Server Update

For eRAD RIS
Version 2.0
Build 43
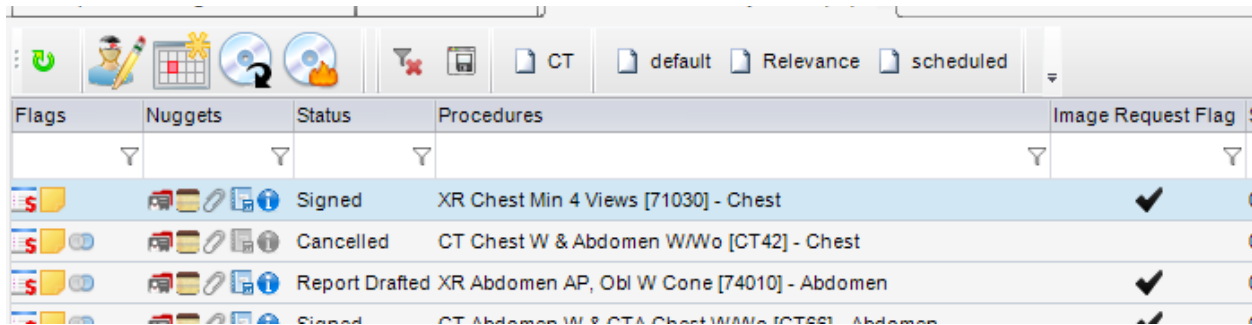# Update 43.0.2

Table of Contents

eRAD RIS Server Update

1. New Features

Image Request flag added to the Patient Folder WL

A new column titled Image Request Flag has been added the Patient Folder WL. This column is a visual indicator to let the user know if an Image Request has/had been requested for the study.

Figure 1.1 – Image Request Flag column added to patient folder work list

<u>eRAD RIS Server Update</u>

ICD Support for Radiologists

In Build 43 we introduced support for ICD 10 codes. The feature was not complete as the Radiologist portion needed some fine tuning.

The Reporting window has a new ICD button. The button is located in the lower left corner of the reporting window.
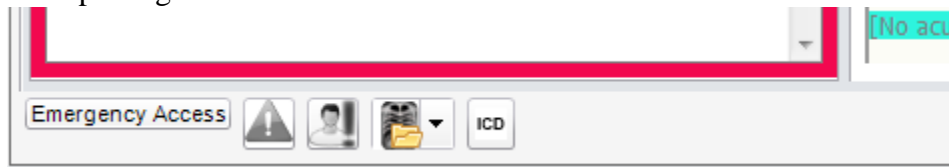

Figure 1.2 – ICD button in reporting window

The button is enabled with the system configuration setting of "**RadCanProvideIcdCode"** that has a default of False. This button will open the same ICD Codes search window. The data for the indications defined here are saved to c_interpreation_indication.

The Radiologist can be forced to input an ICD code by enabling the system configuration setting of "**RadMustProvideIcdCode**" that has a default value of False. When this setting is set to "True" the Radiologist will be required to enter at least one ICD code before being able to sign. If a code is not entered they will be presented with a message prompt informing that one must be provided.
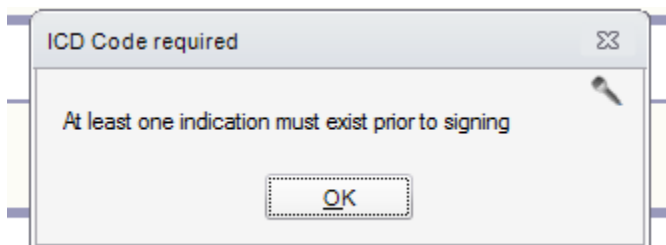
Figure 1.3 – cannot sign with ICD code when "RadMustProvideIcdCode" = true

The ICD search window looks the same as when accessed from other areas of eRAD RIS. The ICD Codes window will provide the Reason for exam, a text box to enter search criteria where the user can enter the code or description. At least 3 characters must be entered for the search button to enable. The Type of code selected will depend on the value in system configuration setting of "**Icd10EffectiveDate**" which has a default value of 08-07-2014. If the value entered is a future date the Type of code selected will default to ICD 9. In the ICD Codes window the user can still choose to search for either or combine a search for both ICD9 and ICD10. In the example below both are chosen and the search results window displays the values returned. The type column indicates if it is ICD9 or ICD10 codes.

eRAD RIS Server Update
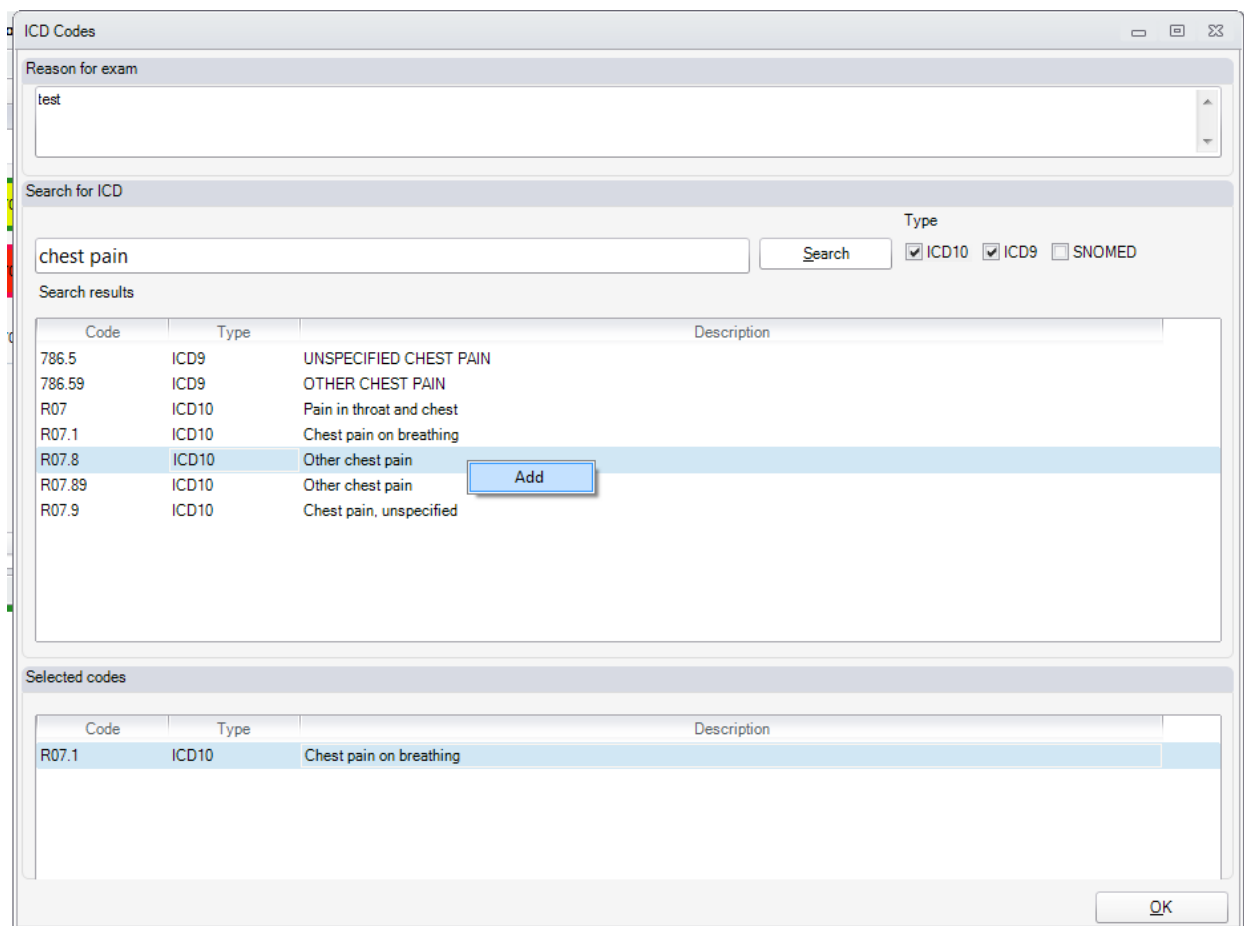
Figure 1.4 – ICD code search window

To move a code form the Search results to the Selected codes section of the window, the user must double mouse click, right click and select Add or use the Enter key on the desired code to be added. Multi select is not option. Codes will have to be entered one at a time.

To remove codes from the Selected codes section the user can double mouse click, right click and select Remove or use the delete key on your keyboard.

For the Radiologist to view the Tech workflow defined ICDs, viewing the Exam Details from the View menu will display indications defined in that workflow.

Codes added by a Radiologist can be viewed and/or edited from the View/Edit windows Documentation tab. Users will need the access string permission of "**Clinical.ViewEditCanChangeDiagIndications**" which has a default of None.

eRAD RIS Server Update

2. Defects Resolved

Redmine #	Tracker	Subject	Priority
7236	Feature	Patient Folder - Add "image request status" as a column on the worklist	Urgent
7291	Bug	DB Job: Update Mammo Recall categories job will not run	High
7238	Bug	Mgmt report deployment - issues when date format not same as US (found in SA)	High
7195	Bug	System config setting RadMustProvideIcdCode doesn't force rad to enter ICD code	High
7184	Bug	Error when trying to schedule new appointment on a patient with an existing procedure in ordered status	High
7065	Bug	ICD button is overlaid by the stat button in minimized dictation mode	High
7018	Bug	Chair and PowerScribe XML files writing to file system when exam not fully opened	High
6910	Bug	Ris hangs when editing a macro and pasting in new text	High
6037	Feature	MU2 - CCDA Encounter section does not include Encounter Diagnosis	High
3888	Feature	ICD 10 - Support	High
7287	Bug	MU Automated Measures Raw Data report needs Pass column added	Normal
7265	Bug	CCDA - Height, weight, Blood Pressure Diastolic and Blood Presssue Systolic values are taken from the 1st study	Normal
7264	Bug	MU Lab Clean up screen	Normal
7261	Bug	Neat ADF Scanner --> duplex scan support	Normal
7245	Bug	Clinical.Attachments should be default of Full	Normal
7237	Bug	Assign to Radiologist popup does not show the rad's for an outside reads c_order.filler_practice_code	Normal
7231	Bug	MU Related Lab Results window title - has the word Parent in the title	Normal
7229	Bug	there is a chance that there can be overlapping conflicting date ranges in availablity temapltes	Normal
7222	Bug	Change location of Technologist Activity by Modality report	Normal
7219	Bug	Mgmt Report - Biopsy Results Pending Letter	Normal
7211	Bug	MU Lab Screen Clean date format	Normal
7207	Bug	MU - clinical.diagnosecodes doesn't control adding indictation codes on mu window	Normal

7205	Bug	Invalid Zip code is retained and not the valid County selection.	Normal
7203	Management Report	Mgmt Report - Radiologist Signings by VR System	Normal
7182	Bug	Menu item Messaging doesn't have an access string	Normal
7166	Bug	Report deployment - MQSA folder really should be called Mammography	Normal
7164	Bug	Cannot delete indictation codes from the Indication lookup table via GUI	Normal
7146	Bug	Assign ICD Code button - Using it when saving an order causes error.	Normal
7145	Bug	MU data is deleted if Patient Search is utilized after data is filled in.	Normal
7137	Bug	Management Report - Audit Log	Normal
7022	Bug	Closing .Net connections can cause delays	Normal
7016	Bug	Exception thrown when deleting a row in MU allergy section and adding a row in MU problem section	Normal
6990	Bug	the validation for Modality Restriction and Closures are not checking to ensure that the start date occours before the end date	Normal
7050	Bug	CCDA - BMI value is different that the BMI value in MU tab	Low

3. Changes to Configuration

Setting Placeholder	Setting	Default	Purpose / Controls Access to
Access strings and User Group Permissions	Clinical.DiagnosisCodes **Has been removed**	N/A	This was originally added in an early build of 43 to control access to enter ICD codes in the MU's Extra Info Screen. The ability to add ICD codes in the Extra Info Screen was removed before release of 43. The user can add ICD Codes in the Medical History Grid. For access to add ICD codes into this grid, users must have access to **MU.MUEnabledControls** which controls access to the grids and radio buttons on the MU tab.
Access strings and User Group Permissions	Clinical.Attachments The default has changed from None to Full	Full	Controls access to the stand alone Attachments screen accessible in a work list via Right Click / Attachments
Access strings and User Group Permissions	Clinical.ViewEditCanChangeDiagIndications	None	In View/Edit, the indications defined by the radiologist can be edited
SystemConfig	Icd10EffectiveDate		(value = DateTime mm-dd-yyyy) The date on which ICD10 is effective. ICD9 will be used prior to this date.
SystemConfig	RadMustProvideIcdCode	False	A value of True will force radiologist to provide diagnosis ICD code prior to signing. Possible values are False and True
SystemConfig	RadCanProvideIcdCode	False	Enables the ability for the radiologist to provide diagnosis ICD code in the reporting screen. Possible values are False and True

eRAD RIS Server Update

4. Code Stream

eRAD RIS – Source Code Evolution

```
40.018 → 40.019 → 40.020 → 40.021 → 40.022 → 40.022.1 → 40.023 → 40.024

41 → 41.001 → 41.002 → 41.002ScanFix → 41.003 → 41.004 → 41.005 → 41.006 → 41.007
                            ↓
                        41.002.1

41.1 → 41.1.001 → 41.1.002 → 41.1.003 → 41.1.004

42 → 42.0.1 → 42.0.2 → 42.0.3 → 42.0.4 → 42.0.5 → 42.0.6 → 42.0.7 → 42.0.8

42.0.9 → 42.0.10 → 42.0.10.1 → 42.0.11 → 42.0.12
   ↓
42.0.9.1

42.1 → 42.1.1 → 42.1.2 → 42.1.3 → 42.1.4 → 42.1.5

43 → 43.0.1 → 43.0.2
```
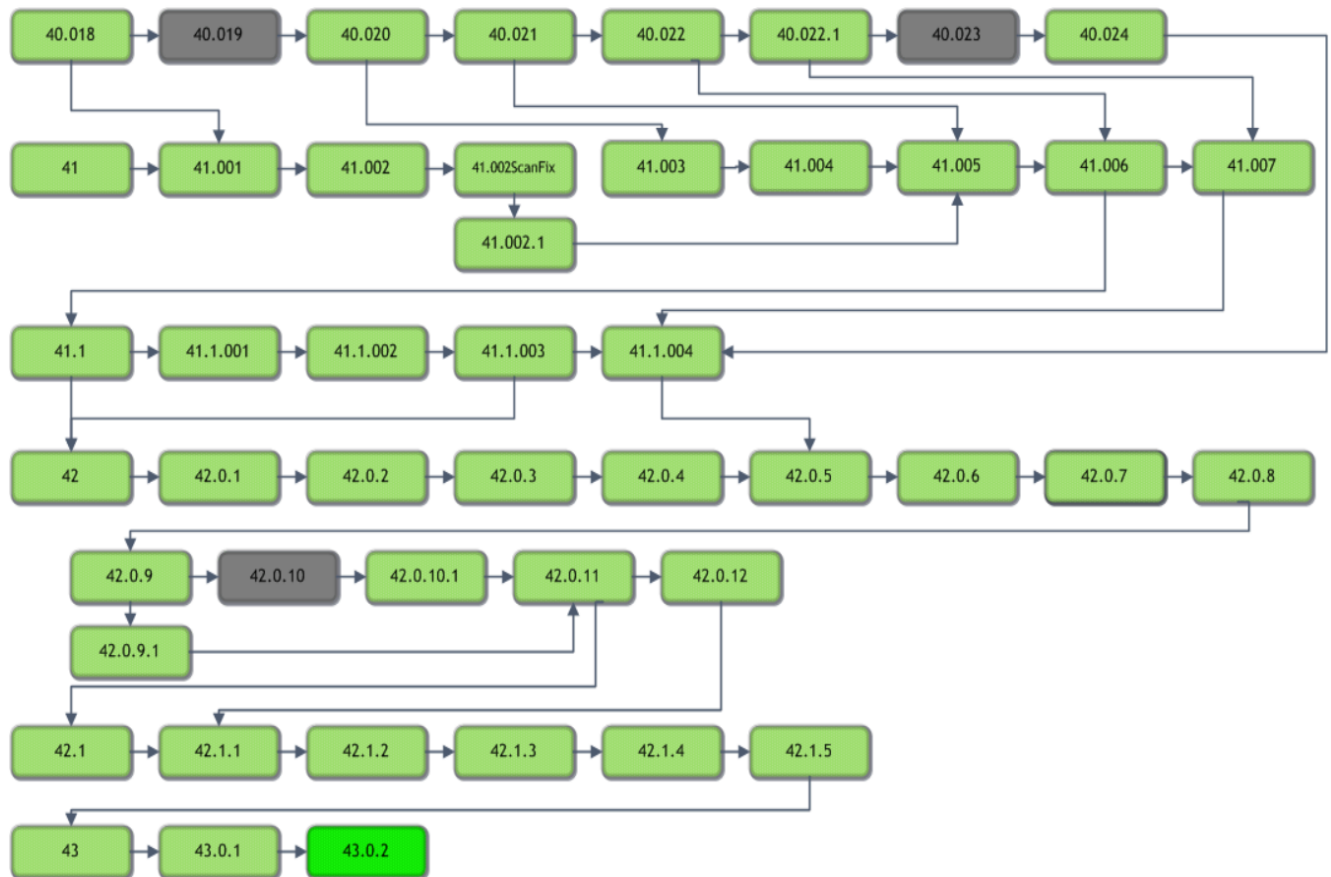
Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

5. Package Contents

Files included for this server update:

1) GUI ZIP Updates folder contains:
   - rRIS_1.3.43.0.2.24017.zip

2) RIS_Service_Updates contains:
   - ABCpdf.dll
   - ABCpdf9-32.dll
   - ABCpdf9-64.dll
   - Antlr3.Runtime.dll
   - CDSJobManager.dll
   - CDSJobManager.pdb
   - CdsLib.dll
   - CdsLib.xml
   - CdsLib.XmlSerializers.dll
   - CommonLib.dll
   - CommonLib.pdb
   - contents4301.txt
   - DDEngine.dll
   - DDEngine.pdb
   - DiffPlex.dll
   - Interop.ANYMODALCAPTURECTRLLib.dll
   - Interop.FAXCOMEXLib.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.dll
   - Microsoft.Practices.EnterpriseLibrary.Caching.pdb
   - Microsoft.Practices.EnterpriseLibrary.Common.dll
   - Microsoft.Practices.EnterpriseLibrary.Common.pdb
   - Microsoft.Practices.EnterpriseLibrary.Logging.dll
   - Microsoft.Practices.EnterpriseLibrary.Logging.pdb
   - Microsoft.Practices.ServiceLocation.dll
   - Microsoft.Practices.ServiceLocation.pdb
   - Microsoft.Practices.Unity.dll
   - Microsoft.Practices.Unity.Interception.dll
   - Microsoft.Practices.Unity.Interception.pdb
   - Microsoft.Practices.Unity.pdb
   - Microsoft.ReportViewer.Common.dll
   - Microsoft.ReportViewer.WinForms.dll
   - Microsoft.ReportViewer.WinForms.xml
   - Newtonsoft.Json.dll
   - Newtonsoft.Json.xml
   - NLog.dll
   - O2S.Components.PDFRender4NET.dll
   - PDFToImages.exe
   - Radar.Common.dll
   - Radar.Common.pdb
   - Radar.Common.WebClient.dll
   - Radar.Common.WebClient.pdb
   - Radar.DirectMessaging.Client.dll
   - Radar.DirectMessaging.Client.pdb
   - Radar.DirectMessaging.Model.dll
   - Radar.DirectMessaging.Model.pdb
   - rRISServices.exe
   - rRISServices.pdb
   - rRISServicesx64.exe
   - ScheduledTaskManager.dll
   - ScheduledTaskManager.pdb
   - ServicesConfigWizard.exe
   - ServicesConfigWizard.pdb
   - SignatureApprovalService.exe
   - SignatureApprovalService.pdb
   - System.Net.Http.dll
   - System.Net.Http.Formatting.dll
   - System.Net.Http.xml
   - System.Web.Http.dll
   - System.Web.Http.SelfHost.dll
   - System.Web.Http.SelfHost.xml
   - System.Web.Http.WebHost.dll
   - System.Web.Http.WebHost.xml
   - System.Web.Http.xml
   - System.Web.Mvc.dll
   - System.Web.Mvc.xml
   - System.Web.Optimization.dll
   - System.Web.Razor.dll
   - System.Web.Razor.xml
   - System.Web.WebPages.Deployment.dll
   - System.Web.WebPages.Deployment.xml
   - System.Web.WebPages.dll
   - System.Web.WebPages.Razor.dll
   - System.Web.WebPages.Razor.xml
   - System.Web.WebPages.xml
   - Tourreau.Gilles.FaxDotNet.dll
   - Tourreau.Gilles.FaxDotNet.pdb
   - Tourreau.Gilles.FaxDotNet.xml
   - WCFService.dll
   - WCFService.pdb
   - WCFServiceTests.dll
   - WCFServiceTests.pdb
   - WebApi.dll

- WebApi.pdb
- WebGrease.dll

- Wedge.exe
- Wedge.pdb

The rRIS_Service_Updates also contains to subfolders:
  A. Deploy folder contains
      a. Applicationsettings.config
      b. ReleaseVersion-connectionstrings.config
      c. rRISServices.exe.config
      d. services.config

  B. XSL subfolder contains:
     Subfolder titled "Stylesheets" which contains:
      a. CDAToHTMLCompleteReport.xslt
      b. CDAToHTMLCompleteReportDark.xslt
      c. CDAToHTMLImpressionSection.xslt
      d. CDATorRIS.xslt
      e. CDAToTxt.xslt
      f. DocumentModelReport.xslt
      g. DocumentModelReportAsXml.xslt

      h. CDA Subfolder contains
      a. C-CDA.xsl
      b. eRadStylesheet.xsl
      c. generalTemplates.xsl
      d. header.xsl
      e. QRDA.xsl
      f. QrdaLevel3_Cypress2.4.0.xsl
      g. QrdaLevel3_ViewHtml.xsl
      h. sectionAdministeredMedications.xsl
      i. sectionAllergies.xsl
      j. sectionEncounters.xsl
      k. sectionFindings.xsl
      l. sectionFuncCogStatus.xsl
      m. sectionHospitalDischarge.xsl
      n. sectionImmunizations.xsl
      o. sectionInstructions.xsl
      p. sectionMedications.xsl
      q. sectionPlanOfCare.xsl
      r. sectionProblemList.xsl
      s. sectionProcedures.xsl
      t. sectionQRDAMeasures.xsl
      u. sectionQRDAPatientData.xsl
      v. sectionQRDAReporting.xsl
      w. sectionReasonForVisit.xsl
      x. sectionResults.xsl
      y. sectionSocialHistory.xsl
      z. sectionVitalSigns.xsl

3) SQL Folder contains:
   - B43.0.2.sql

4) **SSRSDeployment** folder contains 7 subfolders, a batch file for deploying the reports and a help file for deploying the reports.

   4.1. **Backups** folder is empty

   4.2. **Fonts** folder contains 4 files:
        4.1.1. FRE3OF9X

4.1.2 FRE3OF9x_0
4.1.3 FREE3OF9
4.1.4 FREE3OF9_0

4.3. **ParentFolder** folder contains 7 subfolders
    4.3.1.   **Chair** folder contains 1 .rdl file
    4.3.2.   **Dashboards** folder contains 9 .rdl files
    4.3.3.   **Forms folder** contains sub folder and 2 .rdl files
        4.3.3.1.   **SubReports** contains 10 .rdl files
    4.3.4.   **Management Reports** folder contains 7 sub folders, these subfolders contain the core management report files (.rdl) to be deployed.
    4.3.5.   **Marketing** folder contains 5 .rdl files
    4.3.6.   **Order Templates** contains 1 file (Default.rdl)
    4.3.7.   **Referring Portal** contains 8 .rdl files
    4.3.8.   **SubReports** contains 11.rdl files
    4.3.9.   **Verbal Order** contains 4 .rdl files

4.4. **Scripts** folder contains 9 .rss files. These files are used with the DeployReports.bat utility to deploy the reports.

4.5. **Upload Custom Mangement Reports** is empty

4.6. **Upload Diagnostic Templates** folder contains 1 subfolder
    4.6.1.   **SubReports** folder is empty

4.7. **Upload Forms** folder contains 1 subfolder.
    4.7.1.   **SubReports** folder is empty

4.8. **eRADDeployReports.bat -** batch file for deploying reports to report server for eRAD customers

4.9. **RadnetDeployReports.bat** - batch file for deploying reports to report sever for RadNet

4.10.   **Adding reports for Deployment.docx** document to assist in added a report to the install process when deploying the reports.

6. Intended Audience

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

7. Who is affected

Build 43 installs. Server updates are not cumulative. This server update must be applied to 43

8. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
41.1	-	1.3.41.20918(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip, Core install, Web Service and DB updates, Help files
41.1	1	1.3.41.20987(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip
41.1	2	1.3.41.21162(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip, Web Service and DB updates,
41.1	3	1.3.41.21264(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
42	1	2.42.0.1.21597	2.42.0.0.21261	2.42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates
42	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates
42	3	2.42.0.2.21806	2.42.0.0.21261	2.42.0.2.21806	2.42.0.0.21187	GUI and Web Service updates
42	4	2.42.0.2.21862	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI and Database updates
42	5	2.42.0.5.21924	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI
42	6	2.42.0.5.22009	2.42.0.0.21261	2.42.0.5.22009	2.42.0.4.21870	GUI and Web Service updates
42	7	2.42.0.7.22090	2.42.0.0.21261	2.42.0.6.22009	2.42.0.4.21870	GUI.zip updates
42	8	2.42.0.7.22090	2.42.0.7.22150	2.42.0.6.22009	2.42.0.4.21870	Web Service updates
42	9	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI and Web Service updates
42	9.1	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	Web Service updates
42	10	2.42.0.10.22232	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip
42	10.1	2.42.0.10.22420	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip updates
42	11	2.42.0.11.22495a	2.42.0.0.21261	2.42.0.11.22471	2.42.0.11.22527	GUI.zip, Web Service, Database updates. Management Report Deployment
42	12	2.42.0.12.22982	2.42.0.0.21261	2.42.0.12.22982	2.42.0.12.22911	GUI.zip, Web Service, Database updates.
42.1	-	2.42.1.0.22744(3GB)	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.2296(3GB)	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates
42.1	2	2.42.1.2.23007(3GB)	2.42.0.0.21261	2.42.1.2.23007	2.42.1.2.23007	GUI.zip, Web Service, DB updates
42.1	3	2.42.1.2.23237(3GB)	2.42.0.0.21261	2.42.1.2.23237	2.42.1.2.23007	GUI.zip, Web Services
42.1	4	2.42.1.4.23348(3GB)	2.42.0.0.21261	2.42.1.4.23348	2.42.1.2.23007	GUI.zip, Web Services
42.1	5	2.42.1.5.23406(3GB)	2.42.0.0.21261	2.42.1.5.23406	2.42.1.2.23007	GUI.zip, Web Services
43	-	2.43.0.0.23715(3GB)	2.43.0.0.23171	2.43.0.0.23715	2.43.0.0.23743	Full Version Release
43	1	2.43.0.1.23798(3GB)	2.43.0.0.23171	2.43.0.1.23798	2.43.0.1.23770	GUI.zip, Web Service, DB updates
43	**2**	**2.43.0.2.24017(3GB)**	**2.43.0.0.23171**	**2.43.0.2.24017**	**2.43.0.2.24023**	**GUI.zip, Web Service, DB updates and Management Report Deployment**

Page 14

9. Installing

1) Copy and replace the current rRIS…zip file with the rRIS_1.3.43.0.2.24017.zip file provided with this release.
   Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.
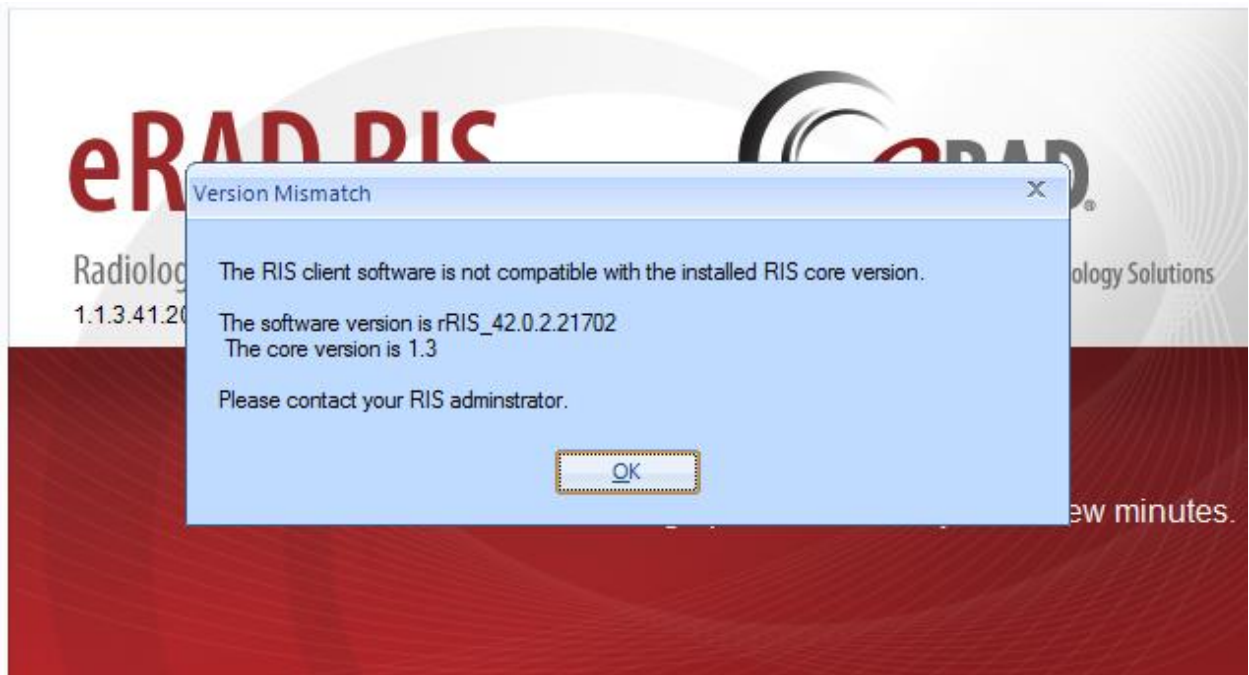
If you receive the Version Mismatch error above the GUI.zip will need to be renamed to add 1.3. to it. The GUI.zip file name change is from rRIS_43.0.2.24017→ rRIS_1.3.43.0.2. 24017
NOTE: the GUI.zip included with this release has already been renamed to include 1.3.

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

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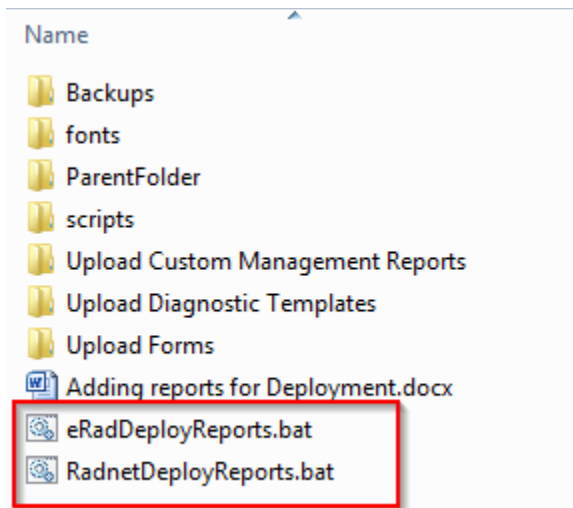
eRAD RIS Server Update

2) Stop each service listed below. Copy the files from the RIS Service Updates folder to the directory for each rRISService. Be sure to make backup of all files, but especially the rRISServices.exe.config and rRISServices.vshost.exe.config files.
   rRISService directories include:
   a) *rRISService*
   b) *CDS rRISService*
   c) *Wedge rRISService*
   d) *DDE rRISService*

   Restart each service.

3) Run the B43.0.2.sql file against the eRAD RIS database instance.

4) Management Reports Deployment / SSRSDeployment - There are 2 utilities called **RadnetDeployReports.bat** and **eRadDeployReports.bat** that will deploy the reports to a SQL Server Report Service.   This utility is found in the **Build X\SSRSDeployment** folder. Below are the steps on how to use this utility. The purpose for the 2 .bat files are the RadNet one deploys a few extra reports specific to RadNet.

Name

- Backups
- fonts
- ParentFolder
- scripts
- Upload Custom Management Reports
- Upload Diagnostic Templates
- Upload Forms
- Adding reports for Deployment.docx
- eRadDeployReports.bat
- RadnetDeployReports.bat

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

a. This will create a new root if the name you give doesn't exist, or it will simply publish below the root of the folder if it does already exist. We typically will use "production" for the installation folder. Note: The script forces the root name to be lowercase.
**Default is suggested to be production, but you may need to change it based on the environment you are deploying to. Ie: testserver might be called something else.

4. **Do you wish to create a backup of the existing reports?**:
   a. This will create a file backup of the report directory specified in the same directory deploy.bat is being run from inside a folder called Backups where it will create a folder based on datetime of backup. Ie: 04172014_110605 (MMDDYYYY_HHMISS).

5. **Do you wish to deploy core management reports**?
   a. If you enter "y", it will redeploy the core management reports

6. **Do you wish to upload Forms**?
   a. If you enter "y", the script will deploy any .rdl files into the installations Forms folder that you have previously saved into the script folder called "Upload Forms" including the folder below it called SubReports.

7. **Do you wish to upload Diagnostic Templates**?
   a. If you enter "y", the script will deploy any .rdl files into the installations Diagnostic Templates folder that you have previously saved into the script folder called "Upload Diagnostic Templates" including the folder below it called SubReports.

8. **Do you wish to upload Custom Management Reports?**
   a. Entering "Y" will copy any .rdl files you've copied under the deployment folder called Upload Custom Management Reports onto the server under Management Reports\Custom\Uploads directory

9. **Do you wish to create a datasource**?
   a. If you select "y" you will get prompted for more information about the datasource you wish to create. You only need to create a datasource, if this is a new installation. No need to do this if you are upgrading an existing installation. The datasource gets created in the root of the folder from step 3. The datasource will be called RISDataSource.

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

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

2. **Enter database name**:
   a. This is the name of the database on the database server
   ex. rRIS_Site

3. **Enter report schema user name**:   ex. The account that the datasource will use to connect to the database ie: SA. (For security reasons "sa" is not recommended)

4. **Enter report schema password**:

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