

Customer Release Notes

for eRAD RIS

Version 2

Build 2016.7

(includes features from 2016.6)

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PURPOSE

This is the Customer Release Notes document for eRAD RIS Version 2.2016.7. It includes features for 2.2016.7 and 2.2016.6.

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

Please see accompanying document for Utilization Management settings.

NEW ACCESS STRINGS

Setting	Default	Purpose
Clinical.ExternalSearch	None	Allows a user to perform an external patient search.
Clinical.PIXQuery	None	Allows a user to perform an identifier query.
Config.LookupEditor.PIXPDQServers	None	Controls access to the look-up table PIXPDQServers.
Clinical.ScheduleFrom	None	Controls access to the "Schedule From" menu item for scheduling a new exam using information from the selected row on the Patient Folder.
Clinical.Visit.Cost.Override	None	Allows a user to override the total visit cost.
Config.LookupEditor.DocumentType	None	Controls access to the look-up table for Document Type.
Config.LookupEditor.EmployerDirect	None	Controls access to the look-up table for Employer Direct.
Config.LookupEditor.Personnel.DomainAuthentication	Full	Functionality to enable/disable the ability to change a user's authentication type.
WL.Folders	None	Allows access to Folder worklists under the File menu -> Folders option.
Config.LookupEditor.Modality.ViewAllPractices	None	Allows a user of the modality editor to see/edit all rooms across all practices.
Config.LookupEditor.Modality.PracticeSpecific	N/A	Removed from the application. Replaced with Config.LookupEditor.Modality.ViewAllPractices.
Config.LookupEditor.Modality.ViewAll	N/A	Removed from the application.

WL.CriticalResults	None	Allows access to the All Critical Results WL via the Administration menu.
WL.Rad.MyCriticalResults	Full	Allows access to the (My) Critical Results WL.
WL.Rad.CriticalResults Replaced with WL.Rad.CriticalResultsAll	None	Allows access to the All Critical Results WL via the Radiologist menu.
Config.LookupEditor.CTRMCategory	None	Allows access to the look-up table for CTRM Category.
clinical.CTRNNotification Replaced with Clinical.CTRMNotification	None	Allows user to add a critical result notification.

Config.LookupEditor.ContactLogMethod	None	Allows access to the look-up table for Contact Log Method.
Clinical.ChangeAssistantRadiologist	None	Allows user to access the Change Assistant Radiologist context menu option.
Clinical.RADARSecurePIC	None	Allows user to send a RADAR SecurePIC request.
Clinical.ScanDocs.AllowMarkAsReviewed	None	Allows user to modify the Reviewed status of an attachment received via SecurePIC.
Clinical.ViewStudy	None	Allows user to open the View Study screen.
Config.LookupEditor.ImplantDevice	None	Allows access to the look-up table for Implant Device.
Config.LookupEditor.PreCertGroups	None	Allows access to the look-up table for PreCertGroups.

NEW SYSTEM CONFIGURATION SETTINGS

Setting	Default	Purpose
PIXPDQCurrentServer		(value = string) The full URL for the Mirth channel handling the PIX and PDQ queries.
PIXPDQQueryTimeout	10	(value = int) Number of seconds of timeout before RIS considers the request in error.

CTRMEnabled		This setting has been removed.
AttachmentResolutionWhenSizeExceedsMax	150	When an attachment page exceeds the 'MaxAttachmentSizeKB' the image will be resized based on this value.
EnableRADARInboundMessageProcessing	False	Enables inbound RADAR messages.
MaxAttachmentSizeKB	50	If an attachment page is larger than this amount in KB, then RIS will resize the resolution of the image based on a 11in high document at the resolution of 'AttachmentResolutionWhenSizeExceedsMax.'
RADARInboundMessageClientId	No default	The RADAR account for the RADAR SignalR inbound message channel.
RADARInboundMessagePassword	No default	The RADAR account password for the RADAR SignalR inbound message channel.
RADARInboundMessageServerUrl	No default	The URL for the RADAR SignalR inbound message channel.
RelevanceWeightingFactorBodyPart	20	When calculating a relevance score, this is the weight that will be applied to the body part matches (that are not part of the keyword matching). If all relevance weighting factors are set to zero, the relevant scores will only include the date.
RelevanceWeightingFactorContrast	4	When calculating a relevance score, this is the weight that will be applied to the contrast part of the procedure. If all relevance weighting factors are set to zero, the relevant scores will only include the date.
RelevanceWeightingFactorKeywords	15	When calculating a relevance score, this is the weight that will be applied to the relevant keyword matches. If all relevance weighting factors are set to zero, the relevant scores will only include the date.
RelevanceWeightingFactorLaterality	50	When calculating a relevance score, this is the weight that will be applied to the laterality matches. If all relevance weighting factors are set to zero, the relevant scores will only include the date.
RelevanceWeightingFactorModality	8	When calculating a relevance score, this is the weight that will be applied to the modality type matches. If all

		relevance weighting factors are set to zero, the relevant scores will only include the date.
RelevanceWeightingFactorOtherWords	3	When calculating a relevance score, this is the weight that will be applied to any other words that happen to match. If all relevance weighting factors are set to zero, the relevant scores will only include the date.
UseUTF8ForWedgeOutboundEncoder	False	Determine whether the Wedge encodes items using the utf-8 character set or uses the system default (likely Windows-1255).



eRAD[®]
RIS

Feature Highlights for
2016.6-2016.7

Upgrade to eRAD RIS release, 2016.7, and New Features will allow you to:

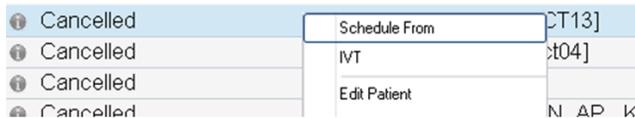
- Read **driver's license barcodes** with a document scanner to launch registration workflow for the appropriate RIS patient.
- Manage PreCertification Rules in groups instead of individual carriers with a **redesigned PreCertification configuration** framework.
- Capture **inbound faxes** and other documents in the RIS with worklist-based document routing workflow.
- Configure options to **automatically launch** the appropriate PACS viewer and reporting mode, plus preferences about how many priors to launch or cache, based on a variety of study criteria.
- Organize **studies of interest** into a folder structure for future reference—great for teaching files, tumor boards, and more.
- Initiate a text message to a patient's phone and securely receive a picture message back in the RIS using **RADAR SecurePIC**—particularly helpful to review referrals and insurance cards when scheduling over the phone.
- Integrate **utilization management** workflow for evaluating appropriate use criteria and medical necessity.

NEW FEATURES

SCHEDULING AND REGISTRATION

FEATURE #14663 – ABILITY TO REPLICATE AN EXISTING ORDER TO SCHEDULE A NEW APPOINTMENT

Often a patient needs to schedule a follow-up exam or an annual screening exam that shares all or most of the same information with an exam they have had in the past. In these cases, copying the information from a previous exam can be a time saver: if the referring provider, insurance, special accommodations, reason for exam, etc., are the same as before, the scheduler can more quickly create an appointment for the patient if those items can be copied over. To accomplish this, a new "Schedule From" option is available in the right click menu (context menu) in the Patient Folder.



Selecting this option allows a user to initiate a Scheduling event that copies (clones) all of the data from the selected row (referring and CC doctors, Reason for Exam, insurance information, procedure, etc.). This menu option is available for any study in the Patient Folder, regardless of status. After the exam information is copied to the new order, there is no longer a link between the new order and the original order. The scheduler can make updates to the new order with no impact on the order from which it was initiated.

The data from the selected study will be used to load the "Schedule Order" screen. From here, the scheduler can make any necessary changes and either save as an order or proceed to schedule an appointment.

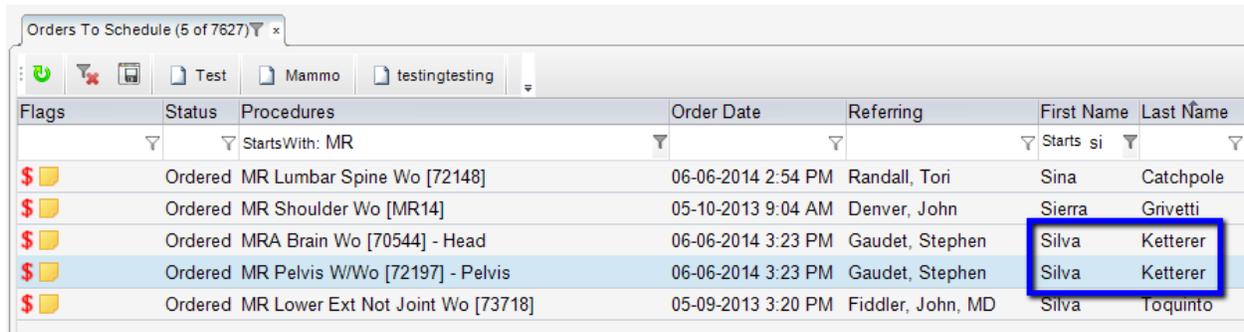
To utilize this feature, a user must belong to a User Group with FULL access to the new access string: *Clinical.ScheduleFrom*.

FEATURE #14829 – DISPLAY EXISTING ORDERS REMINDER WHEN SCHEDULING FROM AN ITEM ALREADY IN AN ORDERED STATUS

Previously, the Existing Orders reminder only occurred when scheduling a new Order or Walk In. However, even if scheduling from the Patient Folder or the Orders to Schedule worklist, schedulers can sometimes miss that there is more than one Order available. eRAD RIS will now display the Existing Orders reminder when scheduling a *different* existing order.



When opening an Order from the Orders to Schedule WL or Patient Folder, the reminder will display for the scheduler to choose whether or not they would like to also schedule the other order(s).



FEATURE #7302, 8006 – USE DATA FROM DRIVER’S LICENSE 2D BARCODE TO OPTIMIZE RECEPTION WORKFLOW

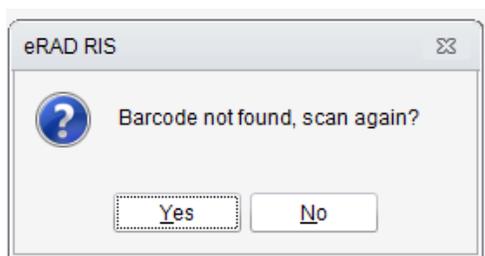
In order to improve the check-in times at the front desk, eRAD RIS will now provide an option to locate a patient by scanning a driver’s license and using the image of the 2D barcode on the back of the license to identify and search by key demographics for that license to find likely matches.

To begin, place the patient’s driver’s license in the scanner and select the *Identify Patient* option under the Front Desk menu.

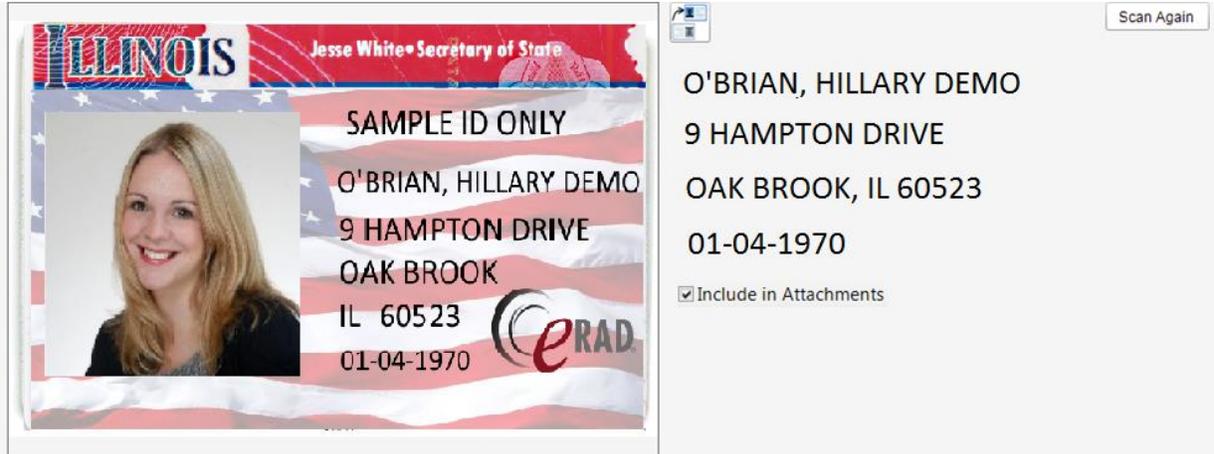


RIS will immediately proceed to scan the license, which will initiate a search using the name and birth date from the barcode on the driver’s license. RIS will categorize the results such that matching patients who are scheduled for today will be presented first, as the most likely match. If there is only one exact match for a patient and that patient has an exam scheduled for today, RIS will automatically open the exam in Registration mode. If there are multiple matches, the user will be presented with a summary of the information from the card, the search results, and a list of actions that can be taken.

If the barcode could not be read, the following message will be displayed.



When the barcode is successfully interpreted, the following screen will display.



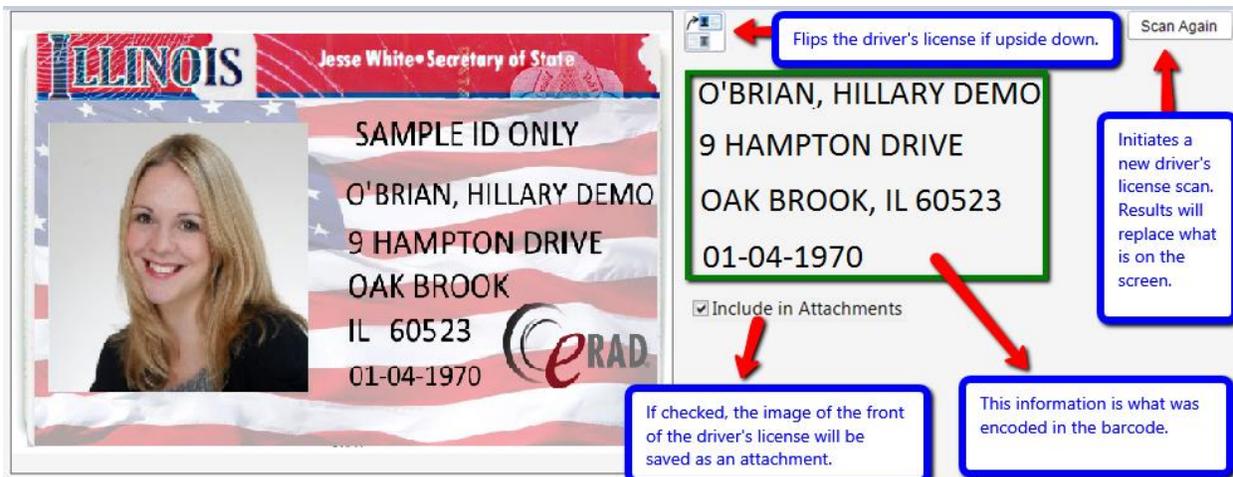
The following patients have appointments scheduled for today:

- Hillary O'Brian - #z20000002 - 01-04-1970 - 9 Hampton Dr - CT Cervical Spine W/WO - 1:00 PM - FH-FH 

Possible matches without appointments scheduled for today:

- Hilary O'Brien - #542997800DA - 01-04-1970 - 91 Jacksonville Heights Circle 

The image below describes various components visible on the top section of the screen.



SEARCH RESULT PRESENTATION

The search result entries are broken up into two categories, those with scheduled exams for today and those without scheduled exams for today. Those patients with one or more scheduled exams today will be displayed as follows:

<First name> <Last name> - #<MRN> - <DOB> – <street address> – <first procedure description> – <first procedure start time> - <first procedure’s site_code>

Below those results, patients without exams scheduled for today will be displayed as follows:

<First name> <Last name> - #<MRN> - <DOB> - <street address>

If no matches are found, a message will be displayed in the search results area that no matches were found.

If any of the matching patients have a driver’s license on file as an attachment, the camera icon will display next to the patient’s information.



Clicking that button will open a small window with an image of the most recent scanned driver’s license for easy comparison to the current driver’s license.

SEARCH RESULT SORT ORDER

Within each category, patient search results are sorted based on a point system that attempts to ensure the most relevant patients are at the top of the list. Relevancy points are assigned as follows:

Description	Points
Exams scheduled at currently selected site	20
Exams scheduled today (regardless of location)	20
Exact match on last name	10
Exact match on first name	10
Exact match on street address	10

Any results with the same relevancy score will be sorted alphabetically by last name and then first name.

ACTION BUTTONS

The following buttons are displayed at the bottom of the patient search results. Only the buttons relevant to the results selected will be active.

Button	Description
Register	Opens the first scheduled order in registration mode. A study selection dialog box may be displayed if there are multiple orders to be registered for the patient. This button is only enabled if the selected patient has exams

	that are Scheduled, Checking In, or Arrived for today.
New Walk-in	Opens the walk-in screen. If the user first selects a patient, the screen will open the existing patient, otherwise it will be opened in “new patient” mode with information pre-filled from the driver’s license (name, DOB, partial address info, etc.). This button is always enabled.
New Appointment	Opens the schedule order screen. If the user first selects a patient, the screen will open the existing patient, otherwise it will be opened in “new patient” mode with information pre-filled from the driver’s license. This button is always enabled.
Patient Folder	Opens the Patient Folder of the selected patient. This button is only enabled if a patient is selected.
Close	Closes the Identify Patient screen.

“INCLUDE IN ATTACHMENTS” CHECKBOX

If the “Include in Attachments” checkbox is checked, New Walk-In, Register, and New Appointment will launch a screen with the Verified ID box checked and the scanned copy of the photo ID (front and back) attached to the scanned documents and automatically categorized as the corresponding *PhotoIDScanDocumentType*.

If a patient has a photo ID on file, the user is able to uncheck this box if attaching another copy is undesired. There is a new Practice-level setting that controls the default value of this checkbox.

VARIATION IN NORTH AMERICAN DRIVER’S LICENSES

This feature was designed using driver’s licenses from the United States and Canada. The technology may need to be adjusted to support other international barcodes. There are a few states or provinces that encrypt information on the barcode or store it in a different format. These are exceptions to the rule, but testing with local driver’s licenses prior to implementing the workflow is recommended.

A NOTE ON SCANNER EQUIPMENT

Two popular types of document scanners have been tested with this workflow: the Canon DR-2010C and the Fujitsu fi-6110. Other duplex scanners are also likely to successfully handle the barcode, but would require some initial testing before implementing the workflow.

At this time, testing/workflow modification has not taken place for scanners that do not support duplex (two-sided) scanning.

HOW TO ENABLE THE FEATURE

1. Associate the access string *Clinical.ReceptionBarcodeWorkflow* with one or more User Groups set to Full.
2. The Scan Type identified by the existing system configuration setting for *PhotoIDScanDocumentType* is used to govern the configuration of the photo ID scan. In order to reduce the risk of a failure to scan, the following settings may override the configuration specified in the Scan Type configuration:
 - a. Resolution – if RIS is configured with less than 210 DPI, then RIS will override to use 210.
 - b. Duplex Flag – if RIS is configured with duplex flag = “N”, then RIS will override to use “Y.”
 - c. Auto Deskew Flag – if RIS is configured with auto deskew flag = “N”, then RIS will override to use “Y.”
 - d. In testing, 4”x 2.75” was used on *PhotoIDScanDocumentType* .

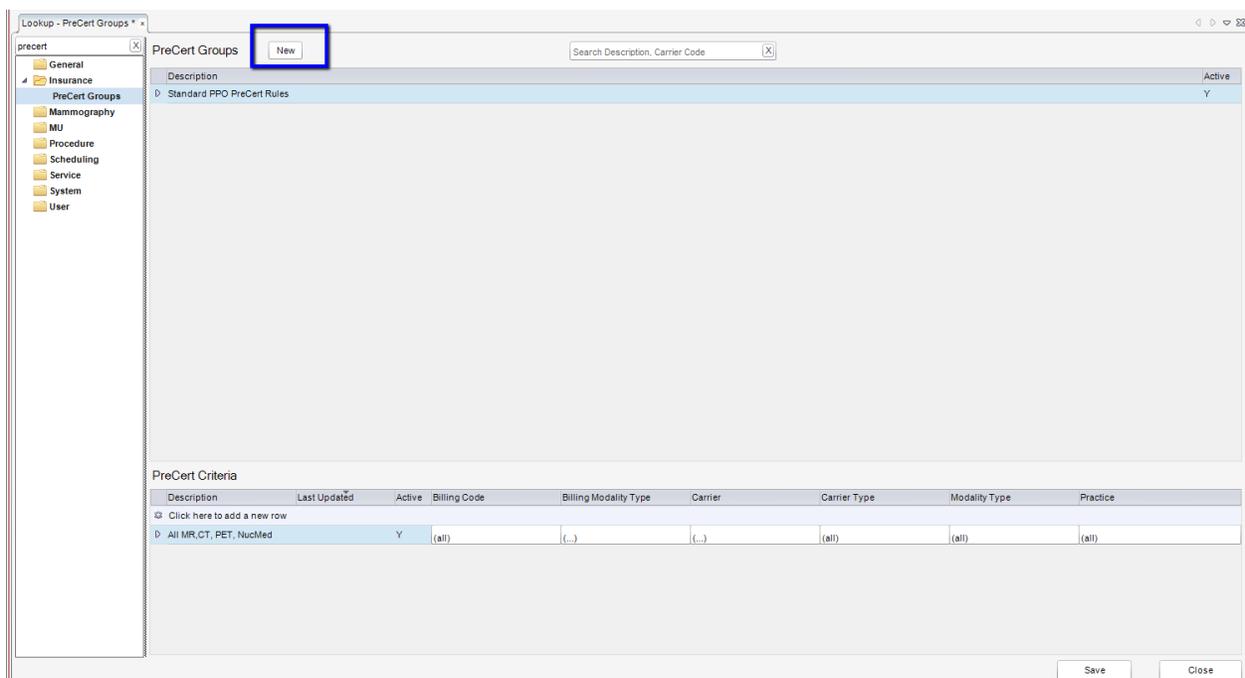
PRECERTIFICATION RULES

FEATURE #11048, 14724 – PRECERT RULES EDITOR REDESIGN: MANAGE PRECERT GROUPS

PreCertification rules have historically been difficult to manage because they had to be configured separately for every insurance carrier. Not only was this time consuming to manage, but the number of PreCert Rules a RIS Administrator was required to build for every carrier could sometimes slow down system performance, particularly if every carrier had very granular, Billing Code level rules. This method of managing PreCert rules was not reflective of the fact that large groups of carriers have the same PreCert rules, and any future changes to PreCert Rules would likely apply to every carrier in that group.

eRAD RIS now has a new editor to reflect this fact: *PreCert Groups*. An administrator can now create and name groups of carriers which fall under the same PreCert requirements, then create rulesets for the entire group to define those requirements. A PreCert Group can have one or more rulesets that include the following criteria: billing code, billing modality type, carrier, carrier type, modality type, and practice. If an order or study matches the criteria for any rulesets based on its insurance carrier, it will be marked as PreCert Required.

The new editor can be found under Administration -> Configuration -> Insurance -> PreCert Groups. PreCert Groups can include as many insurance carriers as necessary, or can be as small as just one carrier.



The screenshot shows the 'PreCert Groups' editor interface. A 'New' button is highlighted with a red box. The interface includes a tree view on the left, a main table for PreCert Groups, and a table for PreCert Criteria.

Description	Last Updated	Active	Billing Code	Billing Modality Type	Carrier	Carrier Type	Modality Type	Practice
D Standard PPO PreCert Rules		Y						

Description	Last Updated	Active	Billing Code	Billing Modality Type	Carrier	Carrier Type	Modality Type	Practice
D All MR, CT, PET, NucMed		Y	(all)	(...)	(...)	(all)	(all)	(all)

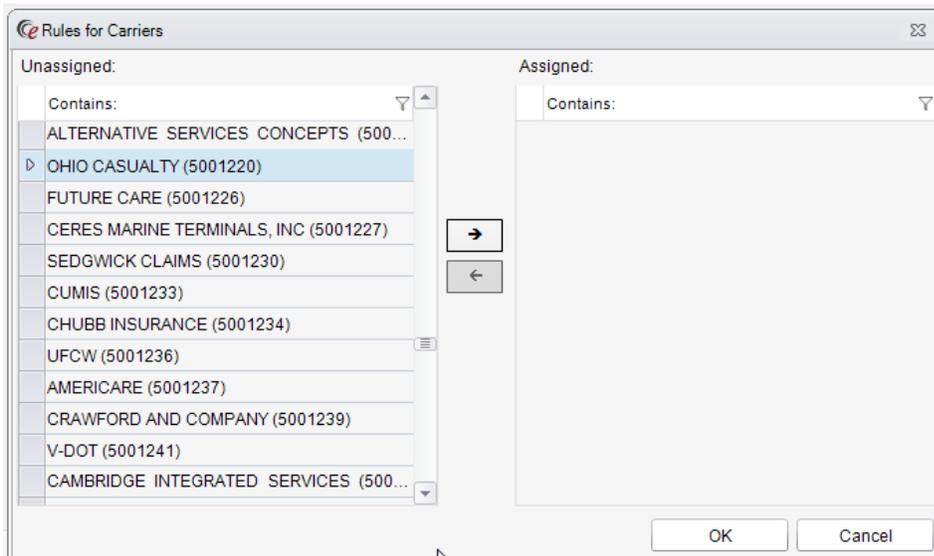
To create a new PreCert Group, click “New” and then enter a useful description to identify the new PreCert group. Note that any word added to the description can be used to find the group later via the search bar.

Next, create the criteria under which PreCert should be required in the bottom section of the screen. This works in the same fashion as creating criteria for printing Forms.

PreCert Criteria									
Description	Last Updated	Active	Billing Code	Billing Modality Type	Carrier	Carrier Type	Modality Type	Practice	
Click here to add a new row									
All MR,CT, PET, NucMed	12-29-2016 4:24 PM	Y	(all)	(...)	(...)	(all)	(all)	(all)	(all)

Because there may be multiple rulesets for the PreCert Group, it is helpful to give each ruleset a Description. The criteria will initially default to include “All,” meaning PreCert would be required for every exam under any circumstance. To narrow the criteria under which an exam would fall to the IVT worklist for PreCertification, first choose one of the categories: billing code, billing modality type, carrier, carrier type, modality type, or practice.

Selecting the “Carrier” category will open a new window with a full list of available carriers on the left (Unassigned) and a blank list on the right. Any Carriers to be associated with the rule will be selected and moved to the right side in the Assigned column, using the arrow pointing right. Carriers can be multi-selected by holding down the CTRL key while clicking the desired carriers, then clicking the arrow pointing to the right.



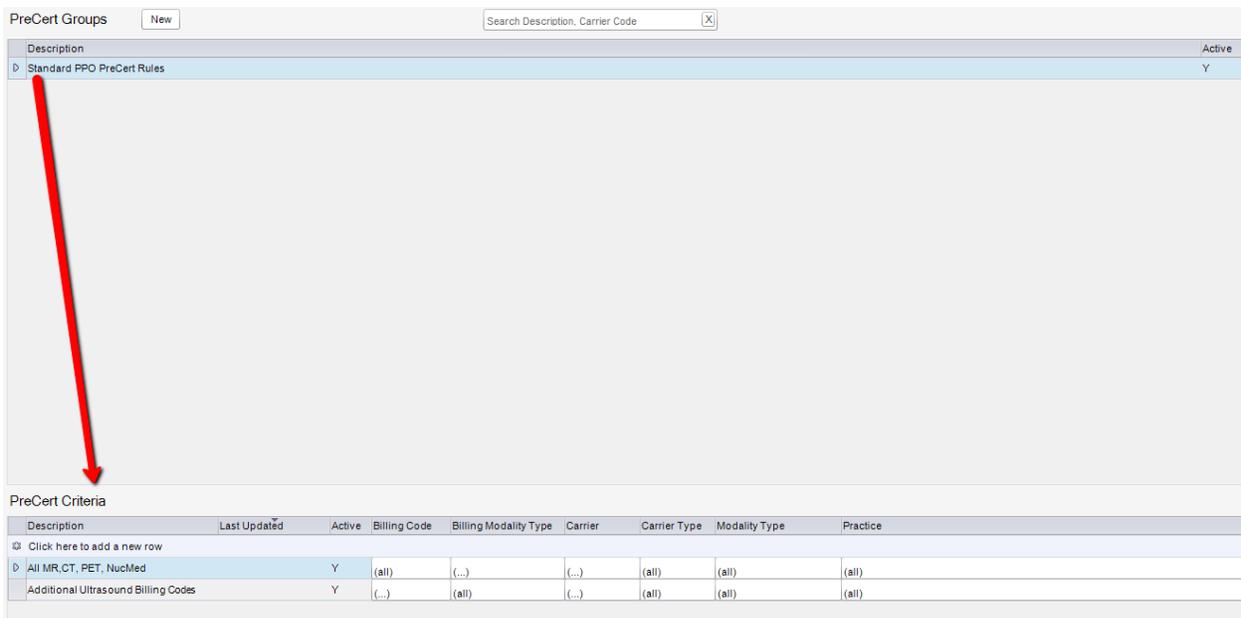
The filter row can be useful for quickly finding carriers of a certain type. For example, to create a rule for Attorney accounts, filtering by ATTY or Attorney or Law may help to quickly identify a chunk of carriers to move to the Assigned column. Alternatively, if all of the desired carriers are included in a particular Carrier Type, such as Attorney, leave the Carrier category as is and instead use the Carrier Type category.

After configuring the ruleset to constrain it to a set of carriers, either using Carrier or Carrier Type, the administrator can then select one of three ways to determine which orders/studies will require PreCertification: Billing Code, Modality Type Code, and Billing Modality Type Code.

Modality Type Code and Billing Modality Type Code are two similar concepts, though the former is attached to a modality and the latter to a billing code. Billing Modality Type codes provide another means to group billing codes together in a way that may be more useful for billing purposes.

Billing Code is the most granular method for describing PreCert rules and would ideally be used only in cases where Modality Type Code and Billing Modality Type Code are too broad. For example, some contracts require PreCertification for only certain types of Ultrasound studies. In that case, select the Billing Code category and choose only those billing codes that require PreCert.

A PreCert Group can have multiple rulesets. If any rulesets match, then the given order or study will require PreCertification. In the following example, two rulesets have been configured for a PreCert Group named “Standard PPO PreCert Rules.”



The screenshot shows the 'PreCert Groups' interface. At the top, there is a search bar and a 'New' button. Below is a table with columns 'Description' and 'Active'. One row is visible: 'Standard PPO PreCert Rules' with 'Active' set to 'Y'. A red arrow points from this row down to the 'PreCert Criteria' table below.

The 'PreCert Criteria' table has columns: Description, Last Updated, Active, Billing Code, Billing Modality Type, Carrier, Carrier Type, Modality Type, and Practice. It contains three rows:

Description	Last Updated	Active	Billing Code	Billing Modality Type	Carrier	Carrier Type	Modality Type	Practice
Click here to add a new row								
All MR, CT, PET, NucMed		Y	(all)	(...)	(...)	(all)	(all)	(all)
Additional Ultrasound Billing Codes		Y	(...)	(all)	(...)	(all)	(all)	(all)

The first ruleset was configured to include all MR, CT, PET and Nuclear Medicine procedures based on Billing Modality Type. The second ruleset was added to include some specific Ultrasound Billing Codes. Adding the Ultrasound using Billing Codes instead of one of the Modality Type options prevents situations where all codes for a Modality Type fall to the IVT WL when only a small portion actually need PreCertification. Both rulesets were configured to use the same Carriers and were applied to all Practices.

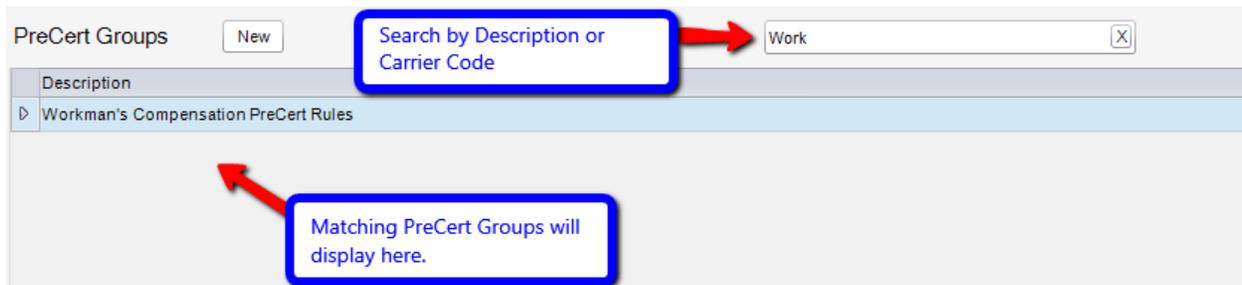
When looking at rulesets that have already been configured, the “(…)” indicates that selections were made and clicking will open a window to view or change the selections. Otherwise, “(all)” means that no filtering has been done using that category.

The following requirements must be followed:

- 1) A ruleset must include one of the following types of filters: Billing Code, Modality Type Code, or Billing Modality Type Code.
- 2) A ruleset must also include either a Carrier filter or a Carrier Type filter.
- 3) A carrier can only be included in one PreCert group.

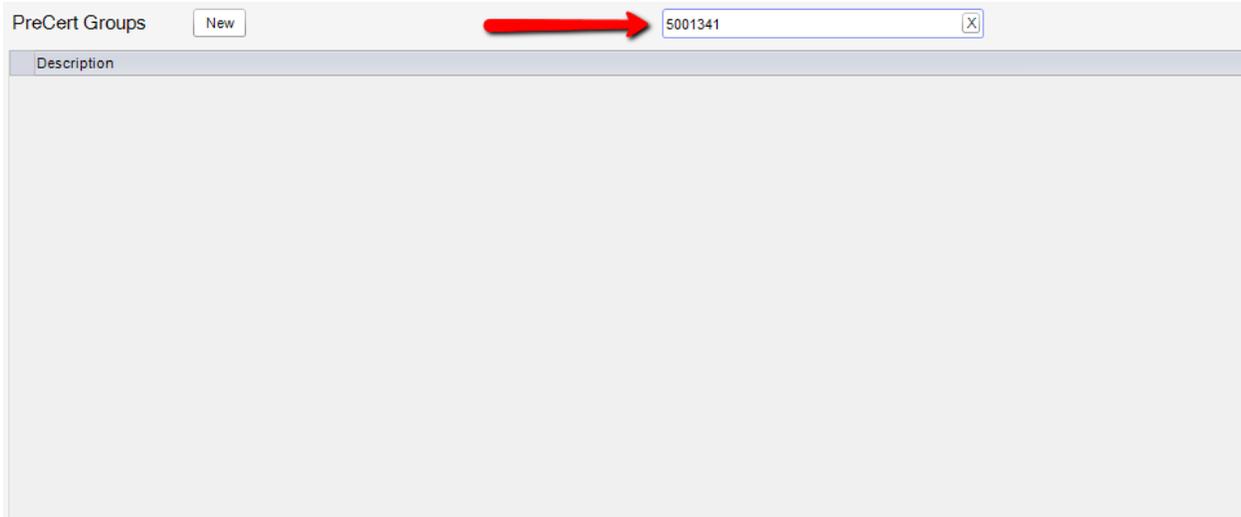
PRECERT GROUP SEARCH

A search bar at the top of the screen allows the user to search for PreCert Groups based on any words in the description. It is also possible to search by Carrier Code, which is helpful when the PreCert Group to which a carrier belongs is not known by the user. A carrier code search will show all matching rulesets for the PreCert Group that includes the specified carrier.



ACCESSING PRECERT GROUPS FROM THE CARRIER LOOK-UP TABLE

The Carrier look-up table can be used to launch the PreCert Groups editor and automatically apply a filter to find the PreCert Group to which the carrier belongs. For example, if an administrator is making a change to a carrier in the Carrier table and also need to adjust the PreCert Rules at that time, they can right click the carrier in the Carrier look-up table and choose PreCert Group in order to open the PreCert Groups editor.

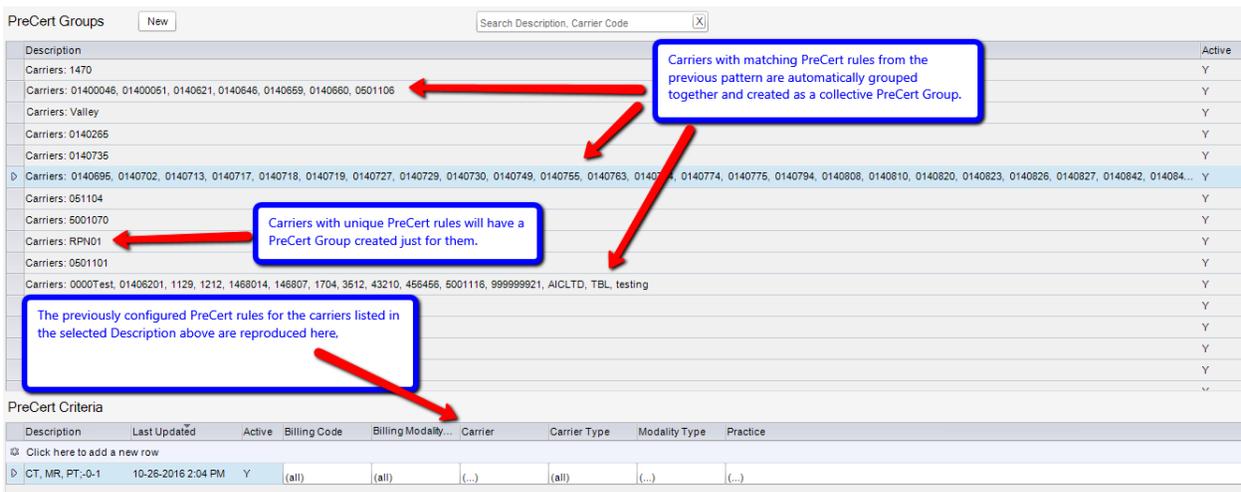


Above, the Carrier code for the selected carrier was automatically searched. No results appear because the carrier does not belong to any PreCert Groups (i.e. no PreCert rules are set for this carrier). To create a PreCert Group, click the New button.

To utilize the new PreCert Group editor in the Configuration tables, users must belong to a User Group set to Full for the access string `Config.LookupEditor.PreCertGroups`.

IMPACT ON PRECERT RULES CONFIGURED USING THE PREVIOUS PRECERT RULE EDITOR

As part of the upgrade to 2016.7, existing PreCert rules will automatically be converted to the new pattern. A script will identify which carriers have identical PreCert rules. These carriers will then be put together in a PreCert Group and the previous rules will be replicated for that group.



Carriers with matching PreCert rules from the previous pattern are automatically grouped together and created as a collective PreCert Group.

Carriers with unique PreCert rules will have a PreCert Group created just for them.

The previously configured PreCert rules for the carriers listed in the selected Description above are reproduced here.

Description	Last Updated	Active	Billing Code	Billing Modality	Carrier	Carrier Type	Modality Type	Practice
Click here to add a new row								
CT, MR, PT--0-1	10-26-2016 2:04 PM	Y	(all)	(all)	(...)	(all)	(...)	(...)



A temporary PreCert Group description will be assigned, which simply lists the Carrier codes included: “Carriers: 01254, 841211, 55229.” At their convenience, RIS Administrators will likely want to evaluate these groups. Perhaps some carriers have matching PreCert requirements today, but should actually be split into two groups because they are likely to be handled differently in the future. Or perhaps some carriers had been given the same PreCert rules in the past, but some of those carriers may benefit from some fine tuning by Billing Code, now that the PreCert Group editor makes this possible. It is also possible that more meaningful descriptions may be created by looking at the carriers that were grouped together and identifying that they share some common characteristic, such as “Workman’s Compensation” carriers.

Any questions regarding this new PreCert Group pattern or the migration process can be directed to eRAD Support for clarification.

INSURANCE ELIGIBILITY

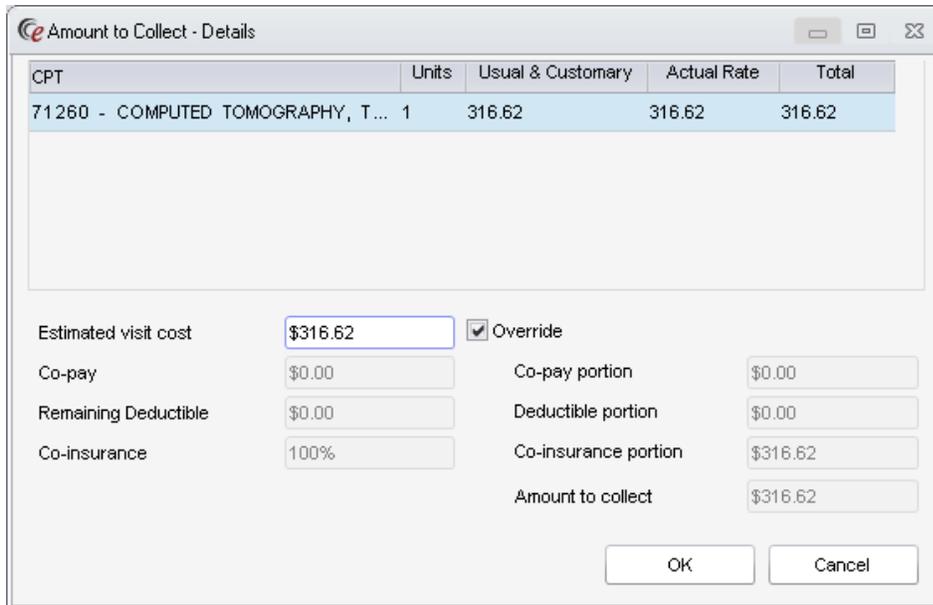
FEATURE #14509 – ABILITY TO OVERRIDE THE TOTAL VISIT COST

When using the Eligible API integration and utilizing National Payor Database for pricing information, there is sometimes a need for users to override the Total Visit Cost. For example, the visit cost for Medi-cal patients needs to be calculated from a website, instead of the NPD. In cases such as these, a user needs to override the visit cost with the correct amount in order for financial reports to properly balance.

There is now an Override checkbox that can be accessed under the following conditions:

- The user belongs to a User Group with Full access to a new Access String labeled *Clinical.Visit.Cost.Override*.
- The insurance is configured to be validated via Eligible API.
- The National Payor Database is used for cost.

Clicking the Override checkbox will allow the user to specify an alternate estimated visit cost, as shown below.



CPT	Units	Usual & Customary	Actual Rate	Total
71260 - COMPUTED TOMOGRAPHY, T...	1	316.62	316.62	316.62

Estimated visit cost: Override

Co-pay: Co-pay portion:

Remaining Deductible: Deductible portion:

Co-insurance: Co-insurance portion:

Amount to collect:

OK Cancel

If a user does not have Full access to the *Clinical.Visit.Cost.Override* access string, they will only see the Override checkbox if it has already been checked by a user with the permission. This will indicate to the user that the estimated visit cost has been altered, but they will not have permission to uncheck the box or alter the amount in the estimated visit cost field.

INSURANCE MANAGEMENT

FEATURE #8755 – EMPLOYER DIRECT FUNCTIONALITY FOR SPECIAL CONTRACTS

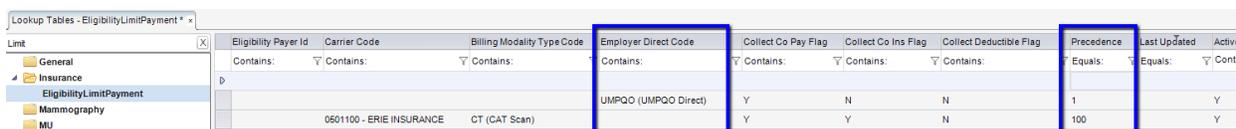
A request was made to support marketing efforts to offer employer groups special contracts to redirect imaging from high cost environments to lower cost imaging centers/departments. When referred via a contracted employer group, the contracted pricing will need to override the standard pricing for a patient’s insurance carrier. In order to support this pricing in the billing extract and allow for data mining to evaluate the success of these marketing efforts, eRAD RIS now has the ability to capture a new attribute within RIS, attached to the insurance at the patient level. This attribute, called *Employer Direct*, allows an administrator to override the *Eligibility Limit Payment* settings, if the requirement to collect co-pay, co-insurance or deductible differs as part of the contract, and allows for the configuration to pass an alternate insurance code in the billing extract to ensure that the contracted pricing is applied.

Employer Groups participating in the Employer Direct program can be added in a new Employer Direct look-up table.



Employer Direct Code	Description	Display Order	Last Updated	Active
JOHNSTON	Johnston Inc Direct	1	12-28-2016 11:36 AM	Y
STEEL	Steel Workers Direct	1	12-28-2016 11:36 AM	Y
UMPQO	UMPQO Direct	1	12-28-2016 11:36 AM	Y

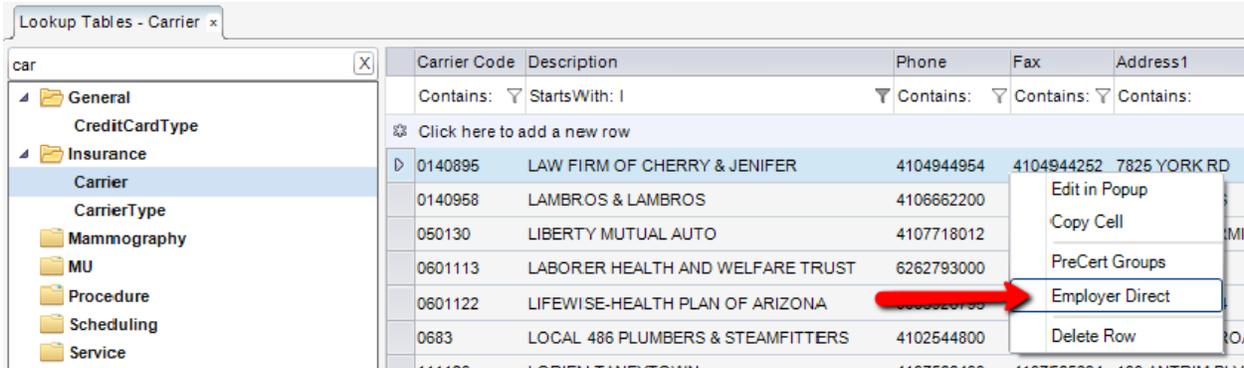
The Eligibility Limit Payment look-up table has a new column to select an Employer Direct Code, in case it is necessary to alter whether co-pay, co-insurance, or deductible are collected based on the contract.



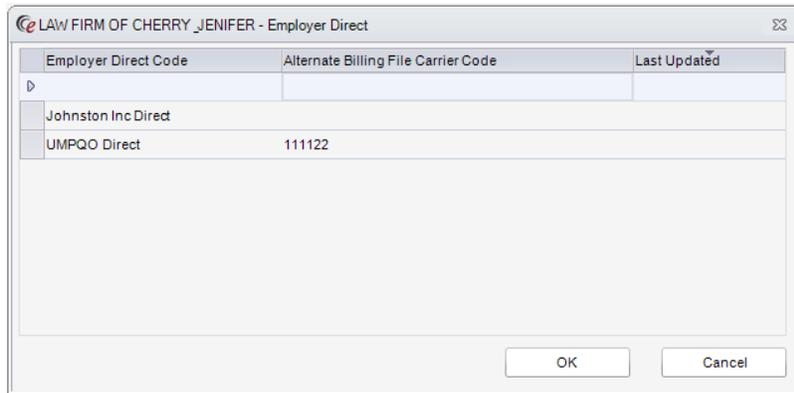
Eligibility Payer Id	Carrier Code	Billing Modality Type Code	Employer Direct Code	Collect Co Pay Flag	Collect Co Ins Flag	Collect Deductible Flag	Precedence	Last Updated	Active
			UMPQO (UMPQO Direct)	Y	N	N	1		Y
0601100 - ERIE INSURANCE		CT (CAT Scan)		Y	Y	N	100		Y

Using this table, there are several ways to configure limited payments. In the example pictured above, Erie Insurance should not collect the deductible for exams with a Billing Modality Type Code of CT, but should collect co-insurance and co-pay. However, if a patient with that same insurance carrier is referred by the UMPQO Employer Direct group, the contract specifies that only the co-pay should be collected, regardless of the insurance carrier. To handle this level of specificity, the Eligibility Limit Payment table now has a *Precedence* column. By giving a rule a **lower** Precedence number, that rule will be evaluated and applied first. Because the Precedence value for the rule for the Employer Direct group UMPQO is lower than the value for the rule for Erie Insurance CTs, the UMPQO rule would be applied first and the co-insurance *and* deductible would be ignored when calculating the Amount to Collect.

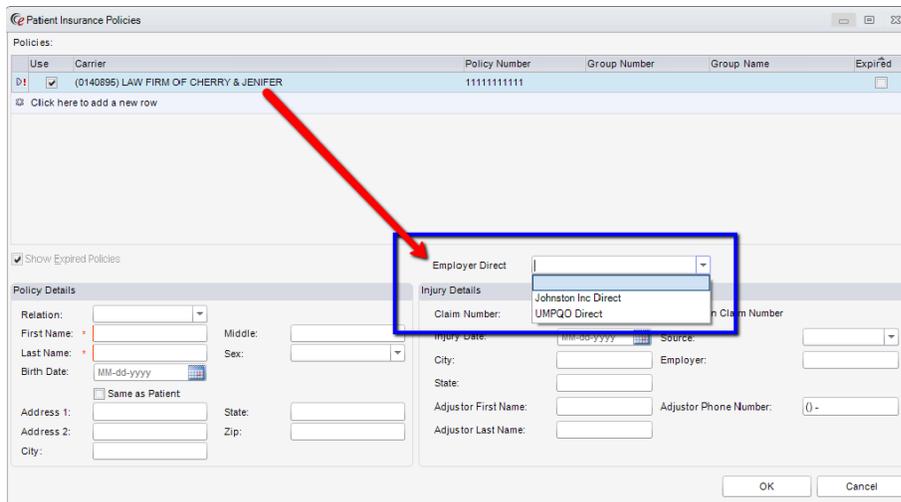
To specify which *Employer Direct* codes are applicable to an insurance carrier, the child look-up table *_carrier_x_employer_direct* was added to the Carrier editor. This mapping is accessible by right clicking on a carrier and choosing “Employer Direct” as shown in the following screenshot.



A new window will open to add the applicable Employer Direct codes; it is also possible to specify an alternate Carrier Code that should be substituted in the billing extract.



When an order has been referred by an Employer Direct group, the RIS user now has the ability to specify the correct Employer Direct code, in order to drive the appropriate workflow. When the user selects an insurance carrier in the Manage Policies window, an *Employer Direct* dropdown will display as shown in the following screenshot. This dropdown will only appear if one or more Employer Direct codes are associated to the insurance carrier. If there are no associated Employer Direct codes, then the dropdown will not be displayed.



TECHNOLOGIST WORKFLOW

FEATURE #14569 – DISPLAY INJECTION SIGNED DATE AND TIME STAMP ON THE NOTES/EXAM TIMES TAB

In some countries, contrast injections are performed by an individual other than the technologist. The individual performing the contrast injection is required to separately verify the patient’s identity and then sign off on the injection when it is complete. This workflow has been accommodated in eRAD RIS, but the time stamps were not previously included on the Notes / Exam Times tab. The information has now been added to that tab as displayed below.

Patient	Contacts / Demographics	Clinical	Order	Documentation	Exam Details	Billing Codes	Attachments	Notes / Exam Times	Rep
---------	-------------------------	----------	-------	---------------	--------------	---------------	-------------	---------------------------	-----

Place billing on hold

Billing Notes

12-29-16 hilarys -

09-22-16 - Insurance is required

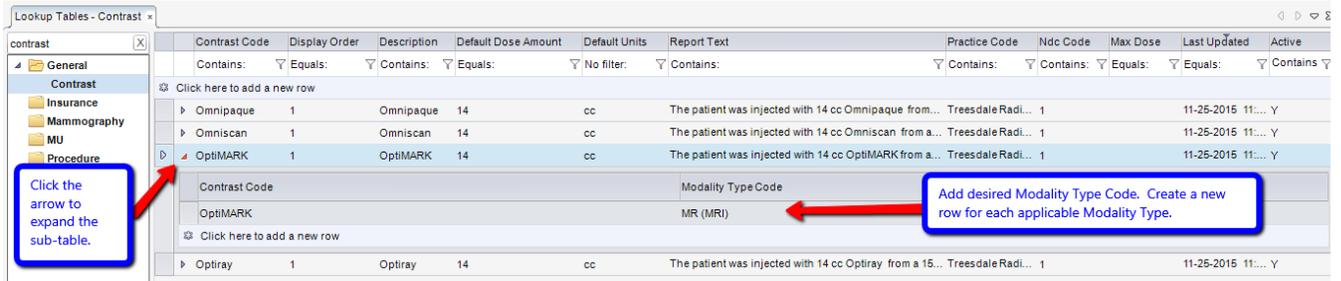
Exam Details

Scheduled time	* 08-22-2016 1:00 PM	Scheduled by	stewart. avelet, MD (902) 393-6377
Arrival time	08-22-2016 8:18 AM	Arrived by	stewart. avelet, MD (902) 393-6377
Arrival early/late	4 hours 42 minutes early	Primary tech	Admin, Darcy
Start time	08-22-2016 8:19 AM	ID verified by tech	08-22-2016 12:19 PM stewart. avelet, MD (902) 393-6377
Completed time	08-22-2016 8:19 AM	ID verified by injector	12-29-2016 8:57 PM Saltmarsh, Hilary
Start early/late	4 hours 41 minutes	Injection signed	12-29-2016 8:58 PM Saltmarsh, Hilary
Exam duration	0 minutes	Cancel reason	N/A
Accession #	1031149PE	Cancelled by	N/A
		Discontinue reason	N/A
		Edited by	N/A
		Signed by	stewart. avelet, MD (902) 393-6377

FEATURE #14567 – FILTER CONTRAST OPTIONS BY MODALITY TYPE

When a technologist enters contrast for an exam on the Exam Details tab, they were previously presented with a list of all of the Contrast options listed in the Contrast look-up table. Some contrast options will never be used in a given modality, so it is now possible to only present the contrast options that are relevant for the exam being performed, based on the Modality Type.

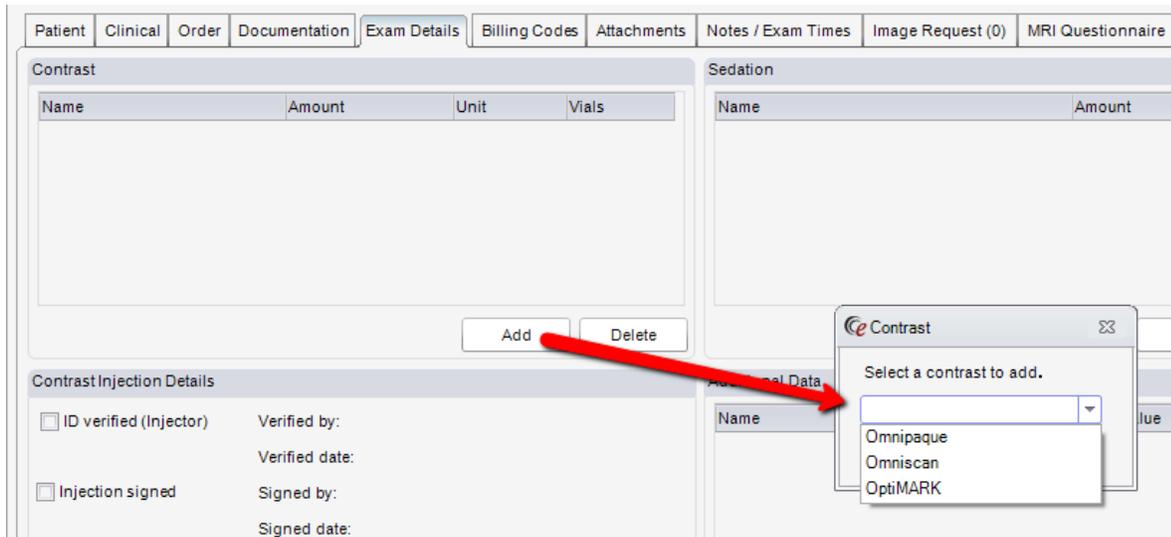
To configure the applicable Modality Types in the Contrast look-up table, click the arrow next to the Contrast to expand the sub-table.



The screenshot shows the 'Lookup Tables - Contrast' window. A table lists contrast options with columns: Contrast Code, Display Order, Description, Default Dose Amount, Default Units, Report Text, Practice Code, Ndc Code, Max Dose, Last Updated, and Active. The 'OptiMARK' row is expanded to show a sub-table with a 'Modality Type Code' dropdown menu. A red arrow points to the expand arrow next to 'OptiMARK' with a callout: 'Click the arrow to expand the sub-table.' Another red arrow points to the 'Modality Type Code' dropdown with a callout: 'Add desired Modality Type Code. Create a new row for each applicable Modality Type.'

Contrast Code	Display Order	Description	Default Dose Amount	Default Units	Report Text	Practice Code	Ndc Code	Max Dose	Last Updated	Active
OptiMARK	1	OptiMARK	14	cc	The patient was injected with 14 cc OptiMARK from a...	TreesdaleRadi...	1		11-25-2015 11:...	Y
					Modality Type Code					
OptiMARK					MR (MRI)					

Add each desired Modality Type on a new row by selecting the Modality Type Code from the dropdown list. The Contrast will now only display as an option when choosing contrast for exams in the associated Modality Types, making the technologist's selection more efficient and less prone to error.

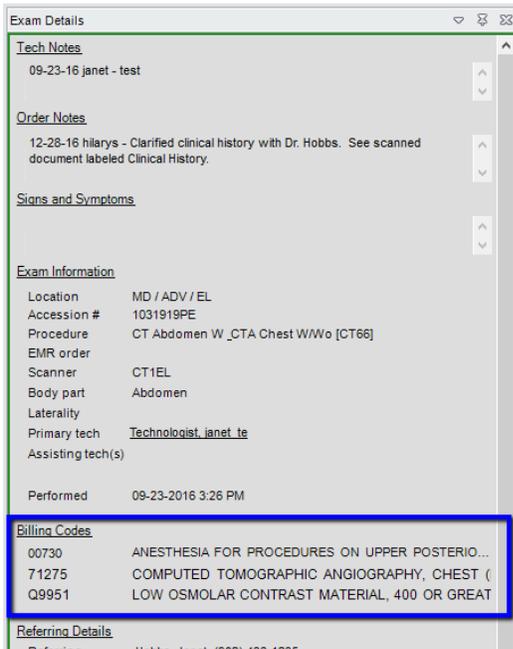


The screenshot shows the 'Exam Details' tab in the software. The 'Contrast' section has an empty table with columns: Name, Amount, Unit, and Vials. Below it are 'Add' and 'Delete' buttons. The 'Contrast Injection Details' section has checkboxes for 'ID verified (Injector)', 'Injection signed', and fields for 'Verified by:', 'Verified date:', 'Signed by:', and 'Signed date:'. A dropdown menu is open over the 'Add' button, showing a list of contrast options: Omnipaque, Omniscan, and OptiMARK. A red arrow points from the 'Add' button to the dropdown menu.

RADIOLOGIST WORKFLOW

FEATURE #14571 – ACTIVE BILLING CODES ADDED TO THE EXAM DETAILS PANEL

Customers have requested the ability for the radiologist to view the active Billing Codes from within the Reporting screen. The Exam Details data pane now has a section which lists the exam’s active billing codes. The information is Read Only and displays both the code and the description for each active billing code on a new line. If more than three billing codes are listed, a vertical scroll bar will appear so that the radiologist can scroll down to view additional codes. The width of the panel can be stretched to see longer descriptions if needed.



FEATURE #14144 – REPORT EDITOR, PACS SERVER, AND NUMBER OF PRIORS TO LOAD/CACHE ARE NOW CONFIGURABLE FOR A VARIETY OF CRITERIA

Radiologists may need the flexibility of using a different PACS server or report editor depending on the type of study they are reading or where it was performed. It is also often desirable to define a different number of priors to load or to cache depending on the type of study. In order to accommodate these needs, a new configuration editor has been created: *ReportingOptions*.

The configuration allows the administrator to optionally set the following values:

- PACS server
- Number of Priors to Load
- Number of Priors to Cache
- Reporting Editor

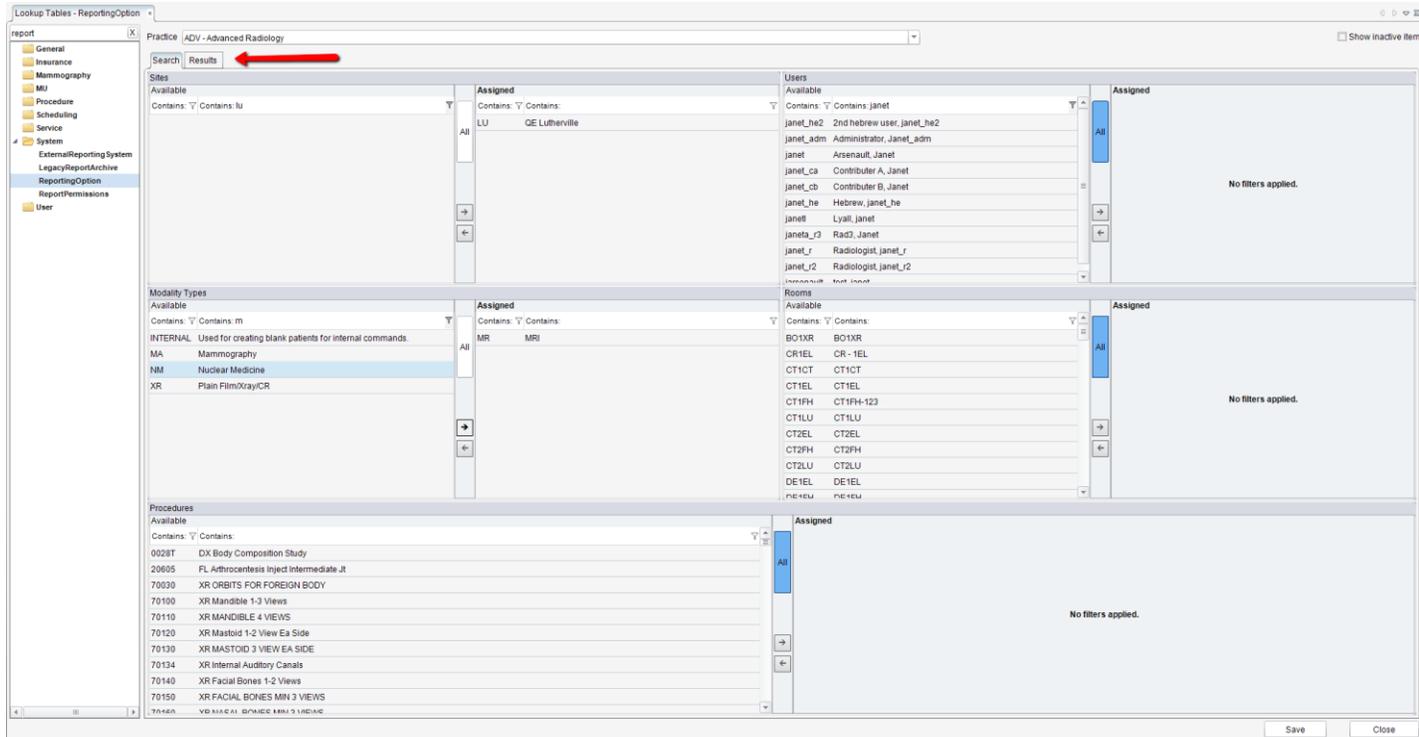
Based on these criteria:

- Practice
- Site
- Modality Type
- Modality
- Procedure Code
- User

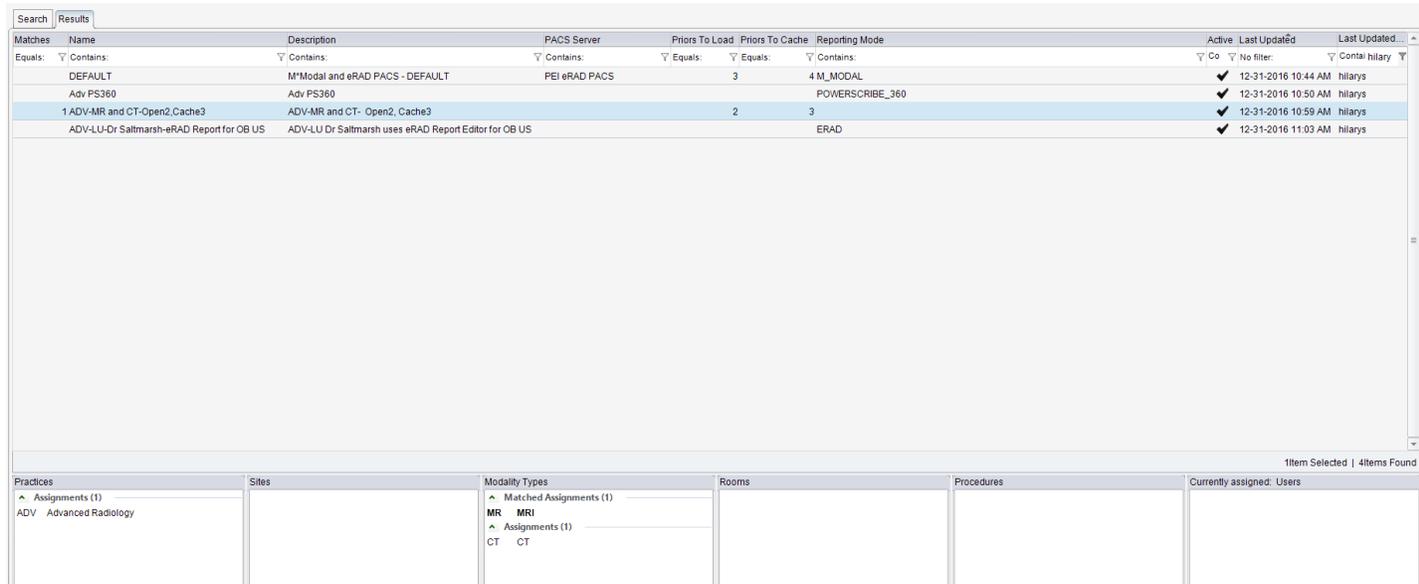
Based on the settings defined in the Reporting Options editor, the RIS will evaluate which PACS server and reporting editor to launch for each study as the radiologist moves through their Pending Dictation worklist. The number of priors to load and cache will automatically adjust as well, if the indicated PACS server supports caching. Automatically adjusting these factors according to the study will create a more efficient radiologist experience.

The Reporting Options look-up table editor is used to overlay more specific criteria on top of the existing general settings. These rules can specify a combination of PACS server, report editor and number of priors *and* the situations in which they should be used. The editor follows the same pattern as the Template/Macro editor, with a Search tab and a Results tab.

To view all of the settings that are applicable to the MRI modality type at the Lutherville site, on the Search tab select MRI and Lutherville on the Sites and Modality Types sections.



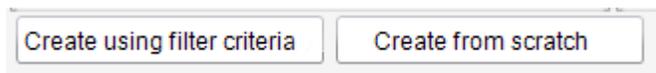
Then switch to the Results tab to see any matching rules.



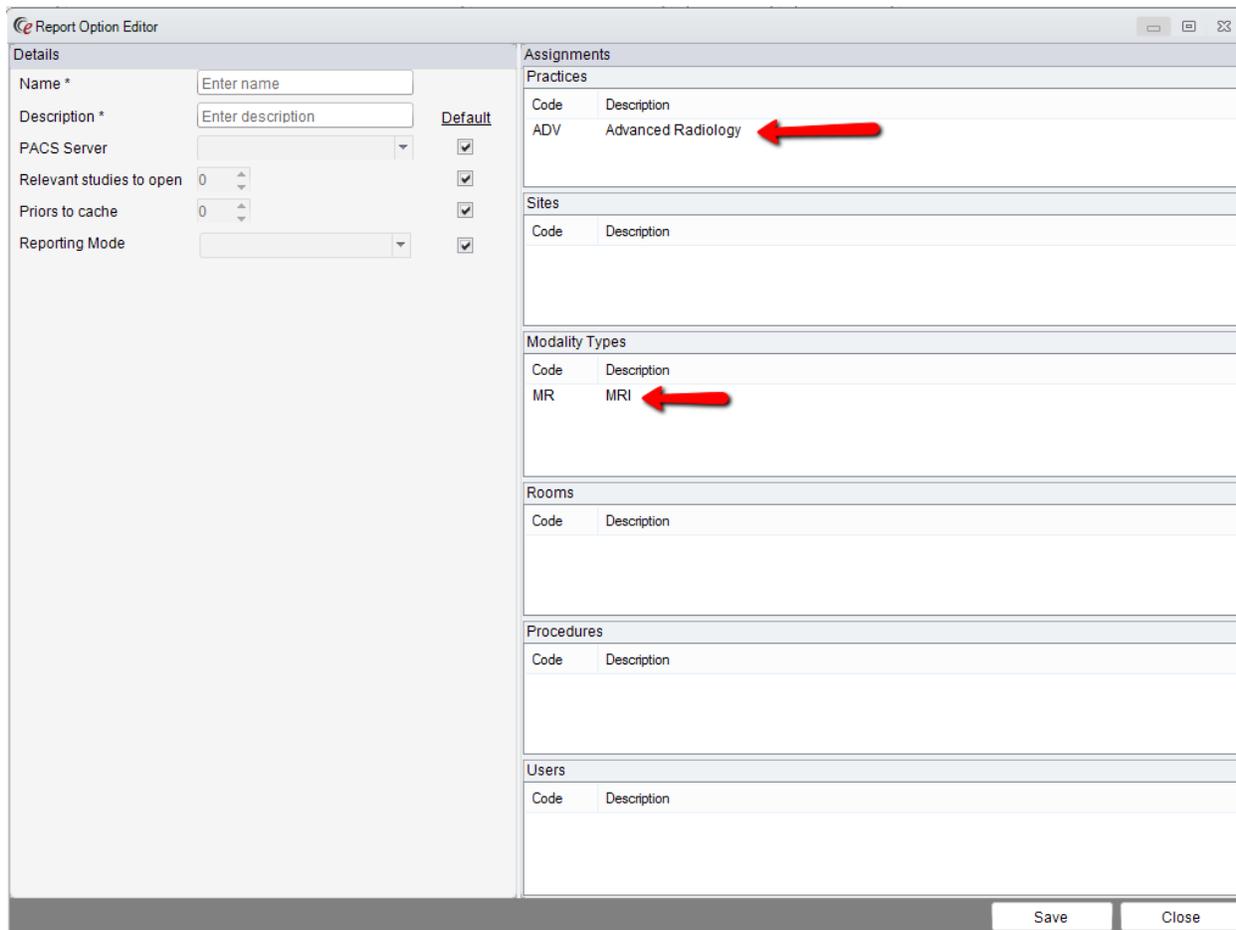
Matches	Name	Description	PACS Server	Priors To Load	Priors To Cache	Reporting Mode	Active	Last Updated	Last Updated...
Equals	Contains	Contains	Contains	Equals	Equals	Contains	Co	No filter	Conta history
	DEFAULT	M*Modal and eRAD PACS - DEFAULT	PEI eRAD PACS	3	4	M_MODAL	✓	12-31-2016 10:44 AM	hilarys
	Adv PS360	Adv PS360				POWERSCRIBE_360	✓	12-31-2016 10:50 AM	hilarys
	1 ADV-MR and CT-Open2.Cache3	ADV-MR and CT- Open2_ Cache3		2	3		✓	12-31-2016 10:59 AM	hilarys
	ADV-LU-Dr Saltmarsh-eRAD Report for OB US	ADV-LU Dr Saltmarsh uses eRAD Report Editor for OB US				ERAD	✓	12-31-2016 11:03 AM	hilarys

The four entries on the Results tab are either specific to MRI or do not have a Modality Type filter at all. Information about the rule can be seen in the columns and also in the criteria boxes at the bottom of the screen. For instance, the selected rule shows that 2 priors will load and 3 priors will cache for all sites at the Advanced practice when the modality type is MRI or CT.

To create a new rule, click one of the buttons at the bottom of the screen:



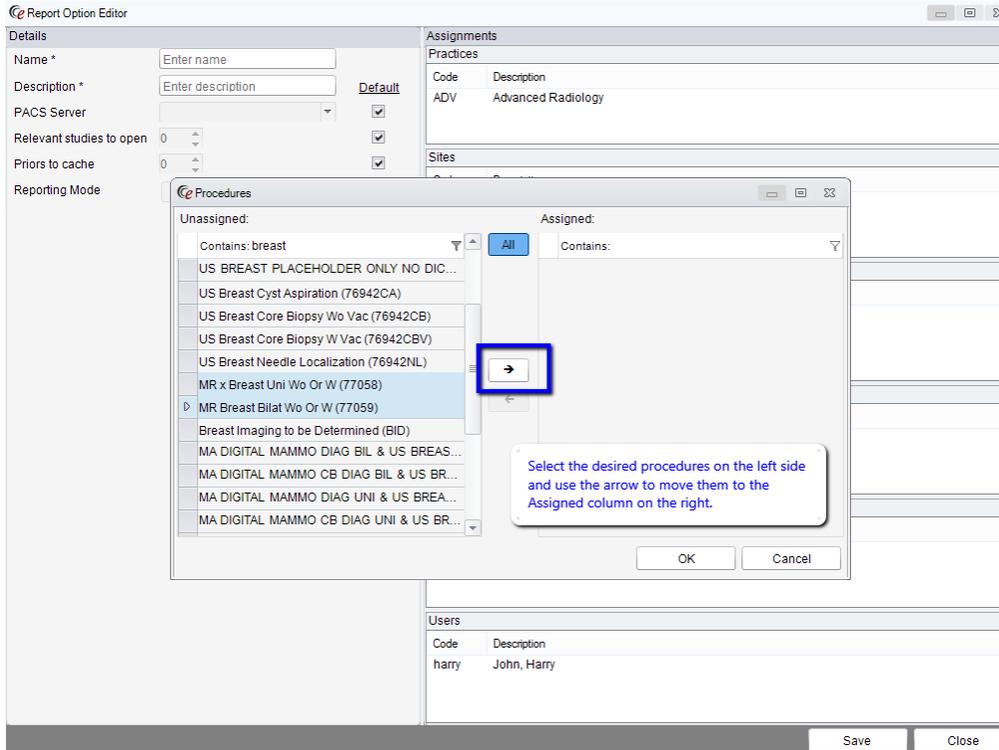
“Create using filter criteria” will automatically apply the criteria used on the Search tab to the new rule (e.g. MRI at the Advanced practice). “Create from scratch” will start without any criteria applied for the rule.



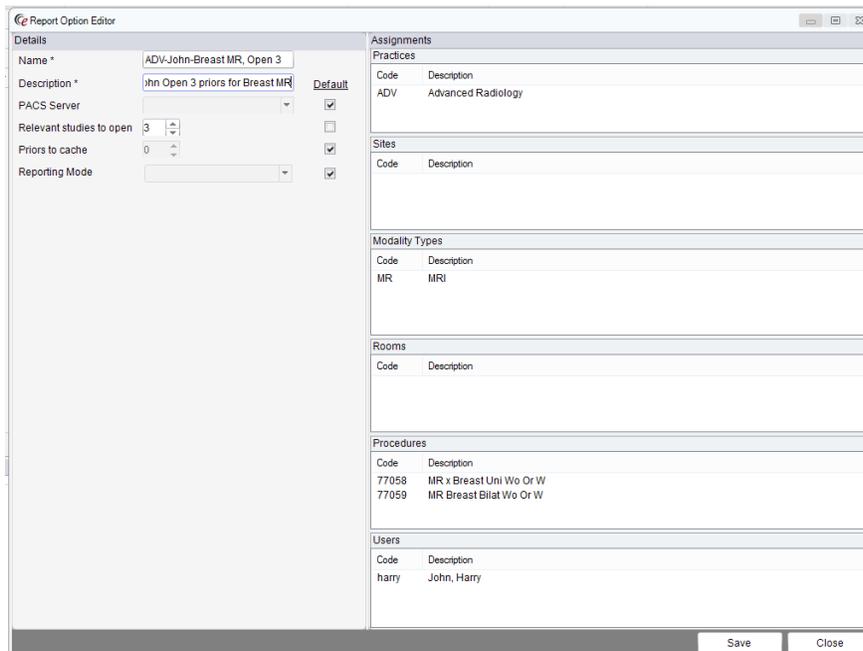
The above editor was opened with the “Create using filter criteria” option, so the Practice and Modality Types sections are prepopulated with Advanced and MRI. The next step is to give the new rule a Name and Description. In case it is not desirable to create a more detailed description, the description field will default to the Name text and can be updated to a full description when desired.

The PACS Server, Relevant studies to open, Priors to cache, and Reporting Mode start out with the Default box checked. To adjust any of the factors for the current rule, uncheck the box and enter the desired value. To create a rule for Dr. John to have 3 relevant priors open for MRI (different than the Practice-level rule to open 2 priors), set Relevant studies to open to 3 and add Dr. John to the Users box (right click the box to open the selection window).

To further define the rule to only apply for Breast MRI, select the desired procedures in the Procedures box.



When all of the criteria are entered for the rule, click Save to finalize.



The rule will now appear on the Results tab.

Matches	Name	Description	PACS Server	Priors To Load	Priors To Cache	Reporting Mode	Active	Last Updated	Last Updated...
Equals:	Contains:	Contains:	Contains:	Equals:	Equals:	Contains:	Co	No filter:	Contal history
	DEFAULT	M*Modal and eRAD PACS - DEFAULT	PEI eRAD PACS	3	4	M_MODAL	✓	12-31-2016 10:44 AM	hilarys
	Adv PS360	Adv PS360				POWERSCRIBE_360	✓	12-31-2016 10:50 AM	hilarys
	1 ADV-MR and CT-Open2,Cache3	ADV-MR and CT- Open2, Cache3		2	3		✓	12-31-2016 10:59 AM	hilarys
	ADV-LU-Dr Saltmarsh-eRAD Report for OB US	ADV-LU Dr Saltmarsh uses eRAD Report Editor for OB US				ERAD	✓	12-31-2016 11:03 AM	hilarys
	1 ADV-John-Breast MR, Open 3	ADV- Dr. John Open 3 priors for Breast MR		3			✓	12-31-2016 11:41 AM	hilarys

Practices	Sites	Modality Types	Rooms	Procedures	Currently assigned: Users
<ul style="list-style-type: none"> Assignments (1) ADV Advanced Radiology 		<ul style="list-style-type: none"> Matched Assignments (1) MR MRI 		<ul style="list-style-type: none"> Assignments (2) 77058 MR x Breast Uhi Wo Cr W 77059 MR Breast Bilat Wo Cr W 	<ul style="list-style-type: none"> Assignments (1) harry John, Harry

Because the rule for Dr. John is more specific than the general rule for opening 2 priors for MRI, when Dr. John opens a Breast MRI procedure, eRAD RIS will automatically request that PACS opens 3 priors.

The same strategy can be applied to dynamically open a different PACS or reporting editor depending on the defined rules.

To use this Reporting Option look-up table editor, a user must belong to a User Group with Full access to the new Access String: *Config.LookupEditor.ReportingOption*.

DYNAMIC PACS

As the user moves through the Pending Dictation worklist, each study is evaluated and the proper PACS opened. If multiple dictation tabs are opened, the proper PACS viewer is opened for each one and any other PACS view sessions are hidden or closed, regardless of whether or not they are from the same type of PACS.

DYNAMIC REPORTING MODES

Up until now, when a user needed to switch reporting modes, for example, from M*Modal to PowerScribe360, they needed to change their user preference, save, and restart RIS. This feature will allow a user to move through a worklist which necessitates multiple types of reporting modes using Next workflow and the Reporting screen will display in the appropriate mode as they action and continue through the worklist.

ALLOWABLE REPORTING MODES BASED ON SYSTEM CONFIG AND ACCESS STRINGS

The modes that are allowed to open are those included in the system configuration setting *AllowedReportingIntegrationTypes*, as long as the user has access to the mode based on the corresponding pre-existing access strings:

- *Config.AllowPowerScribeReportingIntegration*
- *Config.AllowMModalReportingIntegration*
- *Config.AllowEradReportingIntegration*
- *Config.AllowExternalReportingIntegration*

Note that if a reporting mode is turned off, or disallowed, any users that are still set up to use that mode as their primary mode will still have access to its corresponding editor. This allows users to complete existing cases and be switched over when they are ready and trained on the new mode.

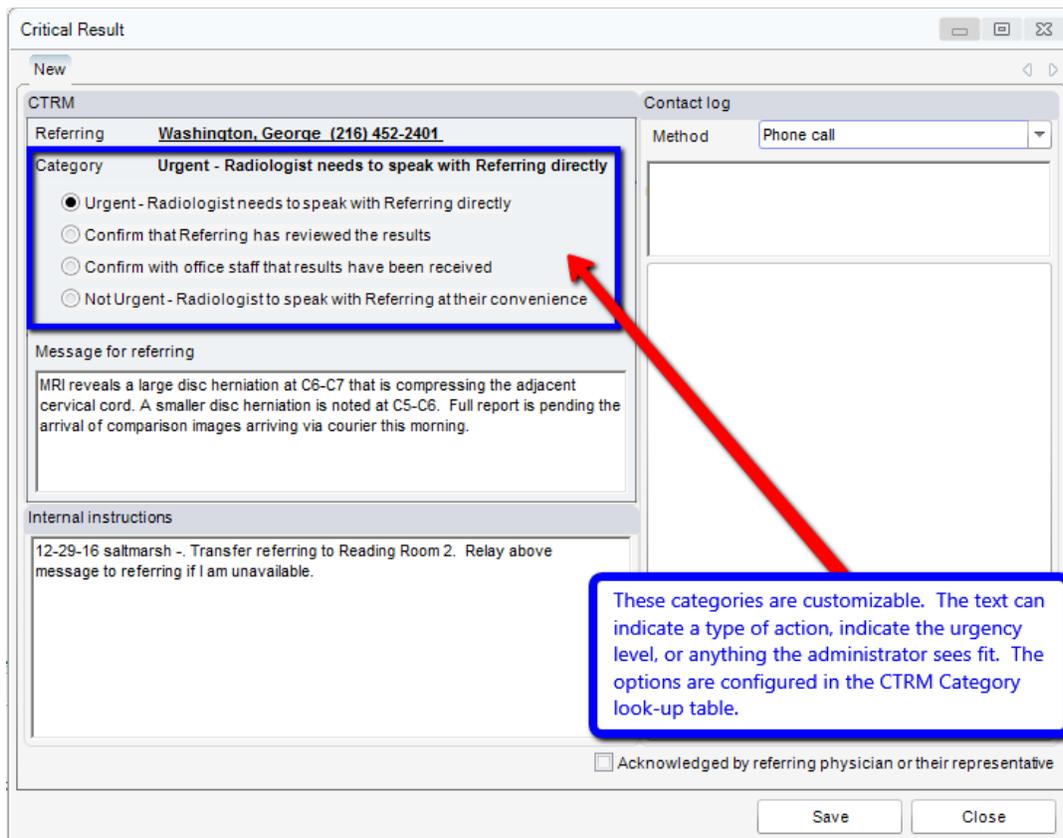
FEATURE #8547, 15123 – REDESIGN OF CRITICAL RESULT MANAGEMENT (PHASE 1)

In preparation for the addition of some advanced Critical Result Management options, including the ability to resolve critical notifications via RADAR Nudge and the Connect Provider Portal (to be incorporated in a future phase of development), some of the base functionality of CTRM workflow has been redesigned.

Critical Results are still initiated from the Reporting screen using the button in the bottom left corner of the screen, as indicated below.

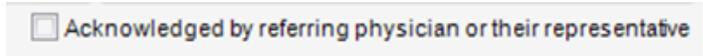


There have been a number of changes to the Critical Result entry screen, pictured below. One new option is the ability to define custom critical result categories. Use the new look-up table, *CTRM Category*, to create options to fit any workflow, whether they are longer descriptions defining an action plan for result communication or short descriptions of the level of urgency.



There are also separate notes fields to include internal instructions for radiology staff or a message to be shared with the referring.

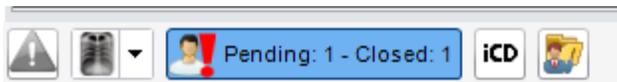
For recording contact attempts, there is a new Contact Log section and a checkbox to resolve the critical result notification when it is acknowledged by the referring physician or their representative (previously, this checkbox was labeled Resolve, which could be misleading).



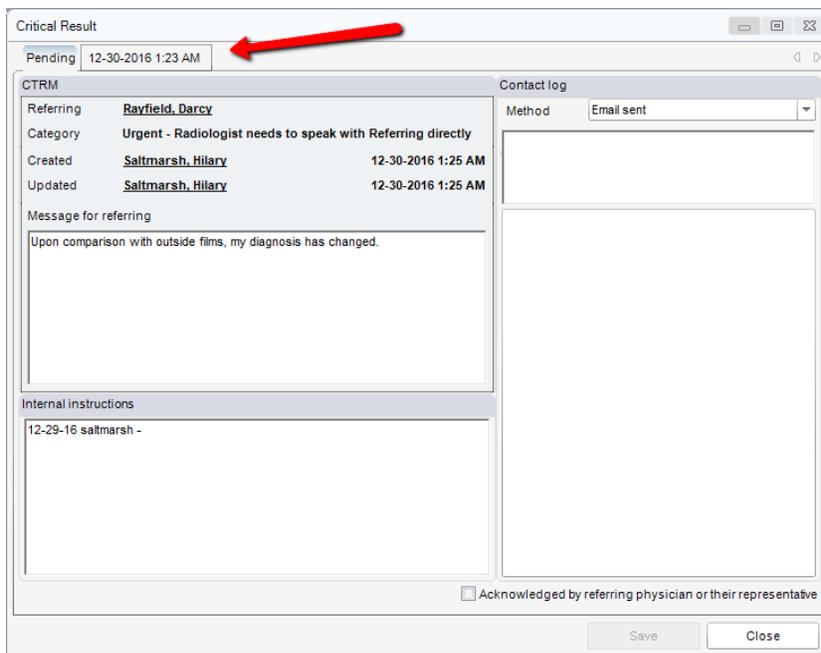
Attention was given to require as little input as possible when creating the Critical Result. The only required input is the selection of the Critical Result Category. The critical result will automatically be associated with the patient's referring physician, and all other fields are optional. It is possible for the radiologist to create the critical result and mark immediately mark it as acknowledged in the event that they make contact with the patient's provider at that time.

Another important difference is that the critical result will be saved as soon as the Save button is clicked, without a need for the report to be dictated or signed. Upon clicking Save, the critical result will immediately fall to the Critical Results WL and All Critical Results WL.

It is possible for more than one Critical Result to be created for the same study, however, only one **pending** critical result can exist at one time. If a critical result is acknowledged, but further developments require another critical result notification for that study, a new critical result can be created and all critical results will be separately recorded and viewable. Previous critical results are Read Only once they have been acknowledged. Example:



Critical Result button, displaying multiple critical results.

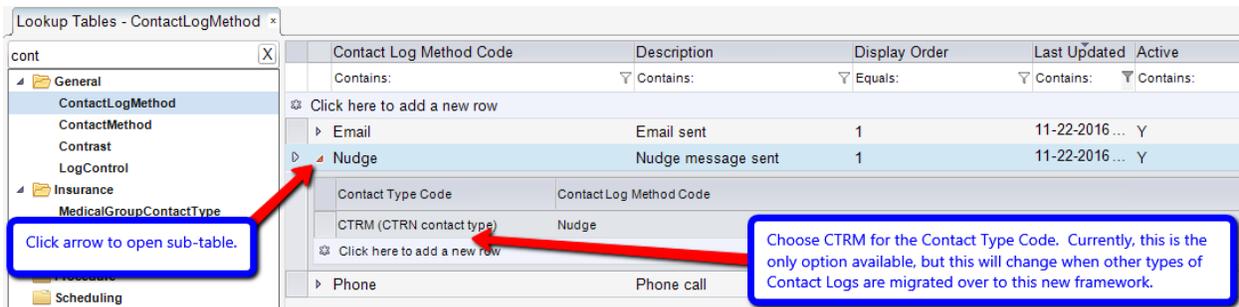


Critical Result entry screen with multiple tabs for the two critical results created for the study.

CONTACT LOG CHANGES FOR CTRM

The Contact Log in the CTRM redesign works similarly to the Contact Log in other areas of the application. However, some key differences exist because a new framework has been applied to the CTRM Contact Log which separates it from all other Contact Logs in RIS. Eventually, other types of Contact Logs will migrate to the new framework. The main goal of the change in the Contact Log pattern is to keep the CTRM options separate from other Contact Log options, thereby providing a shorter list of CTRM specific Contact Types to choose from, as well as segregating the messages themselves, so that all Contact Log entries viewed in the Critical Result workflow are applicable and not mixed in with contacts regarding scheduling or mammography follow-up, for example.

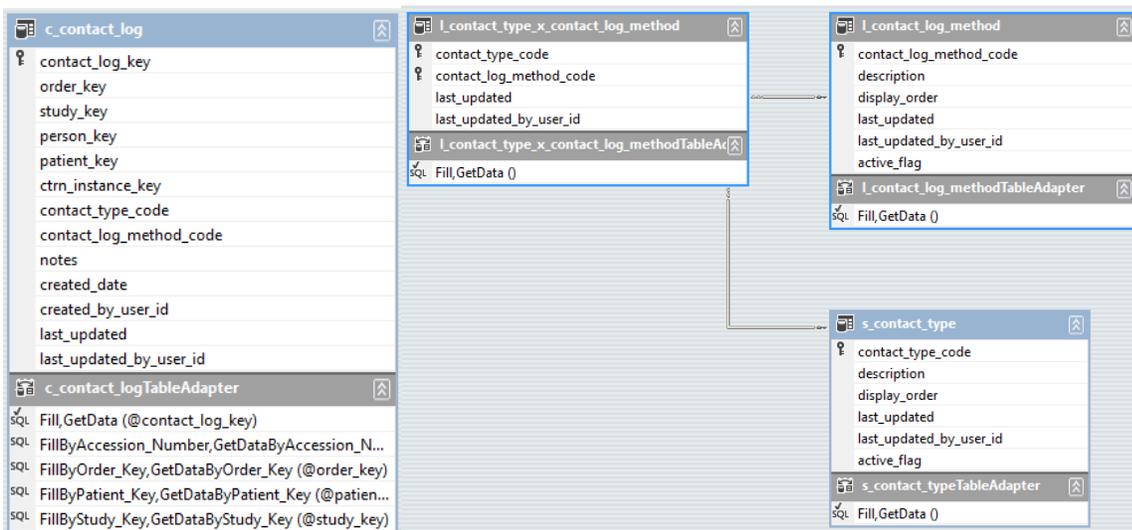
To do this, a new look-up table was created: *Contact Log Method*. Create entries for any Contact Log Methods that are pertinent to Critical Results workflow, then click the arrow to the left of each entry to open the sub-table.



Contact Log Method Code	Description	Display Order	Last Updated	Active
Click here to add a new row				
▶ Email	Email sent	1	11-22-2016 ...	Y
▶ Nudge	Nudge message sent	1	11-22-2016 ...	Y
Click here to add a new row				
Contact Type Code		Contact Log Method Code		
CTRM (CTRN contact type)		Nudge		
Click here to add a new row				
▶ Phone	Phone call			

In the sub-table, choose a Contact Type Code of CTRM, as described in the picture above.

Here is a look at the data structures:



```

classDiagram
    class c_contact_log {
        contact_log_key
        order_key
        study_key
        person_key
        patient_key
        ctrn_instance_key
        contact_type_code
        contact_log_method_code
        notes
        created_date
        created_by_user_id
        last_updated
        last_updated_by_user_id
    }
    class c_contact_log_TableAdapter {
        Fill, GetData (@contact_log_key)
        FillByAccession_Number, GetDataByAccession_N...
        FillByOrder_Key, GetDataByOrder_Key (@order_key)
        FillByPatient_Key, GetDataByPatient_Key (@patien...
        FillByStudy_Key, GetDataByStudy_Key (@study_key)
    }
    class l_contact_type_x_contact_log_method {
        contact_type_code
        contact_log_method_code
        last_updated
        last_updated_by_user_id
    }
    class l_contact_type_x_contact_log_method_TableAdapter {
        Fill, GetData ()
    }
    class l_contact_log_method {
        contact_log_method_code
        description
        display_order
        last_updated
        last_updated_by_user_id
        active_flag
    }
    class l_contact_log_method_TableAdapter {
        Fill, GetData ()
    }
    class s_contact_type {
        contact_type_code
        description
        display_order
        last_updated
        last_updated_by_user_id
        active_flag
    }
    class s_contact_type_TableAdapter {
        Fill, GetData ()
    }
    c_contact_log --> l_contact_type_x_contact_log_method
    l_contact_type_x_contact_log_method --> l_contact_log_method
    s_contact_type --> l_contact_type_x_contact_log_method
  
```

CRITICAL RESULTS WL AND ALL CRITICAL RESULTS WL

There are now three different ways to access or monitor critical results via worklist. Under the Radiologist menu, it is possible to review outstanding critical results created by the logged in user on the Critical Results WL or to review all outstanding critical results (regardless of who initiated them) on the All Critical Results WL. Because the All Critical Results WL is likely monitored by administrative personnel, it is also accessible under the Administration menu.

There are some helpful columns to be aware of for managing these worklists:

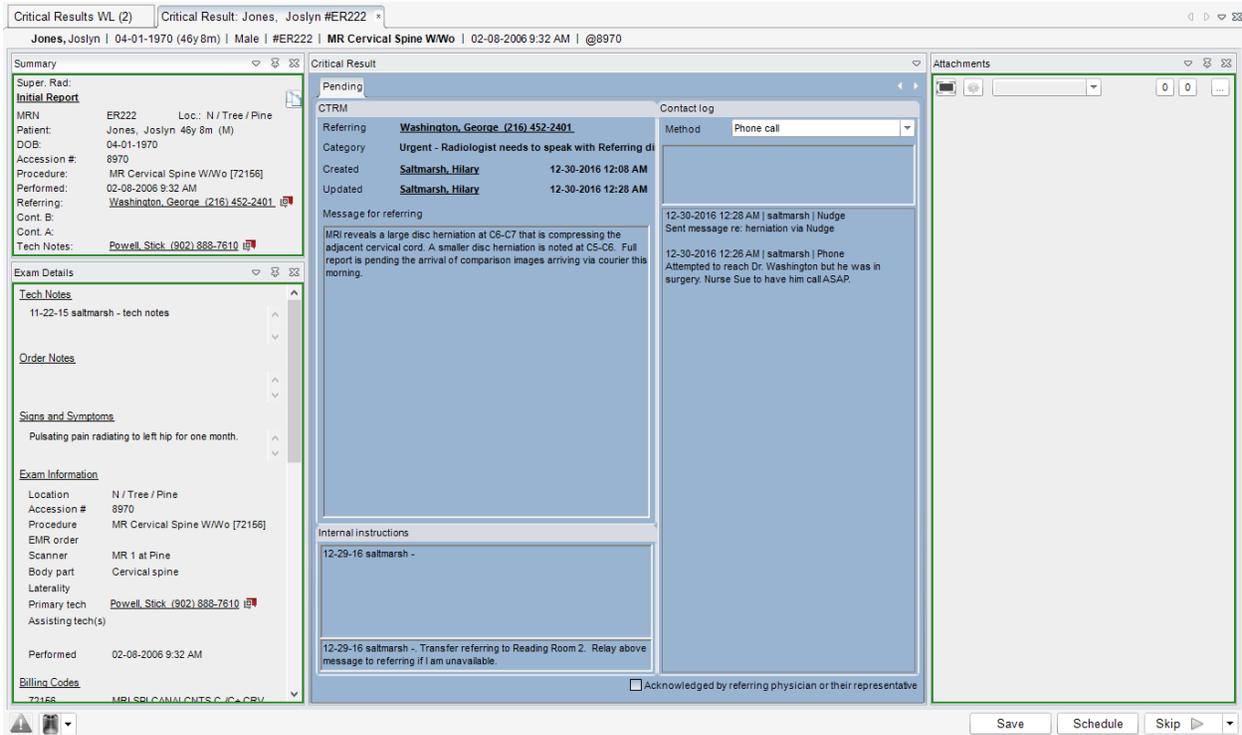
Last Contact Log Date	Last Contact Log Method	Last Contact Log Note	Contact Log Count
12-30-2016 12:28 AM	Nudge	Sent message re: herniation via Nudge	2

Elapsed Time Since Created
4h 1m
2h 44m

CRITICAL RESULTS SCREEN

From any of these worklists, clicking the *Edit* button opens a new Critical Result screen which allows the user to edit the notes, record contact attempts, and mark the critical result as Acknowledged.

Modeled off of the Reporting screen, this screen has a number of tool panels which can be arranged according to preference and saved as a layout with a type of "Critical Results." Even administrators without reporting permissions have the ability to create these layouts for managing the All Critical Results WL from the Administration menu.



If a report is available for the study, it will be displayed as an HTML version (like the Report Nugget) in a panel.

Note that in this screen, there is not a separate Save button within the Critical Result tool panel (unlike the tool panel in the Reporting screen). To save changes in this screen, the parent screen must be saved by clicking the Save button in the bottom right corner. In the event that an urgent follow-up exam is required, a Schedule button is provided from this screen as well. In an effort to save time, the originating study's information will be cloned for the new Schedule Order event, which can be updated as needed.

The Skip button works in the same way as in the Reporting screen, allowing the user to move to the next item on the Critical Results WL.

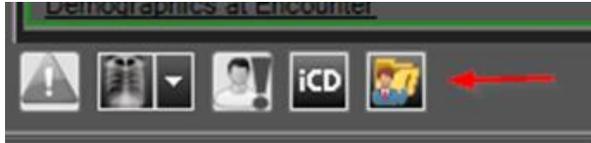
HOW TO ENABLE THE FEATURE

- 1) Add some CTRM Categories in the look-up table.
- 2) Add some Contact Log Methods in the look-up table.
 - a) Associate these to the "CTRM" Contact Log Type by clicking the arrow to expand the sub-table.
- 3) Provide any pertinent User Groups with the required access strings:
 - a) WL.CriticalResults --Provides access to the All Critical Results WL from "Administration" menu.
 - b) WL.Rad.CriticalResultsAll --Provides access to **All** Critical Results WL from "Radiologist" menu.
 - c) WL.Rad.MyCriticalResults --Provides access to the Critical Results WL from "Radiologist" menu to view critical results created by the logged in user.
 - d) Config.LookupEditor.CTRMCategory --Provides access to the CTRM Category look-up editor.
 - e) Config.LookupEditor.ContactLogMethod --Provides access to the Contact Log Method look-up editor.

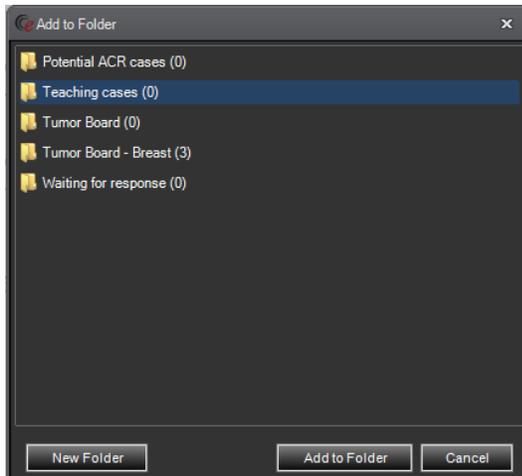
FEATURE #14502, 3723 – FOLDER STRUCTURE FOR COLLECTING CASES OF INTEREST, TEACHING FILES, AND OTHER REFERENCE NEEDS

Radiologists participating in Tumor Boards or presenting teaching cases have asked for a method to store studies in a folder structure by category for future reference. Radiologists can now create folders by category and select studies to add to those folders without leaving normal workflow.

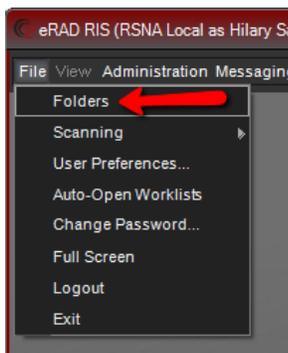
From the Reporting screen, a radiologist can add the current study to a folder by clicking the button below.



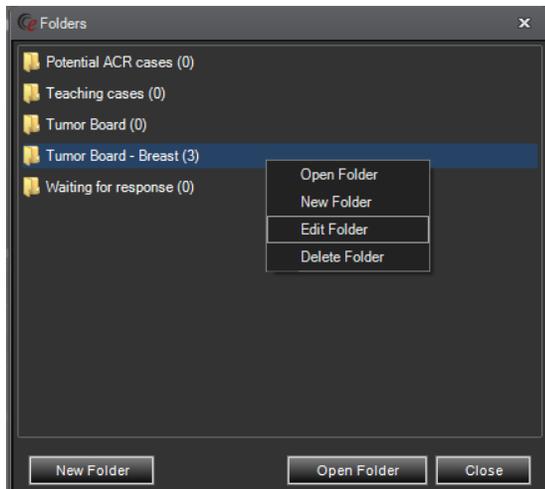
This button will launch a window for the radiologist to select one of their existing folders or create a new folder.



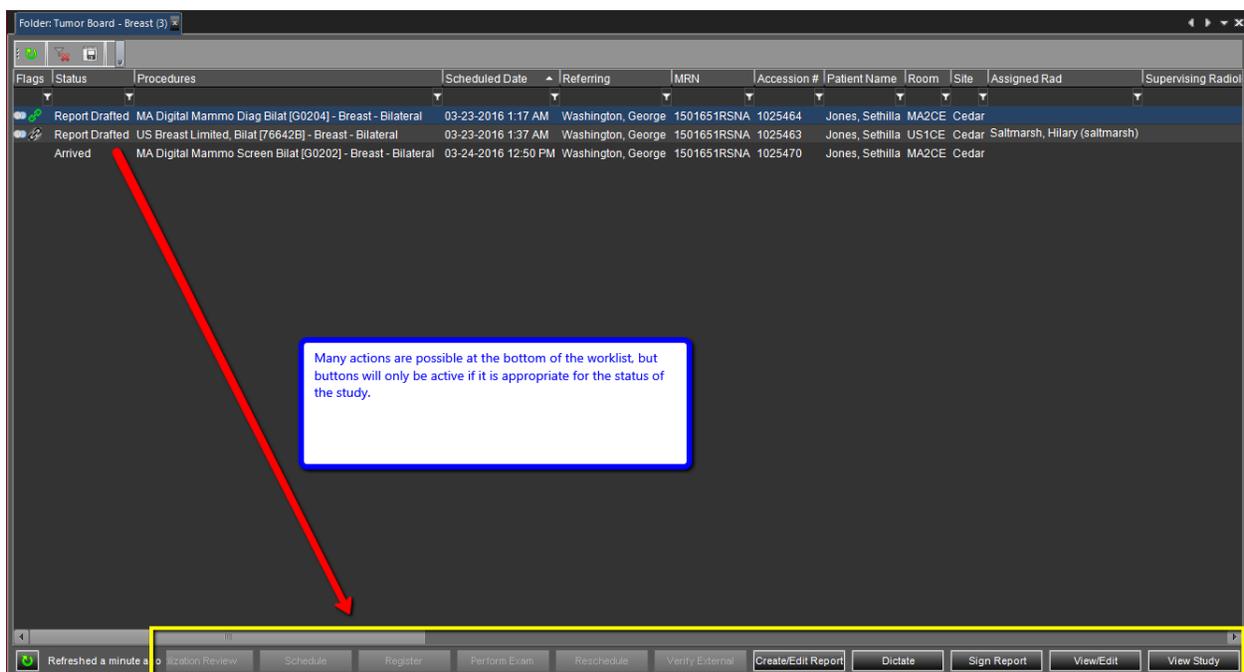
If a user wishes to view the contents of a folder, or simply wants to manage their folders, this can be done by clicking the File menu, then selecting Folders.



The resulting pop-up window will allow the user to open any folder with studies associated, or they can right click for additional options, such as Delete Folder or Edit Folder, which allows editing of the Folder name.



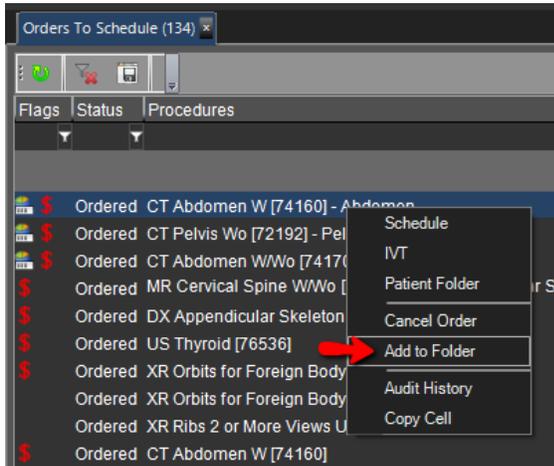
When a folder is opened, any studies that were assigned to that folder will be listed on a worklist in a new tab. The tab name will be “Folder: [Name of Folder].”



A wide variety of actions are possible via the buttons at the bottom of the worklist or the right click menu options. Depending on the status of the exam and the user’s permissions, only applicable buttons or menu items will be available.

Folders aren’t just for radiologists. Any user can create folders that are useful for their particular needs, such as a lead technologist looking for images with ideal positioning for ACR testing or a scheduling manager gathering a list of examples to use for a staff training session. To add a study (or an order) to a folder from outside of the

Reporting screen, simply right click on an item from a worklist or from the Patient Folder and look for a context menu option called “Add to Folder.” Almost all worklists will have this option.



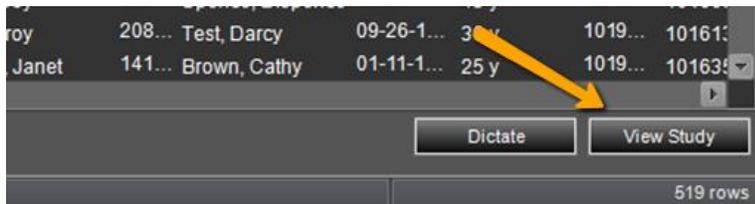
To remove an item from a folder, simply right click the item from the Folder worklist and select the option Remove from Folder.

To grant access to this feature, a user must belong to a User Group with Full access to the new Access String, *WL.Folders*.

At this time, the folders are personal folders only, but the ability to create shared folders or sub-folders will be added in the near future. There is not a limit to the number of folder categories a user can create.

FEATURE #14775 – READ ONLY REPORTING SCREEN FOR RADIOLOGISTS AND OTHER STAFF

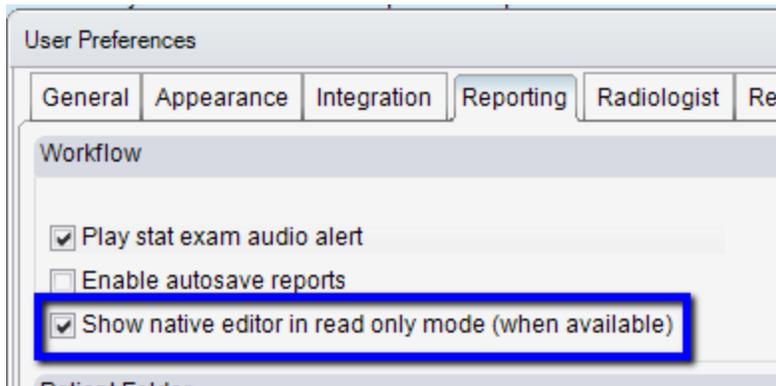
Radiologists and other staff members require an option to open reports in a Reporting screen mode without automatically creating an addendum or launching the full dictation process. This can now be accomplished via a new button called **View Study** which will bypass the create addendum prompt and cleanly open the reporting screen (read only) with PACS images.



The new *View Study* button and context menu have been added to all worklists where the “Dictate” button existed. This new button will open the dictate screen in a read only mode, without prompting the user.

A new *Read Only Report Viewer* has been created which will show the report at it would be shown in the report data nugget: it doesn’t show an audio control and it will display instead of the native report editor. This viewer will be shown by default all the time for every reporting mode. For example, if an exam was dictated in PowerScribe and the report is opened with View Study, the report will be displayed in a panel in the View Study screen, as opposed to launching PowerScribe.

The user can change a user preference called *Show native editor in read only mode (when available)* which is available on the Reporting tab in the User Preference screen.



When this is checked, the native editor will be used in read only mode and will have the audio control available. If the user is not allowed to use the native editor due to access string or system configuration settings, then the *Read Only Report Viewer* will be shown in its place.

The button and context menu item will be enabled on all studies from Exam Done forward, as long as there is an interpretation on the study. There is a feature logged to expand this functionality.

In order to access the View Study option, a user must belong to a User Group with an access level of Full for the new access string *Clinical.ViewStudy*.

eRAD RIS (Development as Denis Doiron [denis])

File View Administration Messaging Scheduling Front Desk Technologist R: MD/ADV

All Pending Dictation WL (519) View Study: TEST, Template #12233

Test, Template | 06-09-1969 (47y 4m) | Male | #12233 | XR Chest Min 4 Views | 08-30-2012 15:52 | @1011419

M*Modal Batch Report

Unsigned

EXAM

Testing number format

Test A Separate every 1000 by comma

Start of sentence: Numeric

Number format: Numeric

Single space

January 2nd, 2010 +

sdf

TECHNIQUE

HISTORY

testing

Summary

Initial Report	Assigned	STAT
MRN:	12233	Loc.: MD / ADV / EL
Patient:	Test, Template 47y 4m (M)	
DOB:	06-09-1969	
Accession #:	1011419	
Procedure:	XR Chest Min 4 Views [71030]	
Performed:	08-30-2012 15:52	
Referring:	Aiken, Darcy J	
Dictated:		
Tech Notes:	MacInnis, Parker	
06-29-16 denis - test tes dfgdf gdf gdfg This better be the correct one		

Closed: 1

 Sign
 Skip

Saved: Dictating: WAITE, andrew #4542
 Pending Saves: 0
 (unassigned)
 Dictated: 1 - Signed: 1

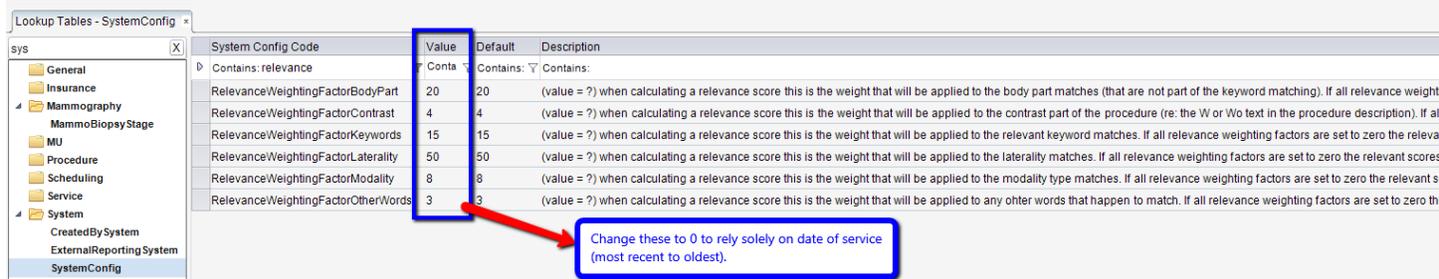
FEATURE #10370 – SUPPORT FOR REVERSE CHRONOLOGICAL IMAGE CACHING AND LOADING

Previously, relevancy rules discounted the importance of chronology when scoring prior studies to display the most relevant priors regardless of when they were performed. Radiologists have requested that caching be based on relevancy + chronology to ensure that the most recent exams are cached first.

To accomplish this, it is now possible to adjust how various factors are weighted when calculating relevancy. There are six relevancy factors listed in the System Configuration table:

- (1) *RelevanceWeightingFactorBodyPart*
- (2) *RelevanceWeightingFactorContrast*
- (3) *RelevanceWeightingFactorKeywords*
- (4) *RelevanceWeightingFactorLaterality*
- (5) *RelevanceWeightingFactorModality*
- (6) *RelevanceWeightingFactorOtherWords*

Set each weighting factor to zero to rely solely on the date of service, from the most recent study to the oldest.



System Config Code	Value	Default	Description
RelevanceWeightingFactorBodyPart	20	20	(value = ?) when calculating a relevance score this is the weight that will be applied to the body part matches (that are not part of the keyword matching). If all relevance weighting factors are set to zero the relevant scores are based on the date of service.
RelevanceWeightingFactorContrast	4	4	(value = ?) when calculating a relevance score this is the weight that will be applied to the contrast part of the procedure (re: the W or Wo text in the procedure description). If all relevance weighting factors are set to zero the relevant scores are based on the date of service.
RelevanceWeightingFactorKeywords	15	15	(value = ?) when calculating a relevance score this is the weight that will be applied to the relevant keyword matches. If all relevance weighting factors are set to zero the relevant scores are based on the date of service.
RelevanceWeightingFactorLaterality	50	50	(value = ?) when calculating a relevance score this is the weight that will be applied to the laterality matches. If all relevance weighting factors are set to zero the relevant scores are based on the date of service.
RelevanceWeightingFactorModality	8	8	(value = ?) when calculating a relevance score this is the weight that will be applied to the modality type matches. If all relevance weighting factors are set to zero the relevant scores are based on the date of service.
RelevanceWeightingFactorOtherWords	3	3	(value = ?) when calculating a relevance score this is the weight that will be applied to any other words that happen to match. If all relevance weighting factors are set to zero the relevant scores are based on the date of service.

Change these to 0 to rely solely on date of service (most recent to oldest).

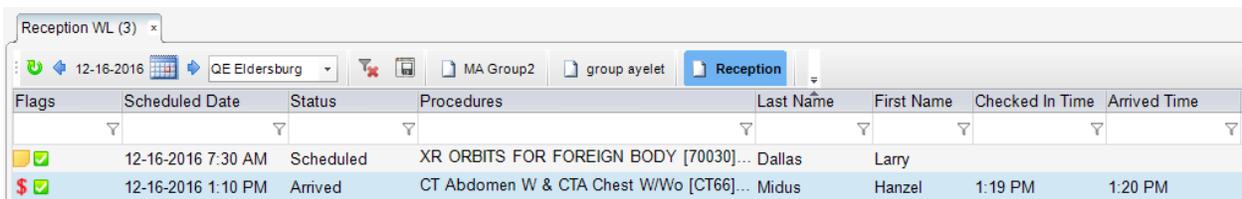
Sometimes, setting the Modality and OtherWords factors to zero will make a notable difference, while leaving the other relevancy settings intact.

At this time, these settings must be changed for the entire system and do not allow for individual user preferences. To leave Relevancy as it has been in the past, no changes are necessary.

GENERAL WORKLIST ENHANCEMENTS

FEATURE #14634 – NEW COLUMNS FOR RECEPTION AND TECHNOLOGIST WORKLISTS: CHECKED IN TIME AND ARRIVED TIME

When technologists share patients between rooms or scheduled patients arrive early or late for their appointments, it can be helpful to know the times the patient was marked as Checked In or Arrived. New columns for *Checked In Time* and *Arrived Time* have been added to the Reception and Technologist worklists. These columns can also be helpful for identifying if an unusually long amount of time has passed since a patient was marked as Checking In but has not yet been Arrived, which can indicate that the patient may need assistance with registration questions or that a step was missed in the Registration process.



Flags	Scheduled Date	Status	Procedures	Last Name	First Name	Checked In Time	Arrived Time
🟢	12-16-2016 7:30 AM	Scheduled	XR ORBITS FOR FOREIGN BODY [70030]...	Dallas	Larry		
🟢 \$	12-16-2016 1:10 PM	Arrived	CT Abdomen W & CTA Chest W/Wo [CT66]...	Midus	Hanzel	1:19 PM	1:20 PM

FEATURE #14541, 14572, 14808 – NEW COLUMNS ADDED TO SEVERAL RADIOLOGIST WORKLISTS

When radiologists receive calls from providers wishing to discuss a patient's results, they often utilize worklists to locate the study. Providers commonly have the patient's date of birth handy and radiologists indicated that they would like to see this information on the worklists in order to quickly confirm that they are selecting the correct patient. A DOB column has therefore been added to the following worklists that are commonly used for this purpose:

- Dictated by Date WL
- All Dictated WL
- Finding Follow-up WL

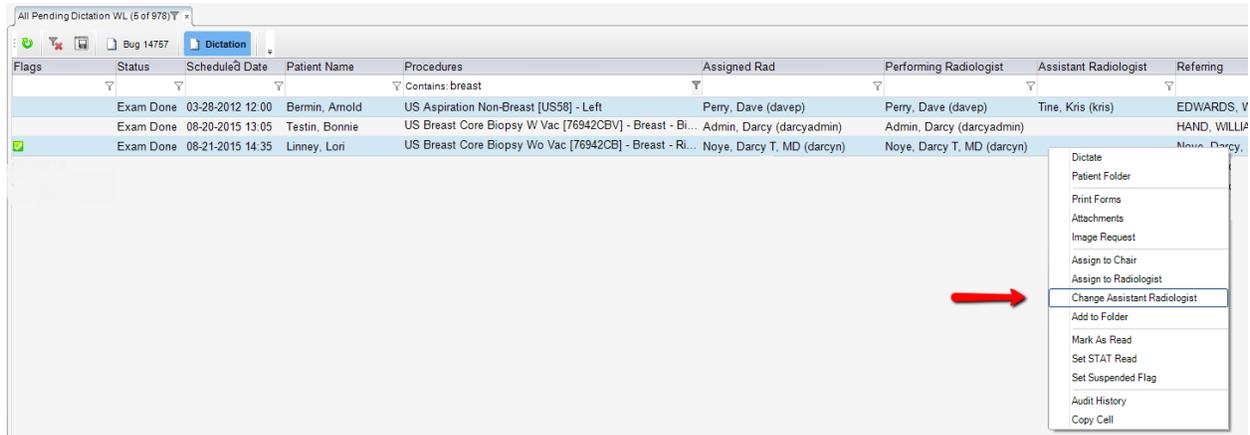
Additionally, columns to indicate the *Performing Radiologist* and the *Assistant Radiologist* have been added to the All Pending Dictation and Pending Dictation worklists.

FEATURE #7091 – IVT OPTION ADDED TO CONTEXT MENU ON ORDERS TO SCHEDULE WL

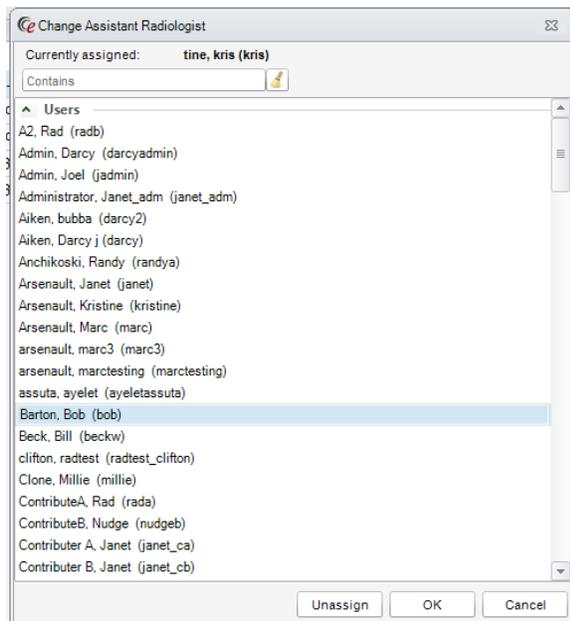
Schedulers sometimes need to launch the IVT workflow directly from the Orders to Schedule worklist. It is now possible to right click a row on the Orders to Schedule worklist and select *IVT*.

FEATURE #14813 – ABILITY TO SET THE ASSISTANT RADIOLOGIST VIA CONTEXT MENU FROM PENDING DICTATION AND ALL PENDING DICTATION WORKLISTS

Some users need to multi-select studies from the Pending Dictation WL or All Pending Dictation WL and set the Assistant Radiologist. It is now possible to right click a row on these worklists and select *Change Assistant Radiologist*. Multi-select can be accomplished by holding the CTRL key, selecting the desired rows, and then right clicking any highlighted row to select *Change Assistant Radiologist*.



A new window will open to allow the selection of the Assistant Radiologist. It functions in the same way as the Assign Radiologist window. A radiologist can be selected from the list or the filter can be used to search for a radiologist. Click the Unassign button to clear the Assistant Radiologist without replacing with a new name.



In order to access the Change Assistant Radiologist in the context menu, users must belong to a User Group with Full access to the new access string: *Clinical.ChangeAssistantRadiologist*.

DOCUMENT MANAGEMENT: INBOUND DOCUMENT PROCESS (INBOUND FAXING SUPPORT)

FEATURE #7395 – RECEIVE AND PROCESS INBOUND DOCUMENTS (SUCH AS FAXES) VIA RIS

There is a desire to streamline the process of receiving sensitive documents, such as referrals or clinical documentation, and matching them with the appropriate patient and order. eRAD RIS's new Inbound Document module will allow for the elimination of paper faxes and the frustrations caused when an important document is not easily available from anywhere in your organization. Patient satisfaction, scheduling hold times, and appointment turnaround time will benefit from minimizing the time spent physically scanning in faxed documentation or searching for a referral that could have been faxed to a number of physical fax machines.

Even if your organization already uses an external electronic fax system, the efficiencies gained by a streamlined process of associating the faxes to the correct patient/order in RIS and the option of immediately launching the corresponding task that is prompted by the incoming document (such as scheduling an appointment) make this new RIS feature a step towards further gains in productivity.

In order to display electronic faxes and other incoming documents in eRAD RIS, a new screen called **Attach Inbound Document** was created. The new screen is accessible from the Administration menu and consists of the inbound document worklist, a document viewer, and some controls to search for patients and associate inbound documents to a patient, order or exam.

These 3 main areas of the Attach Inbound Document screen are displayed in the image below: (1) the Inbound Document WL, (2) the Inbound Document Actions panel, and (3) the Document Viewer. The three panels can be positioned separately, allowing the user to select their preferred layout for the information presented.

The screenshot displays the eRAD interface with three numbered callouts:

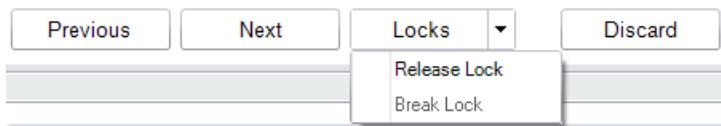
- Area 1:** The 'Inbound Document WL (7)' panel, which is a table listing incoming documents. The table has columns for 'Age in Hours', 'Date Received', 'Site', 'Practice', 'Document Type', and 'Locked By'. The first row shows a document received at 10:28-2016 12:11 AM, associated with the 'Mapleton' site and 'Saltmarsh, Hilary' practice.
- Area 2:** The 'Patient Details' panel, showing information for 'Rhonda O'Neil' with ID #250000005, born 01-04-1970, residing at 9 Hampton Drive. Below this is a 'Patient History' table with columns for 'Flags', 'Nuggets', 'Status', 'Procedures', 'Scheduled Date', 'Referring', 'MRN', and 'Accession #'. It lists various imaging procedures such as 'CT Head W & Sinus W [CT22] - Head' and 'MR Cervical Spine W/Wo [72166] - Cervical spine'.
- Area 3:** The 'Document Viewer' panel, displaying a scanned 'MRI Requisition' form from 'Treedale Radiology'. The form includes patient details for 'Rhonda O'Neil', a referral from 'Dr. James Madison', and clinical history notes such as 'Pain after fall on ice - 7 weeks' and 'Consult report available on our EMR portal'.

SECTION #1 - INBOUND DOCUMENT WL PANEL

The Inbound Document WL (area #1) is a panel that can be positioned inside the main RIS window. Each fax that is routed to a specific inbound fax folder will generate a row on this worklist. There is a column to show the age in hours of the selected document (i.e. how many hours it has been since the fax was received), the site and practice (if any) to which the document is associated, an indication of the document type, if known, and a column that identifies the user who has the current document locked.

The Inbound Document service uses the settings on the fax server to determine the practice, site, and document type settings for a fax (e.g. a fax routed to the TREE folder will be associated with the Treedale Radiology practice, and a fax saved in the TREE/MP folder will be associated with the Treedale Radiology practice and Mapleton site). If a specific fax device is configured on the fax server for faxes designated to a particular department or function, these incoming documents can be saved to a separate folder which can set the value of the Document Type column accordingly. For example, a dedicated fax for a consolidated PET/CT scheduling department that covers three sites in a geographical area could be configured, which would have a Document Type of PET/CT. These settings allow users to filter the Inbound Document WL to see particular types of faxes.

There are several buttons in the worklist panel to assist in processing the documents on the worklist:



- **Previous** – Moves upwards on the worklist towards the older documents. If the previous document is locked by another user, it will be skipped and other documents will be attempted until one is found that is not locked. When the screen initially loads, RIS will attempt to open the oldest document. Clicking the previous button when the oldest document is already loaded will make the screen cycle to the other end of the worklist and attempt to load the newest document.
- **Next** – Moves downwards on the worklist towards the newer documents. If the next document on the worklist is locked by another user, it will be skipped and other documents will be attempted until one is found that is not locked. Clicking next when the most recent document is loaded will make the screen cycle to the other end of the worklist and attempt to load the oldest document.
- **Locks** – Dropdown button containing two options: Release lock and Break lock. When a document is opened, a lock is granted and will be displayed to other users in the “Locked By” column on the worklist. If a user has a lock, they can release it by selecting a different row on the worklist, by closing the screen, or by clicking “Locks -> Release lock.”
 - The *Release lock* button will clear the lock from the database so the document can be processed by another user. Additionally, the document will disappear from the Document Viewer portion of the screen and the “Locked by” column will be cleared.
 - The *Break lock* button is used to release a lock in the event that a lock is held by another user who is no longer at their computer (e.g. they left for lunch without closing the Attach Inbound Document screen and still hold a lock on one of the documents).
- **Discard** – Some documents will not be processed and attached to a patient record, such as unsolicited advertising or faxes that are illegible. The discard button will delete the document after prompting the user to specify one of the reasons that are stored in the configurable *DocumentDeleteReason* look-up table. The discard button is disabled if the user clicks on a row that is locked by another user.

SECTION #2 - INBOUND DOCUMENT ACTIONS PANEL

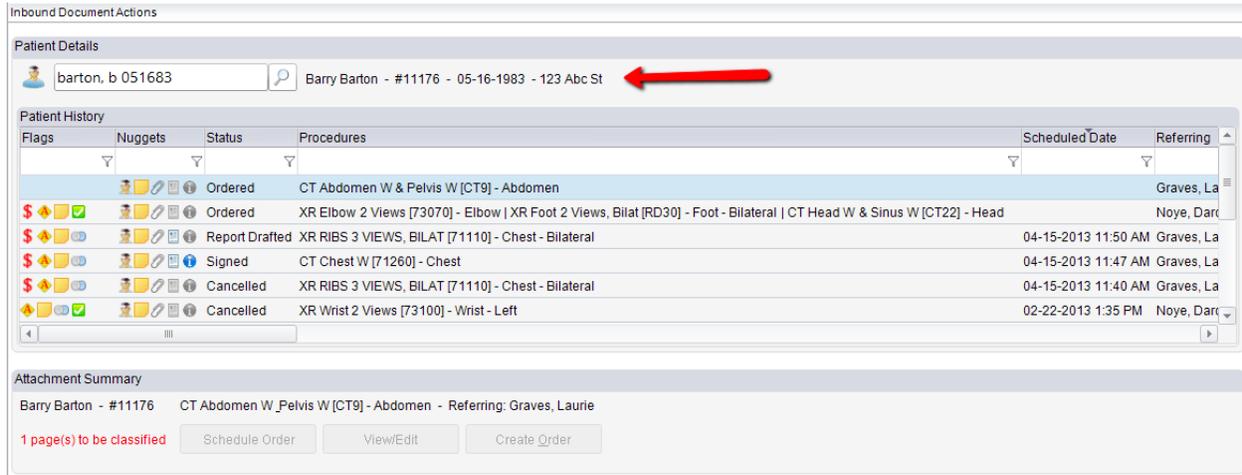
The Inbound Document Actions panel is where the processing of the selected document occurs. It has two sections: a *Patient Details* section to search for a patient and view the orders and exams in their Patient Folder *and* an *Attachment Summary* section which displays a summary of how the document will be processed given the patient and order/exam selected, as well as the Action buttons. The Action panel pictured below shows the initial state of the screen *before* a patient is selected and before the user has classified any of the document pages.



The screenshot shows the 'Inbound Document Actions' window. It is divided into two main sections: 'Patient Details' and 'Attachment Summary'. The 'Patient Details' section contains a search bar with a magnifying glass icon and a dropdown menu. The 'Attachment Summary' section displays the text 'No patient selected' in red. Below this text are three buttons: 'Schedule Order', 'View/Edit', and 'Create Order'.

Patient Search:

The patient search area contains search controls that are designed to appear similar to the Quick Search box in the upper right corner of RIS. The user can enter name details and optionally a birth date to perform a search, or they can search with #MRN or \$AuthNumber. Once the search criteria have been typed in the box, the user can press enter or click the magnifying glass to launch the search and a pop-up window will display the search results. The user can then double click the most appropriate result to make their selection or choose “New Patient.”



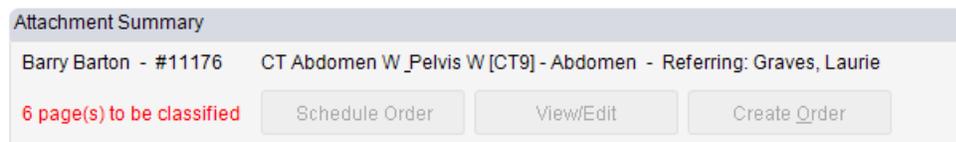
In the screen capture above, the user performed a search for “barton, b 051683” to search for patients with last name Barton, first initial B, and a date of birth of May 16, 1983. In the search results window, the user then double clicked one of the patient search results to select the patient who matches the document to be processed. To the right of the search box, a patient summary will display the patient’s name, MRN, date of birth, and street address after the selection has been made.

Patient History:

After a patient is selected, all of the patient’s exams and unscheduled orders are displayed. The user will examine the selected document and then choose the applicable order or exam in the patient history section to which the document should be attached by single clicking the row. The selected row will be highlighted in blue. To unselect a row, either single click on a different order or exam in the history section, or click into the white filter row to deselect all rows. It is not a requirement to choose an order/exam in the Patient History section, as the document may be for a new exam. Selecting an order or exam in the history section will update the Attachment Summary section described below.

Attachment Summary:

The attachment summary area provides information about what has been done to the current document and what actions still need to be taken.



There are two lines of information: the top line indicates the patient and the order or exam that was selected in the patient history (if applicable). The top line will initially show a message in a red font that indicates “No patient selected.” After a patient is selected, the top line will use a black font that indicates the patient’s name and MRN,



as well as the procedure and referring physician information for the currently selected item on the patient history grid. If the user performs a patient search and clicks the New Patient button, this label will indicate “New patient” in a black colored font.

The last line in the attachment summary uses a red colored font to indicate the number of pages that remain to be classified. This action takes place in the Document Viewer, described in the next section. Once complete, a black font will indicate that “all pages have been classified.” When the user sees that no red font appears in the summary, they can move forward by double clicking a row on the worklist or selecting an action button which will now be available.

Action Buttons:

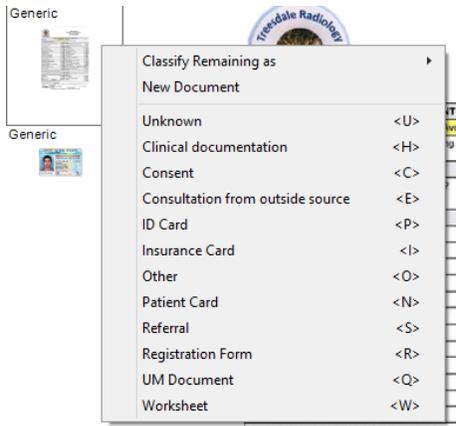
Action buttons become enabled once all of the pages have been classified in the Document Viewer section. Only buttons that are relevant to the selected row in the Patient History will be active.

- **Schedule Order** – If an exam in Ordered status is selected in the Patient History section, this button will be available. Clicking this button will launch the selected order to be scheduled and the document will be added to the Attachments for that order. The user can either proceed with scheduling the order or can click Save as Order to simply save the inbound document as an attachment for the order.
- **View/Edit** – If an exam in any status other than Ordered (e.g. Scheduled, Cancelled, Exam Done, etc.) is selected, the View/Edit button is available. Click this button to open the View/Edit screen for the selected exam. The user may take any action in this screen that may be indicated by the received document or simply click the save button to attach the inbound document to the selected exam.
- **Create Order** – This option will ignore the row selected in the Patient History and will open a new Schedule Order screen for the selected patient, so that a new order can be created for the document that was received, such as a new referral. The inbound document will be loaded as an attachment. The user can proceed to schedule or can enter enough information to Save as Order.

For all options, once the selected screen is saved, the document will fall of the Inbound Document WL and the next document will be loaded.

SECTION #3 - DOCUMENT VIEWER

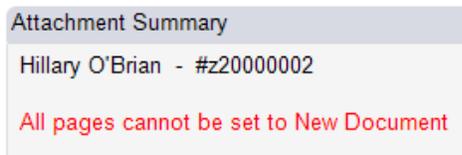
The Document Viewer initially shows the first page of the loaded document in the main area, with a thumbnail of each page to the left. By right clicking a thumbnail, the user can choose the type of document. Each active *ScanType* is displayed in the context menu and the user can either classify one page at a time or use “Classify Remaining as” to classify the current page and those that come after it with the same ScanType.



New Document:

Some faxes may come in with information for multiple patients as part of the same transmission. When this occurs, the user can select a patient for one or more of the pages and then apply a scan document type of “New Document” to the other pages. When the user then associates the document to a patient and saves, a new entry will be created for all pages that were classified as “New Document” and this new document can then be processed and associated with a different patient.

At least one page must have a classification other than “New Document” for the user to save. If the user attempts to use “New Document” as the type for all pages, the Attachment Summary will inform the user that it is not possible to associate all pages as a New Document.



ATTACH INBOUND DOCUMENT SCREEN LAYOUT

Each user is free to reposition the 3 portions of the screen according to their preference, optionally dragging some portions to other monitors. The screen’s layout will be saved when the screen closes and re-applied the next time the user opens the screen. The layout can be reset to the default by right clicking the “Attach Inbound Document” tab title and choosing “Reset Layout.”

HOW TO ENABLE THE FEATURE

- 1) Configure the inbound document service.
- 2) Assign permission strings to appropriate User Groups:
 - *Clinical.AttachInboundDocuments*
 - *Clinical.AttachInboundDocuments.BreakLock*
 - *Config.LookupEditor.DocumentDeleteReason*

FEATURE #14145 – INTEGRATION WITH RADAR SECUREPIC

Integration with RADAR SecurePIC gives RIS users the ability to initiate a text message to a patient's mobile phone and securely receive a picture message back from the patient. Anticipate a decrease in scheduling minutes spent asking the patient what they see on their insurance card or referral **and** an increase in the accuracy of information entered at the time of scheduling.

Other users will benefit from SecurePIC as well when they need to see something that the patient has in their hands when they are not in the center: whether it is an insurance card, a referral, a pathology report, etc. If a patient shows up at the center and left their referral at home, a SecurePIC can be sent to their family member at the house to securely message a picture of the referral into the patient's RIS account. Some customers are even discussing the option of using mobile phones as an inexpensive scanner substitute for users who don't have a lot of documentation to scan. The possibilities are many.

A new button labeled *Request SecurePIC* is located in the bottom left corner of the following screens:

- New appointment
- Walk-in appointment
- Reschedule / Schedule From
- Confirmation
- IVT
- Registration
- View/Edit
- Edit Billing

Schedule Order: O'BRIAN, Hillary #z20000002 *

Patient Patient Notes Contacts / Demographics Order Clinical Schedule Image Rec

Studies	Duration
CT Head W. Sinus W(Head.) x	30

Click here to add

Body part: Head Laterality:

Amount to collect: \$0.00 Request SecurePIC

When the *Request SecurePIC* button is clicked, a dialog opens displaying the mobile number on file for the patient and allowing the user to select the type of document to request. The document type will be used in the text message to the patient explaining what is being requested.

Request SecurePIC

To: O'Brian, Hillary

SMS (310) 597-2596

Email eRADHillary@gmail.com

Requested Document

Referral

Send Cancel

Upon clicking Send, the RIS user will receive a confirmation or failure message:

RADAR SecurePIC

 RADAR SecurePIC request sent.

OK

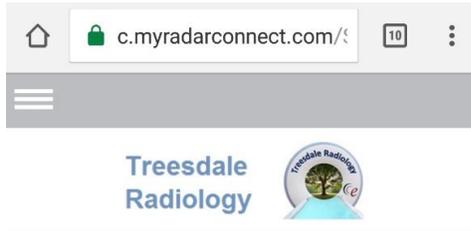
RADAR SecurePIC

 Unable to send RADAR SecurePIC request.

OK

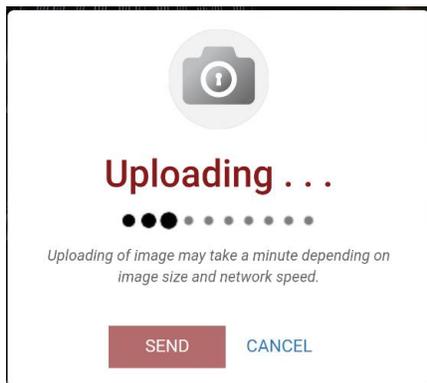
The patient will receive an SMS text message that will include information such as the name of the facility, the type of document requested, and instructions to click a URL link to the RADAR SecurePIC web page. Patients should be encouraged, via the message text and any conversation that takes place with the patient prior to sending the message, that they should click the URL link, **not** reply back via text message.

The URL link will open a secure web page on the patient's phone, as in the example below:



Clicking on the red "Take Pic" button or clicking the large gray camera logo will initiate a dialog specific to the patient's phone to either take a picture of the requested document or upload an existing image of the document.

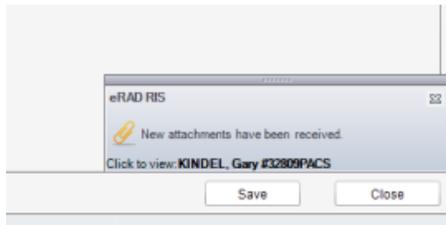
Upon following the prompts, the image will be securely uploaded to RADAR. The upload speed can vary depending on the resolution/size of the picture and the patient's internet connection. While it uploads, the patient will briefly see the following on their screen:



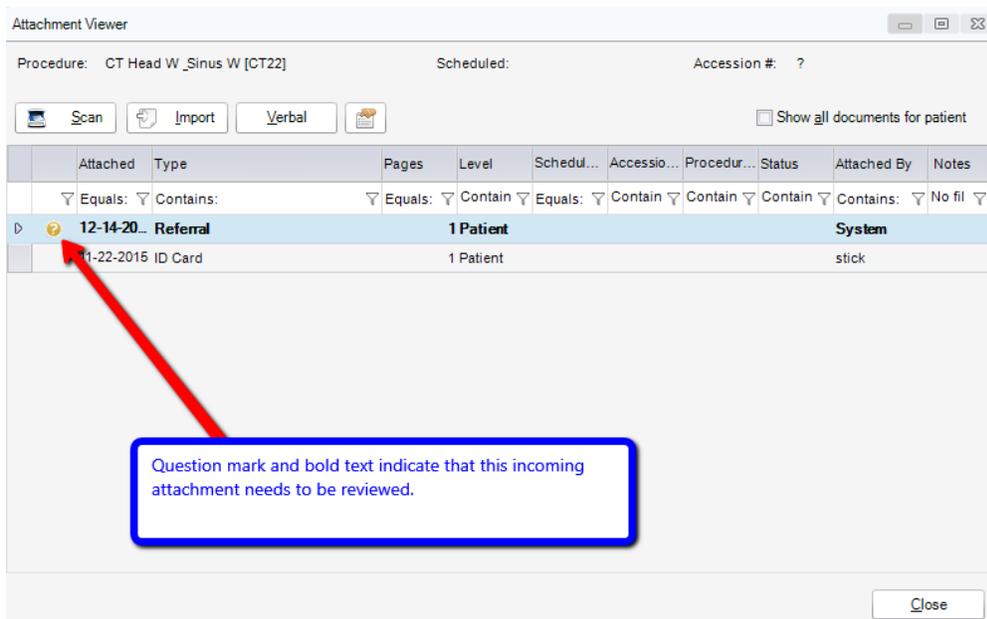
After the image has uploaded, the patient will have the option to send another picture, helpful when they are sending a multi-page document or the front and back of an insurance card.

Once the document is uploaded to RADAR, an inbound SignalR message notification will be pushed to the eRAD RIS services and the photo attachment will be automatically downloaded and added to the database as a scanned document associated with the patient who uploaded it. It will also be labeled with the ScanType the RIS user selected when sending the SecurePIC request.

After RIS receives the photo of the document and it has been converted into an associated scanned document, a desktop alert will appear in eRAD RIS for the user who initiated the SecurePIC request.



Clicking on the desktop alert message will open the Attachment screen for the patient, regardless of whether the user still has the patient’s tab open in RIS. Prior to the new document being opened for review, the attachment will be listed in bold and a yellow question mark will be displayed to indicate that it has not yet been verified.



Upon opening the attachment, the user will have access to all of the usual Attachment tools and can relabel pages, rotate images, and so on. After the user opens the document, if the user has Full access to a new Access String, *Clinical.ScanDocs.AllowMarkAsReviewed*, then it is assumed that the image has been verified and the bold text and question mark are removed. The user can also right click and select *Mark as Reviewed*. It is possible to *Mark as Unreviewed* if necessary.

Attached	Type	Page:
10-07-2016	Worksheet	
10-07-2016	Worksheet	
10-04-2016	ExamC	

Attached	Type
10-07-2016	Worksheet
10-07-2016	Worksheet
10-04-2016	ExamC

Documents that are not reviewed will not display in the Data Nuggets and will not display in the Radiologist specific screens.

If the attachment is not reviewed by the user who initiated the request (perhaps they have left for the day), then the image will fall to the Inbound Document WL for verification. It will maintain all of the associations to the proper patient and ScanType, so a quick review is all that will be needed to process the document from that workload.

A NOTE ABOUT FILE SIZE

The size of incoming attachments sent via SecurePIC can be quite large. An attachment from a photo library might be a 10MB panoramic or a large 3MB snapshot. A series of such large files could be problematic for RIS, therefore a check has been added to compact the size of attachments when their size exceeds the value set for the new System Configuration setting: *Config.MaxAttachmentSizeKB*. The image will be resized to the resolution configured for *Config.AttachmentResolutionWhenSizeExceedsMax*.

HOW TO ENABLE THE FEATURE

To use the RADAR SecurePIC messaging feature:

1. This feature requires that a RADAR account be configured for each Practice.
2. The following system configuration codes must be configured in System Config:
 - o *RADARInboundMessageServerUrl* – URL for the RADAR SignalR event broker.
 - o *RADARInboundMessageClientId* - <clientid> provided by RADAR.
 - o *RADARInboundMessagePassword* - <password> provided by RADAR.
3. The eRAD RIS user must belong to a User Group that has Full access to the new access string: *Clinical.RADARSecurePIC*.
4. In order to mark a SecurePIC attachment as reviewed, the user must also belong to a User Group with Full access to the new access string: *Clinical.ScanDocs.AllowMarkAsReviewed*.
5. Inbound RADAR message processing must be enabled via the System Configuration setting: *EnableRADARInboundMessageProcessing*.
6. An instance of Wedge Service must be running using WedgePlugin for RADAR.

FEATURE #13720 – SECTRA PACS INTEGRATION

eRAD RIS now supports integration with Sectra PACS, validated against IDS7 Version 18.1. eRAD RIS is able to drive Sectra PACS using URL calls in a manner similar to the other PACS integrations in RIS.

Due to the URL-based integration used with Sectra, RIS receives no response indicating that the URL call was successful or even an indication that it has completed. This results in the need for RIS to assume any URL call to Sectra completes successfully. Because it is not possible to confirm that images from a previous patient are not left on the screen when the radiologist moves to the next report, it is possible for RIS and PACS to become out of sync and display different patients; this is a possibility to be aware of while dictating.

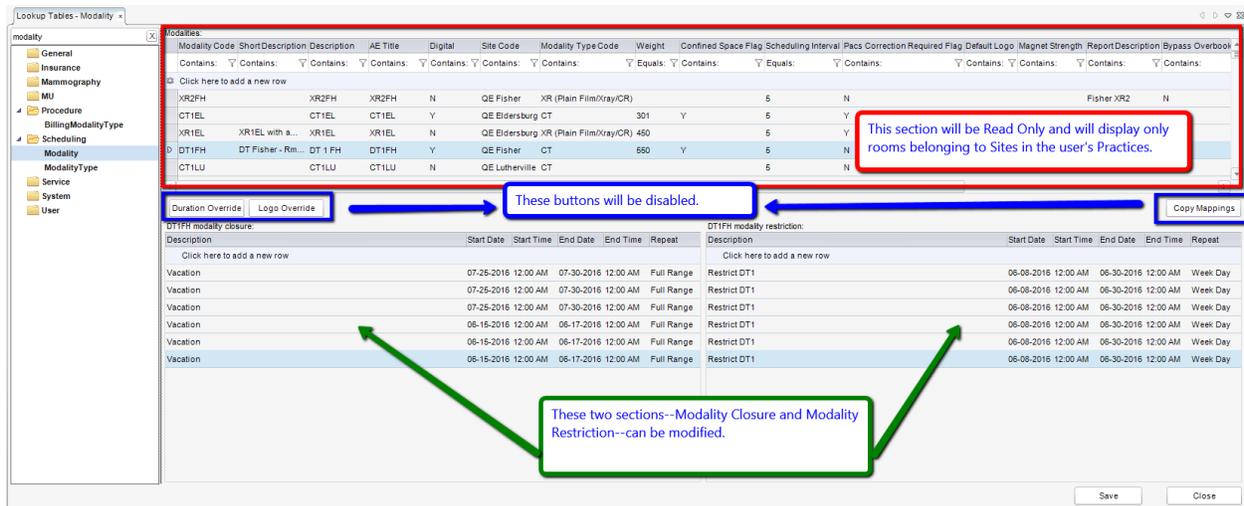
FEATURE #13256 – INFINITT PACS VIEWER INTEGRATION

eRAD RIS now supports integration with the INFINITT PACS viewer. eRAD RIS is able to drive the INFINITT Viewer using URL calls, including launching and closing images via actions in the RIS.

Due to the URL based integration used with INFINITT, RIS receives no response indicating that the URL call was successful or even an indication that it has completed. This results in the need for RIS to assume any URL call to INFINITT completes successfully. Because it is not possible to confirm that images from a previous patient are not left on the screen when the radiologist moves to the next report, it is possible for RIS and PACS to become out of sync and display different patients; this is a possibility to be aware of while dictating.

FEATURE #6391 – GRANT ACCESS TO CREATE ROOM CLOSURES OR RESTRICTIONS ON A PER PRACTICE BASIS

Many times a RIS Administrator would like to give a group of users access to create Modality Closures and Restrictions, but without granting access to the entire Modality table. RIS now has the ability to allow users with limited privilege levels to access only those two functions without the ability to edit other aspects of the Modality table. Furthermore, the access is limited to Practices that are assigned to that user in the Personnel table. These limitations will help to ensure that accidental modality modifications are less likely to occur.



The access string *Config.LookupEditor.Modality.ViewAllPractices* (previously labeled *Config.LookupEditor.Modality.ViewAll*) can now be set to NONE to disable all controls in the Modality look-up editor other than creating Modality Restriction and Modality Closure *and* will restrict the modalities returned to those that are part of the Practice(s) to which the current user is assigned in the Personnel table. The user will have the ability to create room restrictions and room closures, without modifying any other Modality data.

Limited permission users should have the following Access Strings:

Config.LookupEditor.Modality	Full
Config.LookupEditor.Modality.ViewAllPractices	None

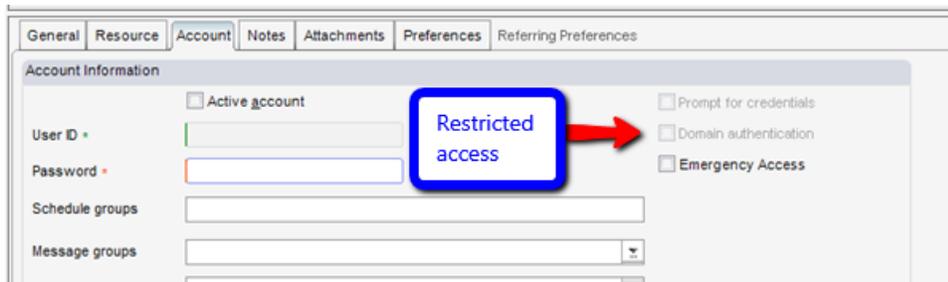
RIS Administrators requiring access to edit any aspect of the Modality table for all Practices should have the following Access Strings:

Config.LookupEditor.Modality	Full
Config.LookupEditor.Modality.ViewAllPractices	Full

FEATURE #14458 – RESTRICT ACCESS TO ENABLE/DISABLE DOMAIN AUTHENTICATION

RIS Administrators need to be able to grant access to editing personnel without always granting the ability to change the authentication type for users.

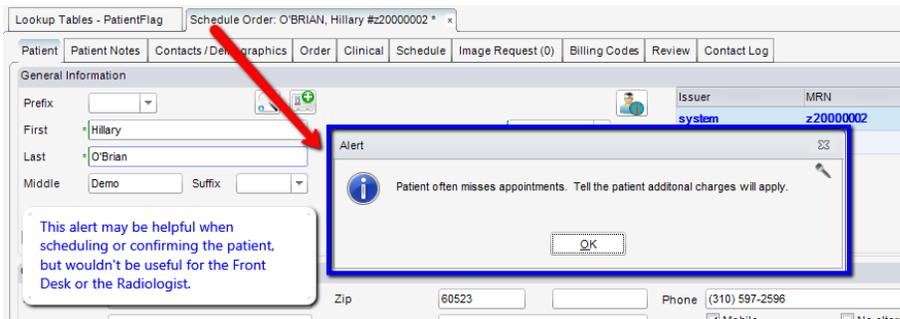
A new access string, *Config.LookupEditor.Personnel.DomainAuthentication*, can be set to None to restrict this access for a given User Group. The system default is Full.



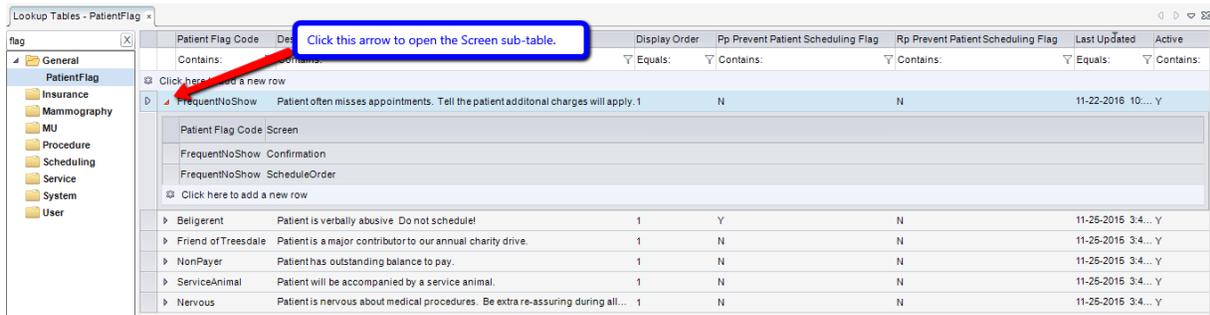
PATIENT MANAGEMENT

FEATURE #14818 – CONTROL WHICH SCREENS DISPLAY PATIENT FLAG ALERTS

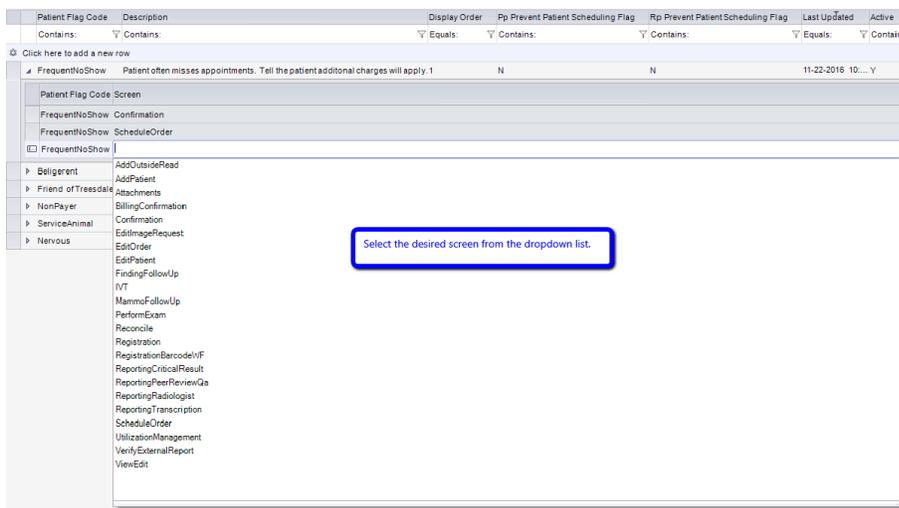
Some messages that are set up as Patient Flag alerts are only applicable at certain points in the workflow. For example, a message that the patient has an overdue balance would be helpful during registration, but not during radiologist workflow.



To increase the flexibility of Patient Flag alerts, it is now possible to configure the messages to display for individual screens. From the Patient Flag look-up table, click the arrow head next to the Patient Flag to be edited. This will open the sub-table where the desired screens can be selected.



Under the Screen column, choose the desired screen from the list provided in the dropdown.





Any Patient Flags that were created prior to this new functionality will automatically be applied to all available screens, in order to maintain the existing behavior. To make adjustments, simply delete the row in the Screen sub-table for any screens which should not show the alert.

FEATURE #13812 – SUPPORT FOR PIX / PDQ

This feature is still under development, but the initial phase of PIX / PDQ (Patient Identity Cross-referencing and Patient Demographics Query) is available for anyone interested in an early implementation of the feature. Please inquire for details if interested.

Special Note: As has been recommended previously, RIS administrators are advised to create a User Group with a copy of the RIS Administrator settings, instead of using the User Group labeled RIS Administrator in order to avoid seeing fields that have been hidden and features that have not been activated for your RIS instance.

MISCELLANEOUS USER EXPERIENCE

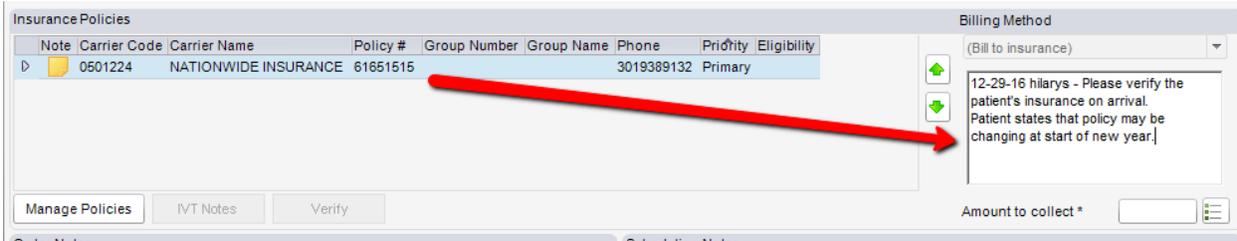
FEATURE #14341 – ABILITY TO COPY FROM MRN GRID

After recent changes to the MRN grid on the Patient tab, some customers remarked that they no longer had the ability to copy/paste from the MRN grid due to the Read Only nature of the fields in the grid. It is now possible to right-click and choose Copy Cell for any of the MRNs listed in the grid.



FEATURE #13909 – ENABLE BILLING NOTES FIELD WHEN AN INSURANCE CARRIER IS SELECTED

Previously, the Billing Notes field was disabled after an insurance carrier was selected. It is now available for data entry at any time.



RESOLVED DEFECTS - 2.2016.6

Bugs, support issues, and design optimizations resolved in build 2.2016.6.

Bug #	Category	Subject
14472	Alerts	Referring physician alerts are once again displayed in Registration workflow.
14204	Billing	Imagine Payment Portal - Addition of a field to collect internal notes on a payment to be visible in RIS.
14659	Billing	The repost to billing feature now properly sends a message to Mirth.
14256	Cancel	Cancelling a study via the context menu no longer causes a retrieve of all studies that are part of the order, causing a message backlog.
13314	CD Import	Resolved CD Import error: Input string was not in a correct format.
14027	Document Distribution	Updates to document distribution jobs, such as a change in fax number, are now audited.
14615	Drawing Tool	Breast Diagram Drawing Tool - Drawings started prior to starting the exam are now updated with changes made after the exam is started.
14604	Insurance Eligibility	Insurance's Eligibility is no longer marked as not requiring IVT based on previously selected carrier.
14051	Insurance Management	Resolved an issue with self pay insurance and study level locking.
14753	Insurance Management	Resolved an NPD performance issue.
14510	IVT / PreCert	Amount to collect field no longer clearing out when opening IVT or View/Edit on a patient with only one non-Eligibility insurance.
14621	IVT / PreCert	Resolved an issue with exams not falling to the IVT WL on PreCert status update under certain conditions.
14675	IVT / PreCert	Resolved an issue with Precert not updating to Required after insurance carrier change (billing code level PreCert rules).
14722	IVT / PreCert	Replacing multiple procedure codes using the red X, no longer causes a residual PreCert setting to prevent PreCert required on billing codes from being marked as required (multi study container issue).
14725	IVT / PreCert	Setting the Portal Verified flag now removes the study from the IVT worklist appropriately when no other requirements remain.
13968	Localization	Empty curly brackets no longer cause errors during registration in Hebrew.
14058	PACS (eRAD) Integration	PACS images are not getting released when using Skip and

		Continue in All Peer Review Pending Action WL.
14350	PACS (eRAD) Integration	Resolved an issue where RIS told PACS to cache a less relevant exam.
14325	Patient Folder	MRN now appropriately displays on Patient Folder tab when searching by accession.
14630	Patient Folder	In the Patient Folder, Ordered exams no longer throw an error when using the context menu to Print Forms.
14305	Patient Search	Searching by DOB only no longer results in the search populating the date to the Last Name field.
14685	Patient Search	Optimized the query when search for patients by phone number only.
14163	Problem Workflow	Resolve Problem window - fixed an issue with the display of radiologist names.
14345	Radar - Nudge	Outside reads where 'Performed start and end date' and 'Performed by user id' are blank will no longer produce an error when opened in Signing screen.
13049	Radiology Reporting	Inserting a macro containing a picklist with default macro option multiple times can now be done successfully.
14371	Radiology Reporting	External_report_flag no longer displaying incorrect value in audit history when a study is in Exam Done status and the procedure is changed.
14495	Radiology Reporting	PerformExam and View/Edit will display information about images loading in PACS but will not lock the RIS screen while images load.
14327	Reception	Added null check for subscriber DOB to eliminate errors during registration for Self Pay patients.
14407	Reception	Arriving second study from same order will no longer change Exam Done study to Arrived.
14326	Scheduling	If an exam is changed from Order B to Order A during rescheduling, the new appointment is created successfully <i>and</i> the previous appointment is appropriately Canceled.
14376	Scheduling	When re-saving as Order, no longer prompted to fill in Body Part unnecessarily.
14489	Scheduling	Resolved an issue where breast imaging Reminders could not be canceled under certain conditions.
14605	Scheduling	Solved an issue with foreign-key constraints on schedule of Follow-up order when the original exam had a CPT level payment.
14625	Scheduling	On Reschedule, changes made in Patient tab are now saving appropriately.
14682	Scheduling	When using a combination of Red X and Black X in the

		Registration screen, the cancelled Procedure Code is no longer visible in the Patient Folder column and attempts to View/Edit will not cause an error.
14527	Technologist	In Perform Exam window, the correct images are displayed when there are 2 orders.
14601	Thick Client GUI	Switching a WL tab while the context menu is open no longer has a risk of impacting the wrong study.
14677	Thick Client GUI	MU tab label is now replaced with the new Clinical tab label in Reschedule mode.
14704	Thick Client GUI	Resolved an issue with protected text in LogTextBox.
14773	Thick Client GUI	LogTextBox protected text can no longer be altered under certain conditions.
14374	Unknown Reconcile	Reconcile from Reconciliation WL is now working properly for unknown carriers.
14733	Web Services	Resolved an exception that had been occurring when saving after adding Billing Codes on View/Edit screen, when EnableLimitedDBUpdates was set to True.
9317	Worklists	Conditional formatting on worklists can now set the back color for the entire row.
14584	Worklists	Orders do not appear in the Patient Folder if all of the associated studies have been signed or cancelled.
14831	Worklists	Exams requiring Portal Verification without also requiring PreCert or Insurance Verification will now fall to the IVT WL as designed.

RESOLVED DEFECTS - 2.2016.7

Bugs, support issues, and design optimizations resolved in build 2.2016.7.

Bug #	Category	Subject
14786	Access strings	Look-up editors FollowUpResolvedReason and ImplantDevice access string changes.
14835	Admin-Clinical Data	Adjustment made to fix an issue with an invalid date/time entry when stopping the Oral Contrast Timer
14762	Admin-Other	Procedure Plan Description can no longer be left blank and a previous exception has been resolved.
14485	Billing	Issue with CPT codes not updating/retaining when changing procedure codes has been resolved.
15054	Digital Forms	Digital forms button on Walk-in and Registration screens is no longer showing forms that are inactive.
15516	Digital Forms	Trace data for digital forms now saves to database.
5666	Embedded Reporting	Resolved an issue with double clicking normal browser which led to "0 is not a valid index exception."
14830	eRAD Editor	Right to left with punctuation characters is now formatting correctly.
14603	Exam Search Worklist	An issue with certain filters in Exam Search has been resolved.
14763	Insurance Eligibility	Function for medical group string is now customer specific.
15490	IVT / Precert	Studies with manual insurance verification do not lose IVT flag after reschedule.
14827	Log Control	Reason for Exam field is now available on the Log Control look-up table.
15502	Log Control	Spell check suggestions on context menu have been optimized.
14606	Mammography	Assigned Pending Biopsy Notifications are functioning properly.
14295	Meaningful Use	Exporting a CCD file and running it through the XDS toolkit no longer produces errors related to Implant.
14296	Meaningful Use	Exporting a CCD file and running it through the XDS toolkit no longer produces errors when Ethnicity is Unknown.
6467	PACS (eRAD) Int - RIS only	Disabling PACS via the menu item stays disabled after user preference or organization change.
14644	PACS (eRAD) Integration	PACS caching - When relevant studies set to 0, no longer caching 2 studies.
15115	Patient Management	On the MRN grid on Patient tab, after selecting a value for the Issuer the value no longer defaults back when clicking back into the field.
15120	Patient Management	Adding a new Issuer in lookup editor no longer adds the suffix '-'

		EMR ¹ in the Issuer in MRN grid.
14243	Patient Merge	Restored ability to suggest a duplicate Patient Merge.
14794	Patient Merge	Patient Merge will be marked as duplicate if a reverse merge is suggested for the same two patient accounts.
14909	Payment control	Imagine payment receipts are now storing the amount to collect in the payment row.
14910	Payment control	Resolved an issue with Imagine integration null exceptions.
14987	Peer Review	Peer Review verbiage update.
15061	Radar - Nudge	Nudge: the value entered in SystemConfig <i>RADARSecureMessageTitle</i> is now displaying correctly in the subject line for new conversations.
15067	Radar - Nudge	Nudge: creating a Nudge conversion for 2 studies for the same patient, keeps the conversations separate.
13305	Radiology Reporting	Resolved a concurrency error when saving config file.
14599	Radiology Reporting	When user preference is PS360, the fields explorer is blank in the template editor.
14754	Radiology Reporting	Report history audio control is no longer shared between tabs.
14676	Scanning	Issue with classification levels when using "Classify Remaining As..." option was resolved.
14706	Scheduling	Resolved issue with scheduling restriction not always being enforced for rescheduling multiple studies in the same order.
14707	Scheduling	Modality Open error was resolved - Object reference not set to an instance of an object.
14887	Scheduling	Issue resolved when adding another study, then removing it with no study selected (i.e. blank).
15474	Technologist	Accidental status change can now be reverted.
15072	Thick Client GUI	Autosaved report recovery issues have been resolved.
7029	UI Look and feel	AccessionXMLDrop button now displays only when appropriate for reporting mode.
14788	UI Look and feel	Report Assistant panel colors can now be adjusted as with other tool panes in the Reporting screen.
15302	UI Look and feel	Databound dropdown controls no longer allow free text to be typed.
15346	Web Services	External patient can now match to an internal patient when SystemConfig for EnableLimitedDBUpdates is set to true.
14848	Worklists	Resolved an issue with new Orders not setting IVT Required WL flag appropriately.
14850	Worklists	PreAuth WL flag now updating under previously problematic circumstances.

KNOWN LIMITATIONS - 2.2016.6

The following are new bugs found in build 2.2016.6. Bugs reported in previous versions are not captured as Known Limitations in this document.

#	Subject
15104	If scheduled as an Order B (or C, D, etc.), the information on the Clinical (MU) tab will not be copied over from Order A. This is not visible in the Scheduling workflow, but if a user opens the Order B exam by itself after scheduling, the Clinical tab fields will be blank and will need to be filled in again if they are set as required fields.
14971	Under some circumstances, the RIS application is still visible behind the locked screen.
15099	RADAR Nudge – When using PS360, the last saved impression and/or report is inserted into the conversation when the Report and Impression Nudge buttons are used. If changes have been made to the report without saving, these changes will not be reflected in the text added to Nudge.
14804	Claustrophobic checkbox value is not copying over to Order B.
14845	Foreign key exception when adding "Additional Data" to a procedure during scheduling.
14846	Error saving when a procedure code does not have a description in the Procedure Code table.
14889	CSH PACS - Study loaded by External Study Identifier doesn't close correctly.
14941	Birth date column is not populating for some worklists under Editor menu.
14948	It is possible for a user who does not have permission to reschedule a study to do so by using the context menu.
14993	When typing addresses in English(LTR) in the Hebrew RIS (RTL), numbers are placed incorrectly.
15063	Error occurs when the 'New Patient' button is used after already selecting an existing patient.
15069	Eligibility shield will disappear from the insurance grid if the carrier's priority is changed during scheduling. The shield will reappear next time the study is opened and is still visible on work lists.
15077	When removing an exam from a multi-study appointment, the associated Digital Form may remain.
14857	Occasional error when saving change to a macro.

KNOWN LIMITATIONS - 2.2016.7

The following are new bugs found in build 2.2016.7. Bugs reported in previous versions are not captured as Known Limitations in this document.

#	Subject
15777	Reason for exam text box will allow more than 1,000 characters (more than is permitted by the database) causing an error on save.
15724	Addendum Request control in reporting screen does not use LogControl.
15569	Increasing Exam Duration from Schedule tab is not adjusting returned time slot options for multi-study appointments.
15591	Some driver's licenses from Arizona and Maryland have different formatting on the first and last name fields, which is not handled by Identify Patient workflow.
15454	In Digital Form Editor, New Image button is not working properly.
15269	DOB is sometimes formatted differently for driver's licenses from Prince Edward Island, which causes an issue with Identify Patient workflow.
15236	View Study opens the same study twice when using Skip and Continue while reviewing studies within a Folder.
15055	Under certain circumstances, an error occurs when working with scanned documents from the Attachments context menu on a worklist.
15632	When Scheduling from ACR Category 0 Follow-Up WL, Height and Smoking Status should be cloned from the original order, but the user is forced to re-enter the information.
15575	Inbound document service should ignore files with an extension that is not an image file.
15526	When Rescheduling a study in Checking In or Arrived status, the site search should default to the original site.
15337	RADAR Quick Message - Email option should not be available when the patient does not have an email address listed.
15198	When dictating with "and Continue" and the reporting mode switches from PS360 to something else and then back to PS360, the AutoFeed option does not reappear in the status bar.
15101	Setting the background color for Reporting screen data panes to transparent causes an error.
15098	DBNull error when opening Registration when an implant device with a Null (blank) description is entered for the patient.
15676	Merging external MRN patients with internal patients fails during rescheduling workflow, impacting patients who have scheduled via the Patient Portal using Guest mode.
15559	Error when requesting a SecurePIC from IVT screen for an Order.
15393	CSH PACS - from Patient Folder, when viewing a 2nd study, the Accession # is not displayed in the simulator.
15268	SecurePIC – Need optional ris.exe.config setting for <i>DBActionSignalRServiceEndpoint</i> for cases when the IP address used for hosting on the server is different than the IP address used on the client.
15232	Audit records for RADAR messaging do not include patient /order /study context due to a change with Inbound Document workflow.
15776	UM Alert should contain both the original and alternative procedure.
15552	CTRM dialog remains open when closing via PowerScribe 360.
15546	LOG FILE reader- when using Citrix bridge the log file reader continually adds the same information including the same time when refreshed.

15544	External Report Workflow checkbox triggers dialogue window in View/Edit, does not save state.
15538	Digital form data is not saving if preceded by validation failure.
15525	Configurable Reporting options should be logged in the verbose log file.
15497	Action buttons can be hidden in Inbound document workflow under certain conditions (switch tabs to restore).
15479	Infinitt PACS is not closing after RIS logout.
15468	Eligibility flag tooltip can become stuck in "In Progress" after being updated under certain conditions.
15452	A user may be prompted for PACS login credentials even after disabling PACS.
15409	Updated critical results entry screen requires localization.
15383	In Dictation window, Nudge and Folders feature items require localization.
15325	Hebrew Localization updates.
15191	Order level attachments not displaying as expected when viewed from the Attachments context menu for a single order.
15592	Signed pending QA - Verify report - reject Edit and send for dictation goes to Transcribed status and falls to Pending Signature WL.
15551	Personnel editor error when an inactive Message Group associated to the user has an apostrophe.
15550	Cannot save Procedure Plan with an apostrophe.

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	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 and Patient Portal updates
2016.5	-	2.16.5.0	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	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	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	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

CODE STREAM DIAGRAM

