Server Update

For eRAD RIS

Version 2.0

Build 2.2017.1

Update 2.2017.1.3

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NEW CONFIGURATION SETTINGS

SYSTEM CONFIGURATION SETTINGS

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

ACCESS STRINGS

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

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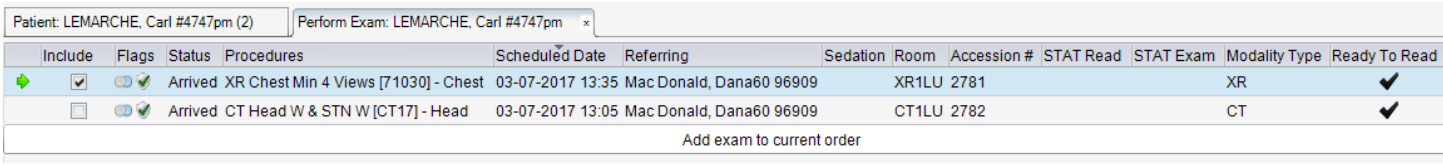
NEW FEATURES

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

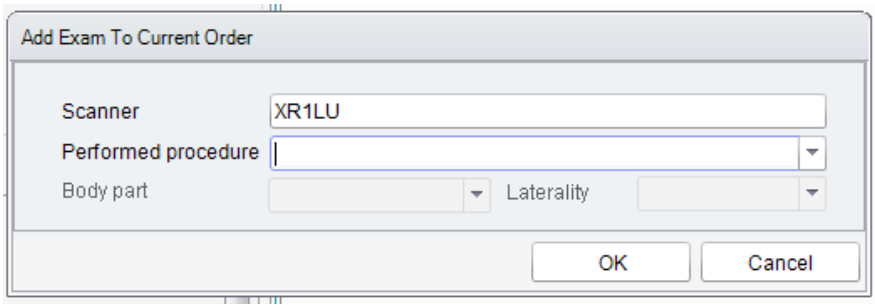
Technologists often need to add additional studies to the order when the patient is already on the table, after receiving feedback from the radiologist or upon realizing that the referral contains a separate exam that was not registered. Technologists need a method to add additional studies with fewer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

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



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

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



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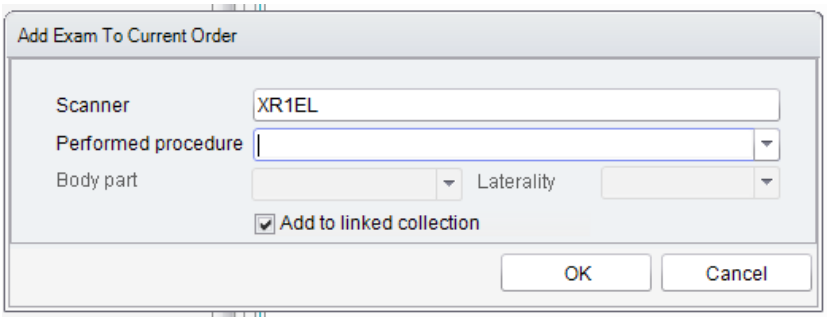
Currently, the scanner (room) is hard coded to match the same scanner as the existing procedure. In the next phase, this will be expanded to allow the technologist to select a different scanner.

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

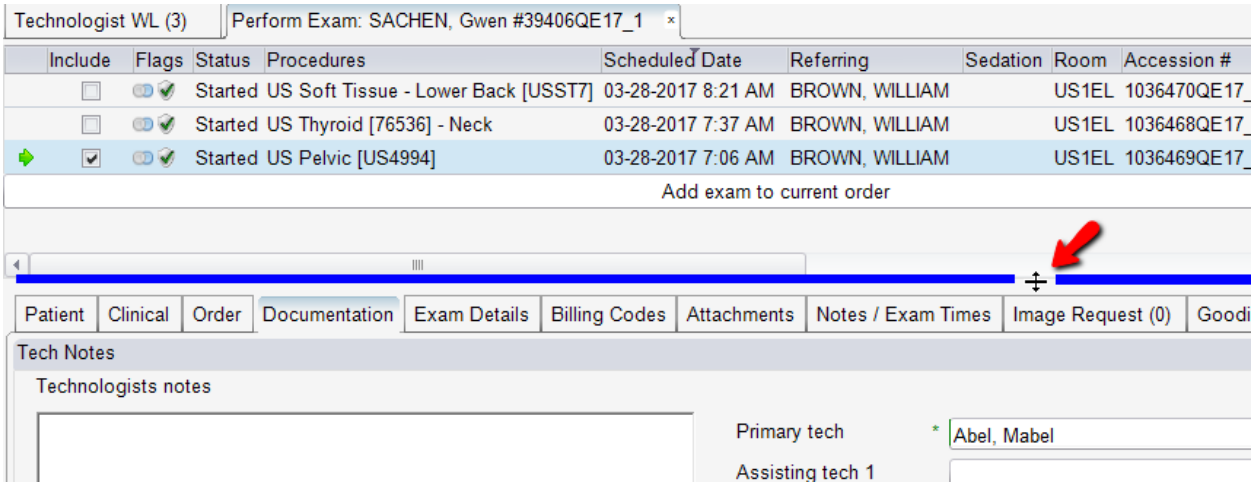
Upon clicking OK, a new exam will be added to the existing order. The Date and Time will default to the current date and time, similar to a Walk In.

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



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

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



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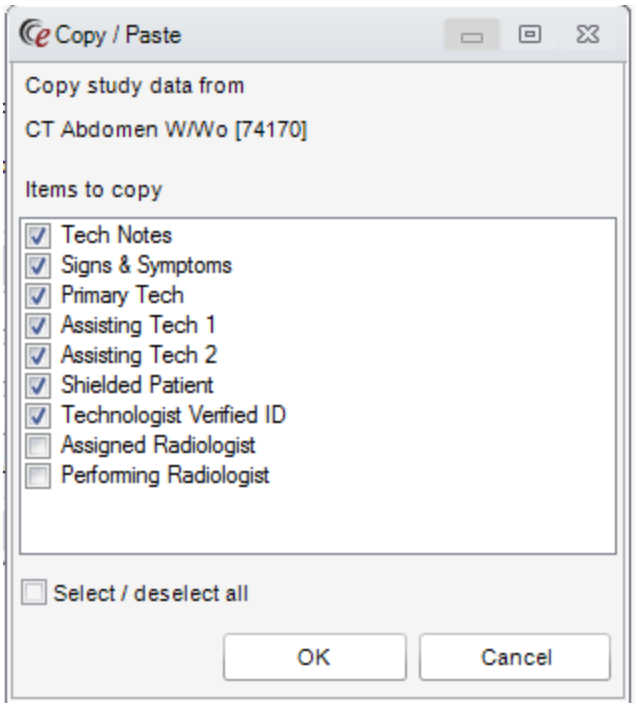
FEATURE #16294 – COPY/PASTE FEATURE NOW INCLUDES "TECHNOLOGIST VERIFIED ID"

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



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

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

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

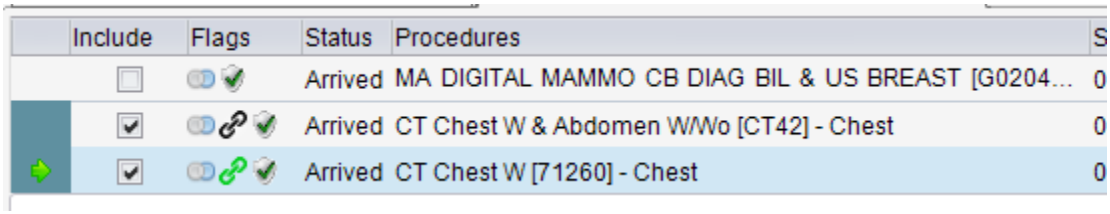
For these purposes, the following System Configuration options are now available:

- *AutoIncludeLinkedStudiesForTech* – When set to True, RIS will automatically "include" all studies in a linked collection when the perform exam window is opened. This allows the technologist to Start and Complete all of the exams together. The default for this setting is False. In a future build, RIS will exclude studies in the linked collection if they have a different Modality Type. For this first phase, this behavior will apply to all studies in the linked collection ***regardless*** of Modality Type.

- *AutoCopyPasteLinkedStudies* – When set to True, RIS will automatically copy/paste all available fields from the most recently saved exam to all other checked exams in the linked collection. The Copy/Paste will occur any time a user saves any of the studies in the linked set from the Perform Exam screen. The default for this setting is False. To use this setting, the first setting, *AutoIncludeLinkedStudiesForTech*, must also be set to True.

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

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



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

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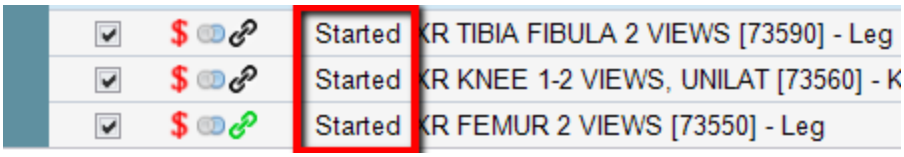

Additional information can be added on the Documentation tab and upon the next action which includes a save, such as Complete, Suspend or Save, the fields will copy to all of the included exams that are part of the linked set. Fields that will be copied include: Tech Notes, Signs & Symptoms, Primary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

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

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

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

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

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

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

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

Service Notes:

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

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

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

The ExpressionFilter can be used to determine which rows should be included in the expression. Expressions take the form of "<column_name> <operator> <filterValue>" (e.g. "active_flag = 'Y'"), but they may also include Boolean (AND/OR) logic (e.g. "active_flag = 'Y' AND sequence_id = 1").

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

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VERIFIED ID VALIDATION RULE

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

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

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

SCANNED DOCUMENT VALIDATION RULES

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

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

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

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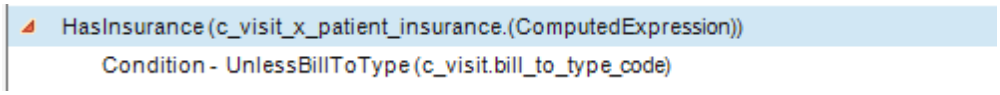
PATIENT INSURANCE VALIDATION RULES

The validation rule for patient insurance considers both insurances and self-pay. A rule is used to check *c_visit_x_patient_insurance* and if no rows are found, the rule will check the *bill_to_type_code* on *c_visit* to make sure RIS does not warn the user about missing insurance if "self pay" has been specified.

The rule with corresponding condition looks like this:



Main rule:

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

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

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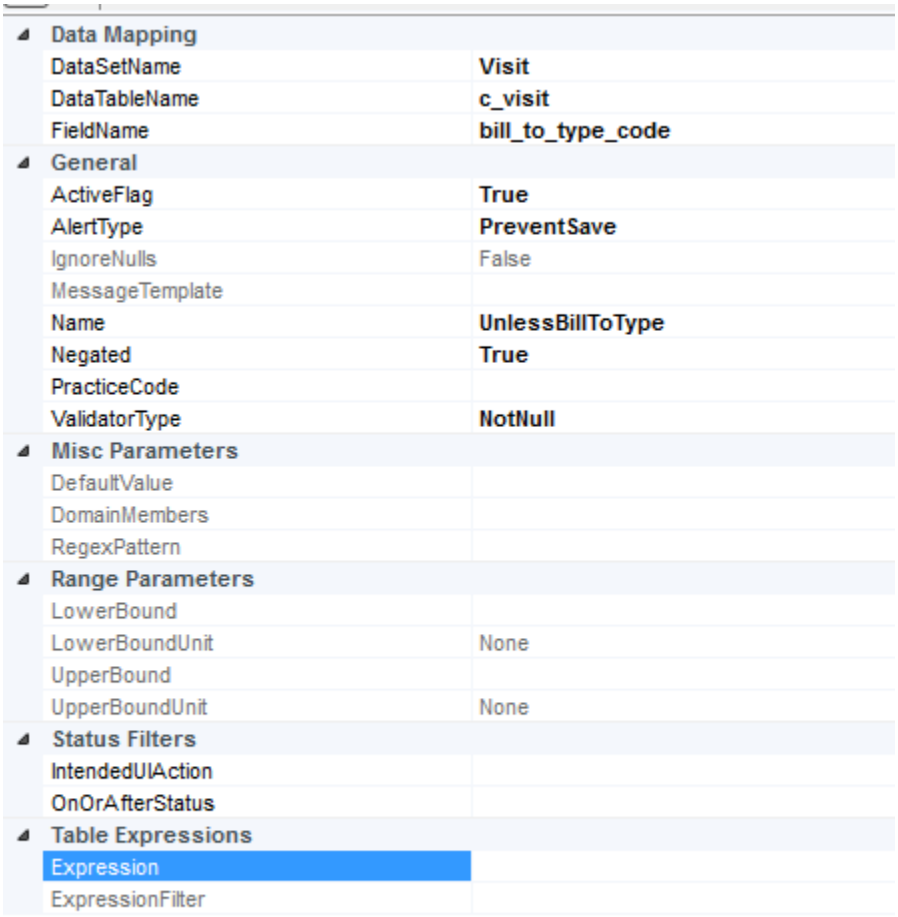
Condition:



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

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

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

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

MRN VALIDATION RULES

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

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

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

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

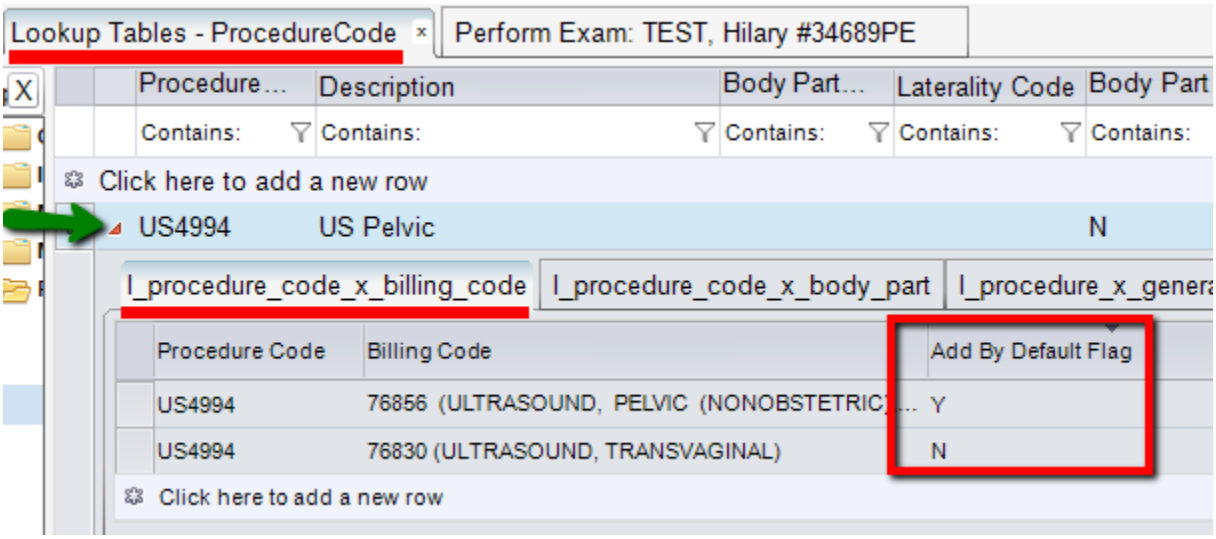
Note: this functionality was originally introduced in the previous patch, 2017.1.2. The description is included here because there have been further changes to the feature.

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

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

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

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



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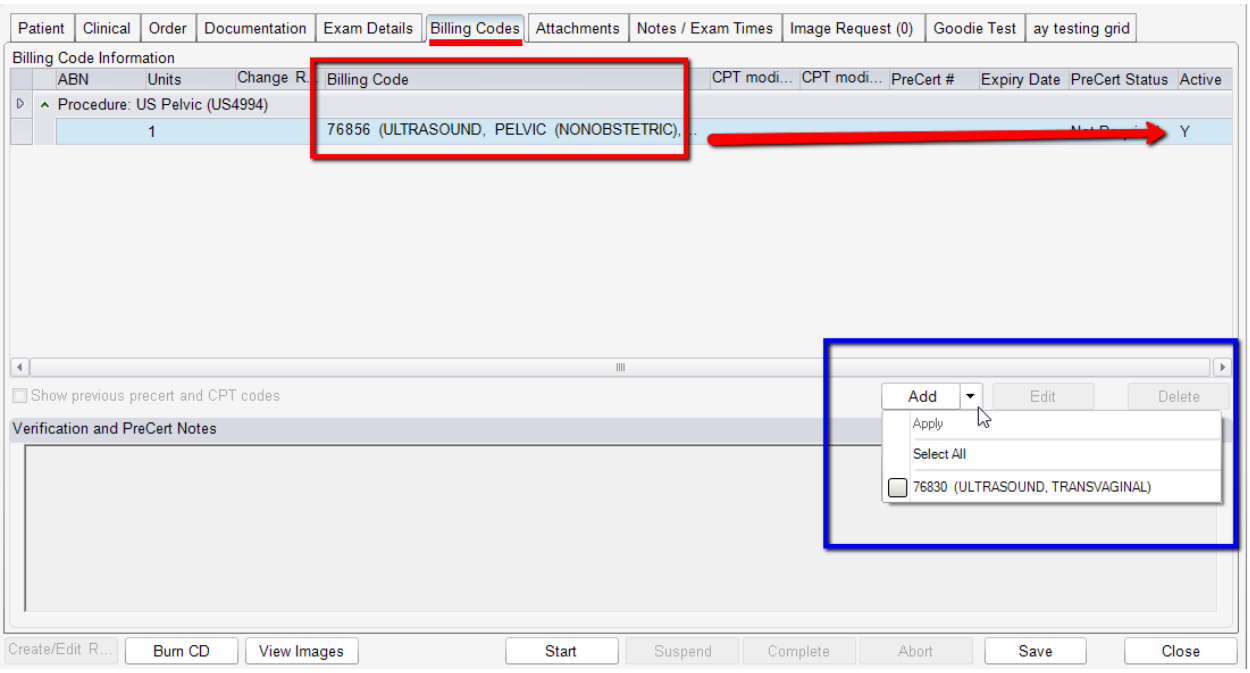
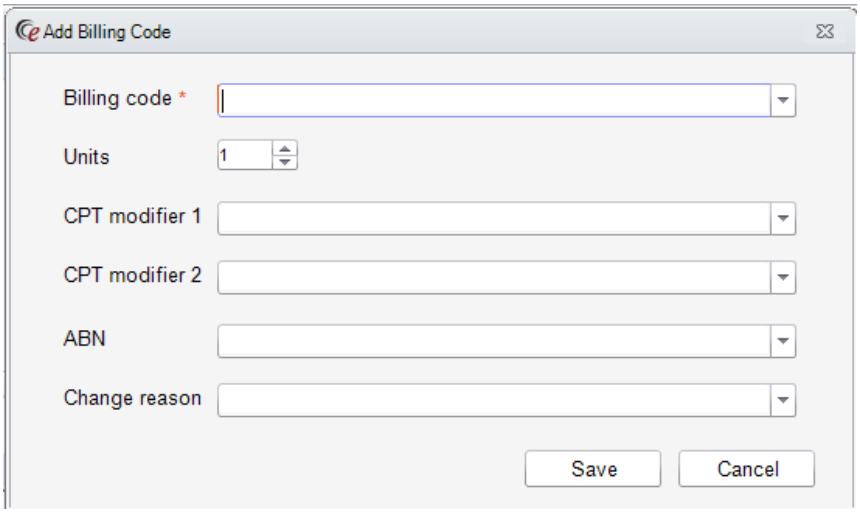
In the example above, the only billing code that will be automatically added for the US Pelvic procedure is 76856. The billing code 76830 will now be available from a quick pick list, as shown below.



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



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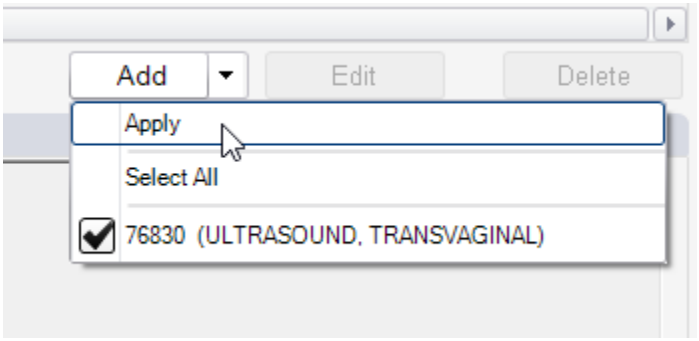
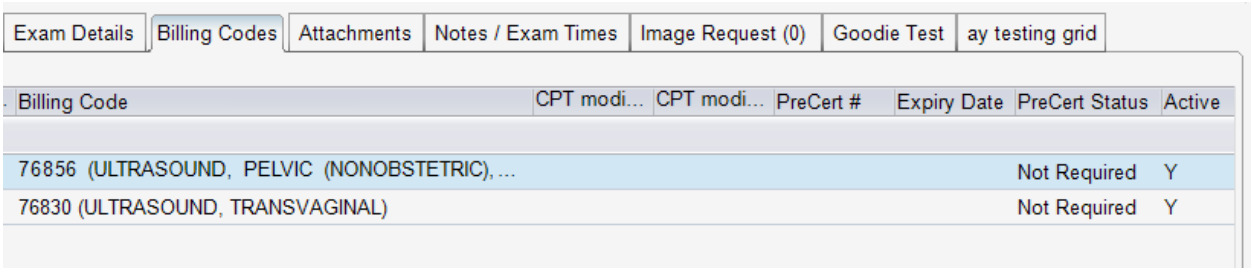
If no recommendations exist, the Add button will not have the dropdown arrow and the Add Billing Code screen is the only option for adding additional billing codes.

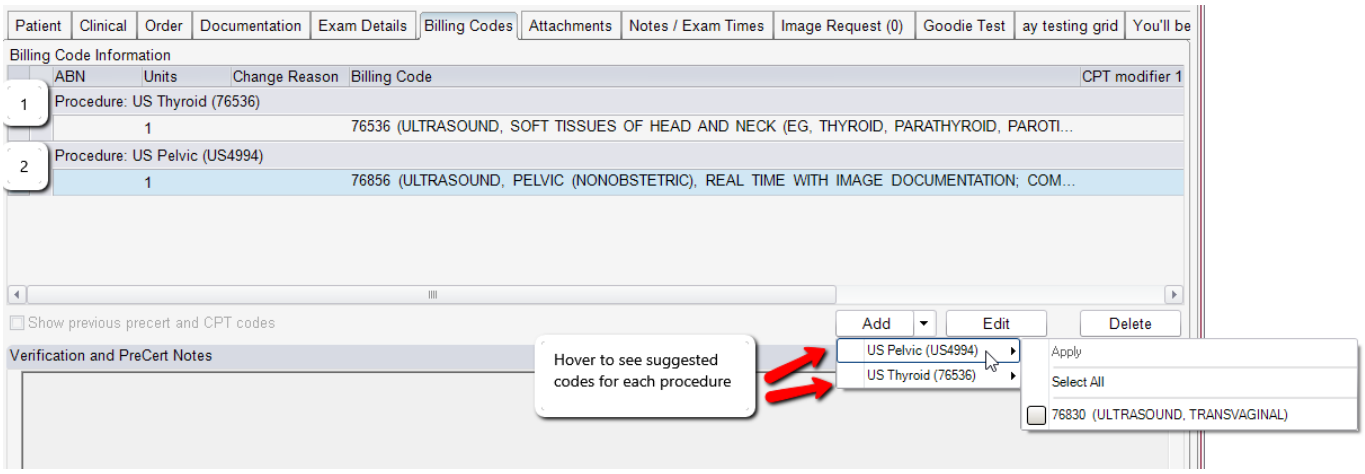
To use suggested billing codes, click the dropdown arrow and check the box(es) to be added. Then click Apply.



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



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



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

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

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

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

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

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

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

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

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RESOLVED ITEMS

eRAD RIS

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

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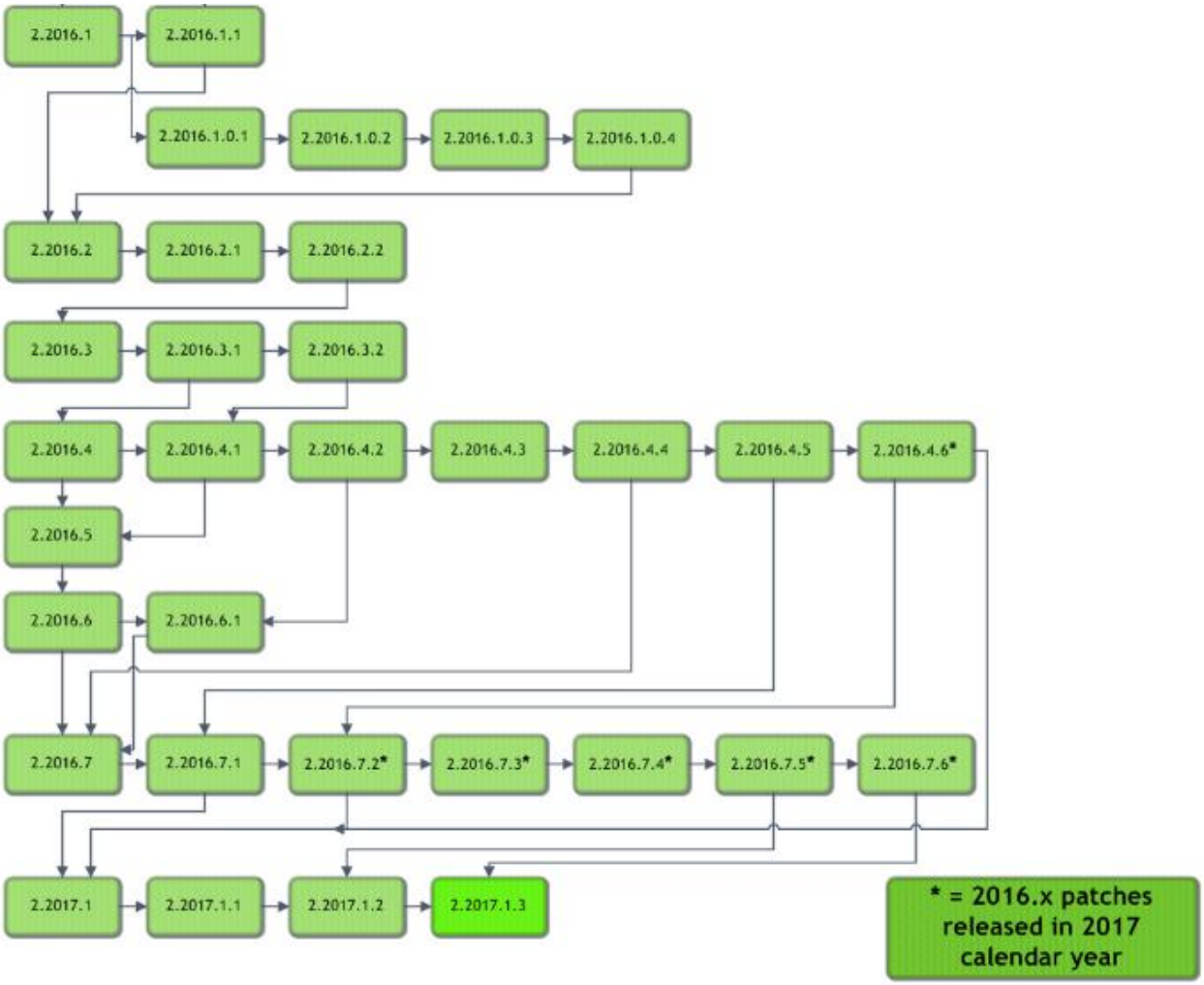
CODE STREAM



Legend:

Light Green = Previously Released software

Bright Green = Current Release

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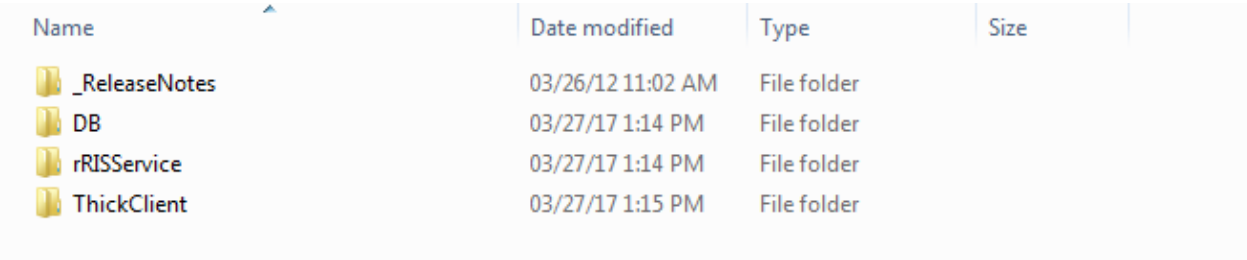
PACKAGE CONTENTS



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

INTENDED AUDIENCE

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

WHO IS AFFECTED

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

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ERAD RIS RELEASE VERSION NUMBERS

	A	B	C	D	E	F	G	H	I	K
1	**Build**	**Patch**	**UI Version**	**Core Version**	**WS Version**	**DB Version**	**Digital Forms**	**Patient Portal**	**UM Portal**	**Notes**
144	2016.1	1	2.16.1.1.33672 (3GB)	2.16.1.0.33079	2.16.1.0.33419	2.16.1.0.33416				GUI.zip
145	2016.1	.0.1	2.16.1.0.1 (3GB)	2.16.1.0.33079	2.16.1.0.33419	2.16.1.0.33416				GUI.zip (This is not included in 2016.1.1, version directly above)
146	2016.1	.0.2	2.16.1.0.1 (3GB)	2.16.1.0.33079	2.16.1.0.2	2.16.1.0.33416				Wedge Web Services only
147	2016.1	.0.3	2.16.1.0.3 (3GB)	2.16.1.0.33079	2.16.1.0.3	2.16.1.0.3.00128918				GUI.zip, Web Services and DB
148	2016.1	.0.4	2.16.1.0.4 (3GB)	2.16.1.0.33079	2.16.1.0.4	2.16.1.0.3.00128918				GUI.zip, Web Services
149	2016.2	-	2.16.2.0 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00172540				Full Version Release - GUI.zip, Web Service, DB, Management Reports, Questionnaire and Citrix Bridge
150	2016.2	1	2.16.2.1 (3GB)	2.16.2.0	2.16.2.0	2.16.2.0.00172540				GUI.zip and Citrix Bridge
151	2016.2	2	2.16.2.2 (3GB)	2.16.2.0	2.16.2.0	2.16.2.2.00243102				GUI.zip, DB and Citrix Bridge
153	2016.3	-	2.16.3.0 (3GB)	2.16.3.0	2.16.3.0	2.16.3.0.00257101	2.16.3.0			Full Version Release
154	2016.3	1	2.16.3.1	2.16.3.0	2.16.3.1	2.16.3.1.00298834	2.16.3.0			GUI.zip, Web Service and DB
155	2016.3	2	2.16.3.2	2.16.3.0	2.16.3.2	2.16.3.1.00298834	2.16.3.0			GUI.zip and Web Service
156	2016.4	-	2.16.4.0	2.16.4.0	2.16.4.0	2.16.4.0.00301943	2.16.4.0	1.16.4.0.310284		Full Version Release
157	2016.4	1	2.16.4.1	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	1.16.4.0.310284		GUI and Web Service updates
158	2016.4	2	2.16.4.2 (3GB)	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	1.16.4.2.460241		GUI and Patient Portal updates
159	2016.4	3	2.16.4.3 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	1.16.4.3.489120		GUI and Patient Portal updates
160	2016.4	4	2.16.4.4 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	1.16.4.3.489120		GUI
161	2016.4	5	2.16.4.5 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0			GUI
162	2016.4	6	2.16.4.6 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0			GUI
163	2016.5	-	2.16.5.0 (3GB)	2.16.5.0	2.16.5.0	2.16.5.0.00349303	2.16.5.0	1.16.5.0.362009		Full Version Release
164	2016.6	-	2.16.6.0 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	1.16.6.0.432471		Full Version Release
165	2016.6	1	2.16.6.1 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	1.16.6.1.468583		GUI and Patient Portal updated
166	2016.7	-	2.16.7.0 (3GB)	2.16.70	2.16.70	2.16.7.0.00490835	2.16.70	1.16.7.0.493031	2.16.7.0.493008	Full version release
167	2016.7	1	2.16.7.1 (3GB)	2.16.7.0	2.16.7.1	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	GUI and Web Service updates
168	2016.7	2	2.16.7.2 (3GB)	2.16.7.0	2.16.7.2	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	GUI and Web Service updates
169	2016.7	3	2.16.7.3 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	GUI and Web Service updates
170	2016.7	4	2.16.7.4 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	GUI
171	2016.7	5	2.16.7.5 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	GUI
172	2016.7	6	2.16.7.6 (3GB)	2.16.7.0	2.16.7.6	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008	GUI and Web Service updates
173	2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000	Full Version Release
174	2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000	GUI, Web Service and DB updates
175	2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.00000	GUI, Web Service and DB updates
176	**2017.1**	**3**	**2.17.1.3 (3GB)**	**2.17.1.0**	**2.17.1.3**	**2.17.1.3.00640480**	**2.17.1.0**	**2.17.1.0.572290**	**2.17.1.0.00000**	**GUI, Web Service and DB updates**

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INSTALLING

CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.1.3.zip file provided with this release.

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

WEB SERVICE

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

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 128 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), he (Hebrew), pt_BR (Brazilian Portuguese) and es-AR (Argentina Spanish) are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

Services Configuration Wizard

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

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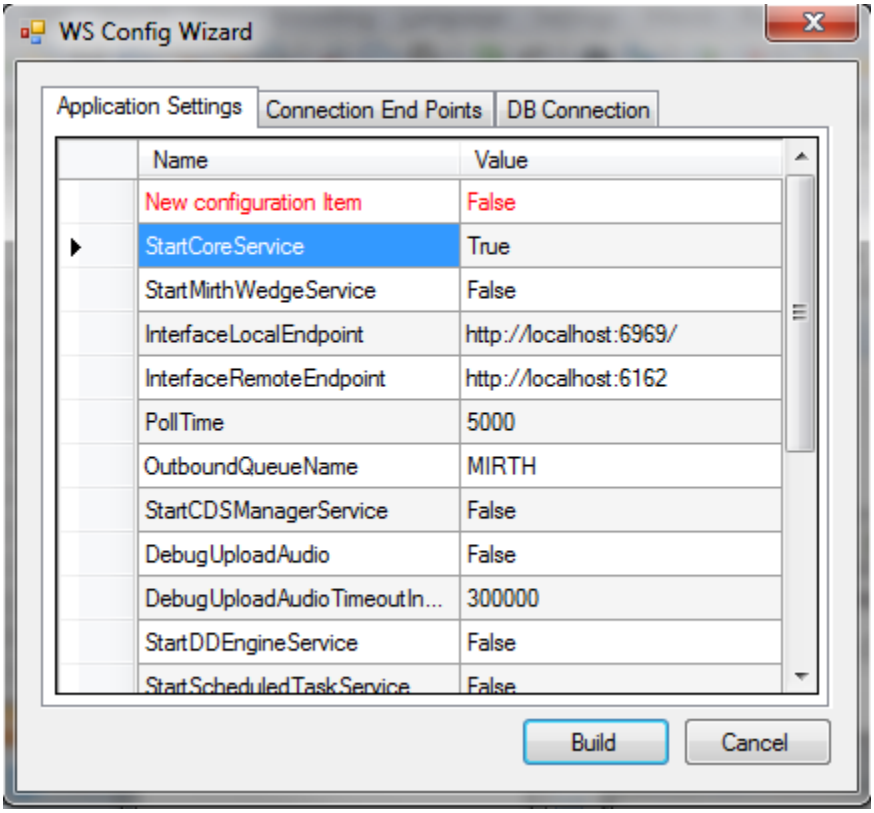
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

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

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



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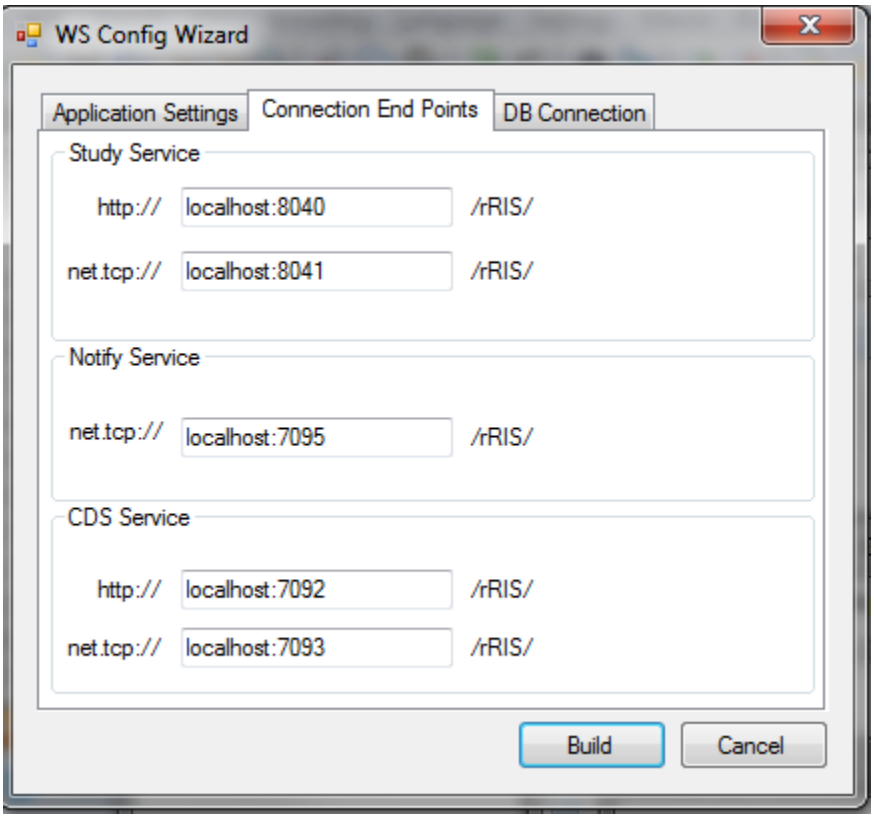
Connection End Points: will display the existing configuration, if the value is left blank then that entry will not be created, in the case of “Study Service” or “CDS Service” if both http and net.tcp were not provided then that endpoint will not be created at all.



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DATABASE UPDATES

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

Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.

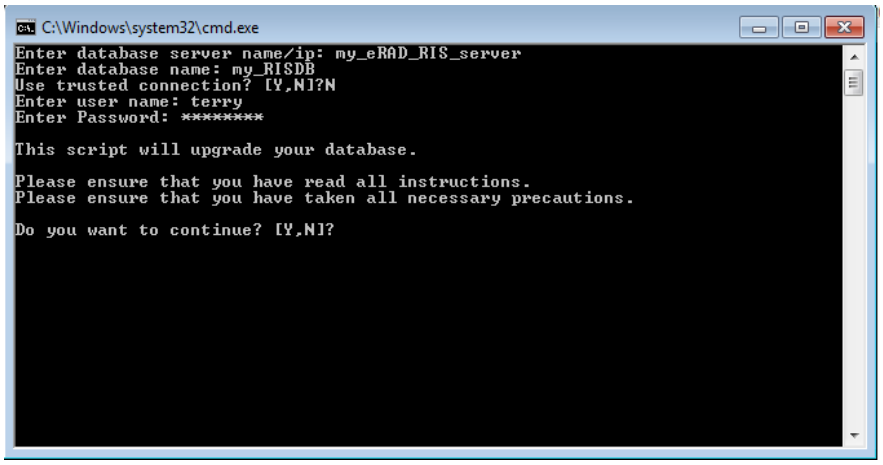
1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

3) You can choose to use "Trusted connection". Using this option will pass the identity of the currently logged on user. If this user has "db_owner" access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use "Trusted connection" then you will be prompted for user id and password.

   Example:



5) After the upgrade program has finished you can find the upgrade logs in the "log" folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team

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