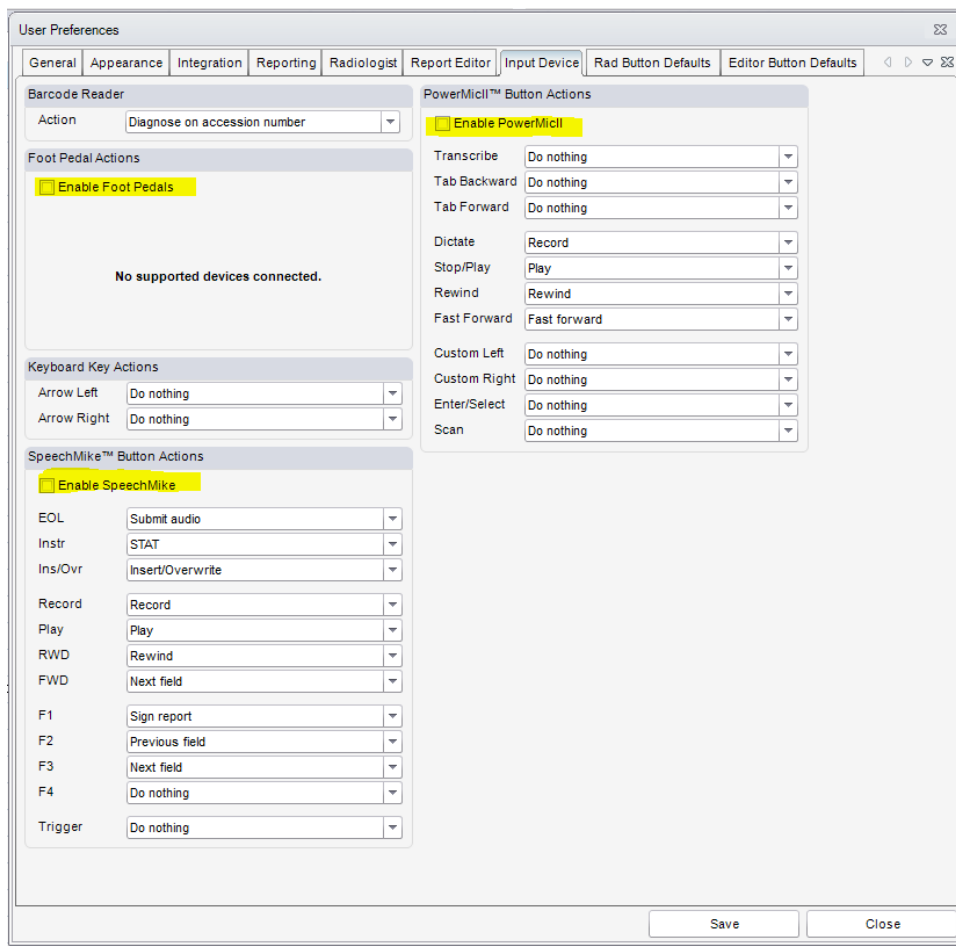
Audio Size (bytes)	Audio Length
933122	00:00:42
483822	00:00:21
452940	00:01:59

All worklists that previously displayed audio length in *bytes* have been updated to show both the Audio Size in bytes as well as the Audio Length in a format of hh:mm:ss.

Only audio files that are dictated after the upgrade to version 2.2017.3 will be shown in the new format. Dictations recorded prior to the upgrade will be displayed in their original format.

## FEATURE #17458 – USER PREFERENCES TO DISABLE INPUT DEVICES

User preferences were added to allow disabling the Input Devices. The checkboxes illustrated below on the Input Device tab of the User Preferences screen control whether the device is enabled or disabled.



The screenshot shows the 'User Preferences' dialog box with the 'Input Device' tab selected. The dialog is divided into several sections:

- Barcode Reader:** Action: Diagnose on accession number.
- Foot Pedal Actions:** Contains a checkbox labeled 'Enable Foot Pedals' (highlighted in yellow) and a message 'No supported devices connected.'
- Keyboard Key Actions:** Arrow Left: Do nothing; Arrow Right: Do nothing.
- SpeechMike™ Button Actions:** Contains a checkbox labeled 'Enable SpeechMike' (highlighted in yellow) and a list of buttons with their corresponding actions:
 

Button	Action
EOL	Submit audio
Instr	STAT
Ins/Ovr	Insert/Overwrite
Record	Record
Play	Play
RWD	Rewind
FWD	Next field
F1	Sign report
F2	Previous field
F3	Next field
F4	Do nothing
Trigger	Do nothing
- PowerMic™ Button Actions:** Contains a checkbox labeled 'Enable PowerMic' (highlighted in yellow) and a list of buttons with their corresponding actions:
 

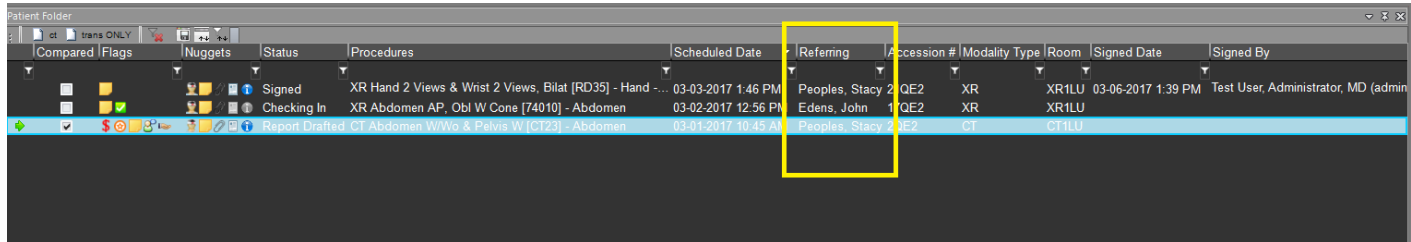
Button	Action
Transcribe	Do nothing
Tab Backward	Do nothing
Tab Forward	Do nothing
Dictate	Record
Stop/Play	Play
Rewind	Rewind
Fast Forward	Fast forward
Custom Left	Do nothing
Custom Right	Do nothing
Enter/Select	Do nothing
Scan	Do nothing

At the bottom of the dialog are 'Save' and 'Close' buttons.

Note: “Enable Foot Pedals” and “Enable SpeechMike” are essentially the same. They will stay in sync and control what is essentially one user preference. However these were created as separate preferences because if the user is not a radiologist, they will not have access to the SpeechMike group box. Separating the preferences in this way will ensure that users are able to see and set the preference regardless of their exact role.

## FEATURE #15643 – REFERRING COLUMN ADDED TO MINI-PATIENT FOLDER ON REPORTING SCREEN

The referring physician is now visible in the mini-Patient Folder panel on the Reporting screen with the addition of a Referring column. This will benefit radiologists who wish to see which doctor referred prior studies without having to look at the Selected Summary panel for each study.

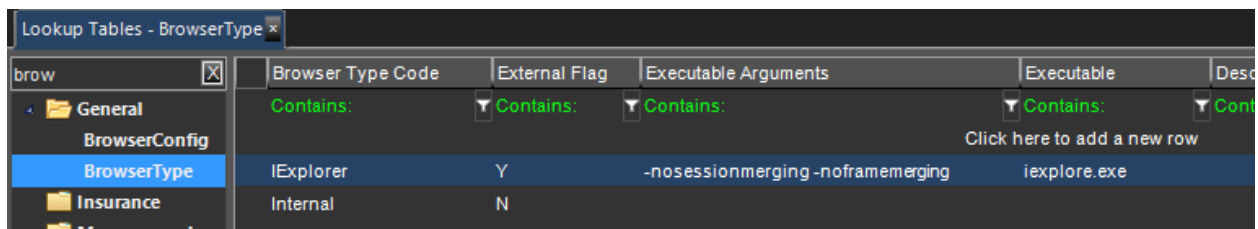


Compared	Flags	Nuggets	Status	Procedures	Scheduled Date	Referring	Accession #	Modality Type	Room	Signed Date	Signed By
			Signed	XR Hand 2 Views & Wrist 2 Views, Bilat [RD35] - Hand	03-03-2017 1:46 PM	Peoples, Stacy	QE2	XR	XR1LU	03-06-2017 1:39 PM	Test User, Administrator, MD (admin)
			Checking In	XR Abdomen AP, Obl W Cone [74010] - Abdomen	03-02-2017 12:56 PM	Edens, John	QE2	XR	XR1LU		
			Report Drafted	CT Abdomen W/Wo & Pelvis W [C723] - Abdomen	03-01-2017 10:45 AM	Peoples, Stacy	QE2	CT	CT1LU		

## FEATURE #15812 - ALLOW RADIOLOGIST PORTAL FEATURE TO LAUNCH URLS IN EXTERNAL BROWSERS (SUPPORT GE ZFP USING THE PORTAL SCREEN)

Previously, the Portal panel that appears on the radiologist Dictation screen only used the internal .net WebBrowser object for opening pages. This does not support all of the websites customers wish to open using the Portals feature. For example, certain websites, such as the GE Zero Footprint Viewer, require a full Internet Explorer 11 or a modern browser like Firefox or Chrome. eRAD RIS can now support launching and closing pages in external web browsers for the Portal feature.

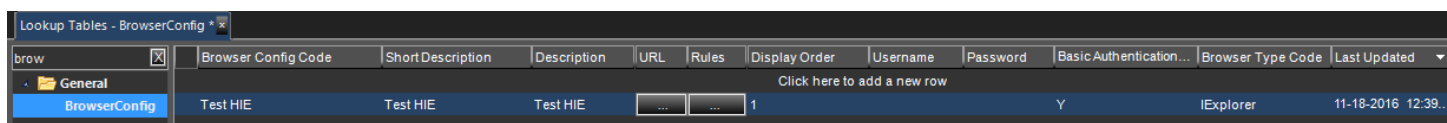
First, an administrator can add browser types to a new look-up editor labeled *Browser Type*. There are two default entries in the browser type table. One is for the Internal browser, which is the same method previously used to display Portals in the panel within the Dictation screen. The second is Internet Explorer, launched in unshared frame and session modes. Additional browsers can be added. The *External* flag should be Y if the browser is not the default internal browser.



Browser Type Code	External Flag	Executable Arguments	Executable	Description
IExplorer	Y	-nosessionmerging -noframemerging	iexplore.exe	
Internal	N			

In order for an administrator to access the Browser Type lookup editor, the new access string *Config.LookupEditor.BrowserType* must be set to Full.

The existing *Browser Config* editor has been updated to allow any of the Browser Types to be selected from a dropdown menu.



Browser Config Code	Short Description	Description	URL	Rules	Display Order	Username	Password	Basic Authentication	Browser Type Code	Last Updated
Test HIE	Test HIE	Test HIE			1			Y	IExplorer	11-18-2016 12:39:00

For each URL defined in the Browser Config editor, the corresponding Browser Type will be used when the portal is opened.

Whenever the Browser Type for a Portal's URL is an External browser, the Portal tab in the Dictation screen will begin with an [EXT] label. Clicking on the panel will simply provide the user with a message that the page for the portal has been opened in an external browser. Additionally, when the tab is clicked, RIS will attempt to move the related browser to the front of all windows.

It should be noted that an administrator will need to configure the browser of choice to run in single window/session per URL mode in order for the “bring to front” functionality to apply. It will not work with shared sessions or windows.

## RESOLVED DEFECTS

Bugs and support issues resolved in build 2.2017.3.

### eRAD RIS:

Bug #	Category	Subject
14218		Resolved issue where configuration Editor did not properly handle null values.
15460		Resolved issue where a RIS failure on exit would prevent the uploading of trace data.
7459		Updated log control's border to more closely match other RIS controls.
15855	Access strings	Added access string for CTRN (Clinical.Ctrn).
15481	Admin-Clinical Data	Procedure Picker Import tool now correctly selects only active items.
15309	Admin-Other	Resolved small memory leak in reporting options editor.
2151	Admin-Other	Updated many audit log "action" values to be more descriptive.
6840	Admin-Other	Improved error handling when a holiday was entered without specifying a practice.
7594	Admin-Other	Internal person search now correctly bolds the first resource type for the person.
7965	Admin-Other	Add/Edit practice - Delete Logo button is now only enabled when there is a logo to delete.
8181	Admin-Other	Resolved issue for which doing a person search, receiving no results, then pressing enter would display an error.
12944	Admin-Other	In organization editor, the map will now display the location of the site without needing to first click on the map.
15550	Admin-Other	Updated procedure plan lookup to allow apostrophes in any of the fields.
13554	Billing	Resolved billing exception issue where patient phone # was required, and the user had to post twice to get it to resolve.
16497	CCDA	All administered medications are now added to CCDA.
11157	CD Import	Import CD - If the study fails to import because the study was already in PACS, RIS no longer creates a blank row in the patient folder.
14321	CD Import	Loading from CD progress bar is no longer cut off in Windows 10.



16348	CD Import	Upgraded to the latest fo-dicom toolkit (used for CD Import).
15742	CEHRT	Get automated measures report now returning patient portal(vdt) numerator.
16285	CEHRT	Fixed incorrect tool tip for sexual orientation field.
16751	CEHRT	Added appropriate SNOMED codes to the l_gender_identity and l_sexual_orientation lookups using the 2015 US SNOMED codes.
15546	Citrix Bridge	LOG FILE reader- Resolved issue when using Citrix bridge where log file reader would continually add the same information including the same time when refreshed.
15731	Citrix Bridge	Citrix Bridge - Uninstaller now removes reference to VcCom API.
16770	Citrix Bridge	Resolved error when launching Citrix Bridge.exe.
15727	Citrix Bridge	Citrix Bridge - Updated the manufacturer code to 'eRAD.'
15730	Citrix Bridge	Citrix Bridge - Changed the default icon so that it can be placed on the desktop and not confused with eRAD RIS.
15841	Citrix Bridge	Citrix only - Issue corrected where PACS Login window could appear behind RIS.
16160	Client Install	Help - About screen is now showing the correct CORE UI version.
16314	Client Login	User_ID can now exceed 20 characters.
14815	Connect Portal - Referring Ordering/Scheduling	Added ability to view the order details from an Order that is Pending Approval or Order Drafted in the patient folder.
15552	CTRM	Resolved issue where CTRM dialog would remain open when PowerScribe 360 issued a close command to RIS.
13490	CTRM	Corrected issue where close button on Critical Result window would not work.
15077	Digital Forms	Resolved issue where cancelling an exam with the Red X would not remove the associated digital form.
15538	Digital Forms	Resolved issue where digital form data was not saving if preceded by validation failure.
15983	Digital Forms	Corrected condition where digital forms could silently fail to save data.
16336	Digital Forms	Digital Forms Import/Export tool now copies new grid tables.
16725	Document Distribution	Resolved intermittent error when trying to Start / Retry job in Distribution History by Date WL.
16120	Exam Search	Resolved intermittent "DoSearch" error in the Exam search screen.

14338	Exam Search	Exam search screen has dropdowns for multiple 'id' fields - these fields would sometimes have what appeared to be identical values.
15468	Flags	Resolved intermittent issue where eligibility flag tooltip was stuck in "In Progress."
15879	ICD	Resolved issue where ICD codes could vanish from Medical History Grid when pressing Start on Perform Exam screen.
15804	Image Request	Resolved issue where changing the image request status for studies in Exam Done status produced an error that 'Signs and Symptoms' is required.
15208	Inbound Document Processing	Attach Inbound Document "Your lock was broken by another user" message will now only appear when the user is focused on the Attach Inbound Document window.
16040	Inbound Document Processing	Resolved issue where selecting an action button when a locked row was highlighted would throw a 'no row at position 0' error.
16406	Inbound Document Processing	Inbound Document workflow now supports both .TIF and .TIFF files.
15488	Installer	Prevented situation where the installer can be invoked more than once, which will intermittently produce a corrupt zip file error message.
13940	Insurance Eligibility	Improved error handling on misconfigured EligibilitySpecialCondition values.
7468	Insurance Eligibility	Eligible API checked studies are now not appearing on the IVT work list.
8616	Insurance Eligibility	Plan end date: date of service now includes that day.
16602	IVT / Precert	IVT - Corrected error when opening an item 'Ordered' status.
15409	Localization	Localized the Critical Results screen.
15325	Localization	Updated customer requested changes to Hebrew localization.
15383	Localization	Localized several missed fields in the dictation window.
10321	Localization	In Hebrew, add/edit region dialog box says Add/Edit Site in the title bar.
12520	Localization	Corrected issue in Right to Left mode, in the drawing tool - the yellow X icon did not have padding between it and the radio button.
14538	Localization	In the Hebrew RIS, DOB is now localized.
16778	Localization	In Hebrew, the localization of Height and Weight have been corrected.
16167	Locking	Creating a Critical Result will no longer lock the entire order.

16106	Log Control	Log Control with spellcheck enabled will no longer identify the user_id as a typo.
16481	Log Control	Resolved issue where typing beyond visible boundaries in a text box would cause the cursor to disappear.
15853	Logging	Corrected issue where trace files appeared on c:\ instead of their proper location.
15959	Lookup Tables	Corrected issue where System Config value 'UMPDefaultOrderTabCriteria' would not save.
8569	Mammography	Mammo drawing tool - Breast diagram does not change between male and female templates if the sex is altered after the drawing tool is initially opened.
14518	Management Reports	Payments Received report now works with site codes containing a dash '-'.
15294	Management Reports	Updated Mammo Annual Radiologist Summary to support future years.
15808	Management Reports	Removed an old MU Archive Reports from core folder.
15811	Management Reports	Management Report "Front Desk Activity" is corrected to only show data on selected dates.
16270	Management Reports	Management Report "Front Desk Detailed Activity by Hour" now includes all appropriate users in the user dropdown list.
16487	Management Reports	Management Report "Scheduler Activity" - Now correctly grouping on the user, not the scheduler.
15252	Mgt Reports	Improved performance of c_GetRadStatsForTodayByUserID used by management reports.
16169	Mgt Reports	Service: SSRS deployment is now uploading Verbal Order forms to the reporting server.
16409	M*Modal	Corrected "object reference error" after importing and saving an M*Modal template.
16652	MRN	Issue resolved where system could generate a 'Duplicate key row exception' when adding secondary issuer required by new validation rule.
16428	Ordering	EMR orders that are not matched to a RIS procedure code will now not allow the print dialog to appear (which was producing an error).
16968	Ordering	Corrected inadvertent change of 'Reason for exam' control to be a log control when upgrading to 2016.7 or newer.
15254	PACS (eRAD) Int - RIS only	Resolved intermittent issue where manager class could wait indefinitely.
7032	PACS (eRAD) Int - RIS only	Corrected issue where prefetch would not work if the user did not have a user preference set for

		'MaxRelevantPriors.'
7947	PACS (eRAD) Integration	Resolved issue where closing a caching worklist could throw a null reference exception.
15365/15367/15368	PACS (eRAD) Integration	Resolved an event viewer log error when RIS was unable to find PACS window.
15452	PACS (eRAD) Integration	Resolved intermittent issue where a user may be prompted for PACS login credentials even after disabling PACS integration.
15821	PACS (eRAD) Integration	Resolved a rare 'row has been removed' error.
17337	PACS (eRAD) Integration	Resolved issue where a user could not cache studies if another user cached the studies at the top of the worklist.
15558	PACS (Non - eRAD) Integration	Enabled the InfinitConfig.xml to be read when test mode is set to true.
16757	PACS (Non - eRAD) Integration	CSH PACS - Resolved issue where a 'close session' was not being sent.
16758	PACS (Non - eRAD) Integration	CSH PACS - Resolved issue where incorrect message was sent to PACS to open a 2nd study for same patient.
13880	PACS Citrix Bridge	Citrix - Resolved issue when using RIS over Citrix and working with multiple studies in the dictation window. Images can no longer get out of sync.
15960	Patient Folder	Resolved issue where County name would not persist under specific circumstances.
13928	Patient Folder	Resolved issue where 'Patient Race Required' would still be displayed, even when a race was entered.
15976	Patient Merge	Corrected issue where after an external patient was matched to an internal patient, the merge dataset was not properly populated in the external message container.
6984	Patient Search	Removed the "New Patient/New Appointment" from the patient search split button as it's already on the main button.
16642	Peer Review	Added PeerReview layout to default install.
16520	Peer Review	Changed the All Peer Review Pending Action WL to display 'Interpretation Type.'
16525	Peer Review	When using skip (next ) workflow, the RIS now skips over studies that are currently open in review window.
16526	Peer Review	Peer Review - Corrected issue where the user was able to view the preliminary report even when they did not have permission to do so.
14355	Performance	Improved performance of exam search screen when searching by ID fields.
13835	PowerScribe Integration	Resolved issue where RIS reporting screen would remain open if PowerScribe is opened then quickly

		closed.
16197	PowerScribe Integration	Resolved issue where the View Study window was opened on a study that was signed in PS360 after initial RIS login, PS360 was not automatically launched.
13975	RADAR	WedgePlugin for RADAR now passes the display name for the "from" email address.
16110	RADAR	Resolved RADAR API exception which prevented a reschedule/cancel appointment.
16345	RADAR	RIS now prevents email message requests without a practice code from being added to the RADAR queue.
15210	RADAR - Nudge	Resolved an issue where the user could still preview the report via Nudge even if PreviewPreliminaryReport permission was set to None.
16189	RADAR - Secure PIC	RADAR Plugin - Added a configurable delay before attempting to reconnect if the connection was interrupted.
15217	Radiology Reporting	VR2 - Resolved issue where a new procedure code added by the inbound interface would cause the client to hang when opening via the XML file drop.
15525	Radiology Reporting	Configurable reporting options are now written into the verbose log file to assist with troubleshooting.
16080	Radiology Reporting	Resolved 3.5 minute timeout when a table is added to a report and print preview is used to view it.
16129	Radiology Reporting	Resolved an issue where audio files were not being deleted for editors.
6277	Radiology Reporting	RIS now prevents the creation of section titles with >1000 characters, which was causing document distribution to fail.
15981	Radiology Reporting	Removed user preference to reuse reporting screen since it is no longer required (re-use is always on).
16068	Radiology Reporting	Resolved issue where 'Dictated by' in the summary panel was not populated for reports initially created by a technologist.
16087	Radiology Reporting	RIS now hides the floating report history window if another patient record is opened.
16179	Radiology Reporting	Resolved error when technologist attempts to open a suspended study in View Study window.
16483	Radiology Reporting	Re-enabled the set/remove 'stat read' flag in the editor screen.
16513	Radiology Reporting	Resolved issue where original study was created in one reporting mode, then user switches to a different reporting mode and creates an addendum. The addendum can now be re-opened.

15840	Reception	Improved signature capture feature on MS-Surface device.
16761	Reception	Resolved issue where the 'Visited at:' required field could be bypassed.
16797	Reception	Resolved issue where after adding a scanned document to a Walk-in, user was sometimes required to re-enter the 'Special Accommodations' field.
15670	Scanning	Resolved intermittent issue where scanning in duplex mode sometimes flipped the second page of a license.
16768	Scanning	Resolved the error "A Lock Is required to update this order" when saving attachments in the Add Attachment screen.
16023	Scanning	Resolved issue where an order level scanned document would show only the 'move to order' context menu instead of 'move to patient level.'
16277	Scanning	Increased the size of attached date column in attachment list so date can always be seen.
14206	Scheduling	Resolved error when scheduling if the ProcedureGeneralDescription - Description column is empty.
15462	Scheduling	Resolved an error that could occur on the reschedule screen if a different order was selected.
15779	Scheduling	Resolved issue where Cancelled procedure (black X) was still evaluated for contrast required validation.
16458	Scheduling	Added appropriate error when attempting to overbook by a user who does not have the overbooking permission.
7175	Scheduling	Added 'reschedule' option on the context menu of a cancelled study.
7830	Scheduling	Modality Closure - Prevented the end time from being earlier than the start time.
11273	Scheduling	Resolved issue where height/weight were not required on reschedule.
16275	Scheduling	Scheduling calendar view now allows drag and drop of appointments, as was already possible in the main Appointment Book.
15327	Technologist	Resolved issue where the technologist could not delete an existing sedation.
15544	Technologist	Removed unnecessary message regarding external report workflow from the View/Edit window.
16608	Technologist	Resolved issue where a procedure that requires contrast is included in a procedure plan and the contrast amount was not populating on the Perform Exam screen.

12842	Technologist	Resolved issue where Verify Credentials feature could leave the wait cursor on the screen even though it was not waiting (spinning blue wheel).
16005	Technologist	Resolved issue where users with both Technologist and Editor resources could be assigned as the radiologist when creating a report from the Perform Exam window.
16159	Technologist	RIS now supports decimals in the contrast and sedation grids.
16614	Technologist	Resolved an error that could occur when discontinuing the primary study in a linked set when in Exam Done status.
15364	Thick Client GUI	Resolved an event viewer log error when an error occurred during a save.
15372	Thick Client GUI	Resolved an event viewer log error "Invalid cast of Appointment to AppointmentExtended."
15723	Thick Client GUI	Resolved issue where Addendum Request control in reporting screen was not reloading data after button was clicked.
16022	Thick Client GUI	Resolved a hidden memory leak in Reschedule Order screen.
16055	Thick Client GUI	If network or services are down, the client will no longer retry all collected service calls at once, which could flood the server.
16251	Thick Client GUI	Resolved issue where RIS lock screen could be invoked twice, requiring user to enter password two times.
1125	Thick Client GUI	Corrected tab order issue in schedule tab.
1352	Thick Client GUI	RIS now prevents duplicate holidays from being added to the same practice for the same day.
2529	Thick Client GUI	Made the description a required field when entering indication codes into the RIS admin screen.
3158	Thick Client GUI	Corrected issue where the laterality field was available for studies where it was not required when entering Outside Reads.
5444	Thick Client GUI	Resolved intermittent issue where null prep instructions could cause an error.
5482	Thick Client GUI	Differentiated between 'identically named' worklists in the 'Open on Login' dropdown.
5770	Thick Client GUI	Added a Cancel button to the 'Report on Accession Number' screen.
5946	Thick Client GUI	Added patient notes to Outside Read screen.
5947	Thick Client GUI	Corrected tab order issue on Outside Read screen.
6117	Thick Client GUI	Resolved intermittent issue where attachments would not save from the 'Edit Billing' window.



7153	Thick Client GUI	When removing ICD codes from an order, there is no longer a scenario in which the codes could appear to be removed but were in fact still attached to the order.
16399	Thick Client GUI	Resolved issue where if the user held the TAB key on certain RIS screens, the RIS would appear to hang.
15701	UI Look and feel	Resolved issue with Font Size not changing in Hebrew Environment.
9266	UI Look and feel	Corrected an issue where double clicking a person on the Resolve Problem screen could cause an error.
9647	UI Look and feel	Corrected ZIP code auto-populate city-state-country on the IVT screen.
15842	UI Look and feel	Amount to Collect screen - all money fields are now right justified.
16339	UI Look and feel	When correcting a spellcheck error in dark mode (which had red text), the text now returns to white instead of black.
16479	UI Look and feel	Log control spellchecking now leaves punctuation in place if it was adjacent to a corrected word.
16618	UI Look and feel	When replacing a phone number by selecting the text, the newly keyed number is now correctly entered.
15837	Unknown Reconcile	Rescheduled studies with unknown referrals are now (correctly) appearing on the Unknown Reconciliation WL.
15776	Utilization Management	UM Alert now contains both the original and alternative procedure.
16000	Utilization Management	Removed inactive UM Resolution Codes in the UM Alerts resolution code dropdown.
16002	Utilization Management	Changed 'Authorization Letter' to 'Opinion letter' in Distribution History WL.
16007	Utilization Management	Changed 'Authorization Letter' to 'Opinion letter' in Organization editor.
16026	Utilization Management	Removed the inactive orders that could show as disabled orders in the UM portal.
16177	Utilization Management	Race field no longer becomes required during UM workflow without the ability to save.
16759	Utilization Management	Resolved issue where the config value to "Bypass UM for Stat exams" would not bypass if the order was already saved with Stat flag turned off.
17060	Utilization Management	Resolved issue where the Authorization Required prompt would remain even after UM Status has been changed.
15963	Utilization Management	Scheduling an order under Utilization Review from a folder now displays the correct "this study is under utilization review" message.



16170	Utilization Management	Resolved an error in utilization review when a UM status was set to inactive.
16349	Utilization Management	Removed the 'Utilization Review' context menu option in patient folder when the study is in 'Order Pending Approval' status.
17150	Utilization Management	Updated Utilization Review to now be able to save work in progress with the status still blank.
15413	View Edit	Resolved issue when launching View Edit screen from a Management Report. RIS was once again shows the Report Tab.
16328	Web Services	Added config setting to specify whether a wedge should abort the changes associated with an http inbound request.
15945	Web Services	Resolved issue where InitPersonnelLookupByUserID didn't include the expected user.
16165	Web Services	Improved the error message to the user if a SQL error occurs while setting flags.
14620	Worklists	Resolved issue where filtering on Calculated Columns in a work list would show an error message and fail to properly filter worklist.
15895	Worklists	Resolved intermittent Issue when setting "Locked By Name" filter to "Is me."
15900	Worklists	When deleting the dictation /report and resetting status on a study that is suspended, the <u>_status_flags</u> are now properly reset.
15904	Worklists	Resolved error when using date filtering on worklists including keywords "or", "not" or "and."
16528	Worklists	Resolved issue in which Problem flag was not getting removed from studies in WLs when the problem was resolved.
16744	Worklists	The new audio length column now shows the correct audio length for older studies as well as new studies.
15961	Worklists	Added 'Accession number' to the Image Request WL.
16152	Worklists	Image Request WL can now be set as an Auto Open worklist.
16173	Worklists	Corrected worklist filter errors when using the 'Between' filter.
16775	Worklists	Resolved issue where worklist customization (columns, colors, etc.) might not re-apply when worklist is reopened.

**CONNECT Patient Portal:**

Bug #	Category	Subject
15950	Pat Admin - Activity Log	Patient Connect Admin - Activity log filter 'previous 7 days' now also includes today.
15798	Pat Admin - User Mgmt:Detail	Patient Connect Admin - Resolved error that occurred when attempting to view 'Patient Detail.'
13976	Patient Email	Patient Portal emails can now have a configured "from" email display name.
15199	Patient Exam Detail Page	Images Tab now disappears when PACS is not configured.
15703	Patient Exam Detail Page	Legacy Exams - Images will now appear in portal for legacy exams.
15179	Patient Exam Detail View	Resolved issue where a wait cursor could display indefinitely when no images were available.
15180	Patient Exam Detail View	Created a consistent mechanism to show when the report would be available on the portal.
15287	Patient Form	On the exam question review screen the question can no longer overlap the answer field.
14523	Patient Messages	Removed the 'Please verify you are a human' message on the bottom of the screen after test is successfully passed.
15440	Patient Security	Added a permission so that only authorized users can expire the lookups in the portal projects.
14705	Patient WF: Account Access	Removed case sensitivity check on answers to security questions.
15749	Patient WF: Create Account	Updated and clarified the 'required age' message displayed to minors when they are try to create an account.
15024	Patient WF: Make Appointment	When adding insurance, Policy number is now a required field.
15284	Patient WF: Make Appointment	Portal no longer allows 'Menstruation date' to be set in the future.
15415	Patient WF: Make Appointment	Fixed issue where the patient could not advance from Select Provider page when using "My provider is not listed" and searching for provider with special characters.
17012	Patient WF: Portal Pass iCode	Fixed intermittent issue with iCode (duplicate iCodes could be generated for different patients over time).
15512	Patient WF: Provider Invite to Make Appointment	Map tool now works when scheduling from an iCode.
15514	Patient WF: Provider Invite to	Clicking 'Make Appointment' during invitation

	Make Appointment	workflow will no longer return user to the login page.
15528	Patient WF: View Provider-Ordered Appointment	Scheduling in the Patient Portal via an invitation no longer defaults 12:00 AM at the top of the Review screen.
14589		Resolved error attempting to load PACS images that did not have a study instance UID.
15530		Corrected an issue with the portal's .ics file which was generating a 404 error.
15536		Corrected issue where scheduling from an invitation would not connect the new study to the existing order.
16136		Resolved issue with Get Help link.
15004	Admin-Other	Added ability to de-activate attributes in the procedure picker builder.
15978	Pat Admin - User Mgmt	DOB column can now be sorted.
16069	Pat Admin - User Mgmt	Resetting an account now clears the email field.
17087	Pat Admin - User Mgmt	After saving changes to the user profile, the profile is shown instead of hidden.
15064	Pat Admin - User Mssgs	Resolved issue where a forwarded message could get truncated.
16025	Patient Exam Detail Page	Resolved issue where thumbnail Images occasionally didn't load.
16196	Patient Exam Detail Page	Corrected issue where prep instructions would not show when the appointment was not made in the portal.
14089	Patient Exam Detail View	Resolved issue displaying an accession number contains only alpha characters.
14074	Patient General Display	Patient Portal Logo is now configurable for each portal instance per practice.
15080	Patient General Display	On mobile device, the email field and retype email field now are recognized as email fields so the keyboard will default the @ and .com.
15081	Patient General Display	Increased width of iCode verification code on mobile screen.
16039	Patient Logon	After using the incorrect password X times, tell the user at X+1 times that they have locked out their account.
16064	Patient WF: Account Access	Generalized the center names that appear in the "select the center where you had your recent appointment" to reduce unnecessary failures.

16449	Patient WF: Account Access	A user who has had their access to the portal revoked can no longer try to re-create that account.
16037	Patient WF: Authorized Access	Corrected issue where the user could press NEXT before entering the verification code, therefore disabling the Next button.
13068	Patient WF: Make Appointment	Entering insurance has 2 steps - if the user enters insurance, then authorization, then presses BACK, they are now brought to insurance step 2/2 instead of starting over on insurance.
16061	Patient WF: Make Appointment	Worker's compensation 'date of injury' field no longer allows dates in the future.
17299	Patient WF: Make Appointment	Resolved issue where the 'PortalAllowEveningWeekendScheduling' feature allowed the user to schedule timeslots earlier than 'now.'
16062	Patient WF: Portal Pass iCode	Resolved issue where 2 or more studies related to the same iCode would cause an error.
16439	System	eRAD portals now support time zones that are + UTC.

**Utilization Management Portal:**

Bug #	Category	Subject
16053	Exam Detail Page	The 'Opinion letter unavailable' message now supports the Get Help link.
15965	Get Help Page (Outside & Inside)	The 'Get Help' email confirmation to the user who requested no longer has the 'Sincerely' section repeated.
16012	Orders Page	Worklist will now show the paperclip icon when the record has attachments.
16051	Orders Page	Finalized date on the Orders - Pending tab now only shows valid dates.
17011	Orders Page	Improved performance of the worklist.
15510	Search Page	Resolved issues with DOB search in certain browsers.
15511	Search Page	If the user selects a date range filter, studies are filtered appropriately.
15515	Search Page	'Exam Type' search filter is no longer ignored.
15595	Themes	Ensured all deployed themes are compatible with the portal.

16736	Exam Detail Page	Resolved issue where report tab and quick-launch icon failed to load the diagnostic report.
16188	Orders Page	Now preventing more than one 'attachment' pop-up to appear at a time.
17230	Provider Utilization Management Page	Resolved issue with exam type filter not filtering properly.
16705	Web Portal Agreement Page	Updated text on Web Agreement (EULA) Page.

## KNOWN LIMITATIONS

The following are new bugs found in build 2.2017.3. Bugs reported in previous versions are not captured as Known Limitations in this document.

#	Category	Subject
17119	RIS	Returned tab Status filter needs a "SELECT ALL" option.
17088	RIS	User Mgt. > Edit > Preferences - Save button does not save changes for default landing page.
17547	RIS	Numbered or bulleted list in a report are not getting transferred to PACS.
17541	RIS	The displayed Cache time can sometimes be inaccurate but corrects itself after a minute or two.
17536	RIS	The Citrix Bridge icon has been changed to the 2 circles but in the Windows tray it is still the eRAD icon.
17532	RIS	Cancelling when RIS attempts to install updates throws an error.
17518	RIS	Exception thrown when clicking "Skip Labwork Advised WL" in Utilization Review.
17494	RIS	Windows docking inside of the patient folder.
17492	RIS	PACS Integration - View Images from Patient Folder does not order studies correctly.
17487	RIS	Duplicate Issuer/MRN in grid does not trigger validation error when scheduling/creating order.
17486	RIS	Diagnostic Report lists "Copy to" providers in diagnostic report even if the CC provider is configured for no report delivery for Courtesy Copies.
17484	RIS	Provided Educational Resources checkboxes should stay in sync, with both being either checked or not checked.
17448	RIS	Loading patient with existing US address information may result in incorrect Zip Code.
17437	RIS	When user preferences fail to save, no error is shown to the user.
17427	RIS	Client performance issue when populating calculated columns.
17341	RIS	Browser Config lookup editor will not allow removing an existing value from URL without replacing it.
17010	RIS	Problem reloading dictation after an error occurs upon saving.
16250	RIS	Any dictation that fails to save, throws out the dictation on reloading.

17044	RIS	Burn CD - when studies with status 'Order pending approval' are selected, an error occurs.
17028	RIS	A number of columns are not populating in Radiologist - Signed By Date WL.
17020	RIS	UM tab remains visible after procedure change.
16995	RIS	After displaying the message that RIS is already running, an object reference error message is displayed.
16990	RIS	I_message_group > external_notification_email_address does not appear to be forwarding messages.
16970	RIS	Cannot Retry Job in Distribution History WL.
16960	RIS	When turning off the STAT flag after order is saved, UM status behaves differently depending on the screen.
16850	RIS	Body Parts not populating when adding a new procedure from the Perform Exam window.
16843	RIS	Windows 10 - Unlocking / waking PC hides locked RIS splash login in the background.
16836	RIS	For external reports, when previewing the report in the Report nugget, if the report is not available a message should be displayed to the user.
16796	RIS	Infinitt PACS - login screen flashes for each study when using next workflow.
16782	RIS	Sectra PACS - when two patient folders are open with view images, a close call is not issued when one folder is closed and focus goes to the other folder.
16742	RIS	Autotext field values get saved when switching orders, even though the order is not saved yet.
16735	RIS	If a user's system does not have a Recording device, a null value can be saved for I_user_config settings MciInputDevice which makes the account unusable.
16726	RIS	Selecting a 'named' color in Portal Worklist configuration editor throws exception when selecting worklist tab row.
16717	RIS	When a patient has multiple studies in Pending Dictation WL, after the 1st study is signed, subsequent studies may have the wrong status for the prior study in the mini Patient Folder.
16488	RIS	Context Menu in Patient Search only lists New Appointment, New Walk-in for external results.

16418	RIS	View Study Workflow opening wrong window when using Skip and Continue after creating an Addendum in View Study.
16407	RIS	When editing medical record access, cancelling out still saves information.
16401	RIS	M*Modal Text Expander not validating entries, allows duplicates.
16300	RIS	Error deleting rows from Medical History grid when rescheduling order.
16235	RIS	The function c_getBiopsyTechnique is getting only the last row for the mammo_biopsy_technique_code when multiple rows are possible from the query results.
16221	RIS	UM - UMBypassSTAT workflow requires extra step to search for scheduling times if "STAT exam" flag selected after the procedure.
16192	RIS	When trying to schedule on a holiday, the visual is wrong in the Procedure Picker.
16149	RIS	An error can be displayed when IVT window is opened alongside Utilization Review window.
17062	RIS	Age label is not present next to DOB when rescheduling.
17474	Patient Portal	Unable to delete Padding Override codes and Report and Image Hold Values.
17200	Patient Portal	When creating new appointment in Patient Portal, entering data and hitting back button doesn't retain data.
16301	Patient Portal	Need to add countermeasures for CSRF.
17144	Patient Portal	When most recent exam is "CDImport," patient account creation can't be completed.
16343	Patient Portal	Ordering Provider tool-tips do not match up with their respective ordering providers.
17496	UM Portal	Need to resolve a memory leak with portal attachments.
17119	UM Portal	Returned tab Status filter needs a "SELECT ALL" option.
17088	UM Portal	User Mgt. > Edit > Preferences - Save button does not save changes for default landing page.
17071	UM Portal	By Status' filter does not appear to be working.
17022	UM Portal	Search - 'CC'd Ordering Provider's Last Name' field is not working.
17014	UM Portal	By Timeframe' filter's state [visually] set to last selected tab's configuration.
16712	UM Portal	Page titles shown in browser tabs are incorrect or provider specific.

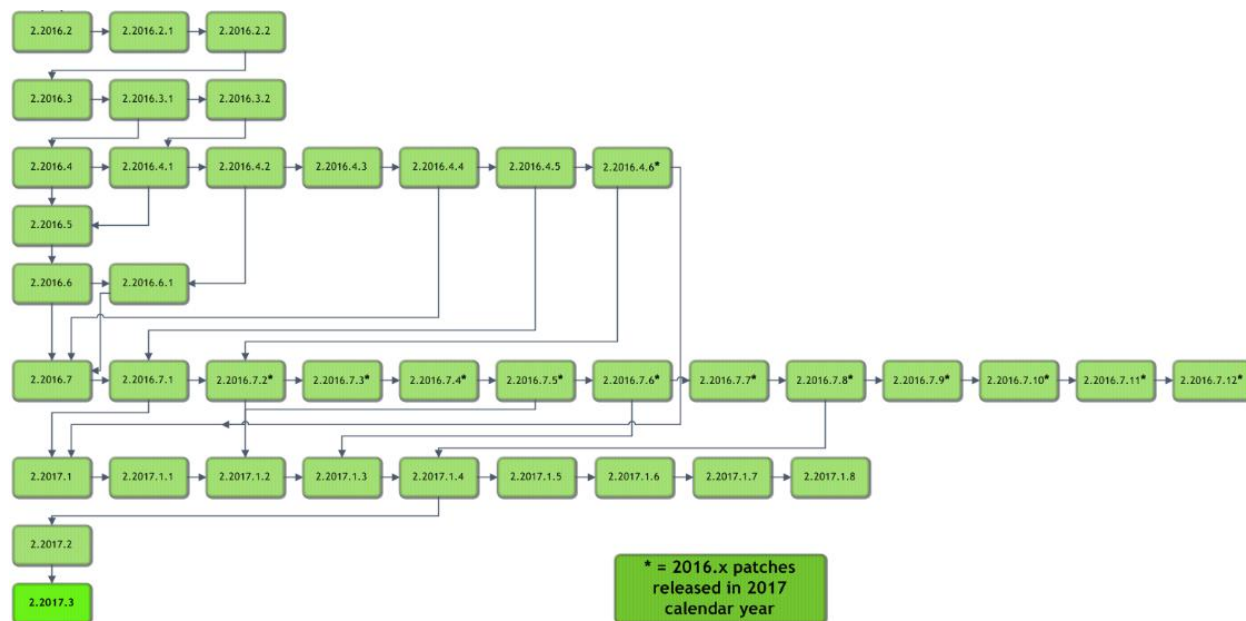


16298	UM Portal	UM Connect's page titles inappropriately mimic Provider Connect's.
17023	UM Portal	Admin - When a user with a locked account logs into Portal Administration, an error is displayed.
16035	UM Portal	Modifying tab filtering options in Account > Settings can remove inappropriate exams from the orders list.

## RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2016.2	-	2.16.2.0 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00172540					Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge
2016.2	1	2.16.2.1 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00172540					GUI.zip and Citrix Bridge
2016.2	2	2.16.2.2 (3GB)	2.16.2.0	2.16.2.0	2.16.2.2.00243102					GUI.zip, DB and Citrix Bridge
2016.3	-	2.16.3.0 (3GB)	2.16.3.0	2.16.3.0	2.16.3.0.00257101	2.16.3.0				Full Version Release
2016.3	1	2.16.3.1	2.16.3.0	2.16.3.1	2.16.3.1.00298834	2.16.3.0				GUI.zip, Web Service and DB
2016.3	2	2.16.3.2	2.16.3.0	2.16.3.2	2.16.3.1.00298834	2.16.3.0				GUI.zip and Web Service
2016.4	-	2.16.4.0	2.16.4.0	2.16.4.0	2.16.4.0.00301943	2.16.4.0	1.16.4.0.310284			Full Version Release
2016.4	1	2.16.4.1	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	1.16.4.0.310284			GUI and Web Service updates
2016.4	2	2.16.4.2 (3GB)	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	1.16.4.2.460241			GUI and Patient Portal updates
2016.4	3	2.16.4.3 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	1.16.4.3.489120			GUI and Patient Portal updates
2016.4	4	2.16.4.4 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	1.16.4.3.489120			GUI
2016.4	5	2.16.4.5 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0				GUI
2016.4	6	2.16.4.6 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0				GUI
2016.5	-	2.16.5.0 (3GB)	2.16.5.0	2.16.5.0	2.16.5.0.00349303	2.16.5.0	1.16.5.0.362009			Full Version Release
2016.6	-	2.16.6.0 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	1.16.6.0.432471			Full Version Release
2016.6	1	2.16.6.1 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	1.16.6.1.468583			GUI and Patient Portal updated
2016.7	-	2.16.7.0 (3GB)	2.16.7.0	2.16.7.0	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		Full version release
2016.7	1	2.16.7.1 (3GB)	2.16.7.0	2.16.7.1	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	2	2.16.7.2 (3GB)	2.16.7.0	2.16.7.2	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	3	2.16.7.3 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	4	2.16.7.4 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	5	2.16.7.5 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	6	2.16.7.6 (3GB)	2.16.7.0	2.16.7.6	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	7	2.16.7.7 (3GB)	2.16.7.0	2.16.7.7	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	8	2.16.7.8 (3GB)	2.16.7.0	2.16.7.7	2.16.7.8.00683507	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and DB updates
2016.7	9	2.16.7.9 (3GB)	2.16.7.0	2.16.7.9	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Services, DB updates and UM Portal
2016.7	10	2.16.7.10 (3GB)	2.16.7.0	2.16.7.10	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI and Web Service updates
2016.7	11	2.16.7.11 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Service and DB updates
2016.7	13	2.16.7.12 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		Full Version Release
2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI, Web Service, DB and Patient Portal updates
2017.1	5	2.17.1.4 (3GB)	2.17.1.0	2.17.1.5	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		Web Service
2017.1	6	2.17.1.6 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and DB Updates
2017.1	7	2.17.1.7 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	8	2.17.1.8 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.2	-	2.17.2.0 (3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0	2.17.2.0.702238	2.17.2.0.702213	2.17.2.0.702226	Full Version Release. First release of Provider Portal
2017.3	-	2.17.3.0 (3GB)	2.17.3.0	2.17.3.0	2.17.3.0.00764112	2.17.3.0	2.17.3.0.321	2.17.3.0.321	2.17.3.0.321	Full Version Release. Including Patient, Provider and UM Portals

## CODE STREAM DIAGRAM



# **Customer Release Notes**

for eRAD RIS

Version 3

Build 2017.6

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## PURPOSE

This is the Customer Release Notes document for eRAD RIS Version 3.2017.6.

Not every feature will be described in this document. Typically, only features which can be visually demonstrated are outlined here.

## INTENDED AUDIENCE

The intended audience for this document is the RIS Administration team for eRAD RIS customers.

## NEW SETTINGS

### NEW ACCESS STRINGS

Note: In 2017.6, a clean-up was done to add some missing Access Strings that will allow administrators to assign specific permissions for functionality that has previously existed in the application.

Setting	Default	Purpose
Alert.BothTechOnlyAndExternalReport	Full	Full access enables users to see the alert of the "BothTechOnlyAndExternalReport" type when it is evaluated to be true.
Alert.CDS_06_BreastCancerScreening	Full	Full access enables users to see the alert of the "BreastCancerScreening" type when it is evaluated to be true.
Alert.InactiveCCPhysicianOrAddress	Full	Full access enables users to see the alert of the "InactiveCCPhysicianOrAddress" type when it is evaluated to be true.
Alert.InactiveReferringOrAddress	Full	Full access enables users to see the alert of the "InactiveReferringOrAddress" type when it is evaluated to be true.
Alert.PatientFlagAlert	Full	Full access enables users to see the alert of the "PatientFlagAlert" type when it is evaluated to be true.
Alert.ReportLockedOnTechAndViewEdit	None	Full access enables users to see the alert of the "ReportLockedOnTechAndViewEdit" type when it is evaluated to be true.
Clinical.AdjustPaymentDate	None	Controls access to Adjust Payment Date context menu option on the Payments grid. <b>NEW</b>
Clinical.AssignRescheduledFlag	Full	Controls access to the context menu "Rescheduled Flag -> Set Follow up Rescheduled" and "Rescheduled Flag -> Clear Follow up Rescheduled."
Clinical.ChangeStatusOrderSigned	Full	Controls access to the change status sub-context menu "Change Status To -> Order Signed."
Clinical.DDECancelJobAction	Full	Controls access to the Document Distribution Engine CancelJobAction context menu item.
Clinical.DDEEditJobAction	Full	Controls access to the Document Distribution Engine EditJobAction context menu item.
Clinical.DDEMammoLetterSubmit	Full	Controls access to the Document Distribution Engine MammoLetterSubmit context menu item.
Clinical.DDENewJobAction	Full	Controls access to the Document Distribution Engine NewJobAction context menu item.
Clinical.DDEPauseJobAction	Full	Controls access to the Document Distribution Engine

		PauseJobAction context menu item.
Clinical.DDERetryJobAction	Full	Controls access to the Document Distribution Engine RetryJobAction context menu item.
Clinical.DirectMessage	Full	Controls access to the Direct Message menu item for launching the Direct Message screen.
Clinical.MammoFollowUp	Full	Controls access to the Mammo Follow up context menu for launching the Mammo Follow-Up screen.
Clinical.PerformExam.Button.ContextMenu	Full	Controls access to the Perform Exam context menu item and button.
Clinical.Reconcile	Full	Controls access to the Reconcile menu item for launching the Reconcile screen.
Clinical.Reschedule	None	Controls access to the reschedule context menu item.
Clinical.SecureMessage	Full	Controls access to the Secure Message menu item for launching the Secure Message screen.
Clinical.SetSequesterFlag	None	Allows the user to mark an exam as sequestered. <b>NEW</b>
Clinical.ViewStudy.Button.ContextMenu	None	Controls access to the View Study context menu item and button.
Config.LookupEditor.AllergyReaction	None	Controls access to the Allergy Reaction look-up table. <b>NEW</b>
Config.LookupEditor.CategoryGroup	None	Controls access to the Category Group look-up table. <b>NEW</b>
Config.LookupEditor.CDSRules	None	Controls access to the CDS Rules look-up table. <b>NEW</b>
Config.LookupEditor.DigitalForms	None	Controls access to the Digital Forms look-up table. <b>NEW</b>
Config.LookupEditor.PatientAlert <b>REPLACES/RENAMED</b> <b>Config.LookupEditor.PatientFlag</b>	Full	Controls access to the Patient Alert look-up table.
Flag.PACSIImagesPurged	Full	This setting exists to support a feature that is still under development. *Future Use*
Flag.Sequester	Full	Access to see the flag for Sequester. <b>NEW</b>
MU.CCDAScheduledTask	None	Controls access to Schedule C-CDA Export. <b>NEW</b>
Portal.Patient.Admin.CacheInfo	None	Controls access to Cache Info in Patient Admin Portal. <b>NEW</b>
Portal.Referring.Admin.CacheInfo	None	Controls access to Cache Info in Referring Admin Portal. <b>NEW</b>
Portal.Um.Admin.CacheInfo	None	Controls access to Cache Info in Utilization Management Admin Portal. <b>NEW</b>

## NEW SYSTEM CONFIGURATION SETTINGS

Setting	Default	Purpose
CareSelectToken		(value = string) The CareSelect token that indicates how the environment will be accessed.
CDSEnabled	False	(value = True/False) Determines if CDS is enabled.
<b>CdsGetNormalsFromObjectId REMOVED</b>		
DaysBeforeInactiveAccount	-1	(value = int) Number of days before accounts are deactivated for being inactive.
DefaultCancelReasonForRemindersOnAddendumSigned	N/A	(value = string) Identifies which cancel reason code should be used when an addendum is signed that does not require a reminder and a previous reminder exists.
DefaultPriorBreastDensity	True	(value = True/False) Determines whether the patient's most recent breast tissue density is prepopulated when dictating a new breast study.
InboundRADARMessageFilter	RIS QUICK MESSAGE,SecurePIC, RIS APPOINTMENT SUMMARY,UM Alert,Report Delivery	(value = string) Message type filter for RADAR inbound message processing.
MUInfoButtonSearchUrl	http://vsearch.nlm.nih.gov/vivisimo/cgi-bin/query-meta?v%3Aproject=medlineplus&query={0}	(value = string) Search URL that gets launched when clicking on the Info Button.
MUShowCCDAButton	True	(value = bool) Determines whether the C-CDA button is displayed on the Clinical tab.
MUShowCCRButton	True	(value = bool) Determines whether the CCR button is displayed on the Clinical tab.
<b>PACSCacheServer – REMOVED</b>	N/A	This value can now be set in the PacsServer lookup table.
PatientPortalURL		(value = string) URL for the Patient Portal.
PECOS_URL	https://data.cms.gov/Medicare-Enrollment/Order-and-Referring/qcn7-gc3g	(value = string) URL for PECOS website including placeholder for {NPI}.
PortalAttachmentAccessDeniedMessage	Attachments for this exam are unavailable on the portal. Please	The message to display to a Portal user when the Attachments are not available due to the scan document path server being unavailable.

	use {GetHelp} to request attachments.	
PortalLongDateFormat	dddd, MMMM dd, yyyy	(value = string) The long date format to be displayed in the Portal. (E.g. dddd, MMMM dd, yyyy which displays Wednesday, March 09, 2018)
PPDaysBeforeInactiveAccount	-1	(value = int) Number of days before Patient Portal accounts are deactivated for being inactive. (-1 will turn the feature off.)
PPPasswordRequirements	[{"minChar":"8","wordLowercase":"True","wordUppercase":"True","wordOneNumber":"True","wordOneSpecialChar":"False"}, {"minChar":"5","wordLowercase":"False","wordUppercase":"False","wordOneNumber":"False","wordOneSpecialChar":"False"}]	(value = string) JSON value to define default password requirements for Patient Portal user accounts.
QuickMessageEmailDefaultContactTypeCode	QuickMessageEmail	(value = string) The default Contact Type code to use for automated Contact Log entry after sending RADAR QuickMessage email message.
QuickMessageSMSDefaultContactTypeCode	QuickMessageSMS	(value = string) The default Contact Type code to use for automated Contact Log entry after sending RADAR QuickMessage text message.
RadarDirectAPIURL	https://api.myradarconnect.com/v1/	(value = string) URL for the RADAR API for direct messaging.
ReferringPortalURL		(value = string) URL for Referring Portal.
RPPasswordRequirements	[{"minChar":"8","wordLowercase":"True","wordUppercase":"True","wordOneNumber":"True","wordOneSpecialChar":"False"}, {"minChar":"5","wordLowercase":"False","wordUppercase":"False","wordOneNumber":"False","wordOneSpecialChar":"False"}]	(value = string) JSON value to define default password requirements for referring portal user accounts.
ScheduledTaskOutputLocations		(value = (string)) A comma separated list of network folder locations to be used for storage of scheduled tasks (e.g. C-CDA export)
UMPHelpRequestMessageGroup		The message group to which Get Help requests

		will be sent. If no message group is defined, email will not be sent to message group.
UMPPasswordRequirements	[{"minChar":"8","wordLowercase":"True","wordUppercase":"True","wordOneNumber":"True","wordOneSpecialChar":"False"}, {"minChar":"5","wordLowercase":"False","wordUppercase":"False","wordOneNumber":"False","wordOneSpecialChar":"False"}]	(value = string) JSON value to define default password requirements for UM Portal user accounts.
WLExtraColumnsToGet		This setting exists to support a feature that is still under development. *Future Use*

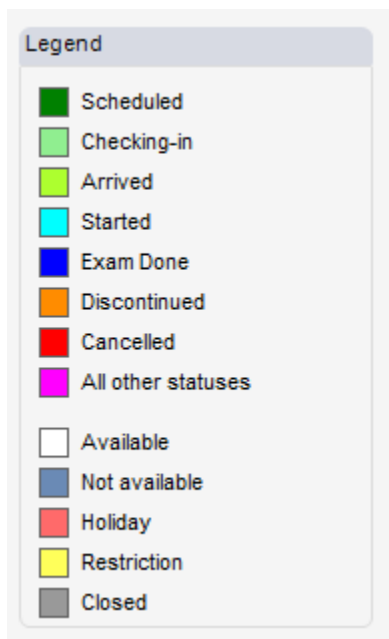
## NEW FEATURES

### SCHEDULING AND REGISTRATION

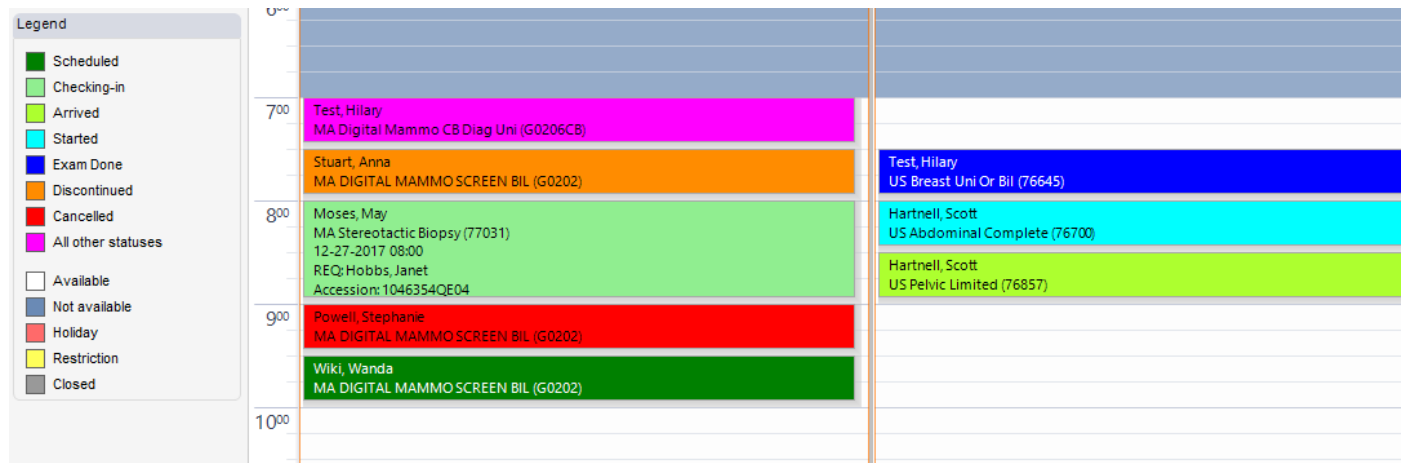
#### FEATURE #17542 – NEW LEGEND COLORS IN APPOINTMENT BOOK

Previously, the color coding in the Appointment Book reflected all statuses after “Arrived” as gray in color. Because the Appointment Book is more than just a scheduling tool, the color coding has been expanded to indicate more statuses in specific colors for ease of visual identification.

The new legend includes statuses for Scheduled, Checking In, Arrived, Started, Exam Done, Discontinued, Cancelled, and “All other statuses.”



The following image shows the Appointment Book with exams in a variety of statuses.

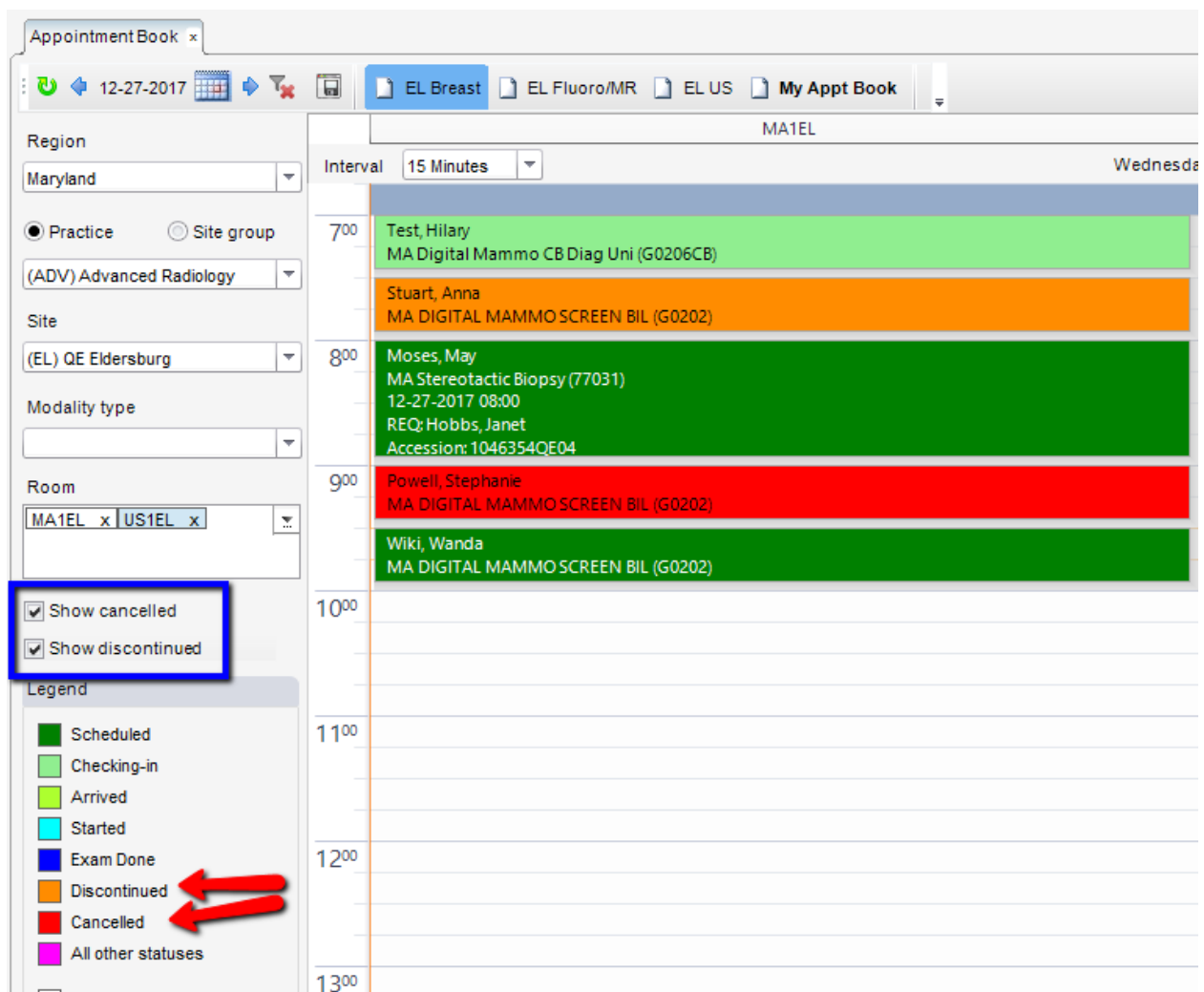




## FEATURE #9149 – NEW OPTIONS TO DISPLAY CANCELLED OR DISCONTINUED/ABORTED EXAMS ON APPOINTMENT BOOK

The Appointment Book is used by a variety of different types of users for various purposes. Sometimes it is helpful to see where cancelled or discontinued/aborted exams were previously scheduled. For example, seeing these types of exams might explain why there was a gap in the schedule for a particular room. However, other users, such as schedulers, want to clearly see where there are openings.

To allow users to customize their view of the Appointment Book according to their needs, new checkboxes have been added to the Appointment Book that will allow the user to choose whether to display the exams: [Show Cancelled](#) and [Show Discontinued](#).



The screenshot displays the Appointment Book interface. On the left, there are filters for Region (Maryland), Practice (ADV) Advanced Radiology, Site (EL) QE Eldersburg, Modality type, and Room (MA1EL x US1EL x). Below these filters, two checkboxes are highlighted with a blue box: ☒ Show cancelled and ☒ Show discontinued. A legend at the bottom left shows color-coded boxes for exam statuses: Scheduled (green), Checking-in (light green), Arrived (yellow), Started (cyan), Exam Done (blue), Discontinued (orange), Cancelled (red), and All other statuses (pink). Two red arrows point to the 'Discontinued' and 'Cancelled' status boxes in the legend. The main area shows a schedule for MA1EL on Wednesday, 12-27-2017, with a 15-minute interval. The schedule includes exams for Test, Hilary (MA Digital Mammo CB Diag Uni (G0206CB)), Stuart, Anna (MA DIGITAL MAMMO SCREEN BIL (G0202)), Moses, May (MA Stereotactic Biopsy (77031)), Powell, Stephanie (MA DIGITAL MAMMO SCREEN BIL (G0202)), and Wiki, Wanda (MA DIGITAL MAMMO SCREEN BIL (G0202)).

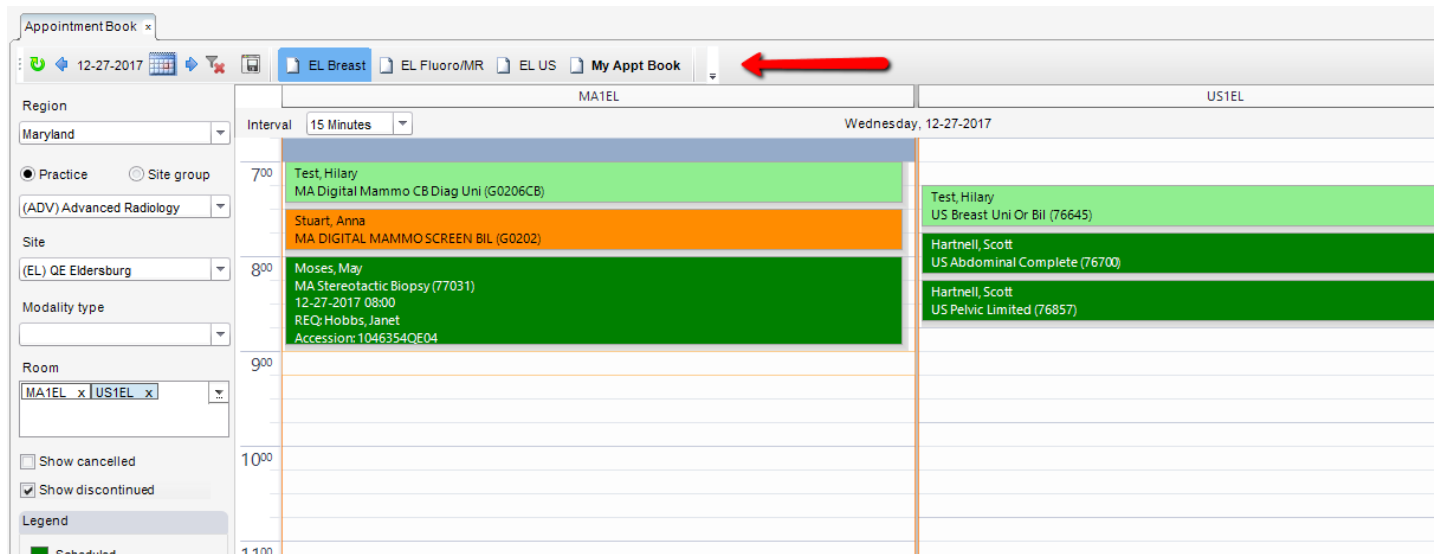
In the above image, Show Cancelled and Show Discontinued are both checked, so the Appointment Book is displaying Cancelled exams (shown in Red) and Discontinued exams (shown in Orange).

Unchecking the boxes and refreshing the Appointment Book will instead hide the Cancelled and Discontinued exams to make it apparent that these are available appointment slots in these spaces.

To maintain the previous Appointment Book behavior, the default for these checkboxes will display Discontinued exams and hide Cancelled exams.

## FEATURE #6378 – CUSTOM VIEWS CAN BE SAVED FOR THE APPOINTMENT BOOK

Custom Views have always been a convenient and efficient way to view a specific subset of information on a variety of worklists throughout the application. These same efficiencies are now available in the Appointment Book where Custom Views can be created and saved, in the same fashion as Worklist Custom Views.



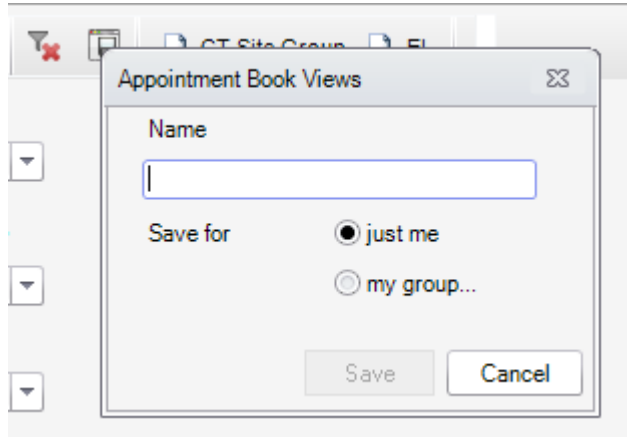
Create Custom Views by setting the filter criteria on the left side of the screen to a commonly used set-up, then

save the Custom View by clicking the  button in the top row. Criteria that can be saved are:

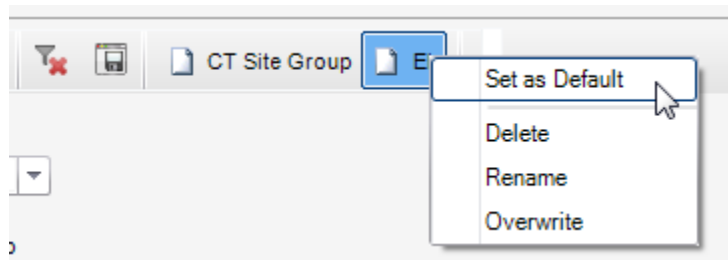
- Region
- Practice or Site Group
- Site
- Modality Type
- Room(s)
- Preference to display Cancelled exams
- Preference to display Discontinued exams
- Interval

After saving and naming a Custom View, it can be set as a Default view for the Appointment Book each time it is opened. Multiple Custom Views can be created for different workflows. For example, a scheduler may set up Custom Views that show particular rooms that are involved in Pain Management scheduling or breast imaging.

As with Worklist Custom Views, it is possible for a user with appropriate permissions to create “Group Views” that can be shared by other users in a User Group.



Custom Views can also be deleted, renamed or overwritten (updated).



When a Custom View is applied, the filters will automatically be set as they were saved and the display will be refreshed to show the new settings. It is possible to easily switch between a variety of saved Custom Views.

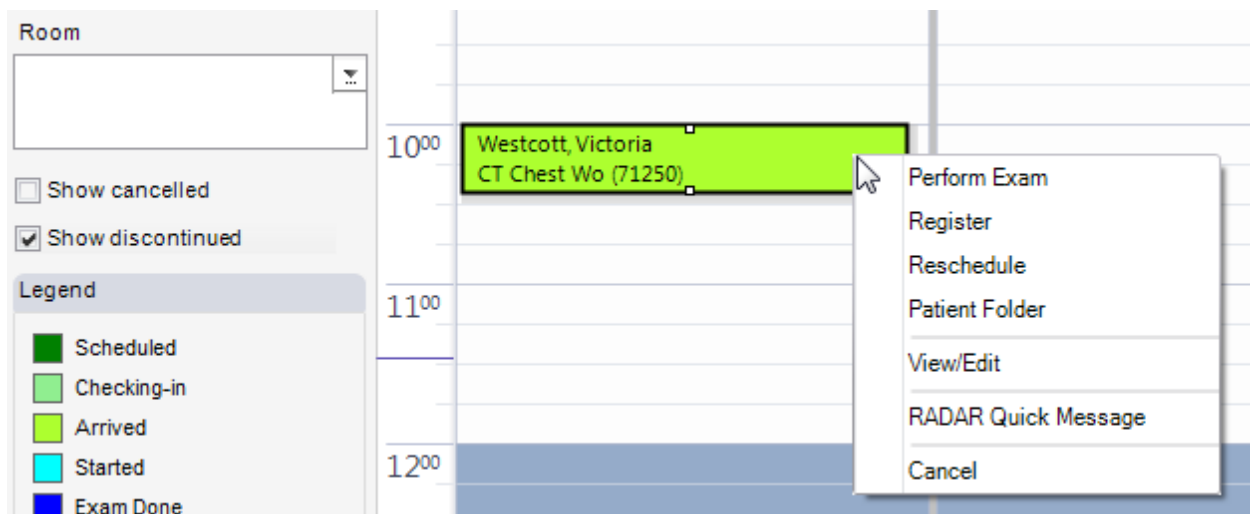
## FEATURE #11193 – EXPANDED WORKFLOW OPTIONS AVAILABLE IN THE APPOINTMENT BOOK

When viewing information in the Appointment Book, a user often needs to take some kind of action for an appointment on the screen.

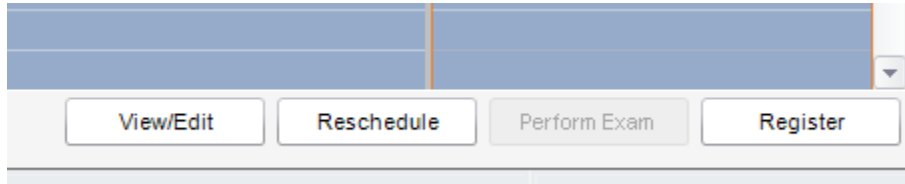
- A scheduler reviewing tomorrow's schedule may want to reschedule someone who has been double-booked.
- A technologist may want to open the exam in View/Edit or may wish to open the Patient Folder in order to view more details about the patient.
- A receptionist may wish to send a RADAR QuickMessage to let the next patient know that the technologist is behind schedule.

There are many possible scenarios and the Appointment Book will now empower the user to immediately launch common workflows based on the exam's status and their own user permissions.

The Appointment Book now behaves in a similar fashion as a Worklist. Like a worklist, right-clicking on an exam will present a context menu with various options. Depending on the status, a different set of possible actions will be available.



Another option for performing various workflow tasks is to use the new Action buttons. Just like a Worklist, the Appointment Book now has action buttons at the bottom of the screen. Users can select an exam by single clicking, then use the corresponding button to take the desired action. Any buttons with actions that are not relevant based on the exam's status will be inactive. As with Worklists, double-clicking the exam will initiate the action of the first active button. In most cases, the default action will be View/Edit.



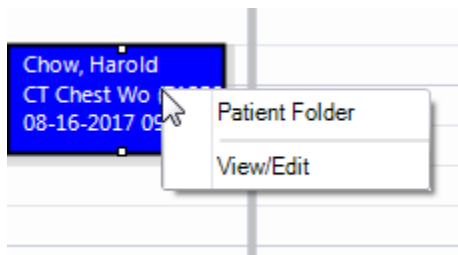
Both context menu and button actions will only be available to the user if he or she has the appropriate access string to perform the task. No new permissions need to be managed for the user groups; the existing access strings will be applied to the Appointment Book.

The following actions are possible for the statuses listed below:

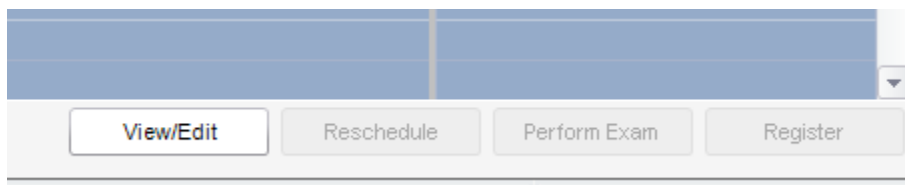
Status	Possible Actions
Scheduled, Checked In	View/Edit, Register, Reschedule, Cancel, RADAR Quick Message, Patient Folder
Arrived	Perform Exam, View/Edit, Register, Reschedule, Cancel, RADAR Quick Message, Patient Folder
Started	Perform Exam, View/Edit, Register, Cancel, RADAR Quick Message, Patient Folder
Exam Done, Discontinued, Cancelled	View/Edit, Patient Folder

One more example may be helpful. The images below depict the options available for an exam in Exam Done status.

Context menu options:







Button options:



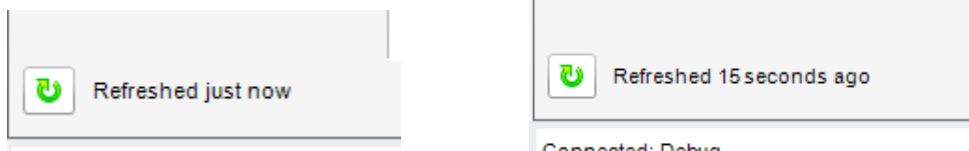
## FEATURE #2583 – AUTOMATIC APPOINTMENT BOOK REFRESH

The Appointment Book now supports auto-refresh settings in the same fashion as RIS worklists. With this enhancement, new appointments, room closures, cancellations, et cetera, will be populated to the Appointment Book view so that users can see the changes without needing to frequently close and re-open the Appointment Book.

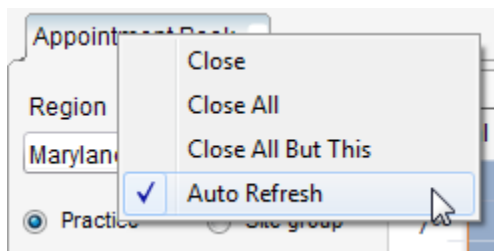
By default, the Appointment book will use the existing System Configuration setting [DefaultWorklistRefreshInterval](#) to determine how often auto-refresh should occur. To override the default setting, create an entry for Appointment Book in the existing configuration table [Worklist Preference](#).

Worklist Name	Refresh Interval	Last Updated	Active
No filter: 	Equals: 	Contains: 	Contains: 
✱ Click here to add a new row			
▶ Appointment Book	2	06-22-2017 1...	Y

The refresh interval can be defined by entering the number of minutes or by entering 0 to disable auto-refresh. As with worklist auto-refresh, the user will also have access to a refresh button with a label that indicates when the last refresh occurred.

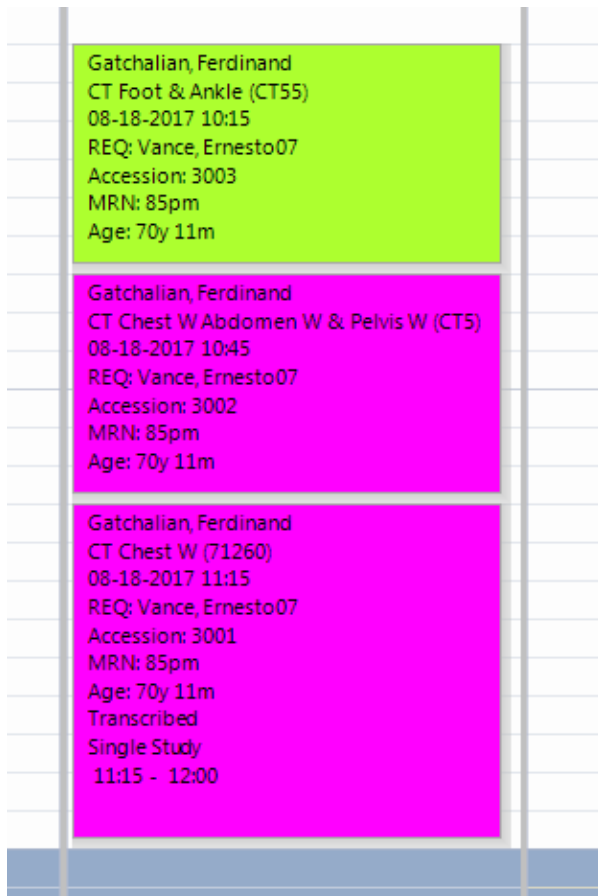


Refresh will not occur if the user is actively interacting with the Appointment Book tab. It is also possible for a user to manually disable auto-refresh, if desired. To do so, right-click the Appointment Book tab and uncheck Auto Refresh. Repeat the process to turn refresh back on when ready.

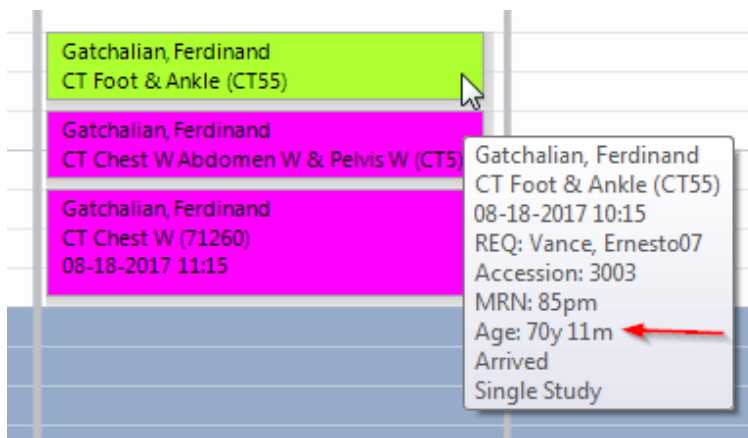


## FEATURE #17864 – PATIENT’S AGE ADDED TO THE APPOINTMENT BOOK

The appointment description now displays the patient’s age, in the same format as on the Patient tab of the Schedule screen.



The full description will always display in the tooltip, and will only display in the appointment block if enough space is available.



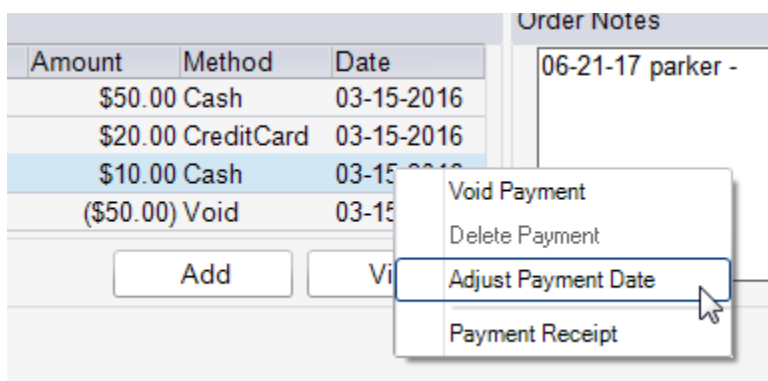


## INSURANCE, ELIGIBILITY, PAYMENTS, & BILLING

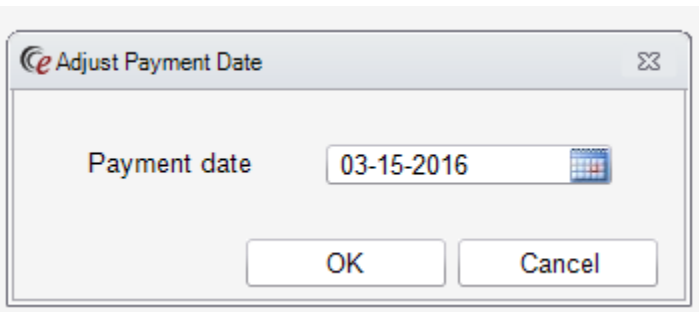
### FEATURE #16773 – ABILITY TO ADJUST A PAYMENT DATE WITH APPROPRIATE PERMISSIONS

If the wrong amount for a payment was entered on the date of service, this can be corrected by Voiding the payment and entering a new payment. However, it was not previously possible to backdate the payment if the error was discovered after the date of service. For this reason, it is now possible to grant users permission to “backdate” a payment.

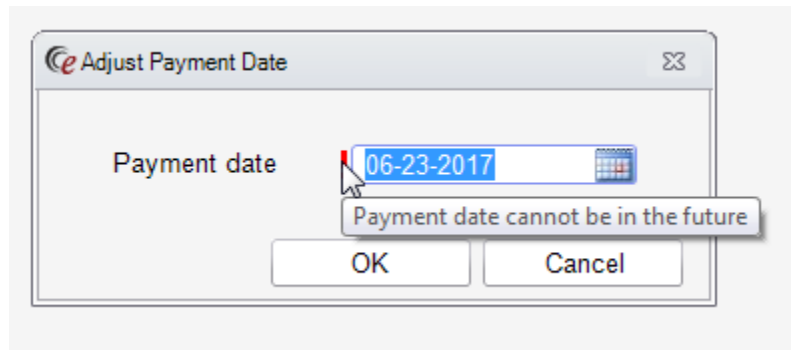
A new context menu option called **Adjust Payment Date** can be accessed by right-clicking the row in the Payment grid. This option will only be available if the user belongs to a User Group with Full permission to the new access string **Clinical.AdjustPaymentDate** (default NONE).



Clicking this context menu option will open a window where the user can enter the payment date.



Today's date or a prior date can be entered and saved. If the user selects a date in the future, saving will be prevented.



The date change will be recorded in the Audit History for future reference.

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**FEATURE #18017 – WITH MULTIPLE ORDERS ON THE SAME DAY, CO-PAY SHOULD ONLY BE COLLECTED ONCE AND REMAINING DEDUCTIBLE SHOULD NOT BE OVER COLLECTED**

When primary insurance is the same, Amount to Collect on multiple orders should adapt so that multiple co-pays are not collected and remaining deductible is not over calculated. To support this need, changes have been made to the Amount to Collect calculation using the information from Eligibility workflow.

When patients have an Order A / Order B and the insurance is the same for both orders, RIS previously calculated co-pay and deductible payments for each, as if the other did not exist. As a result, two co-pays would be collected for the same day, as well as excessive deductible payments in the case where deductible may have been met by the other order.

If the insurance is the same for Order A and Order B, co-pay is now calculated for one order only. RIS will determine which co-pay is greater and will ignore the other order's co-pay amount. When determining remaining deductible for Order B, RIS will subtract the deductible payment that is to be made for Order A from the total remaining deductible, so that the staff does not over collect in situations where the deductible is met by the payment on Order A.

The following two screenshots demonstrate an example of an Order A / Order B scenario in which both orders are scheduled for the same date of service. Eligibility workflow has occurred and the Estimated Visit Cost has been entered for each order. In the example, the co-pay for Order A is \$1.00, while Order B has a co-pay of \$10.00. When looking at the right column, which shows the amount to be collected, notice that the lesser co-pay amount on Order A has been ignored, making the \$10 co-pay on Order B the only co-pay to be collected from the patient.

## Order A:

Patient: CO, co #48441R (3) Register: CO, co #48441R \*

Patient Patient Notes Contacts / Demographics Clinical Order[A] Order[B] Exams (2) Image Request (0) Review Contact Log

Reason for exam 08/25/2017 kevin -

Referring Details Referring \* aa, aa t, Visited at\* 2342, 234234, 234, Img notes Ref. date MM/dd/yyyy

Preferred Location Practice\* ADV Advanced Radiology Site FH) PT QE PT QE Fisher

Flags ☐ Direct referral ☐ Transportation required ☐ STAT exam ☐ STAT read ☐ STAT PreCert ☐ Sequester

Insurance Policies

Note	Carrier Code	Carrier Name	Policy #	Group Number	Group Name
	0100demo	demo	10010010	234332	eRAD Group

Manage Policies IVT Notes Verify

Payments

Posted By	Amount	Method	Date

Order Notes 08/25/2017 kevin -

Amount to Collect - Details

CPT	Units	Usual & Custo...	Actual Rate	Total
74000 - RADIOLOGIC EXAMINAT...	1	29.26	29.26	29.26
74010 - RADIOLOGIC EXAMINAT...	1	47.13	47.13	47.13

Estimated visit cost \$76.39 ☐ Override

Co-pay \$1.00 Co-pay portion \$0.00

Remaining Deductible \$100.00 Deductible portion \$76.00

Co-insurance 10% Co-insurance portion \$0.00

Amount to collect \$76.00

OK Cancel

Modified Co-pay \$1

Note: this will be the one where we won't charge for co-pay

Warning Plan start 01/01/2008 Remaining deductible \$100

Diagnostic X-Ray Co-pay \$10 Co-insurance 10%

## Order B:

Patient: CO, co #48441R (3) Register: CO, co #48441R \*

Patient Patient Notes Contacts / Demographics Clinical Order[A] Order[B] Exams (2) Image Request (0) Review Contact Log

Referring Details Referring \* aa, aa t, Visited at\* 2342, 234234, 234, Img notes Ref. date MM/dd/yyyy

Flags ☐ Direct referral ☐ Transportation required ☐ STAT exam ☐ STAT read ☐ STAT PreCert ☐ Sequester

Insurance Policies

Note	Carrier Code	Carrier Name	Policy #	Group Number	Group Name	Phone	Priority
	demo	10010010	234332	eRAD Group		Primary	

Manage Policies IVT Notes Verify

Amount to Collect - Details

CPT	Units	Usual & Custo...	Actual Rate	Total
15787 - ABRASION, EACH ADDIT...	1			
23335 - REMOVAL OF PROSTHE...	1			
49083 - ABDOMINAL PARACENT...	1	384.94	384.94	384.94
70482 - CT ORBIT SELLA/POST...	5	430.17	430.17	2150.85
74170 - COMPUTED TOMOGRA...	1	387.56	387.56	387.56

Estimated visit cost \$2,923.35 ☐ Override

Co-pay \$10.00 Co-pay portion \$10.00

Remaining Deductible \$100.00 Deductible portion \$24.00

Co-insurance 10% Co-insurance portion \$289.00

Amount to collect \$322.94

OK Cancel

Warning Plan start 01/01/2008 Remaining deductible \$100

MRI/CAT Scan Co-pay \$10 Co-insurance 10%

Amount to collect \$322.94

Also, the screenshot for Order B illustrates a reduced deductible portion because the amount collected from Order A reduces the remaining deductible by \$76.

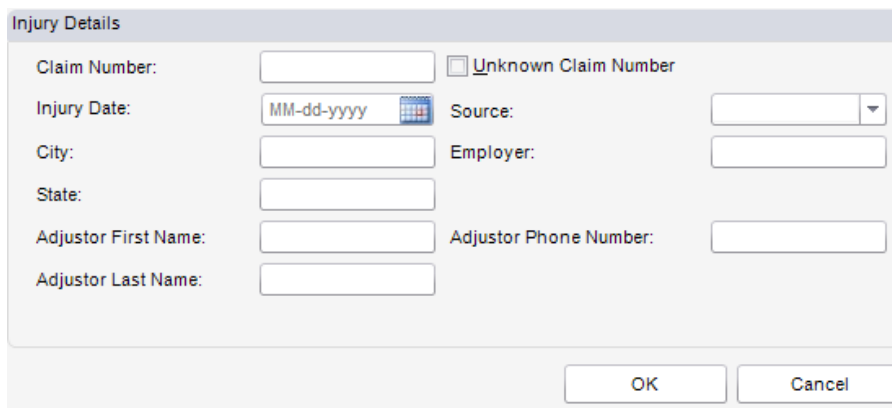
Amounts to collect will be recalculated and validated each time the Scheduling, Registration or View/Edit screens are opened. The logic described above will only occur when the orders are scheduled for the same date of service.

## FEATURE #15206 – EMPLOYER ADDRESS AND PHONE NUMBER CAN BE COLLECTED IN INJURY DETAILS

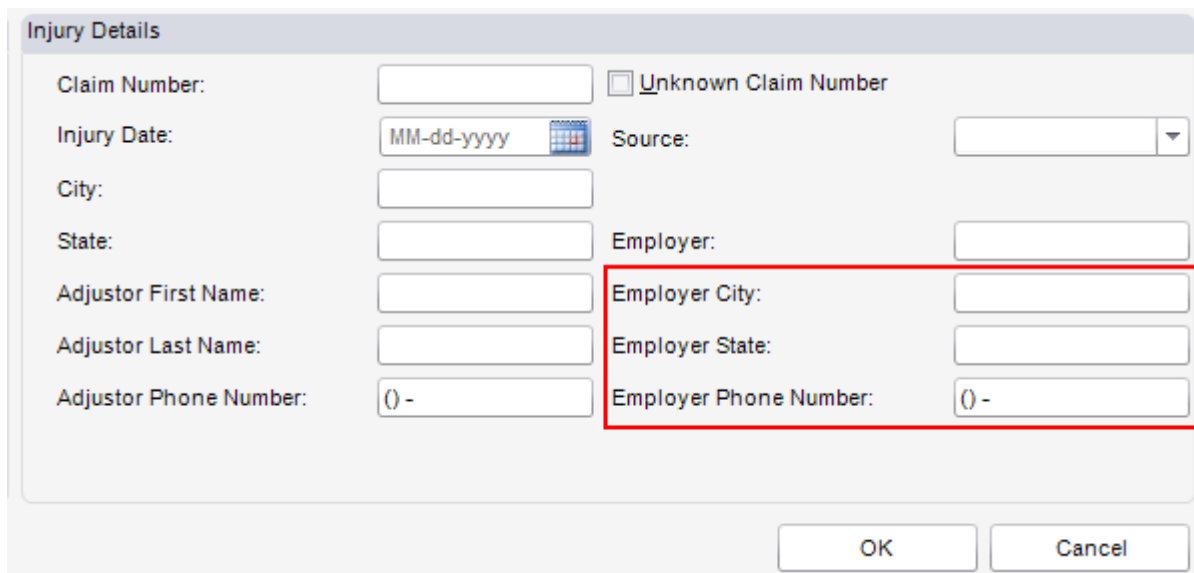
On the Manage Policies screen, there is a section for Injury Details, which is used to collect information for Workman’s Compensation, Auto Accidents, and P.I. Liens. Some customers would like to store additional information about the employer including their City, State, and Phone Number.

New fields have been added to capture this information. The “Adjustor Phone Number” field has been moved below the Adjustor Last Name field to make space for the new Employer information.

Previous Injury Details section:



New Injury Details section:



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**FEATURE #15768 – BILLING INTEGRITY INTERFACE WILL NOW ALLOW USERS TO IDENTIFY WHEN A BILLING CODE WAS REACTIVATED BY IMAGINE BILLING**

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Sometimes a technologist will change the procedure code, which marks the original billing code as inactive and adds the new procedure's billing code. When the report goes to coding via the Imagine interface, CodeRyte sometimes sends back the 'original' billing code (i.e. the billing code that is inactive because the technologist changed the procedure code). Previously, the interface would simply reactivate that existing inactive billing code and it was not possible to identify that there was a discrepancy between what the technologist said they performed and what CodeRyte said was performed based on report contents.

An enhancement has been made to identify these scenarios, so that imaging centers can properly investigate why the discrepancy has occurred. This will allow corrections to be made in the cases where additional documentation in the report might have resulted in charging for a more comprehensive exam. It also allows the opportunity for technologist and radiologist education to occur when technologists often select the incorrect procedure or radiologists are not properly documenting all aspects of the exam performed.

In order to identify when an inactive billing code is reactivated by the interface, a new column has been added to the Billing Codes tab when opening the View/Edit screen from the Billing Confirmation WL. The column is labeled **Reactivated by Billing** and will display a Y when a billing code that was *inactive* at the time of billing submission has been *reactivated* by the Billing Integrity interface.

Reactivated By Billing	Added by Billing
N	Y
N	N

## FEATURE #14799 - BILLING MODAILITY TYPE COLUMN IS NOW AVAILABLE IN THE BILLING CODES GRID

Billing Modality Type has been added as a column in the Billing Codes grid. This information can be useful to users who need to quickly identify if a billing code is a Supply charge, a Surgical charge, or any other category.

View/Edit: CAMPBELL, Griff #37230PE \* x

ntation	Exam Details	Billing Codes	Attachments	Notes / Exam Times	Contact Log	UM	Demo Digital Form	Goodie's
---------	--------------	---------------	-------------	--------------------	-------------	----	-------------------	----------

Billing Code	Billing Modality Type	PreCert Status
71260 (COMPUTED TOMOGRAPHY, THORAX; WITH CONTRAST MATERIAL(S))	CAT Scan	Not Required

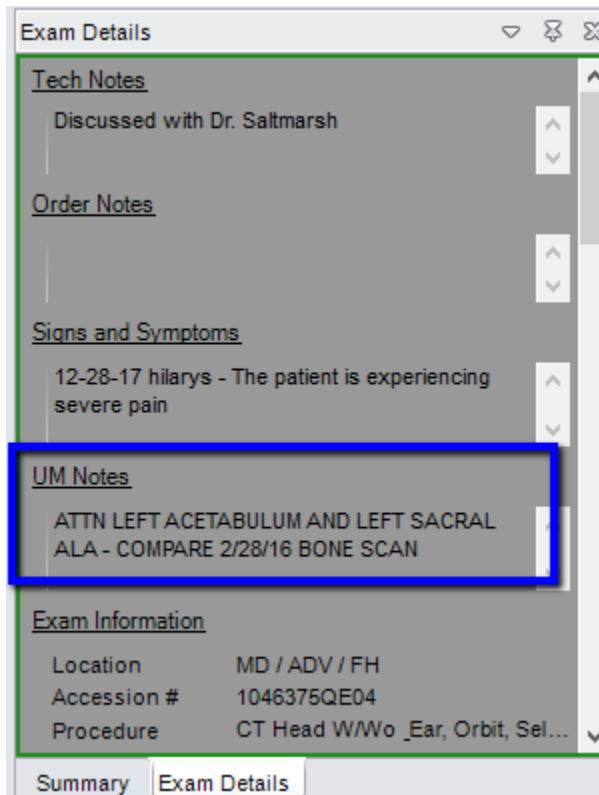
The new column should be available on any screen where the Billing Codes grid is displayed.

## UTILIZATION MANAGEMENT

### FEATURE #15296 – DISPLAY RADIOLOGIST-SPECIFIC NOTES TO THE RADIOLOGIST

When reviewing a study in Utilization Management workflow, UM reviewers sometimes wish to provide special instructions to the reading radiologist. These notes can now be displayed to the radiologist when they read the study.

If the System Configuration for setting **UMEnabled** is set to true, radiologists will now see a section for UM Notes in the Exam Details panel on the reporting screen. Any special instructions or notes the UM reviewer has entered in the Rad/Tech Special Instructions field will be displayed here.



This section will not be present if the system is not configured to use Utilization Management.



## FEATURE #16996 – CONFIGURE A PRIMARY BILLING CODE FOR A PROCEDURE CODE

In Utilization Management workflow, CPT codes may exist on a matrix multiple times with different UM Coverage Types. For example, Medical Group A may list CPT code 70470 as Authorization Required coverage and Medical Group B lists the same CPT as Fee for Service (FFS).

Procedure codes may also have multiple billing codes associated with varying coverage types for each billing code. Previously, all additional billing codes were pushed to Utilization Review and the UM team would determine the coverage required.

To more efficiently route appropriate procedures/billing codes to the UM workload, it is now possible to indicate a Primary Billing Code in the Procedure Code sub-table **l\_procedure\_code\_x\_billing\_code**.

Lookup - ProcedureCode \* x

<

If a Billing Code for a Procedure is set to Primary, the UM logic will only evaluate for coverage using this Billing Code. If a Primary is not set, each individual Billing Code will be checked for whether authorization is required, as previously.

The primary billing code is labeled in the Authorization Summary (shown below).

Utilization Review Details		Internal Notes		
Tracking #	DSN#	06-28-17 9:27 AM AT -		
Priority	<input type="text" value="Routine"/>			
Owner	<input type="text"/>			
Group	Utilization Management Portal Medical Group			
Insurance	UM Portal Carrier			
Requested Procedure(s)				
UM	Procedure	UM Status	UM Clock	Original Procedure
▶	✓ CT Head W/Wo & Sinus W/Wo [CT15] - Head	Received	0 of 30	
<div>CDS</div> <div>Additional Alternative</div>				
Authorization Status		Authorization Dates		
Status <input type="text" value="Received"/>		Created 06-28-2017 9:25 AM ?		
Confirmation Status		Updated		
<input type="checkbox"/> Confirmation Required <input type="checkbox"/> Confirmation Received		Reviewed		
Confirmed		Finalized		
Authorization Summary				
Primary Billing Code: 70470 - COMPUTED TOMOGRAPHY, HEAD OR BRAIN; WITHOUT CONTRAST MATERIAL, FOLLOWED BY CONTRAST MATERIAL(S) AND FURTHER SECTIONS Coverage: Auth Required Billing Code: 77002 - FLUOROSCOPIC GUIDANCE FOR NEEDLE PLACEMENT (EG, BIOPSY, ASPIRATION, INJECTION, LOCALIZATION DEVICE) Coverage: Auth Required				

## FEATURE #17302 – ALLOW FOR CUSTOMIZABLE SCREEN LAYOUT ON UTILIZATION REVIEW SCREEN

The Utilization Management workflow includes a number of different notes fields. Due to the amount of data that must be entered for UM, the notes fields exist on a separate tab called Review Notes. UM Reviewers using multiple monitors have additional screen real estate and would like to be able to see the notes fields and other information at the same time, without switching tabs.

In order to provide the most flexibility, the Utilization Management screens will now behave in a fashion similar to the Reporting screen, with multiple data panes that can be docked, floated, tabbed and pinned as desired.

The default layout will be almost identical to the previous screen layout: all controls will be tabbed across the top of the screen, as shown below.

eRAD RIS (Development as Denis Doiron [Denis] to CENTRAL Chair)

File View Administration Messaging Scheduling Front Desk Technologist Radiologist Mammo Editor PACS Help

Utilization Management WL (3) Utilization Review: TESTER, um #29867PE \*

tester, um | 10-10-1980 (36y9m) | Male | #29867PE

**Patient** Clinical Order Review Review Details Review Notes Attachments Opinion Letter Contact Log

**General Information**

Prefix  First  Last  Middle  Suffix  Sex  DOB  36y 9m

☐ Disable Patient Portal ☐ Deceased ☐ Claustrophobic Birth place  Father's name  eRx

**Contact Information**

Address 1  Zip  Phone  Edit

Address 2  Country  ☐ Mobile ☐ No alternate

City  Preferred contact method  Email  Edit

State  Preferred delivery method

County  Marketing messages ☒ Permitted ☐ Prohibited ☐ Do not send reminders

**Patient Origin**

Preferred language  Education level  Religion  Ethnicity  Race  Sexual orientation  Gender identity

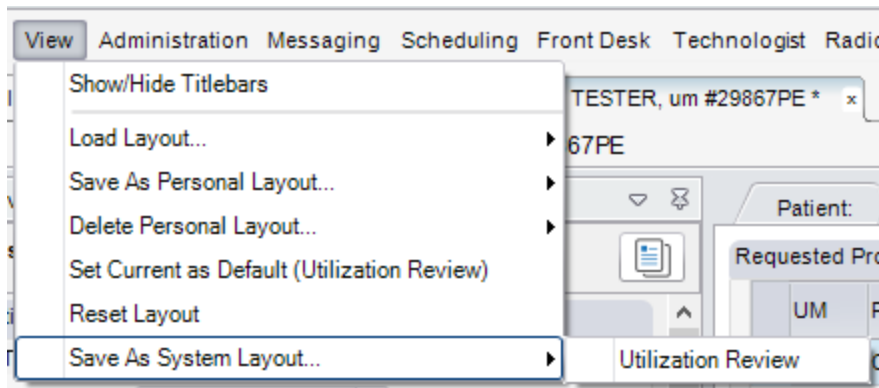
**Family History**

Relationship	Family History	Age At Diagnosis	Age At Death

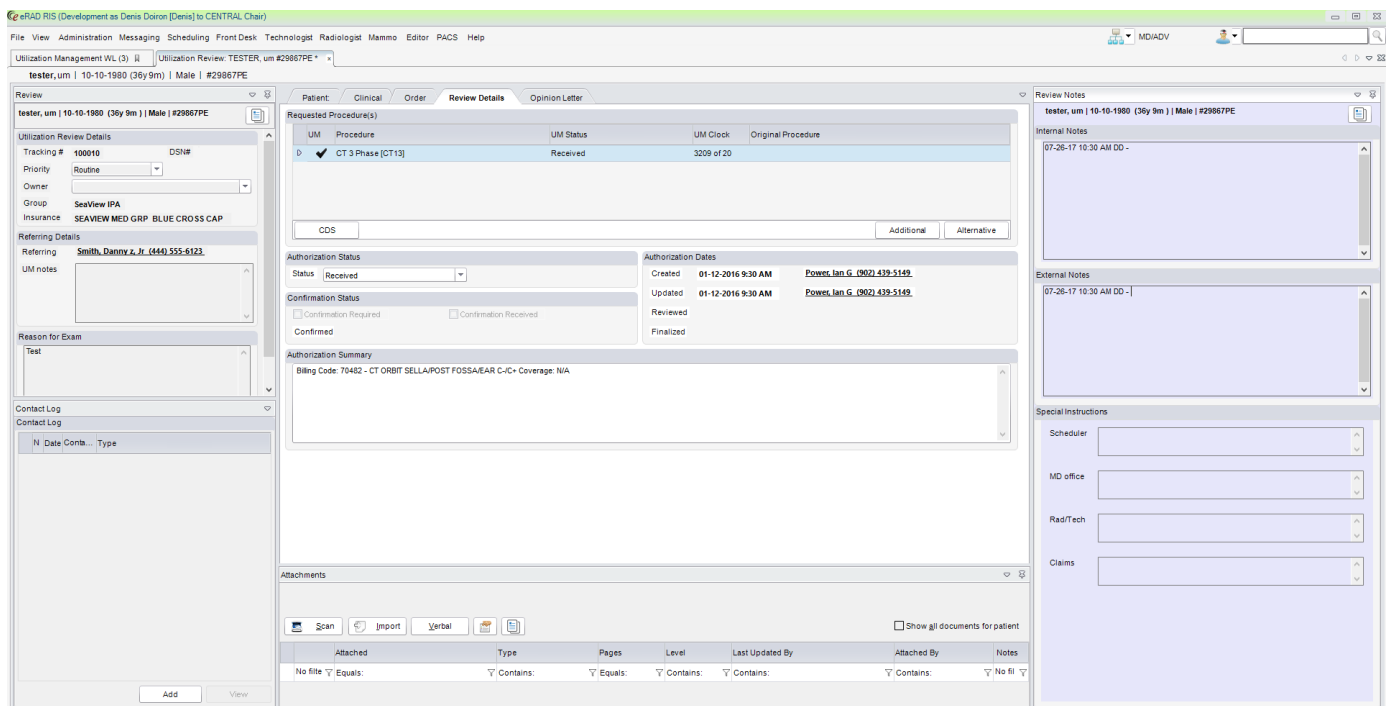
A system administrator with appropriate permissions will be able to override the deployed layout by saving a layout as a System Layout for Utilization Review via the “View” menu.

Individual users can also override the default layout by saving a layout with the **Save current as default (Utilization Review)** under the View menu. If desired, this permission can be revoked to give better control to layout consistency across the organization.

Users can also save personal layouts with a custom name, which can be manually loaded on demand by the user. The following image shows the “View” menu for Utilization Management with all permissions granted.



The following image depicts a custom screen layout created by floating, then docking a few controls around the centrally located tab screens.



One difference from the Reporting screen layout is that the Review Details tab is the main control, which will always be tabbed and visible on the main screen. This control cannot be floated.

Another difference is that users do not have the ability to hide any of the data panes. They can choose to pin them, but they will all be accessible on the screen.

#### RELEVANT ACCESS STRINGS

The following access strings previously existed, but are related to this feature:

- [View.Save](#) - controls the user's ability to save their own default layout.
- [View.Preset.Administration](#) - allows an administrator to override the default layout.
- [View.Custom.Layouts](#) - allows users to save personal layouts.

## FEATURE #17504 – INDICATOR FOR MEDICAL GROUPS THAT ARE REVIEW ONLY

Some medical groups have contracts that only entail utilization review and the imaging is to be performed elsewhere. There is a **Review Only** flag at the Medical Group level. When this flag is enabled, any orders reviewed for that medical group cannot be scheduled.

To make this clear to users, a label has been added to the right of the Medical Group if it is configured as Review Only. The label is visible on the Review Details tab under UM Review, as well as the UM tab that appears during scheduling.

Patient
Clinical
Order
Review Details
Review Notes
Attachments
Opinion Letter
Contact Log

Test, UM | 10-10-1980 (36y 10m ) | Male | #345QE2

**Utilization Review Details**  
Tracking # 100014 DSN#  
Priority Routine  
Owner  
Group Masters Medical Group (Review only)  
Insurance SEAVIEW MED GRP BLUE CROSS CAP

**Referring Details**  
Referring Smith, Danny z. Jr (444) 555-6123  
UM notes this doc is gold card for all cts

**Reason for Exam**  
03-03-17 admintest - test 4

**Requested Procedure(s)**

UM	Procedure	UM Status	UM Clock	Original Procedure
✓	CT Abdomen W & Pelvis W [CT9] - Abdomen	Recommended - As Requested	1389 of 30	CT Chest W & Abdomen W/Wo [CT42] - Chest
✓	CT Chest W [71260] - Chest	Recommended - As Added Ex...	1389 of 30	

CDS
Additional
Alternative

**Authorization Status**  
Status Recommended As Requested

**Confirmation Status**  
☐ Confirmation Required ☐ Confirmation Received  
Confirmed

**Authorization Dates**

Created	03-03-2017 2:11 PM	Test User, Administrator, MD (999) 999-9999
Updated	03-03-2017 2:13 PM	Test User, Administrator, MD (999) 999-9999
Reviewed	03-03-2017 2:13 PM	Test User, Administrator, MD (999) 999-9999
Finalized	03-03-2017 2:13 PM	Test User, Administrator, MD (999) 999-9999

**Authorization Summary**  
Billing Code: 74160 - COMPUTED TOMOGRAPHY, ABDOMEN; WITH CONTRAST MATERIAL(S) Coverage: Auth Required

Patient Search		Patient: TEST, UM #345QE2 (70)		Lookup Tables - Carrier		Schedule Order: TEST, UM #345QE2 * x	
Patient	Patient Notes	Contacts / Demographics	Order	Clinical	Schedule	Image Request (0)	Billing Codes
Review	Contact Log	UM	Goodie Test	ay tes			

**Test, UM | 10-10-1980 (36y 10m ) | Male | #345QE2**

<b>Utilization Review Details</b> Tracking # <b>100014</b> DSN# Priority <b>Routine</b> Owner Group <b>Masters Medical Group</b> <span style="border: 1px solid orange; padding: 2px;">(Review only)</span> Insurance <b>SEAVIEW MED GRP BLUE CROSS CAP</b>	<b>Internal Notes</b> 08-17-2017 2:56 PM AT -
--	--

Requested Procedure(s)				
UM	Procedure	UM Status	UM Clock	Original Procedure
✓	CT Abdomen W & Pelvis W [CT9] - Abdomen	Recommended - As Requested	1389 of 30	CT Chest W & Abdomen W/Wo [CT42] - Chest
✓	CT Chest W [71260] - Chest	Recommended - As Added Ex...	1389 of 30	

CDS
Additional
Alternative

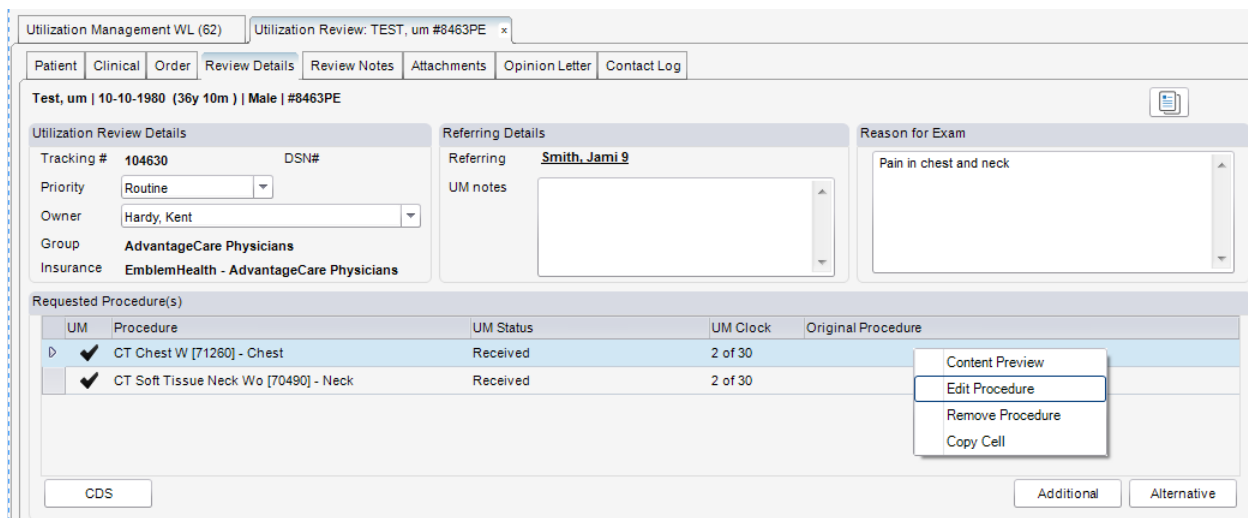
<b>Authorization Status</b> Status <b>Recommended</b> As Requested	<b>Authorization Dates</b> Created <b>03-03-2017 2:11 PM</b> <a href="#">Test User, Administrator, MD (999) 999-9999</a> Updated <b>03-03-2017 2:13 PM</b> <a href="#">Test User, Administrator, MD (999) 999-9999</a> Reviewed <b>03-03-2017 2:13 PM</b> <a href="#">Test User, Administrator, MD (999) 999-9999</a> Finalized <b>03-03-2017 2:13 PM</b> <a href="#">Test User, Administrator, MD (999) 999-9999</a>
---	---

<b>Confirmation Status</b> <input type="checkbox"/> Confirmation Required <input type="checkbox"/> Confirmation Received Confirmed	<b>Authorization Summary</b> Billing Code: 74160 - COMPUTED TOMOGRAPHY, ABDOMEN; WITH CONTRAST MATERIAL(S) Coverage: Auth Required
--	---

## FEATURE #17529 – UM – REVIEWERS CAN NOW CHANGE REQUESTED PROCEDURE

When adding UM orders to RIS, the data entry team sometimes mistakenly adds the wrong procedure to the order. The UM reviewer would previously have to modify the existing order via the Schedule Order screen because adding the correct procedure as an Alternative exam for a simple data entry error would skew the statistics. It is now possible for the reviewer to modify the ordered procedure from the Utilization Review screen.

The context menu on the Requested Procedure(s) grid on the Review Details tab has been enhanced to include both **Edit Procedure** and **Remove Procedure** menu items.



The screenshot shows the 'Utilization Review: TEST, um #8463PE' screen. The 'Requested Procedure(s)' grid is visible, showing two procedures: 'CT Chest W [71260] - Chest' and 'CT Soft Tissue Neck Wo [70490] - Neck'. A context menu is open over the second procedure, showing options: 'Content Preview', 'Edit Procedure', 'Remove Procedure', and 'Copy Cell'. The 'Remove Procedure' option is highlighted.

UM	Procedure	UM Status	UM Clock	Original Procedure
✓	CT Chest W [71260] - Chest	Received	2 of 30	
✓	CT Soft Tissue Neck Wo [70490] - Neck	Received	2 of 30	

For the Remove Procedure option, the following logic is used to determine if the user can delete the procedure from the order.

1. If the procedure is the only one for the order, the user is prevented from removing it and prompted with "At least one procedure is required."
2. If the procedure being removed already has a study associated with it (has been scheduled or is further in the workflow), the user is prevented from removing it and is prompted with "The procedure you are deleting is currently in Scheduled status. Please notify the appropriate person to make adjustments to the appointment."

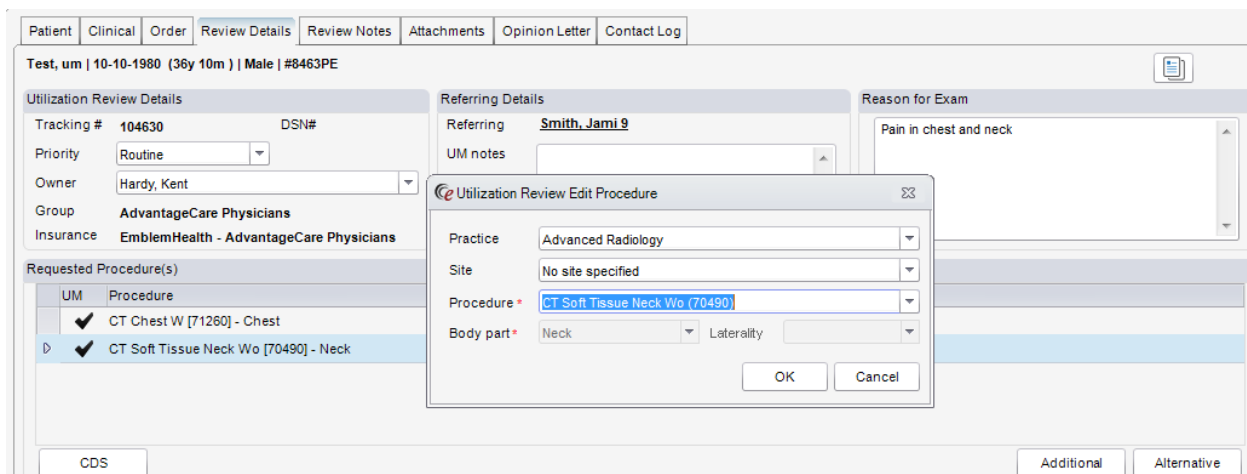
For the Edit Procedure option, similar logic applies. If the procedure being removed already has a study associated with it (has been scheduled or is further in the workflow), the user is prevented from removing it and is prompted with "The procedure you are deleting is currently in Scheduled status. Please notify the appropriate person to make adjustments to the appointment." Note that the word "Scheduled" will be replaced with the actual status of the study.

While adding the above logic to not adjust ordered procedures that have studies associated, it was decided to also prevent and display a message to the user for the following scenarios:



1. When **specifying** an **alternative** procedure for an order item that already has a study associated, the user is prompted with: "The procedure for which you are recommending an alternative is currently in scheduled status. Please notify the appropriate person to make adjustments to the appointment."
2. When **removing** an **alternative** procedure for an order item that already has a study associated, the user is prompted with: "The procedure you are deleting is currently in Scheduled status. Please notify the appropriate person to make adjustments to the appointment."
3. When **adding** an **additional** procedure for an order that already has at least one study associated, the user is prompted with: "The order for which you are adding an additional procedure has a procedure in scheduled status. Please notify the appropriate person to make adjustments to the appointment."
4. When **removing** an **additional** procedure for an order item that already has a study associated, the user is prompted with: "The procedure you are deleting is currently in Scheduled status. Please notify the appropriate person to make adjustments to the appointment."

If the above validation passes when editing a procedure, the user is presented with a procedure picker so he or she can modify the procedure and replace it at the order item level.



When selecting Remove Procedure, the user is prompted with "Are you sure you want to remove the procedure?" Selecting yes will delete the order item.

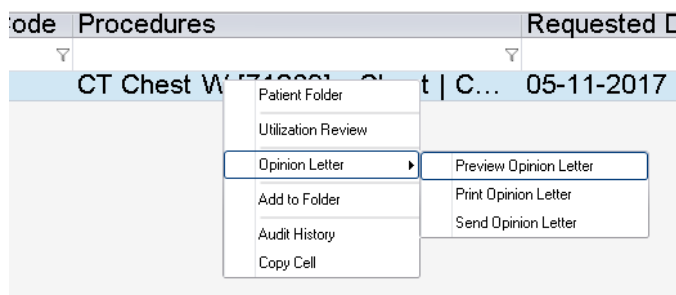
*Note: This feature was previously released in a patch to make it available in the field prior to this release. First released in 2.2016.7.14.*

## FEATURE #18170/17530 – RIS USERS CAN NOW PREVIEW AND DISTRIBUTE UM OPINION LETTER

Previously, the UM Opinion Letter was only available to be previewed from the Utilization Review screen via the UM Opinion Letter tab. Sometimes it is necessary for other RIS users to preview or distribute the UM Opinion Letter. To accomplish this, a new context menu item has been added to the Patient Folder and UM worklist called **Opinion Letter**. This option will be available when the UM Required Flag = Y and the user has FULL access to a new access string: **Clinical.OpinionLetter**.

The Opinion Letter context menu item will have three options:

1. Preview Opinion Letter
2. Print Opinion Letter
3. Send Opinion Letter



Access to these three sub-menu options can be controlled via the access strings:

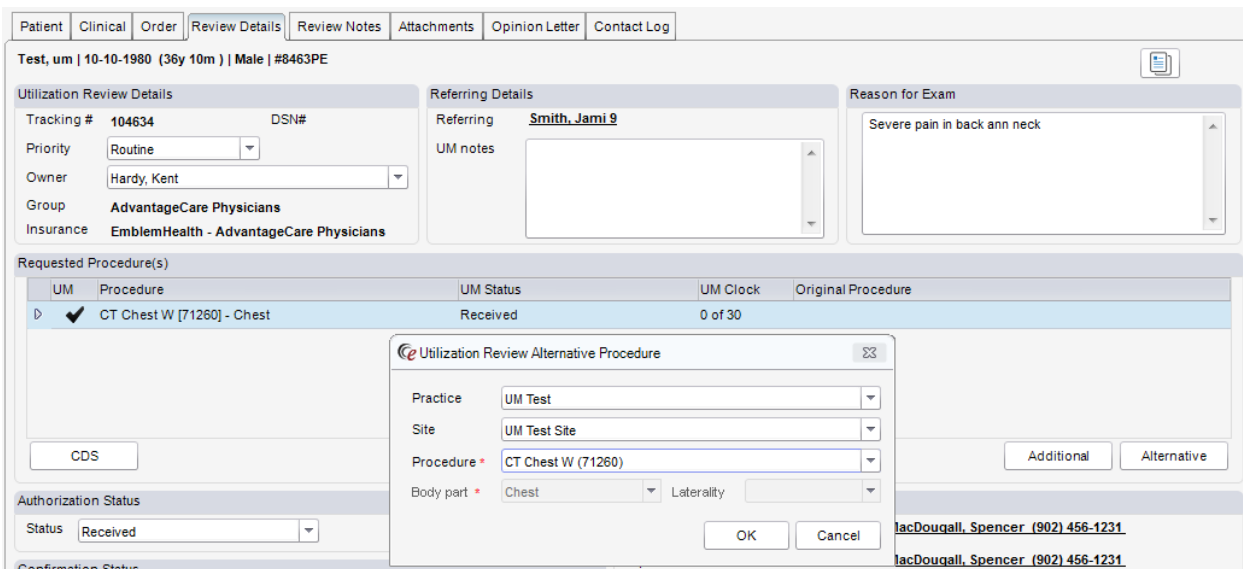
- **Clinical.OpinionLetter.Preview**
- **Clinical.OpinionLetter.Print**
- **Clinical.OpinionLetter.Send**

*Note: This feature was previously released in a patch to make it available in the field prior to this release. First released in 2.2016.7.14.*

## FEATURE #17579 – UM REVIEWERS CAN NOW CHOOSE ANY ACTIVE PROCEDURE, UNLIMITED BY THE CURRENT SITE’S SCHEDULE GROUP

When a UM Reviewer wishes to recommend an alternative procedure, add an additional procedure, or edit the procedure, sometimes it is not a procedure that can be performed at the practice or site for which the order was created. Previously, there were some restrictions on what procedures were available in the dropdown when selecting Alternative or Additional procedures. The UM Reviewer now has access to any active procedure when choosing the procedure via UM workflow.

The utilization review procedure picker has been enhanced to include dropdowns for both Practice and Site. When editing the existing procedure or specifying an alternative procedure, the Procedure dropdown will default to the original ordered procedure.



If the user changes the Procedure dropdown to a procedure that cannot be performed at the site or practice specified with the order, he or she is prompted with “The selected procedure cannot be performed at this Site or Practice. Please select a new Practice and Site from the list.”

If the user changes the Procedure dropdown to a procedure that cannot be performed at the site but is available at the practice specified with the order, he or she is prompted with “The selected procedure cannot be performed at this Site. Please select a new Site from the list.”

The Practice and Site dropdowns are then filtered to present the user with only practices and sites that can perform the newly selected procedure. This is accomplished by comparing active procedure codes against the configured schedule groups.

When adding additional procedures, the reviewer is not limited by the practice and site selection and will not be prompted if the procedure cannot be performed.

*Note: This feature was previously released in a patch to make it available in the field prior to this release. First released in 2.2016.7.14.*

## FEATURE #17580 – AUTOMATICALLY UPDATE EXAM STATUS BASED ON ATTRIBUTES OF SELECTED UM STATUS

Previously, when a UM Reviewer marked all procedures in an order as Not Recommended, the Patient Folder continued to display the order in an Ordered status, with the Procedure column displaying as blank due to the fact that no active procedures were associated. This could be confusing in cases where the UM Reviewer needed to go back to the case (e.g. they receive a call from the referring provider) or to other RIS users.

For this reason, a new System Configuration value has been added called **UMDefaultCancelledReasonCode**. This configuration value is dependent on a corresponding entry in the **CancelStudyReason** look-up table.

The workflow will proceed as follows: First, the system will look at the order once it is marked as UM Complete. UM Complete is determined by looking at each ordered procedure that requires utilization review to see if it is in a final UM Status. Next, the system will determine if the final UM Status can advance to scheduling or not. For example, Recommended can be scheduled while Not Recommended typically cannot. This is determined by verifying that the Final Flag on the UM Status is set to “Y” and the Schedule Flag is set to “N.”

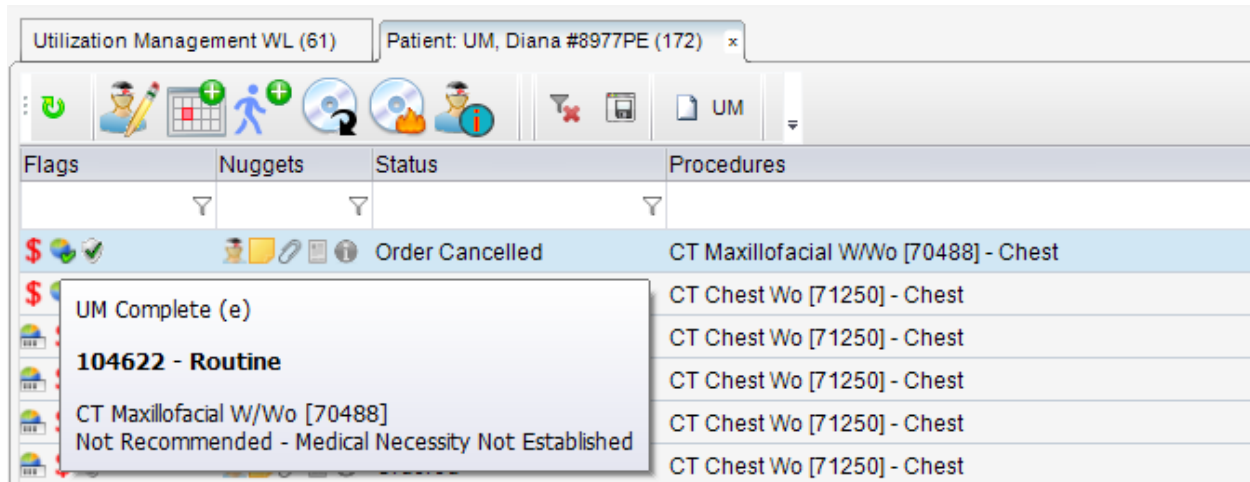
If it is determined that all the procedures for the order require utilization review and none can advance to be scheduled, the system will perform the following tasks:

1. Set the Status Code for the order to Order Cancelled.
2. Set the Cancelled by User ID field for the Order to “system.”
3. Set the Cancelled Date for the order to the current date and time.
4. Set the Cancelled Reason Code for the order to the **UMDefaultCancelledReasonCode**.

The following is an example of the audit log for the above scenario.

Event Time: 08-21-2017 03:38:15.836 PM Client IP Address: ::1	
Changed c_order	
status_code:	'OrderCancelled' (was 'OrderSigned')
cancelled_by_user_id:	'system' (was 'nothing')
cancelled_reason_code:	'UMDenied' (was 'nothing')
um_complete_flag:	'Y' (was 'N')
um_owner_user_id:	'chasin' (was 'nothing')
cancelled_date:	'08-21-17 3:38:14 PM -03:00' (was 'nothing')
Changed c_order_item	
procedure_code:	'70488'
um_status_code:	'NotRecommended' (was 'Received')
um_resolution_code:	'MedNec' (was 'nothing')
um_finalized_date:	'08-21-17 3:38:14 PM -03:00' (was 'nothing')
um_final_status_hours:	'40' (was 'nothing')
um_finalized_by_user_id:	'spencer' (was 'nothing')
um_reviewed_date:	'08-21-17 3:38:14 PM -03:00' (was 'nothing')
um_reviewed_by_user_id:	'spencer' (was 'nothing')
um_procedure:	'CT Maxillofacial W/Wo [70488] - Chest' (was 'nothing')
um_status:	'Not Recommended - Medical Necessity Not Established' (was 'nothing')
um_clock:	'40 of 30' (was 'nothing')

Below is an example of a UM order for which all exams on the order are moved to a Final UM status that indicates no scheduling is possible.



Flags	Nuggets	Status	Procedures
		Order Cancelled	CT Maxillofacial W/Wo [70488] - Chest
			CT Chest Wo [71250] - Chest
			CT Chest Wo [71250] - Chest
			CT Chest Wo [71250] - Chest
			CT Chest Wo [71250] - Chest
			CT Chest Wo [71250] - Chest

**104622 - Routine**  
 CT Maxillofacial W/Wo [70488]  
 Not Recommended - Medical Necessity Not Established

*Note: This feature was previously released in a patch to make it available in the field prior to this release. First released in 2.2016.7.14.*

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## FEATURE #17708 – SET DEFAULT UM STATUS AND RESOLUTION CODES FOR GOLD CARD AND STAT ORDERS

When configured, special handling for Gold Card or STAT orders requires that the orders be advanced to scheduling, bypassing the UM process. Previously, the UM flag was set to “Y” to allow scheduling, but the order would remain in Received status.

It is now possible to configure which Status and Resolution codes will be used in these scenarios. The defaults are defined by the following System Configuration settings:

- **UMDefaultSTATStatusCode**
- **UMDefaultSTATResolutionCode**
- **UMDefaultGoldCardStatusCode**
- **UMDefaultGoldCardResolutionCode**

If either System Configuration setting **UMByPassSTAT** or **UMGoldCardAutoApprove** is set to Y, the order’s status code and resolution code will be immediately changed to match the appropriate System Configuration values. In addition, the following values are automatically set:

- UM Finalized Date = Current Date/Time
- UM Finalized by User ID = “system”
- UM Final Status Hours = 0

*Note: This feature was previously released in a patch to make it available in the field prior to this release. First released in 2.2016.7.14.*

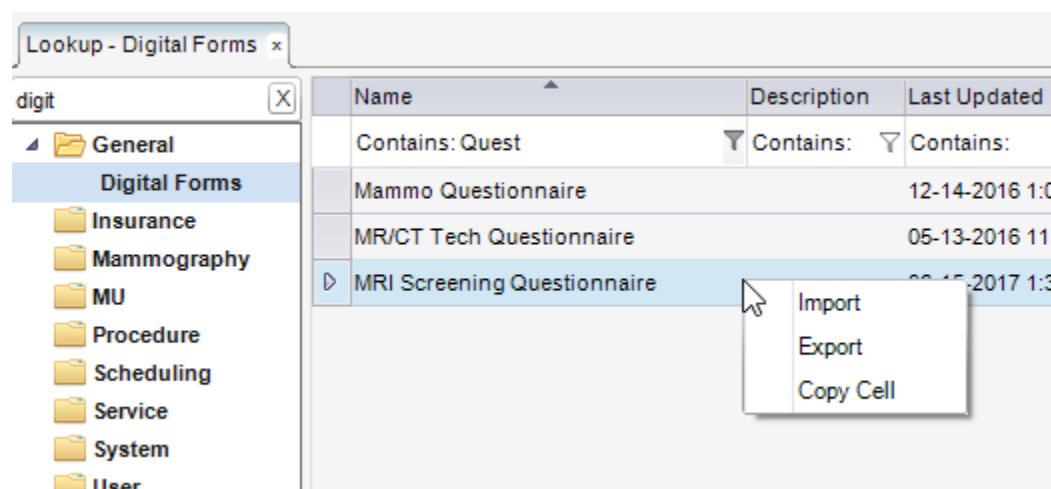
## DIGITAL FORMS

### FEATURE #16474 – IMPORT/EXPORT DIGITAL FORMS VIA LOOKUP TABLE

Previously, the import/export utility for Digital Forms was a standalone application requiring manual setup and configuration. The Digital Forms look-up will now be made available in the eRAD RIS GUI and will allow for the import/export functionality to be initiated from a context menu.

This activity is still considered a task to be performed by eRAD Support.

A Digital Forms configuration table is now visible in the General folder. Import and Export options have been added to the right-click context menu. Depending on the option selected, RIS will either export the selected Digital Forms as XML files or to import XML files as Digital Forms.



Users will be able to select an output path for exported XML files or select the location from which an XML file will be imported. Both options allow for multi-select. Exported files will be written to the folder the user has chosen while retrieving the content of associated image files from the web server. Import requires the XML to have been created using the export functionality in order to then be saved in the dataset and have an image file written to the web server.

Access to the new Digital Forms table will be controlled by the new access string [Config.LookupEditor.DigitalForms](#) (default = NONE).

**Important Note:** The same Digital Form should NOT be imported back to the originating system with the intention of then altering it to be used as a new Digital Form. The import process will assign the same GUIDs for the questions on the imported Digital Form and conflicts will occur if those unique question identifiers refer to questions on separate Digital Forms.



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## FEATURE #17628 – UPDATE DIGITAL FORM ANSWERS VIA HL7

In some cases, it can be advantageous to accept updates to the answers in Digital Forms from a third-party system. For example, some customers wish to create Digital Forms to store data related to Breast Cancer Risk Assessment from a third party.

In order to accommodate this need, it is now possible for HL7 messages coming in through the Wedge HTTP interface or the external interface service to update answers to Digital Forms ([c\\_questionnaire\\_answer](#) table).

A “match on” feature has been added to some tables in the external interface. The first table to make use of this new functionality is the table for Digital Form answers, but it can be enabled on other tables as the need arises. It is possible to define which criteria to match on. For example, by default, messages updating the Digital Forms answers will match on Study Key and Question GUID (a unique identifier for the Digital Form question).

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## FEATURE #17840 – ABILITY TO USE A LOAD BALANCER FOR DIGITAL FORMS SERVERS

Some customers would like to use a load balancer for Digital Forms servers. To support this need, eRAD RIS now has the ability to use a SQL server for session storage rather than using memory.

Please consult eRAD Support if interested in taking advantage of this feature.

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## FEATURE #17842 – NEW DISPLAY CRITERIA OPTIONS FOR THE CONDITIONAL TAB EDITOR

As eRAD RIS expands the use of Digital Forms, the following additional display criteria options have been added:

- Site Group
- Site
- Age Range
- Gender (Sex)
- Procedure Code
- Billing Code
- Carrier
- Carrier Type
- Contrast Required
- Sedation Required

In addition to loading the proper conditional tabs when a screen is opened, the conditional tab framework also listens for changes to key fields that may change the applicable tabs. For example, if a new billing code or carrier is added, the new tab will be attached immediately if the criteria match.

Most of the added criteria are self-explanatory, but a few may require further explanation.

### Site Group Criteria

A Site Group is a user defined collection of sites. Site Groups can have types (e.g. Radiologist Reading Group, General WL, RIS Schedule, etc.), but these are not used for filtering purposes in the Conditional Tabs editor. Any Site Group will be available for selection.

### Age Range Criteria

The age range was designed with a minimum age in years which is inclusive, and a maximum age in years which excludes the specified age. For example, 10-18 would match to a 10 year-old patient but not to an 18 year-old patient.

### Sedation Required

The Order tab on various screens (e.g. Registration, View/Edit, etc.) has a Sedation field. If this is populated, the exam will be classified as **Sedation Required** for conditional tab filtering purposes.

### Contrast Required

The Procedure Code table has a column named **Requires Contrast Flag**. This field is used for conditional tab filtering.

## CEHRT

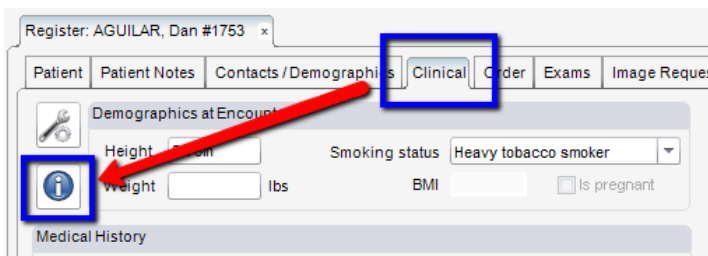
Certification of Electronic Health Records Technology (CEHRT) is a program that defines standards of performance that must be met in order to be considered a Certified EHR. eRAD RIS is currently certified under CEHRT 2014 Edition requirements. Using eRAD RIS Version 3.2017.6, eRAD RIS has applied for certification under CEHRT 2015 Edition requirements (the most recent edition for certification). eRAD RIS has already undergone and passed a testing process with an authorized certification body and is currently awaiting a new certification number, which will officially update the Certification Edition on the ONC's Certified Health IT Product List.

The following features have been added to the current eRAD RIS build to meet CEHRT 2015 Edition requirements. Some additional features are described in the Portals section of this document.

### FEATURE #16866 – CEHRT 170.315(B)(4): HEALTH CONCERNS FIELDS ADDED TO CLINICAL TAB

To qualify as a certified EHR System under the 2015 CEHRT requirements, eRAD RIS must be capable of collecting a patient's Health Concerns in a separate field that can be pulled into the C-CDA.

Because this data is unlikely to be separately collected in radiology, the fields were added in an out of the way area in the RIS. It is accessed using the Info button on the Clinical Tab.



After opening, the Health Concerns can be entered as seen below. Up to 500 characters of free text are allowed.

Health Concerns entered here will appear in the Health Concerns section of the C-CDA.

Health concerns  
On October 3rd, 2015, the patient expressed concern about chest pain

If this field is populated, the C-CDA will display the information:

#### **HEALTH CONCERNS**

##### **Details**

On October 3rd, 2015, the patient expressed concern about chest pain after previous CT scan.

If left blank, the C-CDA will indicate that health concerns were not recorded:

#### **SOCIAL HISTORY**

Description	Status
Smoking Status	Never smoker (Never Smoked)

#### **VITAL SIGNS**

Date	Height	Weight	BMI
04-27-2017	65 in	153 lbs	25.46

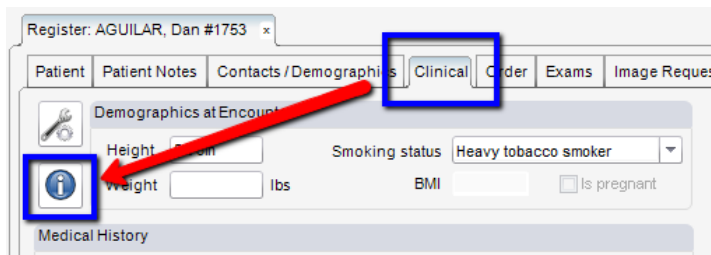
#### **HEALTH CONCERNS**

No health concerns recorded

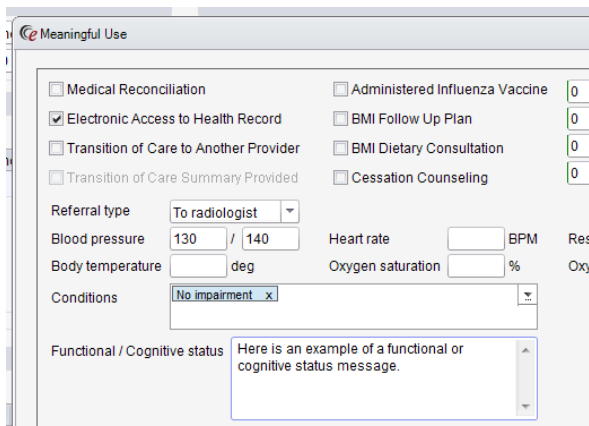
## FEATURE #16877 – CEHRT 170.315(B)(4): FUNCTIONAL/COGNITIVE STATUS FIELD ADDED TO CLINICAL TAB

To qualify as a certified EHR System under the 2015 CEHRT requirements, eRAD RIS must be capable of collecting a patient's Functional and Cognitive status, as well as providing this information in the C-CDA.

Because this data is unlikely to be collected in radiology, the fields were added in an out of the way area in the RIS. It is accessed using the Info button on the Clinical Tab.



After opening, the Functional/Cognitive Status can be entered as seen below. Up to 500 characters of free text are allowed.



This field will appear on the C-CDA in the Functional and Cognitive Status section as a Functional Status Observation:

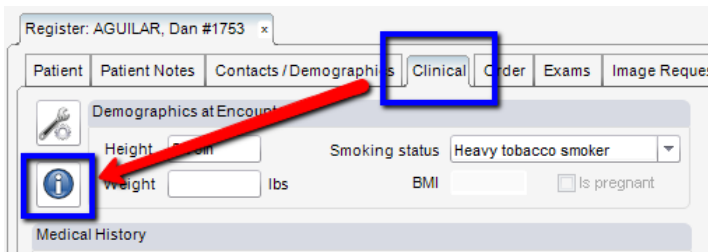
### **FUNCTIONAL AND COGNITIVE STATUS**

Condition	Date	Status
No impairment	05-05-2017	Active
<b>Other</b>		
Here is an example of a functional or cognitive status message.		

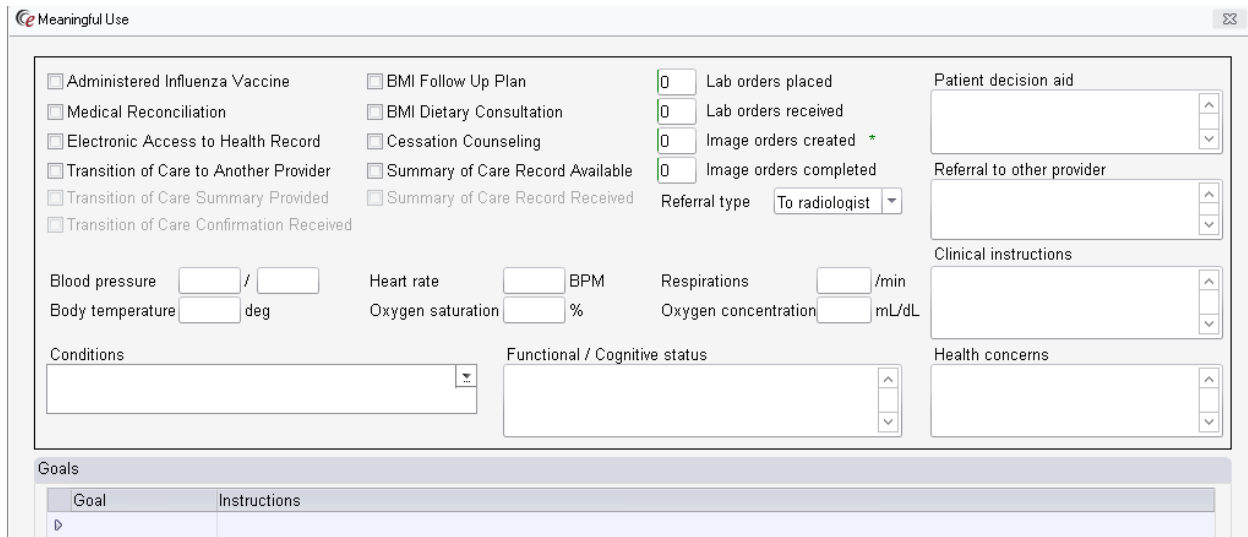
## FEATURE #18061 – CHECKBOX TO INDICATE THAT A SUMMARY OF CARE RECORD IS AVAILABLE

To qualify as a certified EHR System under the 2015 CEHRT requirements, eRAD RIS must be capable of recording that a Summary of Care Record is available.

A new checkbox has been added for this purpose. It is accessed using the Info button on the Clinical Tab.



The checkbox will be available on the resulting screen, as shown:



If this box is not checked, the existing checkbox for labeled **Summary of Care Record Received** will be disabled.

Note that some elements on this screen were reorganized to accommodate the new checkbox.

## FEATURE #18008 – SUMMARY OF CARE RECORD RECEIVED

To qualify as a certified EHR System under the 2015 CEHRT requirements, eRAD RIS must be capable of recording that a Summary of Care Record has been received.

A new checkbox has been added for this purpose. It is accessed using the Info button on the Clinical Tab.

The screenshot shows the eRAD interface for a patient named AGUILAR, Dan #1753. The 'Clinical' tab is selected and highlighted with a blue box. Below the tabs, the 'Demographics at Encounter' section is visible. A red arrow points to the 'Info' button, which is also highlighted with a blue box. The 'Info' button is located in the bottom left corner of the 'Demographics at Encounter' section.

The checkbox will be available on the resulting screen, as shown:

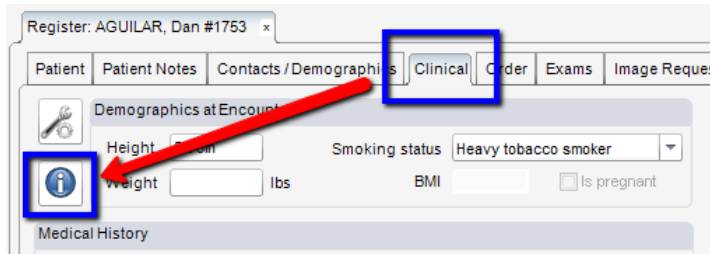
The screenshot shows the 'Meaningful Use' section of the eRAD interface. The 'Summary of Care Record Received' checkbox is checked. Other checkboxes include 'Medical Reconciliation', 'Electronic Access to Health Record', 'Transition of Care to Another Provider', 'Transition of Care Summary Provided', 'Administered Influenza Vaccine', 'BMI Follow Up Plan', 'BMI Dietary Consultation', and 'Cessation Counseling'. The 'Referral type' dropdown is set to 'To radiologist'. The 'Blood pressure' and 'Heart rate' fields are also visible.



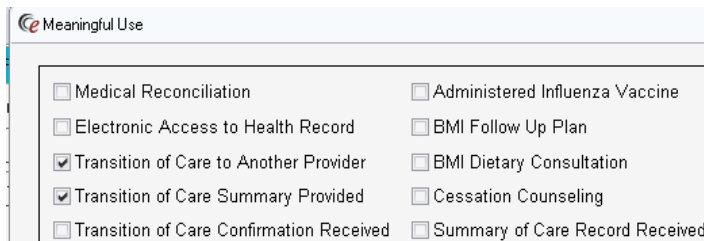
## FEATURE #18039 – TRANSITION OF CARE CONFIRMATION RECEIVED

To qualify as a certified EHR System under the 2015 CEHRT requirements, eRAD RIS must be capable of recording that a Transition of Care Confirmation has been received.

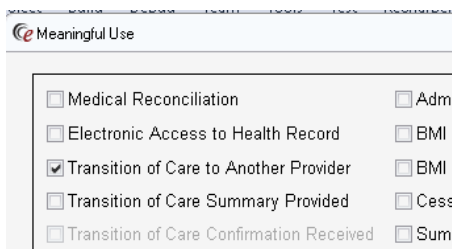
A new checkbox has been added for this purpose. It is accessed using the Info button on the Clinical Tab.



The checkbox will be available on the resulting screen, as shown:



The checkbox for Transition of Care Summary Provided must be checked to enable the Transition of Care Confirmation Received checkbox. If it is not checked, the new Confirmation Received checkbox will be disabled.

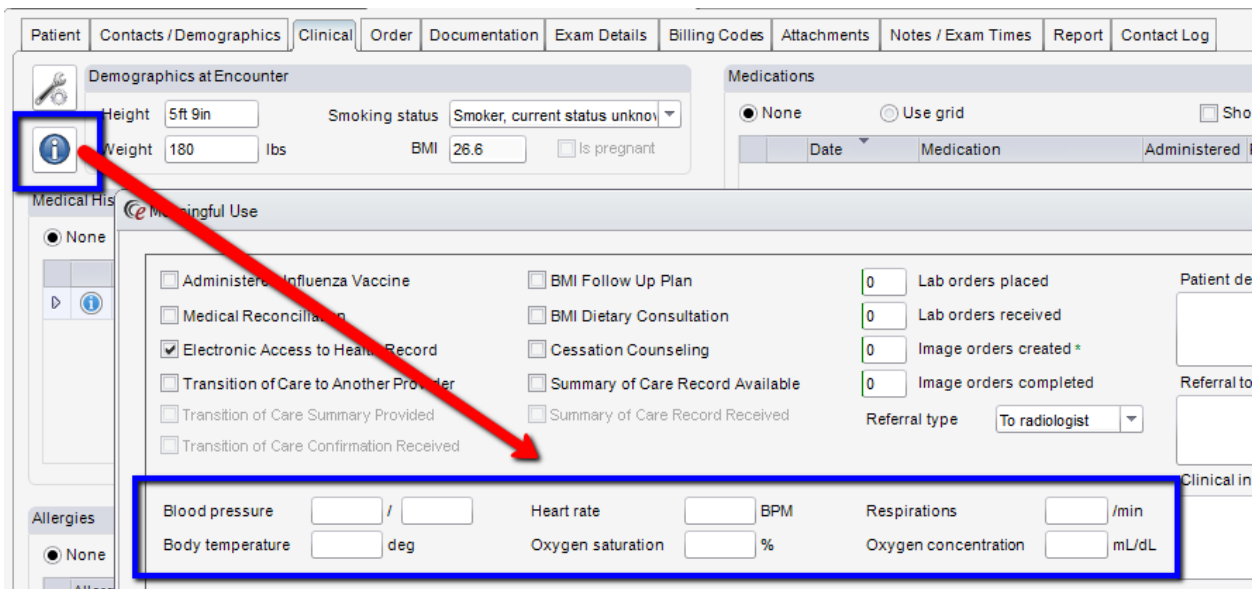


## FEATURE #16222,16918 – CEHRT 170.315(B)(4): COLLECT NEW VITAL SIGN DATA AND DISPLAY IN THE C-CDA

eRAD RIS needs to provide the ability for the user to capture the following information on the Clinical tab, so that it can be electronically exchanged with Clinical Data set in the C-CDA:

- Heart rate - {beats}/min (LOINC 8302-2)
- Respiratory rate - /min (LOINC 9279-1)
- Body temperature – degree (LOINC 8310-5)
- Oxygen saturation – Percent (LOINC 2710-2)
- Oxygen concentration - mL/dL (LOINC 3150-0)

Data fields for these vital signs are now available on the Clinical tab and can be accessed by clicking the information button, as illustrated below.



If recorded, this data will be displayed in the **Vital Signs** section of the C-CDA. Height, Weight, and BMI will also be listed.

### VITAL SIGNS

Date	Height	Weight	BMI	
04-21-2017	69 in	180 lbs	26.58	Blood Pressure: 115/80 mm[Hg] Heart Rate: 75 BPM Respirations: 15 /min Body Temperature: 98.7 deg Oxygen Saturation: 95 % Oxygen Concentration: 20 mL/dL

A date extension was also added to the C-CDA's template ID, per requirements.

## FEATURE #16865, 17204 – CEHRT 170.315(B)(4): GOALS SECTION ADDED TO C-CDA FOR TRANSITION OF CARE DOCUMENT

To satisfy the 2015 Edition Certification Criteria, Continuity of Care documents now include a Goals section. It is possible to set goals and provide instructions for patients using the Information button on the Clinical tab.

The screenshot shows the eRAD Clinical tab interface. The 'Clinical' tab is selected. The 'Meaningful Use' section is expanded, showing various checkboxes for clinical goals. A red arrow points to the 'Goals' dropdown menu, which is currently set to 'None'. Below the dropdown, there is a table with two columns: 'Goal' and 'Instructions'.

Goal	Instructions
Decrease BP	30 minutes of daily physical activity and reduce sodium (salt) intake as discussed.
Demonstrate adequate calcium intake	Premenopausal women (19-50 years old) need 1,500 mg of calcium daily. Supplements can ensure adequate calci...

Goals can be selected via the dropdown, which is populated by any Active goals configured in the Goals look-up table. Instructions related to the goal can be added by typing them in.

When goals and instructions have been added for a patient, the information will appear in the new **Goals** section on the C-CDA.

### GOALS

Goal	Instructions
Decrease BP	30 minutes of daily physical activity and reduce sodium (salt) intake as discussed.
Demonstrate adequate calcium intake	Premenopausal women (19-50 years old) need 1,500 mg of calcium daily. Supplements can ensure adequate calcium intake.

If no goals have been entered for the patient, the Goals section will state “no goals recorded.”

The Goals section replaces a previous C-CDA section that was labeled “Instructions.” The Instructions section has been removed from the C-CDA.

---

**FEATURE #16909 – CEHRT 170.315(B)(4): CHANGES TO PLAN OF CARE SECTION OF C-CDA**

Previously, the C-CDA had a **Plan of Care** section. Per new CEHRT requirements, the name of this section has been changed to **Plan of Treatment**.

A date extension was also added to the template ID, per requirements.

In the Treatment Plan section of the C-CDA, any exams that are in Ordered or Scheduled status for the patient will be listed as a Future Appointment.

**TREATMENT PLAN**

Name	Type	Date
CT Soft Tissue Neck W & Chest W [CT35] - Pelvis - Bilateral	Future Appointment	09-26-2016
MR Brain Spectroscopy [76390] - Head	Future Appointment	09-30-2016

Any visit Goals will also be listed in this section.

**TREATMENT PLAN**

Name	Type	Date
Asthma management	Scheduled Goal	03-27-2017
Weight loss	Scheduled Goal	03-27-2017

If no data is available, the C-CDA will note “No treatment plan recorded.”

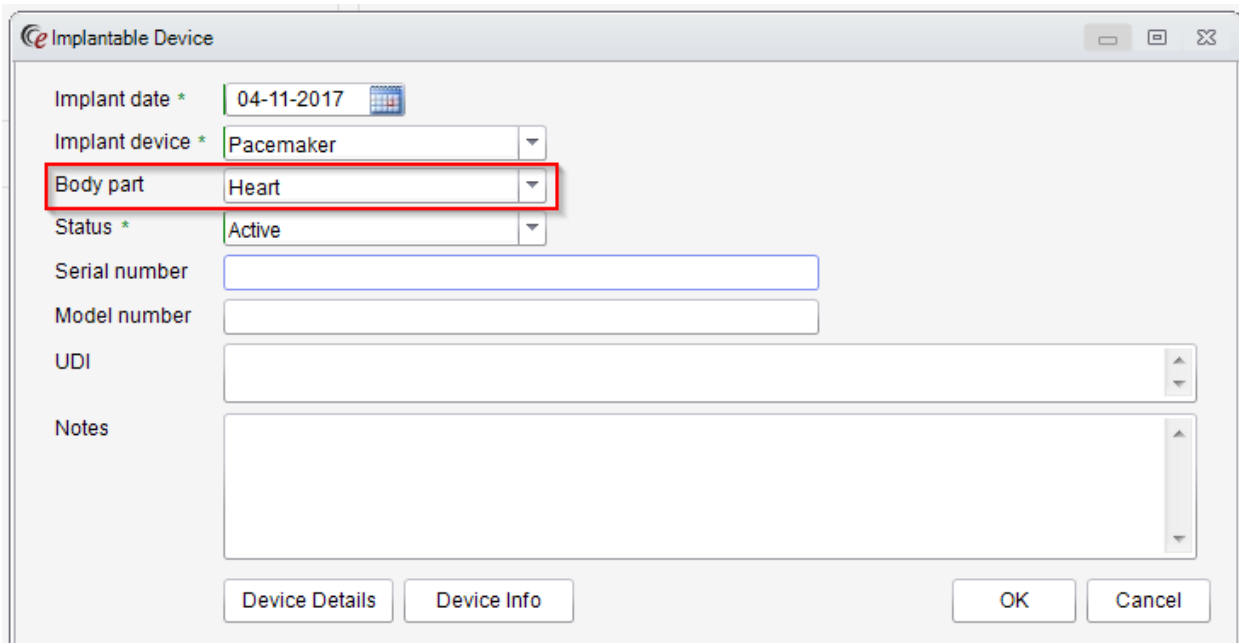
## FEATURE #16910, 16912 – CEHRT 170.315(B)(4): IMPLANTED DEVICES ARE NOW LISTED IN THE PROCEDURES SECTION OF THE C-CDA AND INCLUDE BODY PART

Previously, the C-CDA contained a section labeled “Implanted Device.” This section is no longer valid and the implanted device information is now expected to be displayed in the [Procedures](#) section of the C-CDA, as displayed below.

### PROCEDURES

Procedure	Body Part	Date
ANESTHESIA FOR PROCEDURES ON NOSE AND ACCESSORY SINUSES; RADICAL SURGERY	Chest	05-05-2017
Pacemaker [pacemaker]	Heart	04-11-2017
Mechanical Hip [mechanicalHip]	Hip joint	04-25-2017

In addition, the C-CDA also now requires a Body Part to be listed for the implanted device. To collect this data, a new Body Part dropdown is available on the Implantable Device screen.



The Body Part options in the dropdown are populated from the existing Body Part look-up table.

Once implanted devices have been added for a patient, the Implantable Device grid will now show a column for the Body Part that was selected.

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FEATURE #16917 – CEHRT 170.315(B)(4): UPDATE RESULTS SECTION TEMPLATE OF C-CDA

The Results section of the C-CDA will display any Lab Order data that is saved for the patient.

Lab Orders

	Test	Status / Value	Date
	LDL Cholesterol	500 mL	05-10-2017
	Eosinophils/100 leukocyte...	Positive (qualifier value)	05-05-2017
	Creatinine	Unknown result	05-05-2017

Add
Edit
☐ Skip Labwork Advised WL

The Lab Orders entered above would result in a Results section that is displayed as follows:

**RESULTS**

Test Name	Value
Eosinophils/100 leukocytes in Blood [26450-7]	Positive (qualifier value)
Creatinine [14682-9]	Unknown result
LDL Cholesterol [2089-1]	500 (mL)

A date extension was also added to the template ID, per requirements.

## FEATURE #16853 – CEHRT 170.315(B)(4): UPDATES TO SOCIAL HISTORY C-CDA TEMPLATE SECTION

The C-CDA template has been updated to include **Birth Sex** in the Social History section. This observation represents the sex of the patient at birth. It is the sex that is entered on the person's birth certificate at time of birth.

The C-CDA will include an entry from the ONC Administrative Sex value set: Male or Female. If the information is unavailable, "Unknown" will be listed.

Smoking Status was also updated to follow new validation standards.

Examples:

### SOCIAL HISTORY

Observation	Description	Date
Birth Sex	Female	04-15-1986
Smoking Status	Current some day smoker	03-27-2017

### SOCIAL HISTORY

Observation	Description	Date
Birth Sex	Male	01-30-1930
Smoking Status	Unknown	



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**FEATURE #17192 – CEHRT 170.315(B)(4): ALLERGY SECTION OF C-CDA IS NOW TITLED “ALLERGIES AND INTOLERANCES”**

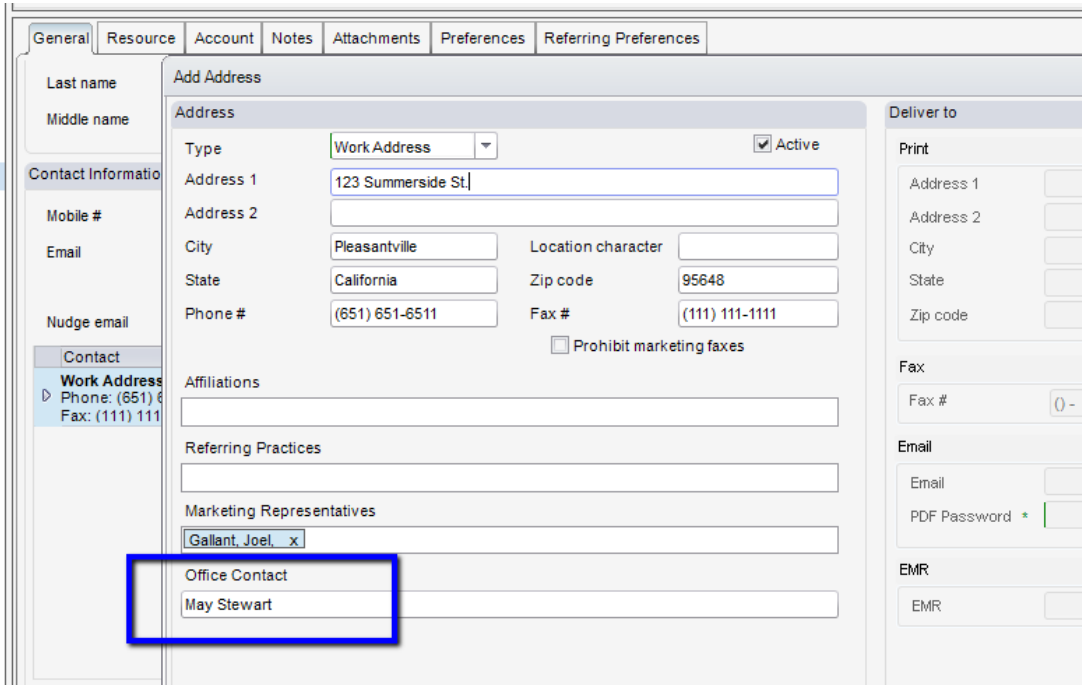
The Allergy section of the C-CDA lists and describes any medication allergies, adverse reactions, idiosyncratic reactions, anaphylaxis/anaphylactoid reactions to food items, and metabolic variations or adverse reactions/allergies to other substances (such as latex, iodine, tape adhesives). To more accurately describe this data, and conform with 2015 CEHRT requirements, the Allergies section in the C-CDA has been renamed: **Allergies and Intolerances**.

**ALLERGIES AND INTOLERANCES**

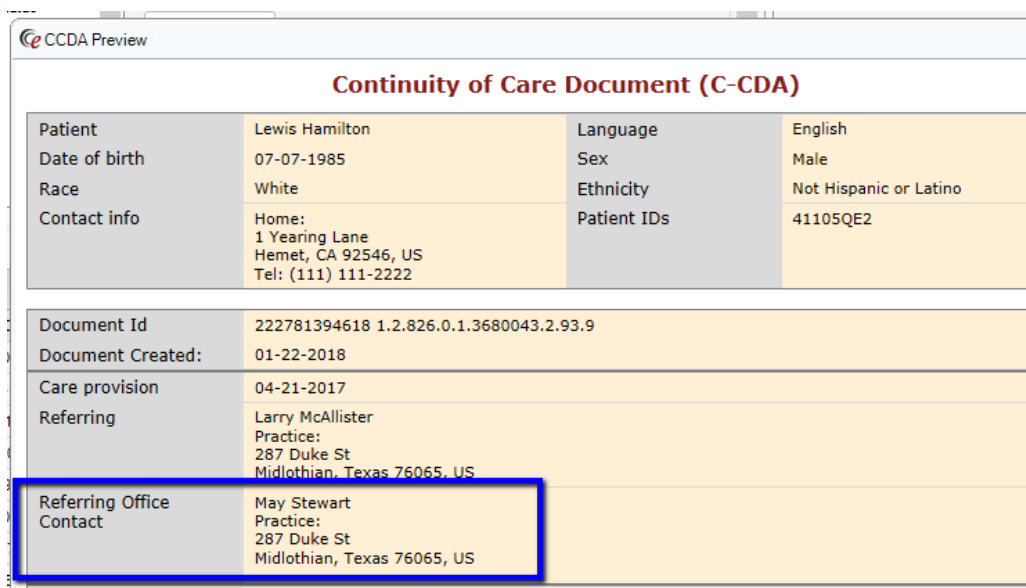
Description	Start Date	Reaction	Severity	Status
Bee Sting	04-03-2017	Redness and swelling	Moderate	Active
Bee Pollens	02-07-2017	Itchy rash.	Mild	Active
Peanut	11-01-2010	Swelling and loss of breath.	Moderate to severe	InActive

## FEATURE #18131, 18136 – CEHRT 170.315(B)(6): DATA EXPORT – DESIGNATE AN OFFICE CONTACT FOR A REFERRING PHYSICIAN AND INCLUDE INFORMATION IN THE C-CDA

A new field has been added to the Personnel screen to allow an administrator to record the name of the primary contact at a referring physician's office. The field is labeled **Office Contact** and is located on the Add Address pop-up window.



The field accepts free text. This text will be displayed in the **Referring Office Contact** section in the header of the C-CDA. The address listed will be the same address to which the contact is associated for the referring physician.



Continuity of Care Document (C-CDA)			
Patient	Lewis Hamilton	Language	English
Date of birth	07-07-1985	Sex	Male
Race	White	Ethnicity	Not Hispanic or Latino
Contact info	Home: 1 Yearling Lane Hemet, CA 92546, US Tel: (111) 111-2222	Patient IDs	41105QE2
Document Id	222781394618 1.2.826.0.1.3680043.2.93.9		
Document Created:	01-22-2018		
Care provision	04-21-2017		
Referring	Larry McAllister Practice: 287 Duke St Midlothian, Texas 76065, US		
Referring Office Contact	May Stewart Practice: 287 Duke St Midlothian, Texas 76065, US		

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## FEATURE #16935 – CEHRT 170.315(B)(4): SMALL CHANGES TO C-CDA DOCUMENT TEMPLATE

Slight alterations to the C-CDA document template have been made to meet 2015 CEHRT requirements. This involved adding extensions to the template IDs of several sections and some small alterations to the order data is displayed in some sections.

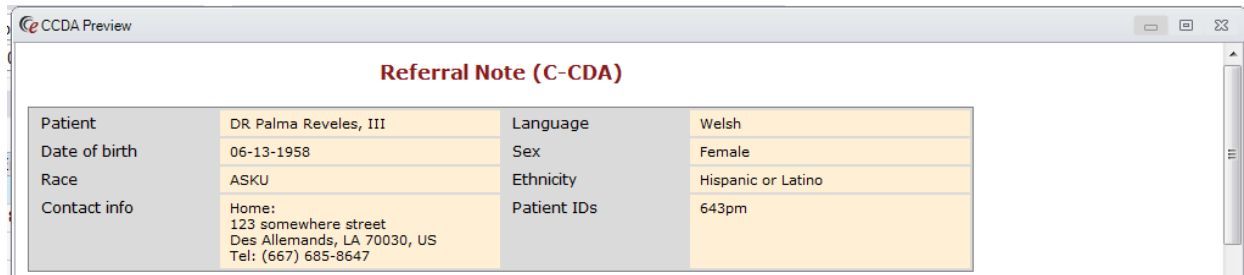
The updated Table of Contents for the C-CDA is now displayed as follows.

### Table of Contents

- ALLERGIES AND INTOLERANCES
  - ENCOUNTERS
  - FUNCTIONAL AND COGNITIVE STATUS
  - IMMUNIZATIONS
  - MEDICATIONS
  - MEDICATIONS ADMINISTERED
  - TREATMENT PLAN
  - PROBLEMS
  - PROCEDURES
  - REASON FOR VISIT
  - RESULTS
  - SOCIAL HISTORY
  - VITAL SIGNS
  - HEALTH CONCERNS
  - GOALS
-

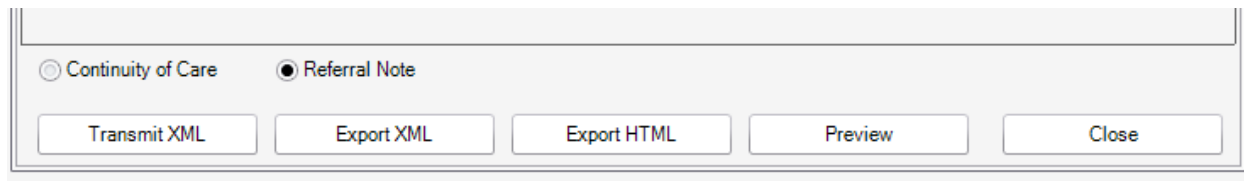
## FEATURE #17436 – CEHRT 170.315(B)(1): TRANSITION OF CARE – NEW REFERRAL NOTE C-CDA TEMPLATE INCLUDES ASSESSMENT AND REASON FOR REFERRAL SECTIONS

A new type of C-CDA template called **Referral Note** is now supported in eRAD RIS. This variety of the C-CDA has a distinct title and two new sections: **Assessment** and **Reason for Referral**.



Referral Note (C-CDA)			
Patient	DR Palma Reveles, III	Language	Welsh
Date of birth	06-13-1958	Sex	Female
Race	ASKU	Ethnicity	Hispanic or Latino
Contact info	Home: 123 somewhere street Des Allemands, LA 70030, US Tel: (667) 685-8647	Patient IDs	643pm

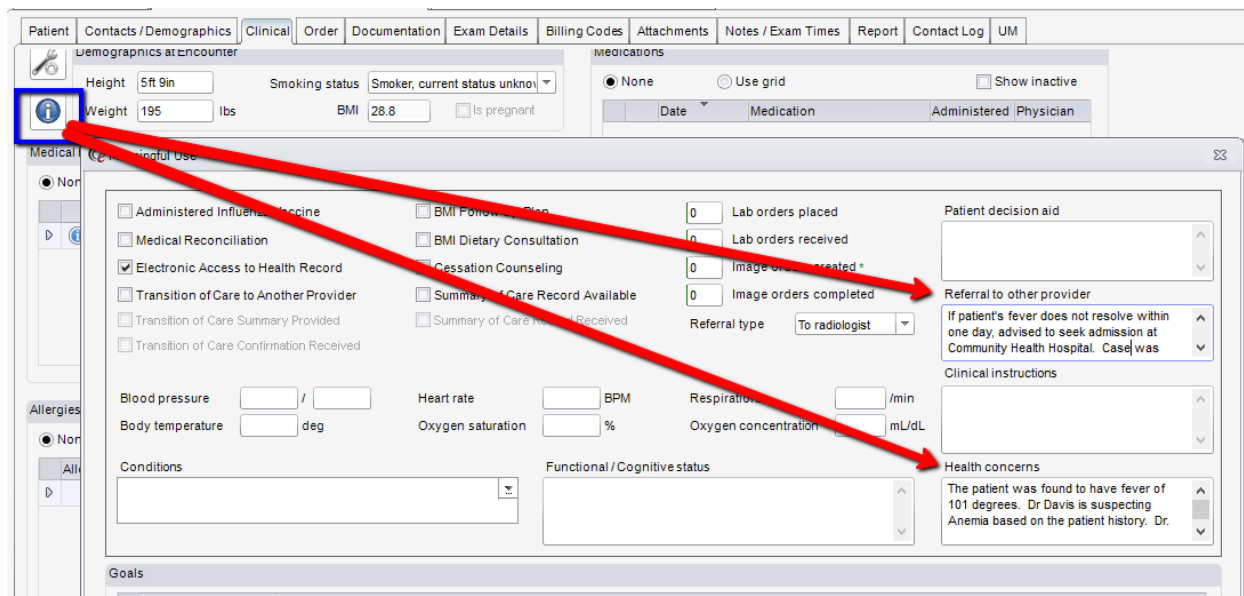
To transmit, export, or preview a C-CDA of this type, simply toggle the radio button above the Transmit/Export/Preview buttons to select Referral Note.



☐ Continuity of Care
 ☒ Referral Note

Transmit XML
 Export XML
 Export HTML
 Preview
 Close

The new Assessments and Reason for Referral sections will be populated with any text that is entered into the corresponding fields on the Clinical tab's "info button" screen, as illustrated below.



Patient
 Contacts / Demographics
 **Clinical**
 Order
 Documentation
 Exam Details
 Billing Codes
 Attachments
 Notes / Exam Times
 Report
 Contact Log
 UM

Demographics at encounter
 Height: 5ft 9in
 Weight: 195 lbs
 Smoking status: Smoker, current status unknown
 BMI: 28.8
 Is pregnant: ☐

Medications
 ☒ None
 ☐ Use grid
 ☐ Show inactive

Medical History
 ☒ None
 ☐ Other

Assessment
 ☐ Administered Influenza Vaccine
 ☐ BMI Follow-up
 ☐ BMI Dietary Consultation
 ☒ Electronic Access to Health Record
 ☐ Cessation Counseling
 ☐ Transition of Care to Another Provider
 ☐ Summary of Care Record Available
 ☐ Transition of Care Summary Provided
 ☐ Summary of Care Received
 ☐ Transition of Care Confirmation Received

Allergies
 ☒ None
 ☐ All

Blood pressure: / 
 Heart rate: BPM
 Respiratory: /min
 Body temperature: deg
 Oxygen saturation: %
 Oxygen concentration: mL/dL
 Conditions: 
 Functional / Cognitive status:

Goals
 Goal: 
 Instructions:

Patient decision aid
 Referral to other provider
 If patient's fever does not resolve within one day, advised to seek admission at Community Health Hospital. Case was
 Clinical instructions
 Health concerns
 The patient was found to have fever of 101 degrees. Dr Davis is suspecting Anemia based on the patient history. Dr.

The Reason for Referral section is populated with the text entered in the [Referral to Other Provider](#) field and the Assessments section is populated with the text entered in the [Health Concerns](#) field.

Examples of new Referral Note sections:

**ASSESSMENTS**

Details
On October 3rd, 2015, the patient expressed concern about chest pain after previous CT scan.

If no text is entered in the Health Concerns field, the Assessments section will read “No assessments recorded.”

**REASON FOR REFERRAL**

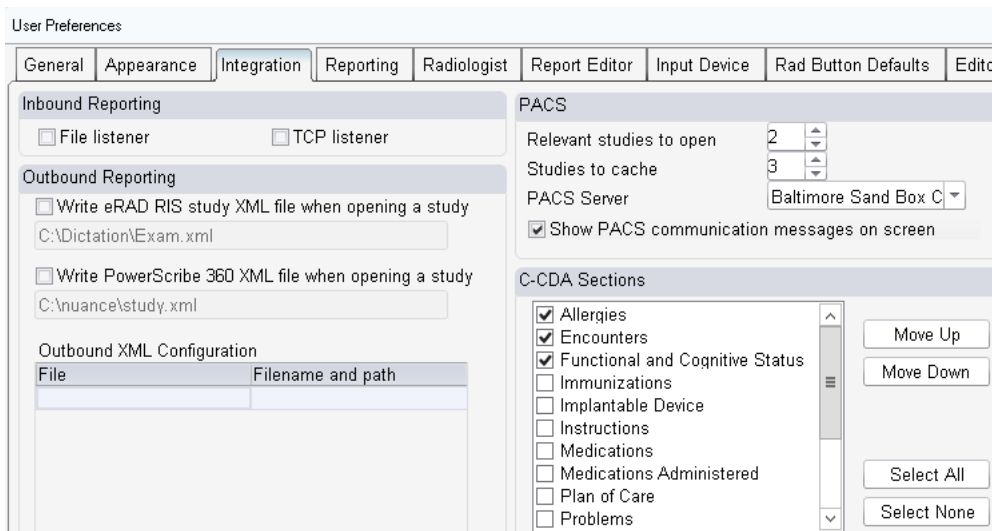
Details
If patient's fever does not resolve within one day, advised to seek admission at Community Health Hospital. Case was reviewed with Dr. Samantha Winter at that facility.

If no text is entered in the Referral to Other Provider field, the Reason for Referral section will read “No reason for referral recorded.”

## FEATURE #17077 – ABILITY TO REORDER SECTIONS IN C-CDA

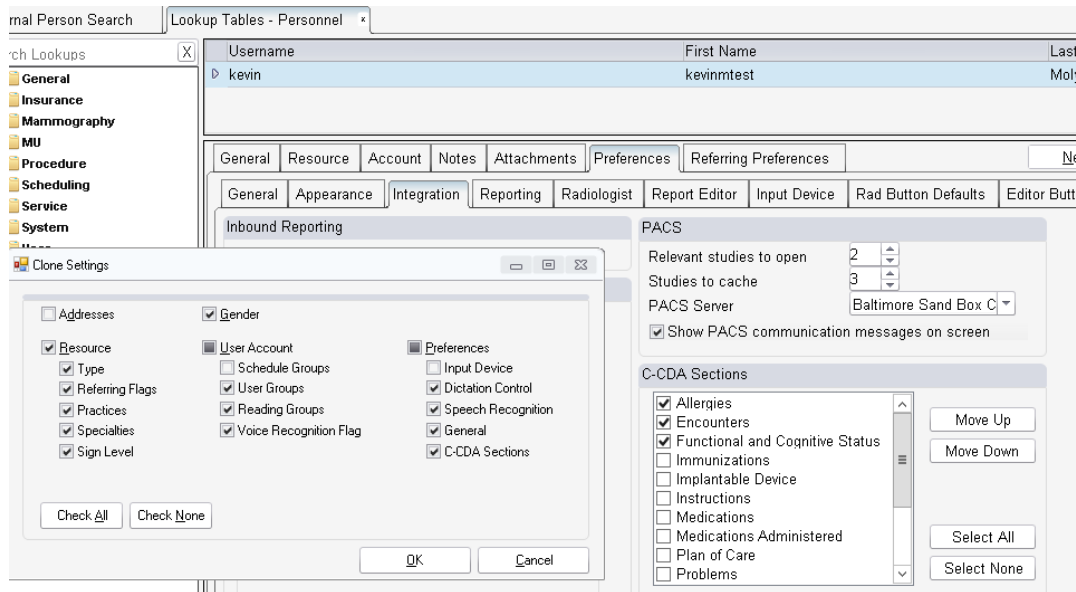
CEHRT 2015 required that eRAD RIS have the ability to reorder the sections within the C-CDA for exporting purposes.

A new **C-CDA Sections** selection has been added to the User Preferences screen to allow a RIS user or administrator to specify the sections to be included in the C-CDA and their order. Only sections that are marked as checked will be included in the C-CDA and the sections will be displayed in the specified order. The following image shows a user's configuration that will result in a C-CDA that only displays the sections for Allergies, Encounters, and Functional/Cognitive Status in that order.



The screenshot shows the 'User Preferences' window with the 'Reporting' tab selected. The 'C-CDA Sections' section is expanded, showing a list of sections with checkboxes. The sections 'Allergies', 'Encounters', and 'Functional and Cognitive Status' are checked. The 'Move Up' and 'Move Down' buttons are visible, indicating the ability to reorder the sections. The 'Select All' and 'Select None' buttons are also present.

When cloning user accounts, the C-CDA Section preferences can be copied to the new account as shown in the following screenshot.



Lookup Tables - Personnel

Username: kevin, First Name: kevinmtest, Last Name: Moly

General | Resource | Account | Notes | Attachments | Preferences | Referring Preferences

General | Appearance | Integration | Reporting | Radiologist | Report Editor | Input Device | Rad Button Defaults | Editor Buttons

Inbound Reporting

Clone Settings

Addresses ☐ Gender ☒ Resource ☒ Type ☒ Referring Flags ☒ Practices ☒ Specialties ☒ Sign Level ☒ User Account ☐ Schedule Groups ☐ User Groups ☐ Reading Groups ☐ Voice Recognition Flag ☐ Preferences ☐ Input Device ☐ Dictation Control ☐ Speech Recognition ☐ General ☐ C-CDA Sections

Check All Check None OK Cancel

PACS

Relevant studies to open: 2, Studies to cache: 3, PACS Server: Baltimore Sand Box C

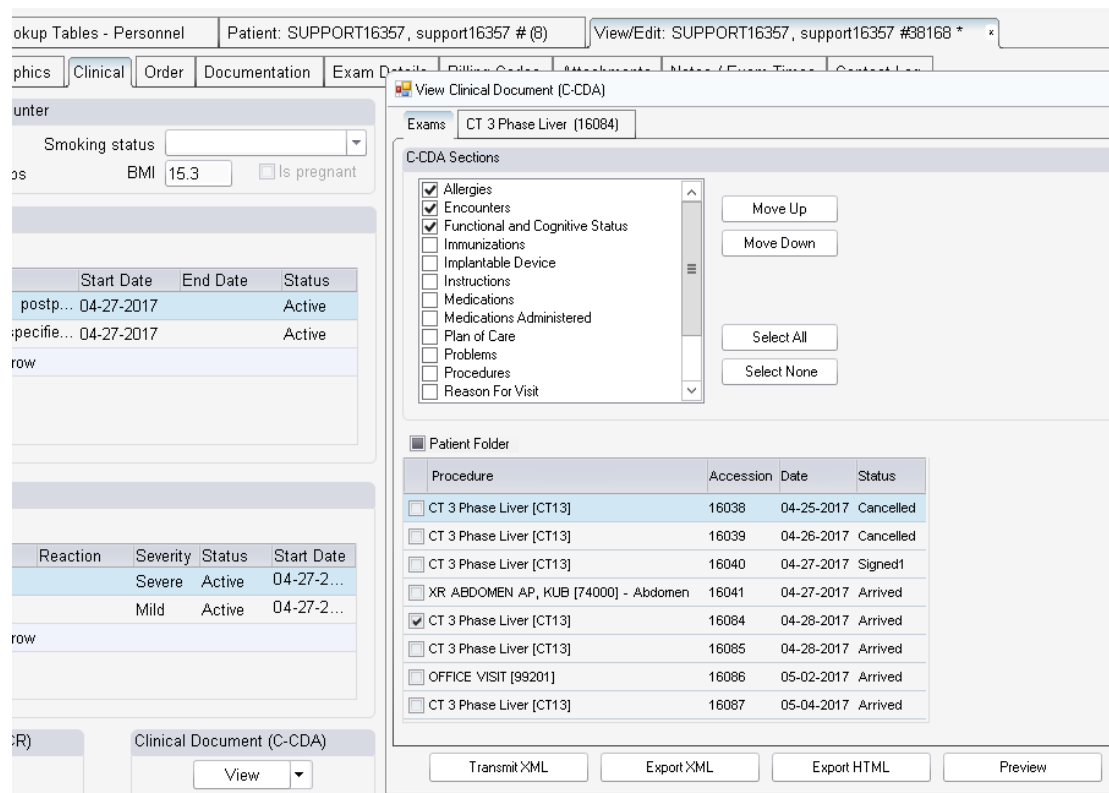
☒ Show PACS communication messages on screen

C-CDA Sections

☒ Allergies ☒ Encounters ☒ Functional and Cognitive Status ☐ Immunizations ☐ Implantable Device ☐ Instructions ☐ Medications ☐ Medications Administered ☐ Plan of Care ☐ Problems

Move Up Move Down Select All Select None

When clicking the C-CDA's "View" button on the Clinical tab, users can adjust their default C-CDA Preferences when exporting, transmitting or previewing a patient's C-CDA.



Lookup Tables - Personnel Patient: SUPPORT16357, support16357 # (8) View/Edit: SUPPORT16357, support16357 #88168 \*

Physics Clinical Order Documentation Exam Details Billing Orders Attachments Notes / Exam Times Contact Us

View Clinical Document (C-CDA)

Exams: CT 3 Phase Liver (16084)

C-CDA Sections

☒ Allergies ☒ Encounters ☒ Functional and Cognitive Status ☐ Immunizations ☐ Implantable Device ☐ Instructions ☐ Medications ☐ Medications Administered ☐ Plan of Care ☐ Problems ☐ Procedures ☐ Reason For Visit

Move Up Move Down Select All Select None

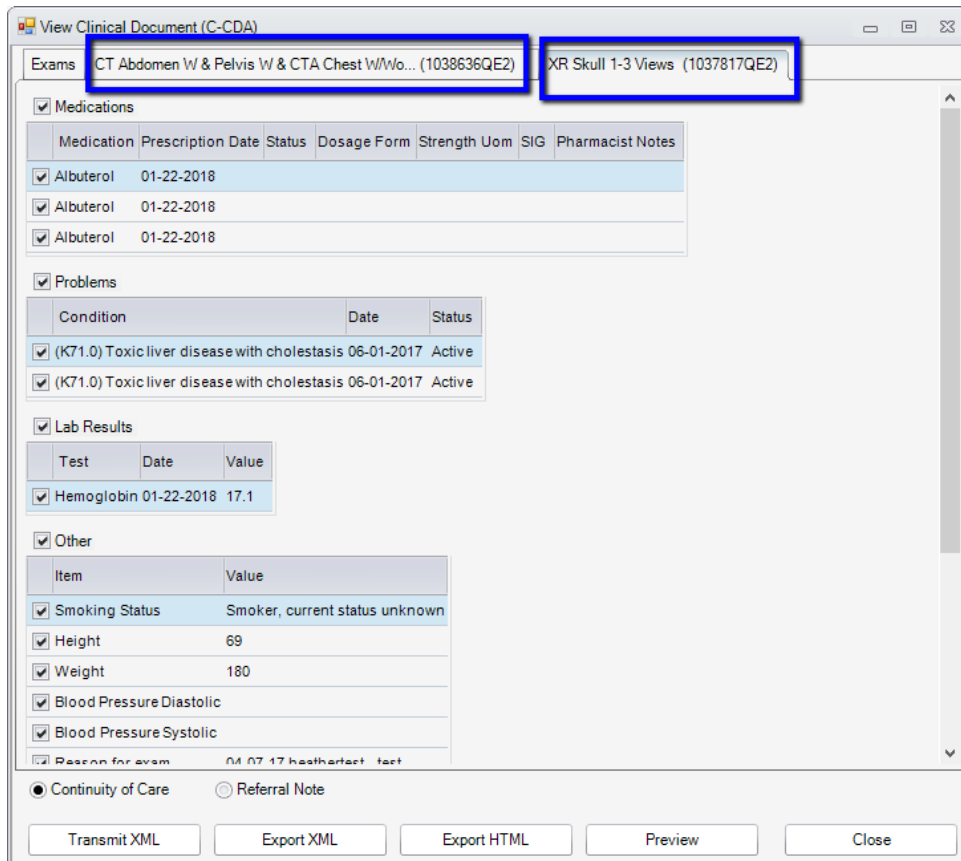
Patient Folder

Procedure	Accession	Date	Status
<input type="checkbox"/> CT 3 Phase Liver [CT13]	16038	04-25-2017	Cancelled
<input type="checkbox"/> CT 3 Phase Liver [CT13]	16039	04-26-2017	Cancelled
<input type="checkbox"/> CT 3 Phase Liver [CT13]	16040	04-27-2017	Signed1
<input type="checkbox"/> XR ABDOMEN AP, KUB [74000] - Abdomen	16041	04-27-2017	Arrived
<input checked="" type="checkbox"/> CT 3 Phase Liver [CT13]	16084	04-28-2017	Arrived
<input type="checkbox"/> CT 3 Phase Liver [CT13]	16085	04-28-2017	Arrived
<input type="checkbox"/> OFFICE VISIT [99201]	16086	05-02-2017	Arrived
<input type="checkbox"/> CT 3 Phase Liver [CT13]	16087	05-04-2017	Arrived

Transmit XML Export XML Export HTML Preview

Changes to the preferences on this screen are temporary. The only way to permanently save new preferences is through the User Preferences screen.

The Patient Folder section allows the user to optionally include multiple exams on the same C-CDA. By default, only the current exam will be selected and the RIS user can check off any additional exams that should be included. Each included exam will receive a tab on the screen, which allows the user to suppress any individual data element (such as weight) for the selected exam by unchecking it.



The screenshot shows the 'View Clinical Document (C-CDA)' window. At the top, there are two tabs for exams: 'CT Abdomen W & Pelvis W & CTA Chest W/Wo... (1038636QE2)' and 'XR Skull 1-3 Views (1037817QE2)'. Below the tabs, there are several sections with checkboxes and tables:

- Medications:** A table with columns: Medication, Prescription Date, Status, Dosage Form, Strength Uom, SIG, and Pharmacist Notes. It lists three entries for Albuterol on 01-22-2018.
- Problems:** A table with columns: Condition, Date, and Status. It lists two entries for '(K71.0) Toxic liver disease with cholestasis' on 06-01-2017, both marked as 'Active'.
- Lab Results:** A table with columns: Test, Date, and Value. It lists one entry for 'Hemoglobin' on 01-22-2018 with a value of 17.1.
- Other:** A table with columns: Item and Value. It lists several items: 'Smoking Status' (Smoker, current status unknown), 'Height' (69), 'Weight' (180), 'Blood Pressure Diastolic', and 'Blood Pressure Systolic'.

At the bottom, there are radio buttons for 'Continuity of Care' (selected) and 'Referral Note'. Below these are buttons for 'Transmit XML', 'Export XML', 'Export HTML', 'Preview', and 'Close'.

In addition to controlling the display of C-CDAs generated in the RIS, the user preference also controls the way C-CDAs are displayed in the Provider Portal. The referring physician's user preferences will be used to display the C-CDA in the preferred section layout.





Patient: Sister Molyneux, ...

ase Liver

ed 06-16-2015 | 8:15 AM

bdomen

ed 06-16-2015 | 8:15 AM

ase Liver

017 | 3:20 PM

men with Contrast

017 | 4:21 PM

bdomen

017 | 4:21 PM

bdomen

017 | 3:40 PM

bdomen

017 | 3:40 PM

maintained by

Contact info

Work:

5

Baltimore, US

Table of Contents

- ALLERGIES (MEDICATIONS)
- ENCOUNTERS
- FUNCTIONAL AND COGNITIVE STATUS

ALLERGIES (MEDICATIONS)

Description	Start Date	Reaction	Severity	Status
Alcohol	08-02-2016	sadf	Mild	Active

ENCOUNTERS

No encounters recorded

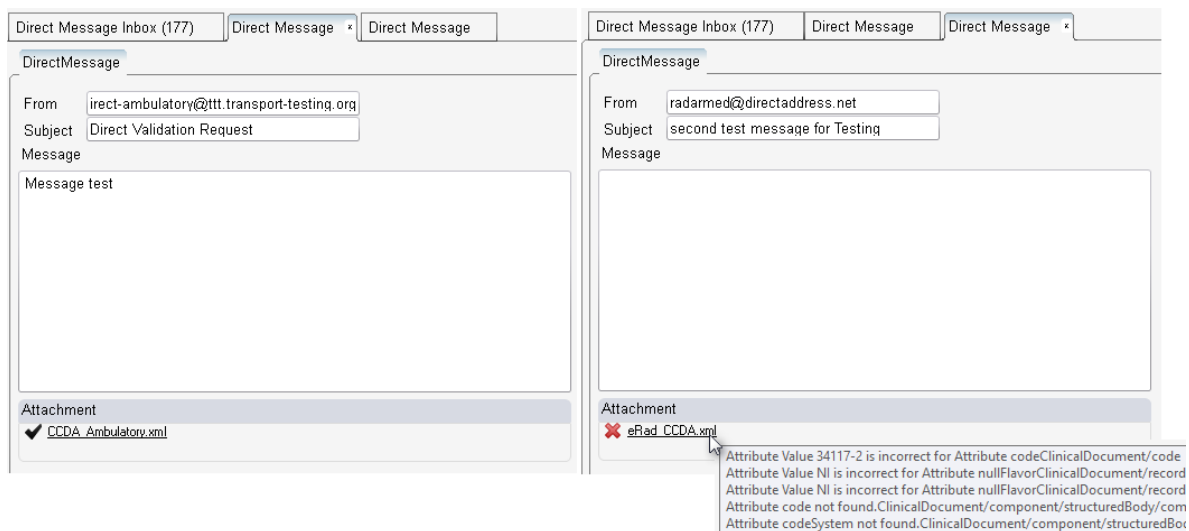
FUNCTIONAL AND COGNITIVE STATUS

No functional status recorded

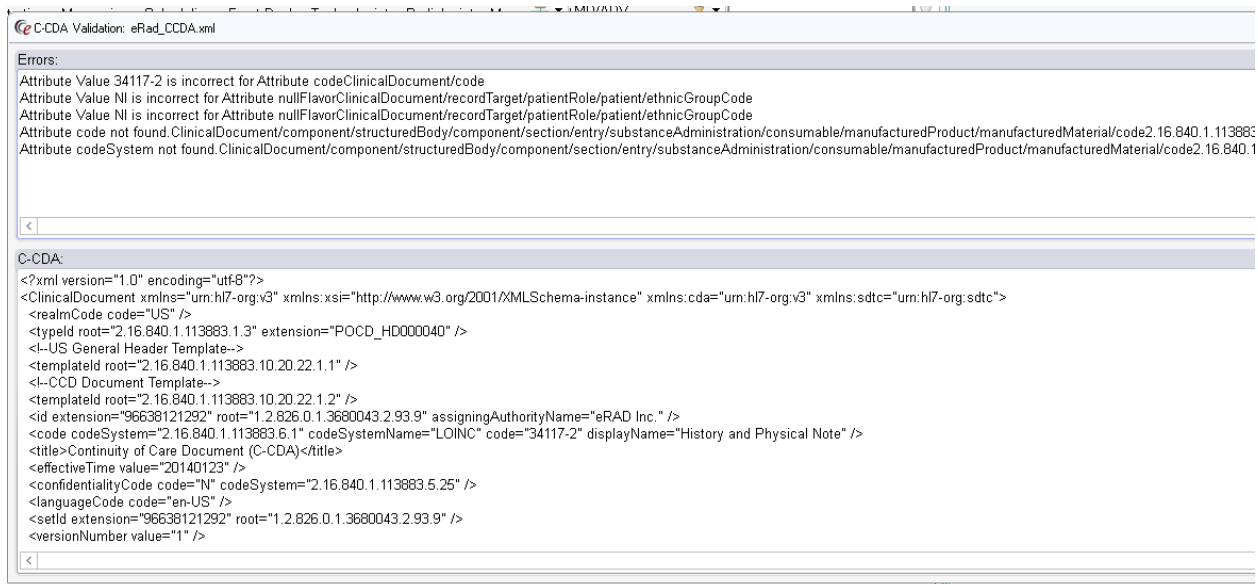
## FEATURE #17213 – CEHRT 170.315(B)(5): VALIDATION OF C-CDA 1.1 AND 2.1 UPON RECEIPT

eRAD RIS is required to handle the receipt of external C-CDAs, whether they were transmitted using the older C-CDA 1.1 format or the new 2.1 format. When the C-CDAs are received in the Direct Message Inbox, the user needs to know whether the C-CDA is valid or there are errors caused by an incorrect C-CDA format.

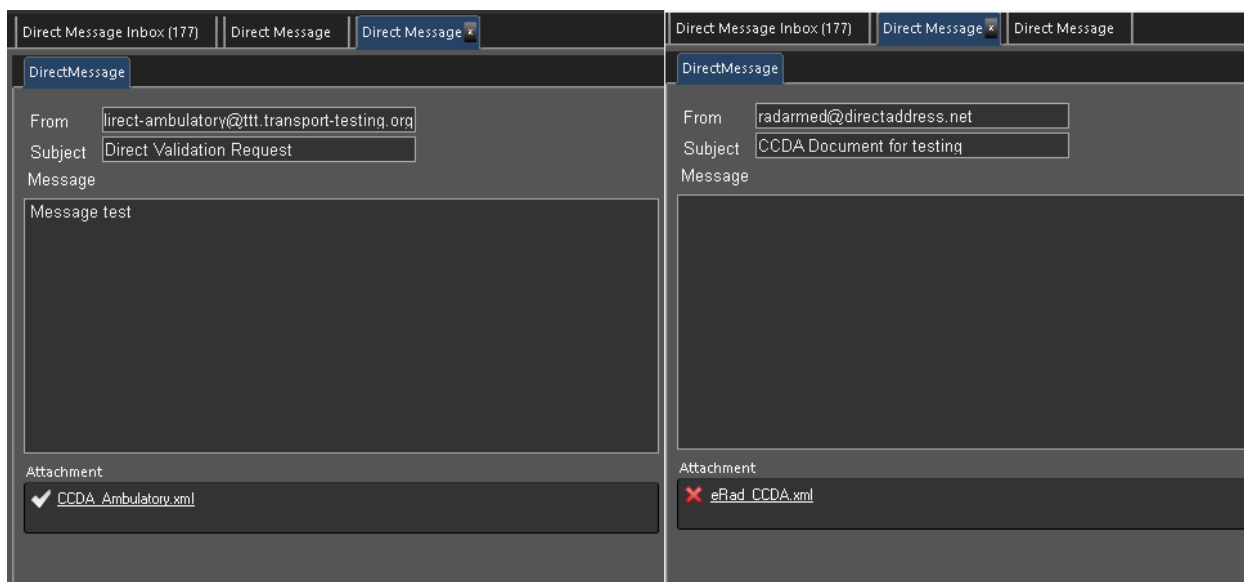
When viewing a Direct Message, a separate thread is started to validate the XML attachments. This was done so the screen will continue to load as quickly as possible. There will typically be a 2-5 second delay for the validation to complete. When it does, the Direct Message screen will display a green checkmark next to the C-CDA attachment if the format is valid. If there are errors, a red X will be displayed.



When there are errors, hovering over the attachment will present a tooltip with the error details. Clicking on the red X icon will display a popup with the errors and the XML contents.



When in dark mode, the icons for validation will be a *white* checkmark and a red X.




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FEATURE #17503 – CEHRT 170.315(B)(1) – RACE ETHNICITY AND PREFERRED LANGUAGE  
AVAILABLE TO BE VIEWED IN A RECEIVED C-CDA

When a C-CDA is received in RIS via Direct Message, Race, Ethnicity and Preferred Language must be included in the patient information when the C-CDA is displayed as a Continuity of Care or Referral note.

The C-CDA Import preview will now display the race, ethnicity and preferred language in the header, as illustrated below.

**Patient Summary for:** [REDACTED]

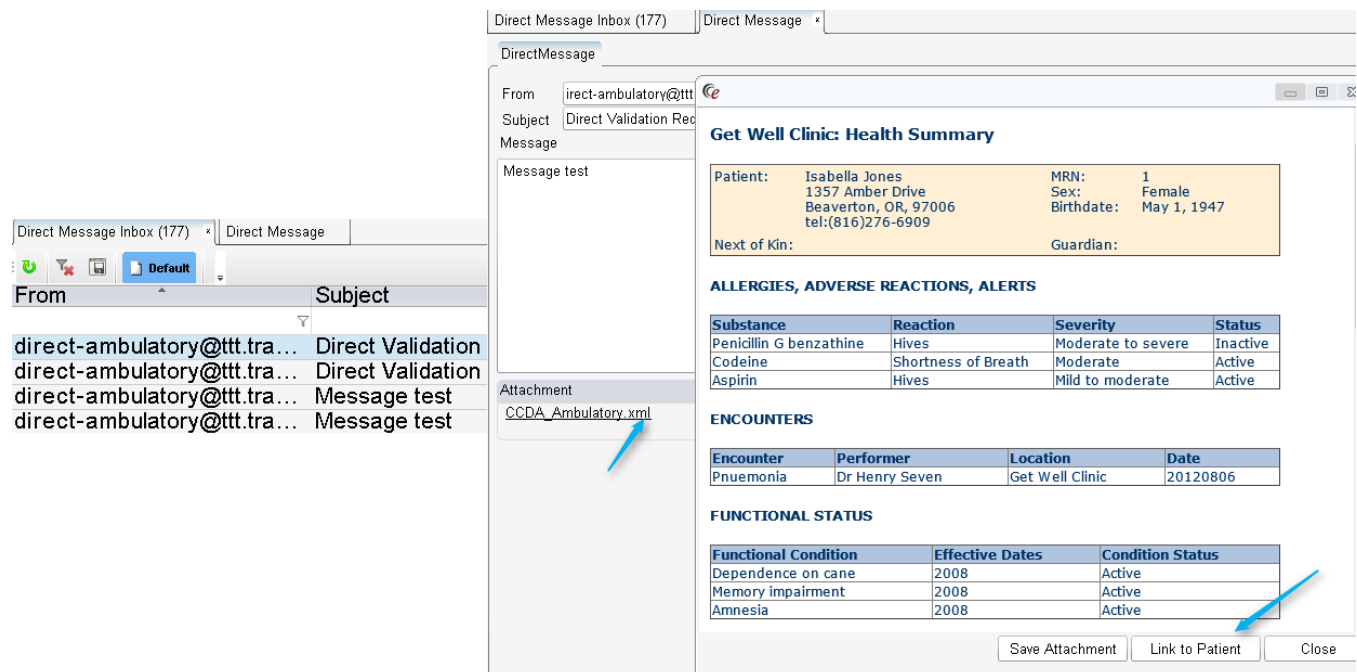
<b>Patient:</b>	[REDACTED]	<b>MRN:</b>	[REDACTED]
		<b>Sex:</b>	Male
<b>Race:</b>	White	<b>Birthdate:</b>	October [REDACTED]
<b>Next of Kin:</b>		<b>Language:</b>	English
		<b>Ethnicity:</b>	Not Hispanic or Latino
		<b>Guardian:</b>	



## FEATURE #17089 – CEHRT 170.315(B)(2): RECONCILE INBOUND TRANSITION OF CARE DATA

When receiving an inbound Transition of Care for an existing patient, eRAD RIS needs to be able to display the inbound medication, medication allergy and problems information side by side with the existing RIS information to allow the user to reconcile the data.

To access the Import C-CDA reconciliation screen, double click on an item in the Direct Message Inbox. Click to open a C-CDA type XML attachment and choose [Link to Patient](#).



Direct Message Inbox (177) | Direct Message

DirectMessage

From: direct-ambulatory@ttt.tra...  
Subject: Direct Validation Rec...  
Message test

Attachment: C-CDA\_Ambulatory.xml

**Get Well Clinic: Health Summary**

Patient: Isabella Jones  
1357 Amber Drive  
Beaverton, OR, 97006  
tel:(816)276-6909

MRN: 1  
Sex: Female  
Birthdate: May 1, 1947

Next of Kin: Guardian:

**ALLERGIES, ADVERSE REACTIONS, ALERTS**

Substance	Reaction	Severity	Status
Penicillin G benzathine	Hives	Moderate to severe	Inactive
Codeine	Shortness of Breath	Moderate	Active
Aspirin	Hives	Mild to moderate	Active

**ENCOUNTERS**

Encounter	Performer	Location	Date
Pnuemonia	Dr Henry Seven	Get Well Clinic	20120806

**FUNCTIONAL STATUS**

Functional Condition	Effective Dates	Condition Status
Dependence on cane	2008	Active
Memory impairment	2008	Active
Amnesia	2008	Active

Save Attachment | [Link to Patient](#) | Close

This will add a [Patient](#) tab to the Direct Message screen. Information from the C-CDA, such as the Patient Discharge Notes, Medications, Allergies, and Medical History, will be displayed on the right side of the screen. Any of the Medications, Allergies, and Medical History from the C-CDA is labeled "Imported" and displayed in a bold, green font. Existing RIS information will be displayed on the left side.

DirectMessage Patient

**General Information**

Prefix  First name Adam  Sex Male  Last name Everyman  Birth date 10-22-1962  Middle  Suffix  Place of birth  Father's name

☐ Deceased

**Allergies**

Allergy	Reaction	Severity	Status	Start Date
Contrast		Mild	Active	05-09-2017
Penicillin G		Mild	Active	08-15-2012

**Imported**

Allergy	Status	Date
Penicillin G	Active	08-15-2012
Codeine	Active	08-15-2012

**Medications**

Date	Medication	Administe...	Physician	SIG...	Acti...
05-09-2017	Kombiglyze XR	<input type="checkbox"/>			Y
05-09-2017	Xigduo	<input type="checkbox"/>			Y
08-01-2011	Albuterol	<input type="checkbox"/>			Y

**Imported**

Medication	Active	Date
Albuterol	Y	08-01-2011

**Medical History**

Problem	Start Date	End Date	Status
(E11.9) Type 2 diabetes mellitus wi...	05-09-2017		Active
(J45.909) Unspecified asthma, unc...			Active
(I10) Essential (primary) hypertensi...			Active

**Imported**

Problem	Status	Date
(J45.909) Unspecified asthma, unc...	Active	09-25-2011
(I10) Essential (primary) hypertensi...	Active	03-30-2012

Buttons: Add, Edit, Sync/Ref...

The user can use the “<<” buttons to choose the rows they would like to import into the RIS. Clicking on the “<<” will move the selected rows into the main (left-side) grids for Allergies, Medications and Medical History. The imported items will retain their dark green font while the screen is open, to make it clear to the user which items were imported. If a mistake is made, an imported row can be deleted from the RIS grid by right clicking and choosing Delete Row. This action will move the row back to the “Imported” grid.

**Allergies**

Allergy	Reaction	Severity	Status	Start Date
Contrast		Mild	Active	05-09-2017
Penicillin G		Mild	Active	08-15-2012

**Imported**

Allergy	Status	Date
Codeine	Active	08-15-2012

**Medications**

Date	Medication	Administe...	Physician	SIG...	Acti...
05-09-2017	Kombiglyze XR	<input type="checkbox"/>			Y
05-09-2017	Xigduo	<input type="checkbox"/>			Y
08-01-2011	Albuterol	<input type="checkbox"/>			Y

**Imported**

Medication	Active	Date
------------	--------	------

Buttons: Add, Edit, Sync/Ref...

Right-click context menu: Delete Row, Copy Cell

In order for the above process to work properly, there are some values in the Medication, Indication, and Allergy look-up tables that must be configured. If any of these mapping values are not configured, the user will be prompted with an explanation of the missing configuration. An administrator can complete the missing values in the look-up tables to make the mapping and linking exercise possible.

Lookup Tables - Medication

Medication Code	Description	Display Order	Bloodwork Required F...	HI7v3 Value Set Oid	HI7v3 Value Set Code
Contains: ▾	Contains: ▾	Equals: ▾	Contains: ▾	Contains: ▾	Contains: ▾
Click here to add a new row					
573621	Albuterol	1	N	Medication Clinical Drug Name Value Set	573621-Albuterol 0.09 MG...

Lookup Tables - Allergy

Allergy Code	Description	Display Order	Origin	HI7v3 Value Set Oid	HI7v3 Value Set Code
Contains: ▾	Contains: ▾	Equals: ▾	Contai ▾	Contains: ▾	Contains: ▾
6554	Aspirin	1	FDB	Medication Brand Name Valu...	1191-Aspirin
10026	Penicillin G	1	FDB	Medication Brand Name Valu...	7982-Penicillin G
7370	Codeine	1	FDB	Medication Brand Name Valu...	2670-Codeine

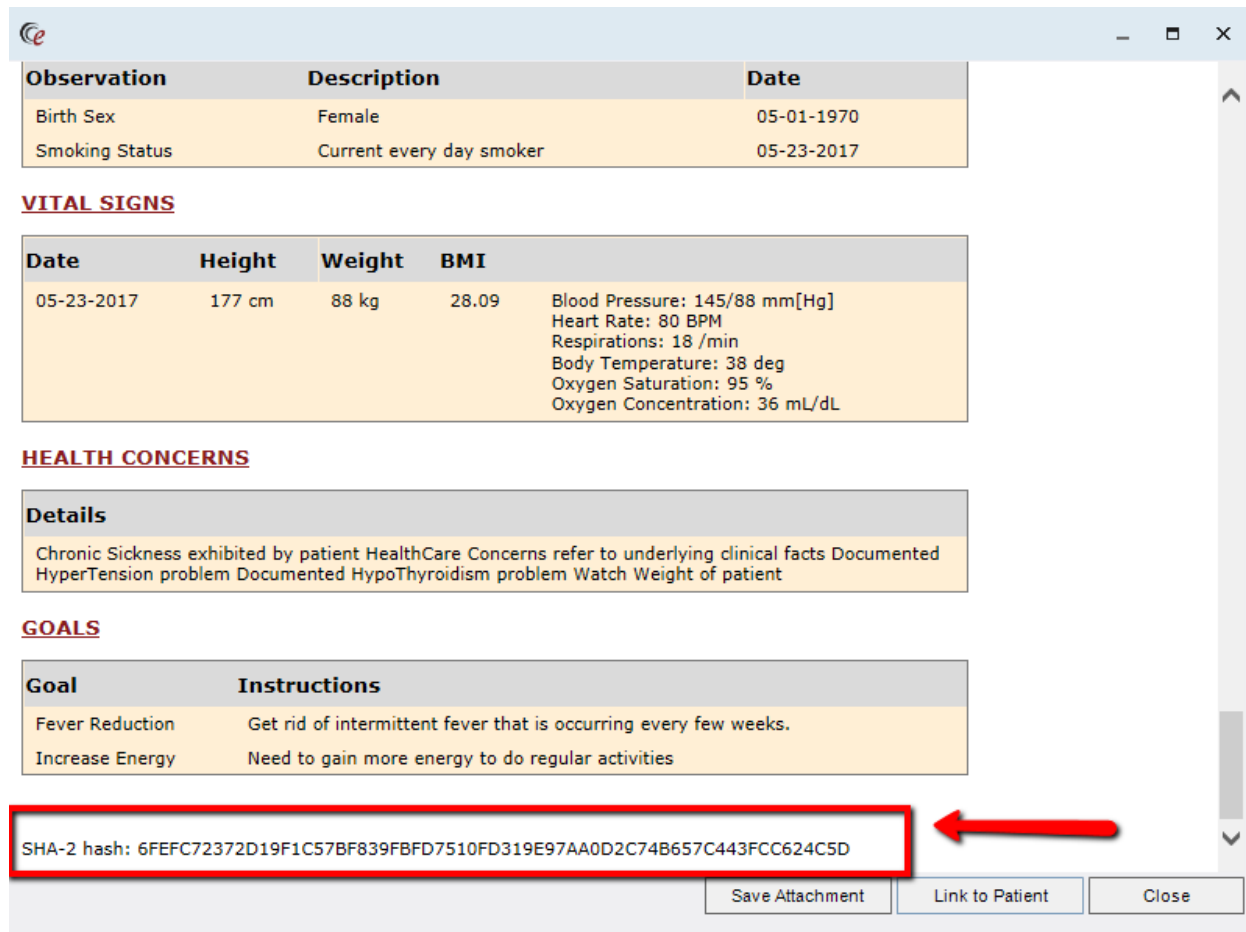
Lookup Tables - Indication

Indication Code	Description	Display Order	Bloodwork Required F...	Coding Scheme
Contains: ▾	Contains: ▾	Equals: ▾	Contains: ▾	Contains: ▾
Click here to add a new row				
64109004	Costochondritis	1	N	SNOMED

## FEATURE #17936 – SHA-2 HASH USED FOR IMPORTED C-CDAS

eRAD RIS now uses SHA-2 hash code when importing C-CDAs via Direct Messaging. SHA stands for Secure Hashing Algorithm. SHA-2, also known as SHA-256, is the new standard for this cryptographic security algorithm.

The SHA-2 hash of the C-CDA XML file is now visible at the bottom of the preview screen.



Observation	Description	Date
Birth Sex	Female	05-01-1970
Smoking Status	Current every day smoker	05-23-2017

**VITAL SIGNS**

Date	Height	Weight	BMI	
05-23-2017	177 cm	88 kg	28.09	Blood Pressure: 145/88 mm[Hg] Heart Rate: 80 BPM Respirations: 18 /min Body Temperature: 38 deg Oxygen Saturation: 95 % Oxygen Concentration: 36 mL/dL

**HEALTH CONCERNS**

**Details**

Chronic Sickness exhibited by patient HealthCare Concerns refer to underlying clinical facts Documented HyperTension problem Documented HypoThyroidism problem Watch Weight of patient

**GOALS**

Goal	Instructions
Fever Reduction	Get rid of intermittent fever that is occurring every few weeks.
Increase Energy	Need to gain more energy to do regular activities

SHA-2 hash: 6FEFC72372D19F1C57BF839FBFD7510FD319E97AA0D2C74B657C443FCC624C5D

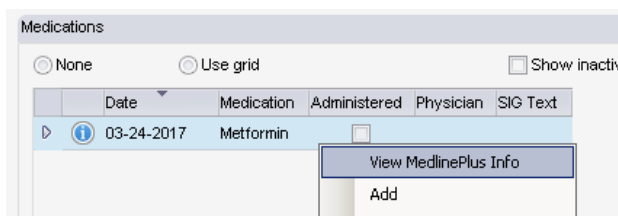
Save Attachment Link to Patient Close



## FEATURE #16551 – HYPERLINK TO MEDLINE PLUS AVAILABLE IN THE PROBLEMS AND MEDICATIONS GRIDS

Previously, searching for a medical condition or medication using the Medline Plus Quick Search option and printing this information for a patient was sufficient to be considered as providing educational resources to the patient. Under the new CEHRT requirements, RIS must allow a user to link to the pertinent information directly from the Problem and Medication grids where it is entered.

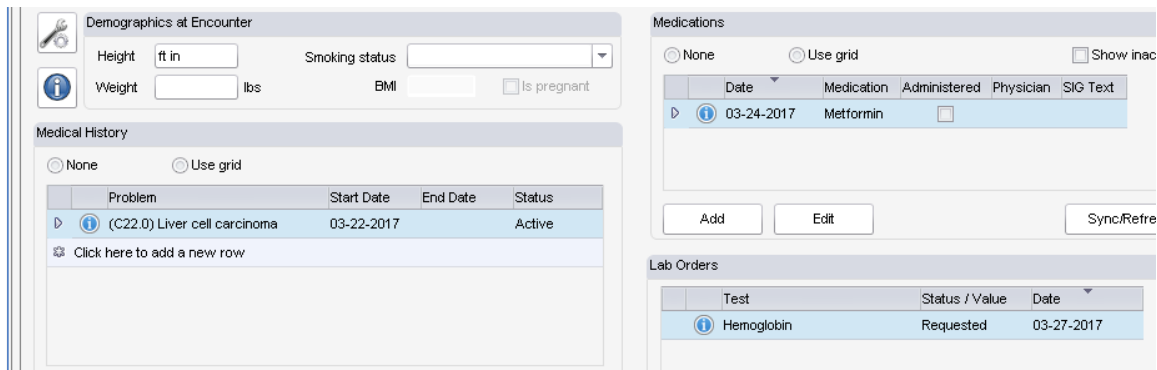
This can be done by right-clicking the row in the grid and selecting “View Medline Plus Info” or by clicking a new information button in the grid (indicated on each row with a blue circle with a white “i”).



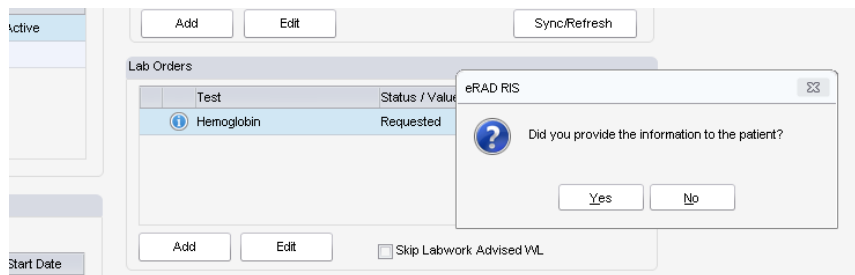
In order to increase the number of matching resources on Medline Plus, a full text search is performed when the medication or problem is entered via RIS. This will allow RIS to find the appropriate information when the name of the medication in RIS is not an exact match with the name in Medline Plus (e.g. Xanax and Alprazolam).

The search URL is configurable using the System Configuration setting [MUInfoButtonSearchURL](#).

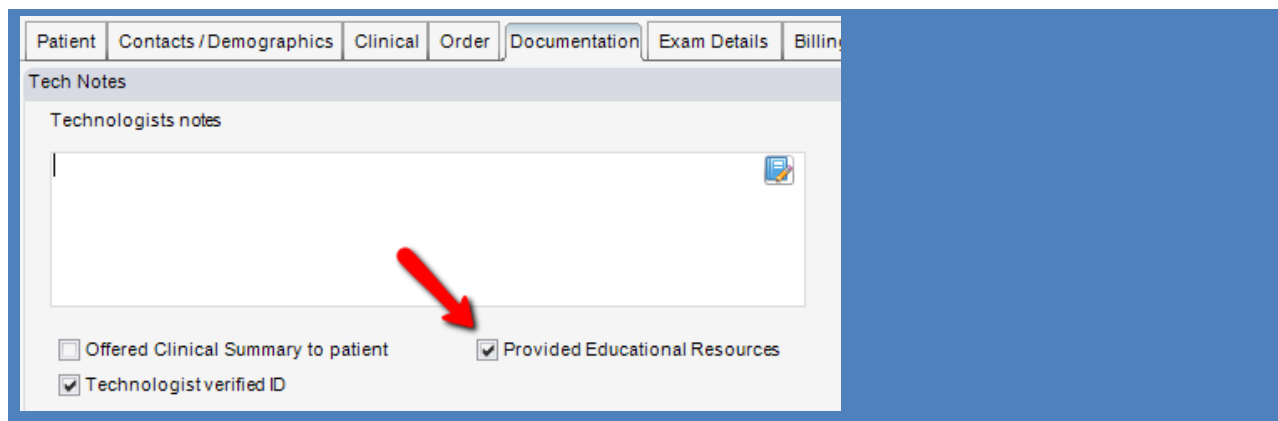
The new info button is also available on the Lab Orders grid.



Clicking on the information icon will display the Medline web page with relevant search results displayed. When the web page is closed, the user is asked if they provided the information to the patient.



If the user indicates Yes, the Provided Educational Resources checkbox will automatically be checked on the Documentation tab. This action is stored in the database table [c\\_visit.provided\\_education\\_resources\\_flag](#).



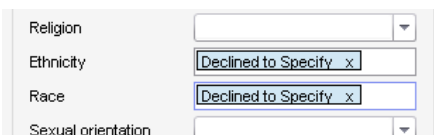
---

**FEATURE #16230 – WHEN “DECLINED TO SPECIFY” IS SELECTED FOR RACE OR ETHNICITY, ADDITIONAL SELECTIONS ARE NOW PREVENTED**

The existing Race and Ethnicity fields allow multiple entries, including an option for “Declined to Specify.” Per CEHRT guidelines, when "Declined to Specify" is selected, additional entries should not be allowed. To disable multi-select when the Declined option is added, a new column has been added to the **Race Type** and **Ethnic Origin** tables. The column is labeled **Exclusive Flag** to indicate that when this option is selected, this should be the only option allowed.

To enable this feature, open the Race Type and Ethnic Origin look-up tables and locate the “Declined to Specify” option. Set the Exclusive Flag to Y.

With this configuration, when “Declined to Specify” is selected, the Race and Ethnicity fields will not allow additional selections and the dropdown arrow will be hidden.



If the user has added other entries prior to selecting the “Declined to Specify” option, the previous entries will be removed and only the “Declined to Specify” entry will remain.

---

FEATURE #16318, 16315 – CEHRT 170.315(A)(5): UPDATED DEMOGRAPHICS CODE TABLES

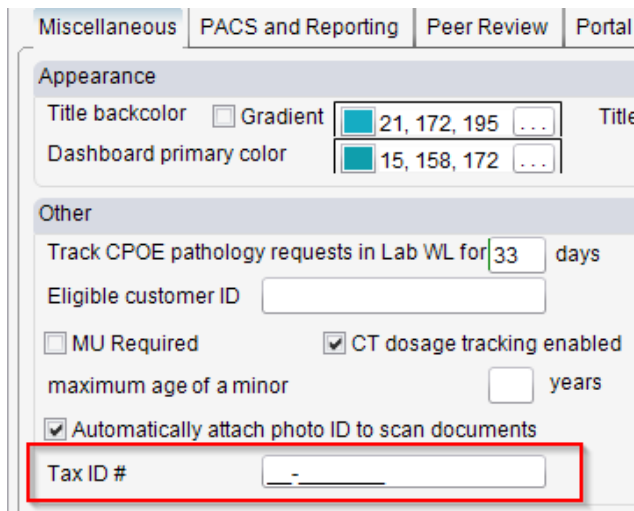
Changes were made to the Common Clinical Data Set, which is the standardized language to be used when electronically exchanging information between systems, as with the C-CDA. Updates were made to tables in eRAD RIS to ensure that the most current language is used when exchanging data using the Common Clinical Data Set.

Changes were also made to the C-CDA to properly display multiple Races and multiple Ethnicities if applicable.

## FEATURE #16398 – CEHRT 170.315(C)(4): TAX ID FIELD AT PRACTICE & SITE LEVELS

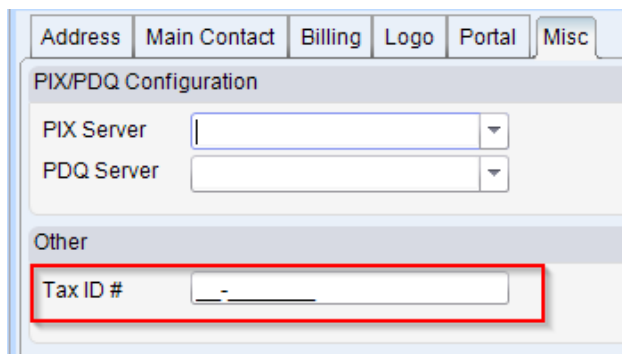
For CEHRT 170.315(c)(4), a Tax ID field was created at the Practice and Site levels in order to provide CQM management reports with the appropriate filters.

On the Practice Add/Edit screen, the **Tax ID #** field has been added to the Other section of the Miscellaneous tab.



The screenshot shows the 'Miscellaneous' tab selected. Under the 'Other' section, the 'Tax ID #' field is highlighted with a red box. The field is a text input with a mask that inserts a hyphen after the second character and a blank space for the next character.

On the Site Add/Edit screen, the Tax ID # field has been added to the Other section of the Misc tab.



The screenshot shows the 'Misc' tab selected. Under the 'Other' section, the 'Tax ID #' field is highlighted with a red box. The field is a text input with a mask that inserts a hyphen after the second character and a blank space for the next character.

If the Tax ID has been added at the Practice and Site levels, the Site level Tax ID will be used. If a Site level Tax ID is not present, the Site's Practice level Tax ID will be used.

For both Tax ID # fields, a mask has been applied to ensure that Tax ID #s are entered in the appropriate format of XX-XXXXXX. A hyphen will be inserted after the second character and a blank line will be displayed until all of the digits have been entered.

Tax ID #

76-87|

Only numeric digits (0-9) can be entered into the field.

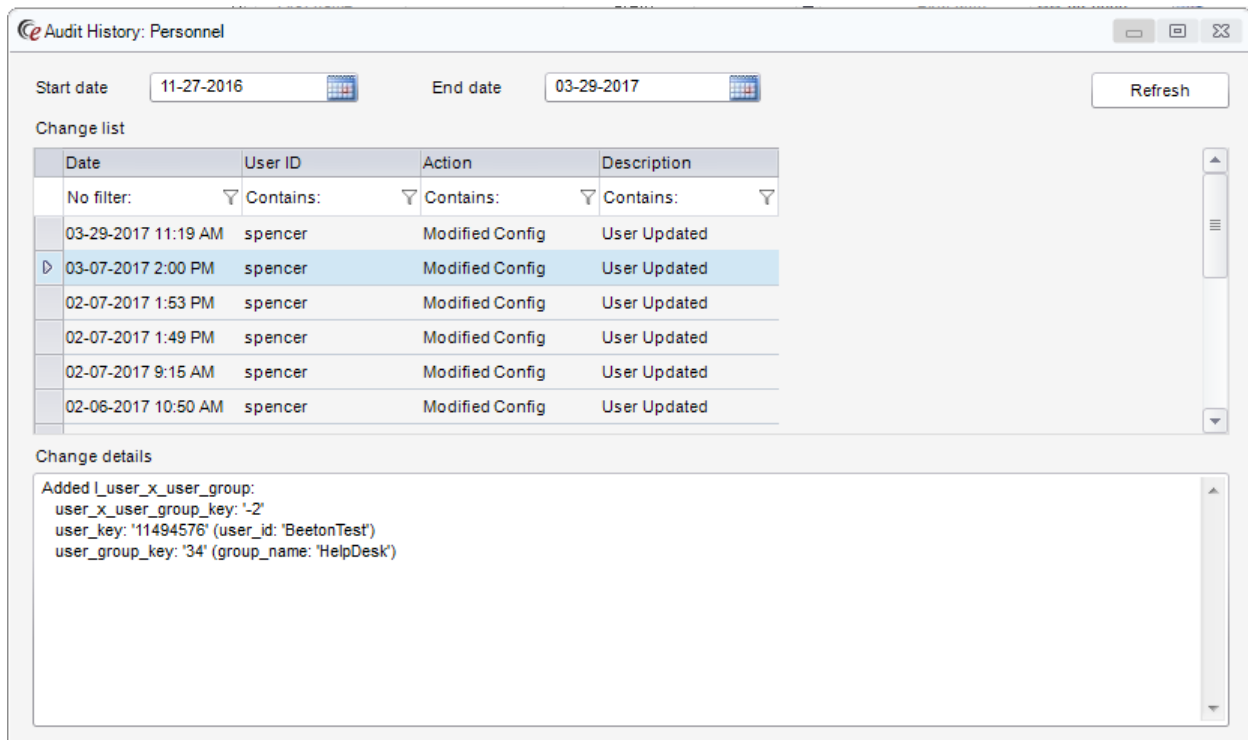
## FEATURE #16008 – CEHRT 170.315(D)(2): USER ID FIELD ADDED TO PERSONNEL AUDIT HISTORY

eRAD RIS is required to provide a means to track changes to user privileges. The existing configuration audit history functionality has been expanded to accommodate for some specific requirements such as:

- The ability to provide a date range for filtering the audit information.
- The ability to filter by the ID of the user who performed the change.
- The ability to sort the following data elements in ascending or descending order:
  - Date and time of event.
  - User identification.
  - Type of action.
  - Description of the action.
  - Details of the changes.

To satisfy these requirements, the following features have been added to the Personnel look-up's Audit History screen only:

- A filter row has been added to the Change List grid to allow filtering by user ID.
- An Action column has been added, which defaults to the value of "Modified Config."
- A Description column has been added.



**Audit History: Personnel**

Start date: 11-27-2016 End date: 03-29-2017 Refresh

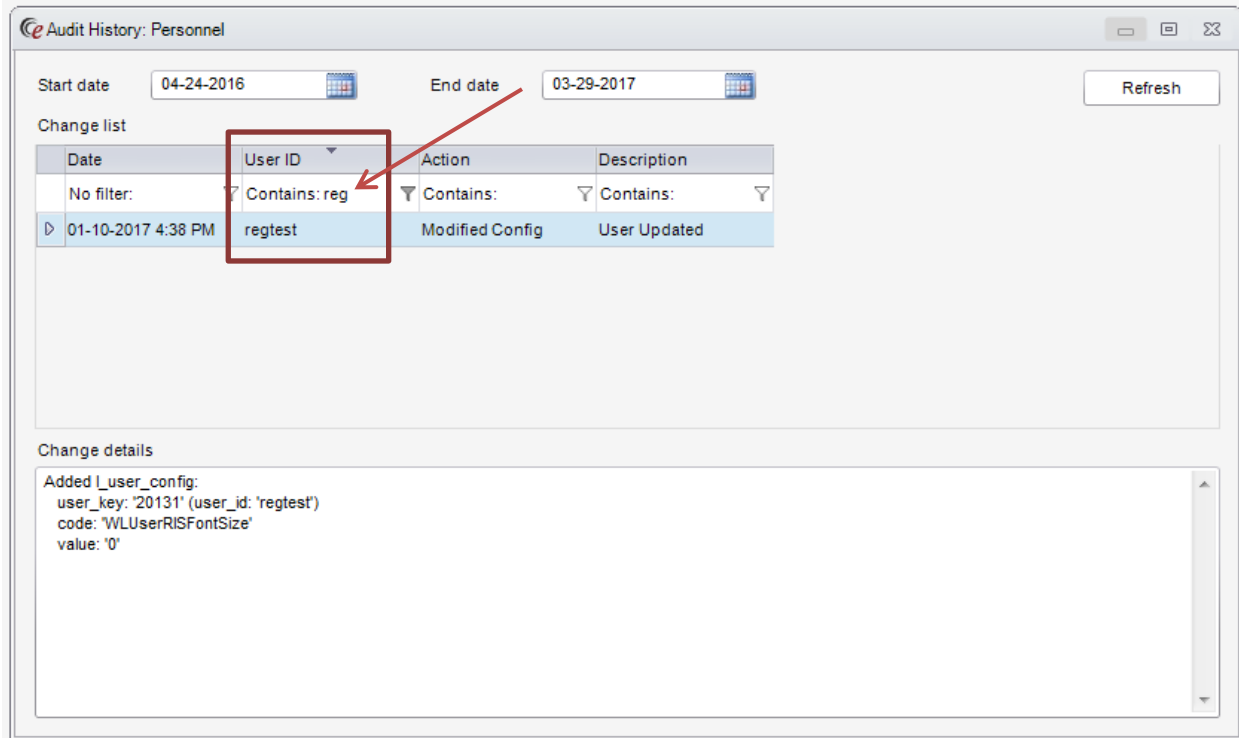
Change list

Date	User ID	Action	Description
No filter: ▾	Contains: ▾	Contains: ▾	Contains: ▾
03-29-2017 11:19 AM	spencer	Modified Config	User Updated
03-07-2017 2:00 PM	spencer	Modified Config	User Updated
02-07-2017 1:53 PM	spencer	Modified Config	User Updated
02-07-2017 1:49 PM	spencer	Modified Config	User Updated
02-07-2017 9:15 AM	spencer	Modified Config	User Updated
02-06-2017 10:50 AM	spencer	Modified Config	User Updated

Change details

Added l\_user\_x\_user\_group:  
 user\_x\_user\_group\_key: '-2'  
 user\_key: '11494576' (user\_id: 'BeetonTest')  
 user\_group\_key: '34' (group\_name: 'HelpDesk')

To filter by User ID, type the ID in the filter row below the User ID column, as shown below.



**Audit History: Personnel**

Start date: 04-24-2016 End date: 03-29-2017 Refresh

Change list

Date	User ID	Action	Description
No filter:	Contains: reg	Contains:	Contains:
01-10-2017 4:38 PM	regtest	Modified Config	User Updated

Change details

Added l\_user\_config:  
 user\_key: '20131' (user\_id: 'regtest')  
 code: 'WLUUserRISFontSize'  
 value: '0'

As before, access to view the audit history information in the Personnel table is controlled by the existing Access Strings:

- [Config.LookupEditor.AuditHistory](#)
- [Config.LookupEditor.Personnel](#)



## FEATURE #16233 – CEHRT 170.315(A)(1): COLLECT NDC, LOT NUMBER, AND EXPIRATION DATE FOR CONTRAST AND SEDATION

When entering information about contrast and sedation, there are three data elements that were not previously collected that can be important, particularly to U.S.-based customers: the National Drug Code (NDC), the Lot Number, and the Expiration Date. Previously, the Contrast and Sedation grids did not have fields to enter this information, though some customers do collect it in Digital Forms. The Contrast and Sedation grids now have the ability to store the NDC, Lot Number and Expiration Date.

When opening the Perform Exam screen or the View/Edit screen, the Contrast and Sedation grids are located on the Exam Details tab. The new columns have been added as illustrated below.

Patient	Clinical	Order	Documentation	Exam Details	Billing Codes	Attachments	Notes / Exam Times	Image R
<b>Contrast</b>								
Name	NDC	Lot #	Expiry Date	Amount	Unit	Vials		
▶ OptiMARK	0019-1177-11	51515	02-01-2018	10	cc	1		
<input type="button" value="Add"/> <input type="button" value="Delete"/>								
<b>Sedation</b>								
Name	NDC	Lot #	Expiry Date	Amount	Unit			
▶ Xanax	00603-2129-32	080898	12-01-2019	1	mg			
<input type="button" value="Add"/> <input type="button" value="Delete"/>								

## FEATURE #16861 – CEHRT 170.315(B)(4): PROBLEM LIST MAPPED TO CURRENT U.S. EDITION SNOMED CODES

eRAD RIS is required to use the SNOMED CT U.S. Edition, with a minimum of the September 2015 release. The Indication table has been edited to include the updated SNOMED codes and the Medical History section on the Quick Add/Edit screen has been updated so that the appropriate SNOMED codes are added to the Medical History grid.

The Quick Add MU Dialog has been updated to use the latest indication codes for the Medical History section checkboxes. As required, indications are now added by SNOMED code instead of ICD10 code.

Medical History

☐ Aneurysm Clip or Coil
 ☐ Metal in the body

☐ Aneurysm Had Surgery
 ☒ Morphine Pump

☐ Aneurysm No Surgery
 ☐ Pacemaker

☐ Asthma
 ☐ Paraplegic

☐ Breast Implants
 ☒ Previous Radiology Contrast Reaction

☐ Cancer
 ☒ Previous MR Contrast Reaction

☐ Diabetes
 ☐ Renal Disease

☐ Hypertension
 ☐ Universal Precautions

☐ Insulin Pump

Medical History

☐ None
 ☒ Use grid

	Problem	Start Date	End Date	Status
	(292097002) MRI contrast media adve...	05-30-2017		Active
	(292096006) Radiology contrast media...	05-30-2017		Active
	(1081000119105) Opioid dependence,...	05-30-2017		Active
Click here to add a new row				

## FEATURE #17376 – CEHRT 170.315(B)(4): STANDARDIZED ALLERGY REACTIONS

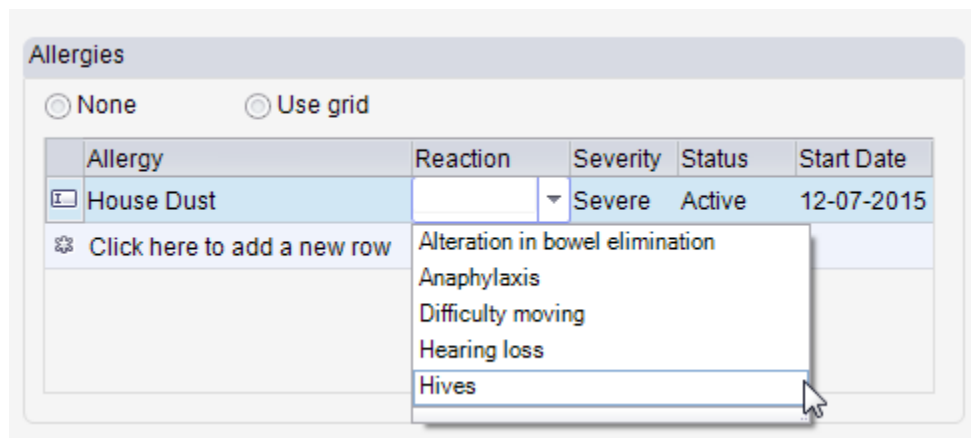
In the Allergy section on the Clinical tab, users have been able to enter the type of allergic reaction in the Reaction column, but this field only accepted free text. To facilitate the electronic transfer of information, there is now an option to create and use standardized Reaction options that can be mapped to SNOMED codes.

A new Configuration table named **Allergy Reaction** has been added to store the desired options.

Allergy Reaction Code	Description	Display Order	Snomed	Last Updated	Active
Contains:	Contains:	Equals:	Equals:	Equals:	Contains:
Click here to add a new row					
anaphylaxis	Anaphylaxis	1	39579001	05-31-2017 1...	Y
bowelElimination	Alteration in bowel elimination	1	129851009	05-31-2017 1...	Y
difficultyMoving	Difficulty moving	1	302002000	05-31-2017 1...	Y
hearingLoss	Hearing loss	1	15188001	05-31-2017 1...	Y
hives	Hives	1	247472004	05-31-2017 1...	Y

The new look-up table allows an administrator to define the options that should be available for users to select from a dropdown menu. A SNOMED code can be associated to each option if desired.

When users add an allergy entry for a patient, they will have access to select any of the active options from the Allergy Reaction look-up table.



The screenshot shows the 'Allergies' form with the 'Use grid' radio button selected. The grid has columns for Allergy, Reaction, Severity, Status, and Start Date. The first row shows 'House Dust' as the Allergy, 'Severe' as the Severity, 'Active' as the Status, and '12-07-2015' as the Start Date. A dropdown menu is open for the Reaction field, showing a list of standardized reaction options: 'Alteration in bowel elimination', 'Anaphylaxis', 'Difficulty moving', 'Hearing loss', and 'Hives'. A mouse cursor is pointing at the 'Hives' option.

Users can also type free text in the Reaction field, as before. Free text entries will not have a SNOMED code.

A new Access String has been added to control access to the look-up table: **Config.LookupEditor.AllergyReaction**. Users with a permission level of FULL will be allowed to add entries to the look-up table.

---

FEATURE #16992, 16991 – CEHRT 170.315(G)(9) AND 170.315(G)(8): APPLICATION ACCESS  
– PROVIDE ENTIRE OR PARTIAL C-CDA VIA API

As required, eRAD RIS is now capable of providing an entire C-CDA or desired sections of the C-CDA for a specified date or date range via [API](#).

An external Web API was designed to provide the functionality for several 2015 edition certification requirements. The Web API is a standalone self-hosted program that is designed to be secure over the internet (without VPN requirements).

Please contact eRAD Support if you are interested in learning more details about this feature.

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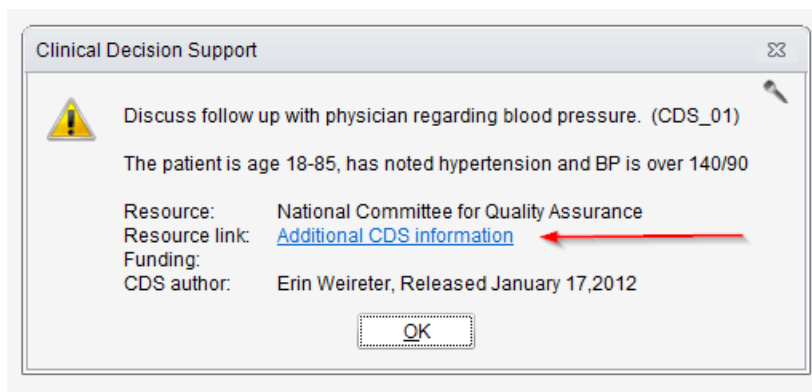
FEATURE #16986 – CEHRT 170.315(G)(7): APPLICATION ACCESS – PATIENT SEARCH  
FUNCTIONALITY USING THE API

After obtaining an access token, the API described in the feature above allows a third party application to search for a patient using a number of criteria, including name, date of birth, MRN and phone number.

## FEATURE #17517 – CEHRT 170.315(A)(9): CDS ALERTS MUST CONTAIN A LINK TO ADDITIONAL INFORMATION THAT CAN BE SPECIFIC TO PATIENT’S MEDICATION, ALLERGIES, OR DEMOGRAPHICS


CEHRT requires that eRAD RIS have an “info button” on the CDS alert for Medications, Allergies and Demographics. eRAD RIS already had the ability to include a link to additional information on the CDS alerts. Adjustments were made to fully comply with the new requirements.

The label of the existing information hyperlink has been updated to display "Additional CDS Information" instead of showing the URL.



It is now possible to pass relevant information about the patient’s medications, allergies, or demographics as part of the URL, in order to launch an information page based on the indications in the alert. Medline Plus is the source for information links that reference patient information.

MedlinePlus Connect found the following health information for your request. Always consult your health care provider about your


Results in **MedlinePlus**

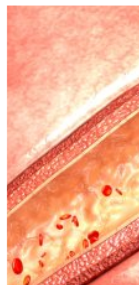
### Vascular Diseases

The vascular system is the body's network of blood vessels. It includes the arteries, veins and capillaries that carry blood to and from the heart. Problems of the vascular system are common and can be serious. Arteries can become thick and stiff, a problem called atherosclerosis. Blood clots can ... [More on Vascular Diseases](#)

**Selected resources**

- [Aortic arch syndrome](#) (Medical Encyclopedia)
- [Arterial embolism](#) (Medical Encyclopedia)
- [Arteriogram](#) (Medical Encyclopedia)
- [Cerebral angiography](#) (Medical Encyclopedia)
- [Duplex ultrasound](#) (Medical Encyclopedia)

[Show More](#) ▼



## FEATURE #17404 – CEHRT 170.315(A)(9): DEMOGRAPHIC CLINICAL DECISION SUPPORT RULE

CEHRT 2015 requires that the system demonstrate a Clinical Decision Support alert that will inform RIS users of contextual medical information based on the patient’s demographics. As with previous CDS Alerts, it must be possible to include a link to supporting documentation.

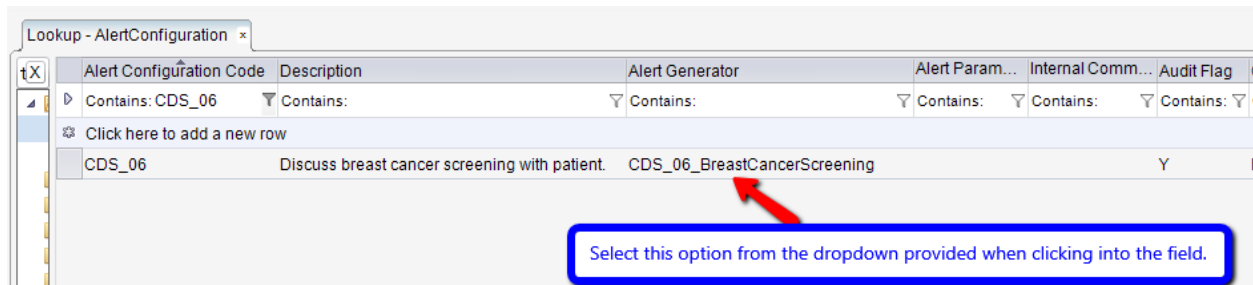
To meet this requirement, it is now possible to configure a CDS Alert which will alert users that breast cancer screening should be discussed when the patient is female and at least 40 years old.

To support this, a new **Alert Generator** was created, labeled **CDS\_06\_BreastCancerScreening**. To use this Alert Generator, a RIS administrator will need to configure a CDS Alert in the **Alert Configuration** table. The new Alert Generator will cause the configured message to display when the following conditions are met:

- Patient is Female.
- Patient is at least 40 years of age.

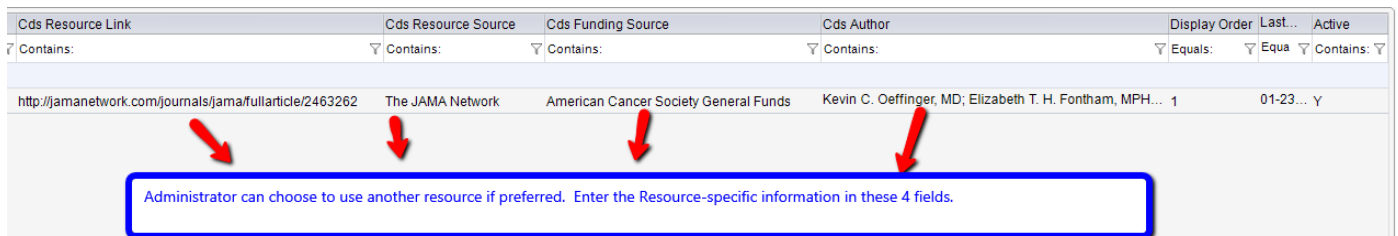
The following images illustrate an example of how this alert can be configured. The administrator can choose a different resource and adjust the information accordingly.

### Part 1:



Alert Configuration Code	Description	Alert Generator	Alert Param...	Internal Comm...	Audit Flag
Contains: CDS_06	Contains:	Contains:	Contains:	Contains:	Contains:
Click here to add a new row					
CDS_06	Discuss breast cancer screening with patient.	CDS_06_BreastCancerScreening			Y


### Part 2:



Cds Resource Link	Cds Resource Source	Cds Funding Source	Cds Author	Display Order	Last...	Active
Contains:	Contains:	Contains:	Contains:	Equals:	Equa	Contains:
http://jamanetwork.com/journals/jama/fullarticle/2463262	The JAMA Network	American Cancer Society General Funds	Kevin C. Oeffinger, MD; Elizabeth T. H. Fontham, MPH...	1	01-23...	Y

The example configuration above will result in the following pop-up alert that will be displayed when a user opens a screen for a female patient who is at least 40 years of age.

**Clinical Decision Support**

 Discuss breast cancer screening with patient.

Resource:

Resource link:

Funding:

CDS author:

The JAMA Network

[Additional CDS information](#)

American Cancer Society General Funds

Kevin C. Oeffinger, MD; Elizabeth T. H. Fontham, MPH, DrPH; Ruth Etzioni, PhD; et al

OK

The resource link will open the URL configured for the Alert.



## FEATURE #17811 – CEHRT 170.315(A)(9): MEDICATION ALLERGY CLINICAL DECISION RULE

CEHRT 2015 requires that the system demonstrate a Clinical Decision Support alert that will inform RIS users of contextual medical information based on the patient's medication allergies. As with previous CDS Alerts, it must be possible to include a link to supporting documentation.

It is now possible to configure a CDS Alert which will alert users that a patient with a Penicillin allergy should also avoid cephalosporin antibiotics.

To support this, a new **Alert Generator** was created, labeled **CDS\_07\_MedicationAllergy**. To use this Alert Generator, a RIS administrator will need to configure a CDS Alert in the **Alert Configuration** table. The new Alert Generator will cause the configured message to display when Penicillin (code 7982) is an active allergy in the patient's Allergy grid.

The following images illustrate an example of how this alert can be configured. The administrator can choose a different resource and adjust the information accordingly.

### Part 1:


Alert Configuration C...		Description	Alert Generator	Alert Paramet...	Internal Comm...	Audit Flag
Contains:	Contains:		Contains:	Contains:	Contains:	Contains:
Click here to add a new row						
CDS_07		This patient has a documented allergy to Penicillin. Please note: Cephalosporins should also be avoided for patients with a documented allergy to Beta Lactam Antibiotics....	CDS_07_MedicationAllergy			Y

### Part 2:

Cds Resource Link		Cds Resource Source	Cds Funding Source	Cds Author
Contains:		Contains:	Contains:	Contains:
Click here to add a new row				
https://apps.nlm.nih.gov/medlineplus/services/mpconnect.cfm?mainSearchCriteria.v.c=7982&mainSearchCriteria.v.cs=2.16.840.1.113883.6.88&mainSearchCriteria.v.dn=&informationRecipient.languageCode.c=en		About Health	+Membership	Daniel More, MD

The example configuration above will result in the following pop-up alert that will be displayed when a user opens a screen for a patient with an active Allergy to Penicillin.

Clinical Decision Support



This patient has a documented allergy to Penicillin.  
Please note: Cephalosporins should also be avoided for patients with a documented allergy to Beta Lactam Antibiotics. (CDS\_07)

Resource: About Health  
Resource link: [Additional CDS information](#)  
Funding: +Membership  
CDS author: Daniel More, MD

OK

The resource link will open the URL configured for the Alert.

## FEATURE #17419 – CEHRT 170.315(A)(9): UPDATE CLINICAL DECISION SUPPORT ALERT TO USE ICD10 OR SNOMED CONDITIONS





There is an existing Clinical Decision Support Alert that will notify the RIS user if the patient has asthma and has had a prior contrast reaction (CDS\_03). The conditions for the alert have been updated because the contrast reaction condition was tied to an ICD9 code only. The condition will now use the ICD10 code or SNOMED code for contrast reaction.

SNOMED: 292096006 Radiology contrast media adverse reaction

ICD10: Z91.041 Radiographic dye allergy status

Medical History

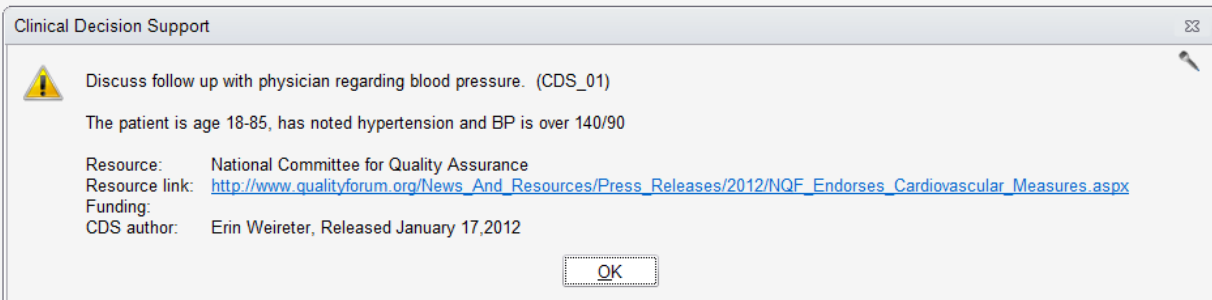
☐ None ☐ Use grid

	Problem	Start Date	End Date	Status
	(S35.8X) Injury of other bloo...	02-08-2016	08-17-2016	Inactive
	(292097002) MRI contrast...	06-05-2017		Active
	(292096006) Radiology con...	06-05-2017		Active
	(J45) Asthma	06-01-2016		Active

Click here to add a new row

## FEATURE #17431 – CEHRT: CDS ALERT MESSAGE BOX SHOWS LESS INFORMATION TO CERTAIN USERS

The CDS Alert configuration allows administrators to enter a Resource Link, as well as information about the resource such as a title, a description of the funding source for the article, and the name of the article's author. This information is displayed to the RIS user as follows:

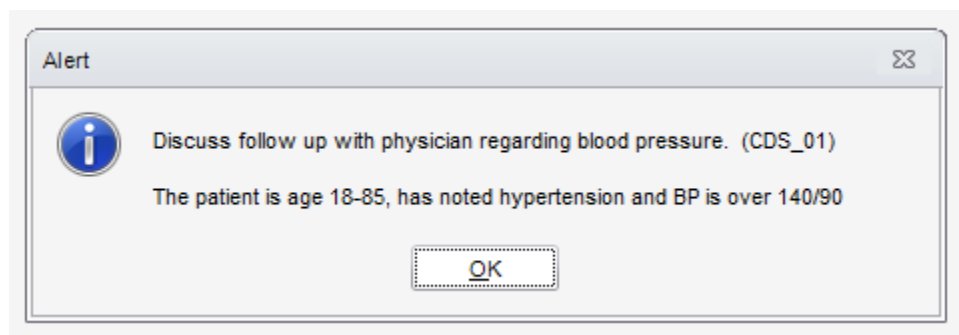


Some customers would like to suppress the resource link and additional information for certain users. It is now possible to do so using an access string level of ReadOnly.

There are existing access strings for each CDS Alert. These access strings have been adjusted so that a ReadOnly access level will trigger the CDS Alert, but will suppress the additional resource information.

Access String	Full	ReadOnly	None
Alert.CDS_01_HighBP	Users will see the CDS Alert pop-up, including the resource information.	Users will see the CDS Alert pop-up, but resource information will be hidden.	Users will not see the CDS Alert at all.
Alert.CDS_02_HighCholesterol	Users will see the CDS Alert pop-up, including the resource information.	Users will see the CDS Alert pop-up, but resource information will be hidden.	Users will not see the CDS Alert at all.
Alert.CDS_03_PossibleReaction	Users will see the CDS Alert pop-up, including the resource information.	Users will see the CDS Alert pop-up, but resource information will be hidden.	Users will not see the CDS Alert at all.
Alert.CDS_04_TobaccoUser	Users will see the CDS Alert pop-up, including the resource information.	Users will see the CDS Alert pop-up, but resource information will be hidden.	Users will not see the CDS Alert at all.
Alert.CDS_05_PneumoniaBooster	Users will see the CDS Alert pop-up, including the resource information.	Users will see the CDS Alert pop-up, but resource information will be hidden.	Users will not see the CDS Alert at all.

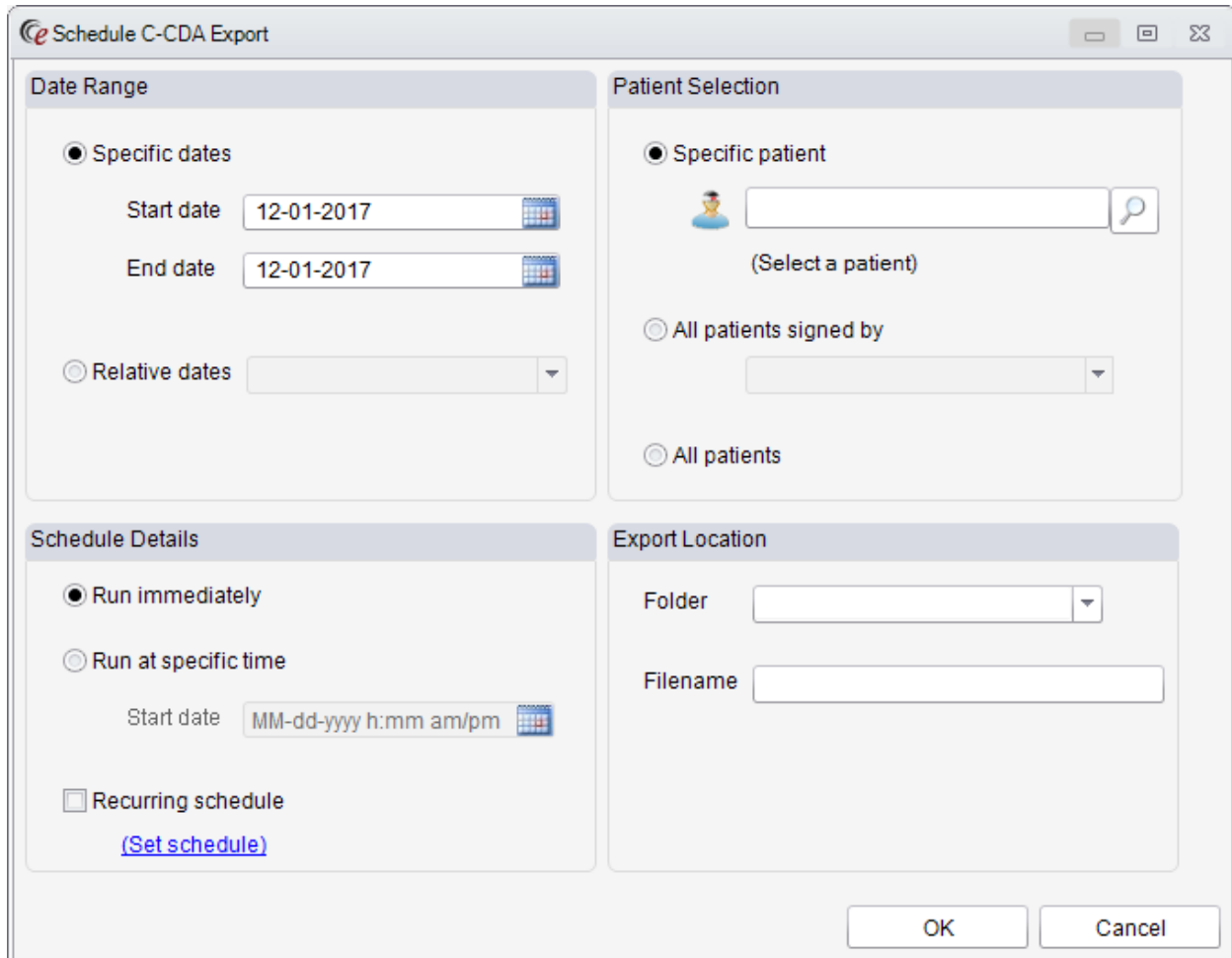
Below is an example of a CDS Alert that would appear for a user with an access level of ReadOnly.



## FEATURE #16899 – CEHRT 170.315(B)(6): DATA EXPORT

eRAD RIS is required to provide a way for permissioned users to perform a Data Export to include C-CDAs for a single patient, a set of patients, or all patients meeting a variety of parameters. The user must be able to initiate the export on demand or create a scheduled event.

To initiate a C-CDA Data Export, there is a new option on the Administration menu: [Schedule C-CDA Export](#). This option is restricted by a new access string labeled [MU.CCDAScheduledTask](#). Users belonging to a User Group with the access string set to FULL will have the ability to select the Schedule C-CDA Export option, which opens the following screen.



## Date Range

The “Date Range” controls allow the user to specify the start and end date for the C-CDA contents. The end date may be specified as a future date to include studies that are scheduled but have not yet been performed.

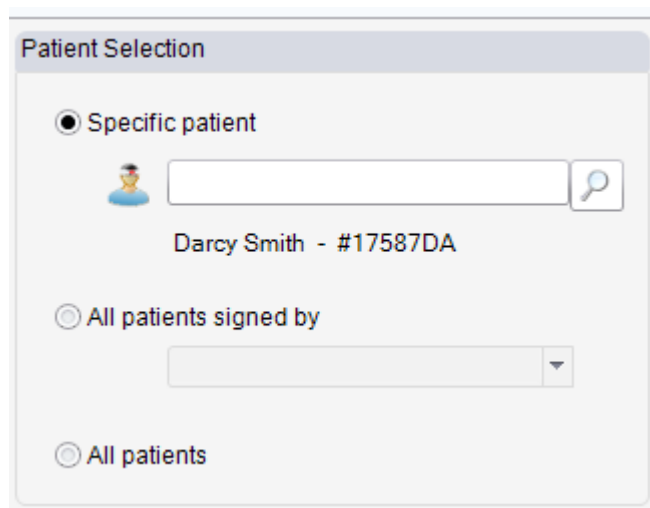
Relative Dates allow the user to indicate that the date filters should be constructed relative to the current system time when the task executes. For example, an export could be configured to run on the first day of every month to include all studies from the previous month.

The relative date options are today, yesterday, this week, this month, this year, last week, last month, and last year.

- **Today** – from midnight this morning until midnight tomorrow.
- **Yesterday** – from the start of the previous calendar day up until the start of today.
- **This week** – from Sunday at midnight this week up until midnight on Saturday.
- **This month** – from the first day of the current calendar month up until the end of the last day of the current month.
- **This year** – from January 1<sup>st</sup> of the current calendar year up until the end of December 31<sup>st</sup>.
- **Last week** – from the start of Sunday on the previous calendar week up until the end of Saturday of the same week.
- **Last month** – from the 1<sup>st</sup> day of the previous calendar month up until the first day of the current month.
- **Last year** – from January 1<sup>st</sup> of the previous year up until January 1<sup>st</sup> of the current year.

## Patient Selection

The user can choose one specific patient, all patients, or a set of patients. The patient search control allows the user to perform a familiar patient search and then double click on the desired patient. Once a patient is selected, the label under the search box will change from (Select a patient) to a description of the selected patient including their first and last name and MRN.

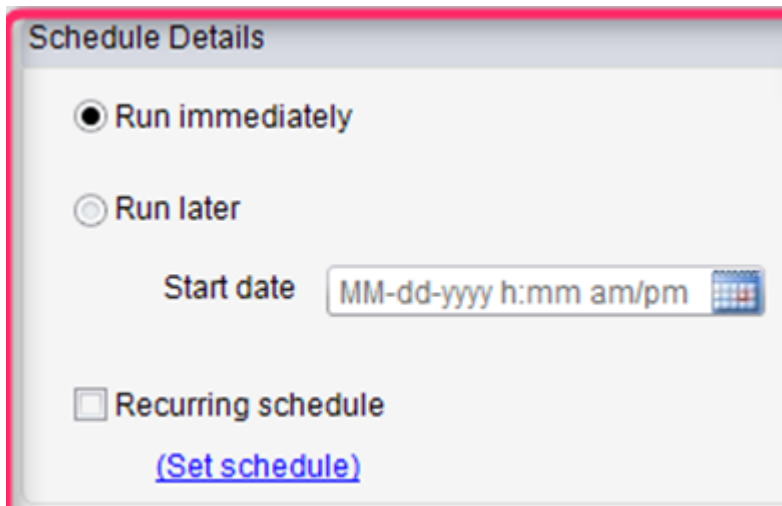


The image shows a 'Patient Selection' dialog box with three radio button options: 'Specific patient' (selected), 'All patients signed by', and 'All patients'. The 'Specific patient' option includes a search box with a magnifying glass icon and a dropdown menu. Below the search box, the text 'Darcy Smith - #17587DA' is displayed. The 'All patients signed by' option includes a dropdown menu. The 'All patients' option is currently unselected.

The “All patients signed by” option is used to allow the user to select a set of patients. The system performs a query for all patients with an exam signed by a specific radiologist within the Date Range indicated by the user. Once these patients have been identified, the C-CDA will be generated for each patient using the Date Range indicated by the user as C-CDA parameters. In the event that no matching patients are found, the output will be a zip file that is 0 bytes; otherwise the zip file will contain a C-CDA XML file for each patient.

The “All patients” option will generate a C-CDA export for all patients in the system (use with care). The result will be a single zip file that contains an XML file for each patient. In this case the patient results are separated into folders and subfolders based on their date of birth. If the user chooses to export all patients, the C-CDA export task will simply schedule the previously designed C-CDA export for all patients. The job will be marked as completed as soon as the export begins, but the user may monitor the process from the Meaningful Use option under the Administration menu. Once this export of all patients is completed, the files and folders are zipped into a single file.

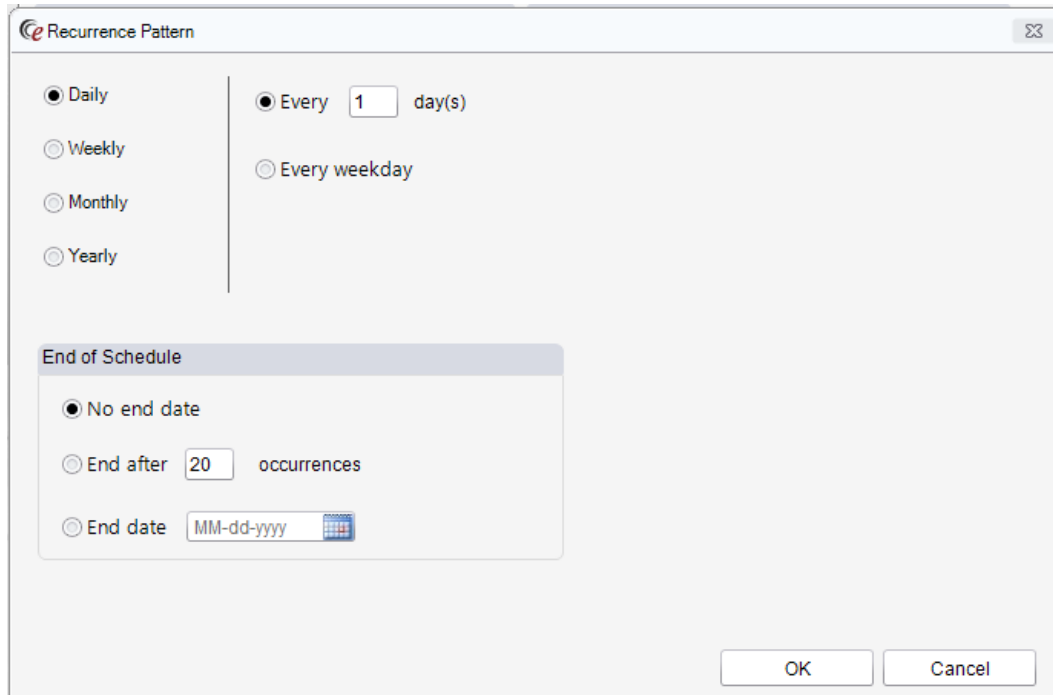
#### Schedule Details



There are two options for choosing a start time: **Run immediately** will schedule the job to run immediately (typically within a minute or so). **Run later** allows the user to pick the date and time that the job will begin to execute.

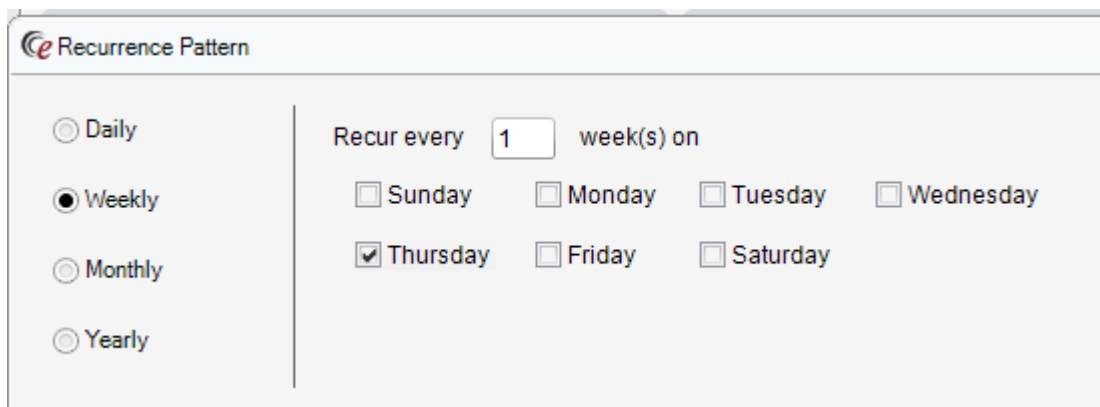
If the job is configured to run more than once (Recurring schedule, discussed below), then the same start time will be used for each date the job is executed.

## Recurring Schedule



The dialog box is titled "Recurrence Pattern". It has two main sections. The first section contains radio buttons for "Daily", "Weekly", "Monthly", and "Yearly". The "Daily" option is selected. To the right of these buttons, there are two more radio buttons: "Every 1 day(s)" (selected) and "Every weekday". The second section is titled "End of Schedule" and contains three radio buttons: "No end date" (selected), "End after 20 occurrences", and "End date MM-dd-yyyy" with a calendar icon. At the bottom right are "OK" and "Cancel" buttons.

A scheduled task can be configured to run daily, weekly, monthly, or yearly. Each of these options has its own set of accompanying choices (e.g. on a “Daily” configuration, the user can indicate that the job should run every day, every X days, or every weekday).



The dialog box is titled "Recurrence Pattern". It has two main sections. The first section contains radio buttons for "Daily", "Weekly", "Monthly", and "Yearly". The "Weekly" option is selected. To the right of these buttons, there is a label "Recur every 1 week(s) on" followed by checkboxes for "Sunday", "Monday", "Tuesday", "Wednesday", "Thursday", "Friday", and "Saturday". The "Thursday" checkbox is checked. At the bottom right are "OK" and "Cancel" buttons.

A scheduled task with a Weekly configuration can be set to run every X weeks on 1 or more days of each week until the end of the schedule.



☐ Daily

☐ Weekly

☒ Monthly

☐ Yearly

☒ Day
 20 of every 1 month(s)

☐ The
 First Sunday of every 1 month(s)

End of Schedule

☒ No end date

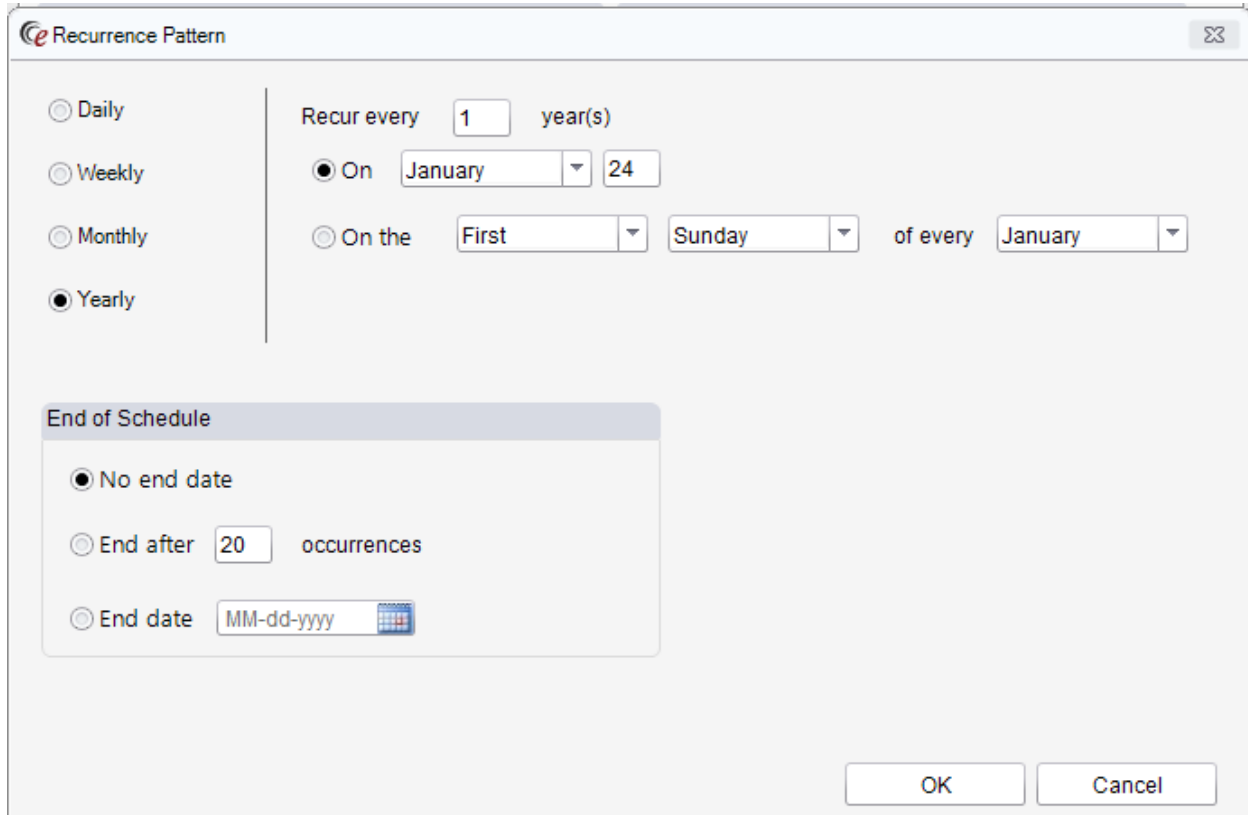
☐ End after 20 occurrences

☐ End date MM-dd-yyyy

OK

Cancel

A scheduled task with a Monthly configuration can be set to run on the same day of every month (or every X months), or it can be configured to run on a certain day of a given week every X months (e.g. the First Sunday of the month). If a task is scheduled for the 31<sup>st</sup> day of each month and there is no 31<sup>st</sup> day of a given month, it will run on the last day of the month instead (e.g. Feb 28<sup>th</sup>).



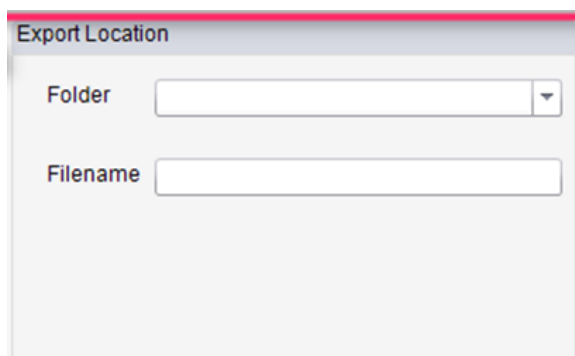
The **Recurrence Pattern** dialog box allows configuring a task's schedule. It features four radio buttons for frequency: **Daily**, **Weekly**, **Monthly**, and **Yearly**. The **Yearly** option is selected. To the right, the **Recur every** field is set to **1** year(s). Below this, there are two options for specifying the date: **On** (selected) with a dropdown for the month (January) and a text field for the day (24), and **On the** with dropdowns for the week number (First), the day of the week (Sunday), and the month (January) of every year. A section titled **End of Schedule** contains three radio buttons: **No end date** (selected), **End after** (20 occurrences), and **End date** (MM-dd-yyyy). At the bottom right are **OK** and **Cancel** buttons.

A scheduled task with a Yearly configuration can be set to run every X years on a particular date (e.g. every 2<sup>nd</sup> January 24<sup>th</sup>), or it can be set to run every X years on a given week number (first through fourth) and weekday of a specific month (e.g. the second Tuesday of every February).

#### End of Schedule Options

A scheduled task can be configured to run with “No end date” (e.g. run every Monday from now on). It can be configured to stop after a specific number of occurrences (e.g. run every week for the next 52 weeks) or it can be configured to stop after a particular date.

#### Export Location



The **Export Location** dialog box has two fields: **Folder**, which is a dropdown menu, and **Filename**, which is a text input field.

The user can choose from a predefined list of network folders that is stored in the System Configuration setting: [ScheduledTaskOutputLocations](#).

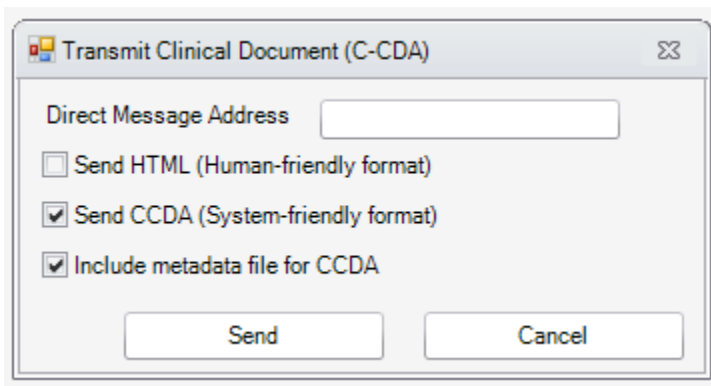
This new setting can include one or more network folders separated by a comma. The list will be presented to the user in the order that it is stored in the System Configuration value. The first item on this list will be used as a default value.

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## FEATURE #17820 – DIRECT MESSAGE FULL METADATA SUPPORT

As required, eRAD RIS now has an option to include a metadata file when transmitting the C-CDA XML file. When including a metadata file, the two files will be combined into one zip file that will be attached to the direct message. When the metadata file is included, the subject line for the direct message will include “XDM/1.0/DDM.”

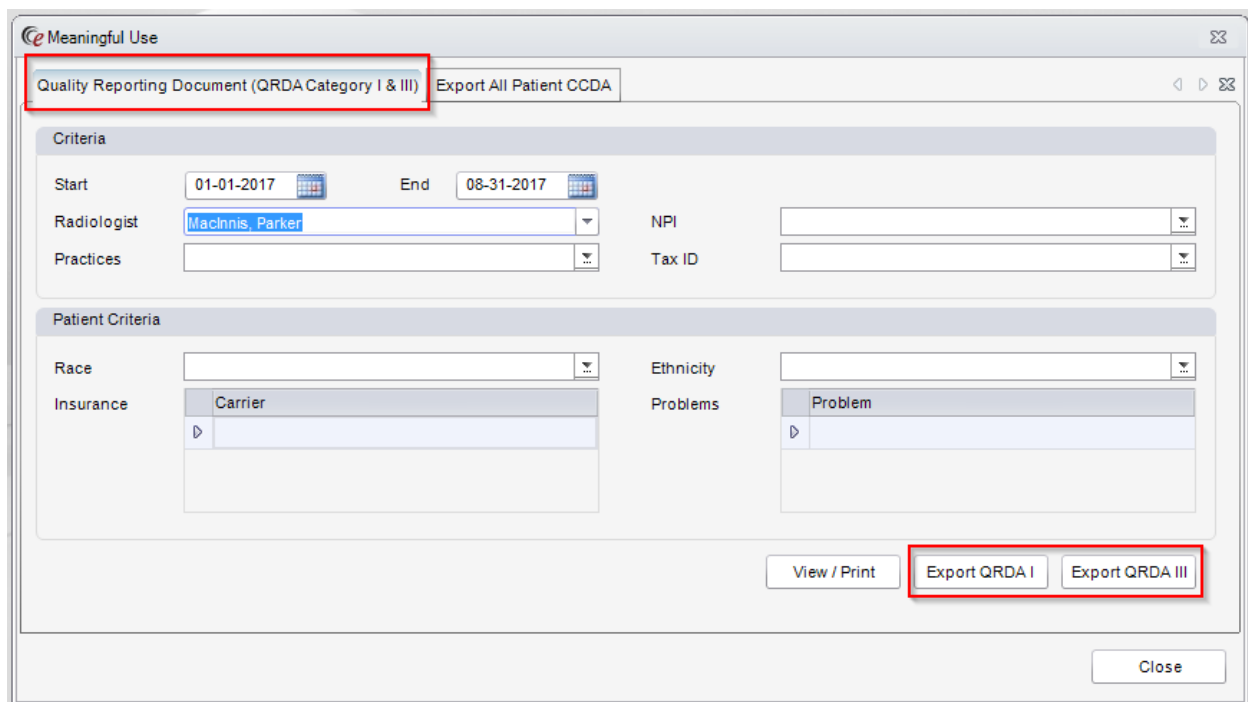
When transmitting the C-CDA, an additional checkbox labeled **Include metadata file for CCDA** will be available. The **Send CCDA** checkbox must be checked first to enable the metadata option. Metadata files are not available when sending in HTML format.



## FEATURE #18140 – CEHRT 170.315(C)(1): ABILITY TO EXPORT A ZIP FILE CONTAINING QRDA I OR QRDA III FOR ALL PATIENTS MEETING THE FILTER CRITERIA

A 2015 CEHRT requirement states that eRAD RIS must be able to provide a file of QRDA results that is automatically compiled for all patients matching the filter criteria entered by the user. It must be possible to export using either QRDA Category I format or QRDA Category III format.

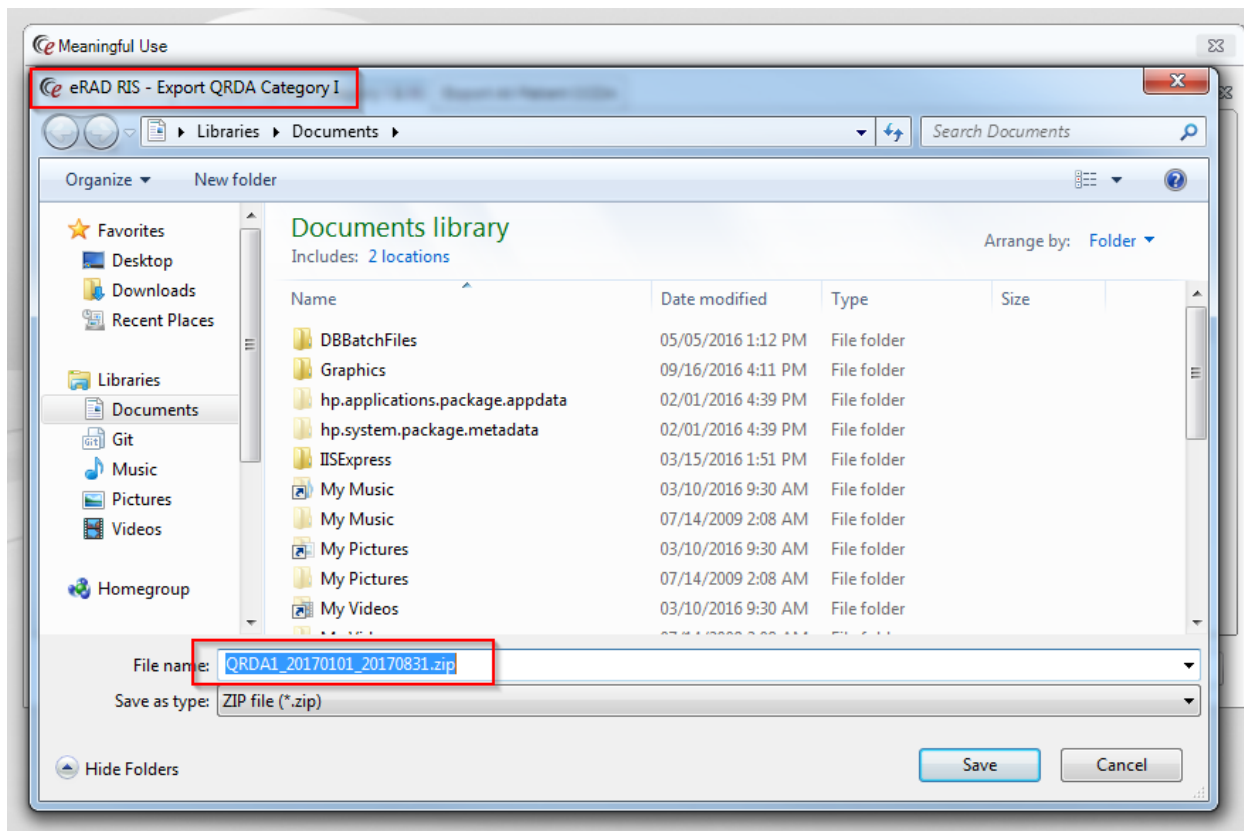
To launch the QRDA screen, click the Meaningful Use option under the Administration menu.



The screenshot shows the 'Meaningful Use' window in the eRAD application. The window has a title bar with the eRAD logo and the text 'Meaningful Use'. Below the title bar, there is a tab labeled 'Quality Reporting Document (QRDA Category I & III)' which is highlighted with a red box. To the right of this tab is a button labeled 'Export All Patient CCDA'. The main content area is divided into two sections: 'Criteria' and 'Patient Criteria'. The 'Criteria' section contains fields for 'Start' (01-01-2017), 'End' (08-31-2017), 'Radiologist' (MacInnis, Parker), 'Practices', 'NPI', and 'Tax ID'. The 'Patient Criteria' section contains fields for 'Race', 'Insurance' (Carrier), 'Ethnicity', and 'Problems'. At the bottom right of the window, there are three buttons: 'View / Print', 'Export QRDA I', and 'Export QRDA III'. The 'Export QRDA I' and 'Export QRDA III' buttons are highlighted with a red box. A 'Close' button is located at the bottom right of the window.

There are now **two** buttons: **Export QRDA I** and **Export QRDA III**. The QRDA files are created for each patient and combined into a zip file that the user can save to disk.

As illustrated below, the user will be able to choose a location to save the zip file. The top of this screen will indicate which QRDA format was selected.



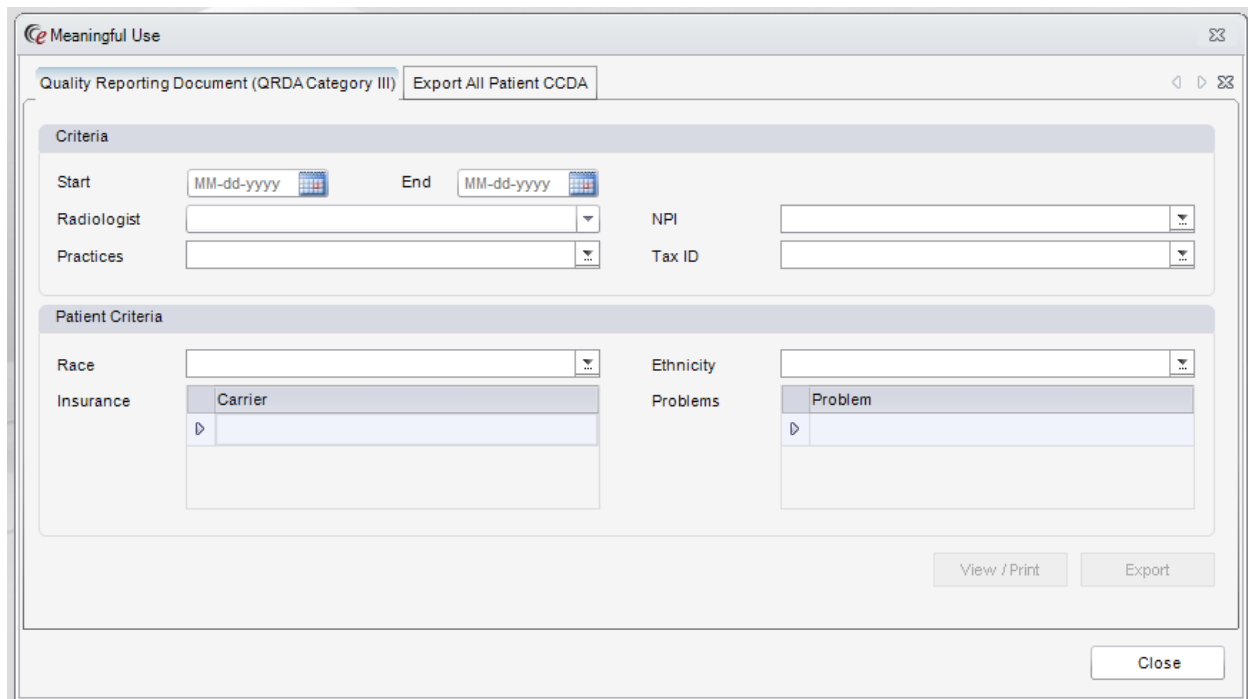
Once the export is complete, eRAD RIS will present a confirmation message to the user.

## FEATURE #13673 – CEHRT: EXPANDED QRDA FILTER CRITERIA

Quality Reporting Document Architecture (QRDA) is a standard for communicating health care Quality Measurement information. When participating in a quality program for Centers for Medicare and Medicaid Services (CMS), it is required to submit Clinical Quality Measure (CQM) data that is in the appropriate QRDA format. It has previously been possible to export a QRDA from eRAD RIS, however, some adjustments have been made to allow for more specific data filtering.

The following filters have been added so that a user can create a QRDA with more specific contents:

- Tax ID
- National Provider Identifier (NPI)
- Patient insurance
- Patient race and ethnicity
- Patient problem list data



The screenshot shows the 'Meaningful Use' window with the 'Quality Reporting Document (QRDA Category III)' tab selected. The 'Export All Patient CCDA' button is visible. The 'Criteria' section includes fields for 'Start' and 'End' dates (MM-dd-yyyy), 'Radiologist', 'Practices', 'NPI', and 'Tax ID'. The 'Patient Criteria' section includes 'Race', 'Ethnicity', 'Insurance' (with a 'Carrier' dropdown), and 'Problems' (with a 'Problem' dropdown). 'View / Print' and 'Export' buttons are at the bottom right, and a 'Close' button is at the bottom center.

The following information will be included in the QRDA:

- Gender
- Race
- Ethnicity
- Payer (Medicare/Medicaid)
- Problem List

The QRDA results now also display a breakdown by problem. If filtering by either Tax ID or NPI, the results also include a breakdown by these criteria.

Example of QRDA showing Problem List:

## QRDA Level III

### Report Parameters

**Period Start Date:** 2015-01-01  
**Period End Date:** 2017-08-31  
**Radiologist:** MacInnis, Parker  
**Practice:** Advanced Radiology, American Radiology, American Radiology 2, Borg/IDE, Get Well Clinic, PEI Radiology

### Measures

**1 Title** CMS125v5  
**GUID** 40280381-51F0-825B-0152-229C4EA3170C  
**NQF No.** 2372  
**Version No.** 5  
**eMeasure ID** 125  
**Stratification**

	Code	Initial Pop.	Denominator	Denom Excl	Numerator	Denom Excep
total		5	5	0	0	0
gender	F	5	5	0	0	0
ethnicity	2135-2	2	2	0	0	0
ethnicity	2186-5	2	2	0	0	0
race	2028-9	1	1	0	0	0
race	2054-5	1	1	0	0	0
race	2106-3	3	3	0	0	0
payer	19	5	5	0	0	0
problem	J45	1	1	0	0	0
problem	R07.1	1	1	0	0	0
problem	292097002	1	1	0	0	0
problem	292096006	1	1	0	0	0



Example of QRDA showing breakdown by Tax ID and NPI:

## QRDA Level III

### Report Parameters

**Period Start Date:** 2015-01-01  
**Period End Date:** 2017-08-31  
**NPI:** 77777  
**Practice:** Advanced Radiology,American Radiology,American Radilogy 2,Borg/IDE,Get Well Clinic,PEI Radiology  
**Tax ID:** 96-5657633

### Measures

**1 Title** CMS125v5  
**GUID** 40280381-51F0-825B-0152-229C4EA3170C  
**NQF No.** 2372  
**Version No.** 5  
**eMeasure ID** 125  
**Stratification**

	Code	Initial Pop.	Denominator	Denom Excl	Numerator	Denom Excep
total		3	3	0	0	0
gender	F	3	3	0	0	0
ethnicity	2135-2	1	1	0	0	0
ethnicity	2186-5	1	1	0	0	0
race	2028-9	1	1	0	0	0
race	2054-5	1	1	0	0	0
race	2106-3	1	1	0	0	0
payer	19	3	3	0	0	0
problem	J45	1	1	0	0	0
problem	R07.1	1	1	0	0	0
problem	292097002	1	1	0	0	0
problem	292096006	1	1	0	0	0
tax_id	96-5657633	3	3	0	0	0
npi	77777	3	3	0	0	0

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## FEATURE # 17949 – CEHRT 170.315(G)(2): MANAGEMENT REPORTS TO PROVIDE ACI MEASURE SCORES

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This feature is designed to provide a means to track the 2017 Advanced Care Imaging (ACI) transition measures and 2017 Advanced Care Imaging (ACI) standard measures. Under the Merit-based Incentive Payment System (MIPS) pathway of the Medicare Access and CHIP Reauthorization Act (MACRA), ACI has replaced the Medicare HER Incentive Program (Meaningful Use). In 2017, ACI is also one of the three performance categories to be considered and weighted for scoring a clinician's overall performance under MIPS.

For scoring purposes, in the ACI performance category (weighted at 25% of the total score), MIPS eligible clinicians may earn a maximum score of up to 155%, but any score above 100% will be capped at 100%.

The ACI score is the combined total of the following three scores:

1. Required Base Score (50%)
2. Performance Score (up to 90%)
3. Bonus Score (up to 15%)

MIPS eligible clinicians need to fulfill the requirements of all base score measures in order to receive the 50% base score. If these requirements are not met, they will receive a 0 in the overall ACI performance category score. In order to receive the 50% base score, MIPS eligible clinicians must submit a "yes" for the security risk analysis measure, and at least a 1 in the numerator for the remaining measures.

The **transition** base score ACI measures are:

1. **Security Risk Analysis** – Conduct or review a security risk analysis, including addressing the security (including encryption) of electronic personal health information created or maintained by CEHRT.
2. **e-Prescribing** – At least one permissible prescription written by the provider is queried for a drug formulary and transmitted electronically using CEHRT.
3. **Provide Patient Access** – At least one patient seen by the MIPS eligible clinician during the performance period is provided timely access to view online, download, and transmit to a third party their health information subject to the MIPS eligible clinician's discretion to withhold certain information.
4. **Health Information Exchange** – The MIPS eligible clinician that transitions or refers their patient to another setting of care or health care clinician (1) uses CEHRT to create a summary of care record; and (2) electronically transmits that summary to a receiving health care clinician for at least one transition of care or referral.

The **standard** base score ACI measures are:

1. **Security Risk Analysis** – Conduct or review a security risk analysis, including addressing the security (including encryption) of electronic personal health information created or maintained by CEHRT.
2. **e-Prescribing** – At least one permissible prescription written by the provider is queried for a drug formulary and transmitted electronically using CEHRT.
3. **Provide Patient Access** – At least one patient seen by the MIPS eligible clinician during the performance period is provided timely access to view online, download, and transmit to a third party their health information subject to the MIPS eligible clinician's discretion to withhold certain information.

4. **Send Summary of Care** – For at least one transition of care or referral, the MIPS eligible clinician that transitions or refers their patient to another setting of care or health care clinician (1) creates a summary of care record using CEHRT; and (2) electronically exchanges the summary of care record.
5. **Accept Summary of Care** – For at least one transition of care or referral received or patient encounter in which the MIPS eligible clinician has never before encountered the patient, the MIPS eligible clinician receives or retrieves and incorporates into the patient's record an electronic summary of care document.

All of the base score requirements must be met in order to receive the 50% base score. However, for e-Prescribing there is an exception. e-Prescribing is only required to be reported if 100 or more prescriptions are written in the performance period.

To achieve an ACI performance score in addition to the base score, a MIPS eligible clinician must satisfy at least one additional ACI performance score measure during his or her performance period. This means that at least one performance score measure must have a numerator greater than 1 and clinicians must submit a numerator/denominator or Yes/No for each ACI performance score measure they report.

The percentage listed next to each 2017 ACI Transition Measure Set measure below indicates how much that measure can contribute to the ACI performance score, based on the measure rate (which is the numerator divided by the denominator). Performance score measures can be worth up to 90% of the total ACI score, giving clinicians the flexibility to focus on achieving the measures that are most meaningful to their practice. The higher a clinician's performance rate on these measures, the higher their ACI score will be.

The performance score **ACI Transition Measures** are:

1. **Provide Patient Access (up to 20%)** - For at least one unique patient seen by the provider, (1) the patient (or patient-authorized representative) is provided timely access to view online, download, and transmit his or her health information, and (2) the provider ensures the patient's health information is available for the patient (or patient authorized representative) to access using any application of his or her choice that is configured to meet the technical specifications of the Application Programming Interface (API) in the provider's CEHRT.
2. **View, Download or Transmit (VDT) (up to 10%)** - At least one patient seen by the MIPS eligible clinician during the performance period (or patient-authorized representative) views, downloads or transmits their health information to a third party during the performance period.
3. **Health Information Exchange (up to 20%)** - For at least one transition of care or referral, the provider who transitions or refers his or her patient to another setting of care or health care provider (1) creates a summary of care record using CEHRT; and (2) electronically exchanges the summary of care record.
4. **Secure Messaging (up to 10%)** - For at least one unique patient seen by the provider during the performance period, a secure message was sent using the electronic messaging function of the CEHRT to the patient (or patient-authorized representative), or in response to a secure message sent by the patient (or patient authorized representative).
5. **Medication Reconciliation (up to 10%)** - The MIPS eligible clinician performs medication reconciliation for at least one transition of care in which the patient is transitioned into the care of the MIPS eligible clinician.

6. **Patient-Specific Education (up to 10%)** - The provider must use clinically relevant information from the CEHRT to identify patient-specific educational resources, and provide electronic access to those materials, to at least one unique patient seen by the provider.

The performance score **ACI Standard Measures** are:

1. **Provide Patient Access (up to 20%)** - For at least one unique patient seen by the provider, (1) the patient (or patient-authorized representative) is provided timely access to view online, download, and transmit his or her health information, and (2) the provider ensures the patient's health information is available for the patient (or patient authorized representative) to access using any application of his or her choice that is configured to meet the technical specifications of the Application Programming Interface (API) in the provider's CEHRT.
2. **View, Download or Transmit (VDT) (up to 10%)** - At least one patient seen by the MIPS eligible clinician during the performance period (or patient-authorized representative) views, downloads or transmits their health information to a third party during the performance period.
3. **Send Summary of Care (up to 20%)** - For at least one transition of care or referral, the MIPS eligible clinician that transitions or refers their patient to another setting of care or health care clinician (1) creates a summary of care record using CEHRT; and (2) electronically exchanges the summary of care record.
4. **Secure Messaging (up to 10%)** - For at least one unique patient seen by the provider during the performance period, a secure message was sent using the electronic messaging function of the CEHRT to the patient (or patient-authorized representative), or in response to a secure message sent by the patient (or patient authorized representative).
5. **Medication Reconciliation (up to 10%)** - The MIPS eligible clinician performs medication reconciliation for at least one transition of care in which the patient is transitioned into the care of the MIPS eligible clinician.
6. **Patient-Specific Education (up to 10%)** - The provider must use clinically relevant information from the CEHRT to identify patient-specific educational resources, and provide electronic access to those materials, to at least one unique patient seen by the provider.
7. **Accept Summary of Care (up to 10%)** - For at least one transition of care or referral received or patient encounter in which the MIPS eligible clinician has never before encountered the patient, the MIPS eligible clinician receives or retrieves and incorporates into the patient's record an electronic summary of care document.

To provide information regarding the ACI measure scores described above, two new management reports have been added to the RIS Meaningful Use core reports: [ACI Transition Measures](#) and [ACI Standard Measures](#).

A new Y/N parameter called [Security Risk Analysis Completed](#) has been added to both reports. Answering Y to this parameter will satisfy the Security Risk Analysis base score.

Stage 1 and 2 Automated Measures are goal based where each measure has a goal percentage assigned. If the numerator divided by the denominator exceeds the goal, then that measure had passed; otherwise, it is considered a fail.

For 2017 Transition and Standard Measures, the Goal and Pass/Fail columns have been replaced with Base and Performance. The Base column will display a "Y" if the measure has been met. For ACI Transition Measures, base

score is set at 50 if Security Risk Analysis has been confirmed, numerator is at least 1 for Health Information Exchange and VDT (Timely Access), and numerator is at least 1 for eRx when denominator is at least 100.

For ACI Standard Measures, base score is set at 50 if Security Risk Analysis has been confirmed, numerator is at least 1 for Send Summary of Care, VDT (Timely Access) and Accept Summary of Care, and numerator is at least 1 for eRx when denominator is at least 100.

The Performance score will display the number of calculated performance points for the measure. For ACI Transition Measures, Performance score is the numerator divided by the denominator multiplied by 20 for VDT (Timely Access) and Health Information Exchange and the numerator divided by the denominator multiplied 10 for Medication Reconciliation, VDT (Patient Use), Secure Messaging, and Patient Education.

For ACI Standard Measures, Performance score is the numerator divided by the denominator multiplied by 20 for VDT (Timely Access) and Send Summary of Care and the numerator divided by the denominator multiplied 10 for Medication Reconciliation, VDT (Patient Use), Secure Messaging, Patient Education, and Accept Summary of Care. The Total score is the Base score plus the Performance score. Failing to achieve the Base score or 50 points will result in a Total score of 0.

Unlike the Automated Measures Report, the ACI Transition Measures and ACI Standard Measures Report include both Site and Practice as multi-select parameters. Both the Practice and Site parameters have been enhanced to include the Tax Identification Number (TIN) to allow the user to run the report based on one or more TINs.

The Radiologist parameter has also been modified to support multi-select, allowing the report user to consolidate or roll-up the data to the TIN (site or practice) level.

The following section will outline how each measure is calculated from eRAD RIS data. These calculations are based on the specified signing radiologist, the schedule date range, the practice code, and the site code where the procedure was performed.

**Security Risk Analysis** – This is determined at the management report level via the Security Risk Analysis Completed Y/N parameter.

**Medication Reconciliation** – The denominator is made up of the total studies where the Referral Type has been specified on the Meaningful Use tab. The numerator is made up of the total studies where the Medical Reconciliation flag has been specified on the Meaningful Use tab and the Referral Type has been specified on the Meaningful Use tab.

**e-Prescribing (eRx)** – The denominator is the total number of completed prescriptions for the patient entered electronically via NewCrop. The numerator is the total number of completed prescriptions for the patient entered electronically via NewCrop and sent electronically via Surescripts to the selected pharmacy.

**Patient Education** – The denominator is the total distinct patient count for the report period. The numerator is the total number of times the Provided Education Resources or Prep Notes Reviewed flags have been specified for the visit.

**Health Information Exchange** – The denominator is the total Transition of Care to Another Provider specified on the Meaningful Use tab. The numerator is the total Transition of Care to Another Provider where the Transition of Care Summary Provided and Transition of Care Confirmation Received have been selected on the Meaningful Use tab.

**VDT (Timely Access)** – The denominator is the total distinct patient count for the report period. The numerator is determined by the number of these patients (or someone with approved medical record access) that has an account on the patient portal.

**VDT (Patient Use)** – The denominator is the total distinct patient count for the report period. The numerator is determined by the number of these patients (or someone with approved medical record access) that has accessed the patient portal during the reporting period.

**Secure Messaging** – The denominator is the total distinct patient count for the report period. The numerator is calculated based on one of the following two conditions:

1. A secure message was sent to all patients (blast message) during the reporting period.
2. A secure message was sent to the specific patient during the reporting period.

**Send Summary of Care** – The denominator is the total Transition of Care to Another Provider specified on the Meaningful Use tab. The numerator is the total Transition of Care to Another Provider where the Transition of Care Summary Provided and Transition of Care Confirmation Received have been selected on the Meaningful Use tab.

**Accept Summary of Care** – The denominator is the total Summary of Care Record Available specified on the Meaningful Use tab. The numerator is the total Summary of Care Record Received where the Summary of Care Record Available has been selected on the Meaningful Use tab.

Please see examples of the [ACI Transition Measures](#) and [ACI Standard Measures](#) management reports below. Note that the filter criteria include the ability to select one or more radiologists and to indicate whether or not Security Risk Analysis has been completed. Also note that the Tax ID Number (TIN) is shown in the Site selection dropdown.

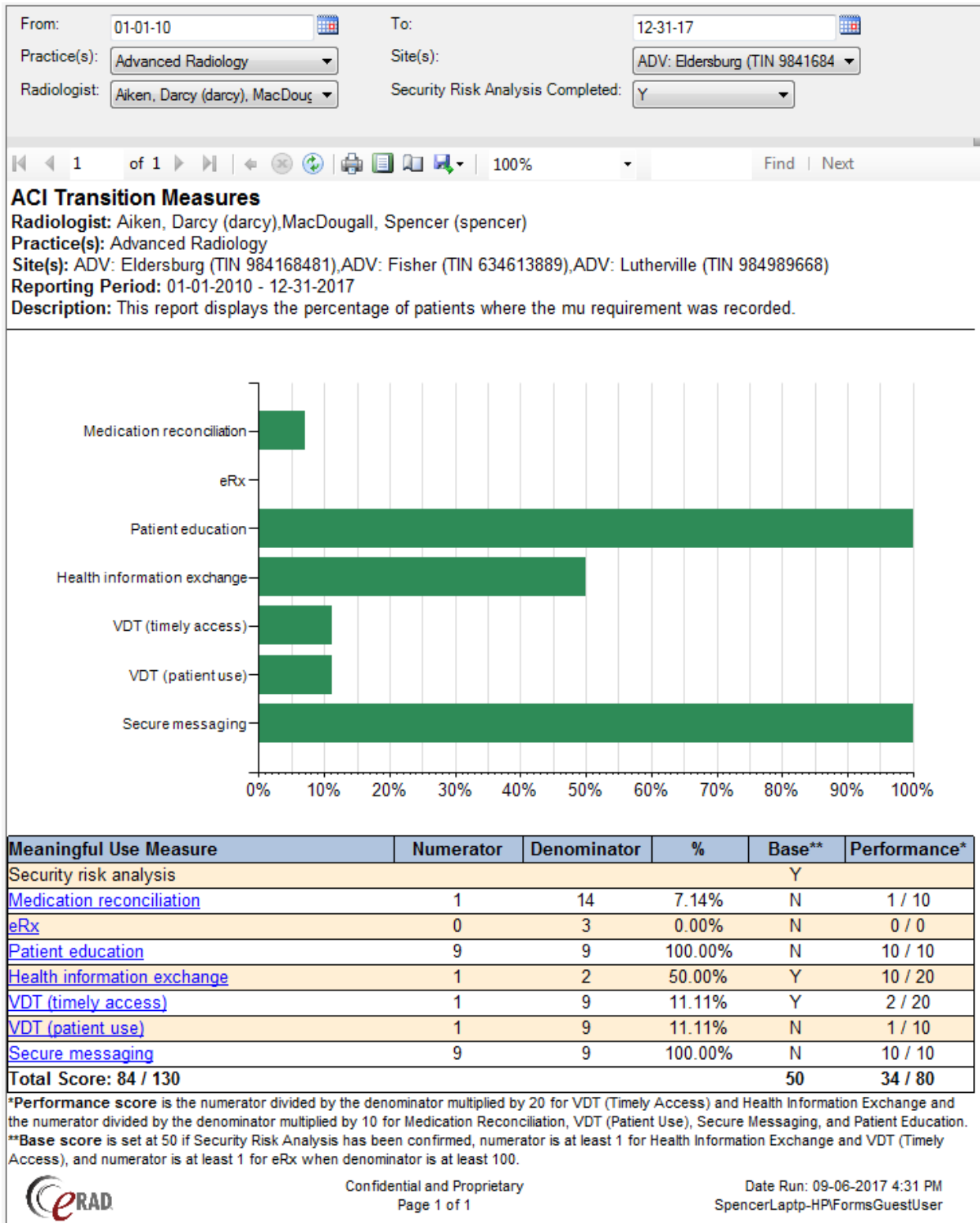


Figure 1 – ACI Transition Measures Report showing Base, Performance, and Total Score



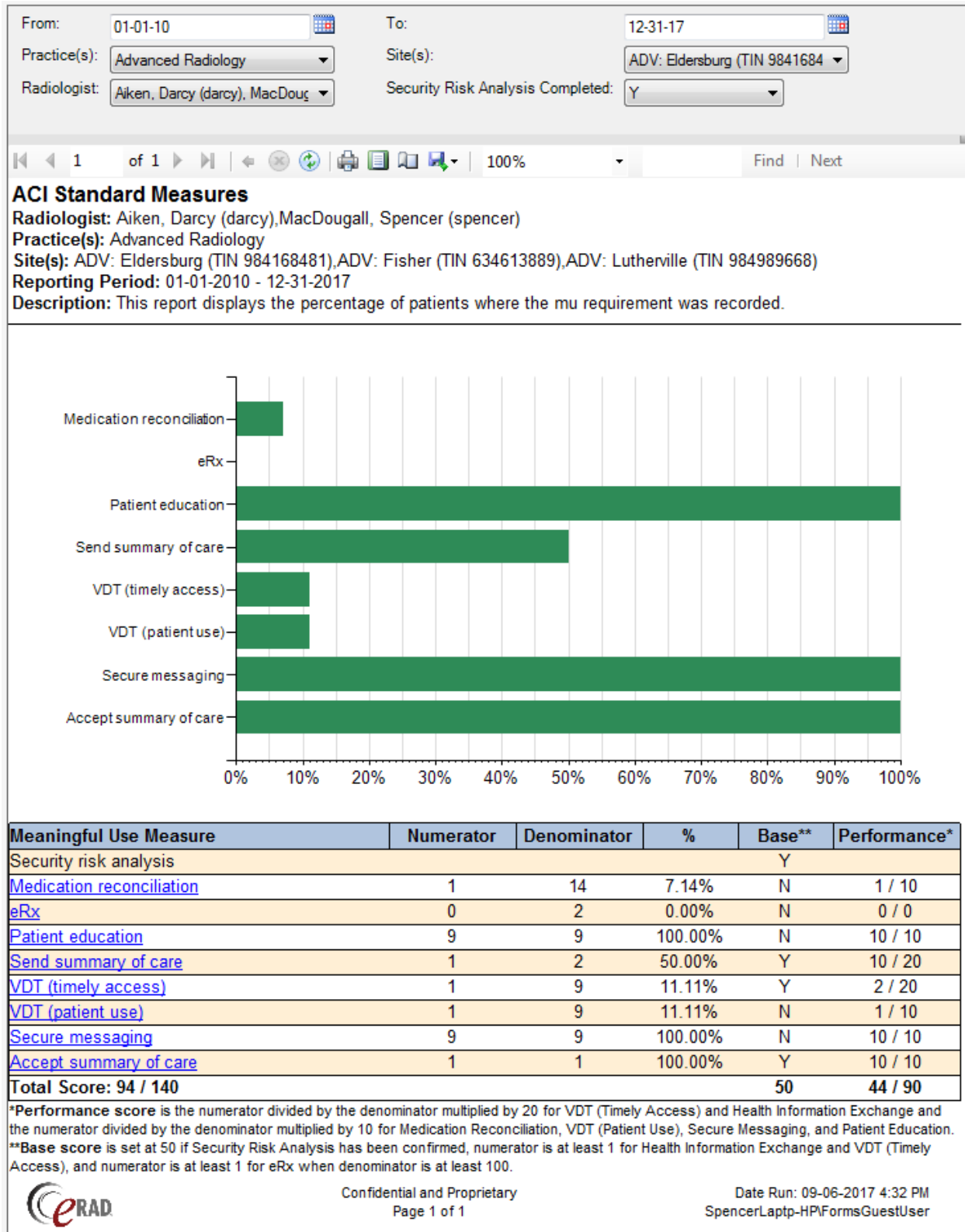


Figure 2 – ACI Standard Measures Report showing Base, Performance, and Total Score



## GENERAL WORK LISTS ENHANCEMENTS

### FEATURE #17805 – ADD A CUSTOM ICON FOR ALERTS TO DISPLAY ON WORKLISTS

This feature is described in the RIS Administration section.

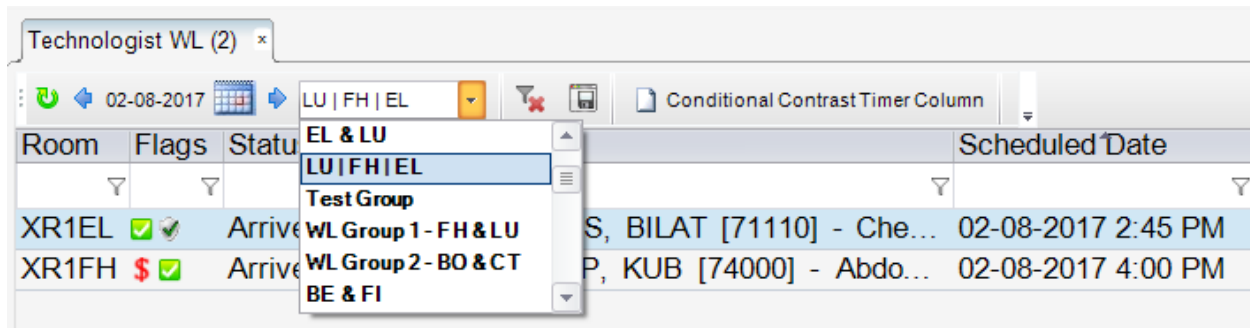
### FEATURE #16309 – USE SITE GROUP FILTER ON RECEPTION AND TECHNOLOGIST WORKLISTS

When the Site Group filter was added to a variety of worklists in eRAD RIS, the Reception and Technologist worklists were excluded from the new framework. This was due to the fact that the primary uses for these two worklists are focused on a single site where the user is currently working: the receptionist needs to see patients to register for the site where she or he is located; or the technologist needs to see exams to be performed at the site she or he is covering that day. However, these worklists can sometimes be used for other purposes which may make it desirable to use the Site Group filter on these worklists.

For example, the Reception WL is often used for things like "preprocessing" or reviewing upcoming appointments. A staff member may be designated to review upcoming appointments for a number of sites, such as a lead technologist reviewing all MRI exams scheduled in his or her region for the following day. There is a need to be able to display multiple sites on the worklists to allow for easy centralization of these types of tasks.

In addition, there are some instances where a single site is split up into two distinct RIS sites for tax ID purposes or other reasons. These sites would benefit from the ability to be grouped together on Reception and Technologist worklists, so that receptionists and technologists do not need to switch back and forth between worklists.

For these reasons, the Reception and Technologist worklists can now be filtered by Site Groups that have been configured with the Site Group Type of **Worklist Group**.



The screenshot shows the 'Technologist WL (2)' window. A dropdown menu is open over the 'Flags' column, displaying a list of site groups: 'EL & LU', 'LU|FH|EL', 'Test Group', 'WL Group 1 - FH & LU', 'WL Group 2 - BO & CT', and 'BE & FI'. The table below the menu has columns for 'Room', 'Flags', 'Status', and 'Scheduled Date'. Two rows are visible: 'XR1EL' with status 'Arrive' and 'XR1FH' with status 'Arrive'. The 'Scheduled Date' column shows dates and times for two exams: '02-08-2017 2:45 PM' and '02-08-2017 4:00 PM'.

Room	Flags	Status	Scheduled Date
XR1EL	✓✓	Arrive	02-08-2017 2:45 PM
XR1FH	✓	Arrive	02-08-2017 4:00 PM

Configuration and use is identical to existing worklist Site Group filters.

## FEATURE #17246 – PATIENT CLASS COLUMN AVAILABLE ON ADDITIONAL WORKLISTS

Customers have requested that the **Patient Class** column be added to additional worklists. The column has been added to the following worklists:

- Pending Dictation
- All Pending Dictation
- Pending Signature
- All Pending Signature
- Activity WL

de	First Name	Last Name	Visit #	Patient Class	Mark
	Brand	Kale	23684	Outpatient	
	goodie21	goodie21	104272	Outpatient	
	Lacey	Linsley	109261	Outpatient	
	Coral	Cravalho	109357	Emergency	
	Geraldine	Grassi	109546	Outpatient	
	Oretha	Reinbold	109547	Unknown	
	Terry	Trupp	109747	Outpatient	
	Jared	Iodice	110218	Unknown	

The column will be populated with the Class selected on the Order tab.

Order
Documentation
Exam Details
Billing Codes
Attachments
Notes / Exam Times
Contact Log

Referring Details

CC Physicians

Referring \*
OCONNOR, WILLIAM T.

Visited at \*
PO BOX 102, MISSION OF MERCY, FAIRFIELD, PA, 17320

Img notes

Ref. date
MM-dd-yyyy

Visit location for CC \*

Copy to patient

Flags

☐ Direct referral
☐ Transportation required

☐ STAT exam
Special accommodations \*
No

☐ STAT read

☐ STAT PreCert
☐ Sequester
Urgency Level

Class \*
Outpatient

Sedation

☐ Transition of care

☐ Provided Educational Resources

---

FEATURE #17792 – “CATEGORY” COLUMN IS NOW AVAILABLE ON THE ALL CRITICAL RESULTS AND CRITICAL RESULTS WL

The Category column has been added to the Critical Results and All Critical Results worklists. Sorting on this column will be by Display Order, not alphabetical order. This will allow users to easily order their lists by the level of urgency.

## INTERFACING

### FEATURE #15508 – CONFIGURABLE DPI SETTING FOR ATTACHMENTS IMPORTED VIA INTERFACE

When an attachment is sent into eRAD RIS in PDF format over an external interface, the PDF is processed into images with a hard coded DPI of 120. It has been determined that this DPI is too low for some purposes, so the DPI setting is now configurable.

A new attribute called **DPI** has been added to the **c\_scan\_document** table on inbound messages. Any numerical value may be specified in this attribute to set the DPI. For quality purposes, an upper bound of 250 DPI and a lower bound of 100 DPI have been established. The default DPI setting is 120, if no value is specified. If a setting of less than the lower bound or more than the upper bound is entered, RIS will use the lower or upper bound respectively (i.e. it will use 100 or 250 DPI).

When sending in an external study update with a scanned document, specify the DPI attribute's value in the following location. This will work for both external interface web service study updates, as well as http inbound updates.

```
<ext1:ScanDocument>
  <ext1:c_scan_document dpi="80">
    <ext1:scan_document_key>-1</ext1:scan_document_key>
    <ext1:scan_type_code>Worksheet</ext1:scan_type_code>
    <ext1:pdf>BASE 64 of PDF file</ext1:pdf>
    <ext1:external_id>>manual-test-interface</ext1:external_id>
    <ext1:reviewed_flag>N</ext1:reviewed_flag>
    <ext1:scanned_by_user_id>admintest</ext1:scanned_by_user_id>
  </ext1:c_scan_document>
  <ext1:c_scan_document_association>
    <ext1:scan_document_key>-1</ext1:scan_document_key>
    <ext1:patient_key>1</ext1:patient_key>
  </ext1:c_scan_document_association>
</ext1:ScanDocument>
```

---

## FEATURE #6941 – OPTION TO DISABLE WEDGE FROM AUTO-RESOLVING PATIENTS WITH MATCHING DEMOGRAPHICS

There is an existing feature in the Wedge which attempts to match the patient from an external transaction to an existing patient in our system. If unable to identify an internal patient account based on MRN, the Wedge will attempt to find a match based on demographics data: first name, last name, date of birth, and, optionally, sex and/or home phone number.

In some cases, customers may wish to keep distinct accounts for the same patient coming from an external source, or they may not want to depend on the less definitive demographic matching.

It is now possible to disable the second tier, demographic matching process.

Please contact eRAD Support for more information about disabling this feature if desired.

## RIS ADMINISTRATION

### FEATURE 17804 – NEW OPTION TO CHOOSE BETWEEN ORDER-LEVEL AND PATIENT-LEVEL ALERTS

Previously, it was possible to create Patient-level Alerts that would be applicable for all future activity for the patient's account. However, there are often occasions when setting an Alert at the Order level is more beneficial. This can be useful when there is some piece of information that a user should be warned about for a particular visit, but will not be relevant next time the patient returns. For example, the front desk may flag a patient as requiring isolation because of a positive PPD test, but this should not display when the patient returns in 6 months for a screening mammogram.

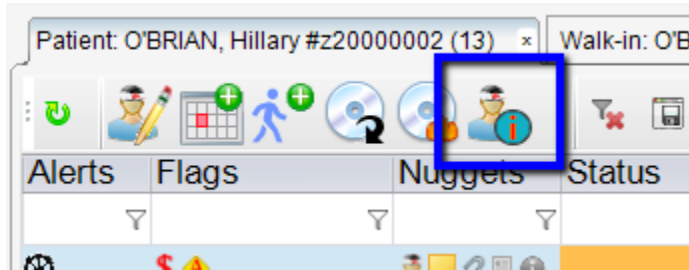
In the **Patient Alert** look-up table, there is now a new column labeled **Level** which determines if the Alert is Patient-level or Order-level.

Patient Flag Code Description		Level	Pp Prevent Patient Scheduling...	Rp Prevent Patient Scheduling...	Display Order	Last Updated	Active	Icon
Contains:	Contains:	Contains:	Contains:	Contains:	Equals:	Equals:	Cont	
Click here to add a new row								
Department_Unit	Department or Unit	Order	N	N	1	01-19-2018 7:15 PM	Y	
Emancipated	Emancipated minor	Patient	N	N	1	06-30-2017 12:55 PM	N	
FrequentNoShow	Patient often misses appointments. Tell the patient additional charges...	Patient	N	N	1	11-22-2016 10:29 AM	Y	
Isolation	Isolation	Order	N	N	1	11-30-2017 1:06 PM	Y	
Click here to add a new row								
Patient Flag Code Screen								
Isolation	Registration							
Isolation	PerformExam							
Click here to add a new row								
LifetimeBan	This patient has been banned from our facilities.	Patient	Y	Y	1	01-03-2018 6:25 PM	Y	
Migrated	Migrated Alert:	Patient	N	N	1	11-29-2017 3:43 PM	Y	
Nervous	Patient is nervous about medical procedures. Be extra reassuring dur...	Patient	N	N	1	07-21-2017 12:05 PM	Y	
ServiceAnimal	Patient will be accompanied by a service animal.	Patient	N	N	1	01-03-2018 6:25 PM	Y	

By default, Alerts will be stored at the Patient-level and will continue to be displayed any time the configured screens are opened for all future visits. However, if the Alert's Level is set as Order, the Alert will only be displayed when the configured screens are opened for the Order on which the Alert was activated.

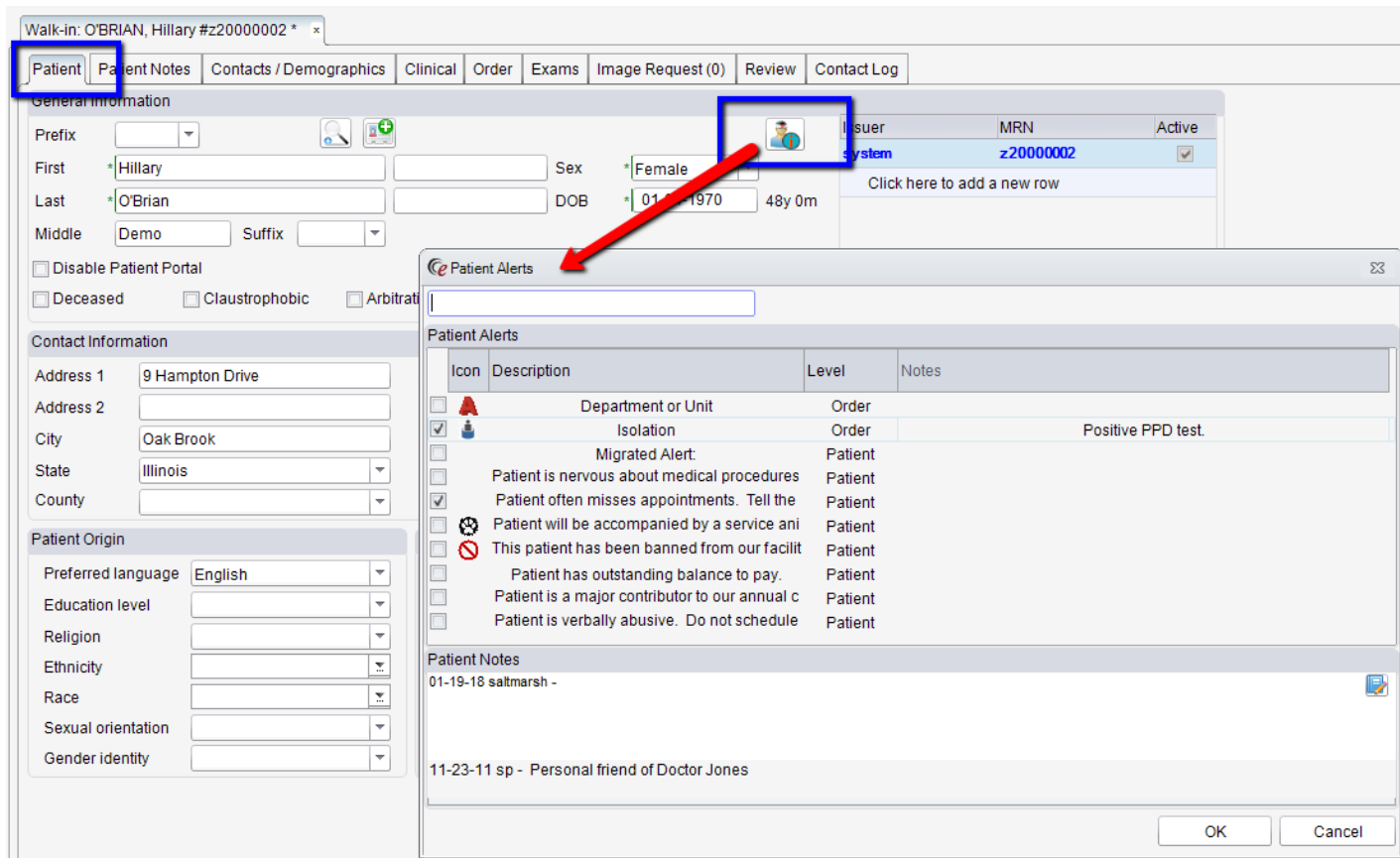
After an Order-level Alert is configured in the Patient Alert look-up table, staff can turn on the Alert in the same way they did previously:

**Option 1:** Use the Patient Alert button in the Patient Folder.



There is one difference when adding Order-level Alerts with this button. Because it is an Order-level Alert, it will be applied to the Order for the row that is currently selected in the Patient Folder. It is not possible to multi-select from the Patient Folder when setting an Order-level Alert and the user will be informed if they attempt to do so. (It is still possible to multi-select if setting a Patient-level Alert.)

**Option 2:** Use the Patient Alert button on the Patient tab when an order-specific screen (e.g. Schedule Order or Perform Exam) is open.

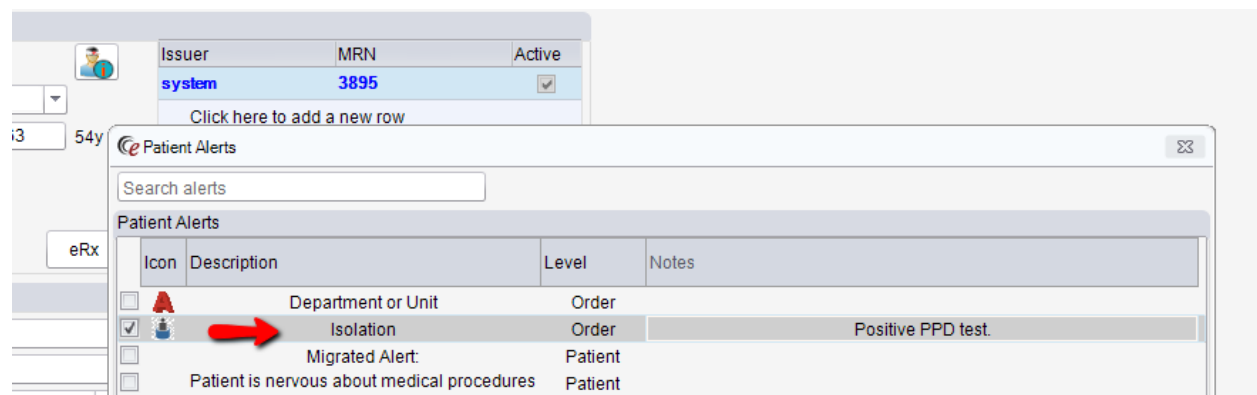


Order-level and Patient-level Alerts can be selected and specific notes can be added in the Notes column that will be displayed with the pop-up Alert. The user can easily see whether the Alert is Patient-level or Order-level by looking at the Level column in the window. It is possible to create two Alerts in the look-up table with different

Level settings if it is desirable to have either Order-level or Patient-level depending on the circumstance. The user can then select the Alert with the desired Level.

If the user is adding an Alert from a Patient-level screen that does not have any Orders in the context, such as Edit Patient, only Patient-level Alerts will be available. If the user is adding an Order-level Alert from a screen that includes multiple Orders for the patient (e.g. the user is scheduling an appointment with an Order A and Order B), the Alert will be applied to any Orders that are open on that screen.

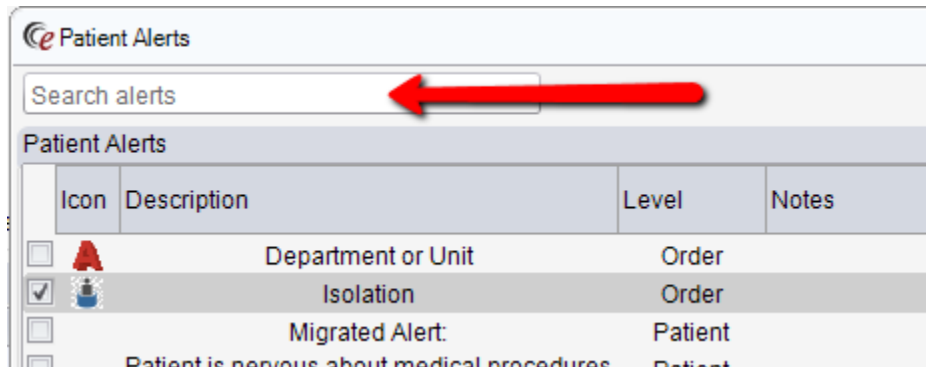
If a user opens a screen that includes multiple Orders that already have at least one Order-level Alert, the Alert window will mark the Alert's row in gray if it isn't applicable to all of the Orders that are open. For example, Scheduler A schedules an appointment for tomorrow and adds an Order-level Alert of Isolation. Scheduler B schedules a second appointment for the same patient for tomorrow and does not add the Isolation Alert. If the receptionist chooses to register these two separate Orders together, he or she will receive the Isolation Alert pop-up because one of the Orders has this Alert set. If the receptionist were to open the Alerts window, she or he would see that the row for the Alert is colored in gray to indicate that it is only applicable for some of the open Orders.



If the user wishes to apply the Alert to all of the open Orders, he or she can simply uncheck it and re-check it. Then the row will appear white to indicate that it is applied to all open Orders.

Note that a new filter box has been added when opening the Patient Alerts window to allow users to quickly find the Alert they'd like to add. Typing in this box will filter the Alert options to display only those that contain the word typed in the field.








See the feature below for some additional functionality related to Alerts.

## FEATURE #17805 – ADD A CUSTOM ICON FOR ALERTS TO DISPLAY ON WORKLISTS

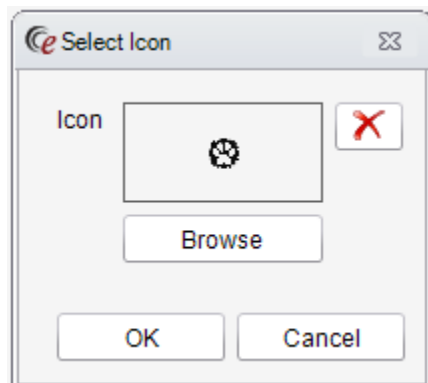
It can be helpful to know about certain types of Patient Alerts when viewing a worklist, so that staff can easily identify that patients with particular situations or conditions are being seen at the center *before* they open a screen that would present the Alert pop-up message.

For example, many facilities enact a special workflow for patients requiring Isolation. It is helpful to know ahead of time when an isolation patient is scheduled so that staff can quickly identify the patient when they present at the front desk, in order to provide them with a mask and move them to an isolation area. A custom Alert icon on the worklist will help to identify any isolation patients on the Reception WL for that day, especially if conditional formatting is applied to change the font or row color.

To make this possible, the Patient Alert table now has an **Icon** column.

Patient Flag Code	Description	Display Or...	Pp Prevent Patient Scheduling...	Rp Prevent Patient Scheduling...	Level	Last Updated	Active	Icon
Contains:	Contains:	Contains:	Contains:	Contains:	Contains:	Contains:	Contains:	
Click here to add a new row								
Department_Unit	Department or Unit	1	N	N	Order	01-19-2018 7:15 PM	Y	
Emancipated	Emancipated minor	1	N	N	Patient	06-30-2017 12:55 PM	N	
FrequentNoShow	Patient often misses appointments. Tell the patient additional charges...	1	N	N	Patient	11-22-2016 10:29 AM	Y	
Isolation	Isolation	1	N	N	Order	11-30-2017 1:06 PM	Y	
LifetimeBan	This patient has been banned from our facilities.	1	Y	Y	Patient	01-03-2018 6:25 PM	Y	
Migrated	Migrated Alert:	1	N	N	Patient	11-29-2017 3:43 PM	Y	
Nervous	Patient is nervous about medical procedures. Be extra reassuring duri...	1	N	N	Patient	07-21-2017 12:05 PM	Y	
ServiceAnimal	Patient will be accompanied by a service animal.	1	N	N	Patient	01-03-2018 6:25 PM	Y	




Clicking the space under the Icon column will open up a window where an administrator can upload a desirable icon to represent the Alert in question.



Clicking Browse will allow the administrator to select an image file from their computer. File types of BMP, JPEG, PNG and GIF can be uploaded. For best results, the selected image should have a size of 16x16 with a transparent background. Many free icons can be found online by searching "16 x 16 icon" using a search engine. Other sizes

may also work—the editor will attempt to create a thumbnail and the administrator can evaluate whether the image can be interpreted at the display size.

A new column labeled **Alerts** has been added to all applicable worklists and will display any Alert icons that may be associated with the current patient or order. Hovering over the icon will display the description for the Alert.

Alerts	Flags	Status	Nuggets	Scheduled Date
		StartsWith: S		
		Signed		11-15-2016 5:4
				04-06-2015 1:4
				04-06-2015 1:4

It is possible to filter a worklist to display only items with specific Alerts by switching the Alerts column filter to Select Values and choosing any desired Alerts. This can then be saved as a Custom View, if desired. It is also possible to use conditional formatting to change font color or background color, etc.

Keep in mind that new Alert Icons will not appear on a worklist until the next refresh, so manually click the refresh button to see them immediately.

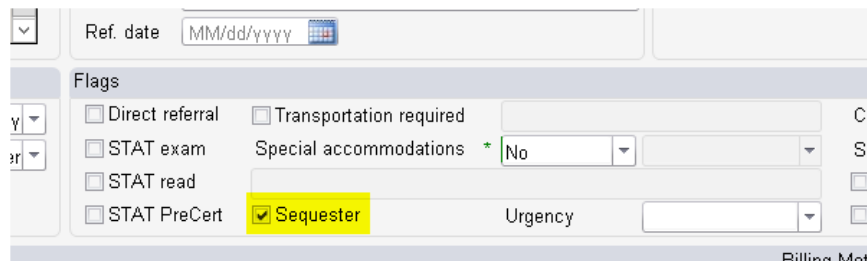
Alert icons are **not** required and administrators can decide which Alerts would benefit from a worklist icon.

## FEATURE #16516 – SUPPORT FOR SEQUESTERING RESULTS FOR CLINICAL TRIALS

Many radiology providers provide imaging studies for Clinical Trials. The images and diagnostic reports for these exams are typically for the sole purpose of providing information to the Clinical Trial team. It is usually inappropriate for the reports to be shared with the patient or their doctors (outside of the clinical trial). Any circumstances which would warrant the sharing of information outside of the Clinical Trial team are almost always handled by the clinical trial staff—not the radiology provider.

For this reason, eRAD RIS now has an option to suppress these exam results, and even the existence of the exam, from the CONNECT Portals and Continuity of Care Document (C-CDA). These exams can also be quickly identified in eRAD RIS by a new Flag icon and warnings are provided to any users who print/distribute reports or burn CDs.

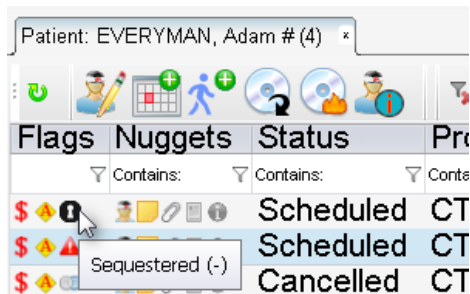
These Clinical Trial studies, and any other study that should be handled in a similar fashion, can be designated by checking a new “Sequester” checkbox on the Order tab.



Any studies that receive this Sequester checkmark will be segregated from the patient’s normal exam information in the CONNECT Portals (Patient Portal, Provider Portal, Utilization Management Portal) and the Continuity of Care document (C-CDA), as well as receiving special handling in other ways.

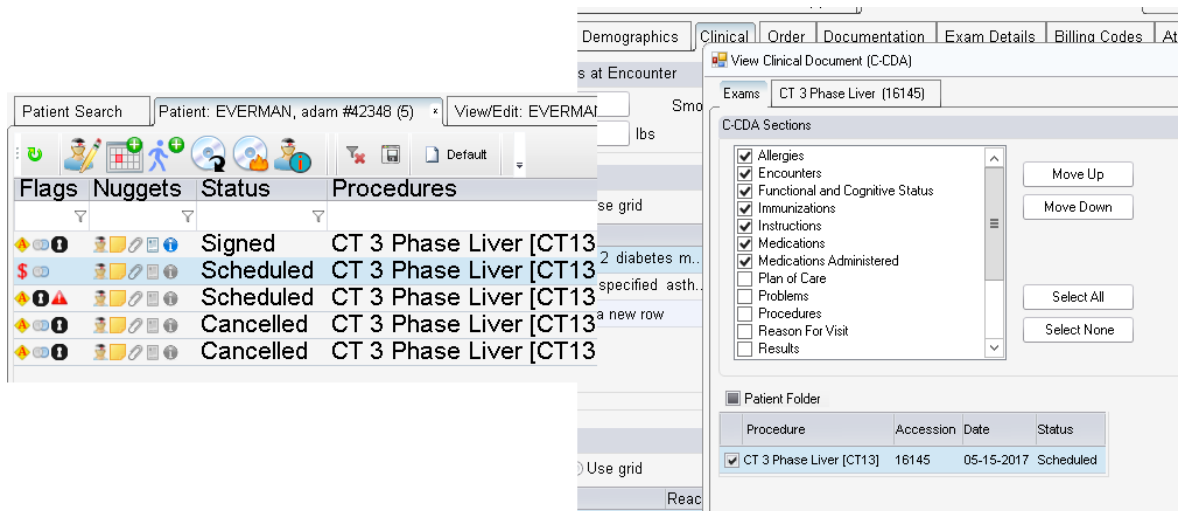
By default, the Sequester checkbox will not be visible to users. Customers electing to use this workflow can grant access by adding the new access strings to User Group permissions. Full access to the access string [Flag.Sequester](#) will make the Sequester checkbox visible. Full access to the access string [Clinical.SetSequesterFlag](#) will allow users to designate an order as Sequestered.

Sequestered studies will display a new Flag icon on worklists and the Patient Folder. The flag is a black “keyhole” image with a tooltip that indicates “Sequestered.”



When an order is marked as Sequestered, all mention of any exams on the sequestered order will be suppressed in all CONNECT portals (Patient, Provider, UM). The exam will not be displayed in the patient's history/search results or any worklists. The portals will behave as if the exam does not exist.

When generating Continuity of Care (C-CDA) documents from the Portals or inside of the RIS, the Sequestered exams will not be displayed. For example, only one exam for the Patient Folder pictured below is **not** sequestered. This will be the only procedure displayed on the C-CDA.



Finally, when a user prints, previews, or distributes reports **or** burns a CD for a sequestered exam, eRAD RIS will display a warning message. For example:

Patient Search | Patient: EVERMAN, adam #42348 (5) | View/Edit: EVERMAN, adam #42348

Flags Nuggets Status Procedures Scheduled Date Referring MRN Accession # Co

Flags	Nuggets	Status	Procedures	Scheduled Date	Referring	MRN	Accession #	Co
		Signed	CT 3 Phase Liver [CT13]	05-15-2017 4:12 PM	aa, aa test	42348	16127	28
		Display Nugget (Linked to Selection)	se Liver [CT13]	05-15-2017 2:45 PM	aa, aa test	42348	16145	29
		Dictate	se Liver [CT13]	05-10-2017 8:00 AM	aa, aa test	42348	16098	27
		View Study	se Liver [CT13]	05-09-2017 1:30 PM	aa, aa test	42348	16097	27
		Schedule From IVT	se Liver [CT13]	05-09-2017 1:00 PM	aa, aa test	42348	16096	27

Edit Patient  
 Patient Merge  
 View/Edit  
 Print Forms  
 Attachments  
 Image Request  
 Burn CD  
 Update Relevance  
 RADAR Quick Message  
 View Images

Report

- Report History
- Send Report

Preview Report

Print Report

Send Report

eRAD RIS

Please be aware that this exam is sequestered. Distribute report with caution.

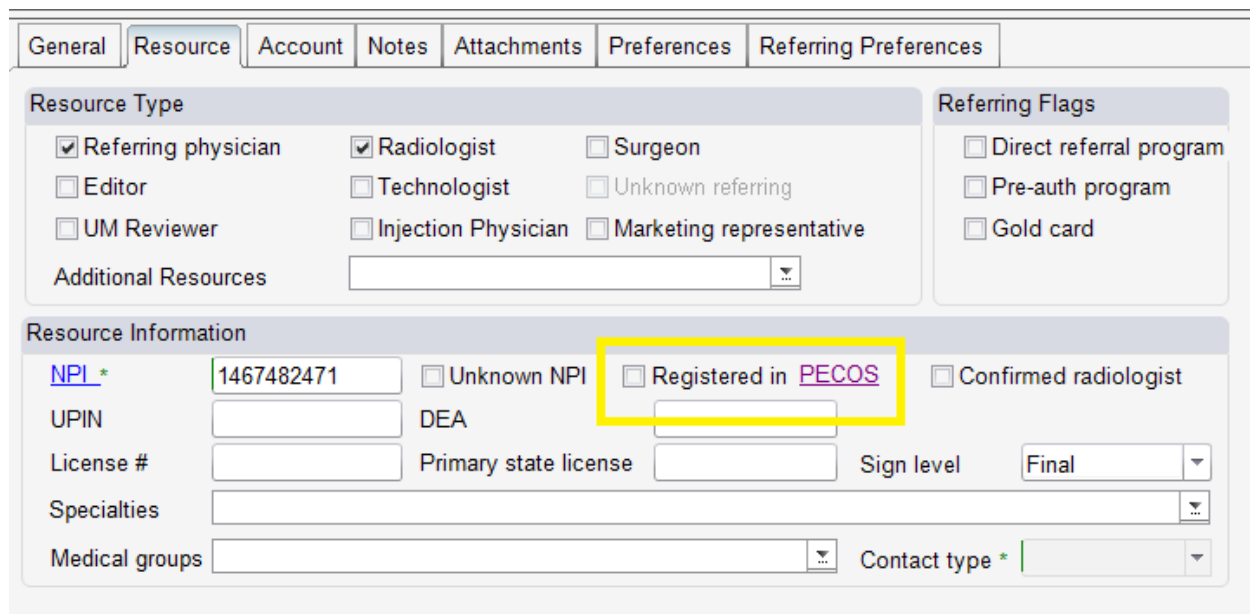
OK

Users are able to continue the requested workflow, so that reports/CDs can be distributed when there is a valid reason to do so (distribution to a member of the Clinical Trial team or other valid reasons). However, the chance that the user might accidentally distribute the information inappropriately will be reduced by calling their attention to the fact that the exam is sequestered.

## FEATURE #11006 – PECOS HYPERLINK IN PERSONNEL EDITOR

For United States customers billing Medicare, referring physicians must be registered in Medicare’s Provider Enrollment Chain and Ownership System (PECOS) to prevent claims from being denied. When adding physicians to the Personnel editor, there has historically been a checkbox to indicate that the physician is registered in PECOS. Customers have expressed a desire for a hyperlink to the PECOS website, similar to the hyperlink for the NPI field. This would make it easier to check the PECOS website to verify whether the referring physician is registered.

There is now a hyperlink for the PECOS website on the Resource tab of the Personnel editor:



The screenshot shows the Personnel Editor interface with the 'Resource' tab selected. The 'Resource Type' section includes checkboxes for 'Referring physician', 'Radiologist', 'Surgeon', 'Editor', 'Technologist', 'Unknown referring', 'UM Reviewer', 'Injection Physician', and 'Marketing representative'. The 'Referring Flags' section includes checkboxes for 'Direct referral program', 'Pre-auth program', and 'Gold card'. The 'Resource Information' section includes fields for 'NPI \*', 'UPIN', 'License #', 'Specialties', 'Medical groups', 'DEA', 'Primary state license', 'Sign level', 'Contact type \*', and a 'Registered in PECOS' checkbox. The 'PECOS' text in the checkbox label is underlined and highlighted with a yellow box, indicating it is a hyperlink.

Clicking the underlined word PECOS will open a small window with the PECOS website. The web address can be updated in the System Configuration table if needed.

System Config Code	Value	Default	Description
Contains: pecos_	Contains:	Contains:	Contains:
PECOS_URL	https://data.cms.gov/Medicare-Enrollm...	https://data.cms.gov/Medicare-Enrollme...	(value = string) URL to PECOS website including placeholder for {NPI}

As with the hyperlink for NPI, the PECOS checkbox and hyperlink are disabled unless the Referring Physician or Radiologist Resource Type is selected. Once it is activated by selecting the applicable Resource Type, clicking the hyperlink will open a small browser with the search bar prepopulated with the information entered in the Personnel editor, including the name and NPI number. Focus will be set to the website’s search bar, so the user can simply press enter to trigger the search.



The screenshot shows the Data.CMS.gov website interface. At the top, there is a search bar containing the text "Aab Barry 1467482471". A red arrow points to the search bar. Below the search bar, there is a table with columns for NPI, LAST NAME, and FIRST NAME. The table contains several rows of data, including NPI 1467482471 with LAST NAME AAB and FIRST NAME BARRY. A blue box with a white border contains the text: "Upon clicking enter, a list of matches will appear below."

	NPI	LAST NAME	FIRST NAME
1	1467482471	AAB	BARRY
2	1467482471	AAB	BARRY
3	1467482471	AAB	BARRY
4	1467482471	AAB	BARRY
5	1467482471	AAB	BARRY
6	1467482471	AAB	BARRY
7	1467482471	AAB	BARRY
8	1467482471	AAB	BARRY
9	1467482471	AAB	BARRY
10	1467482471	AAB	BARRY
11	1467482471	AAB	BARRY
12	1467482471	AAB	BARRY



## FEATURE #16774 – RESTRICT BILATERAL OPTION ON CERTAIN PROCEDURES

This feature is designed to address a common issue with imaging on paired body parts (often extremity imaging). Laterality must be chosen for these exams so that it is clear which side is to be imaged: right or left. The problem was that when laterality is chosen, all laterality options configured in the system were available, including bilateral. Many procedures require special handling to ensure appropriate billing for a bilateral exam. In these cases, there are often separate procedures created for unilateral and bilateral options, so that the appropriate billing codes and modifiers can be associated to the procedure codes. If a bilateral laterality is chosen (and subsequently performed) for one of these exams that was configured for unilateral billing, the appropriate billing is not applied and the customer does not get paid for the second side.

To solve this issue, eRAD RIS now allows a RIS Administrator to indicate whether a Procedure Code should allow a bilateral laterality.

A new column has been added to the Procedure Code look-up table: **Allow Bilateral Flag**. The default setting is Y (for Yes) which will allow bilateral to be selected. Any existing procedure codes will automatically be set as Y at the time of upgrade to maintain existing behavior.

Procedure \* Lookup Tables - ProcedureCode \*

Procedure C...	Description	Allow Bilateral Flag
Contains:	Contains: wrist	Contains:
Click here to add a new row		
▶ 73100	XR Wrist 2 Views	N
▶ 73110	XR WRIST MIN 3 VIEWS	N
▶ 73115	FL Arthrogram Wrist Fluoro	N
▶ AMCTWRIST...	AMCT WRIST ARTHROGRAPHY	N
▶ AMCTWRISTW	AMCT WRIST W CONTRAST	N
▶ AMCTWRIST...	AMCT WRIST W CONTRAST - L...	N

Because customers may use various Laterality codes, RIS also needs to allow a RIS administrator to indicate which Laterality Codes are bilateral. A new column has been added to the Laterality look-up table for this purpose: **Bilateral Flag**. Customers should set this to Y for any bilateral laterality.

Lookup Tables - Laterality \* Schedule Order \* Lookup Tables

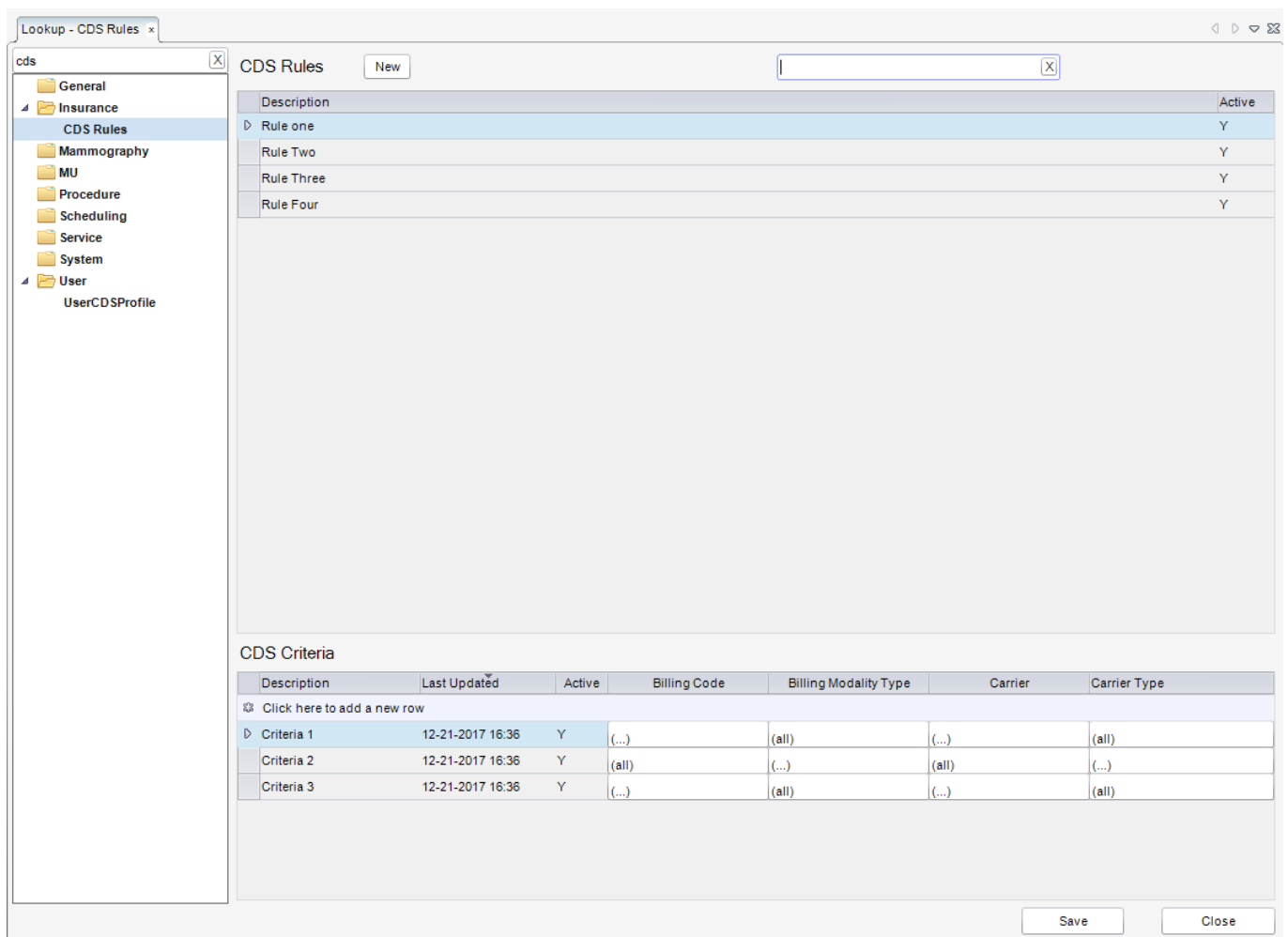
Laterality Code	Display Order	Description	Bilateral Flag	HI7v3 Value Set Oid
Contains:	Equals:	Contains:	Contains:	Contains:
Click here to add a new row				
Bilateral	3	bilateral	Y	
Left	1	left	Y	
Right	2	right	N	

Then, the Procedure Code table can be reviewed for any procedures that should not allow bilateral laterality to be selected. The desired procedures should then be set to Allow Bilateral Flag = N to prevent users from selecting an inappropriate laterality.

## FEATURE #17133 – ABILITY TO CREATE RULES TO REQUIRE CLINICAL DECISION SUPPORT

As eRAD RIS moves forward with Clinical Decision Support capabilities, it was necessary to create a mechanism to indicate when Clinical Decision Support (CDS) is required. An administrator needs the ability to configure CDS Rules based on the following criteria: Billing Codes, Billing Modality Type, Carrier, Carrier Type.

To do so, a new look-up editor, **CDS Rules**, has been added to the Configuration tables. The editor for CDS functions in the same fashion as the existing PreCert Groups editor.



Lookup - CDS Rules

CDS Rules

New

Description	Active
Rule one	Y
Rule Two	Y
Rule Three	Y
Rule Four	Y

CDS Criteria

Description	Last Updated	Active	Billing Code	Billing Modality Type	Carrier	Carrier Type
Click here to add a new row						
Criteria 1	12-21-2017 16:36	Y	(...)	(all)	(...)	(all)
Criteria 2	12-21-2017 16:36	Y	(all)	(...)	(all)	(...)
Criteria 3	12-21-2017 16:36	Y	(...)	(all)	(...)	(all)

Save Close

Access to the CDS Rules editor is controlled by a new access string: **Config.LookupEditor.CDSRules** (default = NONE).

An administrator can create CDS rules by clicking the “New” button at the top left of the editor. First, enter a description for the rule, such as “Medicare Configuration” and click OK.

CDS Rules
New
Description, Carrier Code, Carrier Type Code X

Description	Active
Rule one	Y
Rule Two	Y
Rule Three	Y
Rule Four	Y
▷ Medicare Configuration	Y

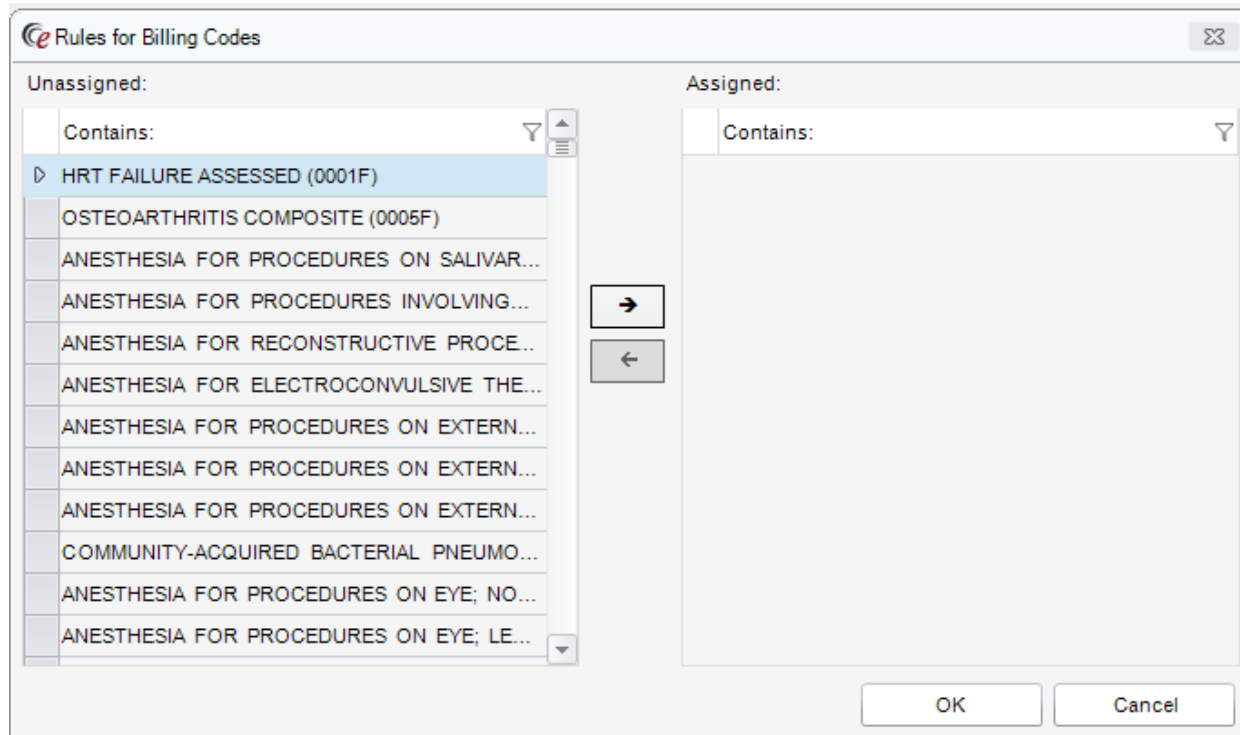
CDS Criteria

Description	Last Updated	Active	Billing Code	Billing Modality Type	Carrier	Carrier Type
▷						

Save
Close

The rule will be added to the section at the top and the CDS Criteria section will be available to define the criteria for this rule to apply. A CDS criteria ruleset requires a description, a billing component (either Billing Code or Billing Modality Type but not both), and an insurance carrier component (either Carrier or Carrier Type but not both).

Each of the criteria has a button that launches a dialog that allows the administrator to choose one or more options:



The button for launching the dialogs will either display “(all)” or will show “(...)” which signifies that this option has been configured with a subset of items. It is preferable leave all options as “Unassigned” if the intent is to match to **any** possible option.

The administrator is free to use a single CDS Rule with multiple criteria rulesets (i.e. rows at the bottom of the screen), or multiple CDS Rules, generally with one criteria ruleset each. With PreCert Groups, some administrators have elected to create many groups named after the Carriers or Carrier Types that they describe, while others have opted to have a single group and then create multiple rule sets (e.g. one per billing modality type).

## RULESET EVALUATION

For a rule to be considered a match, one or more ruleset row must match on all criteria. That is, the different criteria for a single row must match on the Billing Code/Billing Modality Type component and match on the Carrier/Carrier Type component.

If RIS or a Connect Portal need to determine whether CDS is required, the criteria will be evaluated and if any of the individual rows match, then CDS will be deemed to be required.

The Connect portal, or any other entity calling for the information of whether CDS is required, can pass a single Carrier and one or more Billing Codes. There is no support for querying on Carrier Types or Billing Modality types directly; these are inferred from the specified Carrier and Billing Codes.

The filtering logic does not consider whether a carrier is the primary or secondary carrier. It is left up to the caller to determine if secondary carriers are relevant.

## VALIDATION OF CDS RULES

---

Validation is enforced on the CDS Rules to ensure that:

- a ruleset (i.e. a single row on the bottom portion of the editor) includes a billing component and a Carrier/Carrier Type component.
- a ruleset does not include Billing Codes AND Billing Modality Types *or* Carriers AND Carrier Types.
- each ruleset has a description.
- if there are multiple CDS rules (entries at the top portion of the editor), then a single Carrier does not appear in the assigned Carrier list of more than one rule.

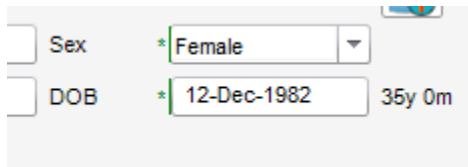
Before saving or allowing the user to switch from one CDS Rule to another (i.e. switching rows at the top portion of the editor), the current CDS rule is validated and any errors will be displayed to the user.

---

## FEATURE #17786 – SUPPORT THREE ALPHA-CHARACTER MONTH IN DATE FORMAT (DD-MMM-YYYY)

In some areas of the world, there can be inconsistency in whether dates are written as dd-mm-yyyy or mm-dd-yyyy. Because this can lead to data discrepancies, some customers require the ability to configure their system to use a date format of dd-MMM-yyyy, where MMM is the 3 letter alpha representation of the month (e.g. 12-AUG-1954 or 01-JUN-2017).

Previously, the Date Format configuration in eRAD RIS did not support alpha characters. This is now possible. All dates, including fields and worklist data, will display the date with the alpha-character month if configured to do so.



The screenshot shows a portion of a patient form. The 'Sex' field is a dropdown menu with 'Female' selected. The 'DOB' field is a date input showing '12-Dec-1982'. To the right of the DOB field, the text '35y 0m' is displayed, indicating the patient's age.

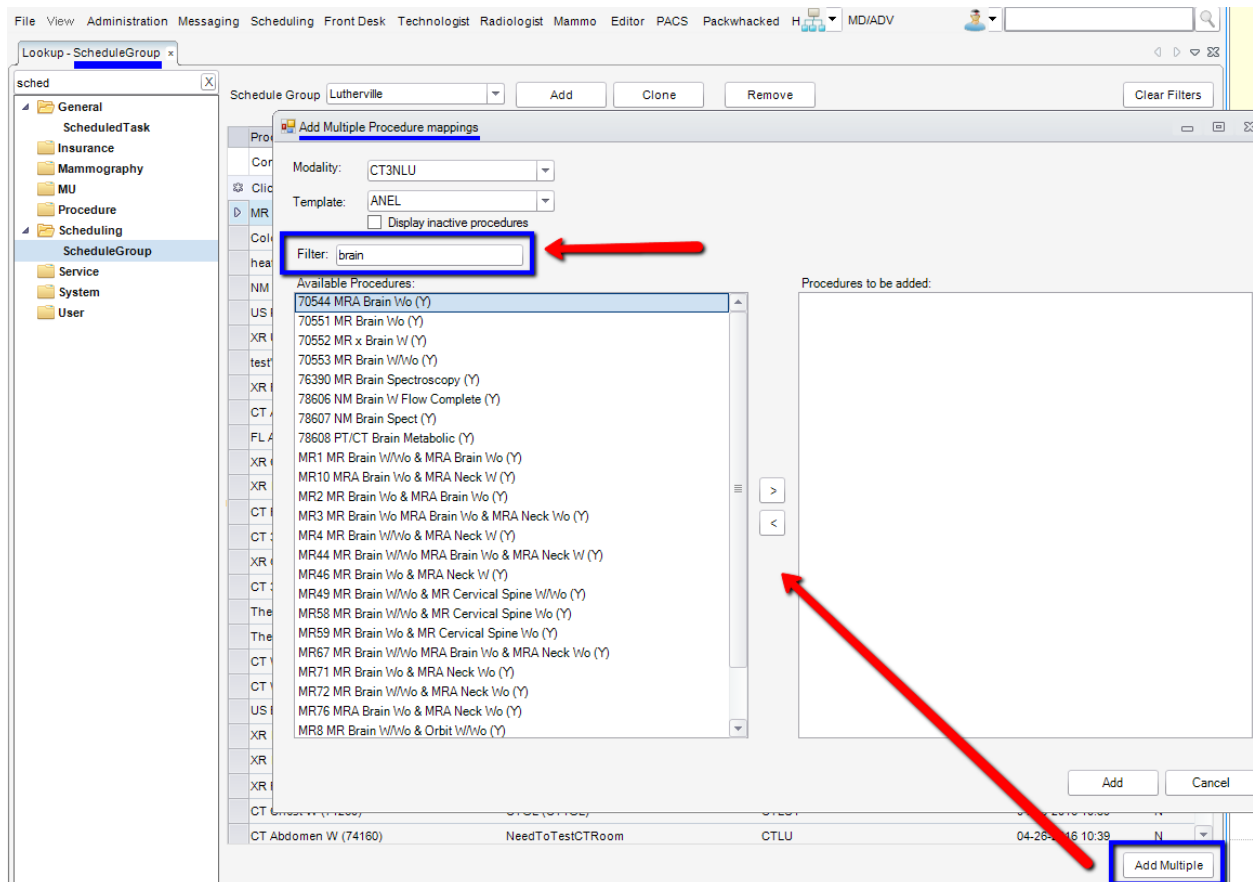
To use this date format, change the **DateFormat** System Configuration setting to any of the following options:

- dd-MMM-yyyy
- dd/MMM/yyyy
- ddMMMyyyy
- dd MMM yyyy

It is recommended that a log out take place after making a change to DateFormat.

## FEATURE #7006 – FILTERING NOW AVAILABLE WHEN ADDING MULTIPLE PROCEDURES TO THE SCHEDULE GROUP TABLE

When using the **Add Multiple** button in the Schedule Group look-up table, it is helpful to be able to filter the procedure list to easily find the procedures that need to be added. There is now a **Filter** field on the Add Multiple Procedure Mappings screen. Typing in this field will act as a “Contains” search and will narrow down the list of Available Procedures to those that contain the text in the Filter field.





## VALIDATION RULES

### FEATURE #16594 – VALIDATION RULES FOR RADIOLOGIST AND EDITOR SCREENS

Because the Radiologist and Editor screens were designed differently from many other screens in RIS, they needed special handling for validation rules. These screens have been enhanced to use custom validation prior to saving, including “save, next” type workflow.

Like other screens in RIS, validation is tightly coupled to controls that allow the user to edit data. On the Scheduling screen for example, a validation rule could be tied to the patient’s middle name and the user would have the ability to fix the data if validation failed. On the radiologist and editor type screens, there is a lot of data that is read only (e.g. Patient Name) and RIS will not validate them directly. These screens have been updated to validate the **editable** data (e.g. the report, BI-RADS, Recommendations, Findings, Assign To, etc.).

Although only the editable controls are being validated, conditions can still be attached to other data relating to the study, such as gender, patient age and laterality.

As with other screens, the save buttons set an “intended UI action” that can be used to ensure that a rule is only enforced when Dictating or Signing an exam, as opposed to validating prior to any study update. A validation rule currently allows a maximum of one intended UI action. If a rule is built referencing ReportSigned, it will need a twin rule that references Tentatively Signed, if that status is also desired.

When configuring validation rules, the field **interpretation\_text** can be used to reference the contents of the report. Special handling was put in place to ensure that RIS processes the plain report text instead of the true interpretation text, which could include picklists that contain options that were not selected by the radiologist and therefore will not appear in the report (e.g. A picklist containing a list of BI-RADS, only one of which was selected, should not be considered during the validation process—only the selection that will be included in the final report should be used.).

Validation rules in a PowerScribe 360 reporting environment is not fully supported at this time. The report contents and actions taking place in the third-party environment cannot be evaluated by the validation framework. In an environment that has *some* users using PowerScribe 360, conditions may be required that indicate that the **interpretation\_type\_code** is not “PowerScribe360” (i.e. a condition that is a DomainValidator with a domain of “PowerScribe360” that ignores nulls and is set to Negated).

As with other validation rules, rules created for the reporting screens can be either prevent saving or simply provide a warning to the user.

## FEATURE #16341 – EASILY DIFFERENTIATE BETWEEN SYSTEM ADDED AND CUSTOMER ADDED VALIDATION RULES

Validation rules are sometimes included in some of the upgrade scripts, so that they are available after an upgrade should the customer wish to use them. In order to differentiate between validation rules that are added as part of the core RIS system and those that are custom for the individual customer, a naming convention has been established for validation rules that are automatically added during an upgrade.

Validation rules that are included in as part of a RIS upgrade will be prefixed with **@Core\_**.

---

```

@Core_BillingCodesRequired (c_study_item.(ComputedExpression))
@Core_BypassCCExpiry (c_payment.credit_card_expiry)
@Core_BypassCCName (c_payment.cardholder_name)
@Core_BypassCCNum (c_payment.credit_card_number)
@Core_BypassCCType (c_payment.credit_card_type_code)
@Core_BypassTNotes (c_study.tech_notes)
@Core_ContrastDose (c_study_item_contrast.ExceedsMaxDoseFlag)
▶ @Core_ContrastRequired (c_study_item_contrast.contrast_code)
▶ @Core_CTDosage (c_study_item.ct_dose_amount)
Default Value - @Core_DefaultTech (c_study.performed_by_user_id)
▶ @Core_HasInsurance (c_visit_x_patient_insurance.(ComputedExpression))
▶ @Core_MinorRespParty (c_patient_contact.patient_relation_code)
▶ @Core_OutstandingBal (c_patient.first_name)
@Core_QETestIssuer (c_patient_key_data.(ComputedExpression))
▶ @Core_ReasonForExam (c_order.indication)
@Core_SpecialAccommodation (c_visit.special_accommodations_flag)
@Core_TechVerifiedID (c_study.tech_verified_id_flag)
@Core_VerifiedID (c_study.(ComputedExpression))
@Core_VisitedAt (c_order.requested_by_address_key)
@Core_WorksheetExists (c_vw_scan_document_list.(ComputedExpression))
TestMiddleNameTestMiddleName (c_patient.middle_name)

```

Validation rules that are prefixed with “@Core\_” will be read only, with the exception of the message template and the active flag properties. This will allow the Core validation rules to be turned on or off for specific customers, as well as control the message to the user.

<b>Data Mapping</b>	
DataSetName	Study
DataTableName	c_study_item
FieldName	(ComputedExpression)
<b>General</b>	
ActiveFlag	True
AlertType	PreventSave
IgnoreNulls	True
MessageTemplate	<b>Billing codes are required</b>
Name	@Core_BillingCodesRequired
Negated	False
PracticeCode	
ValidatorType	RangeValidator
<b>Misc Parameters</b>	
DefaultValue	
DomainMembers	
RegexPattern	
<b>Range Parameters</b>	
LowerBound	1
LowerBoundUnit	None
UpperBound	1000
UpperBoundUnit	None
<b>Status Filters</b>	
IntendedUIAction	UI_PatientArrived
OnOrAfterStatus	
<b>Table Expressions</b>	
Expression	min(ActiveBillingCodeCount)
ExpressionFilter	active_flag = "Y"

An error message will be displayed if any manual rules are created with the @Core prefix.

A migration script was created to rename the existing system rules to "@Core\_" rules.

The name property was modified to accept up to 50 characters instead of 20.

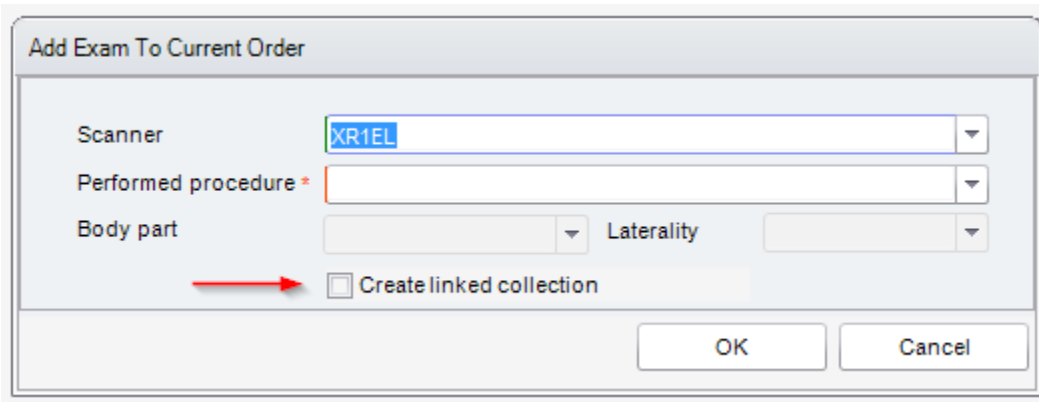
## TECHNOLOGIST

### FEATURE #17803 – ADD OPTION TO LINK REPORTS WHEN ADDING EXAMS VIA PERFORM EXAM SCREEN

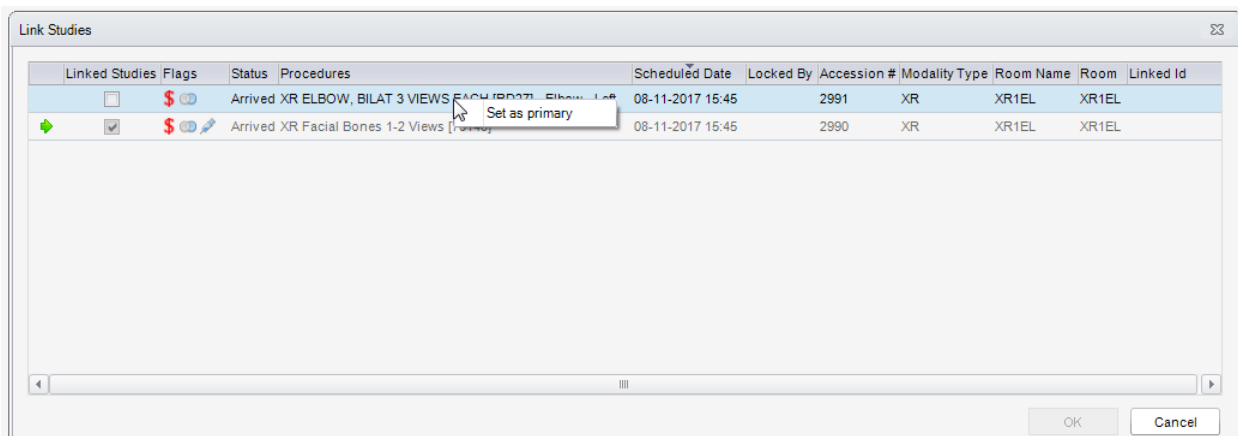
Previously, a feature was created that would allow a technologist to add a new procedure from the Perform Exam screen. If the original exam was part of a Linked Report, the technologist had an option to include the new exam as part of the linked set. However, there are occasions where the new exam might necessitate a NEW linked report scenario.

For example, a patient is scheduled for a Mammogram only, but the radiologist determines that a Breast Ultrasound is needed at the time of the Mammogram. If the customer uses linked reporting for Mammography and Breast Ultrasound, the two exams must be linked in order to report properly. Changes have been made to the feature to allow the technologist to create a new linked set.

If the originating exam was NOT part of a linked set, there will now be a checkbox for "Create Linked Collection."



If this is checked, the existing Linked Studies pop-up window will open once the Add Exam to Current Order window has been saved.



Linked Studies	Flags	Status	Procedures	Scheduled Date	Locked By	Accession #	Modality Type	Room Name	Room	Linked Id
<input type="checkbox"/>	\$	Arrived	XR ELBOW, BILAT 3 VIEWS	08-11-2017 15:45		2991	XR	XR1EL	XR1EL	
<input checked="" type="checkbox"/>	\$	Arrived	XR Facial Bones 1-2 Views	08-11-2017 15:45		2990	XR	XR1EL	XR1EL	

The user will then be able to select any exams on the order to include in the linked set and can choose the primary study. By default, the original study will be primary, but the user can right click another study and “Set as Primary.” The primary study will be indicated with a green arrow.

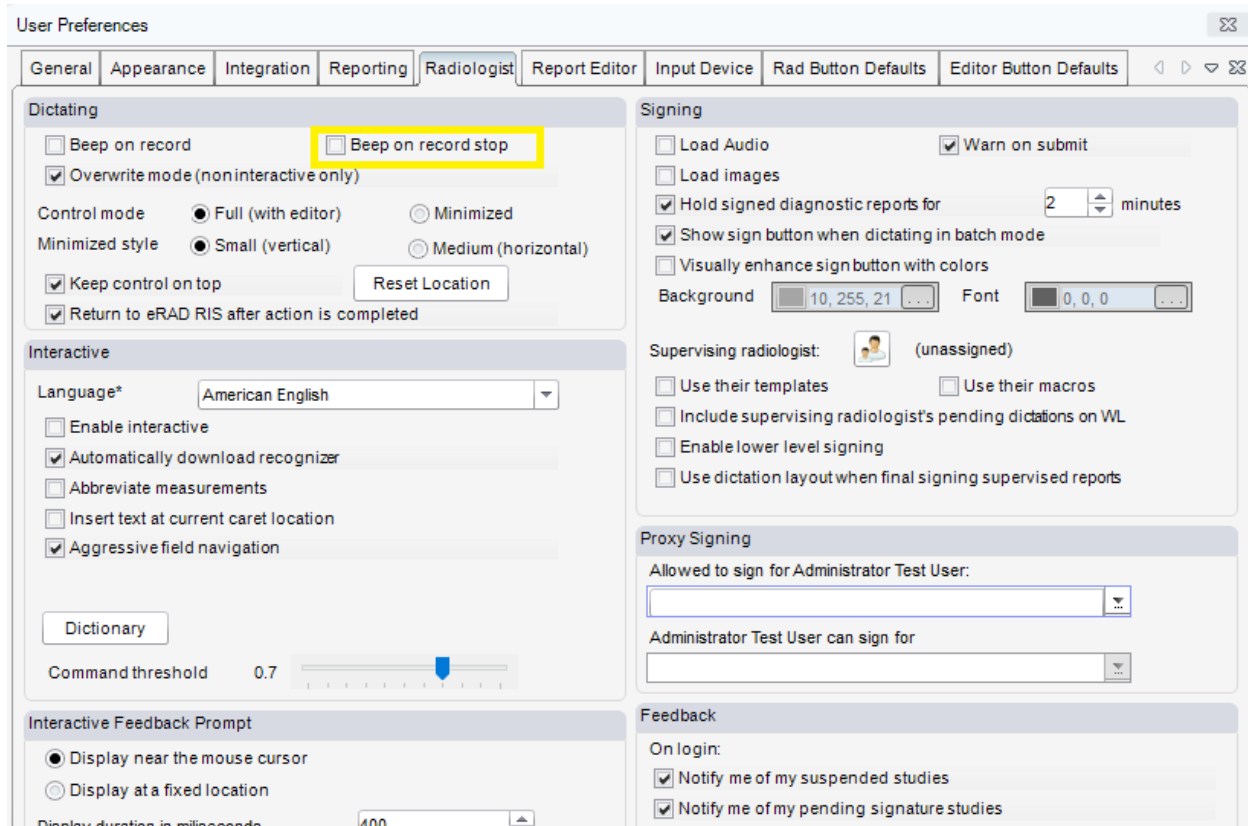
To take advantage of this feature, the user must belong to a User Group with FULL permission to the existing access string [Clinical.Tech.AllowAddExam](#).

## RADIOLOGIST

### FEATURE #3805 USER PREFERENCE FOR AUDIO SIGNAL WHEN M\*MODAL RECORDING HAS STOPPED

When using M\*Modal dictation, there is an existing user preference for **Beep on record** which will play a “beep” noise when dictation recording is initiated. Radiologists have indicated that it would also be helpful to hear an audio confirmation when the dictation recording has stopped.

There is now a new option on the User Preference screen’s Radiologist tab for **Beep on record stop**.



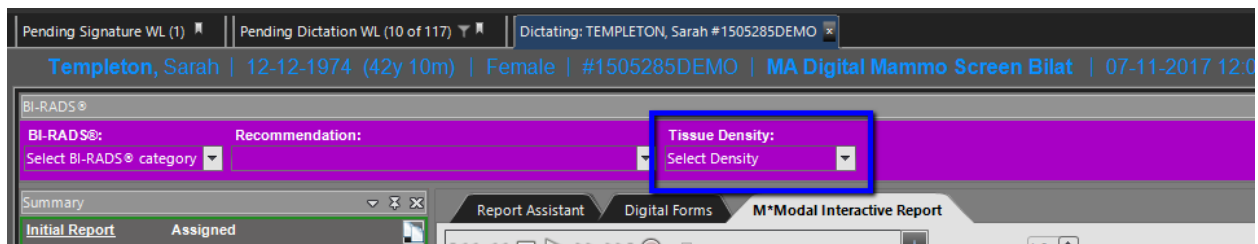
The screenshot shows the 'User Preferences' window with the 'Radiologist' tab selected. The 'Dictating' section contains the 'Beep on record stop' checkbox, which is highlighted with a yellow box. Other options in this section include 'Beep on record', 'Overwrite mode (noninteractive only)', 'Control mode' (Full/Minimized), 'Minimized style' (Small/Medium), 'Keep control on top', and 'Return to eRAD RIS after action is completed'. The 'Interactive' section includes 'Language\*' (American English), 'Enable interactive', 'Automatically download recognizer', 'Abbreviate measurements', 'Insert text at current caret location', 'Aggressive field navigation', 'Dictionary', and 'Command threshold'. The 'Interactive Feedback Prompt' section has options for 'Display near the mouse cursor' and 'Display at a fixed location', along with a 'Display duration in milliseconds' slider. The 'Signing' section includes 'Load Audio', 'Load images', 'Hold signed diagnostic reports for' (2 minutes), 'Show sign button when dictating in batch mode', 'Visually enhance sign button with colors', 'Background' (10, 255, 21), 'Font' (0, 0, 0), 'Supervising radiologist' (unassigned), 'Use their templates', 'Use their macros', 'Include supervising radiologist's pending dictations on WL', 'Enable lower level signing', and 'Use dictation layout when final signing supervised reports'. The 'Proxy Signing' section has 'Allowed to sign for Administrator Test User:' and 'Administrator Test User can sign for' dropdowns. The 'Feedback' section includes 'On login:' with 'Notify me of my suspended studies' and 'Notify me of my pending signature studies' checkboxes.

After enabling the beep on record stop checkbox, the radiologist will hear a beep noise after clicking anything that stops the recording. The beep sound for record **stop** is a lower frequency, so radiologists can tell the difference between the two beeps. When both beep preferences are enabled, it will be easier for radiologists to know when they have started or stopped recording their dictation. This will prevent accidental occasions where radiologists dictate without M\*Modal capturing the dictation.

## FEATURE #17245 – OPTION TO DISABLE BREAST TISSUE DENSITY DEFAULT

When Mammo Tracking in eRAD RIS was first developed, there was a desire to default the breast tissue density from the patient's prior exam. Though a patient's tissue density may change over time, it is likely to be the same for exams done at short intervals. Even if the radiologist does need to update the density category, defaulting the density from the patient's prior exam is an easy way for the radiologist to see what the most recent tissue density was previously.

However, some customers would prefer to present the radiologist with a blank Tissue Density selection to force the radiologist to select the tissue density each time. This may be desired if there is a concern that the radiologist could neglect to update the tissue density because it is already filled in.



To accommodate this option, eRAD RIS now has a System Configuration setting labeled **DefaultPriorBreastDensity**. The setting will determine whether the patient's most recent breast tissue density is prepopulated when dictating a new breast study.

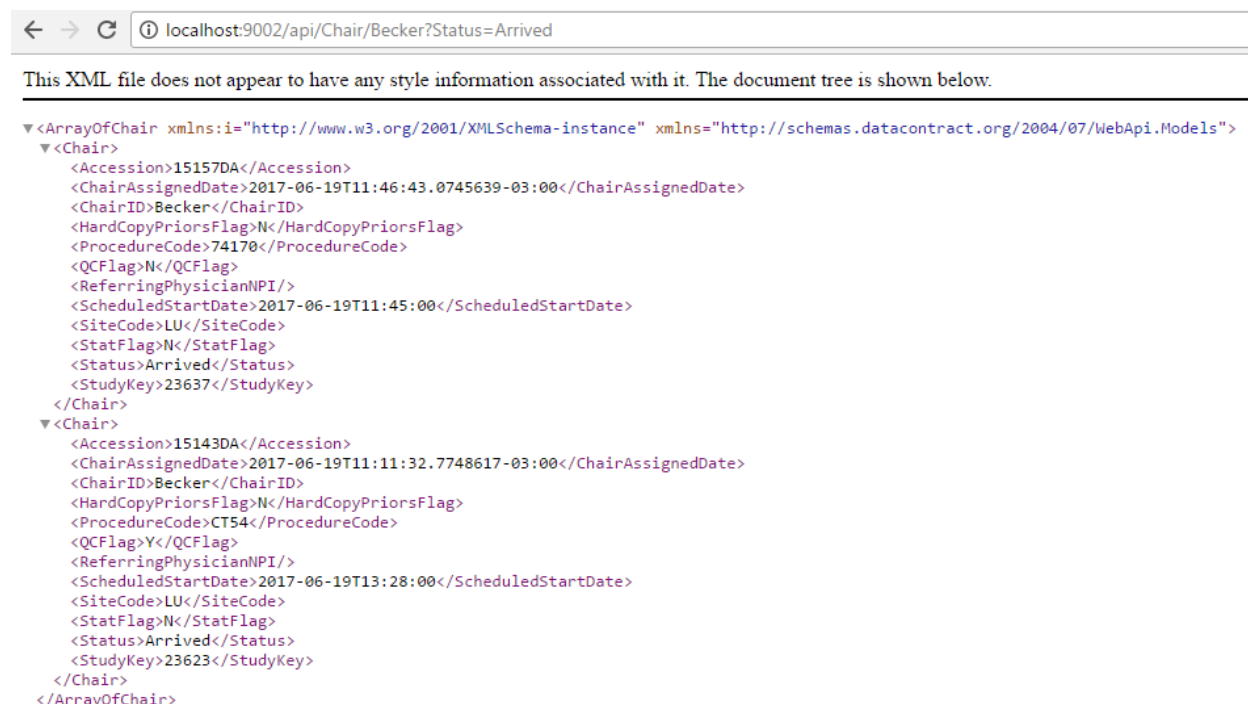
The default is TRUE, in order to maintain the existing behavior. To prevent the prior density from being populated, change the setting to FALSE.

Note: This setting does not change the behavior for Addendums. Addendums will continue to display the density that was entered for the original report (or most recent addendum).

## FEATURE #17544 – CHAIR API INCLUDES SCHEDULED START DATE AND SORTS THE RESULTS BY SCHEDULED START DATE

For customers using Chair workflow, issues can occur when the work backlog becomes too large. To alleviate these issues, the Chair API has been enhanced to include the Scheduled Start Date and return the oldest exams first. This will allow the workflow engine to utilize this information to ensure that the oldest cases are assigned out first.

Additionally, a change has been made to the original Chair API design, which limited query results by chair and status to exams that were scheduled within the past 7 days. Because this is undesirable when there is a large backlog of studies to be read, an optional parameter, [IncludeAllDates](#), was added to bypass the 7 day filter on Scheduled Start Date. This parameter will default to false if not specified and the original behavior will be maintained.



```

<?xml version="1.0" encoding="UTF-8"?>
<ArrayOfChair xmlns:i="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://schemas.datacontract.org/2004/07/WebApi.Models">
  <Chair>
    <Accession>15157DA</Accession>
    <ChairAssignedDate>2017-06-19T11:46:43.0745639-03:00</ChairAssignedDate>
    <ChairID>Becker</ChairID>
    <HardCopyPriorsFlag>N</HardCopyPriorsFlag>
    <ProcedureCode>74170</ProcedureCode>
    <QCFlag>N</QCFlag>
    <ReferringPhysicianNPI/>
    <ScheduledStartDate>2017-06-19T11:45:00</ScheduledStartDate>
    <SiteCode>LU</SiteCode>
    <StatFlag>N</StatFlag>
    <Status>Arrived</Status>
    <StudyKey>23637</StudyKey>
  </Chair>
  <Chair>
    <Accession>15143DA</Accession>
    <ChairAssignedDate>2017-06-19T11:11:32.7748617-03:00</ChairAssignedDate>
    <ChairID>Becker</ChairID>
    <HardCopyPriorsFlag>N</HardCopyPriorsFlag>
    <ProcedureCode>CT54</ProcedureCode>
    <QCFlag>Y</QCFlag>
    <ReferringPhysicianNPI/>
    <ScheduledStartDate>2017-06-19T13:28:00</ScheduledStartDate>
    <SiteCode>LU</SiteCode>
    <StatFlag>N</StatFlag>
    <Status>Arrived</Status>
    <StudyKey>23623</StudyKey>
  </Chair>
</ArrayOfChair>

```

Figure 1 – Get Exam list by chair and status



← → ↻ ⓘ localhost:9002/api/Chair/Becker?Status=Arrived&ReturnAllDates=true

---

This XML file does not appear to have any style information associated with it. The document tree is shown below.

---

```

▼ <ArrayOfChair xmlns:i="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://schemas.datacontract.org/2004/07/WebApi.Models">
  ▼ <Chair>
    <Accession>15149DA</Accession>
    <ChairAssignedDate>2017-06-20T16:17:02.9579357-03:00</ChairAssignedDate>
    <ChairID>Becker</ChairID>
    <HardCopyPriorsFlag>N</HardCopyPriorsFlag>
    <ProcedureCode>72126</ProcedureCode>
    <QCFlag>N</QCFlag>
    <ReferringPhysicianNPI/>
    <ScheduledStartDate>2017-06-01T16:19:00</ScheduledStartDate>
    <SiteCode>LU</SiteCode>
    <StatFlag>N</StatFlag>
    <Status>Arrived</Status>
    <StudyKey>23629</StudyKey>
  </Chair>
  ▼ <Chair>
    <Accession>15157DA</Accession>
    <ChairAssignedDate>2017-06-19T11:46:43.0745639-03:00</ChairAssignedDate>
    <ChairID>Becker</ChairID>
    <HardCopyPriorsFlag>N</HardCopyPriorsFlag>
    <ProcedureCode>74170</ProcedureCode>
    <QCFlag>N</QCFlag>
    <ReferringPhysicianNPI/>
    <ScheduledStartDate>2017-06-19T11:45:00</ScheduledStartDate>
    <SiteCode>LU</SiteCode>
    <StatFlag>N</StatFlag>
    <Status>Arrived</Status>
    <StudyKey>23637</StudyKey>
  </Chair>
</ArrayOfChair>

```

Figure 2a – Get Exam list by chair and status with ReturnAllDates = true to **include** older studies

← → ↻ ⓘ localhost:9002/api/Chair/Becker?Status=Arrived&ReturnAllDates=false

---

This XML file does not appear to have any style information associated with it. The document tree is shown below.

---

```

▼ <ArrayOfChair xmlns:i="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://schemas.datacontract.org/2004/07/WebApi.Models">
  ▼ <Chair>
    <Accession>15157DA</Accession>
    <ChairAssignedDate>2017-06-19T11:46:43.0745639-03:00</ChairAssignedDate>
    <ChairID>Becker</ChairID>
    <HardCopyPriorsFlag>N</HardCopyPriorsFlag>
    <ProcedureCode>74170</ProcedureCode>
    <QCFlag>N</QCFlag>
    <ReferringPhysicianNPI/>
    <ScheduledStartDate>2017-06-19T11:45:00</ScheduledStartDate>
    <SiteCode>LU</SiteCode>
    <StatFlag>N</StatFlag>
    <Status>Arrived</Status>
    <StudyKey>23637</StudyKey>
  </Chair>
</ArrayOfChair>

```

Figure 2b – Get Exam list by chair and status with ReturnAllDates = false to **exclude** older studies (compare to Figure 2a)

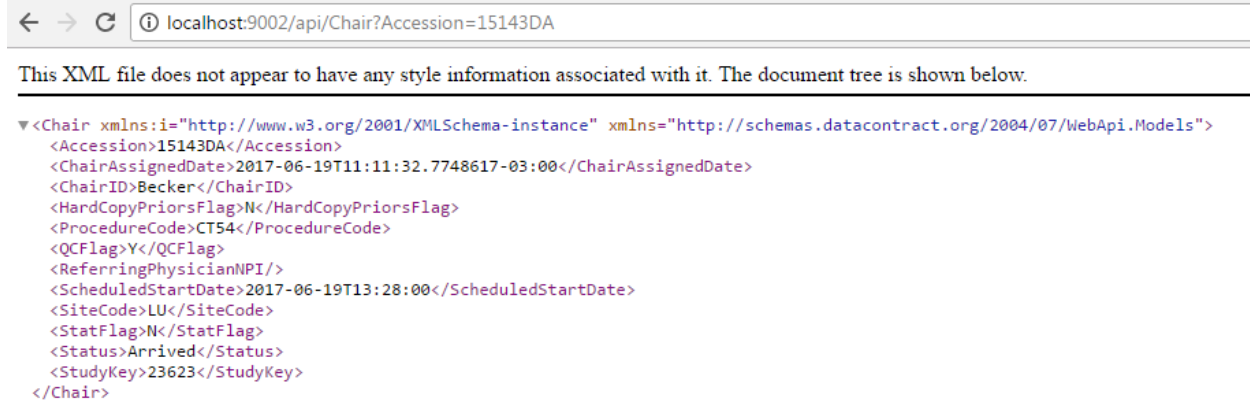
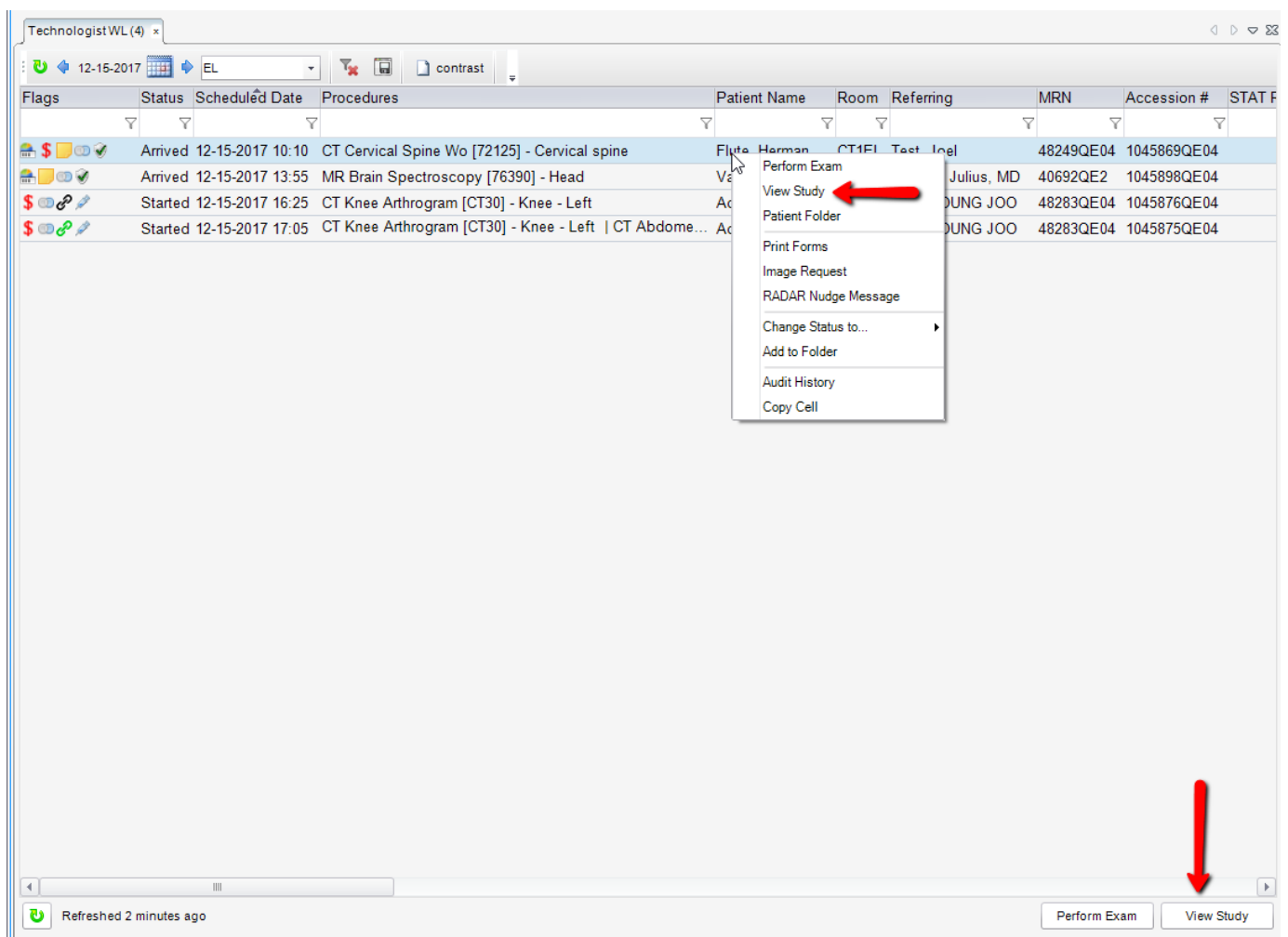


Figure 3 - Get Chair Data by Accession

## FEATURE #16772 – VIEW STUDY OPTION FOR TECHNOLOGIST WORKLIST

Radiologists sometimes use the Technologist WL to view information about a study in progress. To provide all possible information about the patient's exam, including PACS images, attachments, Digital Forms, etc., the View Study option is best suited to their purpose. For this reason, the View Study button and right-click context menu have been added to the Technologist WL.

The button will be available in the lower right corner of the screen for exams in an Arrived or Started status. It is possible for both View Study and Perform Exam to be open simultaneously for the same patient.



The screenshot displays the Technologist Worklist (WL) interface. The table lists exams with columns for Flags, Status, Scheduled Date, Procedures, Patient Name, Room, Referring, MRN, Accession #, and STAT. The 'View Study' option is highlighted in the right-click context menu. A red arrow points to the 'View Study' button in the bottom right corner.

Flags	Status	Scheduled Date	Procedures	Patient Name	Room	Referring	MRN	Accession #	STAT
Arrived	12-15-2017 10:10	CT Cervical Spine Wo [72125] - Cervical spine	Flute, Herman	CT1F1	Test, Joel	48249QE04	1045869QE04		
Arrived	12-15-2017 13:55	MR Brain Spectroscopy [76390] - Head	Va			Julius, MD	40692QE2	1045898QE04	
Started	12-15-2017 16:25	CT Knee Arthrogram [CT30] - Knee - Left	Ac			JUNG JOO	48283QE04	1045876QE04	
Started	12-15-2017 17:05	CT Knee Arthrogram [CT30] - Knee - Left   CT Abdome...	Ac			JUNG JOO	48283QE04	1045875QE04	

Refreshed 2 minutes ago

Perform Exam View Study

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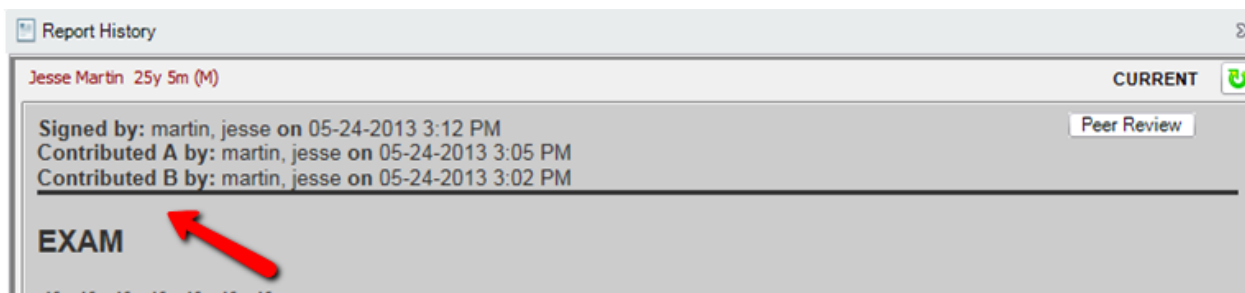
**FEATURE #4766 – IN QA WORKFLOW, AUDIO AND TEXT POSITIONS WILL BE MAINTAINED WHEN REJECTING REPORT**

Previously, when a QA user rejected a report, the audio would return to the beginning of the recorded voice file. For convenience, RIS will now maintain both audio and text positions at the point the user rejected the report. This feature is applicable for both M\*Modal and eRAD reporting modes. No configuration is required to activate this new behavior.

## FEATURE #16825 – SHOW "CONTRIBUTED BY" INFORMATION IN THE NUGGET REPORT VIEW

Customers using Contributing Radiologist workflow (sometimes known as “Fellow Workflow”) would benefit from the ability to see any contributing radiologists listed in the Nugget view of a report. This makes it easy to identify all radiologists who were involved with the report.

Contributing radiologist information is now listed below the signing radiologist, as seen below.



## PACS INTEGRATIONS

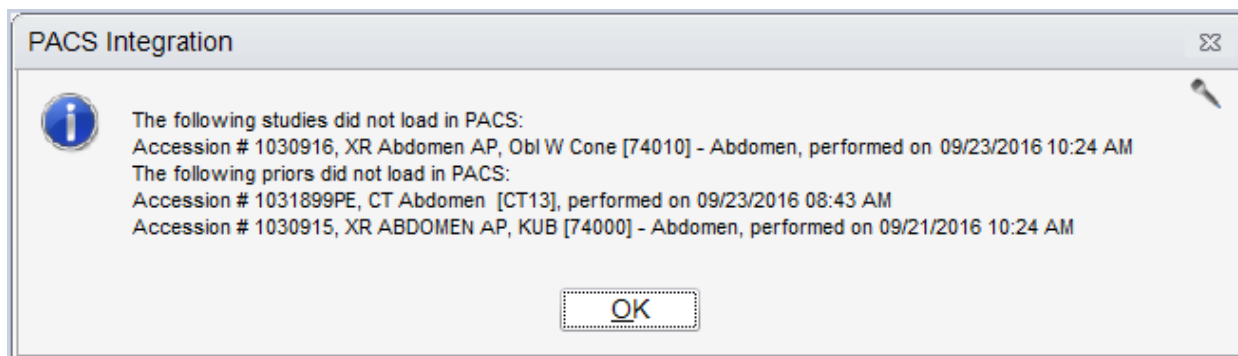
### FEATURE #16806 – MORE INFORMATIVE MESSAGE WHEN STUDIES CANNOT BE LOADED IN ERAD PACS

Previously, when a study could not be loaded in eRAD PACS, the message that would be displayed in eRAD RIS listed only the Accession number for the study that failed to load. Accession numbers aren't very meaningful to the radiologist, who had to compare the numbers with the Patient History panel to figure out which study matched with the accession number.

To improve this experience, the Failed Studies message now contains more details about any primary studies or relevant priors that fail to load. The message will include the following information:

- Accession #
- Procedure Code/Description
- Date of Service
- Time of Service

The following image depicts an example where the primary study *and* two priors could not be loaded in PACS.



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## FEATURE #16804 - ERAD PACS - SORTING PRIORS IN REVERSE CHRONOLOGICAL ORDER

The loading of prior studies in the PACS should be done in reverse chronological order, regardless of the percentage of relevance. The most relevant priors will be calculated as before, but the sort order will now be in reverse chronological order for the priors that are selected for loading. This is applicable in two areas:

- 1) When performing the initial open, any priors will be sorted prior to sending the open call to PACS.
- 2) When appending another prior RIS either needs to tell PACS to insert it at a particular index, or the whole list (including the new prior) needs to be sent again.

Date is determined on the basis of Performed first. If Performed Date is not populated, then Scheduled Date will be utilized, which will always be populated.

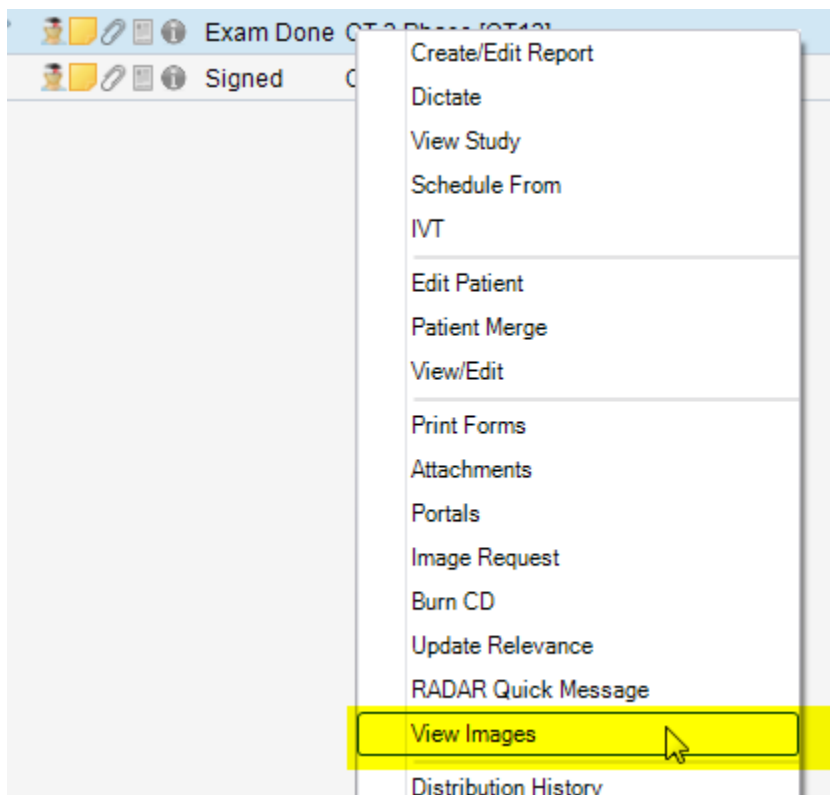
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## FEATURE #16805 AND 6102 – REMOVE PRIORS FROM PACS SESSION

It is now possible to remove selected studies from a PACS view session via a Remove call to the PACS or, for PACS integrations that do not support a Remove call, by issuing a Close command, followed by an updated Open command. This functionality is possible from the Patient Folder or from the Patient History control on the Reporting screens.

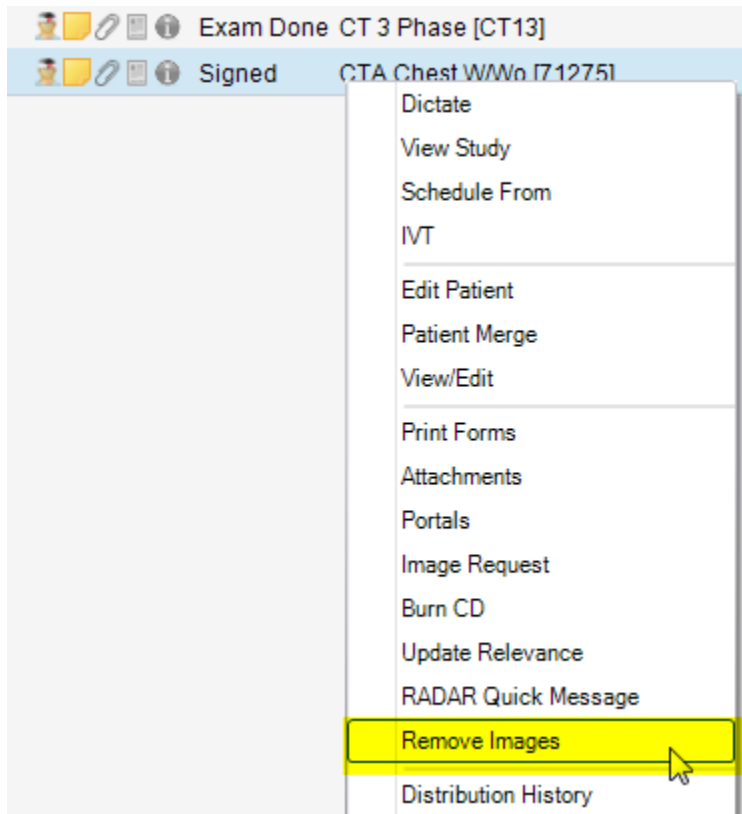
### Patient Folder

The Patient Folder previously had a [View Images](#) context menu item which would open a new view session with the selected study. Subsequent use of the menu item would append the selected study to the already opened view session, if the PACS integration supported it.



When right-clicking on a study that has already been added to the view session, the [View Images](#) menu item is now replaced with [Remove Images](#). Selecting this item will remove the images for the selected study or studies from the view session.

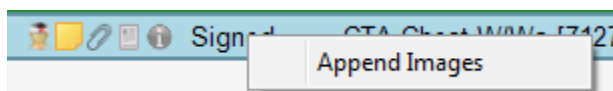




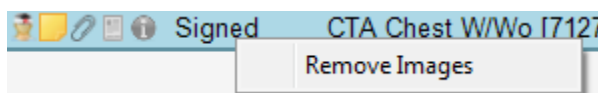
The first study that was selected prior to the first execution of [View Images](#) is considered the primary, or current study, and cannot be removed from the view session.

### Radiologist Patient History Control

The previous behavior in the Patient History control was that double-clicking on a row would load its images into the PACS view session if they were not already loaded. This still applies, but a context menu has also been added so that right-clicking a row displays an [Append Images](#) menu item. Clicking this option will result in the same behavior as a double-click of the row: loading images into the existing PACS view session for the selected study or studies.



Once the images for the study have been loaded into the view session, right-clicking the row will display a [Remove Images](#) menu item instead.



If a mixture of studies that are loaded and studies that are *not* loaded in the PACS view session are multi-selected, neither option will be available.

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## FEATURE #15636 - NON-ERAD PACS INTEGRATIONS CAN NOW SUPPORT APPEND ACTION VIA CLOSE/OPEN

There are several PACS integrations with PACS systems that do not support appending additional images, such as Infinitt and Sectra PACS. Previously, once images were opened for these integrations, it was not possible to select additional studies in RIS to add their images to the open PACS window.

Changes have been made to perform a new series of actions when a second study is selected from the Patient Folder or from the Patient History (mini-Patient Folder) panel in the Reporting screens. If the PACS integration does not support an “Append” call (i.e. add the images to the already open PACS session), RIS will tell PACS to close the first study’s images and then re-open them along with the additional images requested.

Note: some additional work will be done to optimize this functionality for the GE Universal Viewer integration.

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## FEATURE #16812 – 3<sup>RD</sup> PARTY SYSTEMS CAN QUERY RELEVANT PRIORS

In some RIS-PACS integrations, both RIS and PACS have their own mechanisms to determine which studies are relevant priors. This can lead to confusion when one system does not match the other. eRAD RIS now supports an interface where the PACS can query the RIS for these relevant priors, making for a more seamless and consistent integration.

A new web method has been created on the External Interface service called [GetRelevantPriors](#) which accepts one or more accession number. The web method returns the appropriate priors and their identifiers related to the accession numbers provided.

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## FEATURE #11486 – MIM INTEGRATION

eRAD RIS now supports integration with MIM software (<https://www.mimsoftware.com/>). It is possible to open, close, or append patient images in MIM in conjunction with actions taken in eRAD RIS. Radiologists using MIM will find that this integration allows them to dictate these cases without the extra step of searching for the patient in MIM when opening a case for dictation.

MIM is now an option to configure as the “PACS” to use for any relevant procedure codes or modality types, using the pre-existing **Reporting Option** configuration table.

As with some existing PACS integrations, MIM does not provide a response back to eRAD RIS indicating that its request was successfully completed. Therefore, it is not possible for RIS to prevent images from becoming out of sync if the radiologist moves to another case while MIM is unable to action the request to close the previous images and open the new patient. As with other integrations of this type, radiologists will need to be aware of this risk and confirm that they are viewing the correct images.

If interested in using the MIM integration, please contact eRAD Support. Additional information about the Reporting Option configuration can be found in the Release Notes for eRAD RIS version 2016.7.

## MAMMOGRAPHY

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### FEATURE #16781 – MAMMOGRAPY TAB NOW AVAILABLE FOR BI-RADS ENABLED PROCEDURES EVEN IF THEY ARE INACTIVE

Previously, the Mammography tab on View/Edit was only available if the procedure code was both Active **and** BI-RADS enabled. This could cause a problem when a customer restructures their Procedure Codes and deactivates a BI-RADS procedure that they no longer wish to use going forward. Pathology results could not be entered for the deactivated procedure codes unless they happened to be on the BI-RADS 0 or 4/5 WLs.

In order to record incidental cancer findings without needing to reactivate the procedure, a change has been made to the behavior of the Mammography tab. The tab will now be displayed for any BI-RADS enabled procedure, even if that procedure code is inactive.

## RADAR

### FEATURE #15357 – USE REAL-TIME INBOUND RADAR MESSAGING FOR APPOINTMENT REMINDER CONFIRMATION

Previously, RADAR Appointment Confirmation messaging relied upon Mirth channels for the outbound and inbound messaging interfaces. With this new feature, the need for inbound Mirth channels is eliminated by instead expanding the existing inbound RADAR messaging support (SignalR) to include Appointment Confirmation messages. The real-time nature of this feature will provide quicker feedback to appointment confirmation messages, reducing time delays that are inherent in the existing Mirth interfaces. Appointments will drop off of the Confirmation WL in a timely manner as patients reply to their Appointment Confirmation messages.

A single Wedge service using the RADAR plug-in that is currently in place for processing outbound Patient Portal email messaging and RADAR SecurePIC messaging can now replace all of the Mirth inbound channels configured for Appointment Confirmation messaging.

This feature will:

- Eliminate the use of Mirth channels for inbound Appointment Confirmation messaging.
- Eliminate the use of text files for returning confirmation responses back to eRAD RIS.
- Reduce the use of shared folders to exchange data between eRAD RIS and RADAR.
- Allow Confirmation responses to be sent in **real-time** to the Wedge service from RADAR Signal event broker (no polling delays).
- Update the Confirmation Status and Confirmed flag for a study when a patient confirms an appointment via phone, email, or text.

Once enabled, Appointment Reminders that are confirmed by the patient (via phone, SMS or email) will be marked as Confirmation\_Status\_Code = Confirmed and Confirmed\_Flag = Y. As a result, the appointment will fall off of the Confirmation WL.

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## FEATURE #8498 – REPORT DISTRIBUTION VIA RADAR EMAIL WILL REFLECT APPROPRIATE EMAIL DELIVERY STATUS IN RIS

It has previously been possible to distribute diagnostic reports via secure RADAR emails; however, the Document Distribution status would only reflect whether the report was successfully delivered to the RADAR server. In the case of an invalid email address or other problem, it is still possible that the report will not be successfully delivered to the recipient.

Now, eRAD RIS will more accurately reflect the Document Distribution status for email delivery. When the report has been delivered to the RADAR server, the Document Distribution status will now be “In Progress.” It will remain in this status until RADAR indicates that the email was delivered successfully to the recipient. In this case, the status will update to Completed. If RADAR is unable to deliver the email, the status will update to Error. The Activity Log column will display additional details regarding the error, indicating that the secure email could not be delivered and listing the recipient name and email address.

In order to receive RADAR status updates on the email delivery, the value for new System Configuration setting, [InboundRADARMessageFilter](#), discussed in the feature above, must contain “Report Delivery” as a valid inbound RADAR message type.



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## FEATURE #17778 AND 17779 – SEND RADAR NUDGE MESSAGES TO ANY NUDGE ENABLED USER FROM A WIDE VARIETY OF WORKFLOWS

A RIS user may need to contact a co-worker, manager, or radiologist about a patient in a wide number of scenarios. A scheduler may have a question for the billing department. A manager may want an employee to correct a mistake. A technologist may need to let the radiologist know that the patient is prepped for their biopsy procedure.

Until now, RADAR Nudge instant messaging was primarily a tool for the radiologist when used with the eRAD RIS integration. This is because it was only possible to initiate a RADAR Nudge conversation about a patient from the radiologist's Reporting screen. To enhance the ability to use Nudge for internal RIS communication, it is now possible to launch a context-specific Nudge conversation from additional points in the RIS workflow. It is also now possible to look up any Nudge user in the system and add that user to the Nudge conversation.

To make RADAR Nudge available for the widest number of scenarios, the RADAR Nudge integration now allows users to initiate a Nudge from any of the following new places, via either a RADAR Nudge button or a context (right-click) menu option:

### RIS Screens:

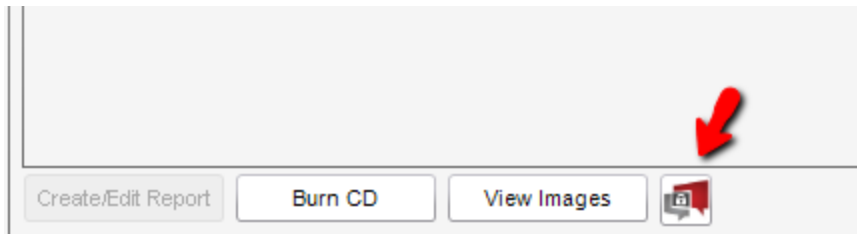
- Edit Patient
- IVT
- Schedule Order
- Walk-in
- Registration
- Confirmation
- View/Edit
- Edit Billing
- Perform Exam

### Worklists:

- Patient Folder
- Reception WL
- Technologist WL
- Orders to Schedule WL
- Confirmation WL
- Activity WL
- Billing Exception WL
- IVT WL
- Utilization Management WL
- Image Request WL
- All Critical Results
- (My) Critical Results

- All Problem WL
- All Peer Review Pending Action WL
- Finding Follow-up WL
- Mammo Follow-up Orders WL
- ACR Category 0 Follow-up WL
- ACR Category 4/5 Follow-up WL

For any of the screens listed above, the Nudge button will be available in the lower left corner of the screen.



The button opens the Nudge dialog screen and allows the user to select one or more contacts to be part of a context-specific Nudge conversation.

Similarly, any of the worklists listed above will have a context menu option for [RADAR Nudge message](#), which will open the same Nudge dialog screen.

A screenshot of the 'RADAR Nudge' dialog box. The title bar says 'RADAR Nudge'. Inside, there is a 'Subject' field with the text '@1046113QE04 | 01-01-1923 | #34689PE | Hilary Test'. Below this is a 'Select contacts' section with a 'Find Contact' button. Underneath is a table with two columns: 'Contact' and 'Role'. The table is currently empty. At the bottom of the dialog are 'OK' and 'Cancel' buttons.

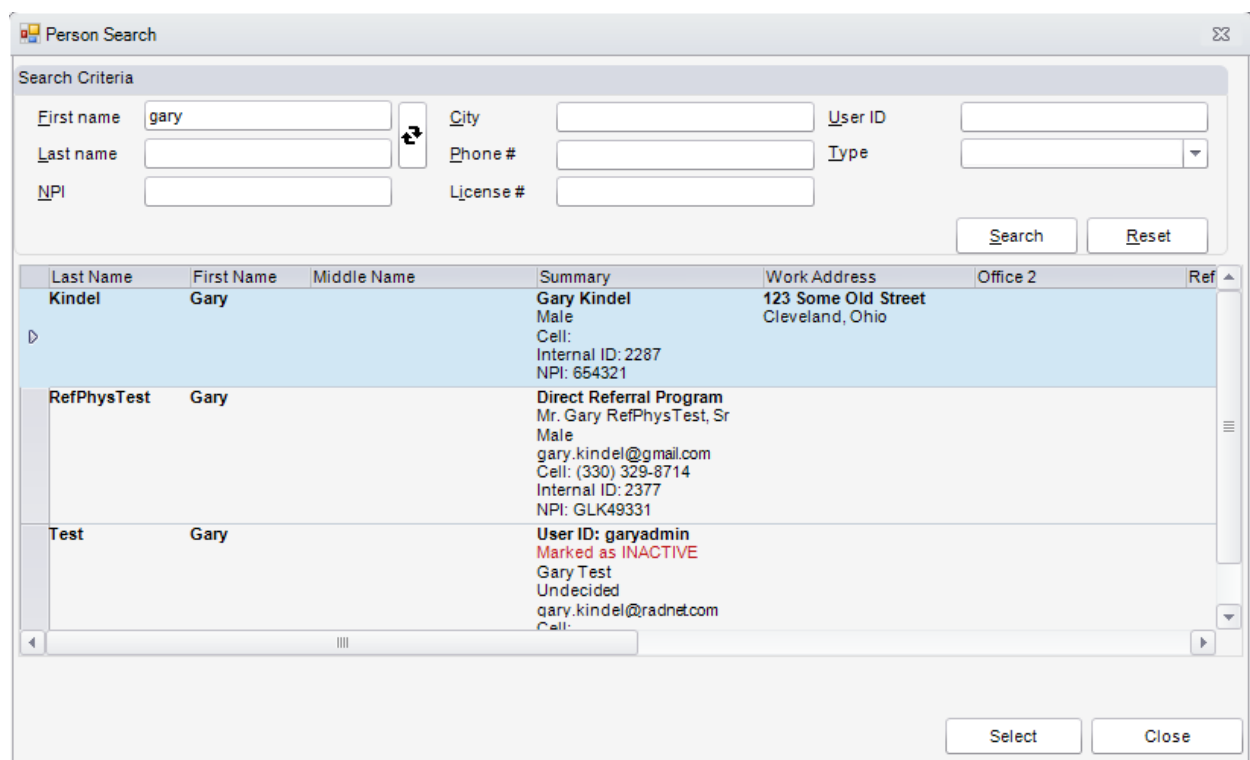
Contact	Role
---------	------

The “Subject” of the conversation will be filled in automatically based on the existing System Configuration setting: **RADARSecureMessageTitle**.

Lookup - SystemConfig x		
System Config Code	Value	Default
Contains: titl	Contains:	Contains:
RADARSecureMessageTitle	@<accession_number>   <birth_date>   #<patient_id>   <first_name> <last_name>	<last_name>, <first_name>   #<patient_id>   @<accession_number>

By default, the Subject will look like the following: Doe, Jane|#123456789|@987654. It is possible to change the order of these elements or add elements such as Date of Birth.

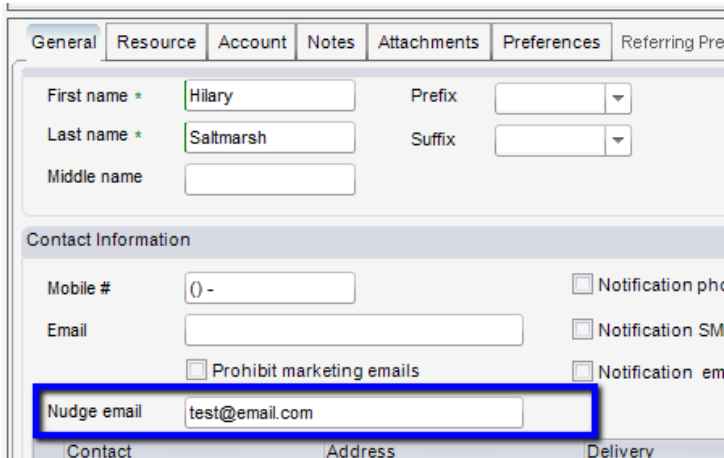
Click the **Find Contact** button to search for RADAR Nudge users to include in the conversation. The button will open a customized Person Search dialog that will allow a user to search for other Nudge users in the RIS Personnel records.



The Person Search dialog box contains a search criteria section with fields for First name, Last name, NPI, City, Phone #, License #, User ID, and Type. Below the search criteria is a table of search results. The table has columns for Last Name, First Name, Middle Name, Summary, Work Address, Office 2, and Ref. The results show three entries for Gary Kindel: a general summary, a RefPhysTest entry, and a Test entry.

Last Name	First Name	Middle Name	Summary	Work Address	Office 2	Ref
Kindel	Gary		Gary Kindel Male Cell: Internal ID: 2287 NPI: 654321	123 Some Old Street Cleveland, Ohio		
RefPhysTest	Gary		Direct Referral Program Mr. Gary RefPhysTest, Sr Male gary.kindel@gmail.com Cell: (330) 329-8714 Internal ID: 2377 NPI: GLK49331			
Test	Gary		User ID: garyadmin Marked as INACTIVE Gary Test Undecided gary.kindel@radnet.com Cell:			

The Find Contact screen’s search options mirror the usual Internal Person search; however, the search will only include results where the Nudge Email field in the Personnel record has been populated with a valid Nudge email.



General Resource Account Notes Attachments Preferences Referring Pre

First name \* Hilary Prefix

Last name \* Saltmarsh Suffix

Middle name

Contact Information

Mobile # ( ) -  ☐ Notification pho

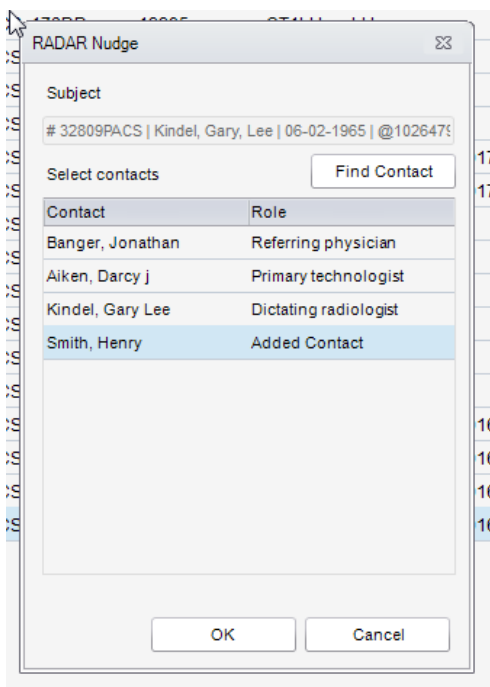
Email  ☐ Notification SM

☐ Prohibit marketing emails ☐ Notification em

Nudge email test@email.com

Contact Address Delivery

When a contact is selected in PersonSearch results, the contact is added to contact grid in the dialog. Depending on the status of the exam, Nudge users who are already associated to the exam may be listed in order to quickly select them.



RADAR Nudge

Subject

# 32809PACS | Kindel, Gary, Lee | 06-02-1965 | @1026475

Select contacts Find Contact

Contact	Role
Banger, Jonathan	Referring physician
Aiken, Darcy j	Primary technologist
Kindel, Gary Lee	Dictating radiologist
Smith, Henry	Added Contact

OK Cancel

In this case, the user's role in the patient's exam will be listed next to their name. It is possible to message any of these contacts, as well as find new contacts to include. Any contacts highlighted in blue will be part of the Nudge conversation upon clicking OK. To select multiple contacts, click the desired contacts while holding the CTRL key. Contacts added via the Find Contact button will be highlighted by default.

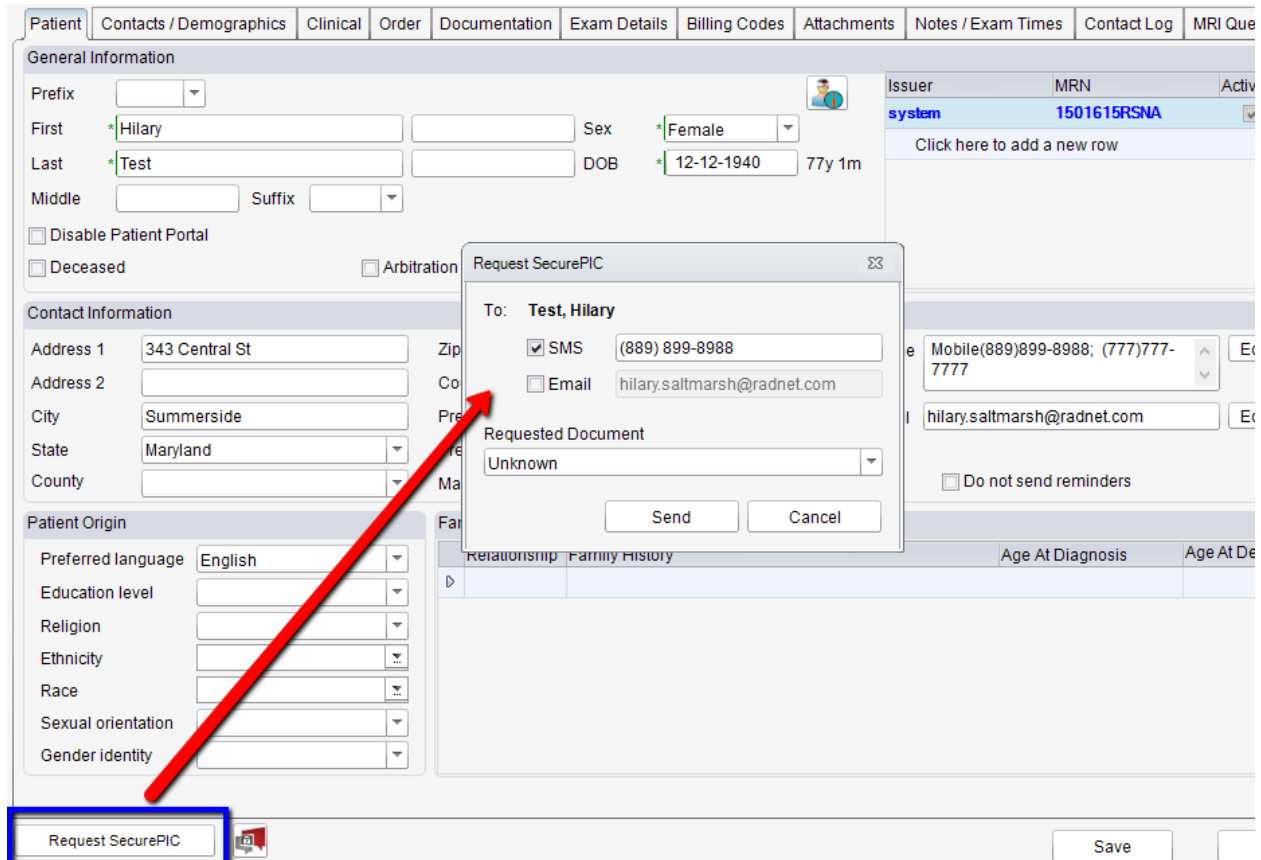
Upon clicking OK, the Nudge conversation will be opened and the user can begin messaging the selected contacts. As before, to use the Nudge integration, the eRAD RIS user must have:

- An active RADAR Nudge account.

- A valid Nudge email address associated with the user's personnel profile.
- A user group that has access string [Clinical.RADARSecureMessage](#) = Full assigned.

## FEATURE #16567 – SEND SECUREPIC REQUESTS VIA EMAIL

It is now possible to send SecurePIC requests via email. After clicking the Request SecurePIC button, the Request SecurePIC screen will open. By default, SMS will be checked, so that the SecurePIC will be sent to the patient via text message. However, there is now an option to select email instead of, or in addition to, the SMS text message.



The screenshot shows the eRAD patient record interface. The 'Request SecurePIC' dialog box is open, displaying the following information:

- To:** Test, Hilary
- ☒ **SMS** (889) 899-8988
- ☐ **Email** hilary.saltmarsh@radnet.com
- Requested Document:** Unknown
- Buttons:** Send, Cancel

A red arrow points from the 'Request SecurePIC' button in the bottom left of the patient record to the 'Email' checkbox in the dialog box.

If email is selected, the patient will receive an email with a link to open SecurePIC, where they can attach a picture. Accepted file types are png, jpeg, gif, and bmp. If opening the email from a mobile device, the user can also choose to take a new picture with their device's camera, just as they can when receiving the SecurePIC via text message.

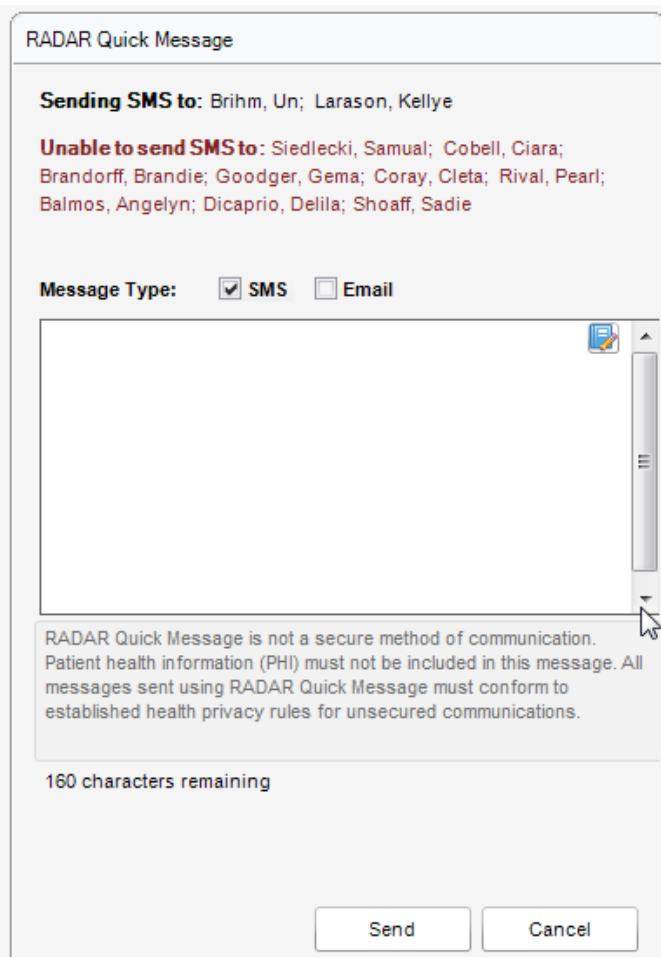
The remainder of the workflow will be the same as if the SecurePIC request had been sent via text message.

## FEATURE #11249 – DISPLAY AVAILABLE CONTACT METHODS WHEN SENDING RADAR QUICK MESSAGE TO MULTIPLE PATIENTS

RADAR Quick Message is an easy way to quickly send a message to a patient, via SMS (text) message and/or email. It is possible to multi-select patients to send the desired message to each of the selected patients. Previously, sending RADAR Quick Messages to multiple patients could be confusing because it is not possible to view ahead of time whether the selected patients have mobile phone numbers and/or email addresses entered in RIS. Without any indication of the available contact methods, the user can't identify which patients will not receive the message until a pop-up is displayed after composing and sending the message.

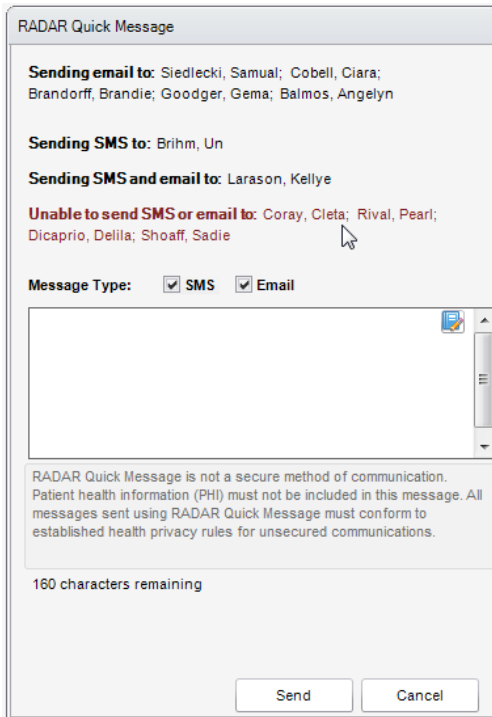
Instead of being notified **after** the fact when a message cannot be delivered due to a lack of mobile phone and/or email, it is better to advise the user before the message is sent, so that adjustments can be made to the method of contact if needed.

To accommodate this, the RADAR Quick Message window will now display a list of selected patients split into applicable categories. When a single Message Type is selected (email or SMS), there can be up to 2 sub-categories:



The screenshot shows the 'RADAR Quick Message' dialog box. At the top, it says 'Sending SMS to: Brihm, Un; Larason, Kellye'. Below that, in red text, it says 'Unable to send SMS to: Siedlecki, Samuel; Cobell, Ciara; Brandorff, Brandie; Goodger, Gema; Coray, Clea; Rival, Pearl; Balmos, Angelyn; Dicaprio, Delila; Shoaff, Sadie'. Under 'Message Type:', the 'SMS' checkbox is checked and the 'Email' checkbox is unchecked. There is a large text area for the message with a scroll bar on the right. Below the text area, a disclaimer states: '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.' Below the disclaimer, it says '160 characters remaining'. At the bottom are 'Send' and 'Cancel' buttons.

When both email and SMS are selected, there can be up to 4 sub-categories, as displayed in the image below.



**RADAR Quick Message**

**Sending email to:** Siedlecki, Samuel; Cobell, Ciara; Brandorff, Brandie; Goodger, Gema; Balmos, Angelyn

**Sending SMS to:** Brihm, Un

**Sending SMS and email to:** Larason, Kellye

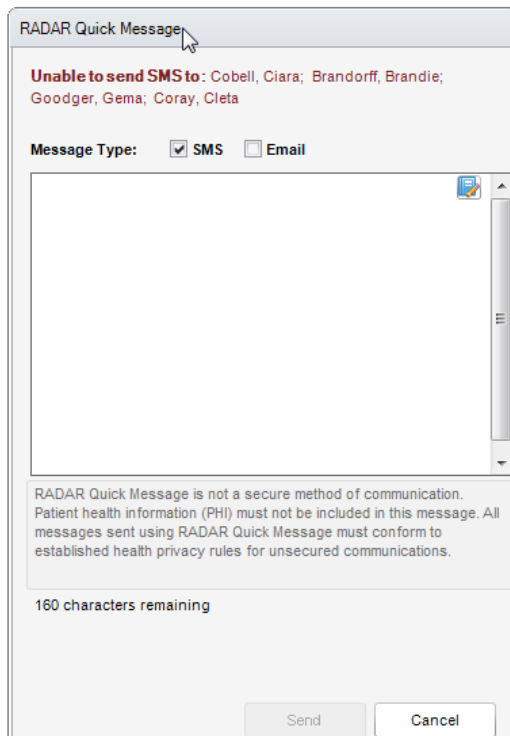
**Unable to send SMS or email to:** Coray, Cleta; Rival, Pearl; Dicaprio, Delila; Shoaff, Sadie

**Message Type:** ☒ SMS ☒ Email

160 characters remaining

Send Cancel

If none of the selected patients can be sent a message using the selected Message Type, the Send button will be disabled.



**RADAR Quick Message**

**Unable to send SMS to:** Cobell, Ciara; Brandorff, Brandie; Goodger, Gema; Coray, Cleta

**Message Type:** ☒ SMS ☐ Email

160 characters remaining

Send Cancel

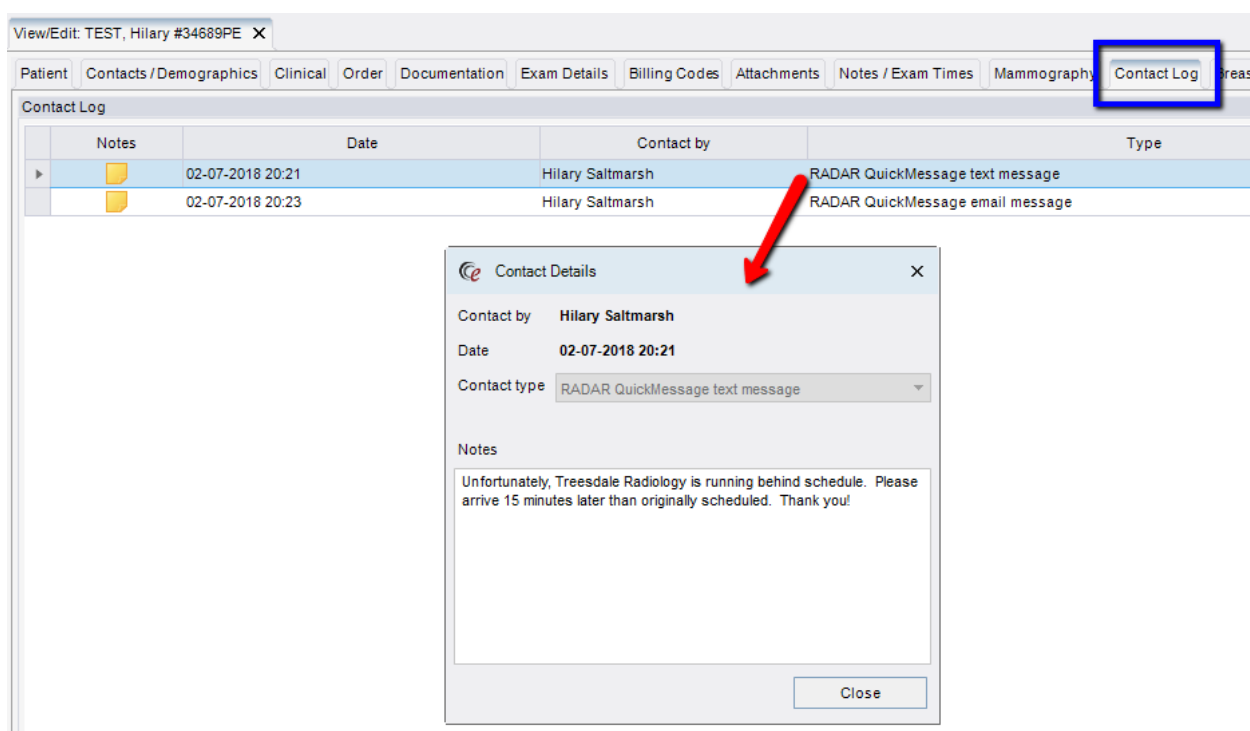


## FEATURE #12482 – CONTACT LOG ENTRIES NOW GENERATED AUTOMATICALLY FOR RADAR QUICK MESSAGES

RADAR Quick Message is a tool that is often used to send a quick text or email message to a patient from eRAD RIS. For example, if a department is behind schedule, the receptionist may wish to notify the next three scheduled patients that they can arrive 15 minutes later due to the delay.

Previously, this type of contact had to be added to the patient's Contact Log manually, if the user wanted to maintain a record of the message outside of the Audit History.

eRAD RIS will now automatically add Quick Message information to the patient's Contact Log to provide easier access to all information regarding contact to patients regarding their appointment. The Contact Log entry will be added to the Contact Log for the Order from which the message was sent.



Upon opening the Contact Log entry, it is possible to view the following information:

**Contact By:** The name of the eRAD RIS user who sent the message.

**Date:** The date RADAR notifies eRAD RIS that the message was sent.

**Contact Type:** Will be populated with the description of the Follow Up Type Code configured for RADAR QuickMessage email message or RADAR QuickMessage text message, respectively. By default, messages will be labeled as described in the table below.

**Notes:** The message body from the RADAR QuickMessage.

Two values have been added to the FollowUpType configuration table to support this feature:

Follow Up Type Code	Description
QuickMessageEmail	RADAR QuickMessage email message
QuickMessageSMS	RADAR QuickMessage text message

In addition, two System Configuration values have been added to identify that these Follow Up Types are to be used for creating automated Contact Log entries for RADAR Quick Messages.

System Config Code	Value
QuickMessageEmailDefaultContactTypeCode	QuickMessageEmail
QuickMessageSMSDefaultContactTypeCode	QuickMessageSMS

Unless any adjustments to these default settings are desired, no set up should be required to add this functionality to the system. If your system is already configured to use RADAR Quick Message and the user in question has the appropriate access to send RADAR Quick Messages, the Contact Log entries will be added automatically after the upgrade is complete.

## CONNECT PORTALS

### FEATURE #16933 – ACCESS SYSTEM/CACHEINFO FROM THE ADMIN PORTAL

Previously, to access the System/CacheInfo page, the user had to log in to the Admin Portal and then manually edit the Admin Portal's URL. This was cumbersome and required additional time. To improve efficiency, there is a new tab in the Admin Portal to display the System Cache Info.

User Mgt.
User Messages 0
Sys. Messages
Img. Retrieval 6
Account Migration
Sys. Cache Info

To prevent poor performance, you cannot submit more than 60 manual expires per hour.

Lookups in memory

Lookup	Last Expiry	Next Expiry (minutes)	
LegalDocument	05-09-2017 10:07 AM	29	<a href="#">Expire Now</a>
ImagingCenter	05-09-2017 10:07 AM	29	<a href="#">Expire Now</a>
Gender	05-09-2017 10:07 AM	29	<a href="#">Expire Now</a>
PatientRelation	05-09-2017 10:07 AM	29	<a href="#">Expire Now</a>
Organization	05-09-2017 10:07 AM	29	<a href="#">Expire Now</a>
ProcedureCode	05-09-2017 10:07 AM	29	<a href="#">Expire Now</a>
ProcedureGeneralDescription	05-09-2017 10:07 AM	29	<a href="#">Expire Now</a>
Modality	05-09-2017 10:07 AM	29	<a href="#">Expire Now</a>
MessageGroup	05-09-2017 10:07 AM	29	<a href="#">Expire Now</a>
SystemConfig	05-09-2017 10:07 AM	29	<a href="#">Expire Now</a>
SystemMessage	05-09-2017 10:07 AM	29	<a href="#">Expire Now</a>
PACSServer	05-09-2017 10:07 AM	29	<a href="#">Expire Now</a>
UMStatus	05-09-2017 10:07 AM	29	<a href="#">Expire Now</a>
UMResolution	05-09-2017 10:07 AM	29	<a href="#">Expire Now</a>
UserGroup	05-09-2017 10:07 AM	29	<a href="#">Expire Now</a>
AccessString	05-09-2017 10:07 AM	29	<a href="#">Expire Now</a>
UserGroupPermission	05-09-2017 10:07 AM	29	<a href="#">Expire Now</a>

Manual expiries in the past hour (0):

There have been no changes to the contents or functionality of the page, but it is now easier to access.

A new access string controls whether the user has the ability to access the tab and manually expire system/cacheinfo. [Portal.admin.cacheinfo](#) must be set to FULL for the User Group(s) that should have access to this page.

If a user without this permission attempts to access the page by altering the URL, they will be informed that they do not have permission to access Cache Info.

## FEATURE #17033-17036 – MANAGE GET HELP REQUESTS EXCLUSIVELY IN THE ADMIN PORTAL

Previously, Get Help Requests were sent from the portal to an email distribution group, which could include unsecure email addresses. As Get Help Requests may contain patient information, all inbound Get Help Requests will now be managed and responded to within the Portal Admin Tool.

In support of this change, enhancements have been made to the notification email and the User Messages tab in the Admin Tool.

A Get Help Request will initiate a notification email to the email distribution group, but the email will not contain the content of the message. Instead, the email will direct recipients to access the request via the portal's Admin Tool. The User Messages tab in the Admin Portal will display all inbound messages from the Get Help Requests, as well as user messages.

Admin Portal users must be assigned the appropriate Message Groups in order to view the Get Help Requests in the Admin Portal. The applicable Message Groups are defined in the following System Configuration settings:

- [UMPHelpRequestMessageGroup](#)
- [RPHelpRequestMessageGroup](#)
- [PPHelpRequestMessageGroup](#)

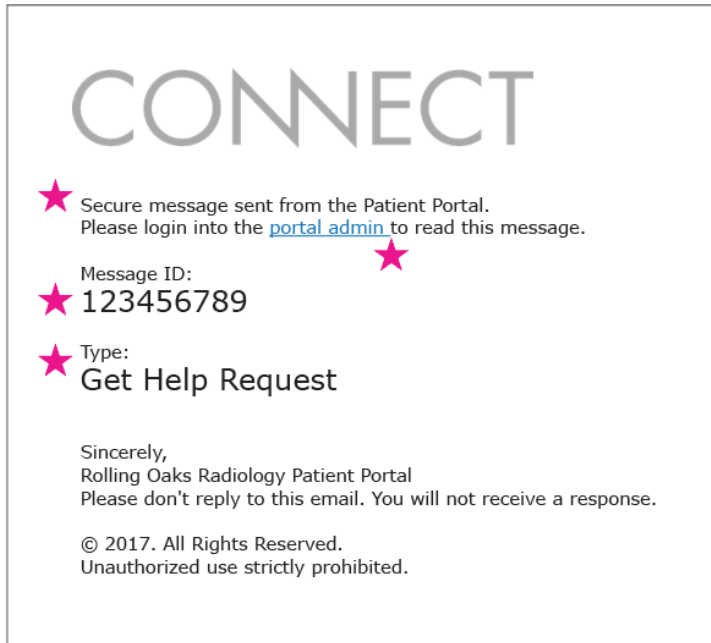
The Message Group (or groups) defined in these System Configuration settings should be assigned in the Personnel table for any administrators who should be interacting with Get Help Requests.

If an External Notification Email Address has been defined for the Message Group, an enhanced notification email will be sent to the email address (which can be a distribution list with emails distributing to multiple users).

Message Group Code	Description	External Notification Email Address
Contains: ▼	Contains: ▼	Contains: ▼
Click here to add a new row		
technical	Portal Technical Assistance	portalteam@abc.com

Below is an example of a notification email. The stars indicate areas that have been updated.

From: Rolling Oaks Radiology Patient Portal [ConnectPortal@MyRadarConnect.com]  
Sent: Tuesday, April 18, 2017 12:02 PM  
To: WebTeamCA  
Subject: Patient Portal Get Help Request ★



- The email's Subject will indicate the portal from which the message was sent, as well as the type of message: Get Help Request or User Message.
- A link is provided to open the message from within the Admin Portal.
- A unique ID will be generated for the message and displayed in the email.
- The type of message will be displayed (e.g. Get Help Request or User Message).

Enhancements have also been made to the User Messages tab in the Admin Portal.

- Patient Portal Only: A new MRN column is available to display the patient's MRN if the Get Help Request was made by a user who had logged into the portal. This will be blank if the user made the request outside of a log-in.
- A new Type column is available in the Admin Portal for Patient, Provider, and Utilization Management portals. This column will identify whether the message is a Get Help Request or a User Message.
- There is also a filter for Type, which will allow the admin user to filter the messages to display Get Help, User Messages, or All messages.
- The unique Message ID is also displayed in a new column.

User Mgt.
User Messages 110
Sys. Messages
Workflow Failures
Sys. Cache Info

Search

Search

Get Help

SEARCH

CREATE NEW MESSAGE

Inbox 110
Archived
Sent

Open Messages

		Message ID	Date ↓↑	Name	MRN	Type	Subject	Message	
<a href="#">VIEW</a>	<a href="#">CLOSE</a>	314	06-01-2017	second, charan	2	Get Help	6477814675(Stockton Advanced Imaging Image Request)	Exams and Reports	<a href="#">FORWARD</a>
<a href="#">VIEW</a>	<a href="#">CLOSE</a>	313	06-01-2017	second, charan	2	Get Help	test(Get Help)	Get help MRN Check	<a href="#">FORWARD</a>
<a href="#">VIEW</a>	<a href="#">CLOSE</a>	299	05-31-2017	second, charan		Get Help	test(Get Help)	Get Help Take 10	<a href="#">FORWARD</a>
<a href="#">VIEW</a>	<a href="#">CLOSE</a>	298	05-31-2017	second, charan		Get Help	test(Get Help)	Get HElp	<a href="#">FORWARD</a>
<a href="#">VIEW</a>	<a href="#">CLOSE</a>	294	05-31-2017	second, charan		Get Help	test(Get Help)	Get hELp	<a href="#">FORWARD</a>
<a href="#">VIEW</a>	<a href="#">CLOSE</a>	293	05-31-2017	second, charan		Get Help	test(Get Help)	Get help	<a href="#">FORWARD</a>

When clicking the View button to read the message, the resulting page has some additional enhancements to provide more detail to the administrator.

- The message's Type will be displayed.
- The patient's contact information, phone and email, will be displayed.
- User Messages will include the patient's Follow Up Preference (their preferred method of contact).
- A change has been made to the display of the user's message to make it easier to read.
- The Reply section is disabled for Get Help Requests, which should not be responded to via email or portal.

Example:

User Mgt.

User Messages 110

Sys. Messages

Workflow Failures

Sys. Cache Info

### User Message

---

MESSAGE

From second, charan  
Sent 05-31-2017 12:48:22 PM  
Phone (647) 781-4675(Primary), (902) 457-8145  
Email veeranjanyulu.boina@radnet.com(Primary), boina.cad@gmail.com  
Follow Up Preference Email  
Subject test

Message \* Exam details

second, charan  
10/10/1991 (25y 7m) Male  
MRN: 2  
Accession: 20122786  
CT Calcium Scoring

---

REPLY

To \* second, chara... ▼

Subject \* RE: test

Message \*

SAVE CANCEL

Additionally, a new section has been added after the Reply section. This section is designed for internal use. It allows the portal administrator to choose a category for the request and add internal notes regarding the message.

## REPLY

To \*

Subject \* RE: test(Get Help)

Message \*

Category

Notes

## HISTORY

Created Date 06-06-2017  
Created By (Unknown)  
Last Modified 06-06-2017  
Modified By boina, Veeranjana (veeranjana)

The options in the Category dropdown are defined in a new RIS look-up table called **Category Group**.

Category Group Code	Description	Display Order	Show In Pp Admin Portal Flag	Show In Rp Admin Portal Flag	Show In Ump Admin Portal Flag	Last Updated	Active
Contains:	Contains:	Equals:	Contains:	Contains:	Contains:	Equals:	Contains:
Click here to add a new row							
account creation	Account Creation	1	Y	Y	Y	06-05-2017 15...	Y
reports	Reports	4	Y	Y	Y	06-05-2017 14...	Y
demographic discrepancy	Demographic Discrepancy	5	Y	Y	Y	06-02-2017 10...	Y
direct message	Direct Message	7	Y	Y	Y	06-02-2017 10...	Y
appointments	Appointments	6	Y	Y	Y	06-02-2017 10...	Y
account access	Account Access	2	Y	Y	Y	06-02-2017 10...	Y
images	Images	3	Y	Y	Y	06-02-2017 10...	Y

The Description will display in the dropdown for any Category Groups that are set to show for the portal in question, as defined in the look-up table.

The last new area on this screen is a History section for the message. The following information will be displayed:

**Created Date:** The date the message was sent.

**Created By:** The name of the sender, if known. Get Help Requests initiated from outside a log-in will be listed as unknown.

**Last Modified:** The last date the message was updated by an Admin Portal user.

**Modified By:** The name and User ID of the Admin Portal user who last updated the message.



---

## FEATURE #17154 – CONFIGURE WHICH PORTAL ERROR MESSAGES GENERATE AN EMAIL NOTIFICATION TO PORTAL ADMINISTRATORS

By default, all errors encountered in the portals generate an email notification to the notification email address configured for each portal. Sometimes, portal administrators do not wish to receive notification of certain types of error messages. This feature allows for box-level configuration of notification emails based on the HTTP status code for the error.

A new AppConfig setting has been added for all portals: [ErrorMessageEmailSettings](#). By default, all error types will continue to generate notification emails. The following options can be configured:

- Value = All
  - All error status codes will trigger an email.
- Value = comma delimited list of status codes
  - Example: 400, 404, 405, 515
  - Only the status codes in the list will trigger an email.
  - A range can be used to include codes (e.g. 404, 500-515)
- Value = All, comma delimited list of status codes
  - When a comma delimited list begins with “All,” the codes following All will be **excluded** from triggering an email.
  - Example: All, 400, 402, 500-510
  - The above example would mean: Generate notification emails for All error status codes [**except for**] status codes 400, 402, and 500 through 510.

To enable this feature, add an [ErrorMessageEmailSettings](#) key to the applicationsettings.config file and set the desired value based on the description above.

---

## FEATURE #17247 – AUTOMATICALLY DISABLE PORTAL ACCOUNTS DUE TO INACTIVITY

As a security measure, eRAD RIS now has the ability to configure a timeframe after which portal accounts will be automatically disabled due to account inactivity. Account inactivity is defined as not logging into the portal.

Two new System Configuration settings have been added to support this feature:

- **DaysBeforeInactiveAccount:** This setting defines the number of days a **Provider Portal** or **Utilization Management Portal** account can remain inactive before being automatically disabled.
- **PPDaysBeforeInactiveAccount:** This setting defines the number of days a **Patient Portal** account can remain inactive before being automatically disabled.

Setting these values to 0 or lower will disable the feature.

Two SQL jobs have been created, one for each of the new System Configuration values. These jobs run daily and deactivate accounts that have been inactive for more days than the System Configuration value allows.

Users attempting to log into an inactive account would receive a message stating that their portal account is inactive. They will be directed to contact the Web Team to re-activate the account.

## FEATURE #16217 – CONFIGURABLE PASSWORD STRENGTH REQUIREMENTS FOR CONNECT PORTALS

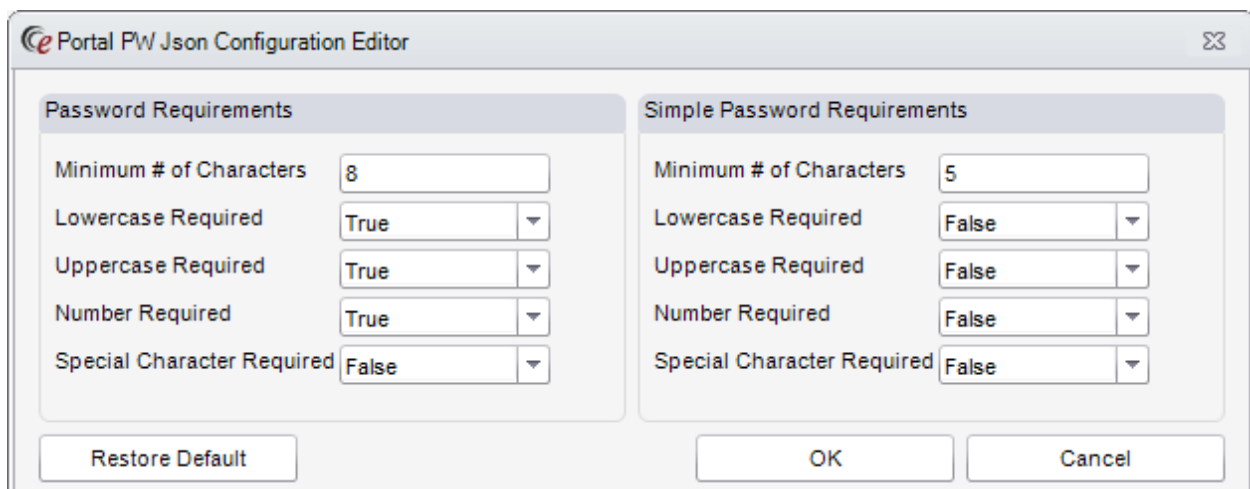
Previously, password requirements for the CONNECT Patient Portal, Provider Portal, and UM Portal were hard coded. It is now possible for customers to customize password requirements and force a password reset workflow for any existing users whose passwords do not meet the new password strength requirements.

A new Password Requirement editor is now available via the System Configuration table for the three Connect Portal options: Patient Portal (setting: [PPPasswordRequirements](#)), Provider Portal ([RPPasswordRequirements](#)), and Utilization Management (UM) Portal ([UMPPasswordRequirements](#)).

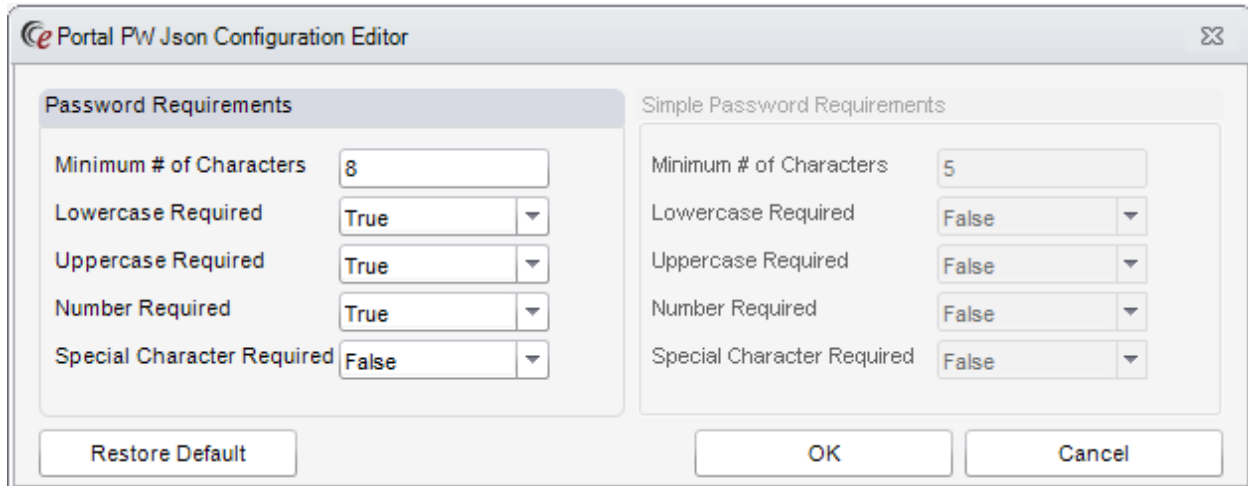
System Config Code	Value	Default	Description
Contains: PasswordRequirements	Contains:	Contains:	Contains:
PPPasswordRequirements	[{"minChar": "8", "wordLowercase": "Tru...	[{"minChar": (value = string) JSON value to define default password requirements for patient portal user accounts.	
RPPasswordRequirements	[{"minChar": "8", "wordLowercase": "Tru...	[{"minChar": (value = string) JSON value to define default password requirements for referring portal user accounts.	
UMPPasswordRequirements	[{"minChar": "8", "wordLowercase": "Tru...	[{"minChar": (value = string) JSON value to define default password requirements for UM portal user accounts.	

The settings in this custom editor define the password requirements for the relevant portal's users. If a user logs in and their password does not match these custom requirements, the user will be forced through the password reset workflow.

To adjust the password requirements, filter the System Configuration look-up table to find the Password Requirement setting for the relevant portal (see above for the names of each setting). Then click the current "Value" for that setting's row. The editor will open as shown in the following illustration:



The "Simple Password" option is only available in the Patient Portal, so the screen will display as follows for the Provider and UM Portals:



The image shows a software window titled "ePortal PW Json Configuration Editor". It contains two panels for configuring password requirements. The left panel, "Password Requirements", has fields for Minimum # of Characters (8), Lowercase Required (True), Uppercase Required (True), Number Required (True), and Special Character Required (False). The right panel, "Simple Password Requirements", has fields for Minimum # of Characters (5), Lowercase Required (False), Uppercase Required (False), Number Required (False), and Special Character Required (False). At the bottom are buttons for "Restore Default", "OK", and "Cancel".

Requirement	Value
Minimum # of Characters	8
Lowercase Required	True
Uppercase Required	True
Number Required	True
Special Character Required	False

Requirement	Value
Minimum # of Characters	5
Lowercase Required	False
Uppercase Required	False
Number Required	False
Special Character Required	False

The password requirements can be adjusted to force passwords to contain:

- A minimum number of characters.
- At least one lower case character.
- At least one upper case character.
- At least one number.
- At least one special character.

---

## FEATURE #17336 – REMOVE USER TYPE REFERRING PROVIDER FROM DROPDOWN WHEN CREATING NEW USER IN THE PORTAL

All new referring providers should be created inside of the RIS application by properly permissioned RIS administrators following standard imaging center guidelines. Therefore, it was requested that customers have the ability to exclude the Referring Provider role when creating a new user in the Admin Portal. This workflow is intended for creating portal accounts that are for staff, marketing, or help desk users, which do not require special RIS configuration settings that cannot (and should not) be managed from the Admin Portal.

Because User Group names can vary between customers, applicationsettings.config will be used to configure the Role that should be removed from the dropdown in the Admin Portal. It is possible to remove any Role using this configuration, which is handled by eRAD Support. Please contact eRAD if you would like to use this feature.

---

**FEATURE #17723-17725 - BETTER HANDLING FOR ACCOUNT RECOVERY WHEN THE SAME EMAIL ADDRESS IS ASSIGNED FOR MULTIPLE ACCOUNTS**

It is possible for multiple portal accounts to be created using the same email address. This allows for a parent to use the same email address for their own and their child's portal accounts, for example. However, workflow issues could occur when the Account Recovery process was used for an email address associated to multiple accounts.

To address this, an evaluation will be done during Account Recovery to identify whether the email address is associated to more than one portal account. If so, the user will be prompted with additional questions to identify which portal account is to be recovered.

### Verify your identity

Please answer a few questions about yourself. All fields are required.

First Name \*

Last Name \*

What is your date of birth? \*



What is your ZIP code? \*

NEXT

If multiple matches are still found, an additional filter will be applied, which will narrow down the results to only the Active account.

After identifying which portal account is to be recovered, the Account Recovery process will proceed as usual.

---

## FEATURE #17720-17722 – PORTAL DATE FORMATS SHOULD MATCH RIS SYSTEM CONFIGURATION SETTING

Previously, most of the portals' date formats were hard coded. It is important to allow customers to control the date format for the portal. Therefore, portal date formats are now controlled via System Configuration settings.

This feature refers to two existing System Configuration settings:

- **DateFormat** – Example: yyyy-MM-dd
  - This is referred to as **short date** in **server** configuration.
- **TimeFormat** – Example: HH:mm
  - This is referred to as **short time** in **server** configuration.

In addition, a new System Configuration setting has been added:

- **PortalLongDateFormat** – Example: dddd, MMMM dd, yyyy
  - This is referred to as **long date** in **server** configuration.


If any issues with the date format configuration exist, error notifications will be presented upon log in to the portal. The intent is for the problems to be caught by an administrator during the test phase, so that external portal users do not see any errors related to the configuration. In all cases, users will not be able to log into the portal or Admin Portal until the date issue is resolved. When logging into the Admin Portal, a more informative message will be displayed regarding the date/time configuration issue.

- If date formats are invalid in the System Configuration table, an error notification will be displayed when attempting to log into the portals.
  - a. Example:
- If date formats in the System Configuration do not match server configuration, an error notification will be displayed when attempting to log into the portals, recommending that the server and System Configuration settings match.
  - a. Example: Unable to login due to system configuration error. System configuration setting for "PortalLongDateFormat" must be valid and must match server date format.
- In addition, an email will be sent with information about the date format issue.



## Error Loading Page

Bhavya <unittest@testradarmed.com>

 If there are problems with how this message is displayed, click here to view it in a web browser.

Sent: Thu 31/8/17 10:21 AM

To: Veeranjanyulu Boina

# CONNECT

## Error Source

UserIdentity: RMIS\yboina

Computer Name: Veeranjanyulu-HP.rmis.pei

IP Address:fe80::6dda:8c6e:f3ab:c753%11

- fe80::900a:659d:fe8a:6cc9%18

- 10.100.16.157

- 10.100.16.236

<http://localhost:45926/admin>

Please verify date format in system configuration and would recommend server date format same as system configuration

---

Please don't reply to this email. You will not receive a response.

© 2017. All Rights Reserved.

Unauthorized use strictly prohibited.



## FEATURE #17570 – CONNECT PORTALS: DISPLAY AN INFORMATIONAL HEADER WITHIN THE PROCEDURE PICKER TO GUIDE USERS TO THE CORRECT CHOICE

Previously, administrators were sometimes forced to use overly complex options in the Procedure Picker because there was no way to display the implied question. For example, instead of displaying a question "Is this exam the result of a new symptom?" with Yes and No answer options, the information had to be supplied in each answer: "This exam IS the result of a new symptom" and "This exam is NOT the result of a new symptom."

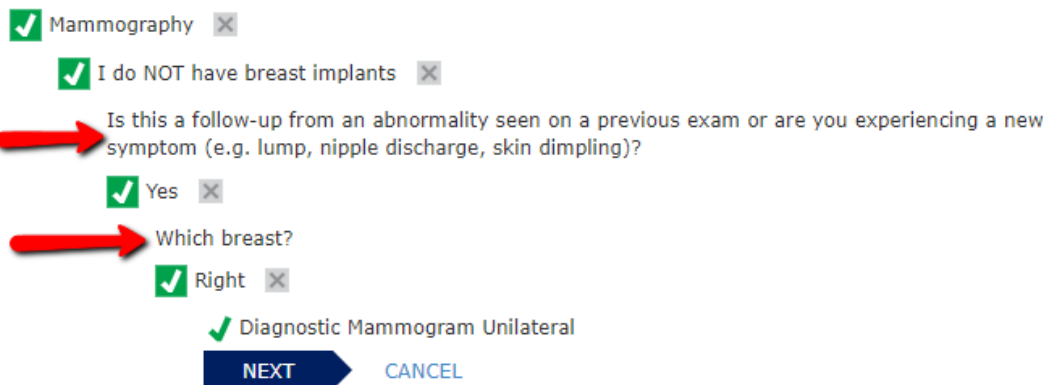
With more complex scenarios, the question answers could become convoluted and confusing for patients and referring offices. To allow the procedure picker to more elegantly handle complex choices, it is now possible for the RIS administrator to choose to display a header in the procedure tree that is displayed in the portals. The header can be used to display a question or other informational text about the selection options listed below it.

This feature applies to both the Connect Patient Portal and the Connect Provider Portal. The image below shows the use of headers in the Connect Patient Portal (see red arrows):

### Select an exam

Review your prescription carefully and select the type of exam indicated.

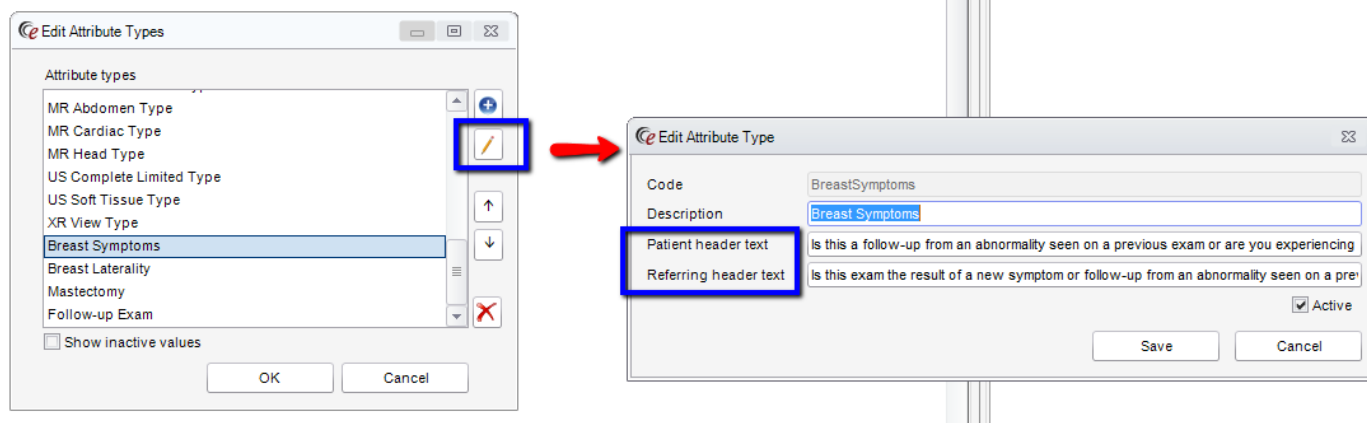
**Note:** If this is a medical emergency, call 911. If this exam requires an immediate appointment, please contact us.



[ADD ANOTHER EXAM](#)

Two new fields have been added to the Procedure Picker Attribute Types:

- **Patient Header Text:** Header text to display in the Patient Portal.
- **Referring Header Text:** Header text to display in the Provider Portal.



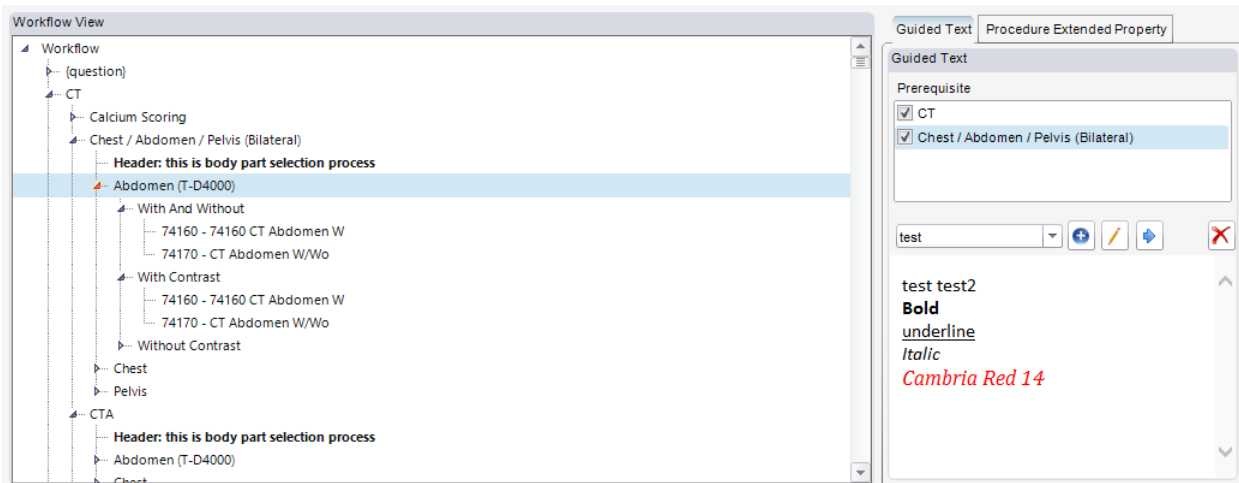
The text entered in these fields will be displayed in the portals just above the value selections for that type.

The Procedure Picker editor will show a preview of the decision tree, including headers, when viewed in Workflow View.



## FEATURE #17642-17644 – DISPLAY GUIDED TEXT DURING PORTAL SCHEDULING

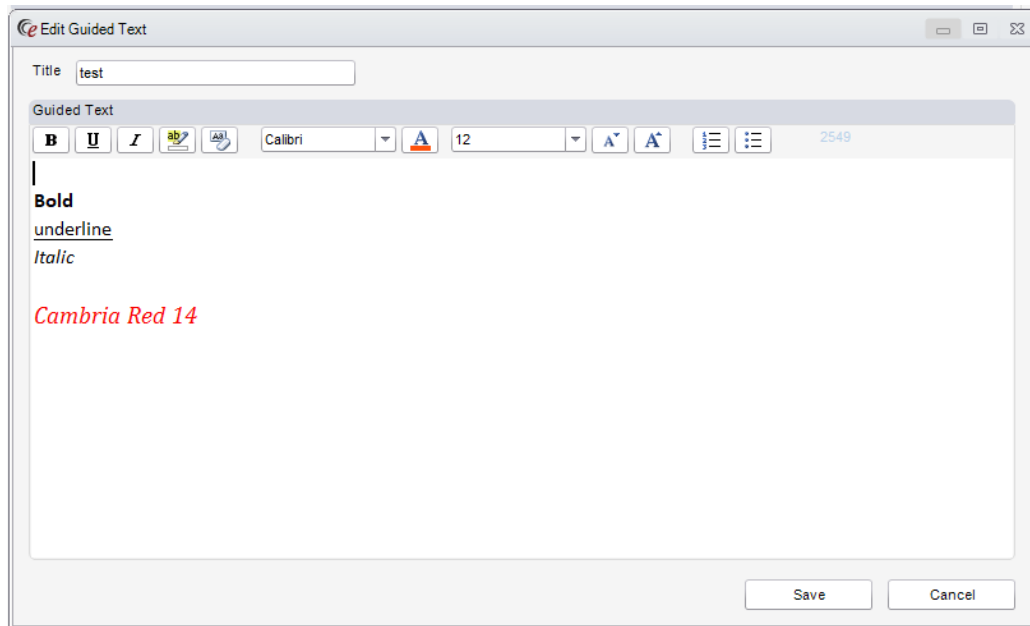
In an effort to assist the patient or referring office in selecting the correct procedure during online scheduling, sometimes it is beneficial to show some explanatory text to guide the user to selecting the correct choice in the procedure picker tree.

eRAD RIS now allows an administrator to configure this Guided Text via the Procedure Picker editor, based on the selected node in the tree.



The **Guided Text** tab, on the right side of the image above, has several sections. The **Prerequisite** section will define at which nodes the guided text will be displayed. The dropdown will define which guided text will be used, with a preview of that guided text in the box below. As shown in the example above, it is possible to use a variety of formatting options in the guided text.

The add/edit buttons   will allow the administrator to create new guided text or edit the currently selected text:



The guided text will only display for the active node. The boxed area in the image below shows an example of how guided text will appear in the procedure picker tree.

✓ Selection ✕

✓ Selection ✕

✓ Selection ✕

#### Guided Text Title

Guided text...consectetuer adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem vel eum iriure dolor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at veroqui nulla facilisi.

#### Header Text

+ Node

+ Node

+ Node

---

## FEATURE #17015,17016 – SCHEDULE PROCEDURE PLANS FROM THE PORTALS

Customers using Procedure Plans have requested the ability to use a Procedure Plan as the end result of the Procedure Picker tree for online scheduling in the Portals. This will simplify the scheduling process for the patient or referring, and will automatically link the exams for Linked Reporting, if the Procedure Plan is configured for this.

The Procedure Picker editor now supports the ability to assign a Procedure Plan as the final tree node. The administrator will check the box for “Include unassigned procedures” to display existing Procedure Plans to be mapped. The administrator can then select and map the Procedure Plan in the same fashion as a Procedure Code. As with Procedure Code mapping, right clicking the Procedure Plan will allow for the selection of an attribute.

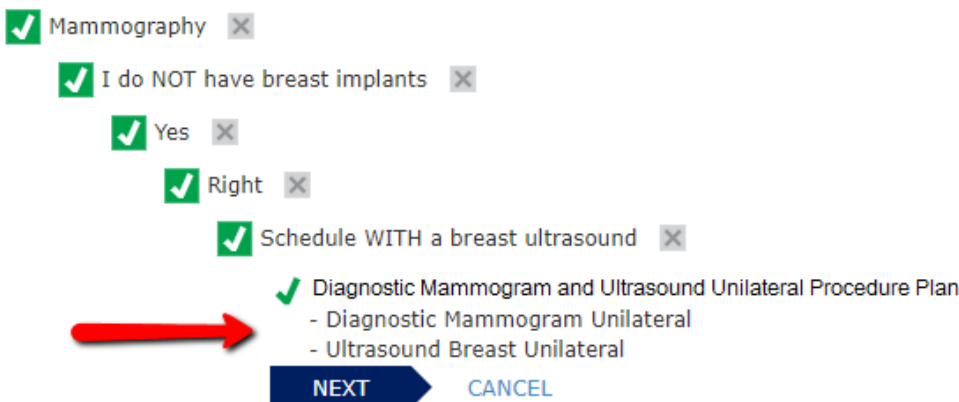
Displaying the Workflow View mode will show any section that is not fully mapped, just as with normal Procedure Codes.

When Procedure Plans are displayed in the Portals, the Procedure Plan description will be displayed, followed by the Portal Friendly Procedure Code description for each of the procedures included in the Procedure Plan.

### Select an exam

Review your prescription carefully and select the type of exam indicated.

**Note:** If this is a medical emergency, call 911. If this exam requires an immediate appointment, please contact us.



✓ Mammography ✕

    ✓ I do NOT have breast implants ✕

        ✓ Yes ✕

            ✓ Right ✕

                ✓ Schedule WITH a breast ultrasound ✕

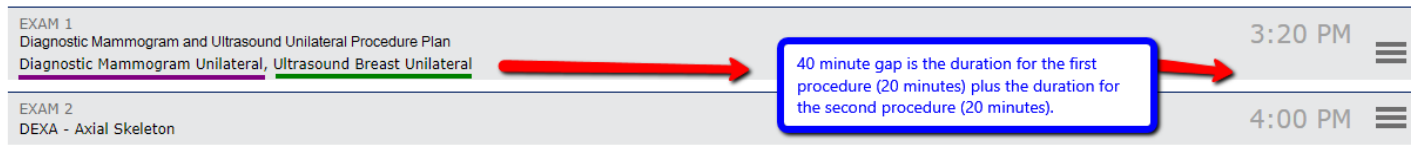
                    ✓ Diagnostic Mammogram and Ultrasound Unilateral Procedure Plan

                        - Diagnostic Mammogram Unilateral

                        - Ultrasound Breast Unilateral

                    NEXT CANCEL

From this point forward, the scheduling process will treat the Procedure Plan as if it were a single exam. When choosing a time slot, the portal will reflect the multiple procedures in the Procedure Plan as one exam, though in the RIS, the individual exams will be scheduled as usual. Inside the portal, procedures within a Procedure Plan will not display their individual start times.



In addition, if the user attempts to reschedule via the portal, all of the exams within the Procedure Plan must be rescheduled together. If any of the procedures have moved past a Scheduled status in the RIS, rescheduling via the portal will not be permitted and the user will be directed to place a phone call to reschedule.

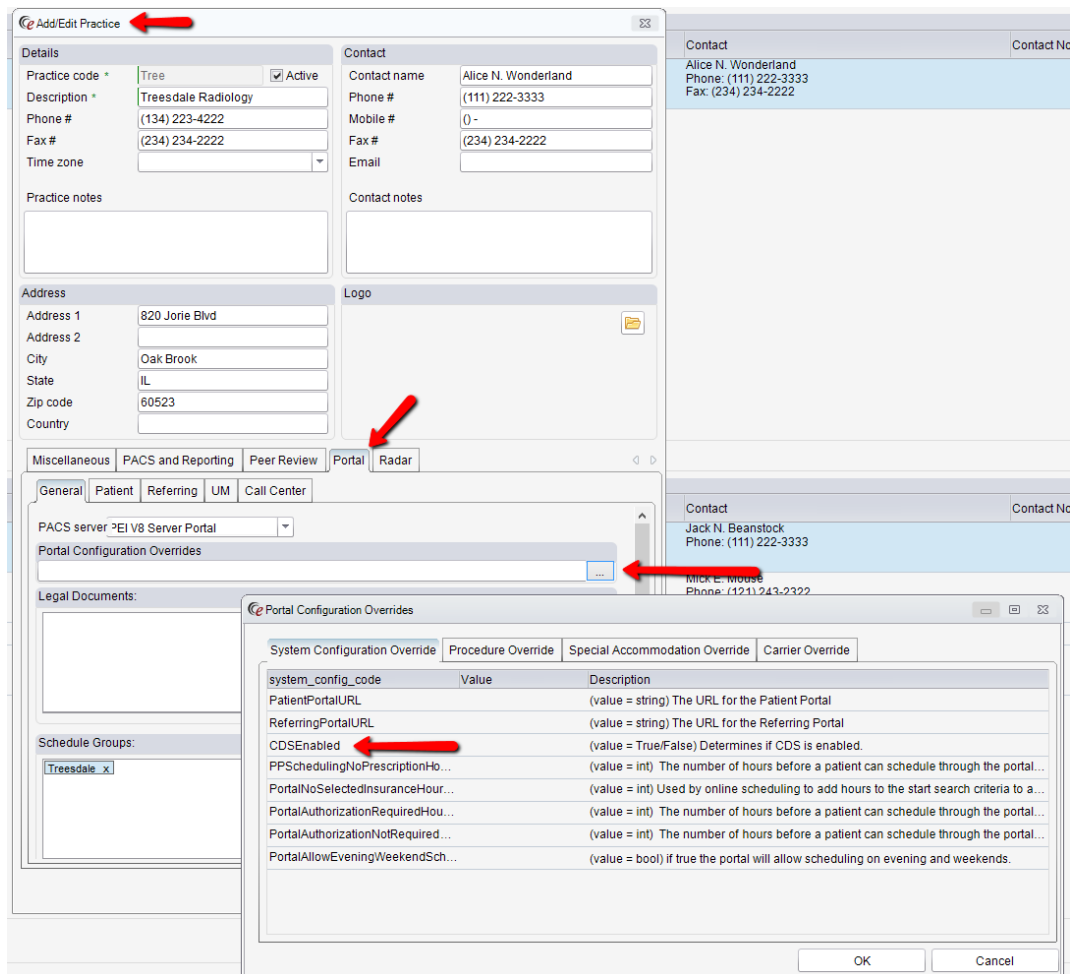
## FEATURE #17131 – UPDATED PORTAL SYSTEM CONFIGURATION SETTINGS TO ACCOMMODATE CLINICAL DECISION SUPPORT

As eRAD RIS moves forward with Clinical Decision Support for the portals, a few new System Configuration settings were added to allow for configuration of various CDS elements.

The following System Configuration settings have been added:

- **CDSEnabled**: Determines whether CDS will be enabled for the Provider Portal.
- **CareSelectURL**: URL that will determine the CareSelect environment to be used (Production or Test).
- **CareSelectToken**: Used to indicate how to access the CareSelect environment.

An override for **CDSEnabled** has also been added at the Practice level. This can be configured in the Add/Edit Practice window of the Organization table. On the Portal tab, open the Portal Configuration Overrides screen and find the **CDSEnabled** setting on the System Configuration Override tab.



The screenshot shows the 'Add/Edit Practice' window with the 'Portal' tab selected. The 'Portal Configuration Overrides' dialog is open, displaying the 'System Configuration Override' tab. The table below lists the configuration settings:

system_config_code	Value	Description
PatientPortalURL	(value = string)	The URL for the Patient Portal
ReferringPortalURL	(value = string)	The URL for the Referring Portal
CDSEnabled	(value = True/False)	Determines if CDS is enabled.
PPSchedulingNoPrescriptionHo...	(value = int)	The number of hours before a patient can schedule through the portal...
PortalNoSelectedInsuranceHour...	(value = int)	Used by online scheduling to add hours to the start search criteria to a...
PortalAuthorizationRequiredHou...	(value = int)	The number of hours before a patient can schedule through the portal...
PortalAuthorizationNotRequired...	(value = int)	The number of hours before a patient can schedule through the portal...
PortalAllowEvening/WeekendSch...	(value = bool)	if true the portal will allow scheduling on evening and weekends.

---

## FEATURE # 17053 – REORDER INSURANCE STEP IN THE CREATE ORDER WORKFLOW

To better support workflows that require insurance information, such as Clinical Decision Support, the insurance selection step in the online scheduling workflow has been reordered to appear before the selection of a Procedure. This will allow the Portals to trigger workflow variations that result from the selection of the insurance. The new screen order is reflected below:

---

PATIENT   INSURANCE   EXAM   PROVIDER   ATTACHMENTS   REVIEW   **SCHEDULE**   CONFIRM

---

Because the Insurance step now takes place prior to the procedure selection, Utilization Management review requirements can no longer be confirmed and presented on the Insurance screen. For this reason, a new UM Review step will be inserted into the workflow after the Exam questions. This step will only appear if the combination of Primary Insurance and Procedure trigger the UM requirement.

---

PATIENT   INSURANCE   EXAM   **UM REVIEW**   PROVIDER   ATTACHMENTS   REVIEW

---



## FEATURE #17126-17128, 17075-17076, 17134 - PRESENT CLINICAL DECISION SUPPORT MECHANISM IN DECISION TREE WHEN INSURANCE AND PROCEDURE REQUIRE CDS

For the beginning stages of Clinical Decision Support in the portals, online scheduling/ordering required a new step in the Procedure Picker tree when CDS is required.

In the Patient Portal, that step simply prevents the patient from continuing with the online scheduling process and directs them to contact the Scheduling Department via phone, with an explanation that their ordering provider is required to use Clinical Decision Support.

BACK

Select an exam

Review your prescription carefully and select the type of exam indicated.  
Note: If this is a medical emergency, call 911. If this exam requires an immediate appointment, please contact us.

☒ CT

×

☒ Calcium Scoring

×

☒ Arm

×

☒ Without

×

This Selection requires your ordering provider to use Clinical Decision Support. Please contact us.  
(647) 781-4675  
**Call Center Hours:**  
24/7 hours  
MRN: 2  
Please provide us with this ID so that we can quickly locate your appointment when you call.  

CLOSE

CANCEL

ADD ANOTHER EXAM

Ap

PAT

Sec

DOE

MRN

In the Provider Portal, the procedure picker tree will allow the provider to use the National Decision Support Company's CareSelect Clinical Decision Support mechanism to obtain CDS from within the Connect Provider Portal.

The provider will first be asked to select the appropriate Clinical Indications. Entering the reason for exam will filter the available clinical indications to show those that are relevant.

☒ CT ☐

☒ Chest / Abdomen / Pelvis ☐

☒ Abdomen ☐

☒ Without ☐

+ Yes

+ No

This selection requires you to use Clinical Decision Support.

Enter the reason for the exam

SELECT CLINICAL INDICATIONS

Can't find a match?

☐ Abd mass, palpable, non-pulsatile(R19.00 | R19.01 | R19.02 | R19.03 | R19.04)
☒ Abd mass, pulsatile, AAA suspected(R19.00)
☐ Abd pain, gastroenteritis or colitis suspected(K51 | K52 | A09 | R10.84 | R10.9 | R52)
☐ Abd swelling, ascites suspected(K71.51 | K70.11 | K70.31 | R18 | R18.8 |

APPROPRIATENESS RANKINGS FOR A 30 YEAR OLD MALE

Display Evidence

INDICATIONS: Abd mass, pulsatile, AAA suspected(R19.00) ☐

7	CT Abdomen W WO [CPT:74170]	REPLACE
9	US Abdomen Complete [CPT:76775]	REPLACE
9	US Abdomen Limited [CPT:76775]	REPLACE
9	US Aorta [CPT:76775]	CONFIRM

[REMOVE EXAM](#)

[ADD ANOTHER EXAM](#)

The portal will then display appropriateness rankings and scores for the selected procedure and alternative procedures.

APPROPRIATENESS RANKINGS FOR A 30 YEAR OLD MALE

Display Evidence

INDICATIONS: Abd mass, pulsatile, AAA suspected(R19.00) ☐

9	US Abdomen Complete [CPT:76775]	REPLACE
9	US Abdomen Limited [CPT:76775]	REPLACE
9	US Aorta [CPT:76775]	CONFIRM
9	US Gallbladder [CPT:76775]	REPLACE
9	US Liver [CPT:76775]	REPLACE

If the provider cannot find a matching clinical indication, they can click the [Can't find a match?](#) link. They will then be directed to call the scheduling department for assistance.

Clicking the [Display Evidence](#) link will provide a new tab with a PDF document from CareSelect, displaying additional information regarding their appropriateness scores and ranking.

ect™

[Provide Feedback](#)
[ACR](#)

Date of origin: 1995  
Last review date: 2012

**American College of Radiology  
ACR Appropriateness Criteria®**

**Clinical Condition:** Pulsatile Abdominal Mass, Suspected Abdominal Aortic Aneurysm

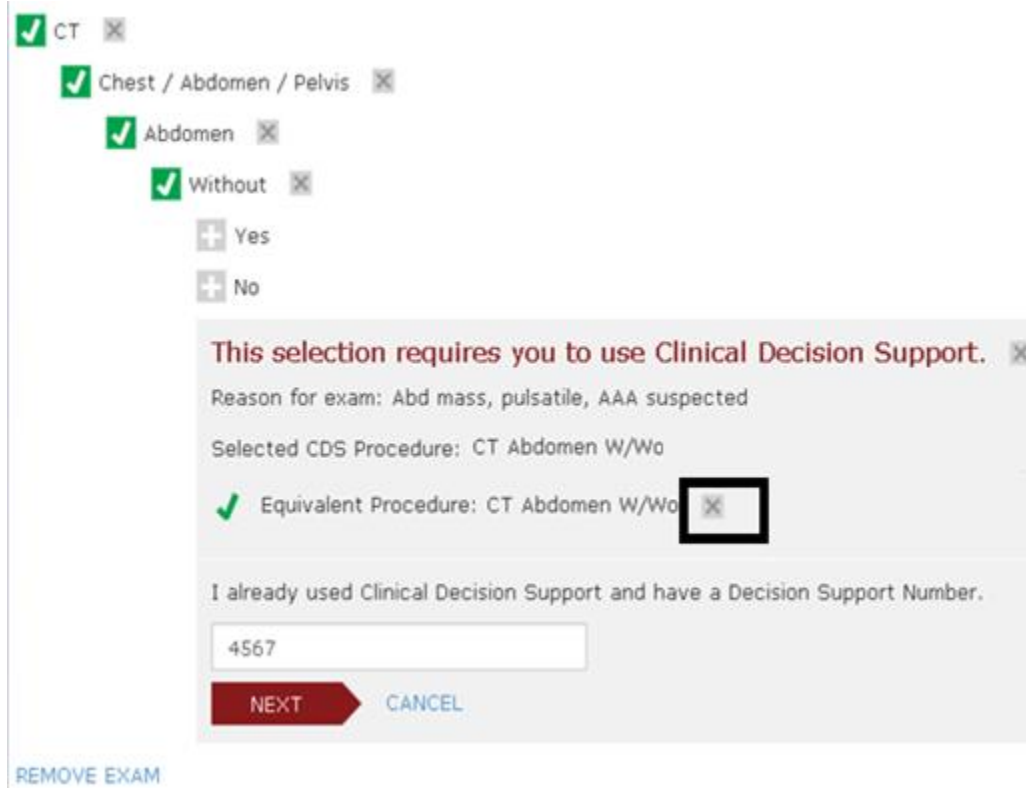
Radiologic Procedure	Rating	Comments	RRL*
US aorta abdomen	9	Initial examination. May be limited by body habitus or acoustic window.	O
CT abdomen without IV contrast	8	Preferred for symptomatic patients. Suitable for patients in whom US is not useful.	☼ ☼ ☼
CTA abdomen with IV contrast	7	Also enables preinterventional planning.	☼ ☼ ☼
MRA abdomen without IV contrast	6	Alternative to CTA. Unable to detect calcium. Site-specific expertise important.	O
MRA abdomen without and with IV contrast	6	Alternative to CTA. Unable to detect calcium. Site-specific expertise important.	O
Aortography abdomen	2	Essentially replaced by cross-sectional imaging for diagnostic purposes. May be used for preinterventional planning.	☼ ☼ ☼
FDG-PET/CT abdomen	2		☼ ☼ ☼ ☼

**Rating Scale:** 1,2,3 Usually not appropriate; 4,5,6 May be appropriate; 7,8,9 Usually appropriate

\*Relative Radiation Level

The provider can click the [Replace](#) button to choose an alternative exam, or click the [Confirm](#) button to continue with the exam that was chosen in the procedure picker tree.

The procedure tree will display the selected procedure and CDS information, as shown below.



The screenshot shows a procedure selection tree on the left with the following items checked: CT, Chest / Abdomen / Pelvis, Abdomen, and Without. Below these are expandable sections for 'Yes' and 'No'. A modal dialog box is open in the center with the following content:

- This selection requires you to use Clinical Decision Support.** (with a close button 'X')
- Reason for exam: Abd mass, pulsatile, AAA suspected
- Selected CDS Procedure: CT Abdomen W/Wo
- ☒ Equivalent Procedure: CT Abdomen W/Wo (with a close button 'X' highlighted by a black box)
- I already used Clinical Decision Support and have a Decision Support Number.
- A text input field containing the number 4567.
- Buttons: NEXT (red arrow) and CANCEL (blue text).

At the bottom left of the dialog, there is a link labeled 'REMOVE EXAM'.

The **Equivalent Procedure** will display the portal friendly description of the eRAD RIS Procedure Code that is mapped to the CareSelect option selected.

If the provider has already used a Clinical Decision Support mechanism and has a **Decision Support Number**, that can be entered.

If the provider has made a mistake and selected an incorrect option from the CareSelect window, the X next to the end of the Equivalent Procedure (emphasized with a black box in the above image) can be clicked to take the provider back to the procedure tree.

The **Decision Support Number**, manually entered or the number that is automatically generated when the provider uses CareSelect via the portal, will be saved in RIS, along with the appropriateness score for the selected procedure.

Clicking Next will take the provider to the **Exam Questions** step of the ordering workflow. The Reason for Exam question will automatically contain the clinical indication(s) selected during the CareSelect workflow. The provider can add additional information as well.

BACK

### Exam Questions

---

What is the reason for the exam?

Chest pain, acute coronary syndrome suspect

---

Does the patient require any special accommodations?

---

What is the patient's current weight (lbs)?

lbs

---

Does your patient have heart valve replacements?

---

Does your patient have cardiac stents?

---

Does your patient have aneurysm clips?

---

Does your patient have any surgical implants (e.g. IVC filter, neurostimulator, medication pump, screws, pins, rods, joint replacements, or tissue expanders)?

## DETERMINING WHETHER CDS IS REQUIRED

To indicate whether Clinical Decision Support is required based on the selected nodes in the procedure picker tree, a new setting is available in the Procedure Picker configuration table. A **CDS Enabled** option is available on the **Procedure Extended Property** tab, as shown below. There are 3 options for the setting's value:

- Blank – If the setting is left blank, other configuration will determine whether CDS is required based on Billing Code and Insurance Carrier, as defined in the CDS Rules table.
- Y – This setting will **require** CDS regardless of other configuration settings, such as the Billing Code and Insurance Carrier requirements defined in the CDS Rules table.
- N – This setting will **disable** CDS even if it is configured to be required based on the Billing Code and Insurance Carrier, as defined in the CDS Rules table.

### Workflow View

- Workflow
  - {question}
  - CT (Computerized Tomography)
    - Body
      - Abdomen Only
        - Without Contrast (sometimes called Dry)
        - With Contrast (sometimes called Wet)
          - 74160 - CT Abdomen W
        - With and Without Contrast (sometimes called Wet and Dry)
        - Not Sure of Contrast
      - Abdomen and Pelvis

Guided Text
Procedure Extended Property

### Extended Properties

Prerequisite

- ☐ CT (Computerized Tomography)
- ☐ Body
- ☐ Abdomen Only
- ☒ With Contrast (sometimes called Wet)

74160 - CT Abdomen W

**Misc**

CDS Enabled Y

**CDS Enabled**  
 Enable/Disable CDS based on the selected nodes (Y=CDS used regardless of setting...

The following features are specific to the [Patient](#) Portal.

#### FEATURE# 16680, 16685-16688 – SPECIFY A DATE RANGE WHEN VIEWING, DOWNLOADING, OR TRANSMITTING A C-CDA

The C-CDA tab in the Patient Portal now has the ability for the patient to choose a date range to be included on the C-CDA. The date range filter will only be available when viewing the most recent C-CDA in the portal.

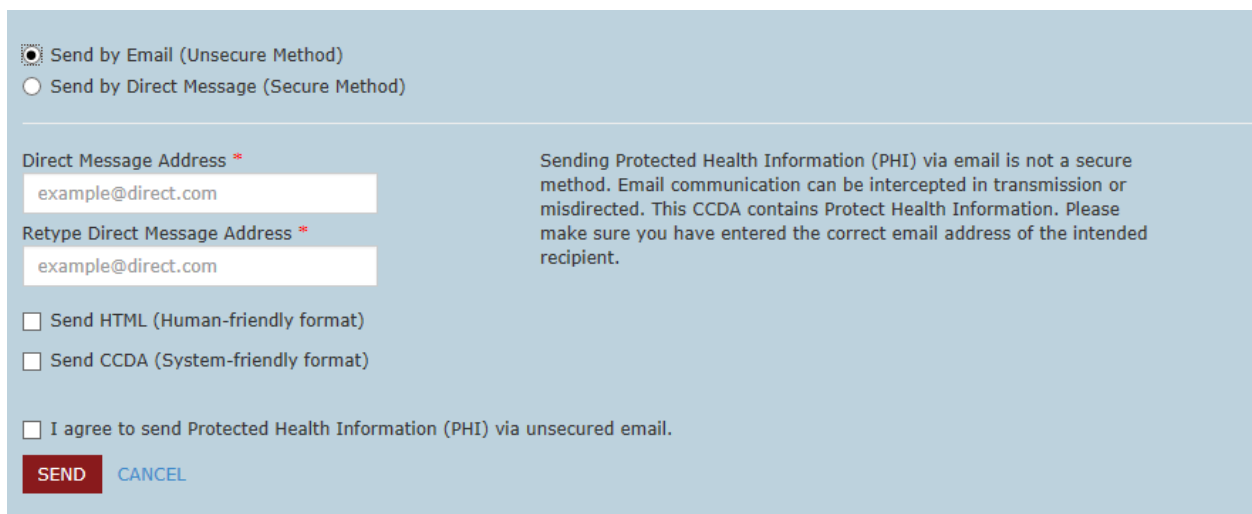


The screenshot shows the Patient Portal interface with the 'CCDA' tab selected. Below the tabs, there is a date range filter with 'From' and 'To' fields, each containing a date format 'mm-dd-yyyy' and a calendar icon. An 'UPDATE' button is located to the right of the 'To' field.

After entering a date range, clicking Update will refresh the displayed C-CDA document to display data for the specified date range.

After changing the filter for the displayed C-CDA, the patient can then Download or Transmit the C-CDA with the same date range.

The C-CDA can now be transmitted via email, in addition to Direct Message. By default, the Direct Message option will be used, but the patient has the ability to choose to send to an unsecure email address. To do so, the patient must check a box acknowledging that they choose to send their Protected Health Information via unsecured email.



The screenshot shows the C-CDA transmission options form. It has two radio buttons: 'Send by Email (Unsecure Method)' (selected) and 'Send by Direct Message (Secure Method)'. Below these are two text input fields for 'Direct Message Address' and 'Retype Direct Message Address', both containing 'example@direct.com'. To the right of these fields is a warning message: 'Sending Protected Health Information (PHI) via email is not a secure method. Email communication can be intercepted in transmission or misdirected. This CCDA contains Protect Health Information. Please make sure you have entered the correct email address of the intended recipient.' Below the input fields are two checkboxes: 'Send HTML (Human-friendly format)' and 'Send CCDA (System-friendly format)'. At the bottom, there is a checkbox labeled 'I agree to send Protected Health Information (PHI) via unsecured email.' and two buttons: 'SEND' and 'CANCEL'.

Sending the C-CDA will add an entry to the Activity Log, indicating the address to which it was sent.

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## FEATURE #16981 – CEHRT – WEB CONTENT ACCESSIBILITY GUIDELINES

Web content accessibility guidelines are developed through the W3C process in cooperation with individuals and organizations around the world, with a goal of providing a single shared standard for web content accessibility that meets the needs of individuals, organizations, and governments internationally.

The eRAD RIS Patient Portal is required to be compliant with the web accessibility guidelines (WCAG) 2.0 Level A. An evaluation tool was used to identify areas that required alteration and the appropriate changes were made.



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## FEATURE #17050 – CHECK FOR UM BASED ON SELECTED INSURANCE AND EXAM

When an exam requires Utilization Management (UM), the patient is now prevented from scheduling via the portal. Instead, they are directed to contact the appropriate call center.

Based on the selected insurance carrier and the selected exam, an evaluation will occur to determine whether Utilization Management is required. If so, when the patient clicks the Next button in the Insurance step, a message will appear, explaining that the exam requires a review for medical necessity. The configured scheduling contact information will be displayed and the patient will be prevented from making an appointment.

The patient does have the ability to change the insurance, which could result in the selection of an insurance carrier or payment method that does not require Utilization Management, which would remove the restriction and allow the patient to continue to schedule.

The following features are specific to the [Utilization Management](#) Portal.

#### FEATURE #16929 – ENHANCE USER MANAGEMENT IN THE UM CONNECT ADMIN TOOL, INCLUDING ABILITY TO ASSIGN A MEDICAL GROUP

Previously, UM Connect users had to be added/edited through the Personnel editor in RIS because the Admin Portal did not have the ability to map a user to one or more Medical Groups or assign a Contact Type. To make it possible to add UM Connect users via the Admin Portal, some new functionality has been added.

The User Details tab now has dropdowns to select one or more Medical Groups, as well as the user's Contact Type for that Medical Group.

Medical Group	<div>AY medical group</div> <div>SeaView IPA</div> <div>Summerside Group</div>	Contact Type	<div>QE Tester</div> <div>Administration</div> <div>Administration</div>	<a href="#">Remove</a> <a href="#">Remove</a> <a href="#">Remove</a>
	<a href="#">Add</a>			

A new column has been added to the Medical Group Contact Type look-up table: [UMP Visible Flag](#). If set to Y, the Contact Type will be available in the dropdown.

Lookup - MedicalGroupContactType X				
Medical Group	Contact Type Code	Description	Display Order	Ump Visible Flag
Contains:	Contains:	Contains:	Equals:	Contains:
* Billing	Billing	1	Y	11
Contract	Contract	1	Y	11
Physician	Physician	1	Y	11
Scheduler	Appointments	1	Y	11
▶ UM Reviewer	Reviewer	1	Y	11
Administration	Administration	1	N	11

If the user was already assigned a Contact type via the RIS, then that Contact type will still display even if the [UMP Visible Flag](#) is set to N.

One additional update has been made to the User Management screen. The [Practice](#) column has now been replaced with a [Medical Group](#) column, which is the relevant information for the UM Connect Portal.

Last Name	First Name	Role	Username	RIS ID	Medical Group	Status
EDIT	Noye	Darcy	darcyn	1125	AY medical group, SeaView IPA, Summerside Group	Active

## RESOLVED DEFECTS

## RIS

Bugs and support issues resolved in build 3.2017.6.

Bug #	Category	Subject
3642		Resolved a bug seen when using "skip and continue" workflow where the skip order may not behave as expected when moving between studies that are Exam Done status and studies that are Signed pending addendum.
17395		Created a new System Configuration setting, RadarDirectAPIURL, to define the API URL to use for Direct Messages.
17490		When an exam is removed from a saved order (black X), the removed exam no longer displays in the Cancellation Reason screen.
17857		When adding a new Attribute in Procedure Picker table, the Attribute window no longer closes after receiving an error message due to a blank field.
17946		Resolved an issue where a required field message for Outside Reads did not list the field that was missing data.
11265	Access strings	Some missing access strings were added for various Alerts and Flags.
17435	Access strings	Renamed access string "Clinical.ExportDICOMImage" to "Clinical.BurnCD."
17665	Access strings	Additional missing access strings have been added as a clean-up effort.
17345	Admin-Clinical Data	Resolved an issue that could cause the Issuer of ID to be hidden after making changes to the current selection.
16726	Admin-Other	Selecting a 'named' color in Portal Worklist configuration editor no longer throws error when selecting worklist tab row.
4299	Admin-Other	Administration - M*Modal Document Model - Error no longer occurs on right click preview of expanded rows.
17341	Admin-Other	Browser Config look-up editor now allows administrator to remove a value from URL and leave it blank.
17676	All Workflows	When a second PrintToRIS job is started while the first document is still open, the second request is no longer ignored.
16043	Appointment book	Inactive Modality Types are no longer showing in Appointment Book filter.
4781	Appointment book	The refresh button in the Appointment Book now displays newly added modality restrictions, closures, business hours alterations, etc.
17677	Appointment book	Appointment Book no longer allows user to move (drag) an

		appointment to an inactive room.
18113	Appointment book	No longer receive error after text is typed in a row on the Appointment Book and then the row is opened.
16616	Billing	Additional logging implemented to identify when Imagine and RIS become out of sync.
18065	CCDA	Resolved an issue related to an empty string for Gender when sending a C-CDA via Direct Message. No longer receiving error.
16790	CD Import	It is now possible to successfully import images from a CD without a DICOMDIR, with no additional action required from user.
18817	CD Import	Added missing DLLs to resolve a "JPEG Lossless" error that could occur under certain conditions.
1923	CEHRT	When printing a Clinical Summary, the Offered Clinical Summary checkbox is no longer automatically checked if the print job is cancelled.
7619	CEHRT	Direct Message data pane is now appropriately indicating unsaved changes exist when changes are made to the grids.
9253	CEHRT	Error no longer displayed when deleting a Lab Order when several exist.
15009	CEHRT	Made some style sheet changes to C-CDA to resolve errors found using Edge testing tool.
16750	CEHRT	Language look-up codes updated to match new 2015 Edition codes for CEHRT.
16788	CEHRT	SNOMED code column now available for Family Relation and Family History look-up tables.
17377	CEHRT	Updated C-CDA to only contain a single "Documentation of" section, resolving validation errors.
17423	CEHRT	Alert Configuration table can now be edited.
12363	CEHRT	Added System Configuration settings to hide CCR and C-CDA buttons for non-U.S. customers if desired. MUShowCCRButton MUShowCCDAButton
17218	CEHRT	Updated database installer to stop importing MU2 CMS codes.
17849	CEHRT	Resolved an issue which could prevent NewCrop from launching due to "Zip4" error.
12142	CEHRT	Resolved "invalid character" error with C-CDA preview.
17536	Citrix Bridge	Updated Citrix Bridge icon in Windows tray to match the new icon in Start menu.
17045	Clinical Tab	Resolved an issue which could prevent BMI from being displayed on Reschedule screen.
17276	Confirmation	Resolved an error which could occur when registering an appointment with one order and two exams when one exam is deleted then replaced.
17305	Digital Forms	Digital Form editor is again displaying grid lines on top of sections.
16427	Document Distribution	When editing multiple jobs on the Distribution WL, the "deliver to" field is no longer altered inappropriately.
16970	Document Distribution	Recipient and Address are now being set when retrying a

		distribution job for UM Opinion Letter, which could previously cause an error and prevent distribution.
17238	Drawing Tool	Breast diagram is now localized for Hebrew.
17408	eRAD Editor	Resolved an issue in the Template/Macro editor for eRAD Reporting mode where the "Waiting" cursor (blue circle) would not disappear properly after saving.
17955	Flags	Allergy Flag is no longer displayed on the worklists if the allergy has been set to inactive.
17713	HL7	When inbound orders from the Wedge did not contain a referring address, RIS was using the first address for the referring]g physician when creating the Verbal Order form. It is now using the first <b>active</b> address for the referring.
17297	ICD	ICD codes are now maintained when an order is rescheduled.
17282	Image request	It is now possible to add an Image Request prior to adding a Referring Physician. Previously, this was causing an object reference error.
17788	Image request	Resolved a Telerik.WinControls error that could occur when resetting the Image Request WL layout when filtering contained a conditionally formatted row.
17798	Image request	Image Request History management report will now include completed requests, as appropriate.
17224	Inbound Document	A progress bar has been added when RIS is extracting TIFF or PDF documents during Inbound Document workflow. This will reduce the appearance that RIS is freezing when a large, multi-page document is being extracted.
17623	Inbound Document	Resolved an issue that could cause the inbound documents to stay on the WL after the user associates them to an existing order.
17465	Inbound Document	Resolved a memory leak that could cause an Inbound Document page to show as blank in the document viewer after being classified.
17636	Inbound Document	Resolved an issue where configuring a ScanType with a Display Order of 0 could cause other documents to be stored at that ScanType's assigned level under certain conditions.
17118	Inbound Document	Inbound Document Service no longer interferes with Service shutdown.
17521	Inbound Document	When the Inbound Document WL receives a file type that is not supported, the user is now informed that the file type is invalid and cannot be displayed.
18156	Inbound Document	Corrupt or 0 byte PDF files on the Inbound Document WL would previously throw an error and could not easily be cleared from the worklist. Now these will display a blank page that can be discarded from the worklist.
17039	Interfaces	Made adjustment to a query used by RIS Wedge to be more efficient and avoid c_action_queue backups.
16724	IVT / Precert	Carrier editor's PreCert Rules context menu item will now include rules based on Carrier Type when the PreCert Rules editor is

		opened.
16412	Localization	Added Hebrew localization on the technologist copy/paste dialog.
17142	Localization	Added Hebrew localization for some stray items in User Preferences.
14795	Localization	Replaced "\" with single quotes where applicable in localization files.
13340	Localization	Added Hebrew localization for 3 PACS user messages.
17648	Lookup Tables	Resolved an issue that could cause an "index out of range" error when filtering look-up tables with the letter "u."
17758	Lookup Tables	Modality look-up table is now showing the Site Code with the site description in parenthesis.
18021	Lookup Tables	Resolved "Missing operand after 'scode' operator" error which could occur when interacting with an order containing a Procedure Code with a single quote (').
13044	Mammography	Resolved an issue where a Mammo Tracking Reminder was not removed when an Addendum changed the Recommendation to one that should not issue a Reminder.
16703	Mammography	Resolved an issue with Printer configuration rules not being properly enforced for some mammo letters on Distribution WL.
2534	Mammography	When using Mammo Follow-up worklists, resolved an issue where order level data changes on the Follow-up tab are not carried forward when the Schedule button is clicked before saving the changes.
14645	Mammography	Resolved an issue related to registering a Mammo Tracking Reminder.
18060	Mammography	Adjusted a stored procedure to update Mammo Reminder categories to make it more efficient and avoid hanging.
17941	Meaningful Use	Offered Clinical Summary checkbox is no longer incorrectly checked when form printed for another open study.
16990	Messaging	In order to appropriately forward external notification emails to configured portal administrator user groups, a "from" RIS user must be created and the user key added to the System Config setting: GenericIncomingMessagePersonKey.
16017	Mgt Reports	ReportDeploymentLog now differentiates reports using an alternate report server with an asterisk.
17432	Mgt Reports	Scheduler Activity management report was updated to improve efficiency. No longer causes excessive physical IO.
15166	Mgt Reports	Scheduled vs Performed management report was updated to improve efficiency. A new stored procedure is used to capture the procedure code that was scheduled at the time the technologist begins the exam, so that it can be compared to the procedure code that is ultimately chosen by the technologist.
17487	MRN	Duplicate Issuer/MRN in grid will appropriately display error when scheduling/creating order.
18041	PACS (eRAD) Int - RIS only	After viewing images from View/Edit window, images are now closing properly when the View/Edit window is closed

17541	PACS (eRAD) Integration	Cache time is now appropriately using the server time instead of UTC time.
17553	PACS (eRAD) Integration	Caching now appropriately starts at the top of the WL after using Skip and Continue and then closing/reopening WL.
19291	PACS (eRAD) Integration	Resolved an issue which would previously cause a "get_ViewSessionIDs" error.
15694	PACS (Non - eRAD) Integration	All internet explorer browsers opened via the Sectra PACS integration are appropriately closed when user closes RIS.
16879	PACS (Non - eRAD) Integration	Resolved "IsCitrixBridgeAlive" error that occurred when canceling UV PACS credential screen.
16998	PACS (Non - eRAD) Integration	Resolved a "cross-thread" error that could occur when opening a study in dictation screen.
13610	PACS (Non - eRAD) Integration	URL is now displayed on PACS log-in dialog. This was previously missing for non-eRAD PACS.
14766	PACS (Non - eRAD) Integration	Enable/Disable PACS options are no longer disabled when the PACS Viewer is not found to be running at the time of launch. Improved crash recovery when there are issues with RIS/PACS communication.
17241	Patient Management	Patient Merge now appropriately handles multiple MRN issuers.
16488	Patient Search	Context menu in Patient Search now lists New Appointment and New Walk-in for both internal and external results.
17671	Patient Search	Date of birth is no longer assuming a birth year of 20xx when searching for birth dates prior to 1930.
17277	Peer Review	Resolved a "Get node by index" error that could occur if the Portal datapane was visible during Next workflow.
17526	Person Management	Adding Alternate ID is now possible for Personnel with an NPI.
15198	Powerscribe Integration	AutoFeed option will properly reappear on in the status bar when switching reporting modes from a non-PowerScribe mode back to PS360.
18610	Powerscribe Integration	After disabling PowerScribe, PowerScribe will not automatically be re-enabled after one exam and will remain disabled until the user chooses to enable it.
15138	Problem Workflow	Resolved error that could occur when resolving a Problem if the System Config for LockDurationInMinutes was set to 0.
15337	RADAR	Resolved an issue that could show email as a RADAR Quick Message option for patients without an email address.
17922	RADAR Nudge	Resolved an error which could occur when using WPR workflow when user is RADAR enabled.
9423	Radiology Reporting	Resolved an issue where the QA Flag would not be removed when verifying reports if the Assign To panel was closed or hidden.
10746	Radiology Reporting	Resolved an issue where next workflow could skip Addendum Requested studies under certain conditions.
16250	Radiology Reporting	Resolved an issue where long dictations that fail to save could be deleted and the radiologist was not able to attempt to re-save.
16319	Radiology Reporting	Breast Drawing is now loaded on CTRM screen.
16320	Radiology Reporting	Breast Drawing is now loaded on Peer Review screen.



16344	Radiology Reporting	Implanted devices are now loaded on Utilization Management screen.
16418	Radiology Reporting	Using Skip and Continue after opening an Addendum from the View Study screen now appropriately opens the next study in the View Study screen, instead of starting an addendum.
16471	Radiology Reporting	Visit goal, condition and patient immunization are now loaded on Confirmation screen.
17019	Radiology Reporting	Editor is no longer double prompted when audio is not available.
17068	Radiology Reporting	Resolved an issue that could cause an error when checking "Show all versions" in Report History.
17220	Radiology Reporting	Resolved an issue where the Dictate screen could fail to load if choosing to dictate an addendum from the View Study screen, if the user had clicked Skip and Continue on the previous study.
17010	Radiology Reporting	Resolved an issue reloading the dictation control after an error occurs during save.
17440	Radiology Reporting	Editor is no longer receiving a null reference error caused by PatientHistoryControl.ResizeLastColumn.
17486	Radiology Reporting	CC physician is no longer listed on "Copy To" in diagnostic report if the CC physician has chosen to Disable Report Delivery.
17562	Radiology Reporting	All panels are now enabled when using Emergency Access in reporting screen.
17660	Radiology Reporting	No longer receive object reference error when submitting a report on accession when Dictate screen is also open.
17738	Radiology Reporting	When a technologist has added additional studies from the Perform Exam screen, the radiologist can now appropriately load the studies using Next workflow.
18034	Radiology Reporting	No longer receive an object reference error when clicking Microphone Calibration button after disabling speech mike.
18036	Radiology Reporting	Notification for Pending Signature is appropriately displaying when configured count is met.
16588	Reception	For linked studies, the Overbook reason for one study should automatically populate to all other linked studies.
17441	Registration	Resolved a lang file issue that caused an "Input string was not in a correct format" error during registration in Hebrew environments.
16494	Scanning	Resolved an issue that could cause the "Attached By" field in Attachments screen to change to a question mark after being viewed by another user.
17290	Scanning	Resolved an issue that could prevent scanned documents from saving if the Attachment Viewer is open when the user clicks a save button such as Checking In.
17294	Scanning	ScannerEventlog.txt is now saved to folder c:\users\ <username>\Appdata\Roaming\rTwain\ on the Citrix server.</username>
17301	Scanning	Resolved an issue that could prevent attachment levels from updating when categorizing scanned documents with quick keys in a non-English environment.



17737	Scanning	When using PrintToRIS tool on a multi-page PDF, all pages are now appropriately included.
15632	Scheduling	Height and Smoking Status are appropriately populated when scheduling from the ACR Category 0 Follow-up WL.
17062	Scheduling	Age label is appropriately displayed during Rescheduling.
17110	Scheduling	Resolved an error that could occur if scheduling 3 or more orders where Order A and C are both Procedure Plans and Order B is not.
17191	Scheduling	Resolved an issue that could cause an object reference error when adding an Unknown Referring.
17414	Scheduling	Disabled the ability to click the Schedule button multiple times while Print Forms dialog is loading, which could cause an error or multiple appointments to be created.
16944	Scheduling	When rescheduling an order, the Preferred Location now lists the Practice and Site from the previously scheduled study.
17292	Scheduling	Existing Order prompt now appropriately displays when using the "Schedule From" option.
17581	Scheduling	Resolved issue which could prevent rescheduling a cancelled order due to an "ExpirationMonthYear" error related to Insurance plan expiry date.
16617	Technologist	Resolved an issue that could prevent a provider's Preferred Radiologist from being assigned if the provider had a resource type of Surgeon or Marketing Representative.
16628	Technologist	Automatic including and copy/pasting of exams for linked collections now only occurs within the same modality type.
17184	Technologist	Appropriately enforcing laterality requirement when changing procedure after Started status.
16850	Technologist	Appropriately populating Body Part when adding a new procedure from Perform Exam screen.
16595	Technologist	Resolved a Validation Rule issue that could prevent UI Action type rules from firing on Perform Exam screen.
17802	Technologist	Now possible to select different room when adding an exam from the Perform Exam screen.
16321	Thick Client GUI	Patient's race is now populating appropriately on Finding Follow-up and Mammo Follow-up screens.
16322	Thick Client GUI	Family History is now populating appropriately on UM, Finding Follow-Up, and Mammo Follow-Up screens.
16326	Thick Client GUI	When patient's address is updated from Medical Record access, it is now updating appropriately to other screens.
16327	Thick Client GUI	Image requests created on the Schedule screen are loaded when viewing the Image Requests tab in Registration.
16553	Thick Client GUI	Prior patient notes are loading in the Edit Image Request screen.
16859	Thick Client GUI	RIS locking is disabled in Single Sign On mode.
4647	Thick Client GUI	After upgrade, Location Filter (Organization Picker) will maintain the last selection that was made by the user on the current workstation.
17628	Thick Client GUI	Implantable device rows are no longer temporarily hidden when

		adding a new appointment.
18594	Thick Client GUI	Stale cache no longer causes delay in enforcing changes to User Groups.
17338	UI Look and feel	Added language localization for Add Unknown Referring in scheduling workflow.
17701	UI Look and feel	If a user enters invalid UTF16 characters into the Height or Weight fields, RIS will clear the invalid characters from the field. This change is made in response to an issue where RIS could crash after foreign language characters sporadically appear in those fields. Additional logging will take place if invalid UTF16 characters are detected in these fields.
15843	UI Look and feel	Date format in the Log Control will now match the System Configuration setting for date format.
17578	UI Look and feel	The audit functionality for configuration tables has been renamed: Audit Changes.
18112	UI Look and feel	Resolved an issue where font sizes could be so large that RIS would appear to be blank when in a region where decimals are written with commas instead of periods.
17437	User Preferences	Appropriate error is now displayed to the user if User Preference changes fail to save.
17027	Utilization Management	Updated terminology for ACR Select to reflect the new name: CareSelect.
17145	Utilization Management	Utilization Management "Internal Notes" are now visible on the UM tab for schedulers.
17146	Utilization Management	When recommending an additional procedure in Utilization Management, the authorization status is no longer read-only.
17600	Utilization Management	No longer receive object reference error when opening Clinical tab's additional info button from Utilization Review screen.
16729	Utilization Management	Minor changes were made to the UM Alert configuration screen (Medical Group table).
17428	Utilization Management	Search button is no longer enabled after switching options in "Search Options" section, if scheduling is prevented due to UM requirement.
17604	Utilization Management	Utilization Management Owners are now listed alphabetically in the dropdown.
17651	Utilization Management	When scheduling, if a procedure is removed via red or black X, the UM Required flag remains (as appropriate).
18057	Utilization Management	When modifying a UM order from the schedule screen, the Authorization Grid on the UM Tab is refreshing properly, resolving an issue with temporarily hidden procedure rows and an incorrect UM Clock.
17318	Validation Rules	Removed the "Please note:" prefix that was added to Validation Rule warnings.
11560	Walk-In	An object reference error no longer occurs when un-splitting orders (e.g. Order B back to Order A) during registration.
17800	Walk-In	Resolved a re-binding issue that could (rarely) cause a problem by

		attempting to issue a System MRN for a patient who already has one.
17028	Worklists	Data is now populating correctly to columns in Signed By Date WL that were previously empty.

## PATIENT PORTAL

Bugs and support issues resolved in build 3.2017.6.

Bug #	Category	Subject
17687		Text color changed to black for Get Help Request replies for better visualization.
16835	Pat Admin - User Mssgs	The letter Y is no longer displayed next to the User Message recipient's checkbox.
17049	Patient Appointments Page	Patients are now prevented from scheduling exams that are under utilization review.
17024	Patient Exam Detail Page	Exam Details Panel is now displaying the correct contact information.
17816	Patient Exam Detail Page	Resolved an issue that could cause an error when downloading C-CDA.
16289	Patient Logon	Changed language during workflow where provider invites patient to schedule, so that it is clear that an I-code is a verification code.
17144	Patient WF: Create Account	When most recent exam is "CDIImport," patient account creation will ignore and use the provider for the next most recent exam for verification purposes.
15638	Patient WF: Make Appointment	Resolved an error which could occur if the patient entered a Work Comp claim number of more than 20 characters.
19298	Patient WF: Make Appointment	Resolved Object Reference error that could occur during online scheduling for patients with no prior appointments.
17824		Patient verification question updated to appropriately ask for location of most recent exam, instead of next exam.
18159	Patient Portal	Resolved an issue which could cause a daily error notification to be emailed to portal administrators.

## PROVIDER PORTAL

Bugs and support issues resolved in build 3.2017.6.

Bug #	Category	Subject
16794	Prov Admin - System Messages	System Messages are now appropriately displayed according to the highest priority.
16893	Prov Admin - User Management	"Last Signed" timestamp now correctly displaying for End User License Agreement.
16895	Prov Admin - User Management	During account creation, when a PACS account is created, the account populates on the Referring Portal Admin Account screen.
16903	Prov Admin - User Management	Unable to create an account with a duplicate user name.
17041	Prov Admin - User Management	Provider Portal user's account settings for Authorized to Order search are no longer case sensitive.
17042	Prov Admin - User Management	Resolved save issue when creating Proxy users.
17291	Prov Admin - User Management	Column Filters for Search results in Admin Provider Portal and Patient Portal are now sorting appropriately.
17336	Prov Admin - User Management	
16791	Prov Admin - User Messages	When selecting the Sent tab in the Admin Portal, it now changes to the appropriate screen and changes back after clicking 'Inbox'.
16939	Prov Admin - User Mgmt: Edit	Close button now works properly on the RIS ID look-up window in Admin Portal.
16892	Provider Account Page	No longer receive validation warning when editing tabs if changes have already been discarded.
17556	Provider Account Page	When users change their default landing page, the correct default will now load.
17485	Provider General Display	Reports are now displayed properly in Internet Explorer (no longer opening in a small window).
17809	Provider Home Screen	Quick Launch image icon and Get Help link for report are no longer producing internal server errors.
16897	Provider Logon	No longer receive error in Legal helper when refreshing page after application pool restart.
17161	Provider Logon	External Get Help form appropriately requires reCaptcha again when users select "Send Another."
16817	Provider Search	Ordered exams are now displayed as "To Be Scheduled."
16890	Provider Search	It is now possible to search by UM Tracking number without specifying a last name.
17005	Provider WF Create Order	When a Proxy user submits an order for approval and the referring adds a UM required insurance, the UM flag is triggered and the portal will not allow scheduling. In RIS, the study has the UM required flag and appears on the UM WL.
17836	Provider WF Create	Order notes are now always displayed to the provider for Pending

	Order	Order workflow.
18700		Electronic Order form is now appropriately created when appointments are made in the Provider Portal.
18690	Provider Portal	Resolved an error that could occur during password reset workflow.

## UTILIZATION MANAGEMENT PORTAL

Bugs and support issues resolved in build 3.2017.6.

Bug #	Category	Subject
16712		Page title updated to remove provider specific language.
16709	Accounts Page	Removed password reset controls from Accounts page to be consistent with other portals.
18053	Accounts Page	Resolved an issue where the "Make Default tab checkbox could become unchecked during save.
17259	Admin Portal	System Message type "New" now displays in the correct color.
18051	Admin Portal	Resolved an issue where the requirement for the email address was not enforced in the Admin Portal when editing users.
18052	Admin Portal	Close button now functions properly when closing messages from User Messages grid in Admin Portal.
17462	Exam Detail Page	When scanned documents are archived to a location that RIS/the Portals cannot access, a user friendly message will inform the user that the documents are not available and, in the case of the UM portal, a Get Help link will be provided.
16298	Get Help Page (Outside & Inside)	Help Page and Messages page have been renamed to be consistent with other portals.
16035	Orders Page	Custom tab options now appropriately support filters that include multiple UM Statuses.

## KNOWN LIMITATIONS

The following are new bugs found in build 3.2017.6. Bugs reported in previous versions are not captured as Known Limitations in this document.

### eRAD RIS

#	Subject
18699	PACS integration – Occasional duplication of message box such as “Study not loaded in PACS”.
19007	Multiple time zones are not properly supported when searching for appointments.
19008	Multiple time zones are not properly supported when timestamping the notes style log controls. It uses the workstation local time.
19071	Patient search window - Patient Folder (Preview Mode) is not loading/displaying when the date format uses MMM (fully spelled out month).
19081	Visual ‘loop’ when adding a CC physician and clicking a tab quickly. The same CC physician is added repeatedly.
18087	When configured to copy “Same as Patient” in the Patient Relation look-up table, it is possible that information for a patient’s relative might not be updated visually in the RIS. Updates are saved in the database, but the patient’s information can still be displayed when viewing the RIS, despite the data being updated. Workaround: in the Patient Relation look-up, set the problematic field (e.g. last name) to N under the Same as Patient column. This will turn off the default (same as patient) information and allow the updated information to display.
18090	Title bar colors are not saving in Practice editor screen.
18206	Performing Radiologist column in the Radiologist worklists is not localized in Hebrew.
18289	Infinitt PACS - When studies are opened from 2 Patient Folders, the second set does not close correctly.
18417	Image Request History management report can mis-report statistics if requesting and performing sites are different.
18448	Adding a Recommendation to the Findings table and not entering a 'display order' will cause an error.
18507	When a Rad attempts to open a study in the View Study window that was recently completed by a tech, an Object Reference error is produced.
18530	Clicking on “Workflow” in the Procedure Picker can cause an Object Reference error.
18624	Non-eRAD PACS integration - multi-selecting, then clicking View Images doesn't change the context menu item to Remove Images. Also on Infinitt PACS, only the first image is opened.
18713	Critical Results window – The Finding Follow-up window is in View menu but does not open if study is in exam done status.
18721	On a manually created Document Distribution job, the delivery method and details may not update if referring is changed.
18806	Cannot delete a newly added person from the Personnel management window.
18877	PACS Integration - When appending studies, if the study cannot be loaded, no message is produced. It should behave the same as on the initial load and tell the user what studies are not loaded.
18947	Register window – Removing, then re-adding a procedure without selecting a room, then opening



	the attachment window will cause an Object Reference error.
18951	Scheduling a procedure plan that contains an inactive procedure will cause an Object Reference error.
18960	The Last Updated and Last Updated By User Id columns are not being updated when importing Digital Forms from the context menu import tool.
18961	Performing a walk-in on a new patient without a DOB will throw a DBNull Exception error when selecting the room.
19020	Patient quick search doesn't work with date format of dd/MMM/yyyy (alpha month abbreviation).
19052	MIM PACS - PACS window does not close when RIS is closed.
19055	MIM PACS - If you have several studies open in dictation window and you quickly close them, not all of the images are closed.
19058	Workflow can be stopped by using the Unknown Referring workflow, making the referring known and not setting any active addresses. The RIS will be unable to proceed with this study.
19096	When rescheduling an order from the Labwork Advised WL, the height and weight values are removed.
19133	IW PACS – From the mini-patient history only, after attempting to open more than one prior (which is not supported by IW), you cannot simply close and re-open another prior.
19149	Issuer column in MRN grid is not pre-populated with values if the New Patient feature is used.
19180	In the reschedule window, if the user selects a new medication but does not enter a start and stop date / status, an error is thrown.
19241	Relative date and time filters do not take into account date time offset.
19242	Validation rules do not fire on new patient (UI_PatientCreated)
19292	Validation of externalactionschema.xsd is missing name_prefix_code and name_suffix_code data
19303	eRAD PACS V8 - caching does not appear to be working, the 'User2' and 'User8' fields in PACS WL are not populating
19324	eRAD PACS v7.2 - when the 'config options' field is totally empty and 'studies to cache' is set to 0 , getting prompted for PACS credentials when you open the pending dictation WL
19111	Document distribution email jobs can stay in 'InProgress' status even though they did complete successfully.
18569	Creating a new Patient Alert in admin tools occasionally causes an error.
18647	Identify Patient throws an error if scan ID type is set to study level instead of patient level.
18943	Deleting the weight value in the registration window can throw an error.
19331	PACS V8 - Using the Remove Images option in mini Patient Folder will prompt to break lock.
17678	Polling for transcription jobs after purging job table soft-locks RIS.
18144	In Hebrew, when adding an Unknown Referring RIS throws an error.

#### Patient Portal

Bug #	Subject
18174	Patient Portal indicates a date format error, even though a valid format of "yyyy-MM-dd" is configured.

## Provider Portal

Bug #	Subject
18724	Message to referring is worded in a patient-centric format. Needs to be updated.
19061	Creating folders using Firefox as a browser can cause errors.
19065	From the Admin Portal, attempting to view a user message produces an error instead.

## UM Portal

Bug #	Subject
19038	When adding a new user and selecting 'Add medical group' then immediately saving without selecting a group, other changes are not saved.
19341	When logging into the UM Admin Portal as a user without proper access strings, the error message indicates that the user name or password are incorrect, when in fact the user does not have proper permissions.

## RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2016.4	-	2.16.4.0	2.16.4.0	2.16.4.0	2.16.4.0.00301943	2.16.4.0	2.16.4.0.310284			Full Version Release
2016.4	1	2.16.4.1	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	2.16.4.0.310284			GUI and Web Service updates
2016.4	2	2.16.4.2 (3GB)	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	2.16.4.2.460241			GUI and Patient Portal updates
2016.4	3	2.16.4.3 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	2.16.4.3.489120			GUI and Patient Portal updates
2016.4	4	2.16.4.4 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	2.16.4.3.489120			GUI
2016.4	5	2.16.4.5 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0				GUI
2016.4	6	2.16.4.6 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0				GUI
2016.5	-	2.16.5.0 (3GB)	2.16.5.0	2.16.5.0	2.16.5.0.00349303	2.16.5.0	2.16.5.0.362009			Full Version Release
2016.6	-	2.16.6.0 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	2.16.6.0.432471			Full Version Release
2016.6	1	2.16.6.1 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	2.16.6.1.468583			GUI and Patient Portal updated
2016.7	-	2.16.7.0 (3GB)	2.16.7.0	2.16.7.0	2.16.7.0.00490835	2.16.7.0	2.16.7.0.493031	2.16.7.0.493008		Full version release
2016.7	1	2.16.7.1 (3GB)	2.16.7.0	2.16.7.1	2.16.7.0.00490835	2.16.7.0	2.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	2	2.16.7.2 (3GB)	2.16.7.0	2.16.7.2	2.16.7.0.00490835	2.16.7.0	2.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	3	2.16.7.3 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	2.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	4	2.16.7.4 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	2.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	5	2.16.7.5 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	2.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	6	2.16.7.6 (3GB)	2.16.7.0	2.16.7.6	2.16.7.0.00490835	2.16.7.0	2.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	7	2.16.7.7 (3GB)	2.16.7.0	2.16.7.7	2.16.7.0.00490835	2.16.7.0	2.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	8	2.16.7.8 (3GB)	2.16.7.0	2.16.7.7	2.16.7.8.00683507	2.16.7.0	2.16.7.0.493031	2.16.7.0.493008		GUI and DB updates
2016.7	9	2.16.7.9 (3GB)	2.16.7.0	2.16.7.9	2.16.7.9.00715012	2.16.7.0	2.16.7.0.493031	2.16.7.9.723457		GUI, Web Services, DB updates and UM Portal
2016.7	10	2.16.7.10 (3GB)	2.16.7.0	2.16.7.10	2.16.7.9.00715012	2.16.7.0	2.16.7.0.493031	2.16.7.9.723457		GUI and Web Service updates
2016.7	11	2.16.7.11 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	2.16.7.0.493031	2.16.7.9.723457		GUI, Web Service and DB updates
2016.7	12	2.16.7.12 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	2.16.7.0.493031	2.16.7.9.723457		GUI
2016.7	13	2.16.7.13 (3GB)	2.16.7.0	2.16.7.13	2.16.7.13.00823274	2.16.7.0	2.16.7.13.805715	2.16.7.13.805717		GUI, Web Service, DB, Patient and UM Portal updates
2016.7	14	2.16.7.14 (3GB)	2.16.7.0	2.16.7.14	2.16.7.14.00888220	2.16.7.0	2.16.7.14.897644	2.16.7.14.897646		GUI, Web Service, DB, Patient and UM Portal updates
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		Full Version Release
2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI, Web Service, DB and Patient Portal updates
2017.1	5	2.17.1.4 (3GB)	2.17.1.0	2.17.1.5	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		Web Service
2017.1	6	2.17.1.6 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and DB Updates
2017.1	7	2.17.1.7 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	8	2.17.1.8 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	9	2.17.1.9 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	10	2.17.1.10 (3GB)	2.17.1.0	2.17.1.10	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and Web Service update
2017.2	-	2.17.2.0 (3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0	2.17.2.0.702238	2.17.2.0.702213	2.17.2.0.702226	Full Version Release. First release of Provider Portal
2017.3	-	2.17.3.0 (3GB)	2.17.3.0	2.17.3.0	2.17.3.0.00764112	2.17.3.0	2.17.3.0.321	2.17.3.0.321	2.17.3.0.321	Full Version Release. Including Patient, Provider and UM Portals
2017.3	1	2.17.3.1 (3GB)	2.17.3.0	2.17.3.1	2.17.3.1.00846328	2.17.3.1	2.17.3.1.853299	2.17.3.1.853301	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2	2.17.3.2 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2.1	2.17.3.2.1 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI Only
2017.3	3	2.17.3.3 (3GB)	2.17.3.0	2.17.3.3	2.17.3.3.00954008	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	4	2.17.3.4 (3GB)	2.17.3.0	2.17.3.4	2.17.3.4.00987562	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service and DB
2017.3	5	2.17.3.5 (3GB)	2.17.3.0	2.17.3.5	2.17.3.5.01023250	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB, Patient Portal, Referring Portal, UM Portal
2017.6	-	3.17.6.0 (3GB)	3.17.6.0	3.17.6.0	3.17.6.0.01037550	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	Full Version Release. Including Patient, Provider and UM Portals

\* = 2016.x patches released in 2017 calendar year

# **Server Update**

For eRAD RIS

Version 3.0

Build 3.2017.6

Update 3.2017.6.1

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## PACKAGE CONTENTS

 _ReleaseNotes	2/2/2018 5:48 PM
 DB	2/1/2018 3:46 PM
 rRISService	2/1/2018 3:46 PM
 ThickClient	2/1/2018 3:46 PM

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.6 installs. This server update must be applied to 2017.6.

## RESOLVED ITEMS

## eRAD RIS

Redmine #	Subject
19617	Validation rule with a UI_PatientCreated intended UI action will now appropriately fire from the New Patient screen.
19665	Changed the Issuer dropdown content in the MRN grid back to Issuer Description (instead of Issuer ID Code).
19709	Utilization Review - Opinion Letter is no longer prompting to save changes when no changes are made. No longer receive Foreign Key Constraint error on save.
19556	Resolved error in Exam Search that occurred after closing a different worklist that had context menu open.
19783	Order, Schedule and Patient Notes appropriately appear on separate lines when populated via interface.

The following items, developed for future or previous RIS versions. These items have been added to this patch release to allow for upgrade to the 2017.6.X version

Redmine #	Subject	Original Resolved Version
19588	Resolved error thrown on various worklists related to the caching toggle button.	2.2017.3.7
19520	Resolved an issue which could cause incorrect studies to cache when switching worklist views.	2.2017.3.6
19521	No longer submit a call to prefetch PACS studies when closing the Pending Dictation WL, which could cause a delay in closing the	2.2017.3.6

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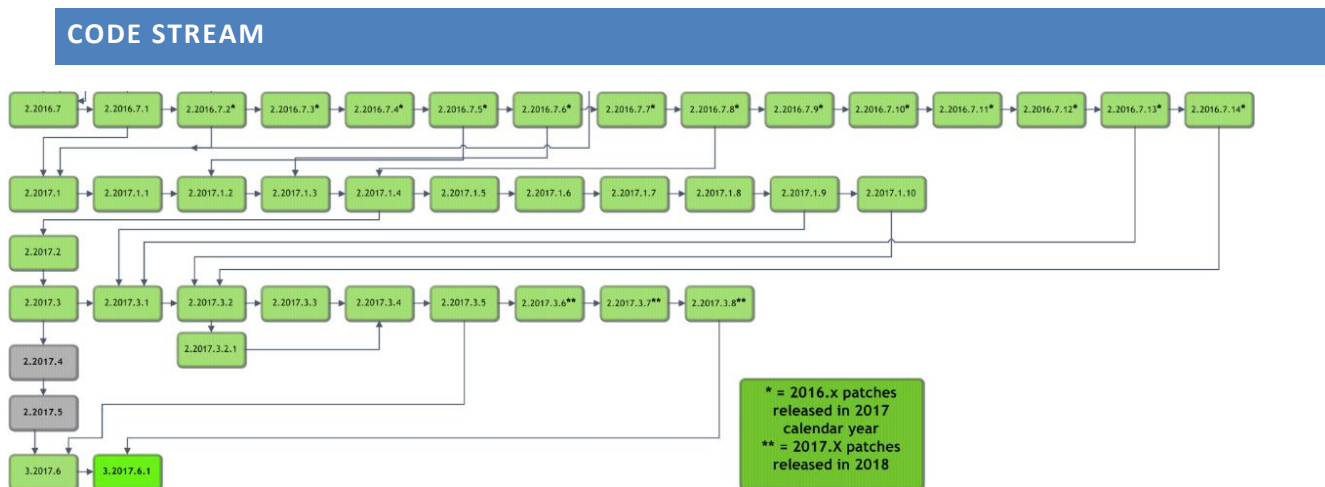
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	worklist.	
19512	Made a change to avoid a “server not responding” timeout error for users with a high number of studies set to cache.	2.2017.3.6
19513	Additional index created to reduce deadlock risk when updating worklist flags.	2.2017.3.6
19519	No longer receive errors when saving EMR patients without an MRN issuer in the look-up table.	2.2017.3.6
19523	Made a change to the way worklist flags are updated to decrease risk of deadlock errors.	2.2017.3.6
19720	Resolved an issue in which adding multiple CC Physicians could result in additional physicians being associated with the first CC physician’s report delivery address.	2.2017.3.8
19721	Resolved an issue that could cause the same CC Physician to be added multiple times in a loop under certain conditions.	2.2017.3.8
19722	Error no longer occurs when opening the Print Forms screen for procedures without a Body Part selected.	2.2017.3.8
19724	Changed the way in which Imagine payments are saved, reducing the risk of failing to save a record of the payment in RIS, which could result in staff inappropriately collecting a duplicate payment. If there is an issue that prevents a payment record from saving, the RIS user will receive a warning message containing the Imagine Reference # and will be instructed to contact an administrator.	2.2017.3.8
19726	Changed the method of searching the RIS database by UM Tracking Number, in order to prevent time out errors.	2.2017.3.8
19727	Resolved an issue that could cause validation rules to behave improperly when the rule and conditions for the rule referred to	2.2017.3.8

	information stored in different datasets.	
19514	Ensemble plugin is now able to handle self-referencing tables in outbound schema.	2.2017.3.6
19516	Changed index and release lock logic to resolve deadlock issues on c_locked_item.	2.2017.3.6
19517	Corrected an issue with External Verify workflow so that these exams fall to the correct worklist according to System Configuration setting.	2.2017.3.6
19518	Resolved an issue that could occur when a certain set of actions was performed during scheduling that could cause the save/close/schedule actions to become unresponsive for that tab.	2.2017.3.6
19522	Resolved an Imagine payment voiding issue that could occur when a study has moved to a new Practice between the time of collecting the payment and voiding it. The void will now always be issued with the same Imagine Data Set ID that was used when the payment was collected.	2.2017.3.6
19587	Added UM Status Code to filter criteria for Portal Tab configuration.	2.2017.3.7
19723	Procedure code General Description is now located in the correct place in messages sent from the Wedge.	2.2017.3.8
19725	Resolved an issue that caused the Save and Close buttons to disappear from the Add Mammo Biopsy screen when more than 4 rows of pathology codes were entered in the Pathology Codes field.	2.2017.3.8
19728	Reduced frequency of an Eligible API call (getCarrierDSByCode), which was previously called excessively and could impact system performance.	2.2017.3.8

**Legend:**

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

## ERAD RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2016.7	-	2.16.7.0 (3GB)	2.16.7.0	2.16.7.0	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		Full version release
2016.7	1	2.16.7.1 (3GB)	2.16.7.0	2.16.7.1	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	2	2.16.7.2 (3GB)	2.16.7.0	2.16.7.2	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	3	2.16.7.3 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	4	2.16.7.4 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	5	2.16.7.5 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	6	2.16.7.6 (3GB)	2.16.7.0	2.16.7.6	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	7	2.16.7.7 (3GB)	2.16.7.0	2.16.7.7	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	8	2.16.7.8 (3GB)	2.16.7.0	2.16.7.7	2.16.7.8.00683507	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and DB updates
2016.7	9	2.16.7.9 (3GB)	2.16.7.0	2.16.7.9	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Services, DB updates and UM Portal
2016.7	10	2.16.7.10 (3GB)	2.16.7.0	2.16.7.10	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI and Web Service updates
2016.7	11	2.16.7.11 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Service and DB updates
2016.7	12	2.16.7.12 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI
2016.7	13	2.16.7.13 (3GB)	2.16.7.0	2.16.7.13	2.16.7.13.00823274	2.16.7.0	2.16.7.13.805715	2.16.7.13.805717		GUI, Web Service, DB, Patient and UM Portal updates
2016.7	14	2.16.7.14 (3GB)	2.16.7.0	2.16.7.14	2.16.7.14.00888220	2.16.7.0	2.16.7.14.897644	2.16.7.14.897646		GUI, Web Service, DB, Patient and UM Portal updates
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		Full Version Release
2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI, Web Service, DB and Patient Portal updates
2017.1	5	2.17.1.4 (3GB)	2.17.1.0	2.17.1.5	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		Web Service
2017.1	6	2.17.1.6 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and DB Updates
2017.1	7	2.17.1.7 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	8	2.17.1.8 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	9	2.17.1.9 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	10	2.17.1.10 (3GB)	2.17.1.0	2.17.1.10	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and Web Service update
2017.2	-	2.17.2.0 (3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0	2.17.2.0.702238	2.17.2.0.702213	2.17.2.0.702226	Full Version Release. First release of Provider Portal
2017.3	-	2.17.3.0 (3GB)	2.17.3.0	2.17.3.0	2.17.3.0.00764112	2.17.3.0	2.17.3.0.321	2.17.3.0.321	2.17.3.0.321	Full Version Release. Including Patient, Provider and UM Portals
2017.3	1	2.17.3.1 (3GB)	2.17.3.0	2.17.3.1	2.17.3.1.00846328	2.17.3.1	2.17.3.1.853299	2.17.3.1.853301	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2	2.17.3.2 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2.1	2.17.3.2.1 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI Only
2017.3	3	2.17.3.3 (3GB)	2.17.3.0	2.17.3.3	2.17.3.3.00954008	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	4	2.17.3.4 (3GB)	2.17.3.0	2.17.3.4	2.17.3.4.00987562	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service and DB
2017.3	5	2.17.3.5 (3GB)	2.17.3.0	2.17.3.5	2.17.3.5.01023250	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB, Patient Portal, Referring Portal, UM Portal
2017.3	6	2.17.3.6 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB,
2017.3	7	2.17.3.7 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI
2017.3	7	2.17.3.8 (3GB)	2.17.3.0	2.17.3.8	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI and Web Service
2017.6	-	3.17.6.0 (3GB)	3.17.6.0	3.17.6.0	3.17.6.0.01037550	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	Full Version Release. Including Patient, Provider and UM Portals
2017.6	1	3.17.6.1 (3GB)	3.17.6.0	3.17.6.1	3.17.6.1.01094077	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	GUI, Web Service and DB updates

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## INSTALLING

### CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD\_rRIS\_2017.6.1.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

### WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

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 141 files in the rRISService folder and 7 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). Folders are (Arabic), en\_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt\_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc...

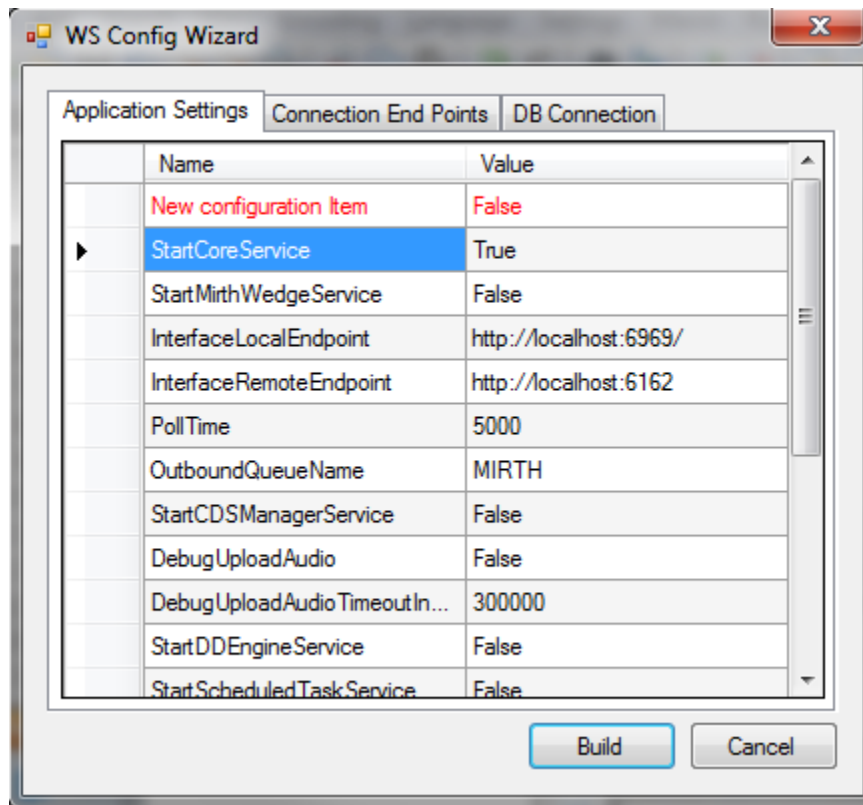
#### Services Configuration Wizard

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, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

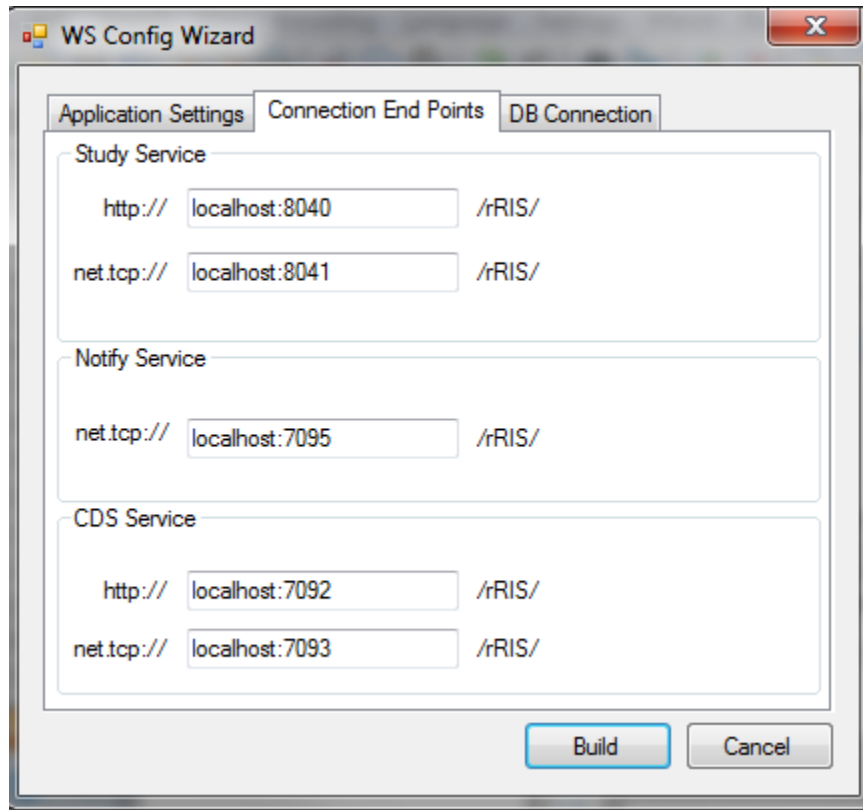
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application “ServicesConfigWizard.exe”

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.



**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.



---

## DATABASE UPDATES

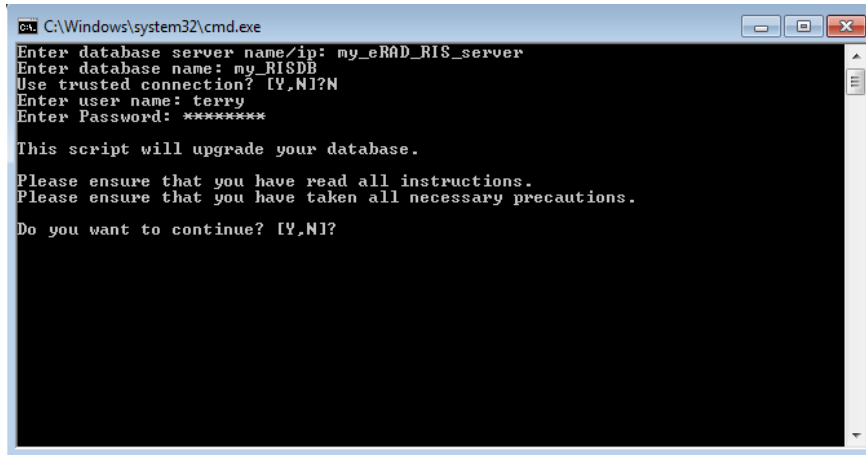
Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*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: 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]?
```

- 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



# **Server Update**

For eRAD RIS

Version 3.0











Build 3.2017.6

Update 3.2017.6.2

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 DB	03/01/2018 11:40 AM
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 UM_Portal	03/01/2018 11:40 AM

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.6 installs. This server update must be applied to 2017.6.1

## NEW FEATURES

## FEATURE #19746 – AUTO-CALCULATE AUSTRALIAN STEM CHECKSUM ON EDIT ADDRESS SCREEN

In Australia, each referring provider has a Stem + Location code for each address from which they practice. A checksum is calculated from this code to allow a RIS administrator to verify that the code is accurate. To support this need, the Location Character field on the Edit Address screen in the Personnel editor has been replaced with a more robust *Stem* field, which contains an area for the stem, followed by an area to enter the Location code.

The screenshot shows the 'Edit Address' screen in the Personnel editor. The 'Stem' field is highlighted with a red arrow. The 'Stem' field is split into three parts: '998877', 'A', and 'H'. The 'Location Character' field has been replaced by the 'Stem' field.

If an NPI number is entered for the referring physician, the NPI will be prepopulated to the Stem field, though this can be changed if needed. Once the user enters the location character, RIS will automatically calculate the checksum and display it in the third field, as shown above. The checksum cannot be edited.

The logic for the checksum is documented here: <http://www.clearwater.com.au/code/provider>

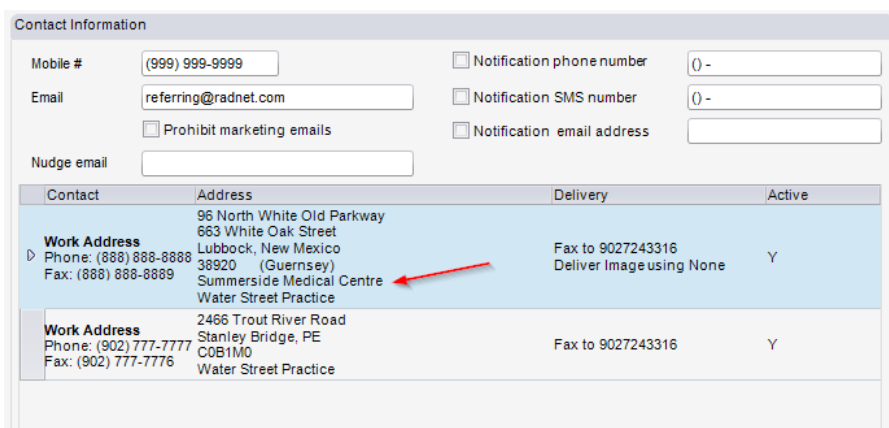
Because this workflow is probably not applicable for customers outside of Australia, there is an access string to control whether these fields are visible for the user. This is a pre-existing custom visibility access string, named *Custom.Visibility.Data.Personnel.I\_person\_address.location\_character*.

---

**FEATURE #19745 – REFERRING PRACTICE NAME(S) ARE NOW VISIBLE IN ADDRESS LIST ON THE PERSONNEL SCREEN**

The Personnel editor has a General tab that displays a list of addresses that are associated to a referring physician. Each address can be associated with one or more Referring Practices. In markets where Referring Practices are the primary means of distinguishing between offices, it is particularly helpful to include this information on the summary grid.

Referring Practices are now listed at the bottom of the Address cell for each row in the Personnel editor's addresses grid.



The screenshot shows the 'Contact Information' section of the Personnel editor. It includes fields for Mobile #, Email, and Nudge email, along with checkboxes for 'Prohibit marketing emails' and 'Notification' options. Below this is a table with columns: Contact, Address, Delivery, and Active. The first row is highlighted in blue and contains the following information:

Contact	Address	Delivery	Active
<b>Work Address</b> Phone: (888) 888-8888 Fax: (888) 888-8889	96 North White Old Parkway 683 White Oak Street Lubbock, New Mexico 38920 (Guernsey) Summerside Medical Centre Water Street Practice	Fax to 9027243316 Deliver Image using None	Y
<b>Work Address</b> Phone: (902) 777-7777 Fax: (902) 777-7776	2466 Trout River Road Stanley Bridge, PE C0B1M0 Water Street Practice	Fax to 9027243316	Y

A red arrow points to the 'Summerside Medical Centre' entry in the first row's address field.

## FEATURE #19994 / 18698 – ABILITY TO CONFIGURE WHETHER PLAN LEVEL DEDUCTIBLE WILL BE USED IN AMOUNT TO COLLECT CALCULATION

This feature was originally introduced in version 2017.3.10, as Feature #18698, and it is now added to the 2017.6 code stream.

When using automated Eligibility workflow, problems can sometimes arise due to differences in how payers return plan information related to the patient's financial responsibility. These differences often require administrators to use the [Eligibility Limit Payment](#) table to configure exceptions to accommodate for these differences. The Eligibility Limit Payment table has been enhanced to allow for configuration related to variation in how deductible amounts are returned.

Many payers will return deductible amounts in the general plan section of the coverage, Plan Maximums and Deductibles; then if there are specific deductible conditions for X-ray/MRI, these will be specified in the service type section. If the service type section does not contain a more specific deductible, the plan deductible applies.

However, there are other payers who are an exception to this rule. For these payers, the deductible does not apply if it is not specifically listed in the service type section. For these payers, eRAD RIS should ignore the Plan-level deductible.

A new column, [Use Plan Deductible Flag](#), has been added to the Eligibility Limit Payment table.

Eligibility Payer Id	Carrier Code	Use Plan Deductible Flag	Bi
Contains:	Contains:	Contains:	Cc
Click here to add a new row			
eRAD_Demo		N	

This setting is configurable by Payer ID or by Carrier Code. When Use Plan Deductible is set to Y (for Yes), the Plan-level deductible will be used for the Amount to Collect calculation, if no specific service type deductible is specified. For any payers that are exceptions to this standard approach, the column's value can be set to N (for No). With this configuration, if the payer does not list the deductible in the service type section, no deductible will be applied when calculating the payment.

The Amount to Collect – Details screen will list \$0.00 for the Remaining Deductible. As with other Eligibility Limit Payment settings, a notation will indicate that the information in the return was adjusted.

CPT	Units	Usual & Custom...	Actual Rate	Total
3120F - 12-LEAD ECG PERFORME...	1			
4165F - 3-DIMENSIONAL CONFOR...	1			
4559F - 1BODY TEMP MEAS>=35.5...	1			
54328 - 1 STAGE DSTL HYPOSPADI...	1			
70482 - CT ORBIT SELLA/POST FO...	100	430.17	430.17	43017.00

Estimated visit cost:  ☐ Override

Co-pay \*\*\*:  Co-pay portion:

Remaining Deductible \*\*\*:  Deductible portion:

Co-insurance \*\*\*:  Co-insurance portion:

Amount to collect:

\*\*\* An adjustment was made based on the modality and carrier.

OK Cancel

## RESOLVED ITEMS

## eRAD RIS

Redmine #	Subject
19877	When a patient has multiple exams and a scenario where the patient financial responsibility is different for the two exams (such as CT vs XR), the Amount to Collect will now display accurately when View/Edit is opened after the exam is performed, regardless of which study is opened. Previously, the amount could change depending on which study was used for the View/Edit (the less expensive modality would display a smaller Amount to Collect, for example).
18569	Resolved an object reference error that could occur when adding a Patient Alert with a custom worklist Icon.
19892	When checking for existing MRNs for Issuers with Mod10PrePad Identity Validation Type, the leading zeros will be added prior to the check, ensuring that a duplicate MRN cannot be created.
19845	Changed the color of the checkmark when acknowledging a Critical Result in dark theme to improve visibility.
19804	Resolved an object reference error that occurred when saving or deleting custom views in the Appointment Book.
19946	For patients with a suffix or prefix in their name, the legacy outbound container previously contained the Description only. The Suffix and Prefix <b>codes</b> are now also included, as some downstream applications require the code to match with their own data.
19885	Resolved an issue that caused a "Billing codes are required" warning when registering studies that were scheduled from an existing cancelled study, if a validation rule was configured to require Billing Codes. Billing Codes are no longer being deactivated at the time of cancellation/rescheduling.
19879	Adjusted the layout of the Organization screen to ensure that action buttons are always visible.
19838	Improved the performance of several queries that could cause deadlock errors during data



	migration due to unnecessary table scans when using SQL Server 2014 or newer.
19798	Users will no longer see a temporary duplication of external EMR MRNs when scheduling a Walk In from the Existing Order prompt.
19797	Users will no longer see a duplicate external Issuer in the MRN grid when RIS prompts to choose a system MRN for unmatched EMR orders.

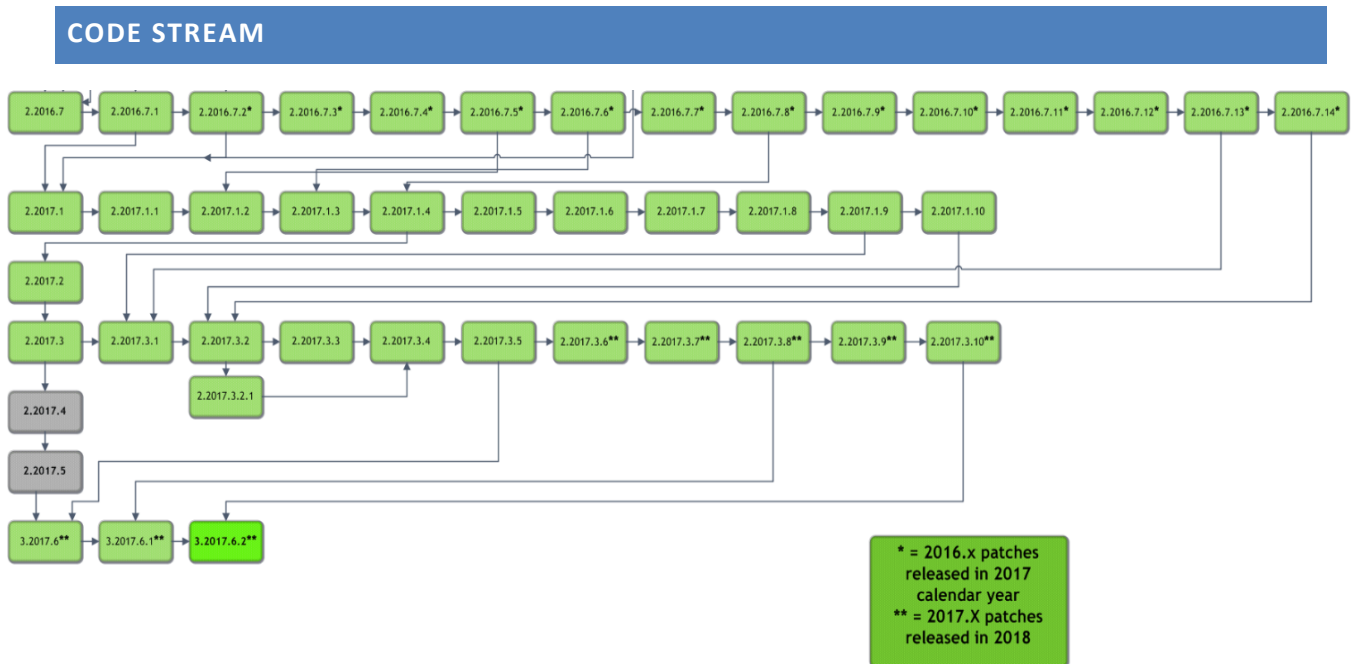
## Provider Portal

Redmine #	Subject
19861	Report Download button in Provider Portal is now correctly downloading the report.

The following items were developed for future or previous RIS versions. These items have been added to this patch release to allow for upgrade to the 2017.6.X version

Redmine #	Subject	Original Resolved Version
19924	All Carrier codes are once again expanded in outbound messages, which resolves issues experienced with PowerScribe and Billing.	2.2017.3.9
19988	When a patient has multiple exams and a scenario where the patient financial responsibility is different for the two exams (such as CT vs XR), the Amount to Collect will now display accurately when View/Edit is opened after the exam is performed, regardless of which study is opened. Previously, the amount could change depending on which study was used for the View/Edit (the less expensive modality would display a smaller Amount to Collect, for	2.2017.3.10

	example).	
19990	It is now possible to add new alternate MRNs for a patient who has multiple MRNs from the same Issuer. Previously, this caused an error and prevented new MRNs from being added.	2.2017.3.10
19866	'Schedule From' is now correctly selecting the insurance used in the source order.	3.2018.1
19846	Open worklists are immediately updated with a save action in the reporting screens, even if the patient was not previously on the open worklist. This resolves an issue where a patient who was not previously present on an open worklist would not appear until the next refresh interval.	3.2018.2
19992	When a partial worklist refresh occurs to update a specific patient's information after a save, RIS is no longer requesting an unnecessary count of the items on the worklist, which reduces the number of database calls.	2.2017.3.10
19986	Resolved an issue that caused a "Billing codes are required" warning when registering studies that were scheduled from an existing cancelled study, if a validation rule was configured to require Billing Codes. Billing Codes are no longer being deactivated at the time of cancellation/rescheduling.	2.2017.3.10
19831	Updated ExternalActionContainer schema to reflect changes to the Procedure General Description nodes.	3.2018.1

**Legend:**

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

## ERAD RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2016.7	-	2.16.7.0 (3GB)	2.16.7.0	2.16.7.0	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		Full version release
2016.7	1	2.16.7.1 (3GB)	2.16.7.0	2.16.7.1	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	2	2.16.7.2 (3GB)	2.16.7.0	2.16.7.2	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	3	2.16.7.3 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	4	2.16.7.4 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	5	2.16.7.5 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	6	2.16.7.6 (3GB)	2.16.7.0	2.16.7.6	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	7	2.16.7.7 (3GB)	2.16.7.0	2.16.7.7	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	8	2.16.7.8 (3GB)	2.16.7.0	2.16.7.7	2.16.7.8.00683507	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and DB updates
2016.7	9	2.16.7.9 (3GB)	2.16.7.0	2.16.7.9	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Services, DB updates and UM Portal
2016.7	10	2.16.7.10 (3GB)	2.16.7.0	2.16.7.10	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI and Web Service updates
2016.7	11	2.16.7.11 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Service and DB updates
2016.7	12	2.16.7.12 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI
2016.7	13	2.16.7.13 (3GB)	2.16.7.0	2.16.7.13	2.16.7.13.00823274	2.16.7.0	2.16.7.13.805715	2.16.7.13.805717		GUI, Web Service, DB, Patient and UM Portal updates
2016.7	14	2.16.7.14 (3GB)	2.16.7.0	2.16.7.14	2.16.7.14.00888220	2.16.7.0	2.16.7.14.897644	2.16.7.14.897646		GUI, Web Service, DB, Patient and UM Portal updates
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		Full Version Release
2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI, Web Service, DB and Patient Portal updates
2017.1	5	2.17.1.4 (3GB)	2.17.1.0	2.17.1.5	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		Web Service
2017.1	6	2.17.1.6 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and DB Updates
2017.1	7	2.17.1.7 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	8	2.17.1.8 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	9	2.17.1.9 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	10	2.17.1.10 (3GB)	2.17.1.0	2.17.1.10	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and Web Service update
2017.2	-	2.17.2.0 (3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0	2.17.2.0.702238	2.17.2.0.702213	2.17.2.0.702226	Full Version Release. First release of Provider Portal
2017.3	-	2.17.3.0 (3GB)	2.17.3.0	2.17.3.0	2.17.3.0.00764112	2.17.3.0	2.17.3.0.321	2.17.3.0.321		Full Version Release. Including Patient, Provider and UM Portals
2017.3	1	2.17.3.1 (3GB)	2.17.3.0	2.17.3.1	2.17.3.1.00846328	2.17.3.1	2.17.3.1.853299	2.17.3.1.853301	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2	2.17.3.2 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2.1	2.17.3.2.1 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI Only
2017.3	3	2.17.3.3 (3GB)	2.17.3.0	2.17.3.3	2.17.3.3.00954008	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	4	2.17.3.4 (3GB)	2.17.3.0	2.17.3.4	2.17.3.4.00987562	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service and DB
2017.3	5	2.17.3.5 (3GB)	2.17.3.0	2.17.3.5	2.17.3.5.01023250	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB, Patient Portal, Referring Portal, UM Portal
2017.3	6	2.17.3.6 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB,
2017.3	7	2.17.3.7 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI
2017.3	8	2.17.3.8 (3GB)	2.17.3.0	2.17.3.8	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI and Web Service
2017.3	9	2.17.3.8 (3GB)	2.17.3.0	2.17.3.9	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	Web Service
2017.3	10	2.17.3.10 (3GB)	2.17.3.0	2.17.3.10	2.17.3.10.01125764	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service and DB updates
2017.6	-	3.17.6.0 (3GB)	3.17.6.0	3.17.6.0	3.17.6.0.01037550	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	Full Version Release. Including Patient, Provider and UM Portals
2017.6	1	3.17.6.1 (3GB)	3.17.6.0	3.17.6.1	3.17.6.1.01094077	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	GUI, Web Service and DB updates
2017.6	2	3.17.6.2 (3GB)	3.17.6.0	3.17.6.2	3.17.6.2.01130171	3.17.6.2	3.17.6.2.1138297	3.17.6.2.1138298	3.17.6.2.1138298	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms

## INSTALLING

### CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD\_rRIS\_2017.6.2.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

### WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

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 141 files in the rRISService folder and 7 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). Folders are (Arabic), en\_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt\_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc...

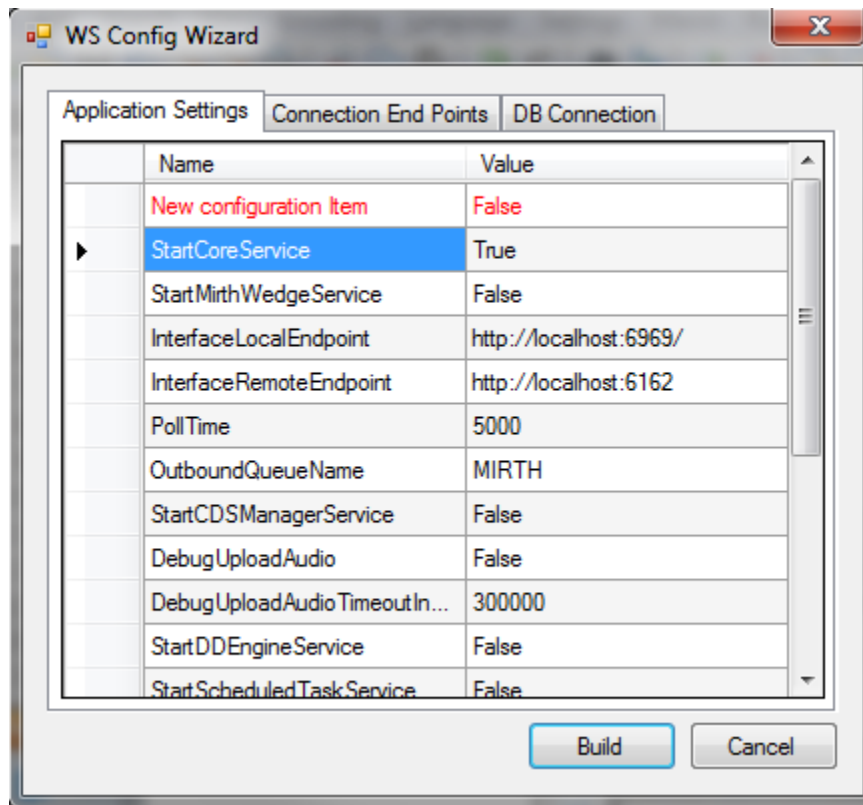
#### Services Configuration Wizard

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, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

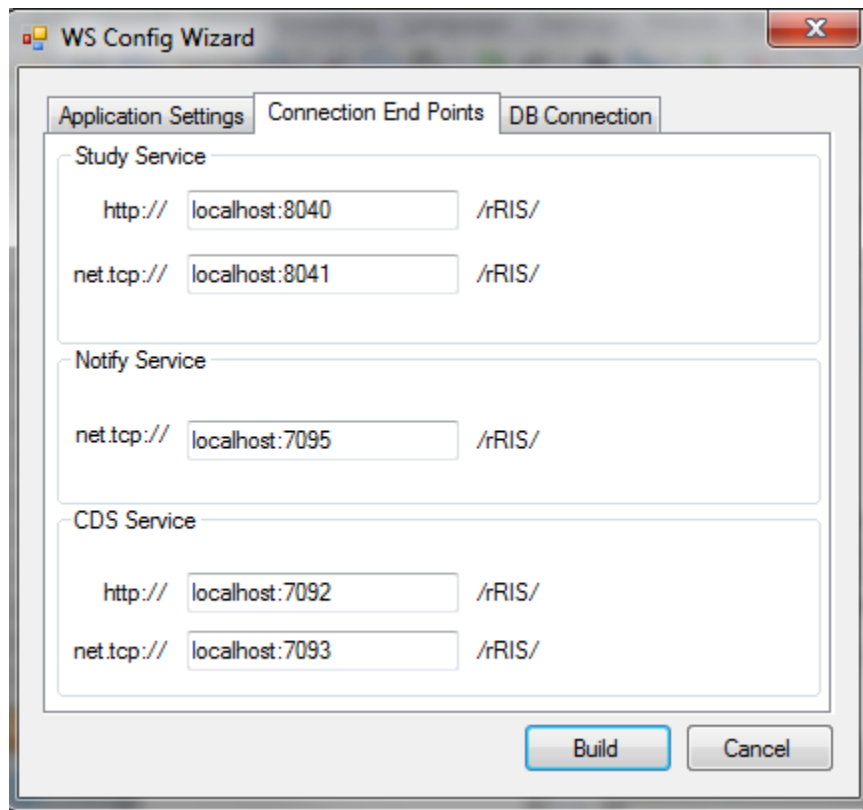
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

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.



**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.



---

## DATABASE UPDATES

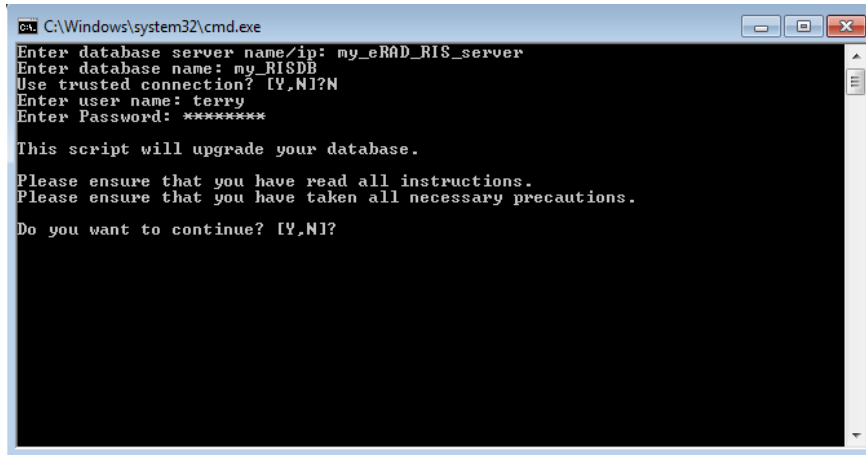
Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*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: 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]?
```

- 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



# **Server Update**

For eRAD RIS

Version 3.0












Build 3.2017.6

Update 3.2017.6.3

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**PACKAGE CONTENTS**

Name	Date modified
 _Documentation	03/22/2018 1:05 PM
 _ReleaseNotes	03/22/2018 2:18 PM
 DB	03/22/2018 1:05 PM
 PatientConnect	03/22/2018 1:07 PM
 Questionnaires	03/22/2018 1:05 PM
 ReferringConnect	03/22/2018 1:07 PM
 rRISService	03/22/2018 1:05 PM
 Service Tools	03/22/2018 1:05 PM
 ThickClient	03/22/2018 1:05 PM
 UM_Portal	03/22/2018 1:05 PM
 Build_2017.6.3.7z	03/22/2018 2:36 PM

**INTENDED AUDIENCE**

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

**WHO IS AFFECTED**

Build 2017.6 installs. This server update must be applied to 2017.6.2

## NEW FEATURES

## FEATURES #20202, 20203, 20204 – SUPPORT WORKFLOW WHICH REQUIRES EXAM DONE STATUS TO REMAIN ON TECHNOLOGIST WORKLIST

In order to support some customer workflows that require the technologist to take action on a study that has already reached Exam Done status, a new System Configuration setting has been added to eRAD RIS, which will allow the Technologist WL to display exams that are in an Exam Done status.

The System Configuration setting is [ExamDoneOnTechWL](#) with a default of False. Setting this to true will cause Exam Done status to remain on the Technologist WL until the status progresses beyond Exam Done, or the study is cancelled/aborted. Please note that Exam Done (Tech Only) status will **not** be included on the worklist. The visible statuses include Checking In, Arrived, Started, and Exam Done.

Flags	Alerts	Problem	Status	Procedures
\$ [icon]	[icon]		Started	MR HIP BIL 2 VIEWS & AP PEL [73520] - Hip joint - Right
\$ [icon]	[icon]		Arrived	MR RIBS BILAT W PA CHEST [71111] - Chest - Bilateral
\$ [icon]	[icon]		Arrived	CT Chest W & Abdomen W/Wo [CT42] - Chest - Right
\$ [icon]	[icon]		Arrived	CT Shoulder Arthrogram [CT26] - Shoulder - Bilateral
\$ [icon]	[icon]	[icon]	Exam Done	MR Ankle 2 Views [73600] - Ankle joint - Left
! \$ [icon]	[icon]	[icon]	Exam Done	CT Cervical Spine W [72126] - Cervical spine

In addition, the Assigned Radiologist column and the Resolve Problem context menu option have been added to the Technologist worklist.

int	Practice	Assigned Rad	Problem	Alert
ADV				
ADV				
ADV		Molyneaux, kevinmtest ABC, CRNP (kevin)	[icon]	

View Study  
 Patient Folder  
 Print Forms  
 Image Request  
 View Images  
 Change Status to...  
 Add to Folder  
 Resolve Problem  
 Audit History  
 Copy Cell

Please note that studies in Exam Done status cannot be opened in the Perform Exam screen. However, the technologist can leave the tab open after completing if it is necessary to add additional information later in the workflow. It is also possible to roll back the status to Started (Change Status To context menu item), which will make the Perform Exam screen available again.

## FEATURE #19748 – AUSTRALIAN CUSTOMERS CAN NOW LINK RADIOLOGISTS TO SITES AND PROVIDE STEM + LOCATION NUMBERS

In Australia, radiologists have *Stem* and *Location* numbers, which are used in billing. The billing information is based on where the patient's study was performed. An exam interpreted by the same radiologist will have different billing information if it was performed at Site A versus Site B. The Stem and Location characters identify the combination of radiologist and site, as is customary in Australian billing workflow. Because this information must be accurate for billing, a Check Number is calculated to verify that the Stem and Location numbers are valid.

In order to provide this information for billing, a new System Configuration setting has been created: *ShowRadiologistSiteAssociations*. The default is False. When set to True, new information can be configured in the Personnel editor for Radiologist users.

If the Radiologist flag is set, a new grid is available on the Resource tab to display *Associated Sites*.

The screenshot shows the 'Resource' tab in the eRAD RIS system configuration. The 'Resource Type' section includes checkboxes for Referring physician, Radiologist (checked), Surgeon, Editor, Technologist, Unknown Referring, UM Reviewer, Injection Physician, and Marketing representative (checked). The 'Referring Flags' section includes checkboxes for Direct referral program, Pre-auth program, and Gold card. The 'Resource Information' section includes fields for NPI (with a dropdown for Unknown NPI), UPIN, License #, DEA, Primary state license, Sign Level, Specialties, Medical groups, and Contact type. The 'Associated Sites' grid is populated with the following data:

Site	Address	Stem	Loc	Check
dale - daletest	letest	123454	1	H
EL - PT QE PT QE Eldersburg	1430 Progress Way, Suite 108, Eldersburg, MD	123454	2	W
FH - PT QE PT QE Fisher	193 Stoner Avenue, Suite 200, Westminster, MD	123454	3	F
LU - PT QE PT QE Lutherville	1209 York Road, Suite 100, Lutherville, MD			

The grid will automatically be populated with all Sites (and their addresses) which are associated to the Practice(s) that are associated to the user on the Account tab.

Administrators are able to edit the Stem and Location character, which will then display a calculated Check Character, as per the Australian standard.

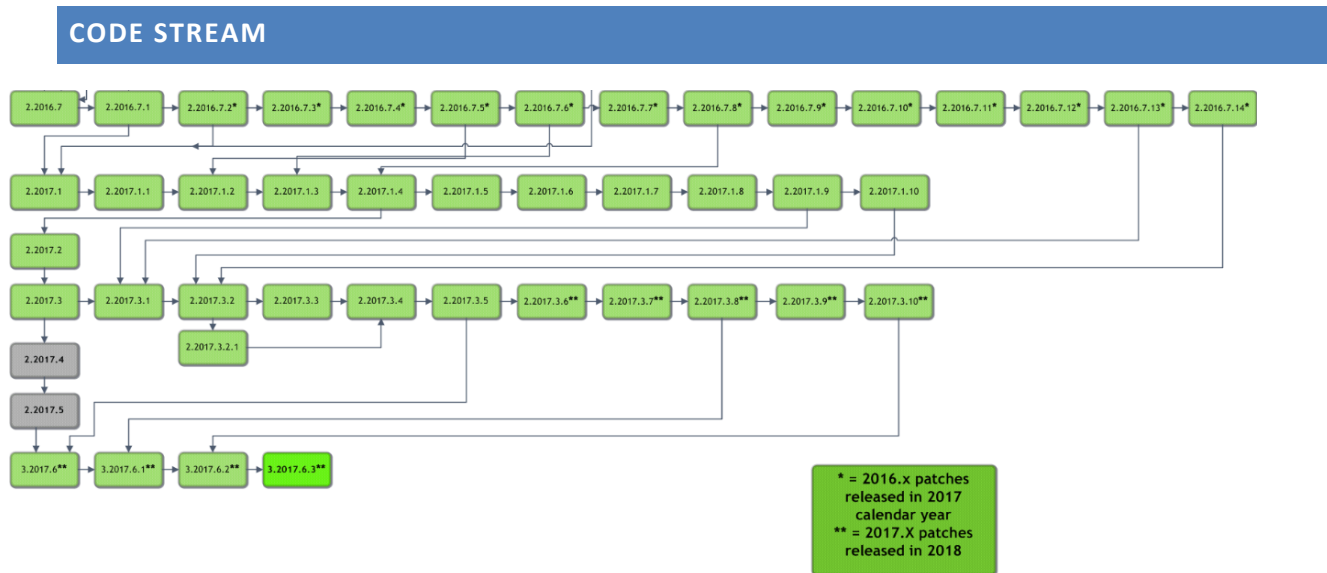
In the Australian language file, the NPI field in the Resource Information section will be labeled "Stem." As a shortcut, if the user has a Stem number populated in this field, this number will be added to the Stem column for all Associated Sites by default. If fewer than 6 characters are entered, the Check Character will not be calculated until the Stem is updated to include 6 characters. If more than 6 characters are entered, only the first 6 will be added to the Associated Site's Stem field.

This is a one-time shortcut. Once the rows for Associated Sites are created, changes to the main Stem field will not impact the Associated Site's Stem settings.

## RESOLVED ITEMS

## eRAD RIS

Redmine #	Subject
20381	Resolved a timeout error that could occur after switching from Insurance to Self-Pay using Eligibility workflow.
20207	Amount to Collect is now populating correctly for Self Pay orders scheduled via the Patient or Provider Portal.
20355	The Problem Flag is once more applied appropriately using PowerScribe workflow. This restores pre-2017.6 behavior.
20199	Resolved an issue with Core Validation Rules containing a computed expression. This restores pre-2017.6 behavior.
20352	All studies belonging to a Linked Reporting set appropriately trigger the Study Billed Action to allow for proper billing, resolving a previous issue.



### Legend:

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release



## ERAD RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2016.7	-	2.16.7.0 (3GB)	2.16.7.0	2.16.7.0	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		Full version release
2016.7	1	2.16.7.1 (3GB)	2.16.7.0	2.16.7.1	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	2	2.16.7.2 (3GB)	2.16.7.0	2.16.7.2	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	3	2.16.7.3 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	4	2.16.7.4 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	5	2.16.7.5 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	6	2.16.7.6 (3GB)	2.16.7.0	2.16.7.6	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	7	2.16.7.7 (3GB)	2.16.7.0	2.16.7.7	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	8	2.16.7.8 (3GB)	2.16.7.0	2.16.7.7	2.16.7.8.00683507	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and DB updates
2016.7	9	2.16.7.9 (3GB)	2.16.7.0	2.16.7.9	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Services, DB updates and UM Portal
2016.7	10	2.16.7.10 (3GB)	2.16.7.0	2.16.7.10	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI and Web Service updates
2016.7	11	2.16.7.11 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Service and DB updates
2016.7	12	2.16.7.12 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI
2016.7	13	2.16.7.13 (3GB)	2.16.7.0	2.16.7.13	2.16.7.13.00823274	2.16.7.0	2.16.7.13.805715	2.16.7.13.805717		GUI, Web Service, DB, Patient and UM Portal updates
2016.7	14	2.16.7.14 (3GB)	2.16.7.0	2.16.7.14	2.16.7.14.00888220	2.16.7.0	2.16.7.14.897644	2.16.7.14.897646		GUI, Web Service, DB, Patient and UM Portal updates
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		Full Version Release
2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI, Web Service, DB and Patient Portal updates
2017.1	5	2.17.1.4 (3GB)	2.17.1.0	2.17.1.5	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		Web Service
2017.1	6	2.17.1.6 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and DB Updates
2017.1	7	2.17.1.7 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	8	2.17.1.8 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	9	2.17.1.9 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	10	2.17.1.10 (3GB)	2.17.1.0	2.17.1.10	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and Web Service update
2017.2	-	2.17.2.0 (3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0	2.17.2.0.702238	2.17.2.0.702213	2.17.2.0.702226	Full Version Release. First release of Provider Portal
2017.3	-	2.17.3.0 (3GB)	2.17.3.0	2.17.3.0	2.17.3.0.00764112	2.17.3.0	2.17.3.0.321	2.17.3.0.321	2.17.3.0.321	Full Version Release. Including Patient, Provider and UM Portals
2017.3	1	2.17.3.1 (3GB)	2.17.3.0	2.17.3.1	2.17.3.1.00846328	2.17.3.1	2.17.3.1.853299	2.17.3.1.853301	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2	2.17.3.2 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2.1	2.17.3.2.1 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI Only
2017.3	3	2.17.3.3 (3GB)	2.17.3.0	2.17.3.3	2.17.3.3.00954008	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	4	2.17.3.4 (3GB)	2.17.3.0	2.17.3.4	2.17.3.4.00987562	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service and DB
2017.3	5	2.17.3.5 (3GB)	2.17.3.0	2.17.3.5	2.17.3.5.01023250	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB, Patient Portal, Referring Portal, UM Portal
2017.3	6	2.17.3.6 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB,
2017.3	7	2.17.3.7 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI
2017.3	8	2.17.3.8 (3GB)	2.17.3.0	2.17.3.8	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI and Web Service
2017.3	9	2.17.3.8 (3GB)	2.17.3.0	2.17.3.9	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	Web Service
2017.3	10	2.17.3.10 (3GB)	2.17.3.0	2.17.3.10	2.17.3.10.01125764	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service and DB updates
2017.6	-	3.17.6.0 (3GB)	3.17.6.0	3.17.6.0	3.17.6.0.01037550	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	Full Version Release. Including Patient, Provider and UM Portals
2017.6	1	3.17.6.1 (3GB)	3.17.6.0	3.17.6.1	3.17.6.1.01094077	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	GUI, Web Service and DB updates
2017.6	2	3.17.6.2 (3GB)	3.17.6.0	3.17.6.2	3.17.6.2.01130171	3.17.6.2	3.17.6.2.1138297	3.17.6.2.1138298	3.17.6.2.1138298	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	3	3.17.6.3 (3GB)	3.17.6.0	3.17.6.3	3.17.6.3.01166033	3.17.6.3	3.17.6.3.1168622	3.17.6.3.1168622	3.17.6.3.1168623	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms

## INSTALLING

### CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD\_rRIS\_2017.6.3.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

### WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

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 141 files in the rRISService folder and 7 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). Folders are (Arabic), en\_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt\_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc...

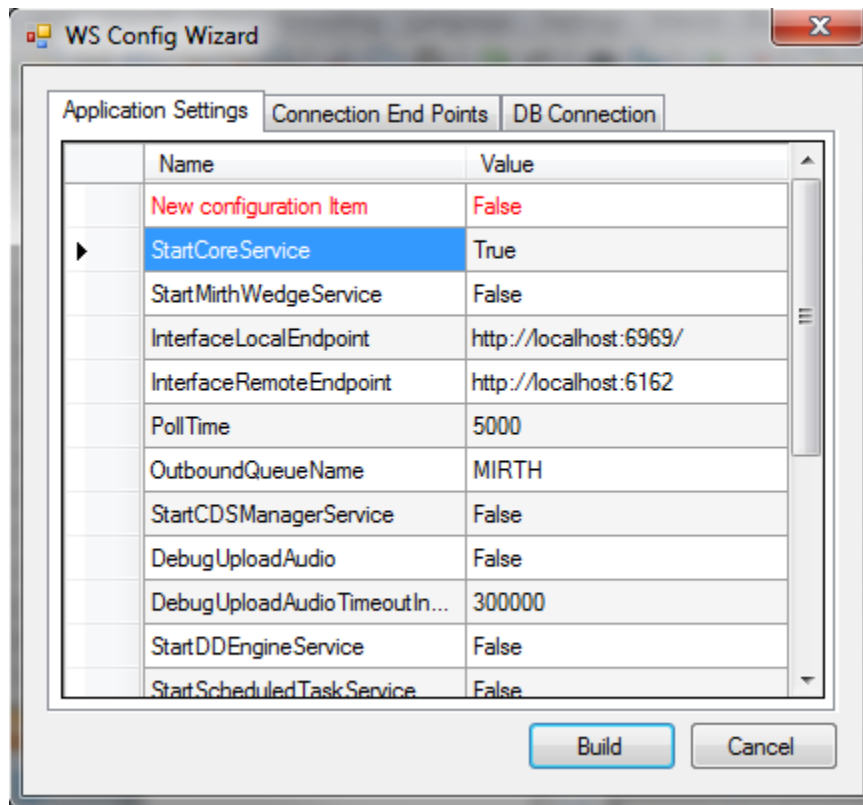
#### Services Configuration Wizard

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, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

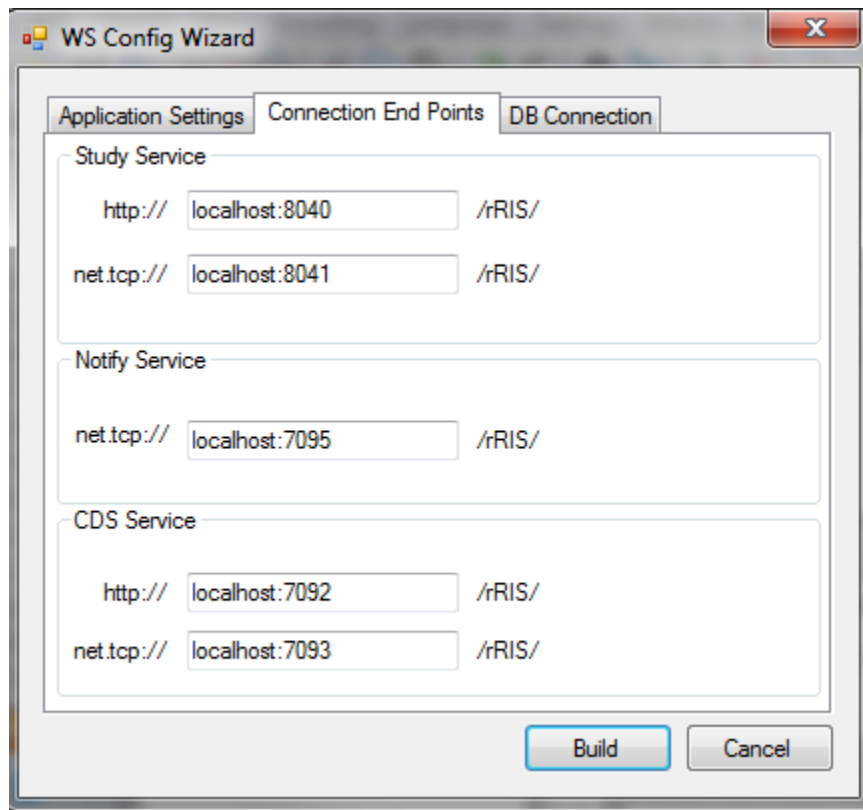
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

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.



**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.



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## DATABASE UPDATES

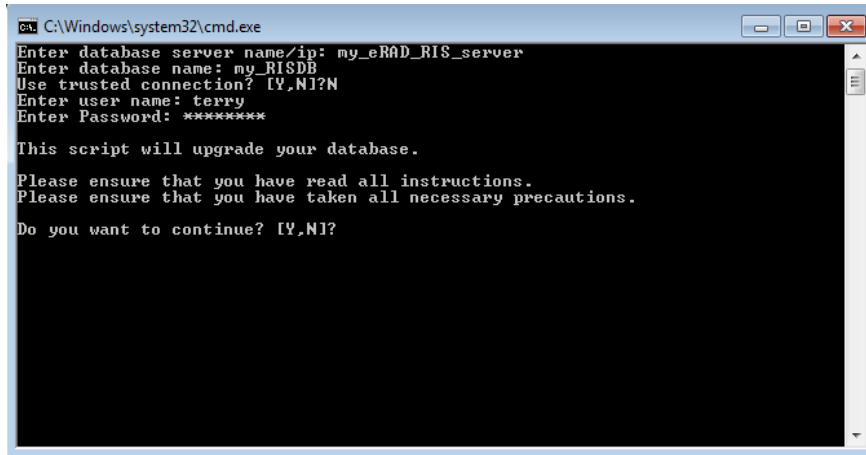
Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*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: 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]?
```

- 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

# **Server Update**

For eRAD RIS

Version 3.0

Build 3.2017.6

Update 3.2017.6.4

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## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.6 installs. This server update must be applied to 2017.6.3



## NEW SETTINGS

## ACCESS STRINGS

Setting	Default	Purpose
Portal.CCDA	None	Access to view C-CDAs.
Portal.Referring.Admin.AccountMigration	None	Access to the Account Migration tab.
Portal.Referring.Admin.ImgRetrieval	None	Access to the Image Retrieval tab.
Portal.Referring.Admin.SysMsgs	None	Access to the System Messages tab.
Portal.Referring.Admin.UserMgt	None	Access to the User Management tab.
Portal.Referring.Admin.UserMgt.ADD	None	Access to add a new account in the Provider Portal.
Portal.Referring.Admin.UserMgt.CreateNewUser	None	Access to create a new user in the Provider Portal.
Portal.Referring.Admin.UserMsgs	None	Access to the User Messages tab.
Portal.Referring.OutsidePractice	None	Access to search for all patients without requiring the user to check the box for "Search for patients outside my practice." Internal use.
Portal.UMOpinionLetter	None	Access to view UM Opinion Letters.

## NEW FEATURES

## FEATURE # 20428/18537 - NEW ACCESS STRINGS FOR CONNECT PROVIDER PORTAL ADMIN TOOL

The Admin Tool for the Connect Provider Portal allows users to perform a number of administrative tasks. Not all users need access to all of the functions that can be performed, so new access strings have been created so that users can be restricted from using functionality that is not pertinent to their role.

The base access string that allows users to log into the Admin Tool for the Provider Portal remains the same. The user must have Full access to **Portal.Referring.Admin** to log in.

The various functions are relegated to different tabs in the Admin Portal. The new access strings control access to those tabs. RIS Administrators automatically have full access to all Portal functionality.

The available access strings are:

- **Portal.Referring.Admin.UserMgt** – Access to the User Management tab.
- **Portal.Referring.Admin.UserMsgs** – Access to the User Messages tab.
- **Portal.Referring.Admin.SysMsgs** – Access to the System Messages tab.
- **Portal.Referring.Admin.ImgRetrieval** – Access to the Image Retrieval tab.
- **Portal.Referring.Admin.AccountMigration** – Access to the Account Migration tab.

A user with permission to access only User Management and System Messages will see the following upon logging into the Admin Portal:

The screenshot displays the 'CONNECT Admin' interface. At the top, there is a dark red header bar with 'CONNECT Admin' on the left and a 'Logout' button on the right. Below the header, there are two tabs: 'User Mgt.' (active) and 'Sys. Messages'. The main content area features a search bar with the text 'Search', a 'Status' dropdown menu set to 'All', and a 'Role' dropdown menu set to 'All'. To the right of these dropdowns is a red 'SEARCH' button. Further right is a red button labeled 'CREATE NEW USER'. Below the search area is a table with the following columns: 'Last Name', 'First Name', 'Role', 'Username', 'RIS ID', 'Practice', and 'Status'. The table is currently empty, and a message below it states 'There are currently no rows to display.' At the bottom of the interface, there is a logo consisting of three curved lines in red, grey, and blue.

In addition to the new access strings to control access to these tabs, there are some additional access strings that control more specific functions.

- ***Portal.Referring.Admin.UserMgt.CreateNewUser*** – Access to create new Provider Portal users.
- ***Portal.Referring.Admin.UserMgt.ADD*** – Access to use the ADD button to create a portal account for a RIS user who does not already have one.
- ***Portal.CCDA*** – Access to view C-CDAs.
- ***Portal.UMOpinionLetter*** – Access to view UM Opinion Letters.
- ***Portal.Referring.OutsidePractice*** – Access to search for all patients without requiring the user to check the box for “Search for patients outside my practice.” This is intended for internal users only.

As with all access strings, for an individual user to receive the associated permission, they must belong to a User Group which has the pertinent access string assigned. For all of the new access strings, the Access Level must be set to Full to grant access. If a user has multiple User Groups, the highest level of access will be granted for each access string.

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**FEATURE # 20429/18942 - ADMIN TOOL USER SEARCH WILL ONLY RETURN APPLICABLE RIS USERS**

Please Note: A redesign of this feature is underway which will change the logic described below in an upcoming build.

When searching for users on the User Management tab, there are certain types of users that should be excluded. Internal RIS users, such as technologists, are unlikely to need portal accounts. Displaying these users in the search results can sometimes lead to a portal administrator inadvertently changing the settings or passwords of non-portal users, which can impact their ability to access the eRAD RIS application. In addition, returning results for inactive users is not helpful and makes it more difficult to find the desired user.

In order to eliminate undesired results, the search will now only display results under the following circumstances:

- Only active users will be displayed.
- If the user has one of the following Resource Types, they **will** be displayed in search results regardless of any other Resource Types they may have.
  - Referring Physician
  - Unknown Referring
  - UM Reviewer
  - Marketing Representative
- If the user does not have any of the above Resource Types, they will still be displayed in search results **unless** they have one of the following Resource Types:
  - Technologist
  - Editor
  - Radiologist
  - Surgeon
  - Injection Physician

These changes are applied to both the Provider Portal and the Utilization Management Portal.

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**FEATURE # 20400/19701 – PROVIDER PORTAL: RESTRICT RESCHEDULING OR CANCELLING ORDERS TO APPROPRIATE USERS**

Changes have been made to the Provider Portal to restrict which Portal users can cancel or reschedule an appointment.

**Staff Users:**

If the current user created the order, they will be permitted to cancel or reschedule. If not, the system will evaluate whether the user is “viewing for” a provider that is the “Requested By” provider *or* a provider that is affiliated with the ordering provider.

Viewing for Welcome Moly, Kevin  
S, Alfred5 

If there is not a match, the staff user will not be allowed to reschedule or cancel. These buttons will not be available at the top of the page.

**Referring Providers:**

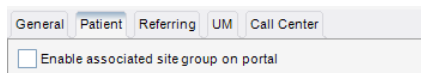
The referring provider can only cancel or reschedule if they are a match to the “Requested By” provider. In other words, referring providers can only action their own orders.

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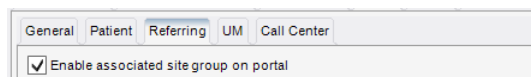
**FEATURE # 20467/19978 - CONFIGURATION TO ALLOW FOR THE SEPARATE DEPLOYMENT OF A PRACTICE'S PATIENT AND PROVIDER PORTALS**

Separate deployment options have been created in the Practice editor so that the Patient Portal and the Provider Portal can be enabled separately.

In the Practice editor, there are now checkboxes to enable the associated Site Group on the tab for the Patient Portal and the tab for the Referring Portal.

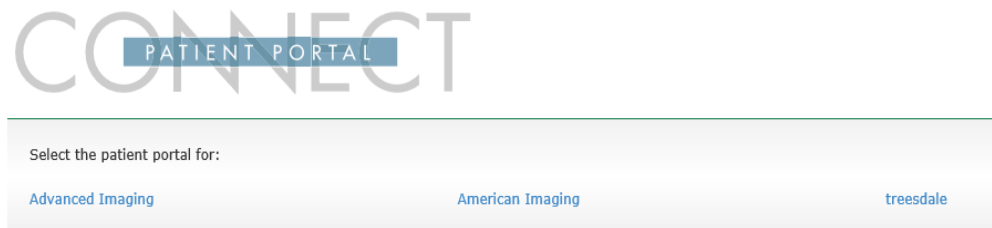
**Patient Portal:**

The screenshot shows the 'Patient' tab selected in the Practice editor. Below the tabs, there is a checkbox labeled 'Enable associated site group on portal' which is currently unchecked.

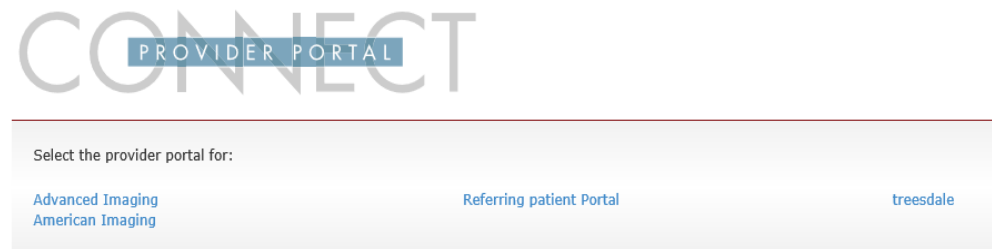
**Provider Portal:**

The screenshot shows the 'Referring' tab selected in the Practice editor. Below the tabs, there is a checkbox labeled 'Enable associated site group on portal' which is currently checked.

When the checkbox is checked, the practice's corresponding Site Group will be displayed on the Imaging Group page for the Patient or Provider Portal independently.

**Patient Portal:**

The screenshot shows the 'CONNECT' logo with 'PATIENT PORTAL' highlighted. Below, it says 'Select the patient portal for:' followed by three buttons: 'Advanced Imaging', 'American Imaging', and 'treesdale'.

**Provider Portal:**

The screenshot shows the 'CONNECT' logo with 'PROVIDER PORTAL' highlighted. Below, it says 'Select the provider portal for:' followed by three buttons: 'Advanced Imaging', 'Referring patient Portal', and 'treesdale'.

**FEATURE # 20464/19996 - APPROVED UM ORDERS CREATED THROUGH THE PROVIDER PORTAL ARE MADE AVAILABLE FOR THE PATIENT TO SCHEDULE IN THE PATIENT PORTAL**

Sometimes orders created through the Provider Portal require Utilization Review before scheduling can occur. The Patient Portal will now make these orders available for the patient to schedule after Utilization Review is complete and the order is approved.

As long as the procedure(s) are configured in the Procedure Picker to allow for scheduling in the Patient Portal, the patient will see the “Make An Appointment” button in the Patient Portal and can move forward with scheduling the appointment.

The screenshot displays the RadNet Patient Portal interface. At the top, a yellow banner reads "New ! test VIEW FULL Message". Below this, the RadNet logo and "Leading Radiology Forward" tagline are visible. A navigation bar includes icons for Exams, Appointments, Messages, and Get Help. The main content area shows a patient profile for "Farmer, Chani" (10-10-1991, 26y Male, MRN: 41824). A list of exams is shown, all marked as "UNSCHEDULED":

- 74160 CT Abdomen W
- CT Abdomen W/Wo-BILATERAL
- CT Abdomen W/Wo-BILATERAL XR Ankle 2 Views
- CT Abdomen W/Wo-BILATERAL MA Digital Mammo Diag Bil-BILATERAL
- CT Calcium Scoring
- CT Abdomen W/Wo

Below the list, a date and time "11-07-2017 | 8:10 AM" is displayed. A red box highlights the "MAKE AN APPOINTMENT" button in the "Appointment Summary" section, which also contains the text: "Your healthcare provider has ordered a radiology exam for you.; This exam is not scheduled."

## FEATURE # 20444/18026 - UM GOLD CARD WORKFLOW NOW SUPPORTED IN THE PROVIDER PORTAL

Utilization Management in eRAD RIS supports **Gold Card** workflow, which allows orders from designated Gold Card providers to bypass utilization review. Enhancements have been made to the Connect Provider Portal to support the same workflow for Gold Card providers.

To determine whether an order should bypass UM workflow and proceed to scheduling, the Connect Portal will utilize the same workflow used in the RIS.

First, the system will check to see whether the provider is marked as Gold Card. This information is stored in the Personnel table under the Referring Flags section.

The screenshot shows the 'Lookup - Personnel' window with the 'Referring Flags' section highlighted. The 'Gold card' checkbox is checked, and a red arrow points to it. Other checkboxes include 'Direct referral program', 'Pre-auth program', 'Referring physician', 'Editor', 'UM Reviewer', 'Radiologist', 'Technologist', 'Injection Physician', 'Surgeon', 'Unknown Referring', and 'Marketing representative'.

If the provider is configured for Gold Card, the system will check the existing **UMGoldCardAutoApprove** System Configuration value. If the value is False, the order will go through the normal Utilization Management workflow. If the value is True, the order will be automatically be marked as UM Complete.

The system will refer to the System Configuration values for **UMDefaultGoldCardStatusCode** and **UMDefaultGoldCardResolutionCode** to automatically set the UM Status and Resolution. For example, Recommended As Gold Card.

Patient Search Patient: SIMMONDS, Wayne #10971PE (4) X

Flags	Nuggets	Status	Procedures	Scheduled Date	Referring	MRN	Accession #	Confirmation #	Room	Site
		Scheduled	MR Abdomen Wo [74181] - Abdomen	10-23-2017 3:00 PM	Test, RefPortal	10971PE 7297	6772		MR1FH	FH
		Signed	CT Cervical Spine Wo [72125] - Cervical spine	10-23-2017 11:30 AM	MacDougall, Spencer	10971PE 7294	6771		CT1LU	LU
			MR Brain Wo [70551] - Head	10-23-2017 11:25 AM	MacDougall, Spencer	10971PE 7296	6771		MR1LU	LU
			XR Ankle 2 Views [73600] - Ankle joint - Left	10-23-2017 11:25 AM	MacDougall, Spencer	10971PE 7295	6771		XR1LU	LU

UM Complete (e)  
104697 - Routine  
MR Abdomen Wo [74181]  
Recommended - As Gold Card



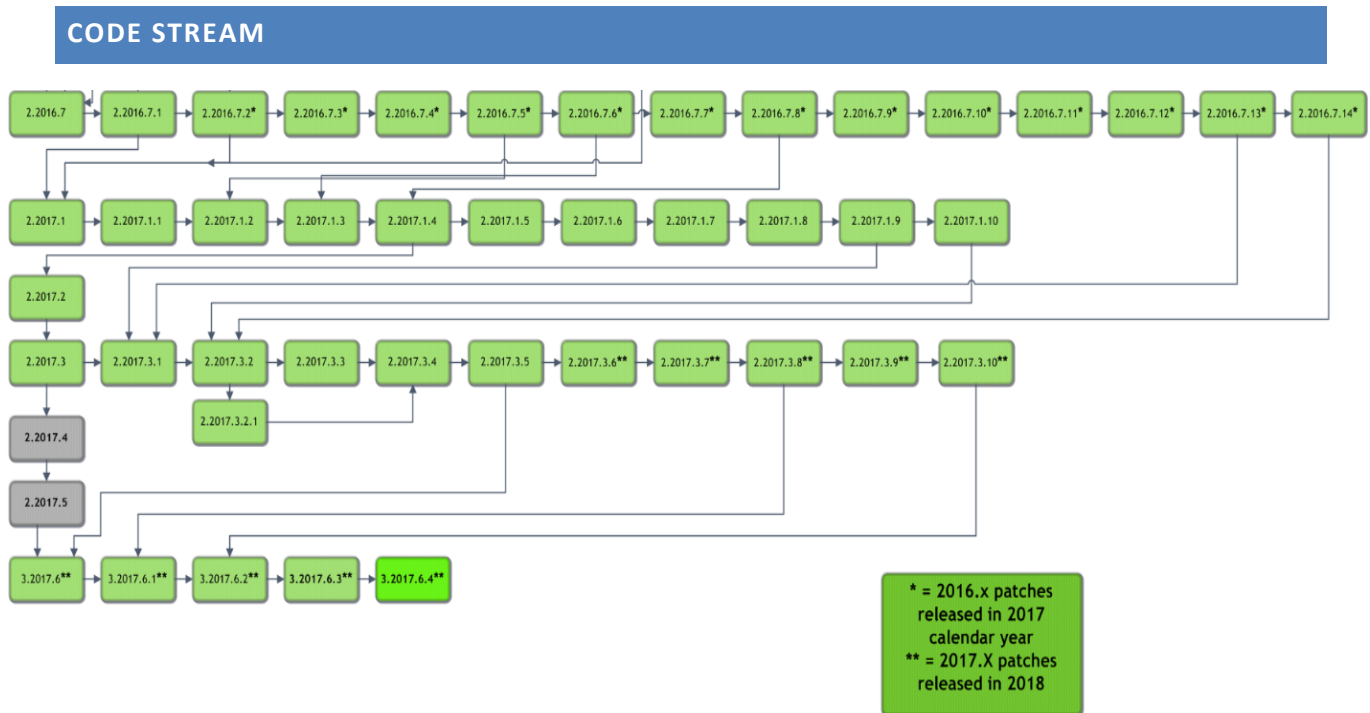
Most importantly, the provider will be able to continue scheduling the exam for the patient or the patient can be invited to schedule the appointment in the Patient Portal. For providers *without* Gold Card status, utilization review will need to be completed before scheduling.

## RESOLVED ITEMS

Most items resolved in this hotfix were originally part of later builds and have been pulled into this patch for early release.

Redmine # for 2017.6.4	Redmine # for 2018.1 and 2018.2	Subject
20531		Provider Portal - Browse file upload button now renders properly in Google Chrome on a Mac.
20529		Provider Portal - More informative error message is provided to the user when their password reset is unsuccessful.
20528	19835	Resolved an issue that could cause Provider Portal account migration workflow to halt after answering security questions.
20498		Billing codes are no longer missing when EMR orders are assigned a new procedure.
20492		PreCert is now re-evaluated after a procedure change on Perform Exam screen.
20445	18342	UM Required screen is now presented after the provider has been selected when scheduling via the Provider Portal.
20443	19700	Corrected a typo on the Cancel Reschedule dialog button in the Provider Portal.
20442	19697	The Tutorials link has been removed from portal "404" error pages.
20441	19696	Added more appropriate message to the Orders Pending Approval banner for Staff users in the Provider Portal.
20439	19932	A change was made to prevent two PACS accounts from being created for new user accounts in Provider Portal due to requests timing out.
20438	19699	Removed hard coded message in the Provider Portal indicating that the imaging center will contact the patient for scheduling after utilization review.
20437	19769	In the Provider Portal, users will default to entering insurance or payment method information. If they do not wish to enter the information, the user will have to manually select the option to omit.
20435	19708	An indicator now informs the user that their search is being processed when searching for a patient in the Provider Portal when creating an order.
20434	19698	The "Need Help Making Appointment" button in the Provider Portal is now directing users to the correct page.
20433	19703	When a provider uses the Invite Patient to Schedule option in the Provider Portal, all links in the email sent to the patient now bring the patient to the same place in the workflow.
20432	19702	Provider Portal worklists now update more responsively after events such as creating, scheduling or approving an order.
20431	19707	Provider Portal - Resolved an issue with the Approve button being unavailable if the user moves backwards in the workflow, returning to the Review step, during order approval workflow.
20430	19705	During account creation in the Provider Portal, the URL embedded in the link of the verification email no longer directs users to the "Account Recovery" workflow. All email links now correctly point to the CreateAccount/Verify page.
20427	19712	All affiliated providers and patients now being shown accurately in the Provider Portal after correcting some issues where the portal referred to the user's RIS practice instead of the Referring Practice.

20426	19768	The Full Viewer is now the default image viewer for new user accounts in the Provider Portal. It is also possible for an administrator to adjust the setting via the Admin Tool.
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**Legend:**

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

## ERAD RIS RELEASE VERSION NUMBERS

Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
6	2.16.7.6 (3GB)	2.16.7.0	2.16.7.6	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
7	2.16.7.7 (3GB)	2.16.7.0	2.16.7.7	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
8	2.16.7.8 (3GB)	2.16.7.0	2.16.7.7	2.16.7.8.00683507	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and DB updates
9	2.16.7.9 (3GB)	2.16.7.0	2.16.7.9	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Services, DB updates and UM Portal
10	2.16.7.10 (3GB)	2.16.7.0	2.16.7.10	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI and Web Service updates
11	2.16.7.11 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Service and DB updates
12	2.16.7.12 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI
13	2.16.7.13 (3GB)	2.16.7.0	2.16.7.13	2.16.7.13.00823274	2.16.7.0	2.16.7.13.805715	2.16.7.13.805717		GUI, Web Service, DB, Patient and UM Portal updates
14	2.16.7.14 (3GB)	2.16.7.0	2.16.7.14	2.16.7.14.00888220	2.16.7.0	2.16.7.14.897644	2.16.7.14.897646		GUI, Web Service, DB, Patient and UM Portal updates
-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		Full Version Release
1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI, Web Service, DB and Patient Portal updates
5	2.17.1.4 (3GB)	2.17.1.0	2.17.1.5	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		Web Service
6	2.17.1.6 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and DB Updates
7	2.17.1.7 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
8	2.17.1.8 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
9	2.17.1.9 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
10	2.17.1.10 (3GB)	2.17.1.0	2.17.1.10	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and Web Service update
-	2.17.2.0 (3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0	2.17.2.0.702238	2.17.2.0.702213	2.17.2.0.702226	Full Version Release. First release of Provider Portal
-	2.17.3.0 (3GB)	2.17.3.0	2.17.3.0	2.17.3.0.00764112	2.17.3.0	2.17.3.0.321	2.17.3.0.321	2.17.3.0.321	Full Version Release. Including Patient, Provider and UM Portals
1	2.17.3.1 (3GB)	2.17.3.0	2.17.3.1	2.17.3.1.00846328	2.17.3.1	2.17.3.1.853299	2.17.3.1.853301	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2	2.17.3.2 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2.1	2.17.3.2.1 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI Only
3	2.17.3.3 (3GB)	2.17.3.0	2.17.3.3	2.17.3.3.00954008	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service, DB. Including Patient, Provider and UM Portals
4	2.17.3.4 (3GB)	2.17.3.0	2.17.3.4	2.17.3.4.00987562	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service and DB
5	2.17.3.5 (3GB)	2.17.3.0	2.17.3.5	2.17.3.5.01023250	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB, Patient Portal, Referring Portal, UM Portal
6	2.17.3.6 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB,
7	2.17.3.7 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI
8	2.17.3.8 (3GB)	2.17.3.0	2.17.3.8	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI and Web Service
9	2.17.3.8 (3GB)	2.17.3.0	2.17.3.9	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	Web Service
10	2.17.3.10 (3GB)	2.17.3.0	2.17.3.10	2.17.3.10.01125764	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service and DB updates
-	3.17.6.0 (3GB)	3.17.6.0	3.17.6.0	3.17.6.0.01037550	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	Full Version Release. Including Patient, Provider and UM Portals
1	3.17.6.1 (3GB)	3.17.6.0	3.17.6.1	3.17.6.1.01094077	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	GUI, Web Service and DB updates
									GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2	3.17.6.2 (3GB)	3.17.6.0	3.17.6.2	3.17.6.2.01130171	3.17.6.2	3.17.6.2.1138297	3.17.6.2.1138298	3.17.6.2.1138298	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
3	3.17.6.3 (3GB)	3.17.6.0	3.17.6.3	3.17.6.3.01166033	3.17.6.3	3.17.6.3.1168622	3.17.6.3.1168622	3.17.6.3.1168623	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
4	3.17.6.4 (3GB)	3.17.6.0	3.17.6.4	3.17.6.4.01187509	3.17.6.4	3.17.6.4.1190295	3.17.6.4.1190295	3.17.6.4.1190295	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms

## INSTALLING

### CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD\_rRIS\_2017.6.4.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

### WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

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 141 files in the rRISService folder and 7 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). Folders are (Arabic), en\_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt\_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc...

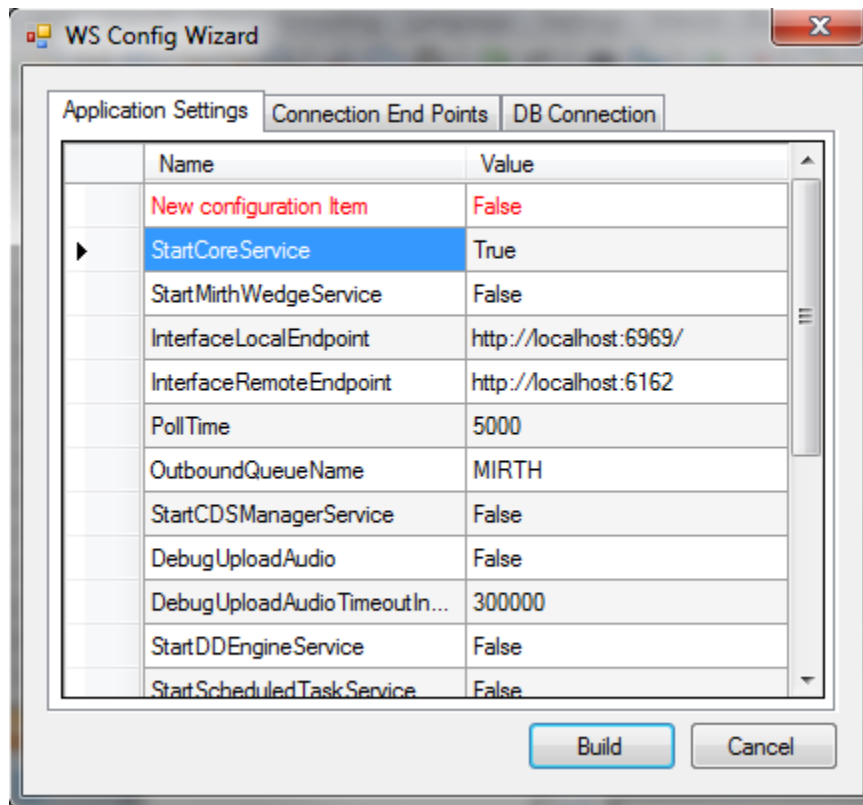
#### Services Configuration Wizard

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, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

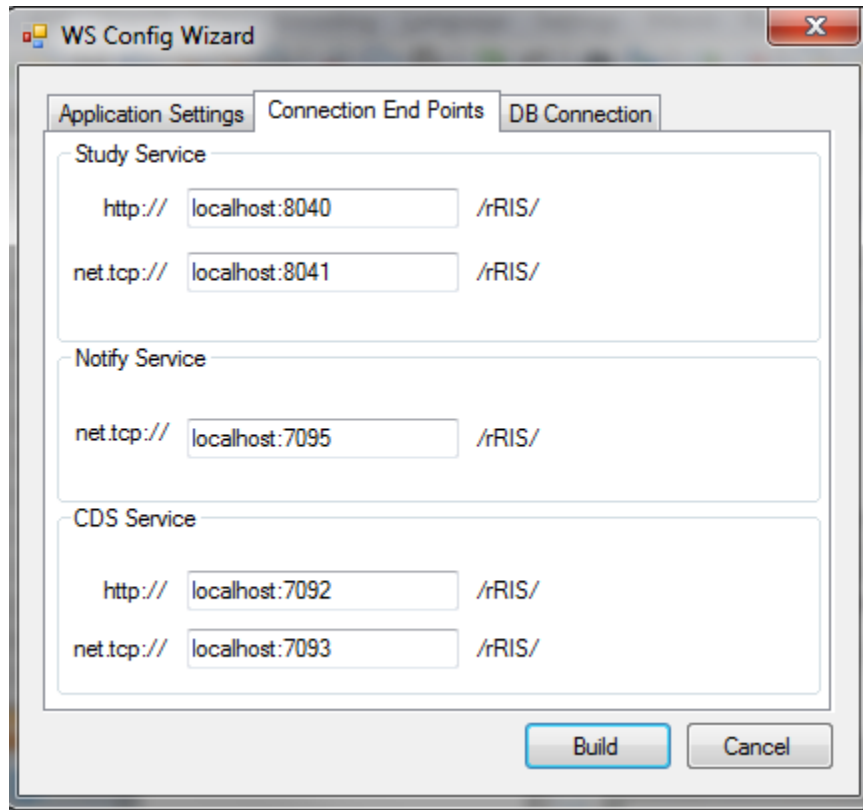
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application “ServicesConfigWizard.exe”

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.



**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.



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## 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.

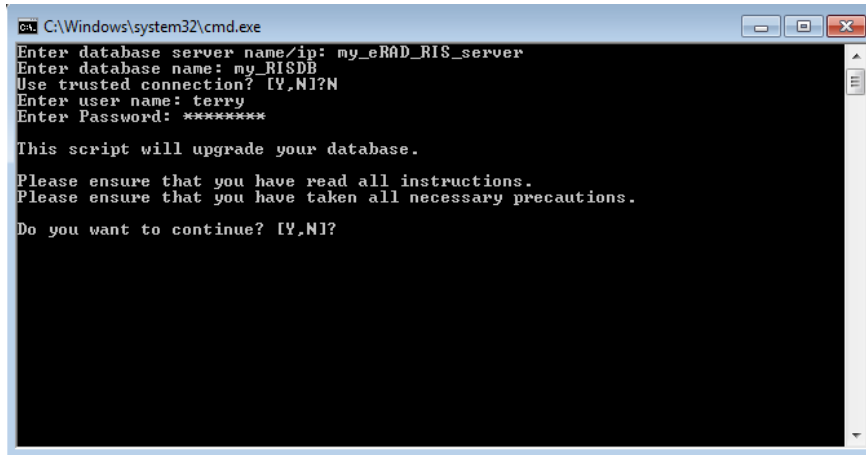
*Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was 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: 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]?
```

- 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

# **Server Update**

For eRAD RIS

Version 3.0







Build 3.2017.6

Update 3.2017.6.5

## **Table of Contents**

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## PACKAGE CONTENTS

 _ReleaseNotes	4/12/2018 5:31 PM
 PatientConnect	4/12/2018 4:27 PM
 ReferringConnect	4/12/2018 4:27 PM
 rRISService	4/12/2018 4:26 PM
 ThickClient	4/12/2018 4:26 PM
 UM_Portal	4/12/2018 4:26 PM

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

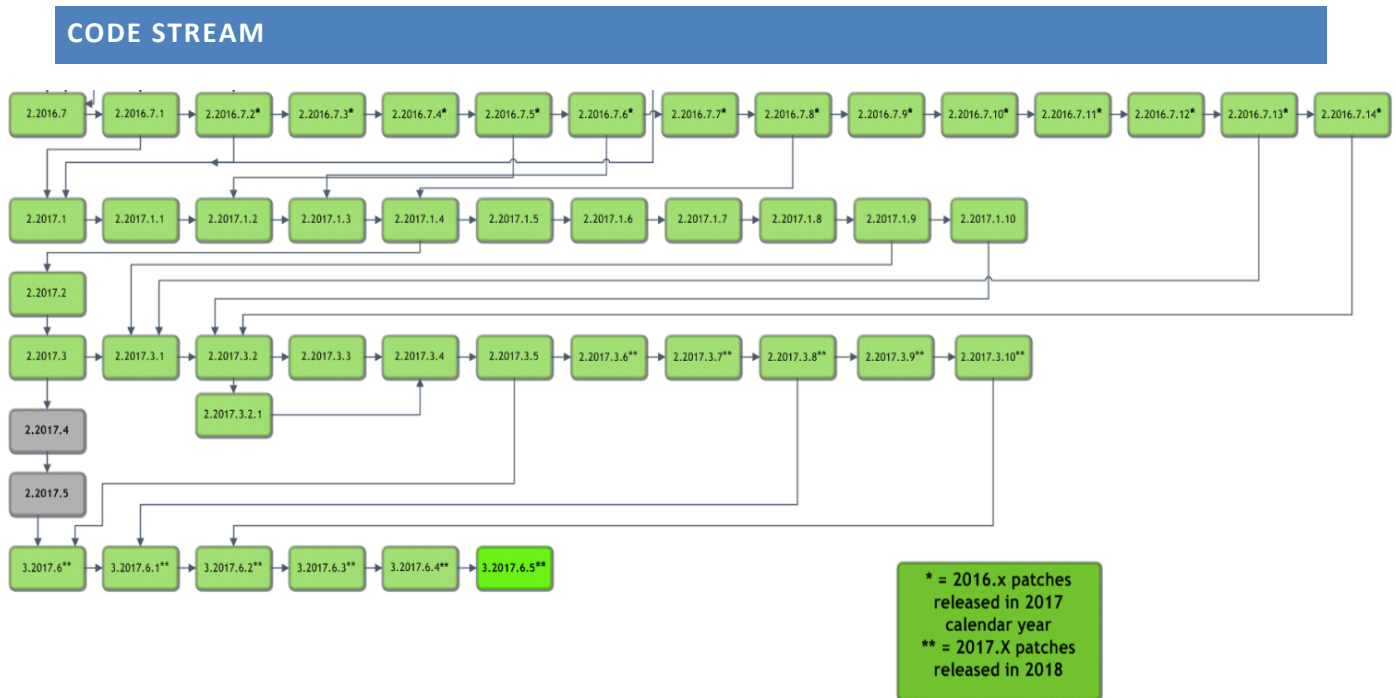
It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.6 installs. This server update must be applied to 2017.6.4

## RESOLVED ITEMS

Redmine #	Subject
20495	Resolved an Object Reference error that occurred after splitting an Inbound Document and attaching pages to an existing order.
20496	It is now possible to choose laterality for an exam after splitting an appointment into two orders, which caused an error in some earlier builds.
20646	Resolved an issue in the Utilization Management Portal that previously caused a Null Exception error when accessing the Detail page for a study that was rescheduled from a Cancelled study.

**Legend:**

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

## ERAD RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		Full Version Release
2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI, Web Service, DB and Patient Portal updates
2017.1	5	2.17.1.4 (3GB)	2.17.1.0	2.17.1.5	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		Web Service
2017.1	6	2.17.1.6 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and DB Updates
2017.1	7	2.17.1.7 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	8	2.17.1.8 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	9	2.17.1.9 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	10	2.17.1.10 (3GB)	2.17.1.0	2.17.1.10	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and Web Service update
2017.2	-	2.17.2.0 (3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0	2.17.2.0.702238	2.17.2.0.702213	2.17.2.0.702226	Full Version Release. First release of Provider Portal
2017.3	-	2.17.3.0 (3GB)	2.17.3.0	2.17.3.0	2.17.3.0.00764112	2.17.3.0	2.17.3.0.321	2.17.3.0.321	2.17.3.0.321	Full Version Release. Including Patient, Provider and UM Portals
2017.3	1	2.17.3.1 (3GB)	2.17.3.0	2.17.3.1	2.17.3.1.00846328	2.17.3.1	2.17.3.1.853299	2.17.3.1.853301	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2	2.17.3.2 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2.1	2.17.3.2.1 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI Only
2017.3	3	2.17.3.3 (3GB)	2.17.3.0	2.17.3.3	2.17.3.3.00954008	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	4	2.17.3.4 (3GB)	2.17.3.0	2.17.3.4	2.17.3.4.00987562	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service and DB
2017.3	5	2.17.3.5 (3GB)	2.17.3.0	2.17.3.5	2.17.3.5.01023250	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB, Patient Portal, Referring Portal, UM Portal
2017.3	6	2.17.3.6 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB,
2017.3	7	2.17.3.7 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI
2017.3	8	2.17.3.8 (3GB)	2.17.3.0	2.17.3.8	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI and Web Service
2017.3	9	2.17.3.8 (3GB)	2.17.3.0	2.17.3.9	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	Web Service
2017.3	10	2.17.3.10 (3GB)	2.17.3.0	2.17.3.10	2.17.3.10.01125764	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service and DB updates
2017.6	-	3.17.6.0 (3GB)	3.17.6.0	3.17.6.0	3.17.6.0.01037550	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	Full Version Release. Including Patient, Provider and UM Portals
2017.6	1	3.17.6.1 (3GB)	3.17.6.0	3.17.6.1	3.17.6.1.01094077	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	GUI, Web Service and DB updates
2017.6	2	3.17.6.2 (3GB)	3.17.6.0	3.17.6.2	3.17.6.2.01130171	3.17.6.2	3.17.6.2.1138297	3.17.6.2.1138298	3.17.6.2.1138298	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	3	3.17.6.3 (3GB)	3.17.6.0	3.17.6.3	3.17.6.3.01166033	3.17.6.3	3.17.6.3.1168622	3.17.6.3.1168622	3.17.6.3.1168623	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	4	3.17.6.4 (3GB)	3.17.6.0	3.17.6.4	3.17.6.4.01187509	3.17.6.4	3.17.6.4.1190295	3.17.6.4.1190295	3.17.6.4.1190295	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	5	3.17.6.5 (3GB)	3.17.6.0	3.17.6.5	3.17.6.4.01187509	3.17.6.4	3.17.6.5.1199064	3.17.6.5.1199063	3.17.6.5.1199064	GUI, Web Service, Patient, Provider and UM Portals

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in any form or by any means without the prior written permission from eRAD.

## INSTALLING

### CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD\_rRIS\_2017.6.5.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

### WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

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 141 files in the rRISService folder and 7 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). Folders are (Arabic), en\_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt\_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc...

#### Services Configuration Wizard

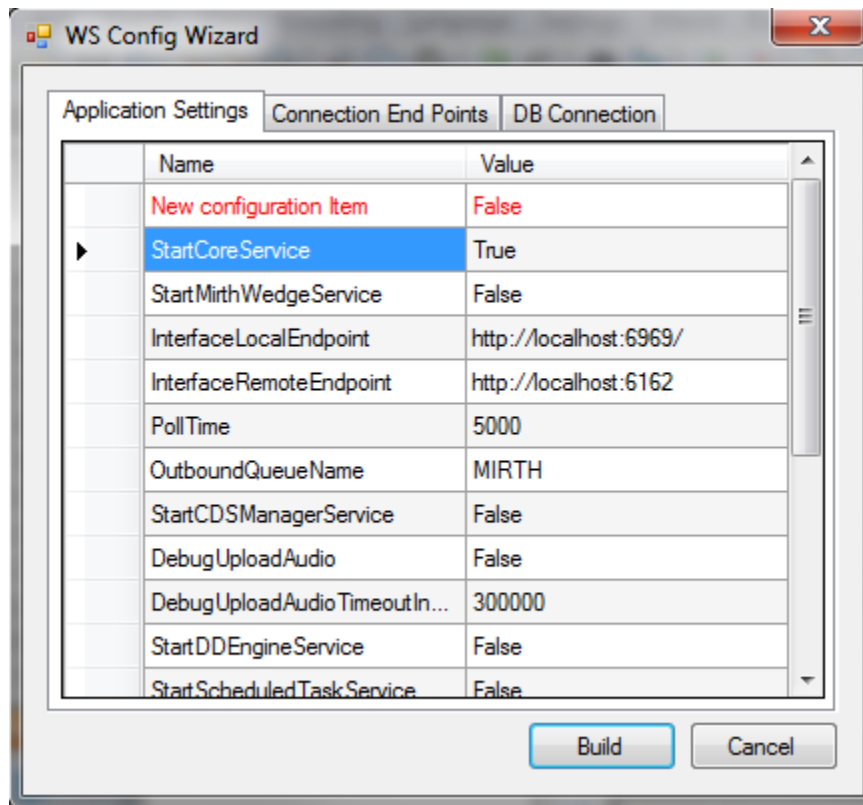
With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and 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.





**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 Windows-style dialog box titled "WS Config Wizard" with a close button (X) in the top right corner. The dialog has three tabs: "Application Settings", "Connection End Points" (which is selected), and "DB Connection". The "Connection End Points" tab contains three sections, each with a minus sign icon in the top left corner:

- 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".

# **Server Update**

For eRAD RIS

Version 3.0







Build 3.2017.6

Update 3.2017.6.6

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## PACKAGE CONTENTS

 _ReleaseNotes	05/11/18 2:20 PM
 DB	05/10/18 4:44 PM
 rRISService	05/10/18 4:44 PM
 ThickClient	05/10/18 4:44 PM
 Build_2017.6.6.7z	05/11/18 2:26 PM
 RISServerMasterCert.pfx	03/31/16 1:38 PM

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.6 installs. This server update must be applied to 2017.6.5

## NEW SETTINGS

## SYSTEM CONFIGURATION

Setting	Default	Purpose
EnableRADAREmailReportDeliveryJobStatusUpdates	True	(value = Y/N) Enables live RADAR email report delivery job status updates.

## NEW FEATURES

### FEATURE # 20929 - DISABLE LIVE STATUS UPDATES FOR EMAIL REPORT DELIVERY JOBS IF SYSTEM IS NOT CONFIGURED TO RECEIVE STATUS UPDATES FROM RADAR

In version 3.2017.6, a new feature was added that would allow for a more realistic distribution status for reports being delivered via email. Instead of immediately setting the status to Complete after delivering the message to RADAR, the status would be set to In Progress until RADAR notified RIS that the email had been delivered.

If a system is not configured to receive the live updates from RADAR, it will result in the report delivery getting stuck in an In Progress status. To rectify this, there is now a System Configuration setting to turn on the new feature. By default, emailed reports will go to Completed status as soon as they are delivered to RADAR. If the configuration setting is set to True, then the new feature will be enabled and the status will be In Progress until RADAR informs the RIS that the email was delivered to the recipient.

Configuration setting:

EnableRADAREmailReportDeliveryJobStatusUpdates Default = False

In addition, the following must be true to enable the interactive status update:

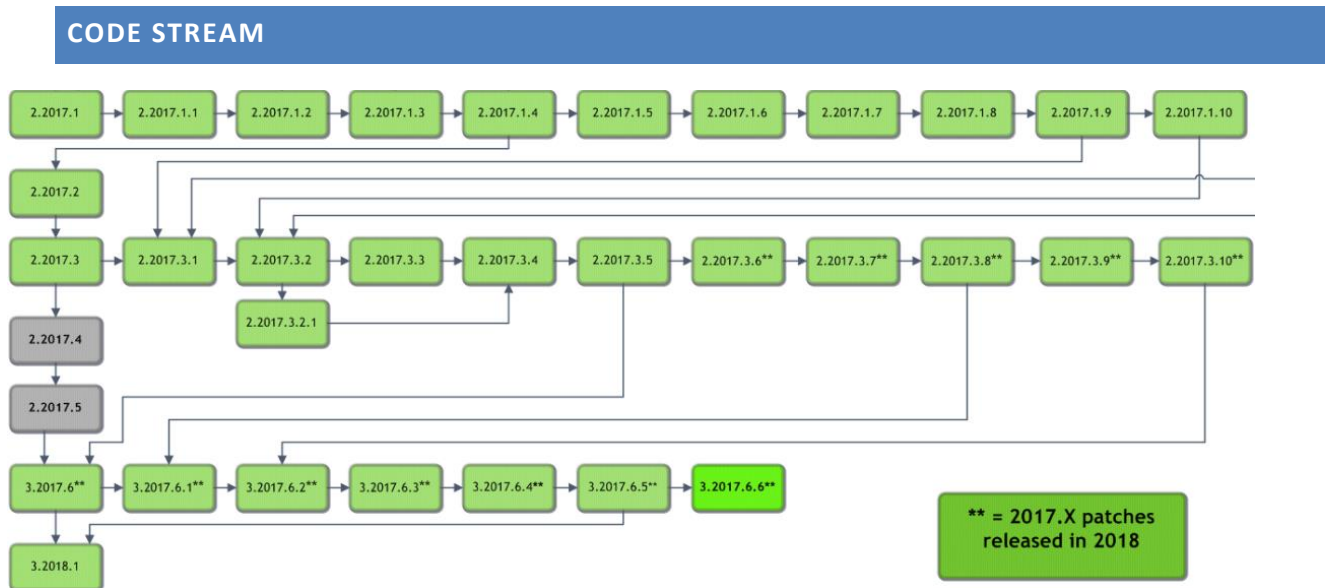
- EnableRADARInboundMessageProcessing = True
- InboundRADARMessageFilter must contain "REPORT DELIVERY"

## RESOLVED ITEMS

Most items resolved in this hotfix were originally part of later builds and have been pulled into this patch for early release.

Redmine # for 2017.6.4	Redmine # for 2018.1	Subject
20891	20826	In 2017.6.4 and .5, if a contrast billing code was not already attached to a procedure code, adding contrast to the Contrast table was adding the contrast billing code as Inactive instead of Active. This has been corrected.
20890	20849	When loading priors via eRAD PACS integration, the configured number of most relevant priors is now selected first and <i>then</i> the most relevant studies are sorted in reverse chronological order and requested from PACS. In 2017.6, the date sort was happening prior to selecting the most relevant priors, which was resulting in less relevant but more recent studies being selected.
20619		If a patient has a previous alternate MRN, the Issuer description is now displayed in the MRN grid even when the Issuer is no longer Active.
20559		Resolved an object reference error that occurred when switching Practices/Sites on the Inbound Document worklist.



**Legend:**

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

## ERAD RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		Full Version Release
2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		GUI, Web Service and DB updates
2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		GUI, Web Service and DB updates
2017.1	3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		GUI, Web Service and DB updates
2017.1	4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI, Web Service, DB and Patient Portal updates
2017.1	5	2.17.1.4 (3GB)	2.17.1.0	2.17.1.5	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		Web Service
2017.1	6	2.17.1.6 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI and DB Updates
2017.1	7	2.17.1.7 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI update
2017.1	8	2.17.1.8 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI update
2017.1	9	2.17.1.9 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI update
2017.1	10	2.17.1.10 (3GB)	2.17.1.0	2.17.1.10	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI and Web Service update
2017.2	-	2.17.2.0 (3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0	2.17.2.0.702238	2.17.2.0.702213	2.17.2.0.702226	Full Version Release. First release of Provider Portal
2017.3	-	2.17.3.0 (3GB)	2.17.3.0	2.17.3.0	2.17.3.0.00764112	2.17.3.0	2.17.3.0.321	2.17.3.0.321	2.17.3.0.321	Full Version Release. Including Patient, Provider and UM Portals
2017.3	1	2.17.3.1 (3GB)	2.17.3.0	2.17.3.1	2.17.3.1.00846328	2.17.3.1	2.17.3.1.853399	2.17.3.1.853301	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2	2.17.3.2 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2.1	2.17.3.2.1 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI Only
2017.3	3	2.17.3.3 (3GB)	2.17.3.0	2.17.3.3	2.17.3.3.00954008	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	4	2.17.3.4 (3GB)	2.17.3.0	2.17.3.4	2.17.3.4.00987562	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service and DB
2017.3	5	2.17.3.5 (3GB)	2.17.3.0	2.17.3.5	2.17.3.5.01023250	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB, Patient Portal, Referring Portal, UM Portal
2017.3	6	2.17.3.6 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB,
2017.3	7	2.17.3.7 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI
2017.3	8	2.17.3.8 (3GB)	2.17.3.0	2.17.3.8	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI and Web Service
2017.3	9	2.17.3.8 (3GB)	2.17.3.0	2.17.3.9	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	Web Service
2017.3	10	2.17.3.10 (3GB)	2.17.3.0	2.17.3.10	2.17.3.10.01125764	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service and DB updates
2017.6	-	3.17.6.0 (3GB)	3.17.6.0	3.17.6.0	3.17.6.0.01037550	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	Full Version Release. Including Patient, Provider and UM Portals
2017.6	1	3.17.6.1 (3GB)	3.17.6.0	3.17.6.1	3.17.6.1.01094077	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	GUI, Web Service and DB updates
2017.6	2	3.17.6.2 (3GB)	3.17.6.0	3.17.6.2	3.17.6.2.01130171	3.17.6.2	3.17.6.2.1138297	3.17.6.2.1138298	3.17.6.2.1138298	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	3	3.17.6.3 (3GB)	3.17.6.0	3.17.6.3	3.17.6.3.01166033	3.17.6.3	3.17.6.3.1168622	3.17.6.3.1168622	3.17.6.3.1168623	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	4	3.17.6.4 (3GB)	3.17.6.0	3.17.6.4	3.17.6.4.01187509	3.17.6.4	3.17.6.4.1190295	3.17.6.4.1190295	3.17.6.4.1190295	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	5	3.17.6.5 (3GB)	3.17.6.0	3.17.6.5	3.17.6.4.01187509	3.17.6.4	3.17.6.5.1199064	3.17.6.5.1199063	3.17.6.5.1199064	GUI, Web Service, Patient, Provider and UM Portals
2017.6	6	3.17.6.6 (3GB)	3.17.6.0	3.17.6.6	3.17.6.6.01236363	3.17.6.4	3.17.6.5.1199064	3.17.6.5.1199063	3.17.6.5.1199064	GUI, Web Service and DB updates
2018.1	-	3.18.1.0 (3GB)	3.18.1.0	3.18.1.0	3.17.6.4.01187509	3.18.1.0	3.18.1.0.1229289	3.18.1.0.1229290	3.18.1.0.1229290	Full version release

## INSTALLING

### CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD\_rRIS\_2017.6.6.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

### WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

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 141 files in the rRISService folder and 7 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). Folders are (Arabic), en\_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt\_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc...

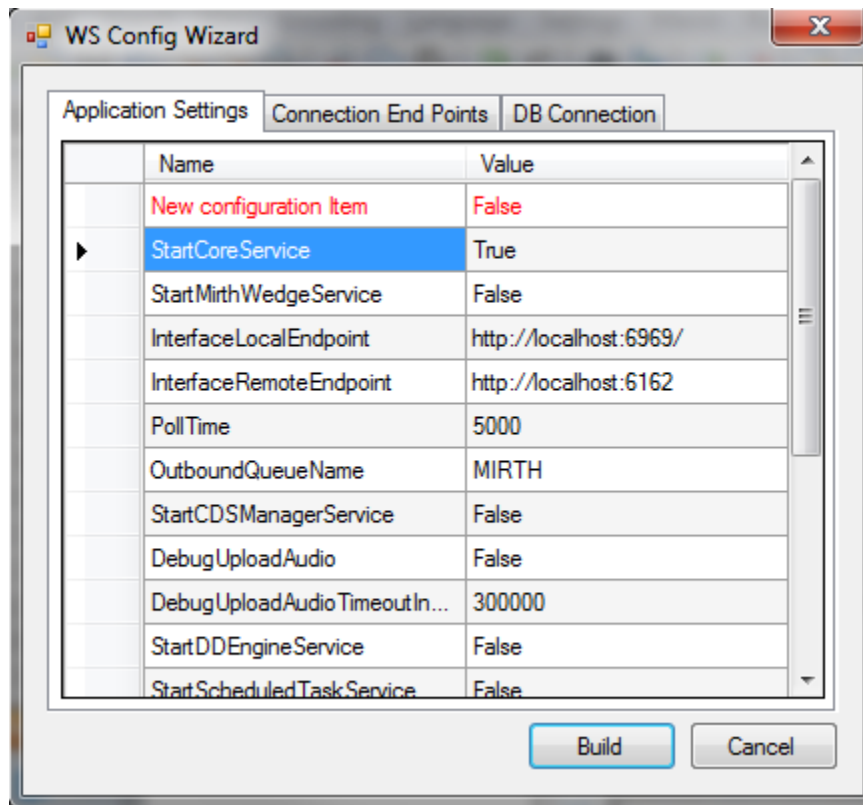
#### Services Configuration Wizard

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, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

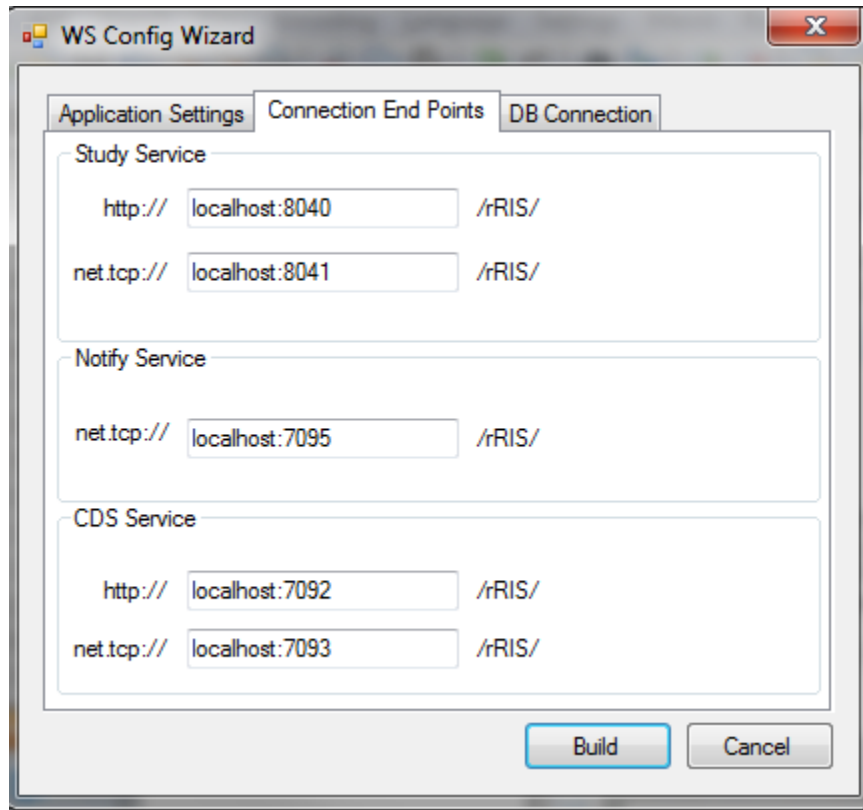
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**Connection End Points:** will display the existing configuration, if the value is left blank then that entry will not be created, in the case of “Study Service” or “CDS Service” if both http and net.tcp were not provided then that endpoint will not be created at all.



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## DATABASE UPDATES

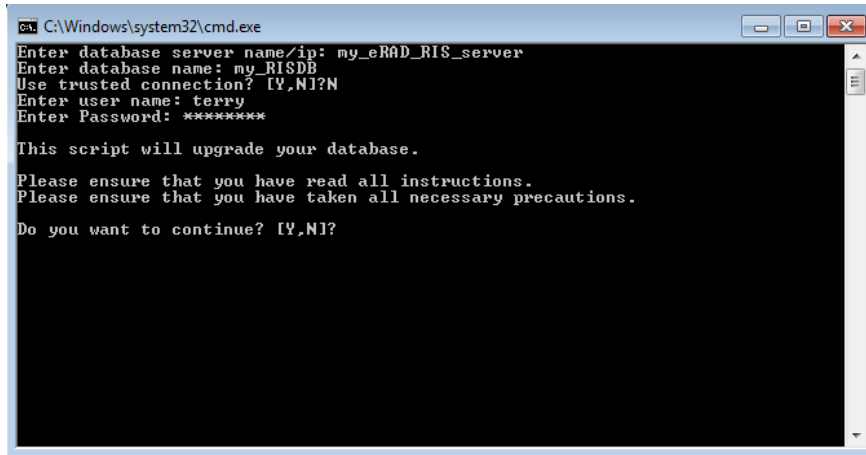
Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*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: 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]?
```

- 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

# **Server Update**

For eRAD RIS

Version 3.0

Build 3.2017.6











Update 3.2017.6.7

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## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.6 installs. This server update must be applied to 2017.6.6.

## NEW FEATURES

### FEATURE # 19217 - GE PACS IW INTEGRATION CAN NOW LOAD IMAGES USING ACCESSION NUMBER, IN ADDITION TO PREVIOUS METHOD OF NCD STUDY ID

Previously, the GE PACS IW integration passed the NCD Study ID to load images. Because this method of launching studies sometimes requires customers' PACS vendors to support a custom trigger, it is necessary to provide an alternative option for launching studies. Therefore, eRAD RIS can now support integration via Accession number.

By default, the existing NCD integration will be in place as before. To move to the new Accession number integration, a new property, [UseAccessions](#), must be configured in the PACS Server look-up table. The following should be entered in the Config Options column:

```
<config>
```

```
<UseAccessions>True</UseAccessions>
```

```
</config>
```

If this new [UseAccessions](#) property is set to True using the above configuration, accession numbers will be utilized for PACS IW Show Study and Append Images calls. The method will be used for all PACS IW calls, including calls from the Dictation screen and View Images in the Patient Folder.

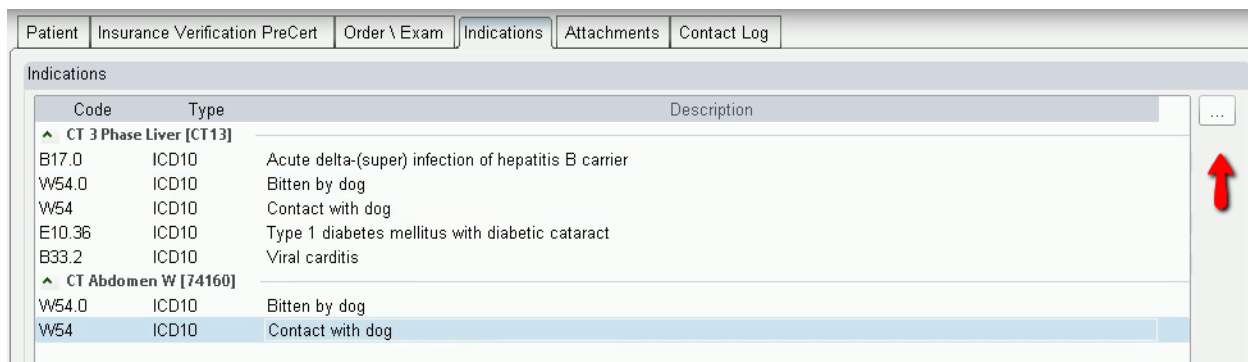
If the [UseAccessions](#) property is not configured, RIS will default to setting this property as False, which means that the previous method of launching studies using external ID/NCD will be utilized.

## FEATURE # 19868 – VIEW/EDIT ICD CODES FROM THE IVT SCREEN

For South African workflow, it is critical to be able to view and edit indication codes from the IVT screen. eRAD RIS can now display an Indications tab on the IVT screen under certain conditions. This is likely a useful feature for many customers, not just South African installations.

Because ICDs are stored at the study level, items on the IVT worklist that are in Ordered status will not display the new Indications tab. The study must have been scheduled to enable access to the new tab.

The new Indications tab is available on the IVT screen as shown in the following image.



Code	Type	Description
▲ CT 3 Phase Liver [CT13]		
B17.0	ICD10	Acute delta-(super) infection of hepatitis B carrier
W54.0	ICD10	Bitten by dog
W54	ICD10	Contact with dog
E10.36	ICD10	Type 1 diabetes mellitus with diabetic cataract
B33.2	ICD10	Viral carditis
▲ CT Abdomen W [74160]		
W54.0	ICD10	Bitten by dog
W54	ICD10	Contact with dog

As demonstrated above, if there is more than one study on the order, multiple sections will be included for each study.

In addition to viewing indications that have already been associated, the IVT user can also edit or add entries. To do so, the user can click the “...” button (as is done today on the View/Edit screen) or double click the entry they wish to edit. It is also possible to choose Edit from the right-click context menu. Any of these options will open the existing ICD Codes pop-up window for the selected study (i.e. the study that the highlighted row belongs to).

The screenshot shows the 'ICD Codes' window. At the top, 'Reason for exam' is 'Chest pain'. Below, 'Search for ICD' has a text box with 'chest pain' and a 'Search' button. To the right of the search box are checkboxes for 'ICD10' (checked), 'ICD9', and 'SNOMED'. Below the search box is a table of search results:

Code	Type	Description
R07	ICD10	Pain in throat and chest
R07.1	ICD10	Chest pain on breathing
R07.8	ICD10	Other chest pain
R07.89	ICD10	Other chest pain
R07.9	ICD10	Chest pain, unspecified

Below the search results is a 'Selected codes' section with another table:

Code	Type	Description
G54.6	ICD10	Phantom limb syndrome with pain
F45.42	ICD10	Pain disorder with related psychological factors
G89	ICD10	Pain, not elsewhere classified

An 'OK' button is at the bottom right of the window.

From this screen, associated ICD codes can be removed and new ICDs can be searched and added.

It is also possible to delete ICDs from the main Indications tab. In addition, if there are common ICDs between multiple studies on the order, the user can multi-select ICDs from one study and copy them by choosing Copy from the right-click menu. Then right-clicking the second study will provide a Paste option so the common ICDs can easily be applied to the second study. (Keyboard shortcuts can also be utilized.)

The screenshot shows the 'Indications' table. A right-click context menu is open over the 'Copy' option. The table contains the following data:

Code	Type	Description
CT 3 Phase Liver [CT13]		
B17.0	ICD10	Acute delta-(super) infection of hepatitis B carrier
W54.0	ICD10	Bitten by dog
W54	ICD10	Contact with dog
E10.36	ICD10	Type 1 diabetes
B33.2	ICD10	Viral carditis
CT Abdomen W [74160]		

The context menu has the following options: Edit, Delete, Copy (highlighted), and Paste.

When pasting ICDs to another study, any duplicate ICDs that already exist for the destination study will be ignored.

## RESOLVED ITEMS

Redmine # for 2017.6.7	Subject
20807	When the System Configuration setting RadMustProvideIcdCode is set to True, the requirement will not be enforced until the study reaches Signed or Tentatively Signed status. This will address an issue in which staff working the Problem WL were forced to enter Diagnostic Indications when working a problem case.
20776	Standard RIS Users without Provider Portal access strings will not be able to access the Provider Portal.
20999	If a patient has scanned documents with a Scan Type that is now set as inactive, the description will still be displayed in the Attachments grid for the previously scanned documents.
20745	Resolved an issue where Patient Merges were improperly removing email address and security questions for patients with Patient Portal accounts.
20555	Previously, it was possible for Inbound Documents to be picked up before they are done being written to the file system, resulting in 0 byte files. To prevent this, a delay has been added and RIS will check to be sure that the file has not been modified in the past 2 seconds prior to processing the item. Files with 0 bytes are no longer processed.
20399	Resolved event registration issues that could cause an inadvertent change to an alternate MRN issuer.
21013	Resolved an issue in which the Finalized Date column was not populating in the UM Portal.
20668	On the Exam Details page in the UM Portal, the original appointment is no longer displayed in addition to the new appointment after an order has been rescheduled.
20563	Resolved an error that could occur when viewing the Appointments Page in the Patient Portal.

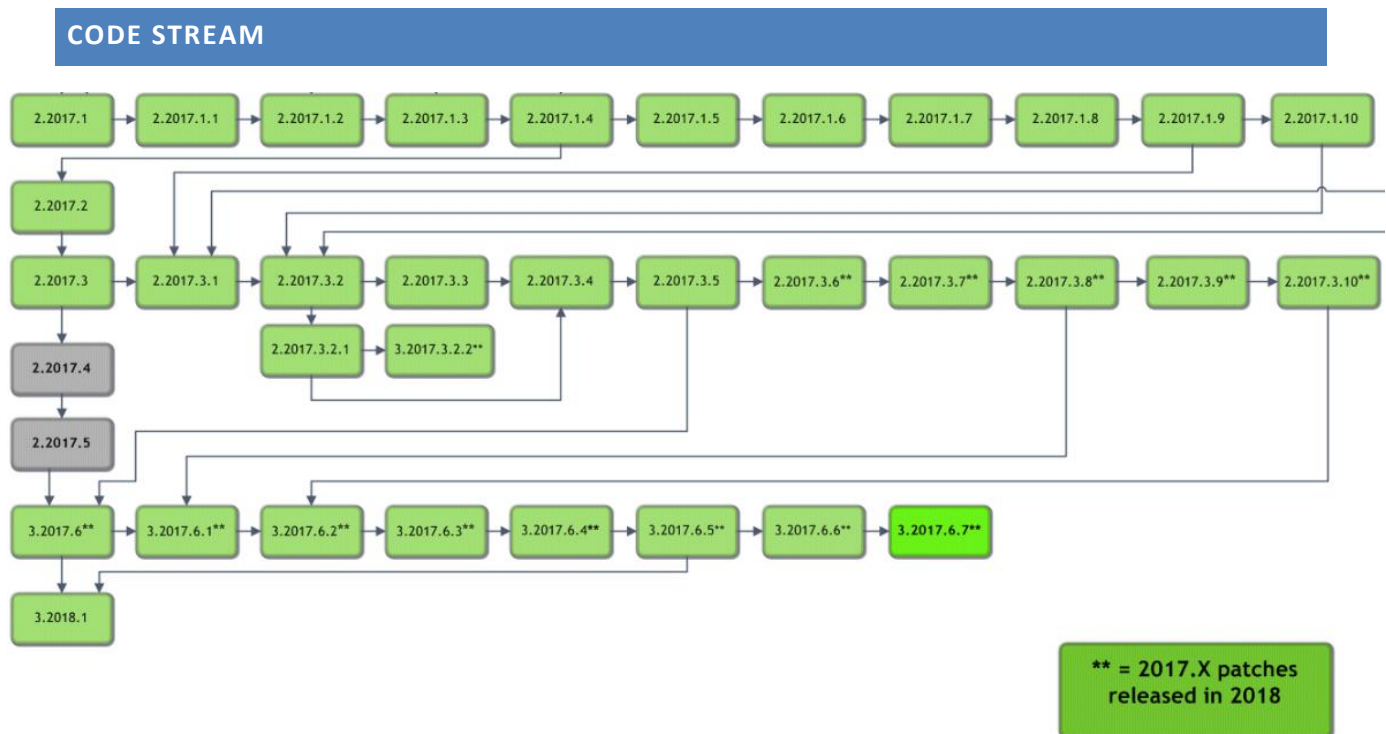
The following fixes from 2018.2 were pulled into this patch for early release.

Redmine # for 2017.6.7	Redmine # for 2018.2	Subject
20628	19793	Made changes to threads for PACS Caching process to include try/catch blocks to handle exceptions without causing core service crash.
20627	19791	Made a change to prevent situations where multiple primary insurers could be created, causing duplicate visit key values, which could lead to a core

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		service crash (related to above ticket).
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**Legend:**

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

## ERAD RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		Full Version Release
2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		GUI, Web Service and DB updates
2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		GUI, Web Service and DB updates
2017.1	3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		GUI, Web Service and DB updates
2017.1	4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI, Web Service, DB and Patient Portal updates
2017.1	5	2.17.1.4 (3GB)	2.17.1.0	2.17.1.5	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		Web Service
2017.1	6	2.17.1.6 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI and DB Updates
2017.1	7	2.17.1.7 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI update
2017.1	8	2.17.1.8 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI update
2017.1	9	2.17.1.9 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI update
2017.1	10	2.17.1.10 (3GB)	2.17.1.0	2.17.1.10	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI and Web Service update
2017.2	-	2.17.2.0 (3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0	2.17.2.0.702238	2.17.2.0.702213	2.17.2.0.702226	Full Version Release. First release of Provider Portal
2017.3	-	2.17.3.0 (3GB)	2.17.3.0	2.17.3.0	2.17.3.0.00764112	2.17.3.0	2.17.3.0.321	2.17.3.0.321	2.17.3.0.321	Full Version Release. Including Patient, Provider and UM Portals
2017.3	1	2.17.3.1 (3GB)	2.17.3.0	2.17.3.1	2.17.3.1.00846328	2.17.3.1	2.17.3.1.853299	2.17.3.1.853301	2.17.3.1.856171	GUI, Web Service, DB, Including Patient, Provider and UM Portals
2017.3	2	2.17.3.2 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI, Web Service, DB, Including Patient, Provider and UM Portals
2017.3	2.1	2.17.3.2.1 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI Only
2017.3	2.2	2.17.3.2.1 (3GB)	2.17.3.0	2.17.3.2.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	Web Services only
2017.3	3	2.17.3.3 (3GB)	2.17.3.0	2.17.3.3	2.17.3.3.00954008	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service, DB, Including Patient, Provider and UM Portals
2017.3	4	2.17.3.4 (3GB)	2.17.3.0	2.17.3.4	2.17.3.4.00987562	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service and DB
2017.3	5	2.17.3.5 (3GB)	2.17.3.0	2.17.3.5	2.17.3.5.01023250	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB, Patient Portal, Referring Portal, UM Portal
2017.3	6	2.17.3.6 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB,
2017.3	7	2.17.3.7 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI
2017.3	8	2.17.3.8 (3GB)	2.17.3.0	2.17.3.8	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI and Web Service
2017.3	9	2.17.3.8 (3GB)	2.17.3.0	2.17.3.9	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	Web Service
2017.3	10	2.17.3.10 (3GB)	2.17.3.0	2.17.3.10	2.17.3.10.01125764	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service and DB updates
2017.6	-	3.17.6.0 (3GB)	3.17.6.0	3.17.6.0	3.17.6.0.01037550	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	Full Version Release. Including Patient, Provider and UM Portals
2017.6	1	3.17.6.1 (3GB)	3.17.6.0	3.17.6.1	3.17.6.1.01094077	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	GUI, Web Service and DB updates
2017.6	2	3.17.6.2 (3GB)	3.17.6.0	3.17.6.2	3.17.6.2.01130171	3.17.6.2	3.17.6.2.1138297	3.17.6.2.1138298	3.17.6.2.1138298	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	3	3.17.6.3 (3GB)	3.17.6.0	3.17.6.3	3.17.6.3.01166033	3.17.6.3	3.17.6.3.1168622	3.17.6.3.1168622	3.17.6.3.1168623	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	4	3.17.6.4 (3GB)	3.17.6.0	3.17.6.4	3.17.6.4.01187509	3.17.6.4	3.17.6.4.1190295	3.17.6.4.1190295	3.17.6.4.1190295	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	5	3.17.6.5 (3GB)	3.17.6.0	3.17.6.5	3.17.6.4.01187509	3.17.6.4	3.17.6.5.1199064	3.17.6.5.1199063	3.17.6.5.1199064	GUI, Web Service, Patient, Provider and UM Portals
2017.6	6	3.17.6.6 (3GB)	3.17.6.0	3.17.6.6	3.17.6.6.01236363	3.17.6.4	3.17.6.5.1199064	3.17.6.5.1199063	3.17.6.5.1199064	GUI, Web Service and DB updates
2017.6	7	3.17.6.7 (3GB)	3.17.6.0	3.17.6.7	3.17.6.7.01257812	3.17.6.7	3.17.6.7.1266287	3.17.6.7.1266287	3.17.6.7.1266287	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2018.1	-	3.18.1.0 (3GB)	3.18.1.0	3.18.1.0	3.17.6.4.01187509	3.18.1.0	3.18.1.0.1229289	3.18.1.0.1229290	3.18.1.0.1229290	Full version release



## INSTALLING

### CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD\_rRIS\_2017.6.7.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

### WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

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 141 files in the rRISService folder and 7 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). Folders are (Arabic), en\_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt\_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc...

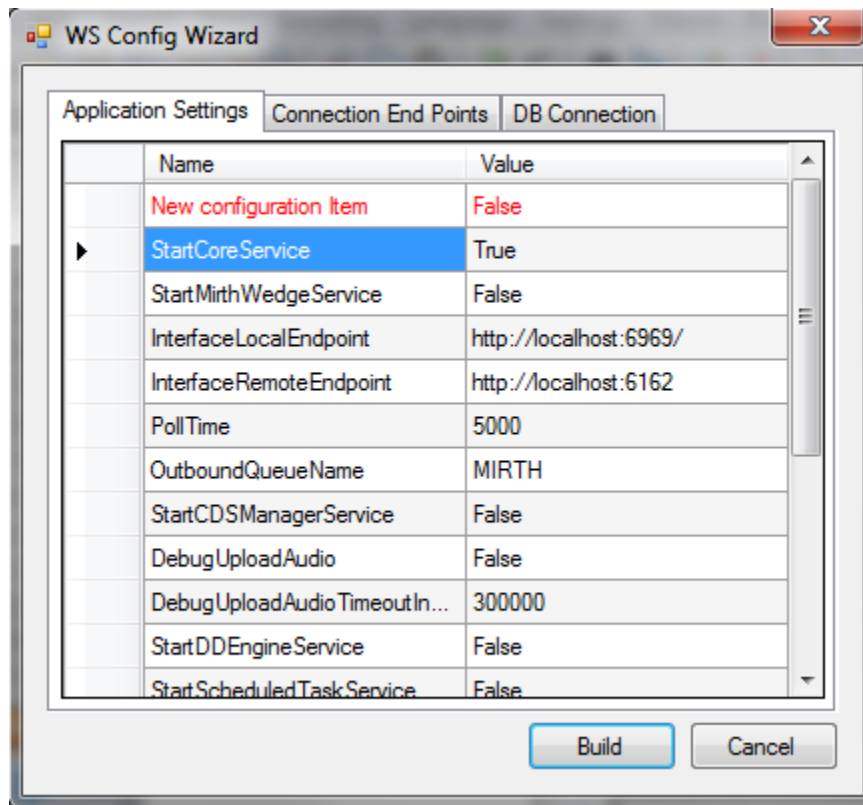
#### Services Configuration Wizard

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, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

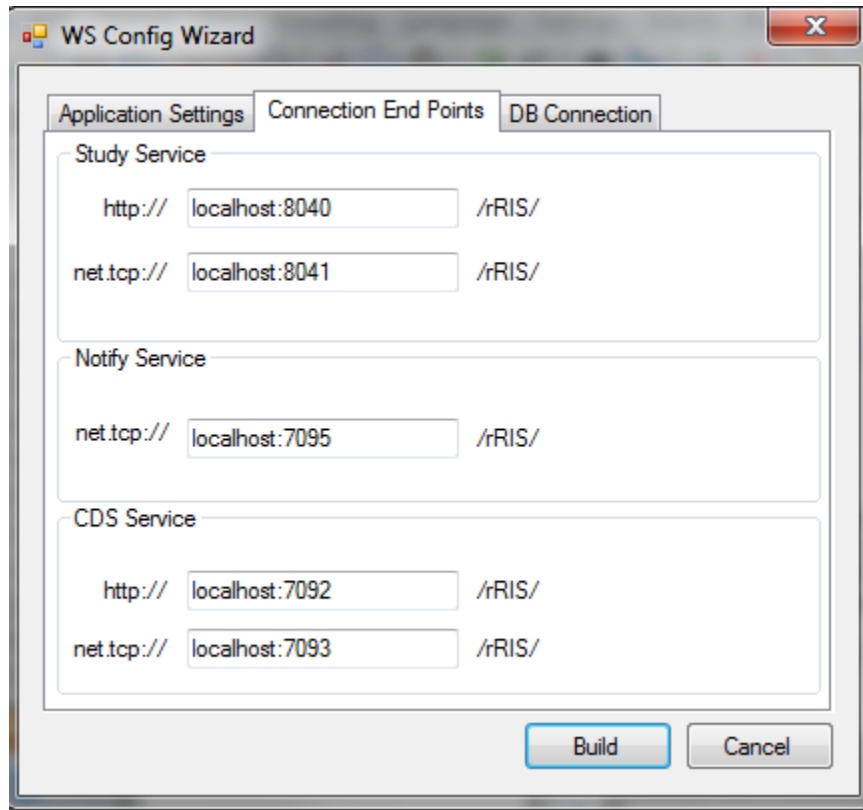
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

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.



**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.



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## DATABASE UPDATES

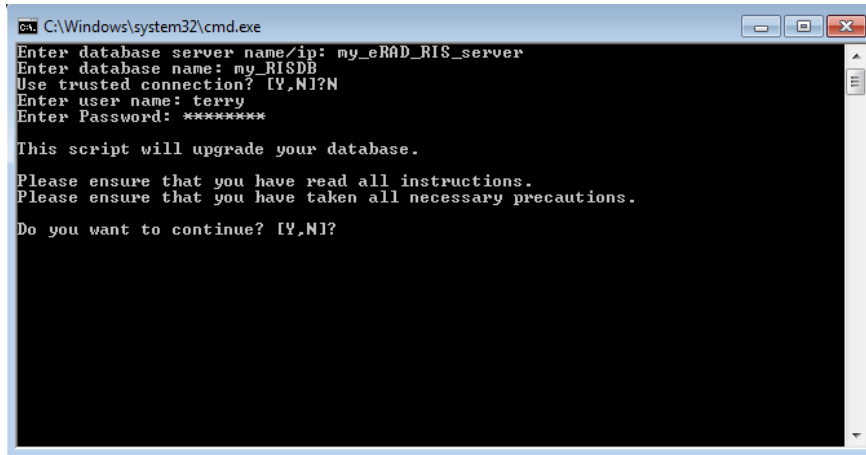
Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*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: 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]?
```

- 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

# Server Update

For eRAD RIS

Version 3.0










Build 3.2017.6

Update 3.2017.6.8

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 ThickClient	06/08/18 11:52 AM
 UM_Portal	06/08/18 11:52 AM
 Build_2017.6.8.7z	06/08/18 4:36 PM

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.6 installs. This server update must be applied to 2017.6.7.

## NEW SETTINGS

## SYSTEM CONFIGURATION

Setting	Default	Purpose
RADARInboundChannelRestartInterval	-1	(value = int) Controls how often (in minutes) the RADAR Inbound message channel will be restarted. (Feature is turned off when value is less than 1.)



## NEW FEATURES

### FEATURE # 20930 – OPTION TO AUTOMATICALLY RESTART RADAR SIGNALR CLIENT

The RADAR SignalR client manages inbound messaging from the RADAR EventBroker service. Previously, if the RADAR Wedge plugin lost connection to the RADAR event broker, it would fail to reconnect resulting in the loss of inbound RADAR message notifications. This resulted in report delivery statuses for reports with an Email distribution method not being received and report delivery jobs stayed at 'In progress' on the Document Distribution WL, even though they had been successfully delivered. It also impacted other inbound RADAR messages, such as SecurePIC replies.

To prevent this from happening, it is now possible to restart the RADAR SignalR client from within the RADAR Wedge plugin. This feature will restore the inbound connection to RADAR without restarting the Wedge service.

A new System Configuration setting has been added:

#### ***RADARInboundChannelRestartInterval***

- Controls how often (in minutes) the RADAR Inbound Message channel will be restarted.
- The feature will be turned off if the value for this setting is less than 1.
- Default = -1 (meaning the new feature will be off by default)
- Recommended setting: if RADAR inbound messaging is enabled, the recommended value is 120.

In the RADARWedgePlugin, if Inbound is enabled and the new configuration setting is set to a value of 1 or higher, a timer is created and started. Once the timer has elapsed, the RADAR SignalR Client is disconnected and recreated, then attempts to reconnect to the RADAR Event Broker. Console messaging has been added to display when the client disconnects and connects to the RADAR Event Broker.

Recommended Use: RADAR inbound notifications are available for 8 hours before expiring.

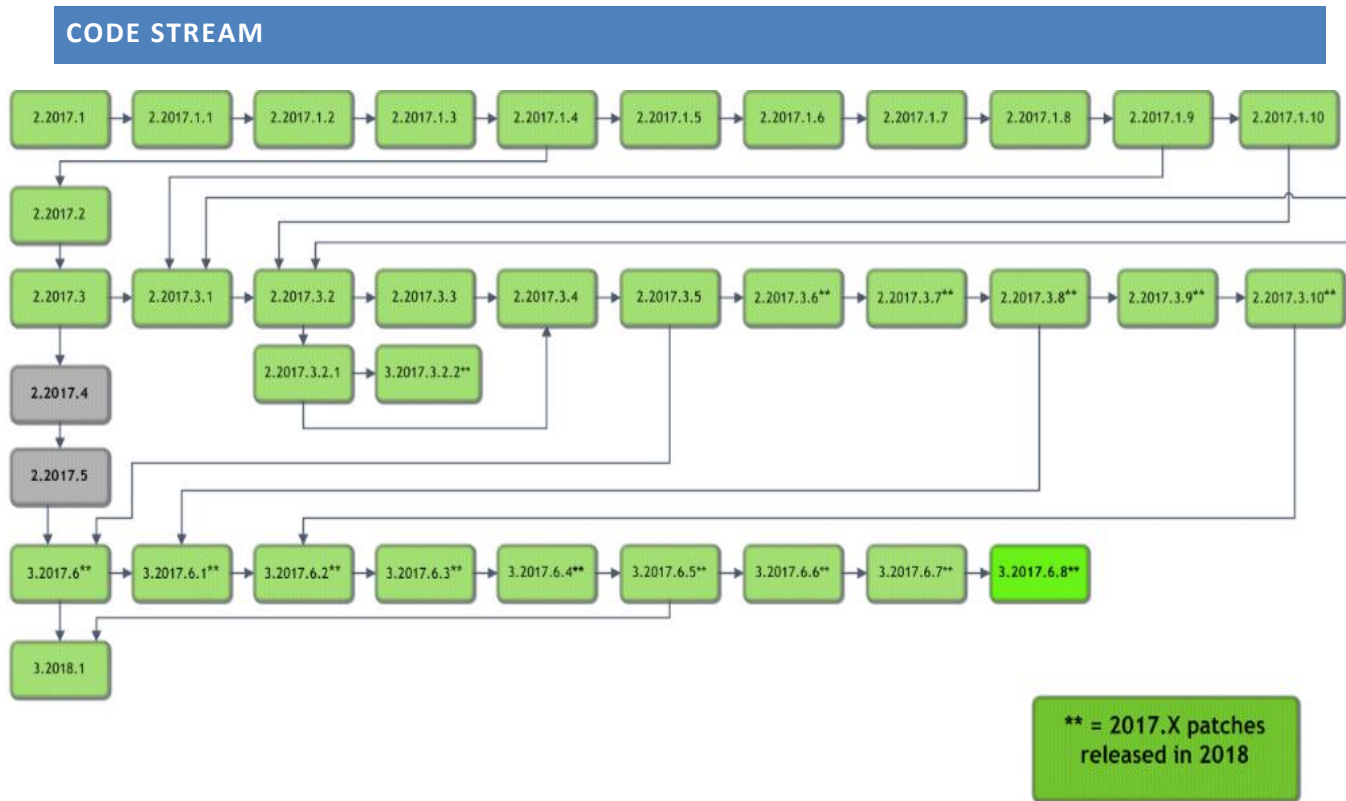
If ***RADARInboundChannelRestartInterval*** is set to 120 minutes, this will restart the RADAR SignalR Client periodically to ensure inbound notifications are being received without having to monitor report delivery on the Distribution WL or the Wedge service itself.

## RESOLVED ITEMS

Redmine # for 2017.6.8	Subject
21228	Linked Reporting: Rescheduling a "Report together" procedure plan no longer breaks the links.
21217	Linked Reporting: Changing the primary procedure in a procedure plan is now correctly breaking the link.
21055	Linked Reporting: Changing the primary procedure on a manually linked set of studies now correctly maintains the link.
21214	GE PACS IW integration via Accession Number: new configuration option is now properly applied even if there are multiple PACS IW entries.
21083	UM Connect Portal: Exception no longer occurring on Exam Detail page when opening an order with both active and inactive study items.
21081	UM Connect Portal Admin Tool: Resolved an issue in which sending a message to "all users" was incorrectly sending the message to all Provider Portal users, instead of UM Portal users.
21065	Resolved a performance issue that occurred when importing a study from CD when the study UID or patient ID were missing (null checks added).
21040	Imagine Pay Integration now has additional logging and exception handling.
19803	SecurePIC Requests can be properly initiated when the patient does not have an email address.

The following fixes from 2018.1 were pulled into this patch for early release.

Redmine # for 2017.6.8	Redmine # for 2018.1	Subject
21064	19810	Eligibility: United HealthCare is now pulling the correct patient address.

**Legend:**

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

## ERAD RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		Full Version Release
2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		GUI, Web Service and DB updates
2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		GUI, Web Service and DB updates
2017.1	3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		GUI, Web Service and DB updates
2017.1	4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI, Web Service, DB and Patient Portal updates
2017.1	5	2.17.1.4 (3GB)	2.17.1.0	2.17.1.5	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		Web Service
2017.1	6	2.17.1.6 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI and DB Updates
2017.1	7	2.17.1.7 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI update
2017.1	8	2.17.1.8 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI update
2017.1	9	2.17.1.9 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI update
2017.1	10	2.17.1.10 (3GB)	2.17.1.0	2.17.1.10	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI and Web Service update
2017.2	-	2.17.2.0 (3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0	2.17.2.0.702238	2.17.2.0.702213	2.17.2.0.702226	Full Version Release. First release of Provider Portal
2017.3	-	2.17.3.0 (3GB)	2.17.3.0	2.17.3.0	2.17.3.0.00764112	2.17.3.0	2.17.3.0.321	2.17.3.0.321	2.17.3.0.321	Full Version Release. Including Patient, Provider and UM Portals
2017.3	1	2.17.3.1 (3GB)	2.17.3.0	2.17.3.1	2.17.3.1.00846328	2.17.3.1	2.17.3.1.853299	2.17.3.1.853301	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2	2.17.3.2 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2.1	2.17.3.2.1 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI Only
2017.3	2.2	2.17.3.2.1 (3GB)	2.17.3.0	2.17.3.2.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	Web Services only
2017.3	3	2.17.3.3 (3GB)	2.17.3.0	2.17.3.3	2.17.3.3.00954008	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	4	2.17.3.4 (3GB)	2.17.3.0	2.17.3.4	2.17.3.4.00987562	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service and DB
2017.3	5	2.17.3.5 (3GB)	2.17.3.0	2.17.3.5	2.17.3.5.01023250	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB, Patient Portal, Referring Portal, UM Portal
2017.3	6	2.17.3.6 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB,
2017.3	7	2.17.3.7 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI
2017.3	8	2.17.3.8 (3GB)	2.17.3.0	2.17.3.8	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI and Web Service
2017.3	9	2.17.3.8 (3GB)	2.17.3.0	2.17.3.9	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	Web Service
2017.3	10	2.17.3.10 (3GB)	2.17.3.0	2.17.3.10	2.17.3.10.01125764	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service and DB updates
2017.6	-	3.17.6.0 (3GB)	3.17.6.0	3.17.6.0	3.17.6.0.01037550	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	Full Version Release. Including Patient, Provider and UM Portals
2017.6	1	3.17.6.1 (3GB)	3.17.6.0	3.17.6.1	3.17.6.1.01094077	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	GUI, Web Service and DB updates
2017.6	2	3.17.6.2 (3GB)	3.17.6.0	3.17.6.2	3.17.6.2.01130171	3.17.6.2	3.17.6.2.1138297	3.17.6.2.1138298	3.17.6.2.1138298	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	3	3.17.6.3 (3GB)	3.17.6.0	3.17.6.3	3.17.6.3.01166033	3.17.6.3	3.17.6.3.1168622	3.17.6.3.1168622	3.17.6.3.1168623	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	4	3.17.6.4 (3GB)	3.17.6.0	3.17.6.4	3.17.6.4.01187509	3.17.6.4	3.17.6.4.1190295	3.17.6.4.1190295	3.17.6.4.1190295	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	5	3.17.6.5 (3GB)	3.17.6.0	3.17.6.5	3.17.6.4.01187509	3.17.6.4	3.17.6.5.1199064	3.17.6.5.1199063	3.17.6.5.1199064	GUI, Web Service, Patient, Provider and UM Portals
2017.6	6	3.17.6.6 (3GB)	3.17.6.0	3.17.6.6	3.17.6.6.01236363	3.17.6.4	3.17.6.5.1199064	3.17.6.5.1199063	3.17.6.5.1199064	GUI, Web Service and DB updates
2017.6	7	3.17.6.7 (3GB)	3.17.6.0	3.17.6.7	3.17.6.7.01257812	3.17.6.7	3.17.6.7.1266287	3.17.6.7.1266287	3.17.6.7.1266287	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM port
2017.6	8	3.17.6.8 (3GB)	3.17.6.0	3.17.6.8	3.17.6.8.01276873	3.17.6.8	3.17.6.8.1280869	3.17.6.8.1280870	3.17.6.8.1280869	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2018.1	-	3.18.1.0 (3GB)	3.18.1.0	3.18.1.0	3.17.6.4.01187509	3.18.1.0	3.18.1.0.1229289	3.18.1.0.1229290	3.18.1.0.1229290	Full version release

## INSTALLING

### CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD\_rRIS\_2017.6.8.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

### WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

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 141 files in the rRISService folder and 7 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). Folders are (Arabic), en\_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt\_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc...

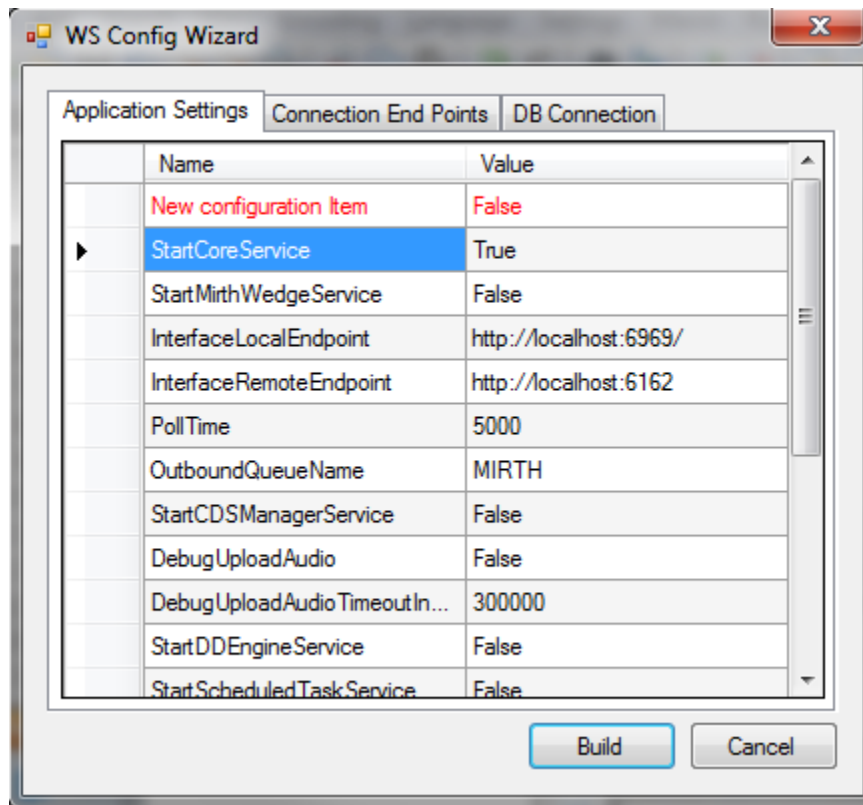
#### Services Configuration Wizard

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, and 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.



**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 /rIS/

net.tcp:// localhost:8041 /rIS/

**Notify Service**

net.tcp:// localhost:7095 /rIS/

**CDS Service**

http:// localhost:7092 /rIS/

net.tcp:// localhost:7093 /rIS/

Build Cancel

---

## DATABASE UPDATES

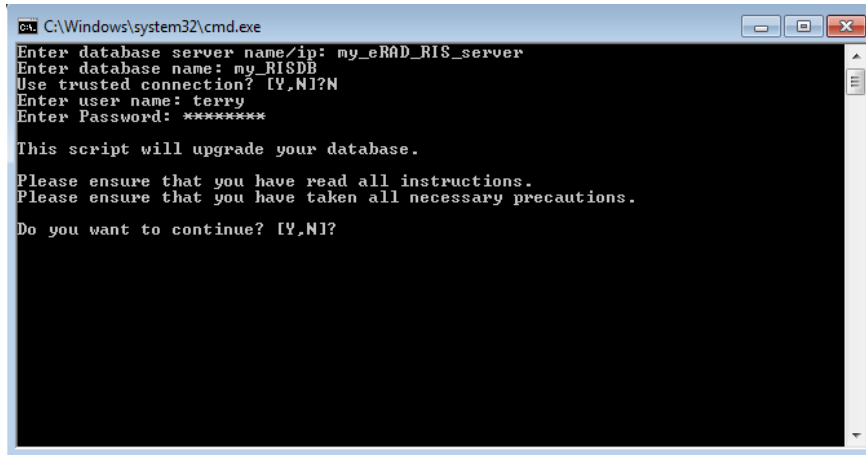
Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*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: 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]?
```

- 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



# **Server Update**

For eRAD RIS

Version 3.0







Build 3.2017.6

Update 3.2017.6.9

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## PACKAGE CONTENTS

 _Documentation	06/27/18 9:41 AM
 _ReleaseNotes	06/29/18 2:25 PM
 PatientConnect_3.17.6.9	06/27/18 9:42 AM
 ReferringConnect_3.17.6.9	06/27/18 9:42 AM
 UM_Portal_3.17.6.9	06/27/18 9:40 AM
 Build_2017.6.9.7z	06/29/18 2:29 PM

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.6 installs. This server update must be applied to 2017.6.8.

## NEW SETTINGS

## APPLICATIONSETTING.CONFIG FOR PORTALS

The following settings are not included in the applicationsettings.config file, they must be added in.

**Patient Portal**

Setting	Default	Purpose
DefaultDaySpanSearchRange	365	Used for any date range control in the portals. The date range has "From" and "To" dates. The "To" date is set to "Today" and the "From" date is set to {DefaultDaySpanSearchRange} days in the past. If this configuration value is not specified, or an invalid number is entered, the default value for this configuration will be 365 days.

**Provider Portal**

Setting	Default	Purpose
DefaultDaySpanSearchRange	365	Used for any date range control in the portals. The date range has "From" and "To" dates. The "To" date is set to "Today" and the "From" date is set to {DefaultDaySpanSearchRange} days in the past. If this configuration value is not specified, or an invalid number is entered, the default value for this configuration will be 365 days.
ExamSearchMaxNoRequirementsDayRange	1	Value will determine if the last name is required to perform a patient search. Default of 1 will allow a user to search a range of 1 day without a last name. A value of 7 would allow user to search 7 days prior to today's date without providing a last name. Acceptable values are from 1-60. Anything greater than 60 will revert to 1. A value of -1 will always require the last name to perform a search.

**Utilization Management Portal**

Setting	Default	Purpose
DefaultDaySpanSearchRange	365	Used for any date range control in the portals. The date range has "From" and "To" dates. The "To" date is set to "Today" and the "From" date is set to {DefaultDaySpanSearchRange} days in the past.

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in any form or by any means without the prior written permission from eRAD.

		If this configuration value is not specified, or an invalid number is entered, the default value for this configuration will be 365 days. If this configuration value is not specified, or an invalid number is entered the default value for this configuration will be 365 days.
OrderSearchMaxNoRequirementsDayRange	1	Value will determine if the last name is required to perform a patient search. Default of 1 will allow a user to search a range of 1 day without a last name. A value of 7 would allow user to search 7 days prior to today's date without providing a last name. Acceptable values are from 1-60. Anything greater than 60 will revert to 1. A value of -1 will always require the last name to perform a search, unless a UM Authorization number is provided.

## NEW FEATURES

## FEATURE #21346 – PROVIDER PORTAL EXAM SEARCH MODIFICATIONS TO SUPPORT INTERNATIONAL BUSINESS NEEDS

To accommodate differences in the way the Provider Portal is used in some international installations, two changes have been made related to searching in the Provider Portal. The new configuration options can also be used to modify UM Portal behavior.

The default selected day range will now be determined by a new application setting configuration **DefaultDaySpanSearchRange** when a valid Integer is specified. The “To” date will be set to “Today” and the “From” date will be set to {**DefaultDaySpanSearchRange**} days in the past. This application configuration change applies to the day span control, as pictured below:

Exam Date (mm-dd-yyyy): From 06-21-2017 To 06-21-2018

Today & Yesterday 7 Days 30 Days 60 Days 90 Days 1 Year

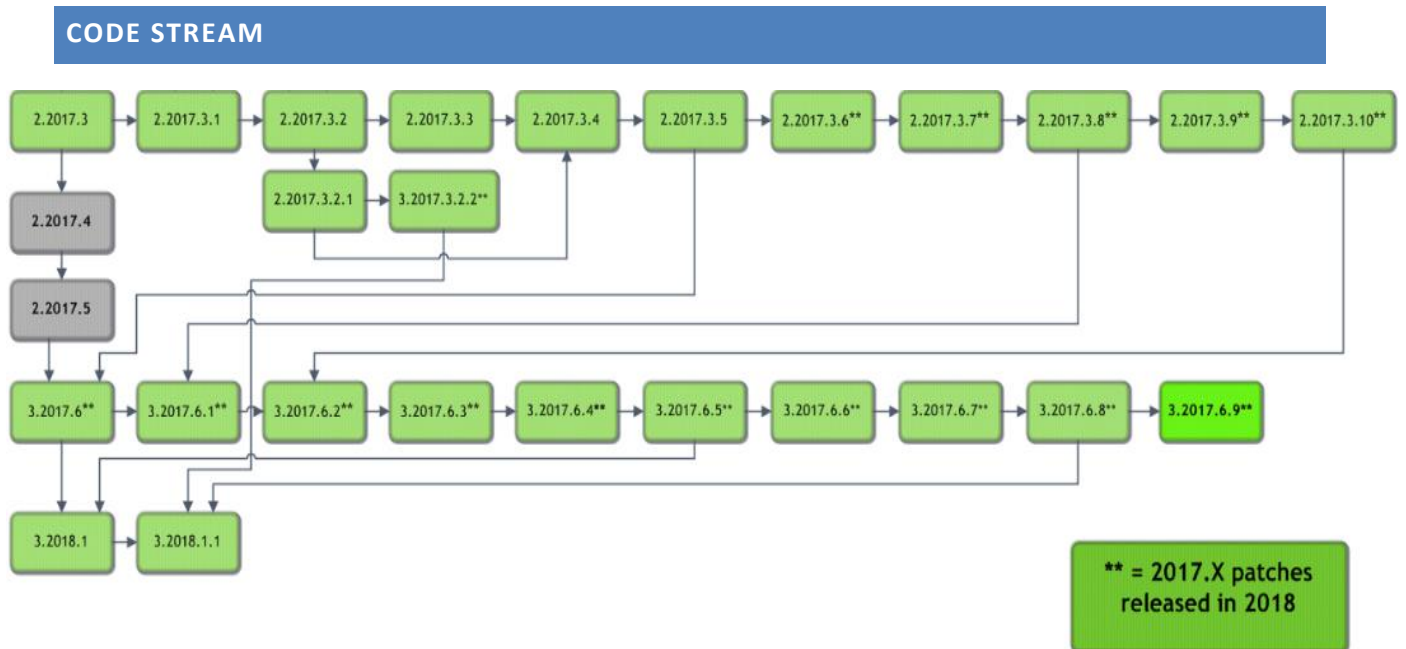
This new configuration value can be configured individually for all portals and will be used for any date range control unless the initial desired value is to be restricted to a specific date range. If this configuration value is not specified, or an invalid number is entered, the default value for this configuration will be 365 days.

In addition, two additional application configuration values have been created:

**ExamSearchMaxNoRequirementsDayRange**, which pertains to the exam search in the Provider Portal, and **OrderSearchMaxNoRequirementsDayRange**, which pertains to the order search in the UM Portal. These settings were created to define a maximum period of time for which a portal user can search without specifying a last name. As usual, the UM Portal will not enforce the last name if the UM authorization number is entered, even if the maximum range is exceeded.

By default, the value for both of these settings will be 1, which is equivalent to the option of **Today & Yesterday**. In other words, with the default setting, it is possible to search for a list of exams/orders from the current day and the day before without restricting the search by patient name. It is not possible to configure this for any value higher than 60 days. If the specified value is greater than 60, it will revert back to 1. Setting this value to -1 (negative one) will revert to normal conditions where last name is always required.

In addition to the above changes, an issue experienced when converting a Datatable to a Model has been resolved. If the Model contains a property that doesn't contain a setter, it no longer throws a null exception for each property. While this issue became noticeable in an environment with a large WL dataset conversion, this conversion applies to all Datatable/Dataviews, so will result in improvements to all data screens.

**Legend:**

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

## ERAD RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2017.3	-	2.17.3.0(3GB)	2.17.3.0	2.17.3.0	2.17.3.0.00764112	2.17.3.0	2.17.3.0.321	2.17.3.0.321	2.17.3.0.321	Full Version Release. Including Patient, Provider and UM Portals
2017.3	1	2.17.3.1(3GB)	2.17.3.0	2.17.3.1	2.17.3.1.00846328	2.17.3.1	2.17.3.1.853299	2.17.3.1.853301	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2	2.17.3.2(3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2.1	2.17.3.2.1(3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI Only
2017.3	2.2	2.17.3.2.1(3GB)	2.17.3.0	2.17.3.2.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	Web Services only
2017.3	3	2.17.3.3(3GB)	2.17.3.0	2.17.3.3	2.17.3.3.00954008	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	4	2.17.3.4(3GB)	2.17.3.0	2.17.3.4	2.17.3.4.00987562	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service and DB
2017.3	5	2.17.3.5(3GB)	2.17.3.0	2.17.3.5	2.17.3.5.01023250	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB, Patient Portal, Referring Portal, UM Portal
2017.3	6	2.17.3.6(3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB,
2017.3	7	2.17.3.7(3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI
2017.3	8	2.17.3.8(3GB)	2.17.3.0	2.17.3.8	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI and Web Service
2017.3	9	2.17.3.8(3GB)	2.17.3.0	2.17.3.9	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	Web Service
2017.3	10	2.17.3.10(3GB)	2.17.3.0	2.17.3.10	2.17.3.10.01125764	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service and DB updates
2017.6	-	3.17.6.0(3GB)	3.17.6.0	3.17.6.0	3.17.6.0.01037550	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	Full Version Release. Including Patient, Provider and UM Portals
2017.6	1	3.17.6.1(3GB)	3.17.6.0	3.17.6.1	3.17.6.1.01094077	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	GUI, Web Service and DB updates
2017.6	2	3.17.6.2(3GB)	3.17.6.0	3.17.6.2	3.17.6.2.01130171	3.17.6.2	3.17.6.2.1138297	3.17.6.2.1138298	3.17.6.2.1138298	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	3	3.17.6.3(3GB)	3.17.6.0	3.17.6.3	3.17.6.3.01166033	3.17.6.3	3.17.6.3.1168622	3.17.6.3.1168622	3.17.6.3.1168623	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	4	3.17.6.4(3GB)	3.17.6.0	3.17.6.4	3.17.6.4.01187509	3.17.6.4	3.17.6.4.1190295	3.17.6.4.1190295	3.17.6.4.1190295	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	5	3.17.6.5(3GB)	3.17.6.0	3.17.6.5	3.17.6.4.01187509	3.17.6.4	3.17.6.5.1199064	3.17.6.5.1199063	3.17.6.5.1199064	GUI, Web Service, Patient, Provider and UM Portals
2017.6	6	3.17.6.6(3GB)	3.17.6.0	3.17.6.6	3.17.6.6.01236363	3.17.6.4	3.17.6.5.1199064	3.17.6.5.1199063	3.17.6.5.1199064	GUI, Web Service and DB updates
2017.6	7	3.17.6.7(3GB)	3.17.6.0	3.17.6.7	3.17.6.7.01257812	3.17.6.7	3.17.6.7.1266287	3.17.6.7.1266287	3.17.6.7.1266287	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2017.6	8	3.17.6.8(3GB)	3.17.6.0	3.17.6.8	3.17.6.8.01276873	3.17.6.8	3.17.6.8.1280869	3.17.6.8.1280870	3.17.6.8.1280869	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2017.6	9	3.17.6.8(3GB)	3.17.6.0	3.17.6.8	3.17.6.8.01276873	3.17.6.8	3.17.6.9.1308097	3.17.6.9.1308098	3.17.6.9.1308098	Patent, Provider and UM portals
2018.1	-	3.18.1.0(3GB)	3.18.1.0	3.18.1.0	3.18.1.0.01228009	3.18.1.0	3.18.1.0.1229289	3.18.1.0.1229290	3.18.1.0.1229290	Full version release
2018.1	1	3.18.1.1(3GB)	3.18.1.0	3.18.1.1	3.18.1.1.01288419	3.18.1.1	3.18.1.1.1299765	3.18.1.1.1299766	3.18.1.1.1299765	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals



# **Server Update**

For eRAD RIS

Version 3.0













Build 3.2017.6

Update 3.2017.6.10

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## PACKAGE CONTENTS

 _ReleaseNotes	07/16/18 4:46 PM
 DB	07/16/18 4:45 PM
 ExternalWebAPI	07/13/18 1:34 PM
 Identity Service	07/13/18 1:34 PM
 PACS Citrix Bridge	07/13/18 1:35 PM
 PatientConnect	07/13/18 1:37 PM
 Questionnaires	07/13/18 1:34 PM
 ReferringConnect	07/13/18 1:37 PM
 rRISService	07/13/18 1:34 PM
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 ThickClient	07/13/18 1:34 PM
 UM_Portal	07/13/18 1:34 PM

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.6 installs. This server update must be applied to 2017.6.9.

## NEW SETTINGS

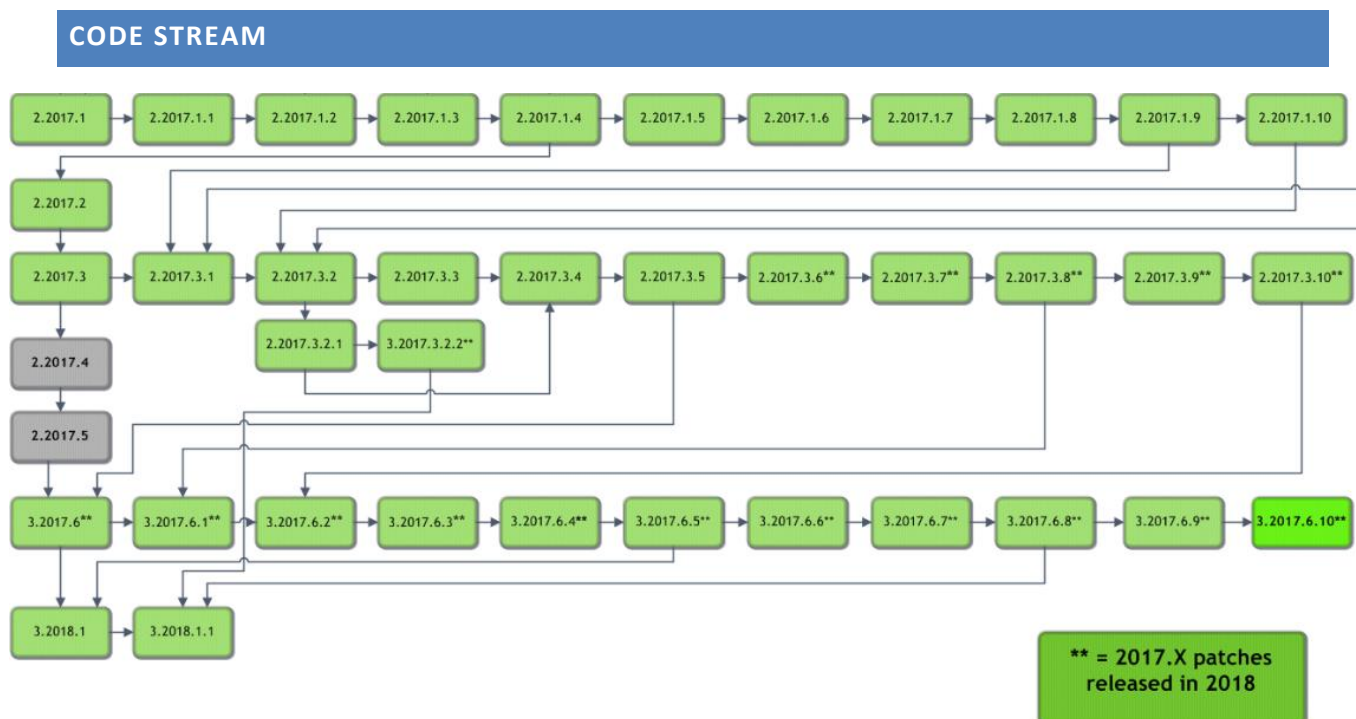
## APPLICATIONSETTING.CONFIG

Setting	Default	Purpose
VerbosePrefetchLoggingEnabledUsers	Null (empty)	<p>This setting enables additional information to be logged to the verbose log file for troubleshooting PACS caching.</p> <p>Example of acceptable values:</p> <ul style="list-style-type: none"><li>• comma separated list of users: usera,userb</li><li>• an asterisk signifying that logging is enabled for all users: *</li><li>• an empty value to denote no extra logging for any user</li></ul>

## RESOLVED ITEMS

Redmine # for 2017.6.8	Subject
21578	The Amount to Collect recorded in the database is now appropriately matching the Amount to Collect displayed in RIS. This resolves an issue that was causing management report information to inaccurately reflect that additional money should have been collected from the patient at the time of service. Management reports should now appropriately reflect an accurate Amount to Collect.
21561	The Reason for Exam field in the Reporting screens now appropriately displays longer entries.
21555	Adjustments were made to appropriately display ImaginePay payment receipts after a change was made to ImaginePay that prevented eRAD from properly rendering the receipt.
21541	The eRAD PACS prefetch call is now using the protocol from the l_pacs_server table.
21508	If the Carrier type code is CAP, the Amount to Collect calculation will include only the co-pay once per day, regardless of Visit Cost. This will allow for the appropriate behavior for capitation studies which do not bring back a Visit Cost. Please note that if one of the billing codes is set to "Allow Amount to Collect with Valid Insurance Flag" equals N (No), the co-pay will not be collected.
21478	Resolved an issue where certain Order-level Alert icons were not displaying properly on worklists. In addition, administrators are now prevented from creating Alerts where the Code contains quotation marks or commas, which can cause display issues.
21471	Resolved an issue with eRAD PACS prefetch which could cause it to stop working after an exception was thrown in a particular user's prefetch thread on the web service. A new Application Configuration setting has been added to troubleshoot caching issues (see description above).
21362	If a message is sent from the Patient or Provider Portal with no text in the body of the message, it will no longer cause an error.
21359	Resolved an issue where the deductible line from the Availity service section was missing under certain conditions ("contract").
21354	Pending Dictation WL: when switching to a custom view that has caching turned off, the worklist will still display the manually cached studies.
21337	RIS upgrade will no longer encounter issues if there is a stuck ris.exe process running.
21269	Resolved an issue where RIS would sometimes request the same lookup table data from the server multiple times in the same second.
21239	Resolved a "specified cast is not valid" error that was caused by a missing null check in the ReviewCopaysOverMultipleOrders method.

21173	Resolved an issue with inappropriate status updates that could occur when manually linking studies for linked reporting. The issue could occur when some studies on the same order were linked and others were not linked. Status updates that need to occur for the studies involved in the link are no longer inappropriately applied to the studies on the order that were not involved in the linked set.
21168	Old billing codes no longer stay active after procedure code change, resolving an issue that previously caused an error stating "Units cannot be less than 0."
21106	Appointment Book custom views can now be saved for modalities (rooms) that contain special characters (such as "/" ) in their Modality Code.

**Legend:**

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

## ERAD RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		Full Version Release
2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		GUI, Web Service and DB updates
2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		GUI, Web Service and DB updates
2017.1	3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		GUI, Web Service and DB updates
2017.1	4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI, Web Service, DB and Patient Portal updates
2017.1	5	2.17.1.4 (3GB)	2.17.1.0	2.17.1.5	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		Web Service
2017.1	6	2.17.1.6 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI and DB Updates
2017.1	7	2.17.1.7 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI update
2017.1	8	2.17.1.8 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI update
2017.1	9	2.17.1.9 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI update
2017.1	10	2.17.1.10 (3GB)	2.17.1.0	2.17.1.10	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI and Web Service update
2017.2	-	2.17.2.0 (3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0	2.17.2.0.702238	2.17.2.0.702213	2.17.2.0.702226	Full Version Release. First release of Provider Portal
2017.3	-	2.17.3.0 (3GB)	2.17.3.0	2.17.3.0	2.17.3.0.00764112	2.17.3.0	2.17.3.0.321	2.17.3.0.321	2.17.3.0.321	Full Version Release. Including Patient, Provider and UM Portals
2017.3	1	2.17.3.1 (3GB)	2.17.3.0	2.17.3.1	2.17.3.1.00846328	2.17.3.1	2.17.3.1.853299	2.17.3.1.853301	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2	2.17.3.2 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2.1	2.17.3.2.1 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI Only
2017.3	2.2	2.17.3.2.1 (3GB)	2.17.3.0	2.17.3.2.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	Web Services only
2017.3	3	2.17.3.3 (3GB)	2.17.3.0	2.17.3.3	2.17.3.3.00954008	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	4	2.17.3.4 (3GB)	2.17.3.0	2.17.3.4	2.17.3.4.00987562	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service and DB
2017.3	5	2.17.3.5 (3GB)	2.17.3.0	2.17.3.5	2.17.3.5.01023250	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB, Patient Portal, Referring Portal, UM Portal
2017.3	6	2.17.3.6 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB,
2017.3	7	2.17.3.7 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI
2017.3	8	2.17.3.8 (3GB)	2.17.3.0	2.17.3.8	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI and Web Service
2017.3	9	2.17.3.8 (3GB)	2.17.3.0	2.17.3.9	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	Web Service
2017.3	10	2.17.3.10 (3GB)	2.17.3.0	2.17.3.10	2.17.3.10.01125764	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service and DB updates
2017.6	-	3.17.6.0 (3GB)	3.17.6.0	3.17.6.0	3.17.6.0.01037550	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	Full Version Release. Including Patient, Provider and UM Portals
2017.6	1	3.17.6.1 (3GB)	3.17.6.0	3.17.6.1	3.17.6.1.01094077	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	GUI, Web Service and DB updates
2017.6	2	3.17.6.2 (3GB)	3.17.6.0	3.17.6.2	3.17.6.2.01130171	3.17.6.2	3.17.6.2.1138297	3.17.6.2.1138298	3.17.6.2.1138298	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	3	3.17.6.3 (3GB)	3.17.6.0	3.17.6.3	3.17.6.3.01166033	3.17.6.3	3.17.6.3.1168622	3.17.6.3.1168622	3.17.6.3.1168623	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	4	3.17.6.4 (3GB)	3.17.6.0	3.17.6.4	3.17.6.4.01187509	3.17.6.4	3.17.6.4.1190295	3.17.6.4.1190295	3.17.6.4.1190295	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	5	3.17.6.5 (3GB)	3.17.6.0	3.17.6.5	3.17.6.4.01187509	3.17.6.4	3.17.6.5.1199064	3.17.6.5.1199063	3.17.6.5.1199064	GUI, Web Service, Patient, Provider and UM Portals
2017.6	6	3.17.6.6 (3GB)	3.17.6.0	3.17.6.6	3.17.6.6.01236363	3.17.6.4	3.17.6.5.1199064	3.17.6.5.1199063	3.17.6.5.1199064	GUI, Web Service and DB updates
2017.6	7	3.17.6.7 (3GB)	3.17.6.0	3.17.6.7	3.17.6.7.01257812	3.17.6.7	3.17.6.7.1266287	3.17.6.7.1266287	3.17.6.7.1266287	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2017.6	8	3.17.6.8 (3GB)	3.17.6.0	3.17.6.8	3.17.6.8.01276873	3.17.6.8	3.17.6.8.1280869	3.17.6.8.1280870	3.17.6.8.1280869	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2017.6	9	3.17.6.8 (3GB)	3.17.6.0	3.17.6.8	3.17.6.8.01276873	3.17.6.8	3.17.6.9.1308097	3.17.6.9.1308098	3.17.6.9.1308098	Patient, Provider and UM portals
2017.6	10	3.17.6.10 (3GB)	3.17.6.0	3.17.6.10	3.17.6.10.01335594	3.17.6.10	3.17.6.10.1331371	3.17.6.10.1331372	3.17.6.10.1331372	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2018.1	-	3.18.1.0 (3GB)	3.18.1.0	3.18.1.0	3.18.1.0.01228009	3.18.1.0	3.18.1.0.1229289	3.18.1.0.1229290	3.18.1.0.1229290	Full version release
2018.1	1	3.18.1.1 (3GB)	3.18.1.0	3.18.1.1	3.18.1.1.01288419	3.18.1.1	3.18.1.1.1299765	3.18.1.1.1299766	3.18.1.1.1299765	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals

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## INSTALLING

### CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD\_rRIS\_2017.6.10.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

### WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

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 141 files in the rRISService folder and 7 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). Folders are (Arabic), en\_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt\_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc...

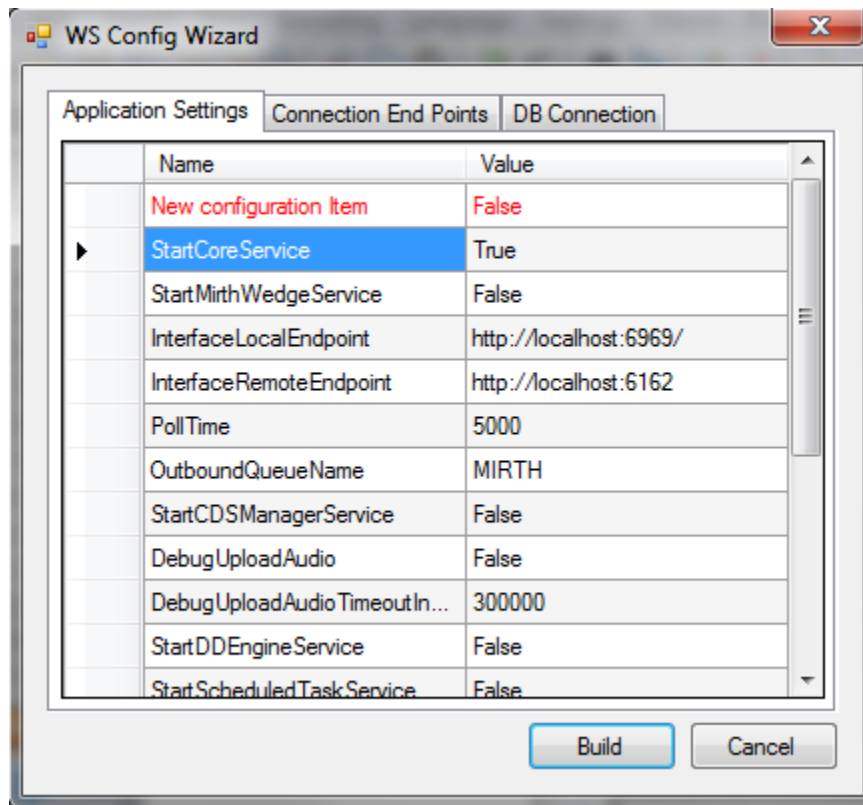
#### Services Configuration Wizard

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, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

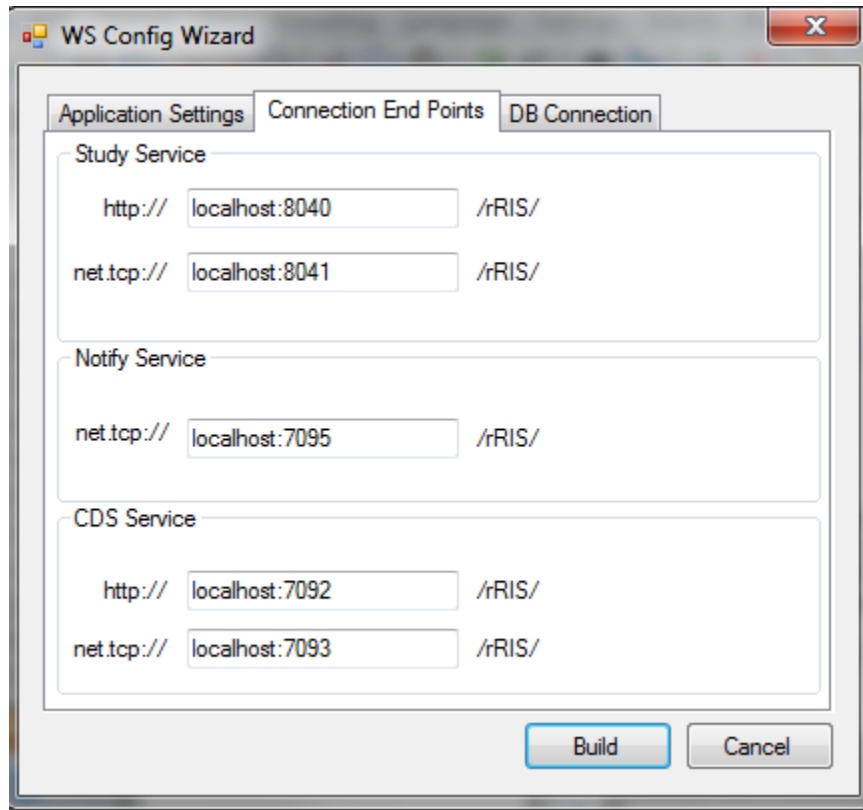
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application “ServicesConfigWizard.exe”

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.



**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.



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## DATABASE UPDATES

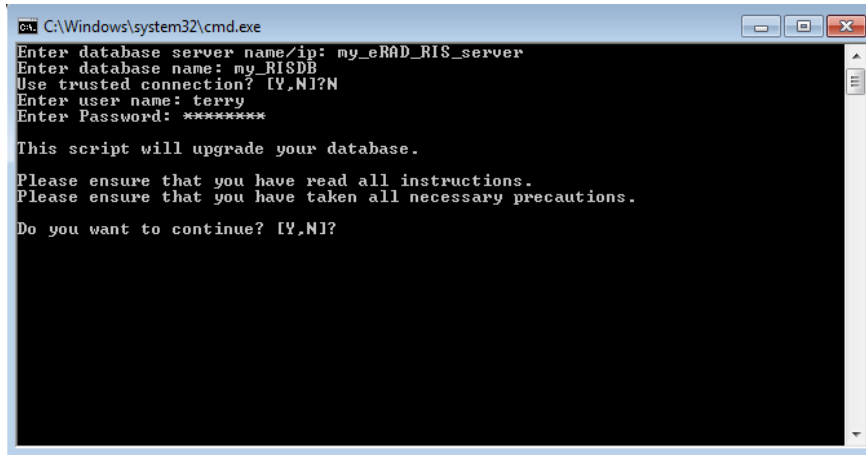
Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*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: 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]?
```

- 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

# **Server Update**

For eRAD RIS

Version 3.0








Build 3.2017.6

Update 3.2017.6.11.1

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## PACKAGE CONTENTS

 _ReleaseNotes	09/25/18 4:32 PM
 DB	09/25/18 1:52 PM
 rRISService	09/25/18 1:52 PM
 Service Tools	09/25/18 1:52 PM
 ThickClient	09/25/18 1:51 PM
 Build_2017.6.11.1_643.7z	09/25/18 4:37 PM
 RISServerMasterCert.pfx	03/31/16 1:38 PM

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.6 installs. This server update must be applied to 2017.6.11.

## NEW FEATURES

## FEATURE #22401 - RESULTS OF DB FUNCTION Z\_GET\_MEDICAL\_GROUP NEED TO BE STORED IN A WEDGE ACCESSIBLE DB TABLE

The billing file sent didn't include the medical\_group\_string. The results are created with the function z\_medical\_group, but there were not stored in the database, thus the data could not be sent.

We added the column medical\_group\_string to the table c\_eligibility\_response to store the data from the z\_get\_medical\_group function. With it now stored in the database, the information can now be sent in outgoing message.

Example of data store in c\_eligibility\_response table:

Results		Messages					
medical_group_string	eligibility_request_key	raw_result	exception_message	completed_date	eligible_api_id	coverage_status	
58 ST. MARY's MEDICAL GROUP	21014	('created_at': '2014-10-20T14:15:53-04:00', 'eligible_id': 'eRAD_...	NULL	2018-09-25 15:25:34.1908892 -03:00	eRAD_DEMO	Active Coverage	

Example of XML in outgoing message:

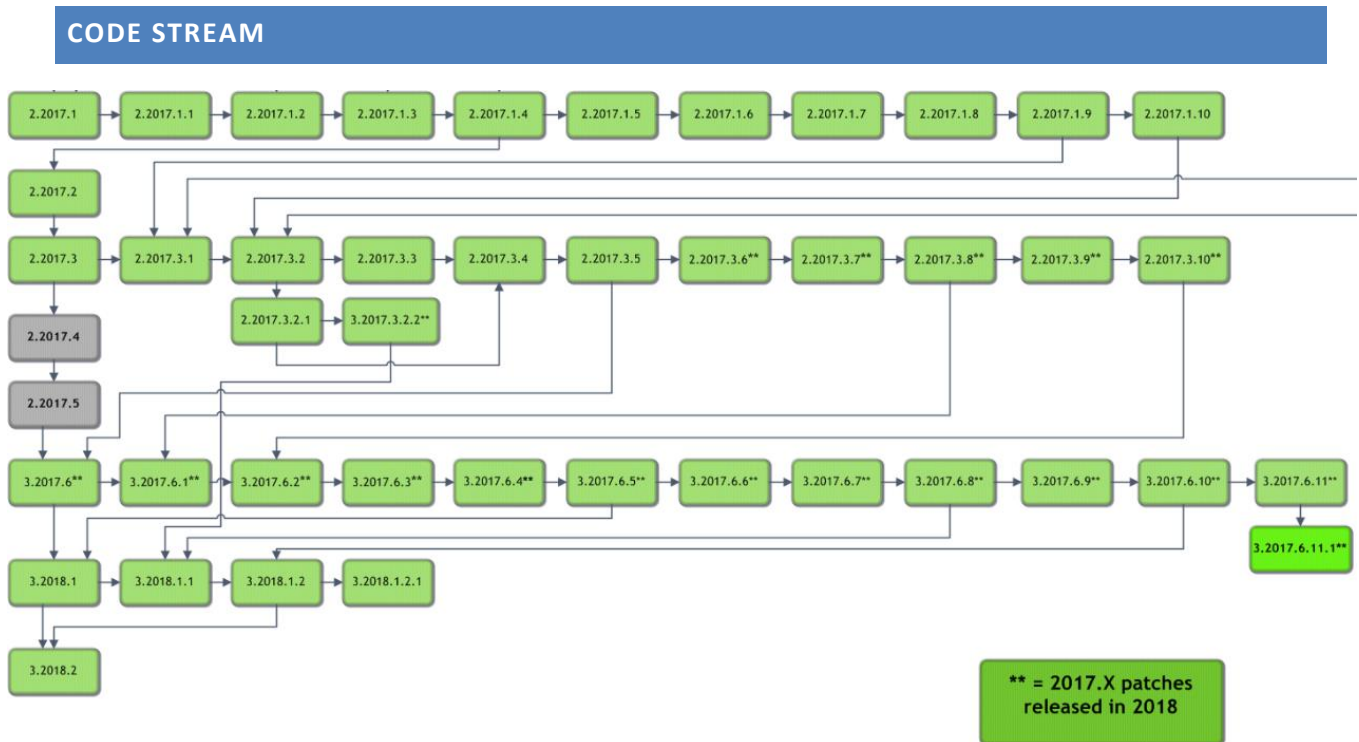
```
<medical_group_string>ST Mary's MEDICAL GROUP</medical_group_string>
</c_eligibility_response>
```



## RESOLVED ITEMS

Redmine # for 2017.6.11.1	Subject
22394	Include specific REF N6 segment in 271 -> JSON conversion

**Special note for implementation** – the above bug will also require manual intervention to update the function z\_get\_medical\_group. Please see the Redmine #22394 for information

**Legend:**

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

## ERAD RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		Full Version Release
2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		GUI, Web Service and DB updates
2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		GUI, Web Service and DB updates
2017.1	3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		GUI, Web Service and DB updates
2017.1	4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI, Web Service, DB and Patient Portal updates
2017.1	5	2.17.1.4 (3GB)	2.17.1.0	2.17.1.5	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		Web Service
2017.1	6	2.17.1.6 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI and DB Updates
2017.1	7	2.17.1.7 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI update
2017.1	8	2.17.1.8 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI update
2017.1	9	2.17.1.9 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI update
2017.1	10	2.17.1.10 (3GB)	2.17.1.0	2.17.1.10	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI and Web Service update
2017.2	-	2.17.2.0 (3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0	2.17.2.0.702238	2.17.2.0.702213	2.17.2.0.702226	Full Version Release. First release of Provider Portal
2017.3	-	2.17.3.0 (3GB)	2.17.3.0	2.17.3.0	2.17.3.0.00764112	2.17.3.0	2.17.3.0.321	2.17.3.0.321	2.17.3.0.321	Full Version Release, including Patient, Provider and UM Portals
2017.3	1	2.17.3.1 (3GB)	2.17.3.0	2.17.3.1	2.17.3.1.00846328	2.17.3.1	2.17.3.1.853299	2.17.3.1.853301	2.17.3.1.856171	GUI, Web Service, DB, including Patient, Provider and UM Portals
2017.3	2	2.17.3.2 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI, Web Service, DB, including Patient, Provider and UM Portals
2017.3	2.1	2.17.3.2.1 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI Only
2017.3	2.2	2.17.3.2.1 (3GB)	2.17.3.0	2.17.3.2.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	Web Services only
2017.3	3	2.17.3.3 (3GB)	2.17.3.0	2.17.3.3	2.17.3.3.00954008	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service, DB, including Patient, Provider and UM Portals
2017.3	4	2.17.3.4 (3GB)	2.17.3.0	2.17.3.4	2.17.3.4.00987562	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service and DB
2017.3	5	2.17.3.5 (3GB)	2.17.3.0	2.17.3.5	2.17.3.5.01023250	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB, Patient Portal, Referring Portal, UM Portal
2017.3	6	2.17.3.6 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB,
2017.3	7	2.17.3.7 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI
2017.3	8	2.17.3.8 (3GB)	2.17.3.0	2.17.3.8	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI and Web Service
2017.3	9	2.17.3.8 (3GB)	2.17.3.0	2.17.3.9	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	Web Service
2017.3	10	2.17.3.10 (3GB)	2.17.3.0	2.17.3.10	2.17.3.10.01125764	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service and DB updates
2017.6	-	3.17.6.0 (3GB)	3.17.6.0	3.17.6.0	3.17.6.0.01037550	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	Full Version Release, including Patient, Provider and UM Portals
2017.6	1	3.17.6.1 (3GB)	3.17.6.0	3.17.6.1	3.17.6.1.01094077	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	GUI, Web Service and DB updates
2017.6	2	3.17.6.2 (3GB)	3.17.6.0	3.17.6.2	3.17.6.2.01130171	3.17.6.2	3.17.6.2.1138297	3.17.6.2.1138298	3.17.6.2.1138298	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	3	3.17.6.3 (3GB)	3.17.6.0	3.17.6.3	3.17.6.3.01166033	3.17.6.3	3.17.6.3.1168622	3.17.6.3.1168622	3.17.6.3.1168623	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	4	3.17.6.4 (3GB)	3.17.6.0	3.17.6.4	3.17.6.4.01187509	3.17.6.4	3.17.6.4.1190295	3.17.6.4.1190295	3.17.6.4.1190295	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	5	3.17.6.5 (3GB)	3.17.6.0	3.17.6.5	3.17.6.4.01187509	3.17.6.4	3.17.6.5.1199064	3.17.6.5.1199063	3.17.6.5.1199064	GUI, Web Service, Patient, Provider and UM Portals
2017.6	6	3.17.6.6 (3GB)	3.17.6.0	3.17.6.6	3.17.6.6.01236363	3.17.6.4	3.17.6.5.1199064	3.17.6.5.1199063	3.17.6.5.1199064	GUI, Web Service and DB updates
2017.6	7	3.17.6.7 (3GB)	3.17.6.0	3.17.6.7	3.17.6.7.01257812	3.17.6.7	3.17.6.7.1266287	3.17.6.7.1266287	3.17.6.7.1266287	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2017.6	8	3.17.6.8 (3GB)	3.17.6.0	3.17.6.8	3.17.6.8.01276873	3.17.6.8	3.17.6.8.1280869	3.17.6.8.1280870	3.17.6.8.1280869	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2017.6	9	3.17.6.8 (3GB)	3.17.6.0	3.17.6.8	3.17.6.8.01276873	3.17.6.8	3.17.6.9.1308097	3.17.6.9.1308098	3.17.6.9.1308098	Patient, Provider and UM portals
2017.6	10	3.17.6.10 (3GB)	3.17.6.0	3.17.6.10	3.17.6.10.01335594	3.17.6.10	3.17.6.10.1331371	3.17.6.10.1331372	3.17.6.10.1331372	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2017.6	11	3.17.6.11 (3GB)	3.17.6.0	3.17.6.10	3.17.6.11.01347408	3.17.6.10	3.17.6.10.1331371	3.17.6.10.1331372	3.17.6.10.1331372	GUI and DB updates
2017.6	11.1	3.17.6.11.1 (3GB)	3.17.6.0	3.17.6.11.1	3.17.6.11.01437968	3.17.6.10	3.17.6.10.1331371	3.17.6.10.1331372	3.17.6.10.1331372	GUI, Web Service, DB,
2018.1	-	3.18.1.0 (3GB)	3.18.1.0	3.18.1.0	3.18.1.0.01228009	3.18.1.0	3.18.1.0.1229289	3.18.1.0.1229290	3.18.1.0.1229290	Full version release
2018.1	1	3.18.1.1 (3GB)	3.18.1.0	3.18.1.1	3.18.1.1.01288419	3.18.1.1	3.18.1.1.1299765	3.18.1.1.1299766	3.18.1.1.1299765	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2018.1	2	3.18.1.2 (3GB)	3.18.1.0	3.18.1.2	3.18.1.2.01341771	3.18.1.2	3.18.1.2.1355946	3.18.1.2.1355947	3.18.1.2.1355947	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2018.1	2.1	3.18.1.2.1 (3GB)	3.18.1.0	3.18.1.2.1	3.18.1.2.01341771	3.18.1.2	3.18.1.2.1355946	3.18.1.2.1355947	3.18.1.2.1355947	GUI and Web Service
2018.2	-	3.18.2.0 (3GB)	3.18.2.0	3.18.2.0	3.18.2.0.01412126	3.18.2.0	3.18.2.0.1416370	3.18.2.0.1416371	3.18.2.0.1416371	Full Version Release, including Patient, Provider and UM Portals

## INSTALLING

### CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD\_rRIS\_2017.6.11.1.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

### WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

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 141 files in the rRISService folder and 7 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). Folders are (Arabic), en\_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt\_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc...

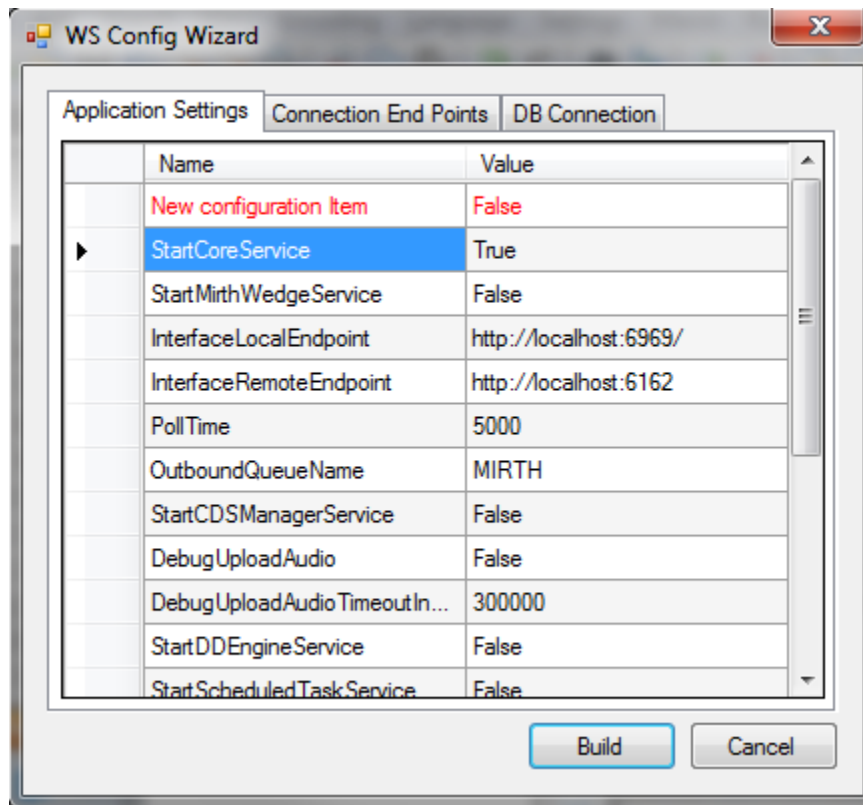
#### Services Configuration Wizard

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, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

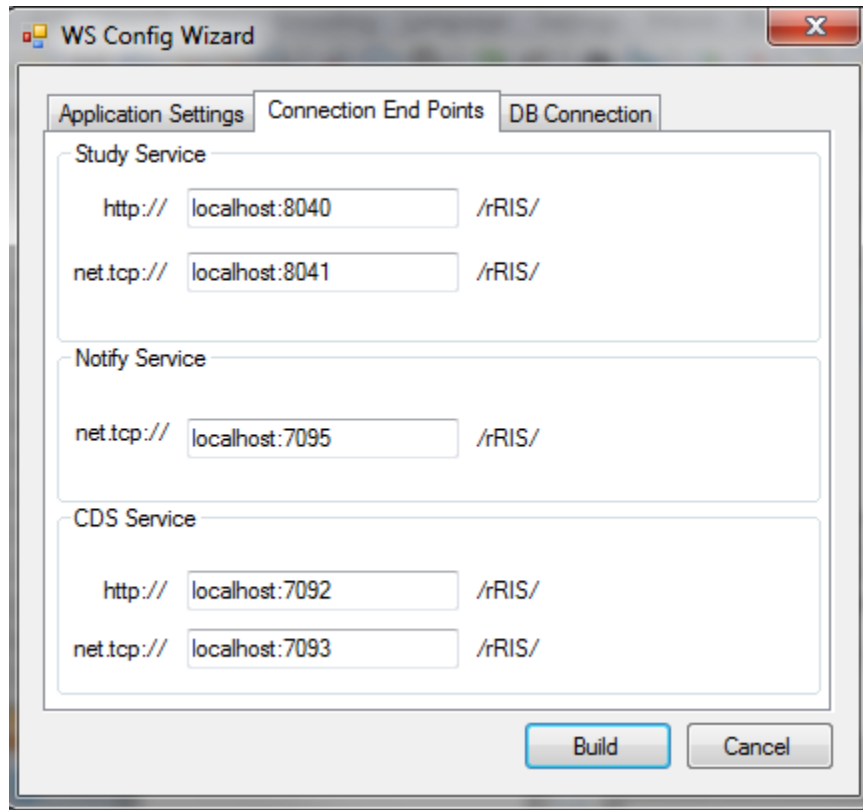
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

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.



**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.



---

## DATABASE UPDATES

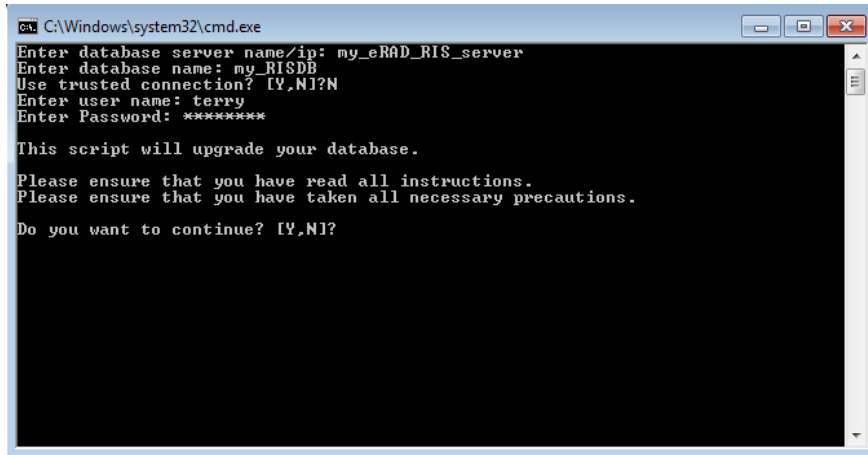
Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*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: 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]?
```

- 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

# **Server Update**

For eRAD RIS

Version 3.0

Build 3.2017.6





Update 3.2017.6.11



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**PACKAGE CONTENTS**

 _ReleaseNotes	07/25/18 10:38 AM
 DB	07/24/18 2:48 PM
 ThickClient	07/24/18 2:47 PM
 Build_2017.6.11.7z	07/25/18 10:41 AM

**INTENDED AUDIENCE**

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

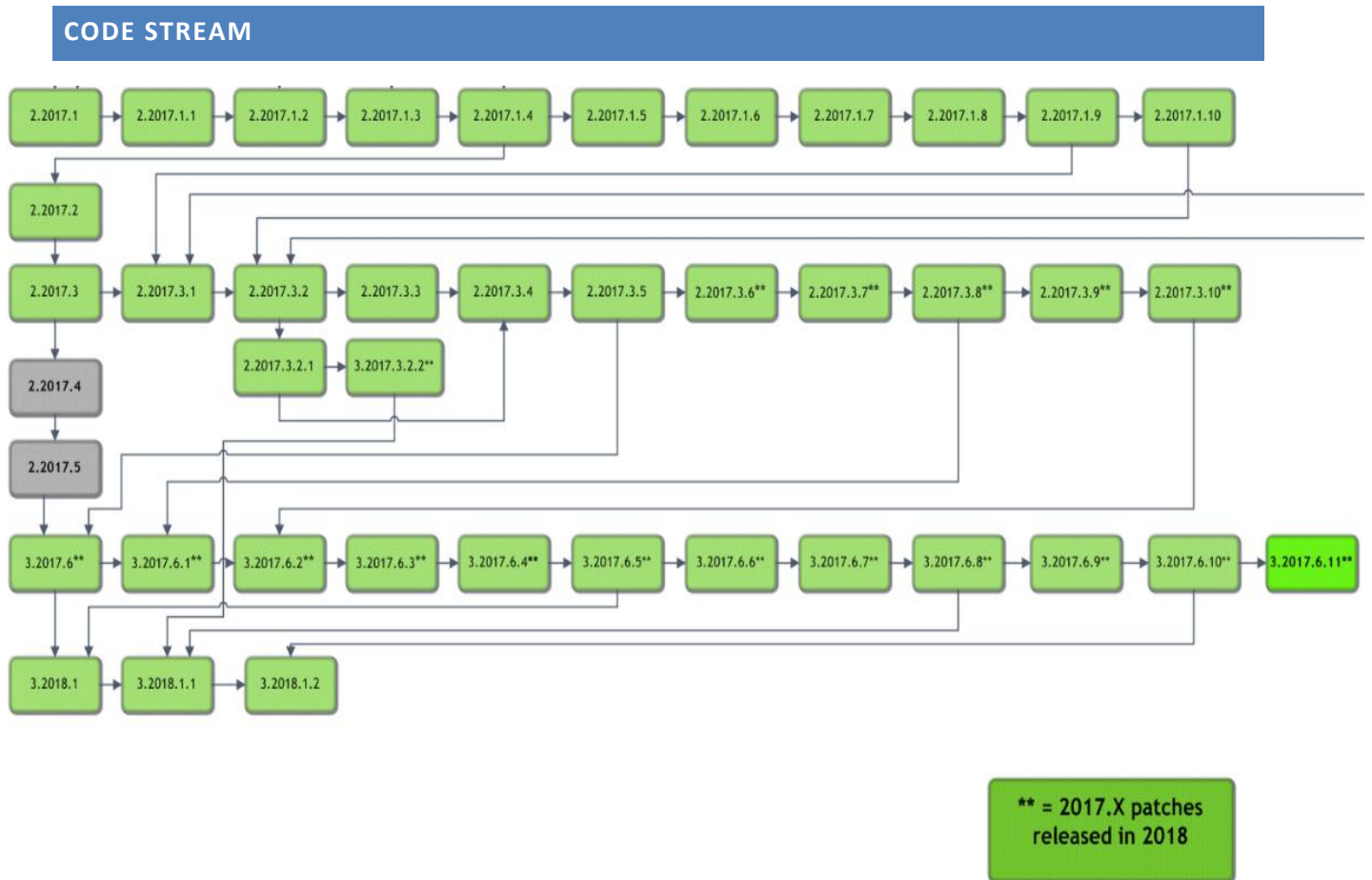
It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

**WHO IS AFFECTED**

Build 2017.6 installs. This server update must be applied to 2017.6.10.

## RESOLVED ITEMS

Redmine # for 2017.6.11	Subject
21718	<p>A correction has been made to the Amount to Collect calculation when a Billing Code is configured as "Allow Amount to Collect with Valid Insurance" equals N (No). If an order is a Self Pay, this setting is ignored and the appropriate Self Pay amount will return as normal. If an order is <b>not</b> a Self Pay and there are multiple Billing Codes, the Amount to Collect will only be \$0 if <b>all</b> Billing Codes are set to "Allow Amount to Collect with Valid Insurance" equals N. Otherwise, any Billing Codes with that setting will be ignored for the Amount to Collect calculation and the amount will be determined based on the Billing Codes that are set to Y (Yes). This behavior follows the intention of this setting, which allows certain Billing Codes to be ignored when calculating the patient's financial responsibility for studies that are submitted to an insurance. The setting is not relevant for Self Pay studies.</p>

**Legend:**

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

## ERAD RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		Full Version Release
2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		GUI, Web Service and DB updates
2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		GUI, Web Service and DB updates
2017.1	3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000		GUI, Web Service and DB updates
2017.1	4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI, Web Service, DB and Patient Portal updates
2017.1	5	2.17.1.4 (3GB)	2.17.1.0	2.17.1.5	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		Web Service
2017.1	6	2.17.1.6 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI and DB Updates
2017.1	7	2.17.1.7 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI update
2017.1	8	2.17.1.8 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI update
2017.1	9	2.17.1.9 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI update
2017.1	10	2.17.1.10 (3GB)	2.17.1.0	2.17.1.10	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.00000		GUI and Web Service update
2017.2	-	2.17.2.0 (3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0	2.17.2.0.702238	2.17.2.0.702213	2.17.2.0.702226	Full Version Release. First release of Provider Portal
2017.3	-	2.17.3.0 (3GB)	2.17.3.0	2.17.3.0	2.17.3.0.00764112	2.17.3.0	2.17.3.0.321	2.17.3.0.321	2.17.3.0.321	Full Version Release. Including Patient, Provider and UM Portals
2017.3	1	2.17.3.1 (3GB)	2.17.3.0	2.17.3.1	2.17.3.1.00846328	2.17.3.1	2.17.3.1.853299	2.17.3.1.853301	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2	2.17.3.2 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2.1	2.17.3.2.1 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI Only
2017.3	2.2	2.17.3.2.1 (3GB)	2.17.3.0	2.17.3.2.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	Web Services only
2017.3	3	2.17.3.3 (3GB)	2.17.3.0	2.17.3.3	2.17.3.3.00954008	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	4	2.17.3.4 (3GB)	2.17.3.0	2.17.3.4	2.17.3.4.00987562	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service and DB
2017.3	5	2.17.3.5 (3GB)	2.17.3.0	2.17.3.5	2.17.3.5.01023250	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB, Patient Portal, Referring Portal, UM Portal
2017.3	6	2.17.3.6 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB
2017.3	7	2.17.3.7 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI
2017.3	8	2.17.3.8 (3GB)	2.17.3.0	2.17.3.8	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI and Web Service
2017.3	9	2.17.3.8 (3GB)	2.17.3.0	2.17.3.9	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	Web Service
2017.3	10	2.17.3.10 (3GB)	2.17.3.0	2.17.3.10	2.17.3.10.01125764	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service and DB updates
2017.6	-	3.17.6.0 (3GB)	3.17.6.0	3.17.6.0	3.17.6.0.01037550	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	Full Version Release. Including Patient, Provider and UM Portals
2017.6	1	3.17.6.1 (3GB)	3.17.6.0	3.17.6.1	3.17.6.1.01094077	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	GUI, Web Service and DB updates
2017.6	2	3.17.6.2 (3GB)	3.17.6.0	3.17.6.2	3.17.6.2.01130171	3.17.6.2	3.17.6.2.1138297	3.17.6.2.1138298	3.17.6.2.1138298	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	3	3.17.6.3 (3GB)	3.17.6.0	3.17.6.3	3.17.6.3.01166033	3.17.6.3	3.17.6.3.1168622	3.17.6.3.1168622	3.17.6.3.1168623	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	4	3.17.6.4 (3GB)	3.17.6.0	3.17.6.4	3.17.6.4.01187509	3.17.6.4	3.17.6.4.1190295	3.17.6.4.1190295	3.17.6.4.1190295	GUI, Web Service, Patient, Provider and UM Portals
2017.6	5	3.17.6.5 (3GB)	3.17.6.0	3.17.6.5	3.17.6.4.01187509	3.17.6.4	3.17.6.5.1199064	3.17.6.5.1199063	3.17.6.5.1199064	GUI, Web Service and DB updates
2017.6	6	3.17.6.6 (3GB)	3.17.6.0	3.17.6.6	3.17.6.6.01236363	3.17.6.4	3.17.6.5.1199064	3.17.6.5.1199063	3.17.6.5.1199064	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2017.6	7	3.17.6.7 (3GB)	3.17.6.0	3.17.6.7	3.17.6.7.01257812	3.17.6.7	3.17.6.7.1266287	3.17.6.7.1266287	3.17.6.7.1266287	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2017.6	8	3.17.6.8 (3GB)	3.17.6.0	3.17.6.8	3.17.6.8.01276873	3.17.6.8	3.17.6.8.1280869	3.17.6.8.1280870	3.17.6.8.1280869	Patient, Provider and UM portals
2017.6	9	3.17.6.9 (3GB)	3.17.6.0	3.17.6.8	3.17.6.8.01276873	3.17.6.8	3.17.6.9.1308097	3.17.6.9.1308098	3.17.6.9.1308098	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2017.6	10	3.17.6.10 (3GB)	3.17.6.0	3.17.6.10	3.17.6.10.01335594	3.17.6.10	3.17.6.10.1331371	3.17.6.10.1331372	3.17.6.10.1331372	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2017.6	11	3.17.6.11 (3GB)	3.17.6.0	3.17.6.10	3.17.6.11.01347408	3.17.6.10	3.17.6.10.1331371	3.17.6.10.1331372	3.17.6.10.1331372	GUI and DB updates
2018.1	-	3.18.1.0 (3GB)	3.18.1.0	3.18.1.0	3.18.1.0.01228009	3.18.1.0	3.18.1.0.1229289	3.18.1.0.1229290	3.18.1.0.1229290	Full version release
2018.1	1	3.18.1.1 (3GB)	3.18.1.0	3.18.1.1	3.18.1.1.01288419	3.18.1.1	3.18.1.1.1299765	3.18.1.1.1299766	3.18.1.1.1299765	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals

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## INSTALLING

### CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD\_rRIS\_2017.6.11.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

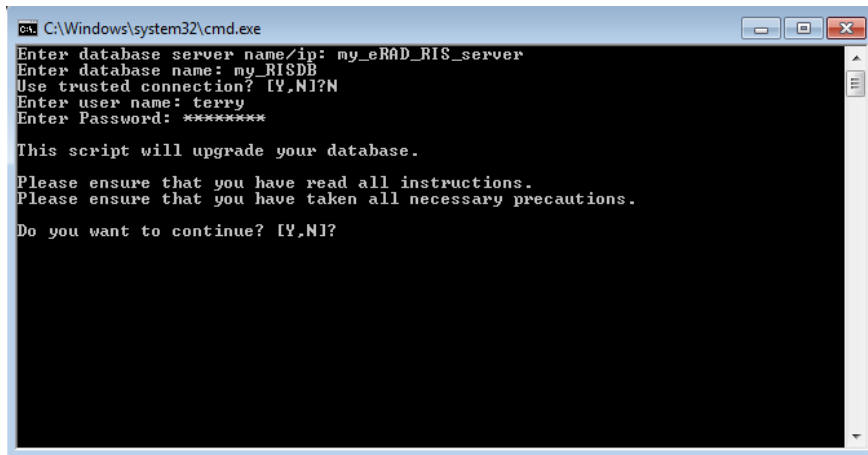
### DATABASE UPDATES

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: 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 3.0

Build 3.2017.6















Update 3.2017.6.12



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## PACKAGE CONTENTS

 _ReleaseNotes	09/26/18 3:25 PM
 DB	09/26/18 10:48 AM
 ExternalWebAPI	09/26/18 10:47 AM
 Identity Service	09/26/18 10:47 AM
 PACS Citrix Bridge	09/26/18 10:48 AM
 PatientConnect	09/26/18 10:50 AM
 Questionnaires	09/26/18 10:48 AM
 ReferringConnect	09/26/18 10:49 AM
 rRISService	09/26/18 10:47 AM
 Service Tools	09/26/18 10:48 AM
 ThickClient	09/26/18 10:47 AM
 UM_Portal	09/26/18 10:47 AM
 Build_2017.6.12.7z	09/26/18 3:47 PM
 RISServerMasterCert.pfx	03/31/16 1:38 PM

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.6 installs. This server update must be applied to 2017.6.11.1.

## NEW SETTINGS

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## ACCESS STRINGS

**Note:** This version of eRAD RIS includes a customer-specific feature called the Arbitrator. These new access strings are referenced here for completeness, but are not applicable to any other customer at this time.

Setting	Default	Purpose
Config.AIArbitrator	None	Access to the configuration screen for the AI Arbitration
Config.LookupEditor.ConfigFile	None	lookup table access for Configuration Files

---

## SYSTEM CONFIGURATION

**Note:** This version of eRAD RIS includes a customer-specific feature called the Arbitrator. These new system configuration strings are referenced here for completeness, but are not applicable to any other customer at this time.

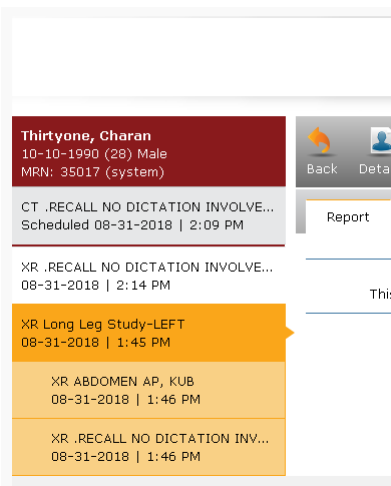
Setting	Default	Purpose
AIServiceEndpoint	Null/Empty	(value = string) The URL used by the arbitrator program to call the AI Service.
RPPACSDownloadViewerURL	Null/Empty	(value = string) The full URL for downloading PACS Full Viewer

## NEW FEATURES

### FEATURE #22129 – CLEARLY DISPLAY THE PRIMARY STUDY AND PROVIDE A MECHANISM TO SHOW IMAGES FROM THE LINKED STUDIES IN THE PROVIDER AND PATIENT PORTALS

The “Linked Studies” feature in eRAD RIS allows multiple studies from the same order be grouped and later read by the radiologist as a single diagnostic report. The ability to view the linked collection and report was supported by the RIS portals, but it was only possible to view the images from the primary study. In addition, the primary study was not always the first study in the list adding to confusion.

The Provider and Patient Portals now support the ability to view the images from all studies in the linked collection. To support this, the following changes were made to the patient folder screen: First, the primary study will always be shown as the first study in the order, and second the linked studies will be shown indented below the primary study. Selecting a secondary study will allow the images to be displayed for the secondary study.



### FEATURE #21191 - SUPPORT SYNGO PLAZA PACS INTEGRATION

eRAD RIS now supports a PACS integration with Siemens Syngo Plaza. This integration follows the standard PACS integration methodology of using a plug-in.

Configuration:

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Configure the PACS lookup with the type of SYNGOPLAZA:

	Description	Protocol	Url	Port	Display Order	Pacs Ae Title	Pacs Server Type Code
▼	Contains: syngo	▼ Contains: ▼	Contains: ▼	▼ Equals: ▼	Equals: ▼	▼ Contains: ▼	Contains: ▼
Click here to add a new row							
	SyngoPlaza PACS	http	pacs	80	1		SYNGOPLAZA

In the “Config” column of PACS lookup, configure the integration as appropriate. An example and description of each field is shown below:

`<SyngoPlazaConfig>`

`<UseRISCredentials>>false</UseRISCredentials>`

`<SingleSignOn>>false</SingleSignOn>`

`<OpenStudyUsing>ACCN</OpenStudyUsing><!-- PSUID, SSUID, PATID_ACCN, ACCN -->`

`<PACSDomain>PACS</PACSDomain>`

`<CloseAction>ApplicationDefault</CloseAction> <!-- ApplicationDefault, SaveImagesWithoutPrompting, DiscardChanges, SaveImagesWithPrompt-->`

`<LoadFlaggedImages>All</LoadFlaggedImages> <!-- All, Flag1, Flag2, Both -->`

`<LoadPriorType></LoadPriorType> <!-- Related, Exact, All -->`

`<LoadOnlyTopJ>>false</LoadOnlyTopJ>`

`</SyngoPlazaConfig>`

`<!--`

Configuration options:

**Single Sign On** – optional setting - If enabled the current windows credentials are passed to the integration. The user must have the Syngo Plaza role “syngo.plaza\_single\_signon”.

**OpenStudyUsing** – Determines what parameter is used to launch the study. Options are: PSUID, SSUID, PATID\_ACCN, ACCN

**PACSDomain** – If there are multiple domains in Syngo Plaza, the domain needs to be configured here so that it is passed to the integration.

**CloseAction** – Determines what action is taken when the study is closed in RIS.

**LoadFlaggedImages** – A Syngo Plaza set of options:

\* All - (default) Load all images, independent of flagging.

- \* Flag1 - load images that are flagged with "Flag1"
- \* Flag2 - load images that are flagged with "Flag2"
- \* Both - load images that are flagged with "Flag1" or "Flag2"

**LoadPriorType** - Determines the mechanism for loading priors. Options are:

\* Unknown - Syngo Plaza will not automatically load priors. This value should be used if RIS is supplying the list of priors.

\* Related - When this option is set, Syngo drives prior loading. Studies that are older than the current study will be loaded.

\* Exact - When this option is set, Syngo drives prior loading. If both modality and organ match the current study and the date is prior to the current study, they are considered priors and will be loaded.

\* All - When this option is set, Syngo drives prior loading. All studies that are available and have a study date-time older than the current study are loaded.

Note that the Syngo Plaza viewer itself provides additional settings for configuring related priors.

**LoadOnlyTop**

- \* False - (default) Images are loaded into the viewer
- \* True - Patient will be open in the Patient Jacket feature of Syngo Plaza. Images will not be loaded into the Viewer

## RESOLVED ITEMS

Redmine # for 2017.6.12	Subject
21325	Resolved issue when removing a patient email address.
21356	Resolved an issue displaying delivery methods on the image request screen.
21440	Resolved issue when attempting to send an opinion letter via fax.
21454	Resolved eRAD PACS issue re-displaying priors in the Dictation window after switching from Sign or Create Edit window.
21455	Resolved eRAD PACS issue re-displaying priors in the sign window after switching to another window.
21474	Resolved issue loading the Provider Admin Tool - User Messages tab.
21568	Resolved issue saving a relative date/time filter.
21570	Enhanced User Management Search to support last names with spaces in the Connect Admin Portal.
21581	Resolved issue saving preferences in Referring Portal Admin.
21592	Resolved issue displaying the Environment Name in Title Bar for HTTPS installations.
21594	Resolved intermittent issue where order data could be duplicated
21633	Resolved issue when entering a decimal value for weight.
21681	Resolved issue printing Diagnostic Report from the Referring Portal.
21684	Enhanced Referring Portal login and data query performance when a single referring doctor is associated with all other referring doctors.
21690	Resolved issue where the Attachment (Paperclip) button on the Registration screen would reset Arbitration Signed and Verified ID on Patient tab, as well as the Direct referral checkbox on the Order tab.
21732	Resolved domain Account ID collision issue when creating Portal user Account ID.
21738	Resolved "object reference error" when matching external to internal patients
21741	Enhanced CountyToZipCodeAutoFill behavior to respect an alternate zipcode.
21870	Resolved the error "Could not determine the identifier to use to open PACS"
21914	No longer displaying inactive rooms in Appointment Book Dropdown.
22124	Resolved issue saving Insurance Zipcode and State when using the zip code auto-fill.
22125	Resolved time zone issue where the scheduled_start_date is offset when saving on the Register screen.
22131	Resolved account migration issue where data from Millinger Connect was not decrypting.
22149	Resolved installer issue when attempting to upgrade.
22151	Resolved login issue due to blank Injury Source field.
22272	Resolved issues opening the Schedule Order screen for EMR orders with blank procedure descriptions or inactive procedures.

22284	Resolved issues with copay calculation when out of pocket maximum has been reached.
22291	The wedge interface service now supports retrieving the referring's address.
22306	Added support for eRAD PACS v8 viewer with HTTPS installations.
22307	Resolved eRAD PACS v8 password issue with HTTPS installations.
22338	Availity insurance check now returns REF N6 segment in 271
22380	Resolved issue with UM portal account recovery.
22387	Resolved a database related performance issue when retrieving a user's study folders.

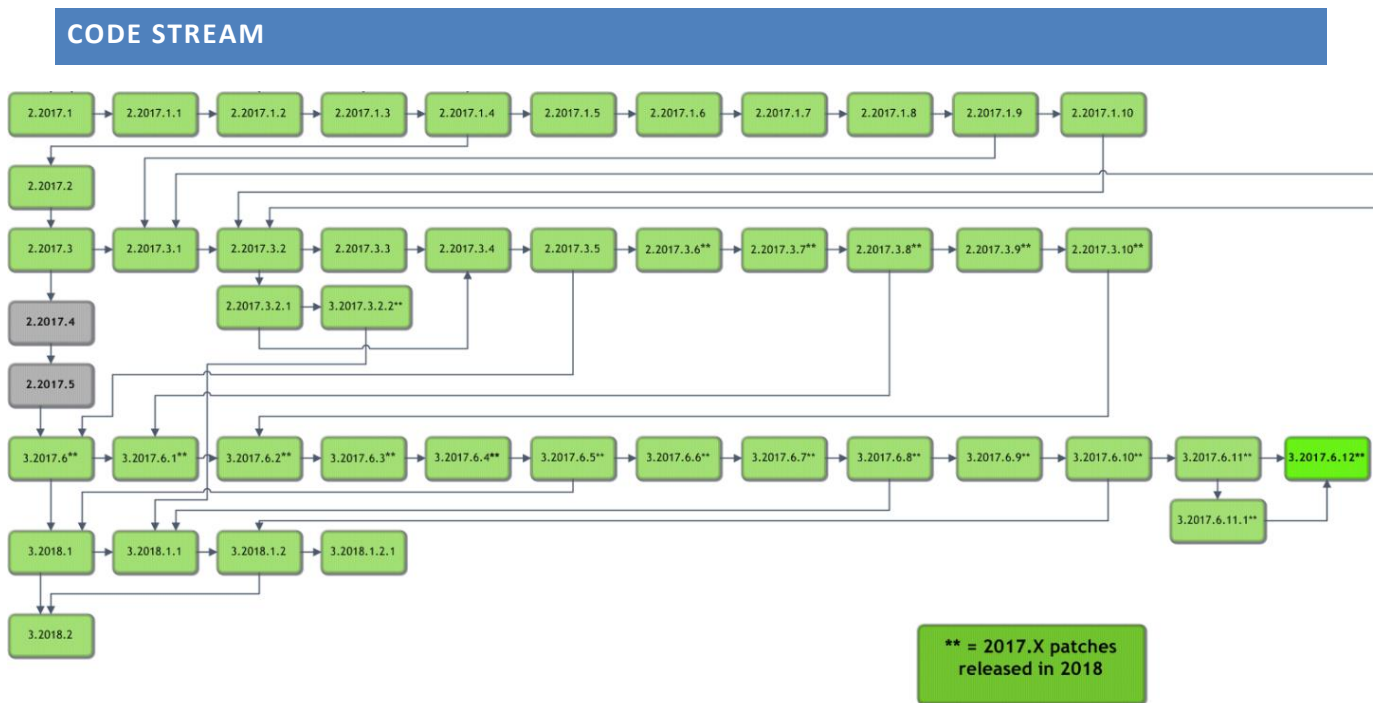
**Special note for the implementation team:**

Bug #22338 listed above will also require manual intervention to update the function `z_get_medical_group`. Please see this item's resolution section in Redmine for more information. This bug was also resolved in 2017.6.11.1 as Redmine item #22394. If the system being upgraded was at 2017.6.11.1, the function `z_get_medical_group` may already have these changes.

The following fixes from other versions and are included with this patch.

Redmine # for 2018.3	Redmine # for 2017.6.12	Subject
20533	21919	Corrected issue with the wrong PACS server when clicking the "download full viewer" link in the Referring Portal



**Legend:**

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

## ERAD RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2017.2	-	2.17.2.0(3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0	2.17.2.0.702238	2.17.2.0.702213	2.17.2.0.702226	Full Version Release. First release of Provider Portal
2017.3	-	2.17.3.0(3GB)	2.17.3.0	2.17.3.0	2.17.3.0.00764112	2.17.3.0	2.17.3.0.321	2.17.3.0.321	2.17.3.0.321	Full Version Release. Including Patient, Provider and UM Portals
2017.3	1	2.17.3.1(3GB)	2.17.3.0	2.17.3.1	2.17.3.1.00846328	2.17.3.1	2.17.3.1.853299	2.17.3.1.853301	2.17.3.1.856171	GUI, Web Service, DB, Including Patient, Provider and UM Portals
2017.3	2	2.17.3.2(3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI, Web Service, DB, Including Patient, Provider and UM Portals
2017.3	2.1	2.17.3.2.1(3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI Only
2017.3	2.2	2.17.3.2.1(3GB)	2.17.3.0	2.17.3.2.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	Web Services only
2017.3	3	2.17.3.3(3GB)	2.17.3.0	2.17.3.3	2.17.3.3.00954008	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service, DB, Including Patient, Provider and UM Portals
2017.3	4	2.17.3.4(3GB)	2.17.3.0	2.17.3.4	2.17.3.4.00987562	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service and DB
2017.3	5	2.17.3.5(3GB)	2.17.3.0	2.17.3.5	2.17.3.5.01023250	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB, Patient Portal, Referring Portal, UM Portal
2017.3	6	2.17.3.6(3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB,
2017.3	7	2.17.3.7(3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI
2017.3	8	2.17.3.8(3GB)	2.17.3.0	2.17.3.8	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI and Web Service
2017.3	9	2.17.3.8(3GB)	2.17.3.0	2.17.3.9	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	Web Service
2017.3	10	2.17.3.10(3GB)	2.17.3.0	2.17.3.10	2.17.3.10.01125764	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service and DB updates
2017.6	-	3.17.6.0(3GB)	3.17.6.0	3.17.6.0	3.17.6.0.01037550	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	Full Version Release. Including Patient, Provider and UM Portals
2017.6	1	3.17.6.1(3GB)	3.17.6.0	3.17.6.1	3.17.6.1.01094077	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	GUI, Web Service and DB updates
2017.6	2	3.17.6.2(3GB)	3.17.6.0	3.17.6.2	3.17.6.2.01130171	3.17.6.2	3.17.6.2.1138297	3.17.6.2.1138298	3.17.6.2.1138298	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	3	3.17.6.3(3GB)	3.17.6.0	3.17.6.3	3.17.6.3.01166033	3.17.6.3	3.17.6.3.1168622	3.17.6.3.1168622	3.17.6.3.1168623	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	4	3.17.6.4(3GB)	3.17.6.0	3.17.6.4	3.17.6.4.01187509	3.17.6.4	3.17.6.4.1190295	3.17.6.4.1190295	3.17.6.4.1190295	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	5	3.17.6.5(3GB)	3.17.6.0	3.17.6.5	3.17.6.4.01187509	3.17.6.4	3.17.6.5.1199064	3.17.6.5.1199063	3.17.6.5.1199064	GUI, Web Service, Patient, Provider and UM Portals
2017.6	6	3.17.6.6(3GB)	3.17.6.0	3.17.6.6	3.17.6.6.01236363	3.17.6.4	3.17.6.5.1199064	3.17.6.5.1199063	3.17.6.5.1199064	GUI, Web Service and DB updates
2017.6	7	3.17.6.7(3GB)	3.17.6.0	3.17.6.7	3.17.6.7.01257812	3.17.6.7	3.17.6.7.1266287	3.17.6.7.1266287	3.17.6.7.1266287	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2017.6	8	3.17.6.8(3GB)	3.17.6.0	3.17.6.8	3.17.6.8.01276873	3.17.6.8	3.17.6.8.1280869	3.17.6.8.1280870	3.17.6.8.1280869	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2017.6	9	3.17.6.8(3GB)	3.17.6.0	3.17.6.8	3.17.6.8.01276873	3.17.6.8	3.17.6.9.1308097	3.17.6.9.1308098	3.17.6.9.1308098	Patient, Provider and UM portals
2017.6	10	3.17.6.10(3GB)	3.17.6.0	3.17.6.10	3.17.6.10.01355594	3.17.6.10	3.17.6.10.1331371	3.17.6.10.1331372	3.17.6.10.1331372	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2017.6	11	3.17.6.11(3GB)	3.17.6.0	3.17.6.10	3.17.6.11.01347408	3.17.6.10	3.17.6.10.1331371	3.17.6.10.1331372	3.17.6.10.1331372	GUI and DB updates
2017.6	11.1	3.17.6.11.1(3GB)	3.17.6.0	3.17.6.11.1	3.17.6.11.01437968	3.17.6.10	3.17.6.10.1331371	3.17.6.10.1331372	3.17.6.10.1331372	GUI, Web Service, DB,
2017.6	12	3.17.6.12(3GB)	3.17.6.0	3.17.6.12	3.17.6.12.01439318	3.17.6.12	3.17.6.12.1439203	3.17.6.12.1439204	3.17.6.12.1439204	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2018.1	-	3.18.1.0(3GB)	3.18.1.0	3.18.1.0	3.18.1.0.01228009	3.18.1.0	3.18.1.0.1229289	3.18.1.0.1229290	3.18.1.0.1229290	Full version release
2018.1	1	3.18.1.1(3GB)	3.18.1.0	3.18.1.1	3.18.1.1.01288419	3.18.1.1	3.18.1.1.1299765	3.18.1.1.1299766	3.18.1.1.1299765	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2018.1	2	3.18.1.2(3GB)	3.18.1.0	3.18.1.2	3.18.1.2.01341771	3.18.1.2	3.18.1.2.1355946	3.18.1.2.1355947	3.18.1.2.1355947	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2018.1	2.1	3.18.1.2.1(3GB)	3.18.1.0	3.18.1.2.1	3.18.1.2.01341771	3.18.1.2	3.18.1.2.1355946	3.18.1.2.1355947	3.18.1.2.1355947	GUI and Web Service
2018.2	-	3.18.2(3GB)	3.18.2.0	3.18.2.0	3.18.2.0.01412126	3.18.2.0	3.18.2.0.1416370	3.18.2.0.1416371	3.18.2.0.1416371	Full Version Release. Including Patient, Provider and UM Portals

## INSTALLING

### CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD\_rRIS\_2017.6.12.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

### WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

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 141 files in the rRISService folder and 7 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). Folders are (Arabic), en\_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt\_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc...

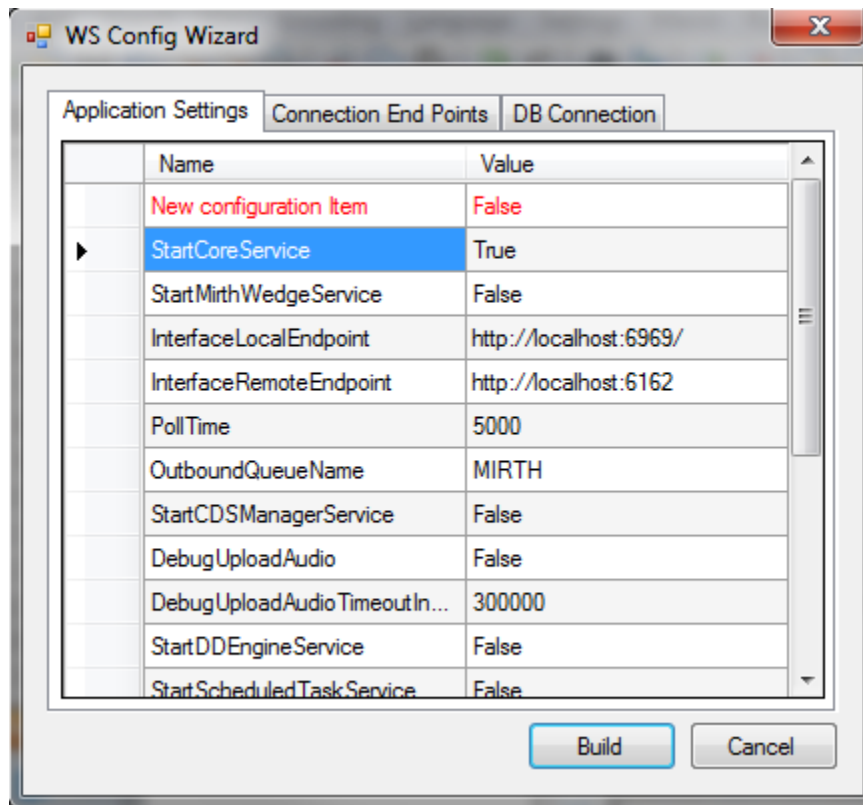
#### **Services Configuration Wizard**

With the release of build 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, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

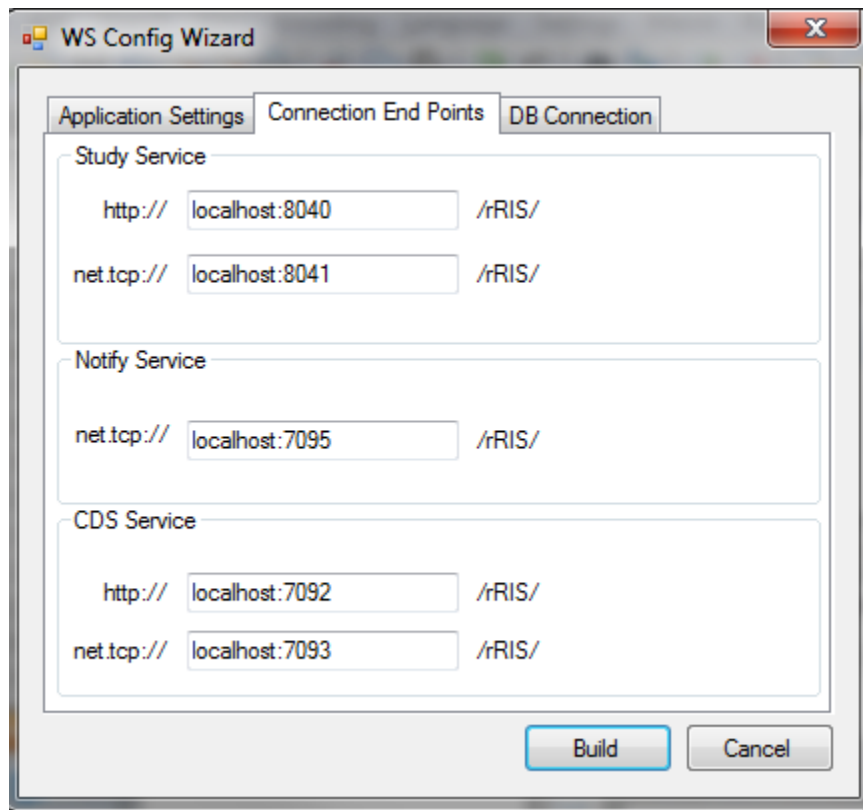
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

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.



**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.



---

## DATABASE UPDATES

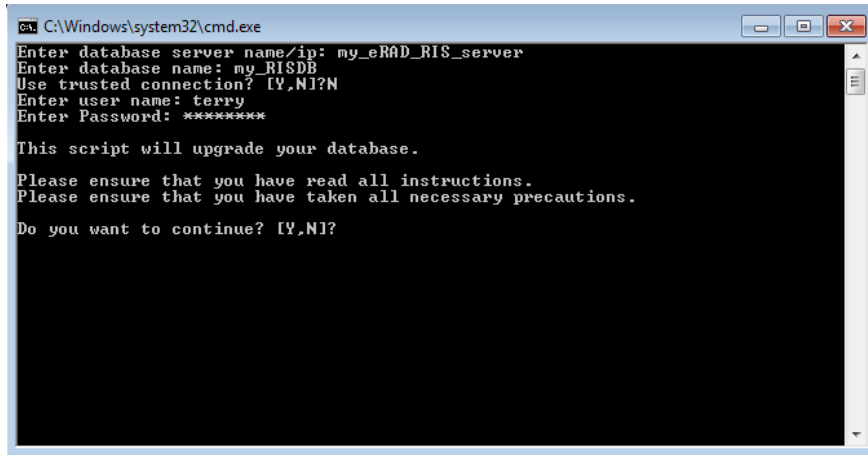
Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

*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]?Y
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]?
```

- 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

# **Server Update**

For eRAD RIS

Version 3.0

Build 3.2017.6












Update 3.2017.6.13

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**PACKAGE CONTENTS**

 _ReleaseNotes	12/06/18 4:50 PM
 Identity Service	12/04/18 11:55 AM
 PatientConnect	12/04/18 11:56 AM
 Questionnaires	12/04/18 11:55 AM
 ReferringConnect	12/04/18 11:56 AM
 rRISService	12/04/18 11:55 AM
 Service Tools	12/04/18 11:56 AM
 SQLReporting	12/04/18 11:55 AM
 ThickClient	12/04/18 11:55 AM
 UM_Portal	12/04/18 11:55 AM
 Build_2017.6.13.7z	12/06/18 4:48 PM

**INTENDED AUDIENCE**

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

**WHO IS AFFECTED**

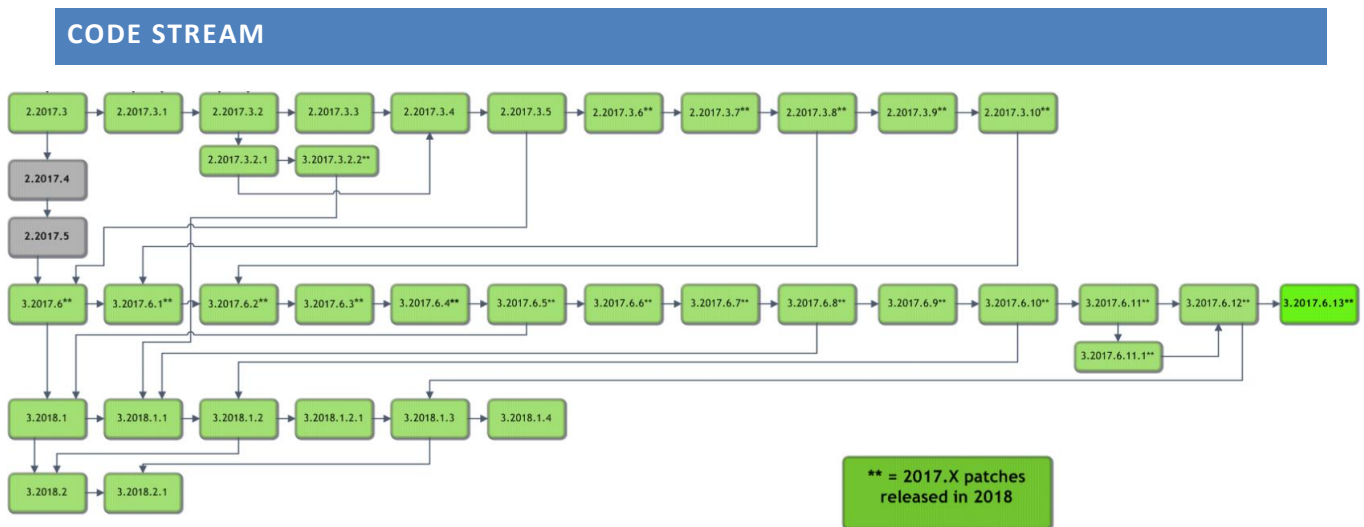
Build 2017.6 installs. This server update must be applied to 2017.6.12.

## RESOLVED ITEMS

Redmine # for 2017.6.13	Subject
23386	Resolved several display issues when printing diagnostic reports from the Provider Portal. To take full advantage of the changes, ensure that reports are configured with Interactive sizing turned off in the report builder.
23294	<p>To resolve an issue with PACS IW integration using accession number, two changes have been made. The first change is pertinent for ALL PACS integrations.</p> <ol style="list-style-type: none"> <li>1. When any Linked study is opened for dictation, RIS will evaluate the non-primary linked studies for PACS Correction, even if previously marked as PACS Corrected. If the images are found to be unavailable in PACS, RIS will not attempt to load them.</li> <li>2. The PACS IW integration will not return the accession number if an external ID or performed study instance UID is not present. The RIS client asks each PACS integration what identifier it should use for a particular study. If none is returned, RIS will not attempt to load the study. A new config option for IW called 'CheckExternalIDsInAccessionMode' has been added to control this behavior. It is true by default and looks like the following when disabled:  <pre>&lt;config&gt; &lt;UseAccessions&gt;true&lt;/UseAccessions&gt; &lt;CheckExternalIDsInAccessionMode&gt;&gt;false&lt;/CheckExternalIDsInAccessionMode&gt; &lt;/config&gt;</pre> This setting has no effect if UseAccessions is false or not specified.</li> </ol>
23357	When PACS image byte array conversion fails, trace log entry will no longer fail.

The following fixes from other versions and are included with this patch.

Redmine # for 2018.1.6	Redmine # for 2017.6.13	Subject
23093	233366	Resolved issue with viewing images for linked exams in the Provider Portal.

**Legend:**

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

## ERAD RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2017.3	-	2.17.3.0(3GB)	2.17.3.0	2.17.3.0	2.17.3.0.00764112	2.17.3.0	2.17.3.0.321	2.17.3.0.321	2.17.3.0.321	Full Version Release. Including Patient, Provider and UM Portals
2017.3	1	2.17.3.1(3GB)	2.17.3.0	2.17.3.1	2.17.3.1.00846328	2.17.3.1	2.17.3.1.853299	2.17.3.1.853301	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2	2.17.3.2(3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2.1	2.17.3.2.1(3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI Only
2017.3	2.2	2.17.3.2.1(3GB)	2.17.3.0	2.17.3.2.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	Web Services only
2017.3	3	2.17.3.3(3GB)	2.17.3.0	2.17.3.3	2.17.3.3.00954008	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	4	2.17.3.4(3GB)	2.17.3.0	2.17.3.4	2.17.3.4.00987562	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service and DB
2017.3	5	2.17.3.5(3GB)	2.17.3.0	2.17.3.5	2.17.3.5.01023250	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB, Patient Portal, Referring Portal, UM Portal
2017.3	6	2.17.3.6(3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB,
2017.3	7	2.17.3.7(3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI
2017.3	8	2.17.3.8(3GB)	2.17.3.0	2.17.3.8	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI and Web Service
2017.3	9	2.17.3.8(3GB)	2.17.3.0	2.17.3.9	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	Web Service
2017.3	10	2.17.3.10(3GB)	2.17.3.0	2.17.3.10	2.17.3.10.01125764	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service and DB updates
2017.6	-	3.17.6.0(3GB)	3.17.6.0	3.17.6.0	3.17.6.0.01037550	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	Full Version Release. Including Patient, Provider and UM Portals
2017.6	1	3.17.6.1(3GB)	3.17.6.0	3.17.6.1	3.17.6.1.01094077	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	GUI, Web Service and DB updates
2017.6	2	3.17.6.2(3GB)	3.17.6.0	3.17.6.2	3.17.6.2.01130171	3.17.6.2	3.17.6.2.1138297	3.17.6.2.1138298	3.17.6.2.1138298	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	3	3.17.6.3(3GB)	3.17.6.0	3.17.6.3	3.17.6.3.01166033	3.17.6.3	3.17.6.3.1168622	3.17.6.3.1168622	3.17.6.3.1168623	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	4	3.17.6.4(3GB)	3.17.6.0	3.17.6.4	3.17.6.4.01187509	3.17.6.4	3.17.6.4.1190295	3.17.6.4.1190295	3.17.6.4.1190295	Forms
2017.6	5	3.17.6.5(3GB)	3.17.6.0	3.17.6.5	3.17.6.4.01187509	3.17.6.4	3.17.6.5.1199064	3.17.6.5.1199063	3.17.6.5.1199064	GUI, Web Service, Patient, Provider and UM Portals
2017.6	6	3.17.6.6(3GB)	3.17.6.0	3.17.6.6	3.17.6.6.01236363	3.17.6.4	3.17.6.5.1199064	3.17.6.5.1199063	3.17.6.5.1199064	GUI, Web Service and DB updates
2017.6	7	3.17.6.7(3GB)	3.17.6.0	3.17.6.7	3.17.6.7.01257812	3.17.6.7	3.17.6.7.1266287	3.17.6.7.1266287	3.17.6.7.1266287	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2017.6	8	3.17.6.8(3GB)	3.17.6.0	3.17.6.8	3.17.6.8.01276873	3.17.6.8	3.17.6.8.1280869	3.17.6.8.1280870	3.17.6.8.1280869	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2017.6	9	3.17.6.8(3GB)	3.17.6.0	3.17.6.8	3.17.6.8.01276873	3.17.6.8	3.17.6.9.1308097	3.17.6.9.1308098	3.17.6.9.1308098	Patient, Provider and UM portals
2017.6	10	3.17.6.10(3GB)	3.17.6.0	3.17.6.10	3.17.6.10.01355594	3.17.6.10	3.17.6.10.1331371	3.17.6.10.1331372	3.17.6.10.1331372	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2017.6	11	3.17.6.11(3GB)	3.17.6.0	3.17.6.10	3.17.6.11.01347408	3.17.6.10	3.17.6.10.1331371	3.17.6.10.1331372	3.17.6.10.1331372	GUI and DB updates
2017.6	11.1	3.17.6.11.1(3GB)	3.17.6.0	3.17.6.11.1	3.17.6.11.01437968	3.17.6.10	3.17.6.10.1331371	3.17.6.10.1331372	3.17.6.10.1331372	GUI, Web Service, DB,
2017.6	12	3.17.6.12(3GB)	3.17.6.0	3.17.6.12	3.17.6.12.01439318	3.17.6.12	3.17.6.12.1439203	3.17.6.12.1439204	3.17.6.12.1439204	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2017.6	13	3.17.6.13(3GB)	3.17.6.0	3.17.6.13	3.17.6.12.01439318	3.17.6.13	3.17.6.13.1538631	3.17.6.13.1538632	3.17.6.13.1538632	GUI, Web Service, Digital Forms, Patient, Provider and UM portals
2018.1	-	3.18.1.0(3GB)	3.18.1.0	3.18.1.0	3.18.1.0.01228009	3.18.1.0	3.18.1.0.1229289	3.18.1.0.1229290	3.18.1.0.1229290	Full version release
2018.1	1	3.18.1.1(3GB)	3.18.1.0	3.18.1.1	3.18.1.1.01288419	3.18.1.1	3.18.1.1.1299765	3.18.1.1.1299766	3.18.1.1.1299765	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2018.1	2	3.18.1.2(3GB)	3.18.1.0	3.18.1.2	3.18.1.2.01341771	3.18.1.2	3.18.1.2.1355946	3.18.1.2.1355947	3.18.1.2.1355947	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2018.1	2.1	3.18.1.2.1(3GB)	3.18.1.0	3.18.1.2.1	3.18.1.2.01341771	3.18.1.2	3.18.1.2.1355946	3.18.1.2.1355947	3.18.1.2.1355947	GUI and Web Service
2018.1	3	3.18.1.3(3GB)	3.18.1.0	3.18.1.3	3.18.3.0.01471392	3.18.1.3	3.18.1.3.1466761	3.18.1.3.1466762	3.18.1.3.1466762	GUI, Web Service, DB, Management Reports, Digital Forms, Patient, Provider and UM portals
2018.1	4	3.18.1.4(3GB)	3.18.1.0	3.18.1.4	3.18.1.4.01518863	3.18.1.4	3.18.1.4.1527377	3.18.1.4.1527379	3.18.1.4.1527378	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2018.2	-	3.18.2.0(3GB)	3.18.2.0	3.18.2.0	3.18.2.0.01412126	3.18.2.0	3.18.2.0.1416370	3.18.2.0.1416371	3.18.2.0.1416371	Full Version Release. Including Patient, Provider and UM Portals
2018.2	1	3.18.2.1(3GB)	3.18.2.0	3.18.2.1	3.18.2.1.01490049	3.18.2.1	3.18.2.1.1509822	3.18.2.1.1509823	3.18.2.1.1509822	GUI, Web Service, DB, Management Reports, Digital Forms, Patient, Provider and UM portals

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in any form or by any means without the prior written permission from eRAD.

## INSTALLING

### CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD\_rRIS\_2017.6.13.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

### WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

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 141 files in the rRISService folder and 7 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). Folders are (Arabic), en\_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt\_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc...

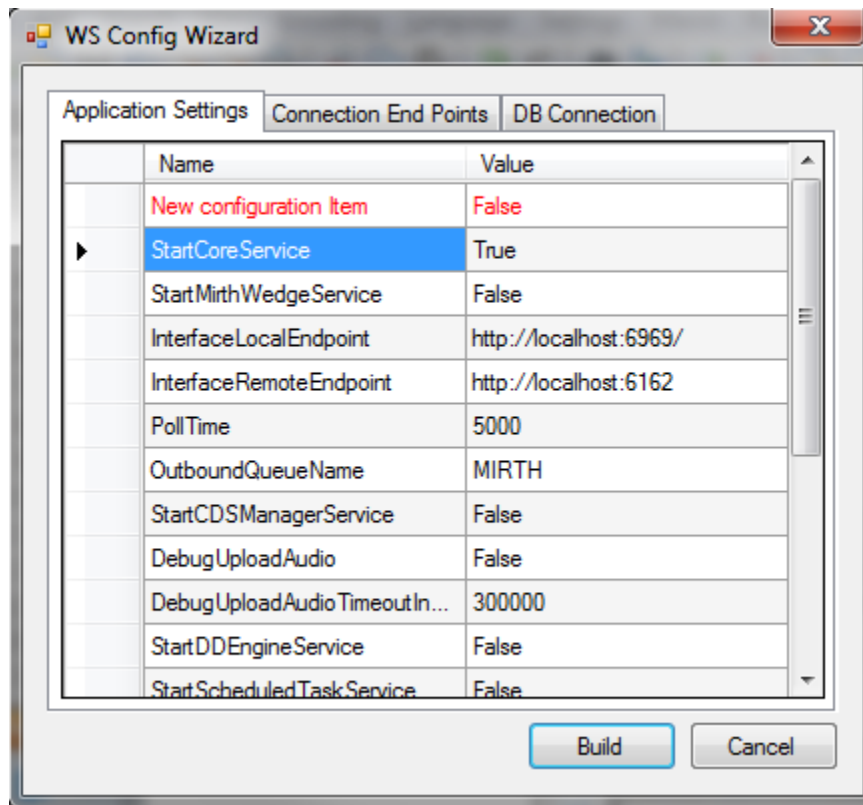
#### Services Configuration Wizard

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, and 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.



**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 /rIS/

net.tcp:// localhost:8041 /rIS/

**Notify Service**

net.tcp:// localhost:7095 /rIS/

**CDS Service**

http:// localhost:7092 /rIS/

net.tcp:// localhost:7093 /rIS/

Build Cancel

# **Server Update**

For eRAD RIS

Version 3.0

Build 3.2017.6











Update 3.2017.6.14



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## PACKAGE CONTENTS

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 SQLReporting	01/15/19 4:12 PM
 ThickClient	01/15/19 4:11 PM
 UM_Portal	01/15/19 4:11 PM

## INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

## WHO IS AFFECTED

Build 2017.6 installs. This server update must be applied to 2017.6.12.

## NEW SETTINGS

## SYSTEM CONFIGURATION

Setting	Default	Purpose
PortalDiagnosticReportPDFPrint	False	(value = True/False) Determines if the portal print button will provide a PDF or HTML version of the diagnostic report. Set to False (default) to use the pre-existing HTML report format. Set to True to provide the report for printing in a PDF format.

## NEW FEATURES

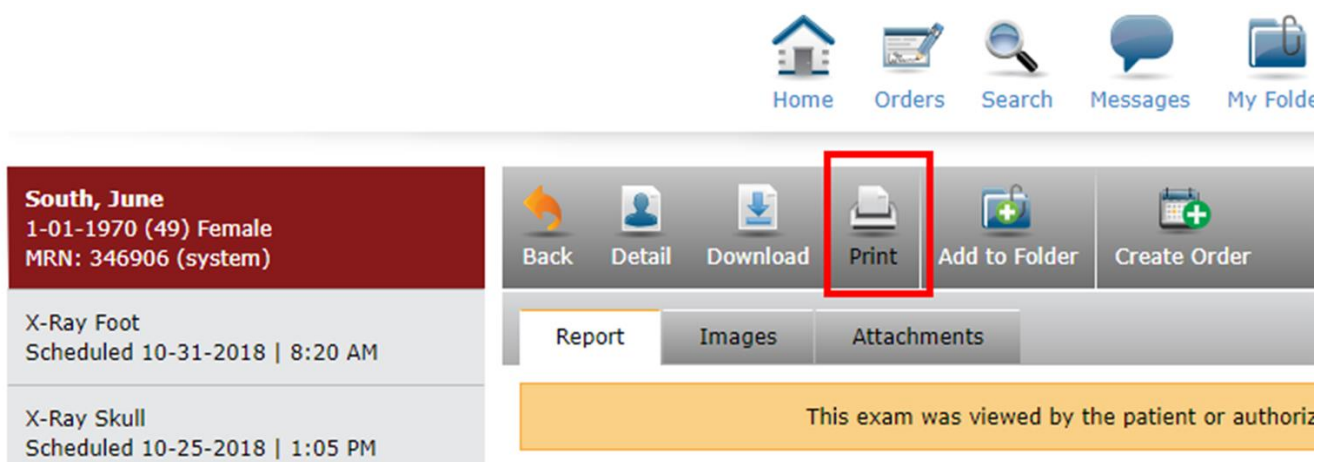
## FEATURES #23675, 23719, 23720 - IMPROVEMENTS TO PRINTING REPORTS FROM PROVIDER, PATIENT AND UTILIZATION MANAGEMENT PORTALS

Previously, the main option for printing reports from the eRAD Connect Portals was to print an HTML version of the report. There are some disadvantages to printing the report from HTML because it is not possible to control all of the formatting details. For example, HTML does not support headers and footers at the top and bottom of each printed page. Instead, it prints only one header on the first page and one footer at the end of the content on the last page. It was possible to print from PDF, which provides a report with the same formatting and pagination as a report printed directly from the RIS, but the process to do this was not intuitive or efficient, as the user had to click the Download button, fill in additional information, and then print the downloaded report.

This feature provides a configuration option to replace HTML printing with PDF printing, so that the user can receive a printed copy of the report from the portal in a format that maintains proper positioning of headers and footers on each page. The printed report will be very similar, if not identical, to the same report printed directly from the RIS.

A new System Configuration option has been added to select the desired behavior for the Print button: **PortalDiagnosticReportPDFPrint**. The default setting is False which will maintain the current HTML printing behavior. Setting this configuration to True will replace the HTML printing with the printing behavior described below.

When the user clicks the Print button (emphasized in the image below), the portal will launch a PDF of the report in an embedded web page.

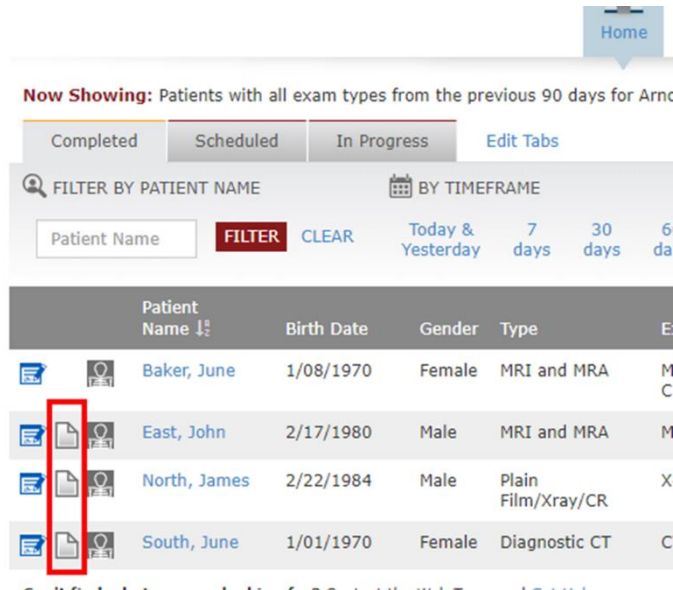


From here, the user will be able to view the report exactly as it will be printed. They can select the Print icon to launch their operating system's normal print engine.

Unless the user wishes to alter the default settings in their system's print engine, this should result in a 3 click workflow:

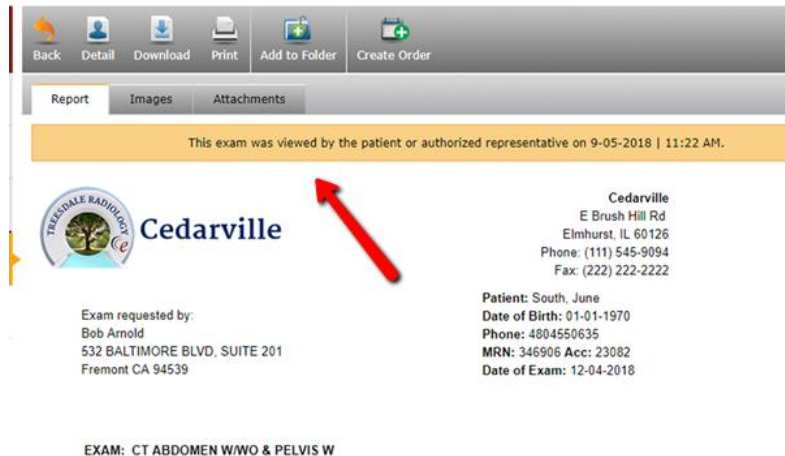
1. Click One – Indicate to the portal that the report is to be printed, which will launch the embedded PDF.
2. Click Two – After viewing the preview, click Print to initiate the system print engine.
3. Click Three – Confirm the default system settings to initiate the print job.

In addition to these changes, the report icon on the main worklist and search results list in the Provider and Utilization Management Portals will be modified to immediately launch the report in the embedded PDF version of the report.



If the report is unavailable due to an unexpected error, such as the SSRS report server being unavailable, the user will be presented with a PDF version of the message from the existing System Configuration setting PortalReportUnavailableMessage.

If the user prints directly from one of the worklist icons instead of printing from the Patient Folder, notification messages will not be visible. However, the Report tab on the patient folder will continue to use the HTML engine to render the report. This **will** allow for the display of notifications and will provide an uninterrupted reading experience for users who wish to view the results from within the portal.

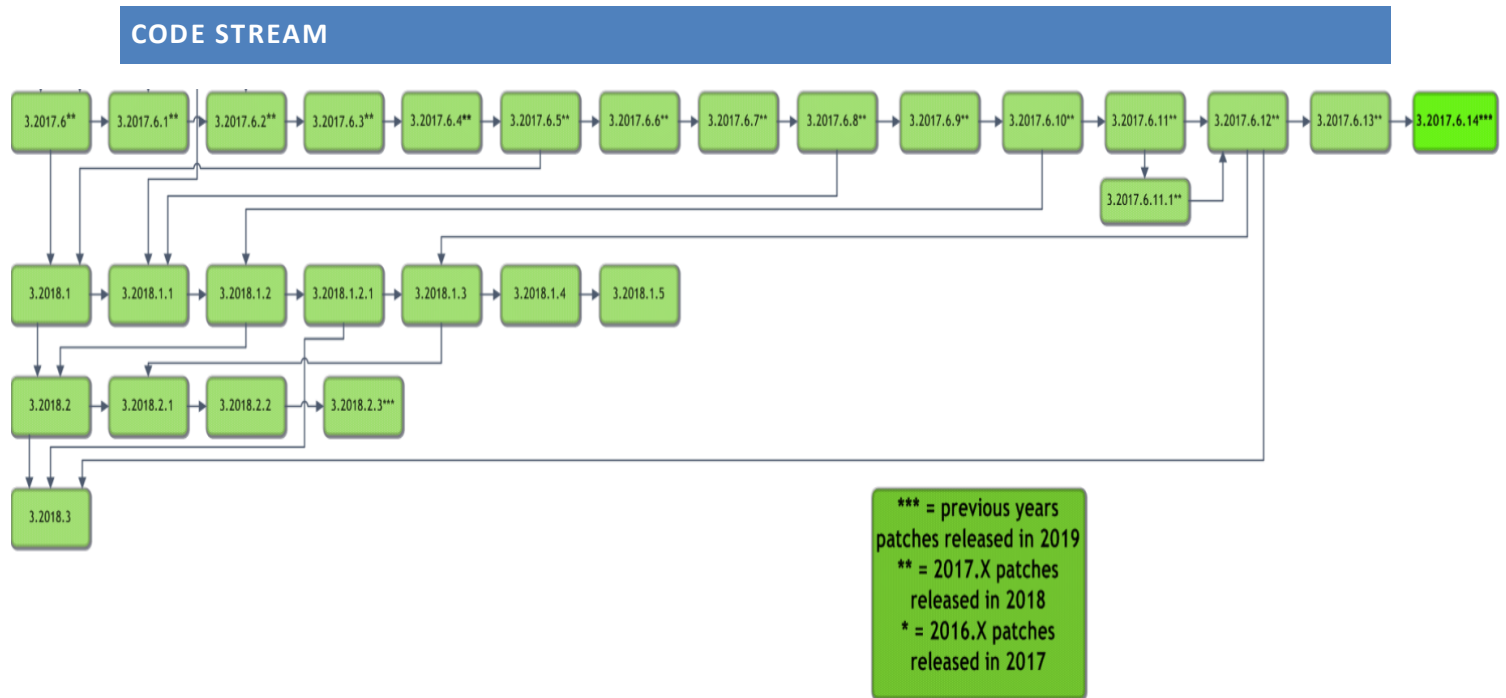


It is possible that the user will right-click and select Print from the hidden browser context menu, which would result in an HTML-formatted report with only a single header and footer.

Some limitations of the print from PDF printing strategy are listed below. The existing HTML printing option is still the default and any customers who find these limitations to be undesirable can continue to use the HTML printing option by leaving the System Configuration set to False.

1. When viewing an embedded PDF in a web page, the page will generally be launched without prompting to download the file. However, this is a computer-based setting. If the user has selected this browser option, the portal cannot override this setting and the user would need to acknowledge the browser's prompt to continue.
2. Despite the fact that the document appears to be in a web page, it has in fact been downloaded to cache prior to opening. Therefore, the report (PHI) exists on the local PC after this action has been performed.

In general, the new print from PDF option produces a report that is more professionally formatted and matches the reports that are printed directly from the RIS.

**Legend:**

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

## ERAD RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2017.6	-	3.17.6.0(3GB)	3.17.6.0	3.17.6.0	3.17.6.0.01037550	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	Full Version Release. Including Patient, Provider and UM Portals
2017.6	1	3.17.6.1(3GB)	3.17.6.0	3.17.6.1	3.17.6.1.01094077	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	GUI, Web Service and DB updates
2017.6	2	3.17.6.2(3GB)	3.17.6.0	3.17.6.2	3.17.6.2.01130171	3.17.6.2	3.17.6.2.1138297	3.17.6.2.1138298	3.17.6.2.1138298	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	3	3.17.6.3(3GB)	3.17.6.0	3.17.6.3	3.17.6.3.01166033	3.17.6.3	3.17.6.3.1168622	3.17.6.3.1168622	3.17.6.3.1168623	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	4	3.17.6.4(3GB)	3.17.6.0	3.17.6.4	3.17.6.4.01187509	3.17.6.4	3.17.6.4.1190295	3.17.6.4.1190295	3.17.6.4.1190295	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	5	3.17.6.5(3GB)	3.17.6.0	3.17.6.5	3.17.6.4.01187509	3.17.6.4	3.17.6.5.1199064	3.17.6.5.1199063	3.17.6.5.1199064	GUI, Web Service, Patient, Provider and UM Portals
2017.6	6	3.17.6.6(3GB)	3.17.6.0	3.17.6.6	3.17.6.6.01236363	3.17.6.4	3.17.6.5.1199064	3.17.6.5.1199063	3.17.6.5.1199064	GUI, Web Service and DB updates
2017.6	7	3.17.6.7(3GB)	3.17.6.0	3.17.6.7	3.17.6.7.01257812	3.17.6.7	3.17.6.7.1266287	3.17.6.7.1266287	3.17.6.7.1266287	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2017.6	8	3.17.6.8(3GB)	3.17.6.0	3.17.6.8	3.17.6.8.01276873	3.17.6.8	3.17.6.8.1280869	3.17.6.8.1280870	3.17.6.8.1280869	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2017.6	9	3.17.6.8(3GB)	3.17.6.0	3.17.6.8	3.17.6.8.01276873	3.17.6.8	3.17.6.9.1308097	3.17.6.9.1308098	3.17.6.9.1308098	Patient, Provider and UM portals
2017.6	10	3.17.6.10(3GB)	3.17.6.0	3.17.6.10	3.17.6.10.01335594	3.17.6.10	3.17.6.10.1331371	3.17.6.10.1331372	3.17.6.10.1331372	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2017.6	11	3.17.6.11(3GB)	3.17.6.0	3.17.6.10	3.17.6.11.01347408	3.17.6.10	3.17.6.10.1331371	3.17.6.10.1331372	3.17.6.10.1331372	GUI and DB updates
2017.6	11.1	3.17.6.11.1(3GB)	3.17.6.0	3.17.6.11.1	3.17.6.11.01437968	3.17.6.10	3.17.6.10.1331371	3.17.6.10.1331372	3.17.6.10.1331372	GUI, Web Service, DB,
2017.6	12	3.17.6.12(3GB)	3.17.6.0	3.17.6.12	3.17.6.12.01439318	3.17.6.12	3.17.6.12.1439203	3.17.6.12.1439204	3.17.6.12.1439204	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2017.6	13	3.17.6.13(3GB)	3.17.6.0	3.17.6.13	3.17.6.12.01439318	3.17.6.13	3.17.6.13.1538631	3.17.6.13.1538632	3.17.6.13.1538632	GUI, Web Service, Digital Forms, Patient, Provider and UM portals
2017.6	14	3.17.6.14(3GB)	3.17.6.0	3.17.6.14	3.17.6.14.01597996	3.17.6.14	3.17.6.14.1599367	3.17.6.14.1599368	3.17.6.14.1599368	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2018.1	-	3.18.1.0(3GB)	3.18.1.0	3.18.1.0	3.18.1.0.01228009	3.18.1.0	3.18.1.0.1229289	3.18.1.0.1229290	3.18.1.0.1229290	Full version release
2018.1	1	3.18.1.1(3GB)	3.18.1.0	3.18.1.1	3.18.1.1.01288419	3.18.1.1	3.18.1.1.1299765	3.18.1.1.1299766	3.18.1.1.1299765	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2018.1	2	3.18.1.2(3GB)	3.18.1.0	3.18.1.2	3.18.1.2.01341771	3.18.1.2	3.18.1.2.1355946	3.18.1.2.1355947	3.18.1.2.1355947	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2018.1	2.1	3.18.1.2.1(3GB)	3.18.1.0	3.18.1.2.1	3.18.1.2.01341771	3.18.1.2	3.18.1.2.1355946	3.18.1.2.1355947	3.18.1.2.1355947	GUI and Web Service
2018.1	3	3.18.1.3(3GB)	3.18.1.0	3.18.1.3	3.18.3.0.01471392	3.18.1.3	3.18.1.3.1466761	3.18.1.3.1466762	3.18.1.3.1466762	GUI, Web Service, DB, Management Reports, Digital Forms, Patient, Provider and UM portals
2018.1	4	3.18.1.4(3GB)	3.18.1.0	3.18.1.4	3.18.1.4.01518863	3.18.1.4	3.18.1.4.1527377	3.18.1.4.1527379	3.18.1.4.1527378	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2018.1	5	3.18.1.5(3GB)	3.18.1.0	3.18.1.5	3.18.1.5.01547447	3.18.1.5	3.18.1.5.1561651	3.18.1.5.1561652	3.18.1.5.1561653	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2018.2	-	3.18.2(3GB)	3.18.2.0	3.18.2.0	3.18.2.0.01412126	3.18.2.0	3.18.2.0.1416370	3.18.2.0.1416371	3.18.2.0.1416371	Full Version Release. Including Patient, Provider and UM Portals
2018.2	1	3.18.2.1(3GB)	3.18.2.0	3.18.2.1	3.18.2.1.01490049	3.18.2.1	3.18.2.1.1509822	3.18.2.1.1509823	3.18.2.1.1509822	GUI, Web Service, DB, Management Reports, Digital Forms, Patient, Provider and UM portals
2018.2	2	3.18.2.2(3GB)	3.18.2.0	3.18.2.2	3.18.2.2.01563299	3.18.2.2	3.18.2.2.1583286	3.18.2.2.1583287	3.18.2.2.1583286	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2018.2	3	3.18.2.3(3GB)	3.18.2.0	3.18.2.3	3.18.2.2.01563299	3.18.2.3	3.18.2.3.1592002	3.18.2.3.1592003	3.18.2.3.1592003	GUI, Web Service, Digital Forms, Patient, Provider and UM portals
2018.3	-	3.18.3(3GB)	3.18.3.0	3.18.3.0	3.18.3.0.01547822	3.18.3	3.18.3.0	3.18.3.0	3.18.3.0	Full Version Release. Including Patient, Provider and UM Portals



## INSTALLING

### CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD\_rRIS\_2017.6.14.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

### WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

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 141 files in the rRISService folder and 7 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). Folders are (Arabic), en\_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt\_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc...

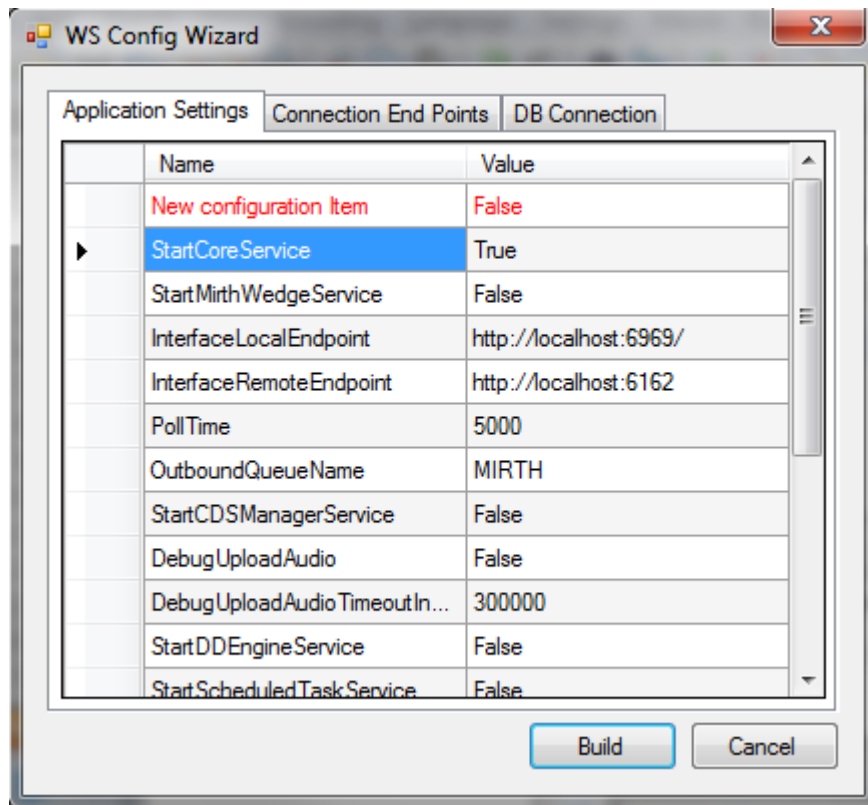
#### **Services Configuration Wizard**

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, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

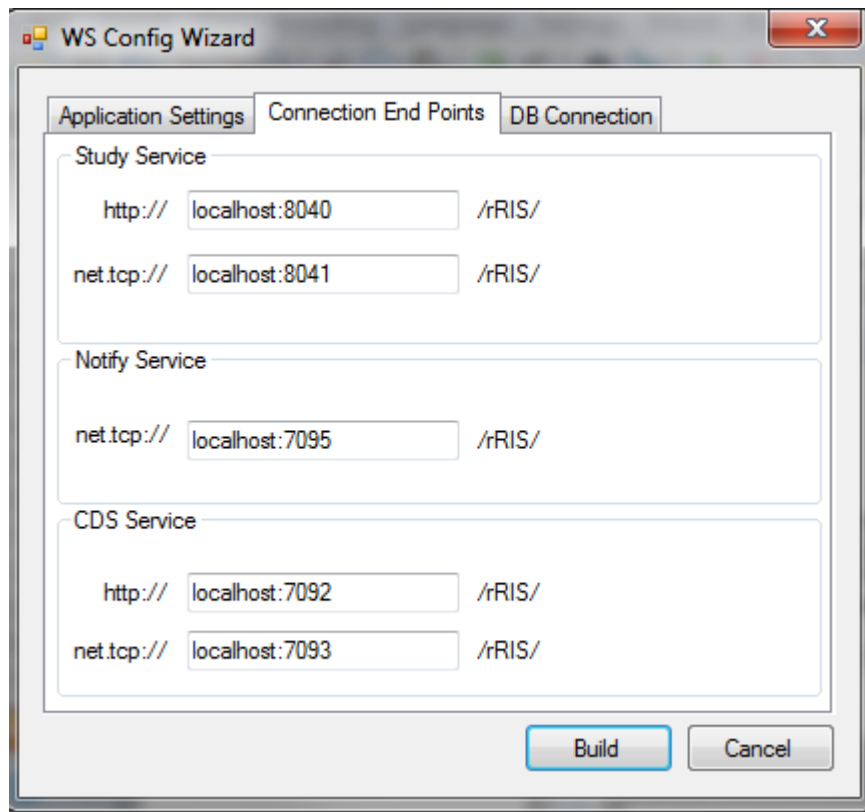
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application “ServicesConfigWizard.exe”

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.



**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.



---

## 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.

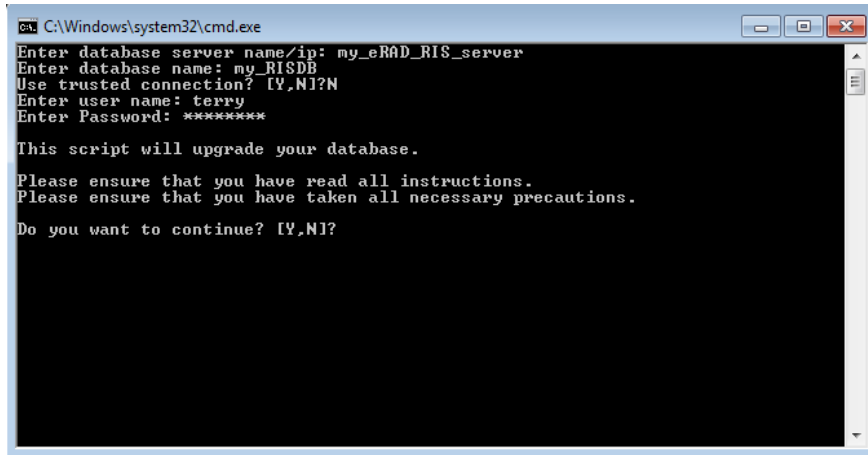
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in any form or by any means without the prior written permission from eRAD.

- 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: 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]?
```

- 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