

# User Release Notes

for eRAD RIS  
Version 1.0  
Build 31

**Table of Contents**

1. Purpose..... 3

2. Intended Audience ..... 3

3. Installing/Accessing the Application ..... 3

4. New Features and Enhancements ..... 4

    Mammo Callbacks, Recalls, Repeats..... 4

    Mammo Follow Up – Breast Density ..... 11

    Mammo Follow Up – Contact Logging..... 12

    Mammo Layletter Printing..... 14

    Mammo Reminder, Short Term Followup, Call Back Printing..... 21

    Mammo Follow Up Worklists ..... 26

    Password Change ..... 30

    Removal of Philips Device Control and Default Device ..... 32

    Reporting – RegFreeCom ..... 35

    Rewind Desktop Interactive Dictation..... 36

    Tentatively Sign (AKA Sign Opps)..... 37

    Updated Meaningful Use Permissions..... 39

    Miscellaneous High Priority Items ..... 40

5. Resolved Defects ..... 41

6. Known Limitations ..... 43

## **1. Purpose**

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 31. This version of eRAD RIS is referred to as Build 1.31.

Only features which can be visually demonstrated to the user will be outlined in this document.

## **2. Intended Audience**

This document is created by the RIS Development team for the RadNet RIS management team.

## **3. Installing/Accessing the Application**

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at <http://mdbal01rdtweb/Wiki/>

Under the RIS menu, click on the rRIS page. The credentials to access the page are:

Username: rRIS

Password: Summerside

*Please note that Build 1.31 is considered a new core release of the application and will require a reinstallation of eRAD RIS. This is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)*

If you experience difficulties accessing the application, please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

## 4. New Features and Enhancements

### Mammo Callbacks, Recalls, Repeats

Birad and Recommendation both existed in previous builds. A new directory titled Mammography has been added to the Administration> Configure list of. Under this new directory are lookup tables for Breast Density, Pathology, MammoBiopsyTechnique, MammoBiopsyStage, MammoLetterConfig, and FollowUpType. The BIRAD and Recommendation lookups will be moved to this directory in the next build.

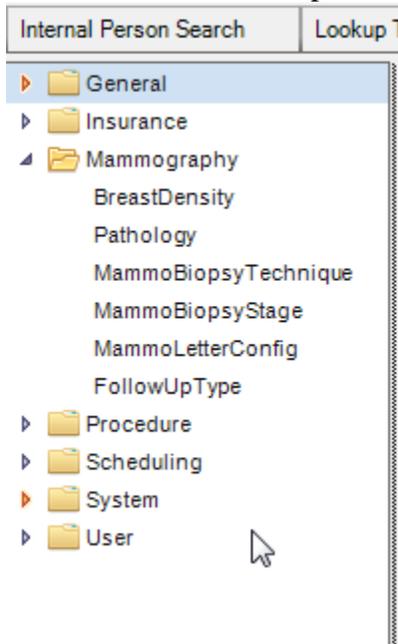


Figure 4.1 – New Configure directory titled “Mammography”

On a new install, an administrator can create BIRADS in the Birad editor and then create the Recommendations in the Recommendation editor.

By configuring the set of Recommendations for each BI-RADS level, the administrator can determine which short list of recommendations the Radiologist will see after indicating the BI-RADS code.

Tables - Birad x

Birad Code	Display Order	Description	Active																																																							
Contains: ▾	Equals: ▾	Contains: ▾	Contains: ▾																																																							
▸ 0	1	BI-RADS 0	Y																																																							
▸ 1	2	BI-RADS 1	Y																																																							
▸ 2	3	BI-RADS 2	Y																																																							
▾ 3	4	BI-RADS 3	Y																																																							
<table border="1"> <thead> <tr> <th>Birad Code</th> <th>Recommendation Code</th> <th>Practice Code</th> <th>Active</th> <th>Display Order</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>10M (10 months)</td> <td>Advanced Radiology</td> <td>Y</td> <td>21</td> </tr> <tr> <td>3</td> <td>11M (11 months)</td> <td>Advanced Radiology</td> <td>Y</td> <td>23</td> </tr> <tr> <td>3</td> <td>3M (3 months)</td> <td>Advanced Radiology</td> <td>Y</td> <td>13</td> </tr> <tr> <td>3</td> <td>4M (4 months)</td> <td>Advanced Radiology</td> <td>Y</td> <td>15</td> </tr> <tr> <td>3</td> <td>5M (5 months)</td> <td>Advanced Radiology</td> <td>Y</td> <td>16</td> </tr> <tr> <td>3</td> <td>6M (6 months)</td> <td>Advanced Radiology</td> <td>Y</td> <td>17</td> </tr> <tr> <td>3</td> <td>7M (7 months)</td> <td>Advanced Radiology</td> <td>Y</td> <td>18</td> </tr> <tr> <td>3</td> <td>8M (8 months)</td> <td>Advanced Radiology</td> <td>Y</td> <td>19</td> </tr> <tr> <td>3</td> <td>9M (9 months)</td> <td>Advanced Radiology</td> <td>Y</td> <td>20</td> </tr> <tr> <td colspan="5"> <a href="#">Click here to add a new row</a> </td> </tr> </tbody> </table>				Birad Code	Recommendation Code	Practice Code	Active	Display Order	3	10M (10 months)	Advanced Radiology	Y	21	3	11M (11 months)	Advanced Radiology	Y	23	3	3M (3 months)	Advanced Radiology	Y	13	3	4M (4 months)	Advanced Radiology	Y	15	3	5M (5 months)	Advanced Radiology	Y	16	3	6M (6 months)	Advanced Radiology	Y	17	3	7M (7 months)	Advanced Radiology	Y	18	3	8M (8 months)	Advanced Radiology	Y	19	3	9M (9 months)	Advanced Radiology	Y	20	<a href="#">Click here to add a new row</a>				
Birad Code	Recommendation Code	Practice Code	Active	Display Order																																																						
3	10M (10 months)	Advanced Radiology	Y	21																																																						
3	11M (11 months)	Advanced Radiology	Y	23																																																						
3	3M (3 months)	Advanced Radiology	Y	13																																																						
3	4M (4 months)	Advanced Radiology	Y	15																																																						
3	5M (5 months)	Advanced Radiology	Y	16																																																						
3	6M (6 months)	Advanced Radiology	Y	17																																																						
3	7M (7 months)	Advanced Radiology	Y	18																																																						
3	8M (8 months)	Advanced Radiology	Y	19																																																						
3	9M (9 months)	Advanced Radiology	Y	20																																																						
<a href="#">Click here to add a new row</a>																																																										
▸ 4	5	BI-RADS 4	Y																																																							
▸ 5	6	BI-RADS 5	Y																																																							
▸ 6	7	BI-RADS 6	Y																																																							
<a href="#">Click here to add a new row</a>																																																										

**Figure 4.2 – BIRAD editor. These are not expected to change after initial configuration**

Recommendations have been enhanced in the Mammography workflow in build 31. Looking at Figure 4.3 two new columns have been added to drive callbacks, recalls, invitations, and repeats. The Follow-up Days column was added to trigger the creation of a new order with a particular “target date” for scheduling. The procedure code column will determine which procedure code should be used for the new order. If procedure code is null, the new order will use the same procedure code as the original study.

Recommendation Code	Display Order	Description	Follow Up Days	Procedure Code	Active
10M	23	10 months	300		Y
11M	24	11 months	330		Y
3M	16	3 months	60		Y
4M	17	4 months	120		Y
5M	18	5 months	150		Y
6M	19	6 months	180		Y
7M	20	7 months	210		Y
8M	21	8 months	240		Y
9M	22	9 months	270		Y
A	25	Appropriate action should be taken.			Y
B	11	Biopsy should be considered			Y
D	10	Any decision to biopsy should be based on clinical ass...			Y
G	7	Ductography			Y
H	13	Histology using core biopsy			Y
L	12	Needle localization and biopsy			Y
M	2	Magnification views			Y
N	9	Normal interval followup			Y
O	6	Old film comparison			Y
P	1	Additional projections			Y
R	26	Technical Repeat			Y
S	3	Spot Compression			Y
T	14	Suggestive of malignancy - take appropriate action			Y
U	5	Ultrasound	6	US Breast Uni Or Bil (76645)	Y
V	4	Spot magnification view(s)			Y

**Figure 4.3 – Recommendation lookup**

Follow-up Orders are created as required when the Radiologist signs a report. The backend services will determine if a follow-up order is required by looking at the Radiologist’s recommendation.

A new order will not be created unless the Radiologist selects a recommendation that has an associated “Follow Up Days” or “Procedure Code”.

The following table shows how the status of the new order is determined:

Follow-Up Order Status	Condition
Callback	If the recommendation includes a procedure code, the callback status will be used. The order will have the procedure code that is indicated by the recommendation, instead of what was initially performed.
Short Term Follow Up	If the recommendation includes a follow-up days that is less than 365, the follow-up order will have a Short Term Follow Up status and a target schedule date of Date Of Service +

	follow-up days. Procedure code will be the same as the original study.
Invitation	If the recommendation includes a follow-up days that is 365 or greater, the follow-up order will have a status of Invitation and a target schedule date of Date Of Service + follow-up days. Procedure code will be the same as the original study.

BI-RADS play an indirect role in determining the behavior of the follow-up order creation process. The BI-RADS code will determine which recommendations are presented to the Radiologist, and the selected recommendation will determine the workflow from that point. BI-RADS 0, 4, and 5 are given special treatment however, even though follow-up orders are not automatically generated.

There is a BI-RADS 0 Follow-up Work list and a BI-RADS 4/5 Follow-up Work list from which the user can manually schedule additional procedures, log contact and follow-up attempts, enter biopsy and pathology information, etc. The 0 and 4/5 follow-up worklist and the biopsy, pathology, and contact logging will be discussed in separate documents.

Note: Invitations will not be generated for male patients as males are excluded from reminder letter workflow. The behavior that skips male patients for invitations will be enhanced to look at other criteria such as a patient or study level flag that indicates that an invitation/reminder letter should not be sent.

### **Follow-up Order attributes**

The follow-up order will have a status that is determined based on the logic in the section above. It will also have a key reference to the study that caused the creation of the order. The reference to the original study is required in case the Radiologist adds the report and changes the recommendation. In this case, the backend services will modify the existing follow-up order as appropriate (i.e. update the target schedule date and the status), in order to ensure we are not generating multiple follow-up orders for the same study.

In addition, a target date for scheduling will be set if applicable, based on the follow up days of the recommendation.

Status	Procedures	Order Date	Target Date	Referring	Last Name	First Name	MRN	F
Contains: ▼	Contains: ▼	Equals: ▼	Equals: ▼	Contains: ▼	Contains: ▼	Contains: ▼	Contains: ▼	C
CallBack	MA Digital Mammo Screen Uni [G0202UNI] - Breast	01-19-2012 9:16 AM		WILLIAM SAWAY	Hoye	Garcia	10915	1
CallBack	US Breast Uni Or Bil [76645] - Breast	01-19-2012 9:35 AM		WILLIAM SAWAY	Hoye	Garcia	10915	1
CallBack	US Breast Uni Or Bil [76645] - Breast/Left	01-19-2012 9:06 AM	01-25-2012 6:20 PM	Darcy Noye	Zoom	Zelda	10005	1
ShortTermFollowUp	MA DIGITAL MAMMO SCREEN BIL [G0202] - Breast	01-20-2012 11:14 AM	04-19-2012 12:18 PM	Darcy Noye	Jones	Jenna	10924	1
ShortTermFollowUp	MA DIGITAL MAMMO SCREEN BIL [G0202] - Breast	01-20-2012 11:21 AM	03-20-2012 12:23 PM	Jerry Piled	Hughes	Heather	10925	1

**Figure 4.4 – Target date from Mammo Follow Up Orders**

When a user attempts to schedule an order with a target schedule date, the scheduling screen should set the start date search criteria automatically. E.g. if a scheduler opens up a study 2 weeks before the target schedule date, the start date should be 2 weeks in the future, instead of set to the current date. The scheduler will have the ability to massage the start date range if required.

Search Criteria:

Region: Maryland

Practice: Advanced Radiology

Site: (all)

Start Date: 04-19-2012

End Date: 04-24-2012

Monday  
Tuesday  
Wednesday  
Thursday  
Friday  
Saturday  
Sunday

Monday  
Start Time: 7:00 AM  
End Time: 10:00 PM

Search

**Figure 4.5 – Search Criteria start date determined by the target date of the Mammo Follow Up.**

The target schedule date is currently calculated based on the date of service + the follow up days associated with the recommendation. We may need to add a “Back on schedule” checkbox for cases where the current study is a follow-up of a previous mammography exam and the patient was late. E.g. if a patient is supposed to come in every 6 months and they are two months late, “back on schedule” would massage the target date such that the patient is due back in 4 months.

Currently all follow-up orders will be visible in the Patient Folder. Call Backs and Invitations will be placed on a work list tentatively titled “Mammo Follow-Up Orders” which will be described in a separate document. Invitations will be used to help drive the reminder letter workflow, which will be described in a separate document.

### **Follow-up Order procedure code**

The procedure code for the Follow-up order will be the same as the original procedure, unless there is an override attached to the recommendation (e.g. mammo diag ultrasound breast). The system cannot currently replace a single procedure with 2 follow-up procedures.

In the event that there is no procedure code override attached to the recommendation, the follow-up order will use the same body part and laterality as the original study.

**Technical Repeats** (currently a known limitation is preventing this feature to be used. This will be corrected in the next build)

The Radiologist can sign a report with BI-RADS 0 and a recommendation of Technical Repeat. This will send the exam to a BI-RADS 0 Follow-Up worklist (discussed later). A user can then choose “Create Technical Repeat” once they have the patient on the phone and they are ready to schedule a new time.

The Technical Repeat will be a study that starts off in Scheduled status and has the same accession number as the original study.

Repeats are walked through the workflow and performed by the technologist as if they were a regular exam.

When the Radiologist picks up the Exam from the Exam Done Worklist, they will be prompted to create an addendum, and they should see both the original and the new images in PACS. The addendum will be associated with the original exam, not with the Technical Repeat. The tech notes from the technical repeat will be merged into the technotes from the original study.

After the Rad dictates or signs off on the addendum, the technical repeat will move to a final status of RepeatDone. It will be visible from Patient History but not from any of the other status driven worklists.

A Technical Repeat should bypass billing, the original exam itself is the study that will be billed.

Technical Repeats will not function as designed (with respect to opening the new images on the pacs) unless/until our PACS integration framework passes over the accession number (+MRN?) instead of simply sending over study instance UID.

Note: the reporting screen does not look for the recommendation description of “Technical Repeat”, it looks for the recommendation code that is specified by the system config setting: TechnicalRepeatRecommendationCode (in the futures branch this is set to “R” which maps to the recommendation code/description “R”/”Technical Repeat”).

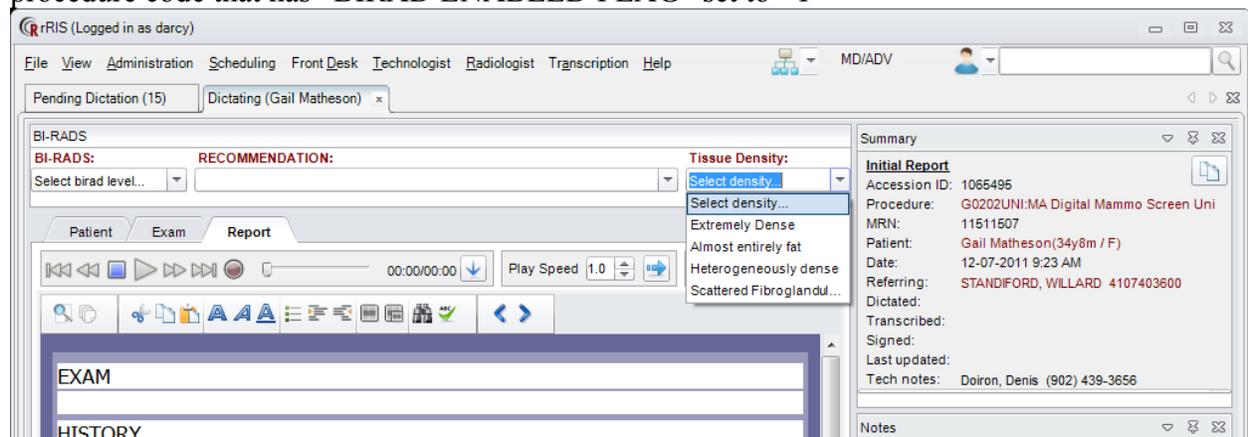
## Mammo Follow Up – Breast Density

A new lookup table has been added under the Mammography directory.

Breast Density Code	Description	Display Order	Active
ExtDensity	Extremely Dense	4	Y
Fatty	Almost entirely fat	1	Y
HetDensity	Heterogeneously dense	3	Y
ScatteredFibro	Scattered Fibroglandular densities	2	Y

**Figure 4.6 – Breast Density lookup table**

Breast Density table contains the values that will be available to the Radiologist user. The Tissue Density dropdown list mimics the behavior of the BI-RADS and Recommendation dropdown lists. These controls only become visible when the radiologist opens an exam that has a procedure code that has “BIRAD ENABLED FLAG” set to “Y”



**Figure 4.7 – Tissue Density drop down list.**

## Mammo Follow Up – Contact Logging

Contact logging was added to the Mammo Follow Up work lists of ACR Cat. 0 Follow-Up and ACR Cat. 4/5 Follow-Up. Columns on the work list track the “Last Follow Up date, Method of Last Follow-Up and Follow Up Attempts”.

Procedures	Referring	First Name	Last Name	Last Follow Up Date	Last Follow Up	Follow Up Attempts	Recommendation	Accession
REEN BIL [G0202] - Breast	Darcy Noye	Tina	Timeless	01-19-2012 5:19 PM	Phone Call	1	Magnification views	1010110
DIAG UNI & US BREAST [G0206CB/US] - Breast - Left	Darcy Noye	Zelda	Zoom				Ultrasound	1010116
n Uni [G0202UNI] - Breast	WILLIAM SAWAY	Garcia	Hoye	01-19-2012 5:03 PM	E-mail	2	Ultrasound	1010117
ag Bil [G0204CB] - Breast	Darcy Noye	Tina	Timeless				Technical Repeat	1010124
REEN BIL [G0202] - Breast	Laurie Graves	Dolly	Proude				Ultrasound	1010125
ag Bil [G0204CB] - Breast	Darcy Noye	Tina	Timeless				Spot Compression	1010127

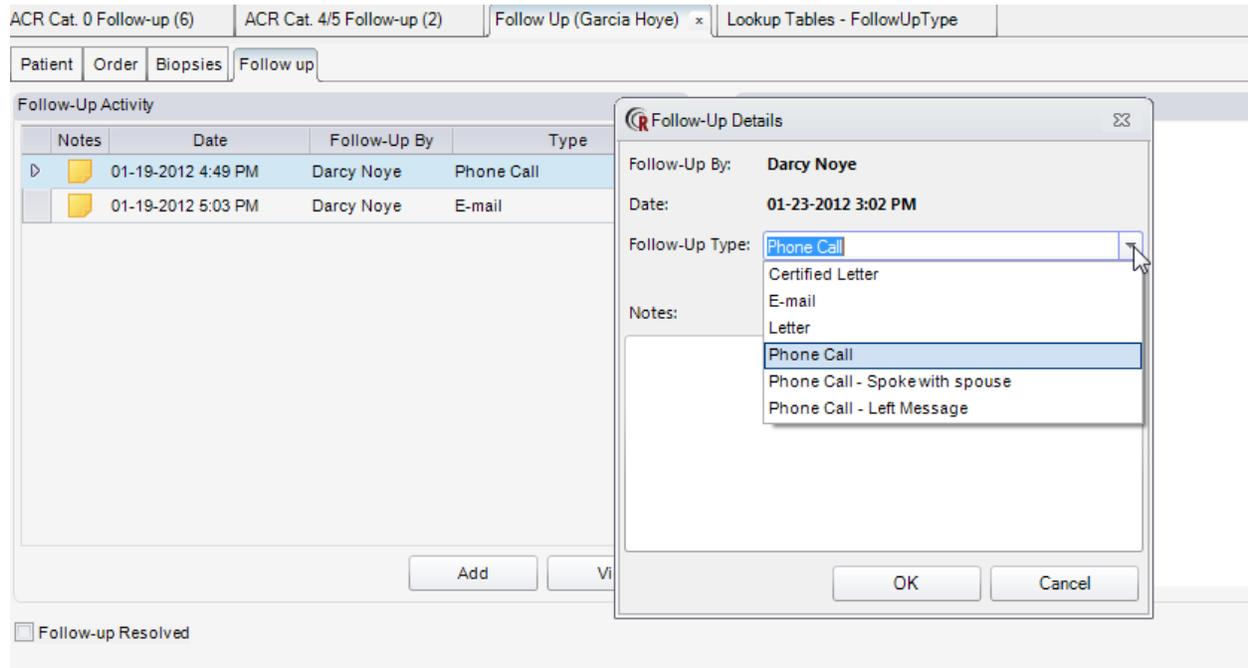
**Figure 4.8 – Follow Up work list displaying Follow Up columns**

The “Follow-Up’s” are created from the Follow-Up data window.

The main grid sits on the Follow Up tab and shows a summary of the follow-up activity on the current exam. The yellow sticker icon means there are notes/comments attached to the follow-up entry.

The user can double-click or highlight a follow-up and click view to see the full details on a pop-up dialog.

The Figure below shows the Follow Up tab displaying the contact attempts. The Add button has been selected displaying the Follow Up Details window.



**Figure 4.9 – Entering Follow Up.**

A list box within the window has various Follow Up values from a lookup table was created in the Administration -> Configuration screen to allow the administrator to define a set of Follow-Up codes for the user to choose from on the Follow-Up Details pop-up dialog. An administrator can configure new follow-up types as required to increase the value of the information on the work list.

## Mammo Layletter Printing

Lay Letter printing has been added to build 31. The SystemConfig table has new values to specify default letters for each BIRAD category.

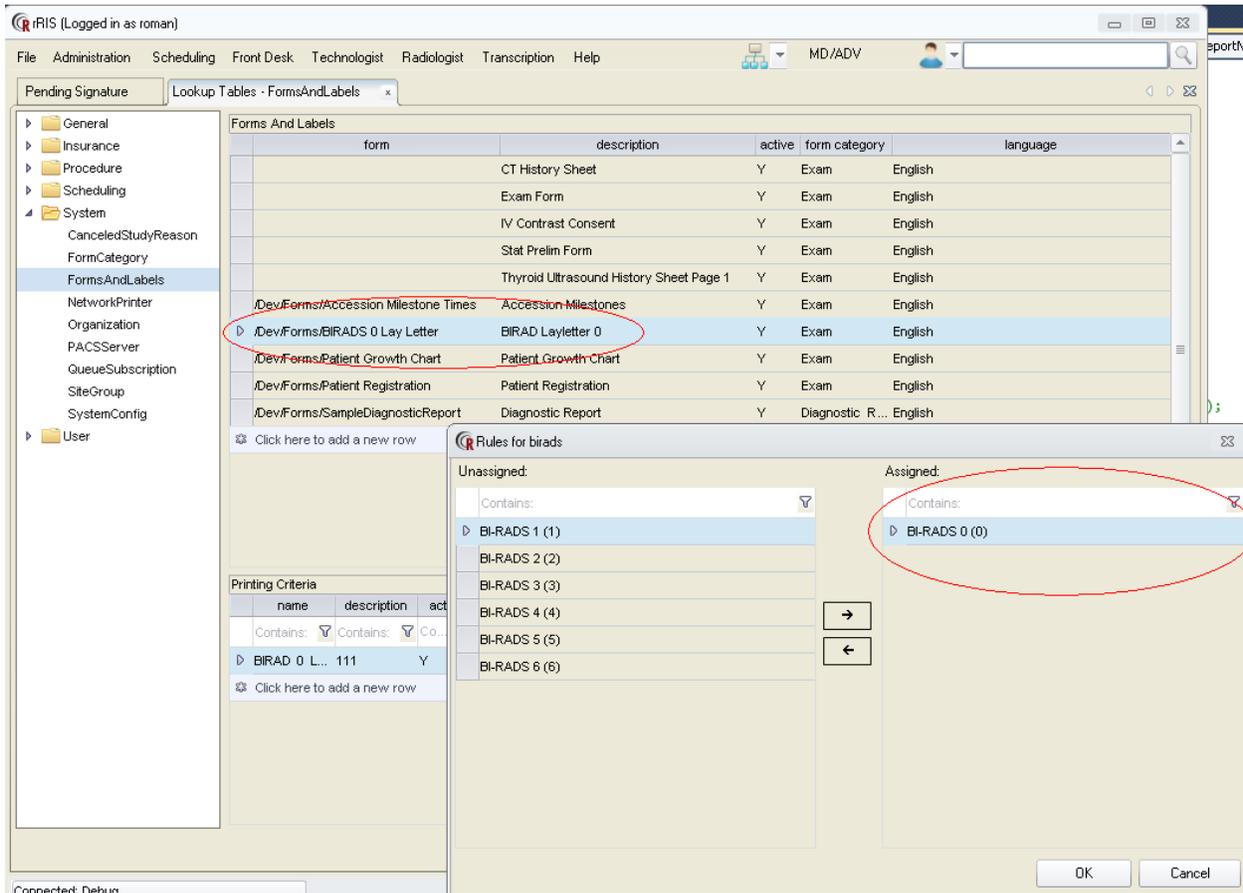
System Config Code	Value	Default	Description
Contains:	Contains:	Contains:	Contains:
LayletterBIRAD0Default	/QE Current/Forms/Generic Mammo Lay Let...		(value = path and name) The path and name...
LayletterBIRAD1Default	/QE Current/Forms/Generic Mammo Lay Let...		(value = path and name) The path and name...
LayletterBIRAD2Default	/QE Current/Forms/Generic Mammo Lay Let...		(value = path and name) The path and name...
LayletterBIRAD3Default	/QE Current/Forms/Generic Mammo Lay Let...		(value = path and name) The path and name...
LayletterBIRAD4Default	/QE Current/Forms/Generic Mammo Lay Let...		(value = path and name) The path and name...
LayletterBIRAD5Default	/QE Current/Forms/Generic Mammo Lay Let...		(value = path and name) The path and name...
LayletterBIRAD6Default	/QE Current/Forms/Generic Mammo Lay Let...		(value = path and name) The path and name...

**Figure 4.10 – SystemConfig table displaying new Config Codes for LayLetters**

The default values for system config layletter paths can be overridden by values in the Forms and Labels lookup editor.

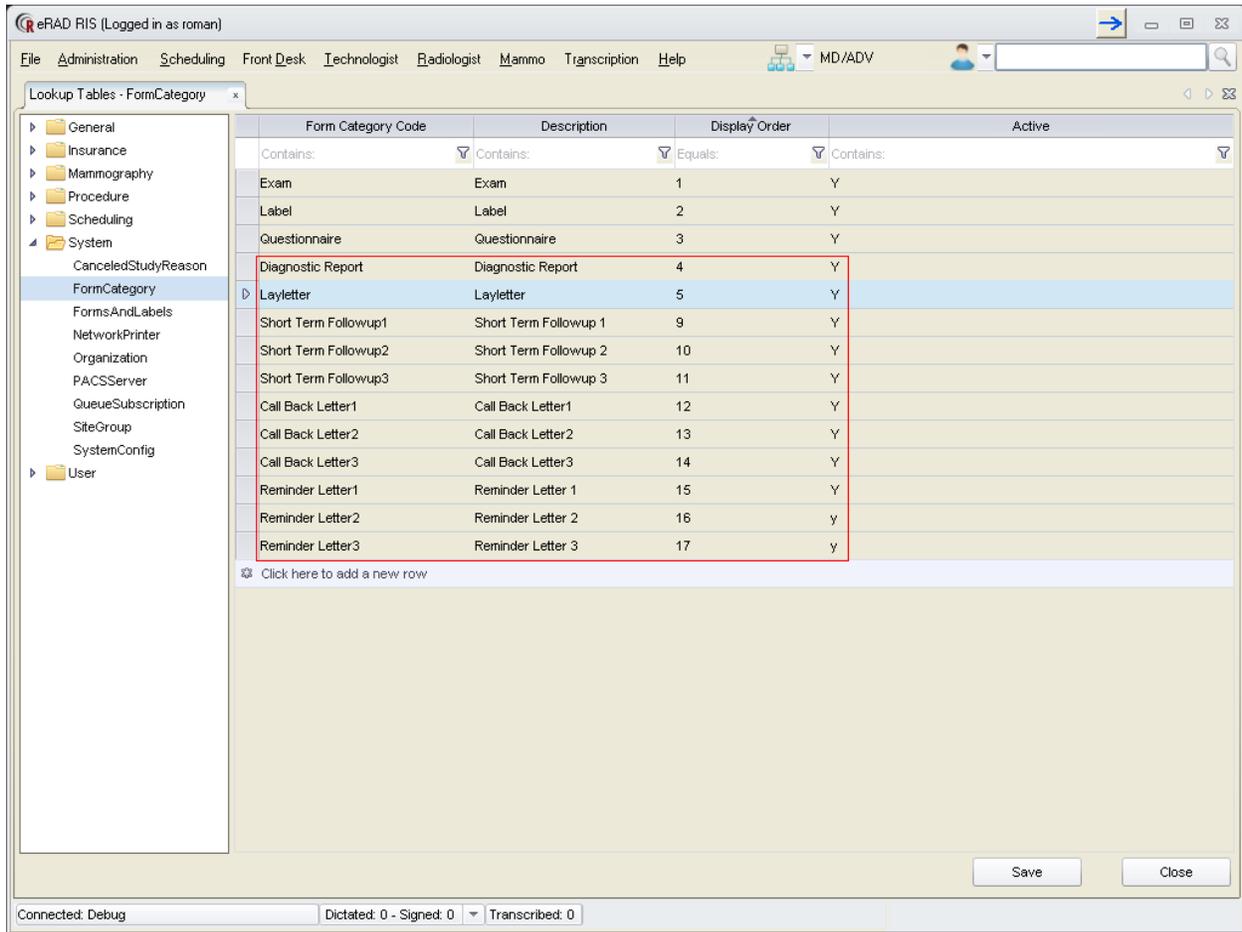
FORMS AND LABELS – Custom LayLetter for each appropriate BIRAD can be configured for each PRACTICE in the Forms and Labels configuration screen. If not defined, no letter will be available of on demand printing via right click print forms. On demand printing can still be accomplished via right click, distribution → distribution history and re-sending the layletter for back end printing.

If no custom template is defined for practice. Document distribution engine will use the system default Layletter template.



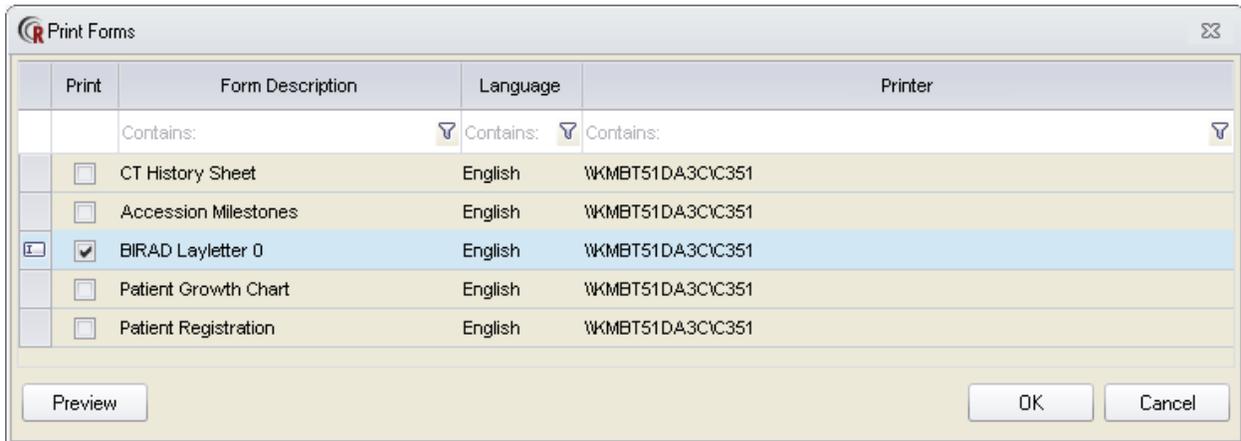
**Figure 4.11 – Forms and Labels displaying a configured BIRAD Layletter**

FORM CATEGORIES - Form categories for mammography letter forms have been made static ( system locked – for mammography and other purposes. Categories “Diagnostic Report”, “Layletter”, “Recall Letter”, “Call Back Letter” , “Short Term Followup” → system will not allow a user to delete or change the name of these 3 categories.



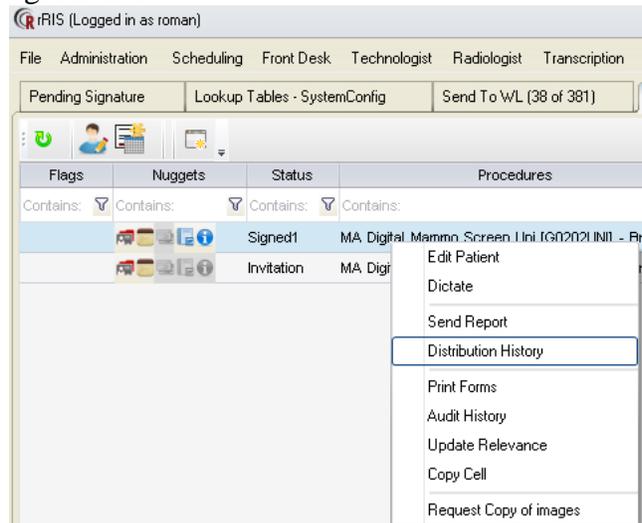
**Figure 4.12 – Form Category for Layletters, Callback, Short Term Follow Up and Reminder Letters**

If patients diagnosis BIRAD code / PRACTICE matches the layletter code assigned and the study is in “Signed1” status, the letter will be available for printing from the patient history work list, by right clicking the study and selecting “Print Forms”. (To print to the local printer)



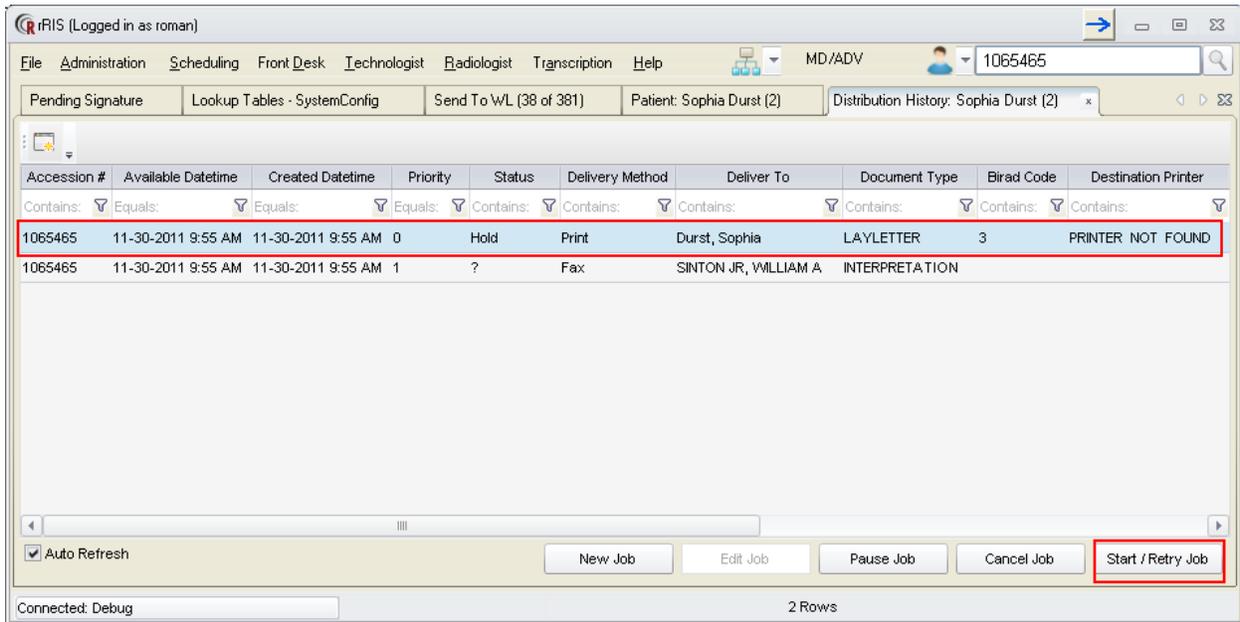
**Figure 4.13 – Print Forms displaying Layletter specified in Forms and Labels lookup editor**

Alternative method of on demand printing is by accessing the document distribution history via right click.



**Figure 4.14 – Accessing Distribution History from patient folder.**

Selecting the layletter for the exam and hitting the “Start / Restart Job” to print a copy of the letter to the back end printer.



**Figure 4.15 – Distribution History Work List**

**NOTE:** Document Distribution History work list will not allow a user to resume a Layletter job that was cancelled by the DDE engine (as in this case a newer version / newer diagnosis layletter was created). Only user cancelled layletters can be retried.

When the letter is created, automatically printed or (replaced with a newer version by the system) an entry will be logged in the Audit History:

The screenshot shows the 'Audit History' window in the eRAD RIS application. The window title is 'rRIS (Logged in as roman)'. The breadcrumb navigation shows 'File Administration Scheduling Front Desk Technologist Radiologist Transcription Help' and 'MD/ADV'. The patient information is 'Alda Phramany (1)' and the audit is for 'Alda Phramany'. The filters are set to 'Study' and 'Include Retrievals'. The table below lists the audit history entries.

Date	Description	Notes	User Id	Accession Number	Order Number	Status
11-15-2011 2:50 PM	Print Letter	Letter BIRADS 0 Lay Letter was printed using Background Printing.	roman	1065390	1064142	
11-08-2011 4:35 PM	UI_ReportSigned	Study updated	roman	1065390	1064142	Signed1
11-08-2011 4:35 PM	Study Retrieved		roman	1065390	1064142	ExamDone
11-08-2011 4:34 PM	Study Retrieved		roman	1065390	1064142	ExamDone
11-08-2011 4:12 PM	Study Retrieved		roman	1065390	1064142	ExamDone
11-08-2011 4:12 PM	Study Retrieved		roman	1065390	1064142	ExamDone
11-08-2011 4:12 PM	Order Retrieved		roman		1064142	OrderSigned
11-08-2011 4:12 PM	Study Completed	Set Study Status to ExamDone	roman	1065390	1064142	Started
11-08-2011 4:12 PM	Study Updated	Study updated	roman	1065390	1064142	Started
11-08-2011 4:12 PM	Study Retrieved		roman	1065390	1064142	Started
11-08-2011 4:12 PM	UI_StudyStarted	Study updated	roman	1065390	1064142	Started
11-08-2011 4:12 PM	Study Retrieved		roman	1065390	1064142	Scheduled
11-08-2011 4:10 PM	Study Scheduled	Study updated	roman	1065390	1064142	Scheduled

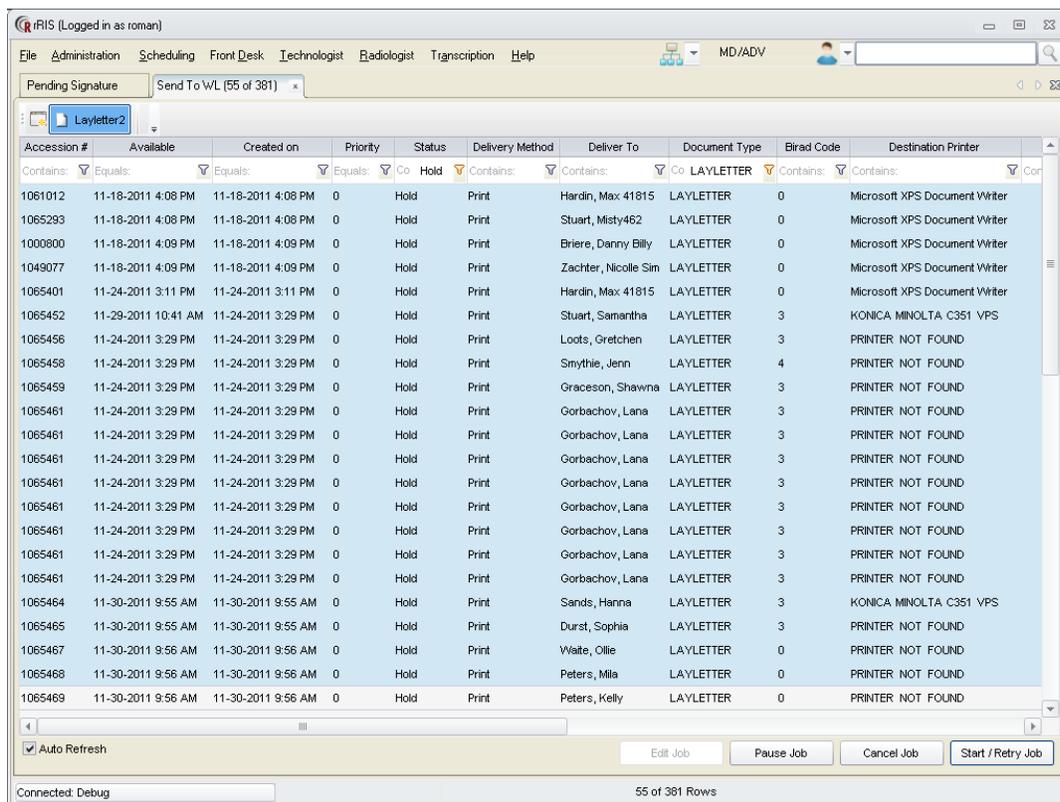
**Figure 4.16 – Audit History**

Also, all user actions for putting the job on Hold, Cancelling, Starting / Retrying the job will be audited to the system audit log.

**BULK Layletter Printing Workflow:**

Layletters will be automatically submitted to the Document Distribution Engine when an exam is Signed. The printer selection will be made in the same way the DDE engine currently selects the printer for diagnostic reports. (BASED on network printer configured to the Site). DDE back end printing Layletter jobs when queued will be automatically placed in HOLD status (not to tie up the printer). Administrative staff will need to open the DDE work list at the end of the day, multi select the layletters to be printed and select to START the jobs. (Recommend creating a LAYLETTER filtered view on the Document Distribution Work list for this purpose).

While the Job is in any status other than Completed, if diagnosis is changed on the exam ( ex. Addendum with different BIRAD reading), the lay letter in the DDE worklist will be cancelled and a new job with a newer letter will be generated.



**Figure 4.17 – Send To work list, printing bulk layletters**

Document Distribution Engine will attempt to dynamically pick a template for each Layletter as per configuration in the FORMS and LABELS screen. (Considering only criteria of BIRAD + PRACTICE).

If there is no template specified for (BIRAD + PRACTICE), DDE engine will use a System template for BIRAD from the SystemConfiguration table. If for some reason multiple templates are configured for (BIRAD + PRACTICE) → mis-configuration. DDE engine will pick the first available template.

Edit Job → Edit Job button is disabled on the DDE work list when working with a lay letter. Edit Job button is specific to sending diagnostic reports (to change fax number or recipient) so not applicable to layletters.

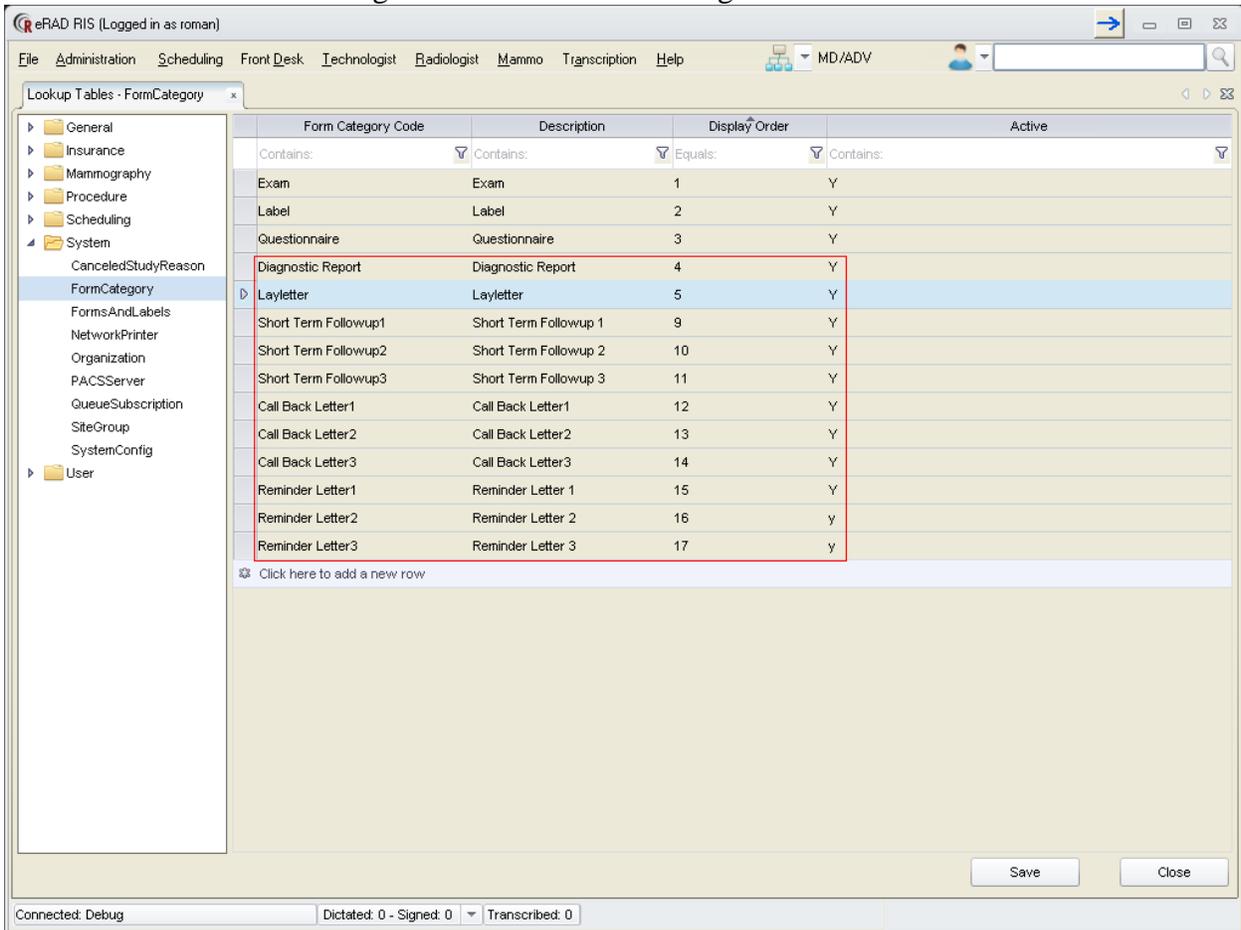
## Mammo Reminder, Short Term Followup, Call Back Printing

A method to print Reminder, Short Term Followup and Call Back letter printing was needed.

These letters

Configuration:

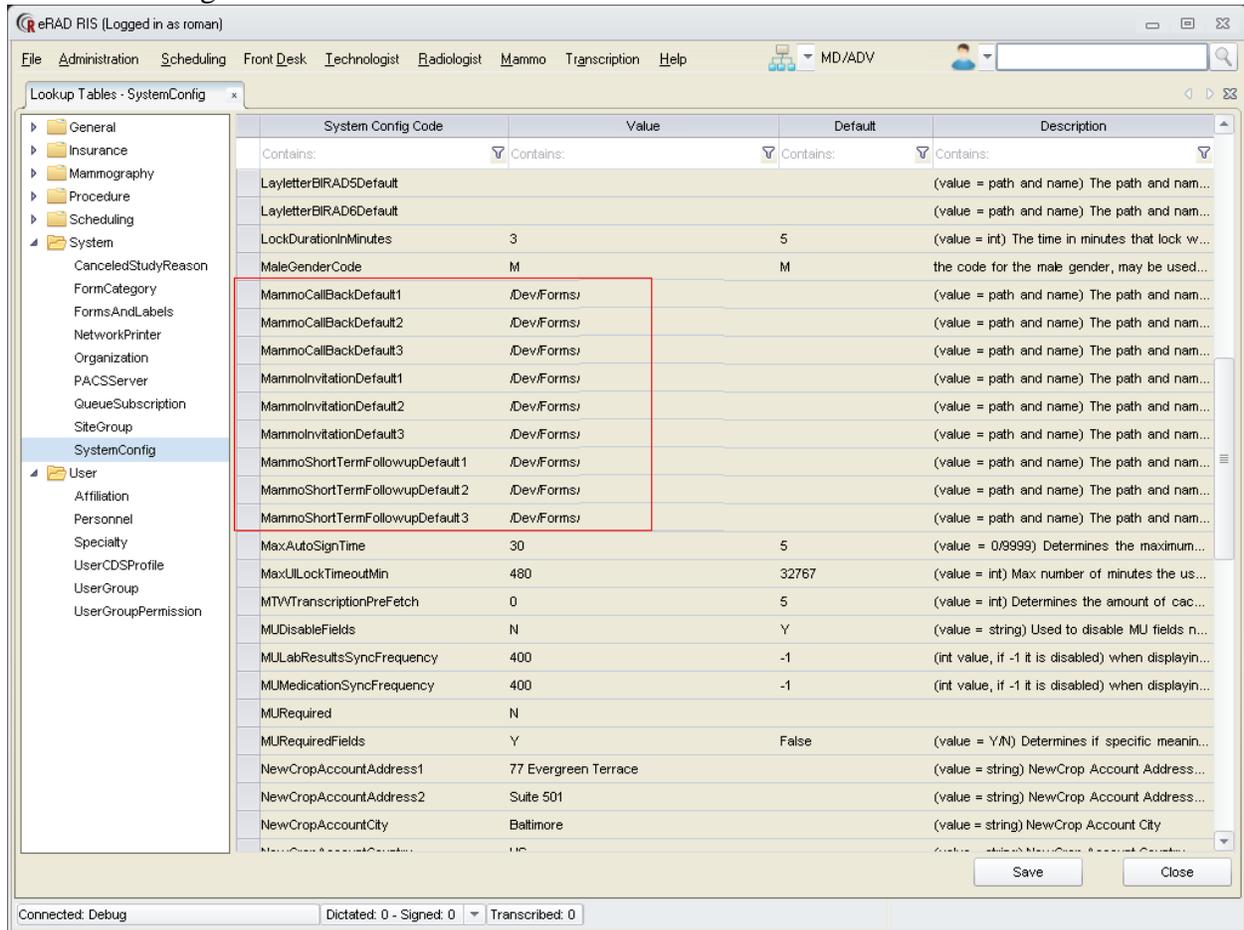
**FORM CATEGORIES** - Form categories for mammography letter forms have been made static (system locked – for mammography and other purposes. Categories “Diagnostic Report”, “Layletter”, “Recall Letter”, “Call Back Letter”, “Short Term Followup” → system will not allow a user to delete or change the name of these 3 categories.



**Figure 4.18 – Form categories for Short Term, Callback and Reminder letters created**

FORMS AND LABELS – 3 Custom letters can be created for each letter category for each PRACTICE in the Forms and Labels configuration screen. If not defined, a system default letter will be used.

Mapping a mammography letter to PRACTICE is the only mapping configuration Document Distribution Engine uses.



**Figure 4.19 – SystemConfig values for default letter templates**

**MAMMOGRAPHY LETTER CONFIGURATION ( # letters, and timeframes)**

There are 3 SYSTEM DEFAULT form categories (categories that have NO association to any PRACTICE or SITE) defined to be used as system wide defaults. These should not be deleted! Using the Mammography Letter Configuration screen each practice or site can populate 1,2 or 3 letters for each category. The number of letters a site or practice had defined will control how many letters they will be configured to print.

So if system defaults are used → all 3 letters are available.

If Site Mapped 2 Reminder letters → they will only have access to print 2 reminder letters.

If Site Mapped 3 Call Back letters → site will have access to 3 Call back letters.

Practice Code	Site Code	Form Category Code	Timeframe To Target	Display Order	Description	Active
Contains: ▾	Contains: ▾	Contains: ▾	Contains: ▾	Equals: ▾	Contains: ▾	Contains: ▾
		Reminder Letter1	-60	1	60 days Prior to Target	Y
		Reminder Letter2	-30	2	30 days Prior to Target	Y
		Reminder Letter3	+30	3	30 days After Target	Y
		Short Term Followup1	-60	12		Y
		Short Term Followup2	-30	13		Y
		Short Term Followup3	+30	14		Y
		Call Back Letter1	-14	15		Y
		Call Back Letter2	-7	16		Y
		Call Back Letter3	+14	17		Y
Advanced Radiology	NS (New site just bought)	Call Back Letter1	-90		90 to target - Custom for Advanced	Y
Advanced Radiology	NS (New site just bought)	Call Back Letter2	-45		45 to target - Custom for Advanced	Y

**Figure 4.20 – MammoLetterConfig lookup table**

Time Frames for letters. Time frames for letters can be customized on system wide or if Site defined their own category letters (time frame can be set just for practice or just for site category).

Reminder Letters → are used for orders of type “Invitation”

Short Term Followup Letters → are used for orders of type “ShortTermFolloup”

Call Back Letters → are used for orders of type “CallBack”

Each order has a defined “Target Date” for the patient to be scheduled. For orders of type “Inviation” and “ShortTermFolloup” the Target date is determined based on the “Recommendation” that the radiologist specified.

For orders of type “CallBack” the intent is for the patient to come back as soon as possible, so the **Target Date is set to the current date** (when **the layletter is printed** for the corresponding exam).

**TIME FRAME CALCULATION:** The Mammography Letters work list has a calculated column field that will calculate (which letter should be sent to the patient) for every “Invitation”, “ShortTermFolloup”, “CallBack” order. The calculation is performed based on order “Target Date” and the configuration that is entered in the MammoLetterConfig screen.

For example: Letter 1 Configuration of **-60 days to Target Date**, on the work list will calculate to send the patient Letter 1 until letter 1 is printed or calculation fall into next criteria example Letter 2 – **30 days to Target Date**.

So the system will recommend Letter 1 to be printed for the patient until the letter is printed or the calculation falls into the next timeframe (ex. Letter 2 timeframe).

**Deceased Handling:** If a patient has a deceased flag specified on the patient record. System will not calculate a Mammography Letter for the patient. (Preventing printing).

**Ignored Reminder:** Calculated letter category will fall into **Ignored Reminder** calculation 2 weeks (14 days) after last letter has been sent to the patient. (Last letter could be letter 2, or 3 depending on configuration)

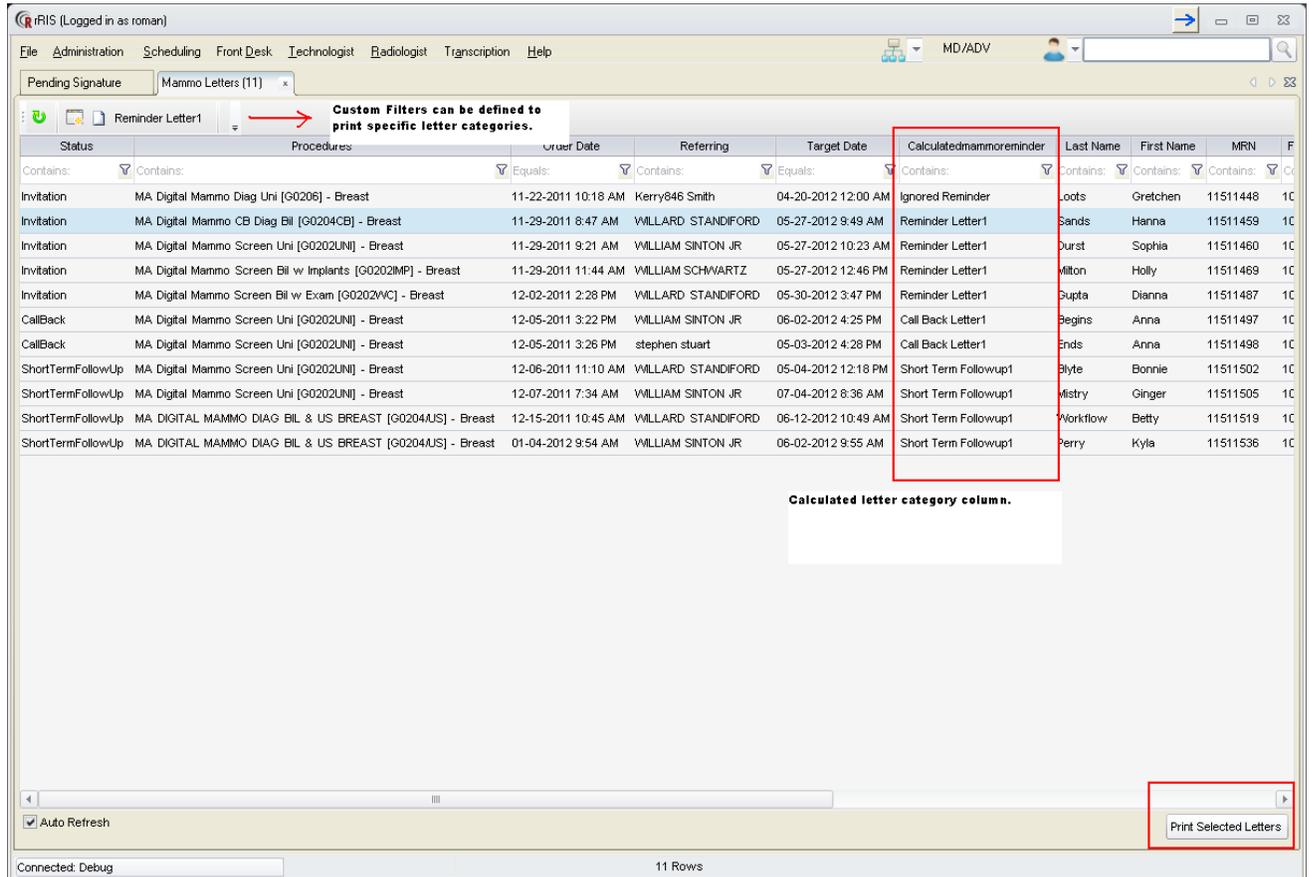
### BULK Mammography Letter Printing Workflow:

In order to bulk print letters, the designated staff member will need to load the Mammography Letter work list via Mammo menu → Letters.



Figure 4.21 – Mammo → Letters menu option

The user will then see all calculated letters due to be printed. Work list can be filtered down to see only specific letter categories. Once the work list is filtered to desired letters for printing, the user may use (CTRL –A) keyboard shortcut to select all items on the work list, and click the “Print Selected” button. This action will send all selected letters for printing to the Document Distribution Work list. The system does allow the user to submit letters of various types at the same time.



**Figure 4.22– Mammography letter work list**

## Mammo Follow Up Worklists

For the Mammography work flow there was a need to capture Mammo exams of BIRAD 0 and BIRAD 4/5 follow up’s was required. Two new work lists have been added in build 31. Each is described below.

### BI-RADS 0 Worklist

Flags	Status	Procedures	Referring	First Name	Last Name	Last Follow Up Date	Last Follow Up	Follow Up Attempts	Recommendation	Access
	Signed1	MA DIGITAL MAMMO SCREEN BIL [G0202] - Breast	Darcy Noye	Tina	Timeless	01-19-2012 5:19 PM	Phone Call	1	Magnification views	10101
	Signed1	MA DIGITAL MAMMO CB DIAG UNI & US BREAST [G0206CB/US] - Breast - Left	Darcy Noye	Zelda	Zoom				Ultrasound	10101
	Signed1	MA Digital Mammo Screen Uni [G0202UNI] - Breast	WILLIAM SAWAY	Garcia	Hoye	01-19-2012 5:03 PM	E-mail	2	Ultrasound	10101
	Signed1	MA Digital Mammo CB Diag Bil [G0204CB] - Breast	Darcy Noye	Tina	Timeless				Technical Repeat	10101
	Signed1	MA DIGITAL MAMMO SCREEN BIL [G0202] - Breast	Laurie Graves	Dolly	Proude				Ultrasound	10101
	Signed1	MA Digital Mammo CB Diag Bil [G0204CB] - Breast	Darcy Noye	Tina	Timeless				Spot Compression	10101

**Figure 4.23 – ACR Cat. 0 Follow-up work list**

Tentative Work list Tab Title: “ACR Cat. 0 Follow-up Work list”

Work list filter: show all signed studies with a BI-RADS code of 0, in the ReportSigned1 status, with mammo\_fup\_required\_flag = ‘Y’. When a BI-RADS 0 study is signed, it will automatically go to this work list. The study remains on the work list until a user opens the Post Exam screen and checks the “Follow-up Resolved” checkbox and saves the change to the database.

**Double click action:** Open Post Exam follow-up.

**Context menu items available from right click:**

- Patient folder,
- Audit History,
- Print Forms,
- Post Exam,
- Rescheduled Flag ... Set Follow up Rescheduled
- Rescheduled Flag ... Clear Follow up Rescheduled

**Columns:**

- Flags
- Status

- Procedures
- Referring
- First Name
- Last Name
- Accession #
- BI-RADS
- Technologist
- Signed By Radiologist
- MRN
- Performed End Date
- Recommendation
- Last Follow Up Date
- Last Follow Up (Type)
- Follow Up Attempts
- Signed Date
- Rescheduled (Flag) – set automatically when the user schedules an exam from Post Exam -> Schedule, or manually (as a fail-safe) if the study gets scheduled in some other way
- Locked By – indicates the user, if any, who is currently working on the study.

### **Expected Workflow:**

Users will use this list to follow-up on BIRADS 0 studies. They can open Post Exam and schedule a follow-up study, and add follow-up activity (e.g. sent certified letter).

The study will not leave the work list at the point of scheduling. It will remain on the list until the exam is flagged as “Resolve Follow-Up”.

**BI-RADS 4/5 Work list**

Flags	Status	Procedures	Referring	First Name	Last Name	Accession#	BI-RADS	Assigned Tech	Signed By Radiologist	MRN	Performed E
Signed 1		MA DIGITAL MAMMO DIAG BIL & US BREAST [G0204/US] - Breast - Bilateral	Troy Muttony	Yolanda	Yeesh	1010115	4	Ian Power	Darcy Noye	10006	01-19-2012 5
Signed 1		MA Digital Mammo Screen Uni [G0202UNI] Breast	WILLIAM SAWAY	Stephanie	Powell	1010118	4	Denis Doiron	Darcy Aiken	10916	01-19-2012 9

**Figure 4.24 – ACR Cat. 4/5 Follow-up**

**Tentative Worklist Tab Title:** “ACR Cat. 4/5 Follow-up” (suggestions?)

**Worklist filter:** same as BI-RADS 0, except we filter for BI-RADS 4/5

**Double click action:** same as BI-RADS 0

**Context menu items available from right click:** same as BI-RADS 0

**Columns:** same as BI-RADS 0

**Expected Workflow:** same as BI-RADS 0 except the user may also enter biopsy and pathology information on the Post Exam follow-up screen.

Again, to be clear, the studies on this list will not fall off until the user “resolves follow-up” on the Post Exam screen.

**CallBack and Short Term Follow-up Worklist**

**Tentative Worklist Tab Title:** “Mammo Follow Up Orders” (suggestions?)

**Worklist filter:** order status is “CallBack” or “ShortTermFollowUp” and target date (for scheduling) is specified. (suggestions? Callbacks may not need to have a target date, perhaps we should only look at those 2 statuses).

**Double click action:** Schedule Order

**Context menu items:** to be determined

**Columns:**

- Status
- Procedures
- Order Date
- Referring
- Last Name
- First Name
- MRN
- Filler Order Number
- City
- Insurance Carrier
- PreCert Required
- Patient Type
- Target Date (for scheduling)
- Primary Phone Number

These columns are preliminary and most were borrowed from the Orders To Schedule WL.

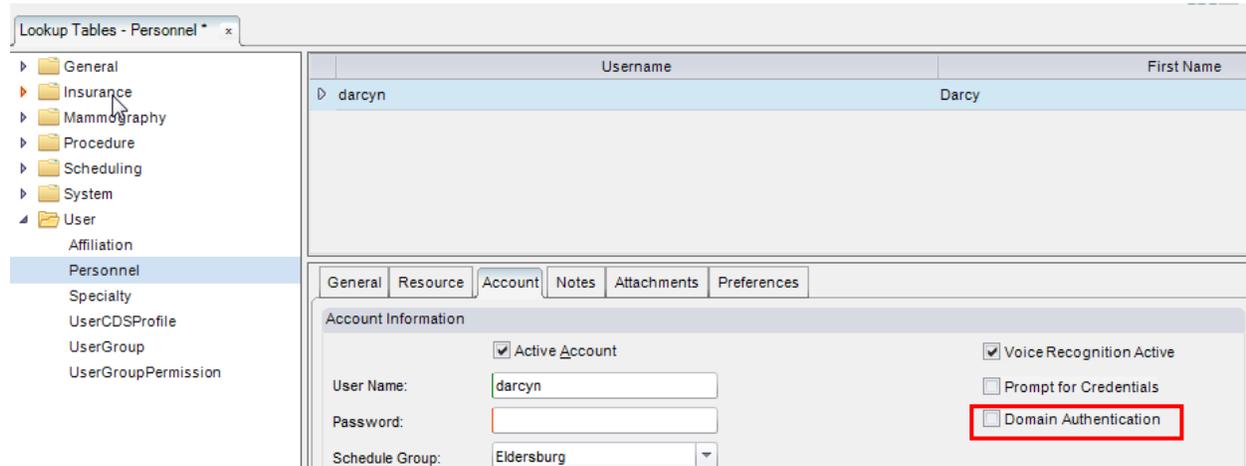
**Expected Workflow:**

Callbacks and Short Term Follow Up orders will be created automatically when the Rad signs off on a study with a special recommendation (documented elsewhere). Other users will work this list, and as the exam is scheduled it will automatically fall off the Follow Up Orders list.

## Password Change

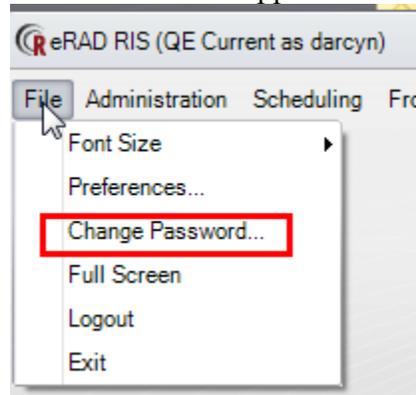
In build 31 the ability to change your password from within the RIS has been added.

A new check box called “Domain Authentication” on the Account tab of the Personnel editor has been added.



**Figure 4.25 – Domain Authentication flag**

When this flag is **not** set (unchecked) a new menu option under the File menu called “Change Password...” will appear.

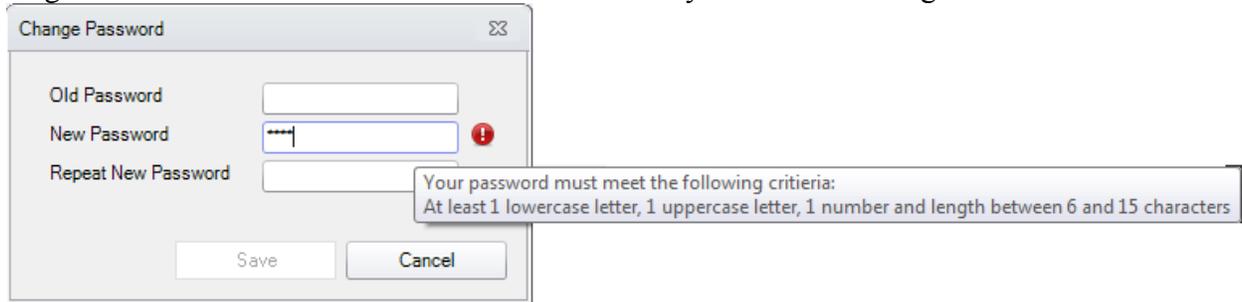


**Figure 4.26 – Change Password Menu item activated when the Flag for Domain Authentication is unchecked in the personnel editor.**

Selecting this menu option will open the Change Password dialogue window. You must enter in the correct current password. If you enter the current password incorrectly it will prompt on save that it has been entered incorrectly.

The New Password and the Repeat New Password must match.

The New Password must have “At least 1 lowercase letter, 1 uppercase letter, 1 number and length between 6 and 15 characters”. This is currently the default setting.



**Figure 4.27 – Change Password dialogue box**

To change the RIS password the user must enter their old password, and re-enter their new password twice.

**Validations:**

The new password must meet the Strong Password validation. This validation is configured by setting a regex value in the Config Table item: StrongPasswordRegex.

For example, (and the default value is)

```
(?=^.{6,15}$)(?=.*\d)(?=.*[a-z])(?=.*[A-Z])(?=.*[!@#$%^&*()_+]{1}){1}(?!.*\s).*
```

This translates to at least 1 lowercase letter, 1 uppercase letter, 1 number and length between 6 and 15 characters.

If this regex is passed, a checkmark appears beside the new password field. Otherwise, an exclamation mark will appear. The tooltip on the exclamation mark will explain the regex validation in human readable terms. This human readable version comes from another Config Table Entry called StrongPasswordRegexHing, which is defaulted to “At least 1 lowercase letter, 1 uppercase letter, 1 number and length between 6 and 15 characters”

## Removal of Philips Device Control and Default Device

In previous builds it was noted that the playback of dictations was not being played back on the Philips SpeechMike, and were being played back on the systems default device. To avoid conflicting hardware it is being suggested that the Philips SpeechMike should not be the default recording /playback device.

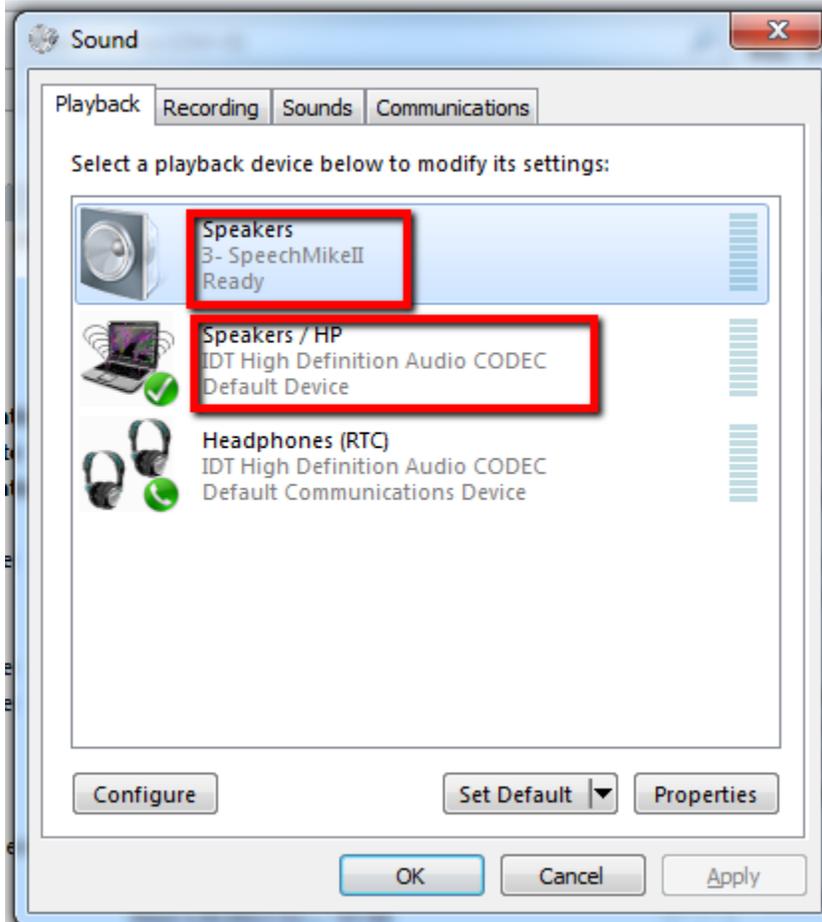


Figure 4.28 – SpeechMike is not default playback device

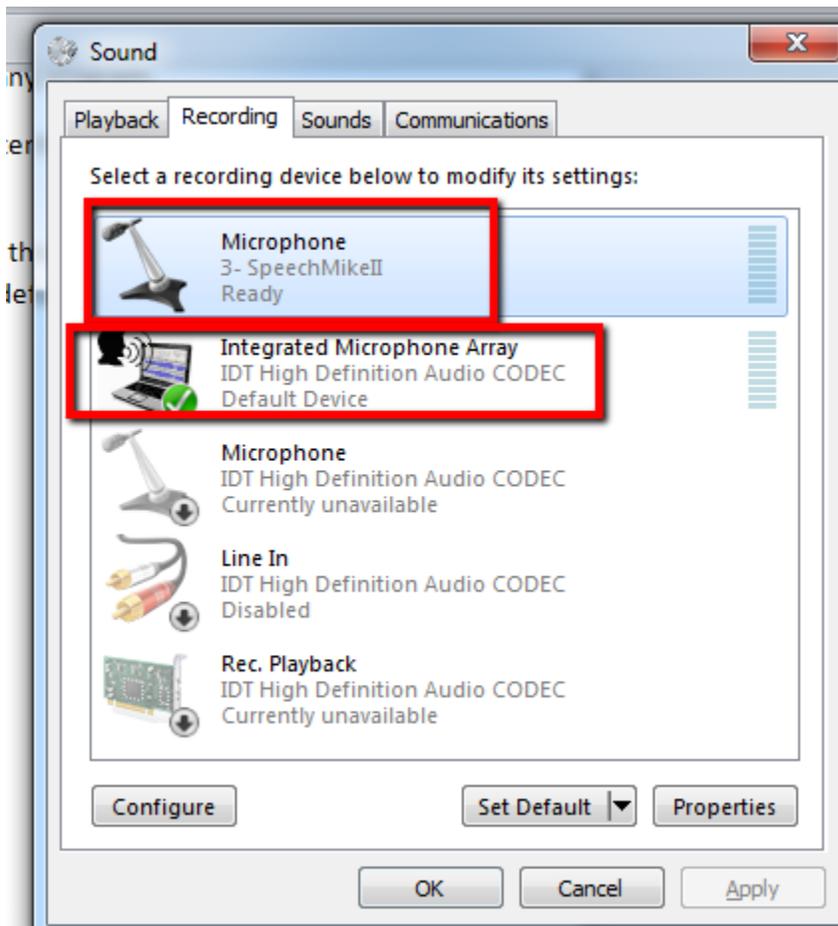


Figure 4.29 – Philips SpeechMike is not the default recording device

Selecting the User Preference Interactive Dictation flag will activate the Interactive Dictation data pane. Selecting the Mic Wizard button will open the MicConfig window. On the second step of the MicConfig wizard the user can select the ERAD RIS recording and playback devices. If the Philips SpeechMike is the default recording / playback device, the user will also be informed on this page.

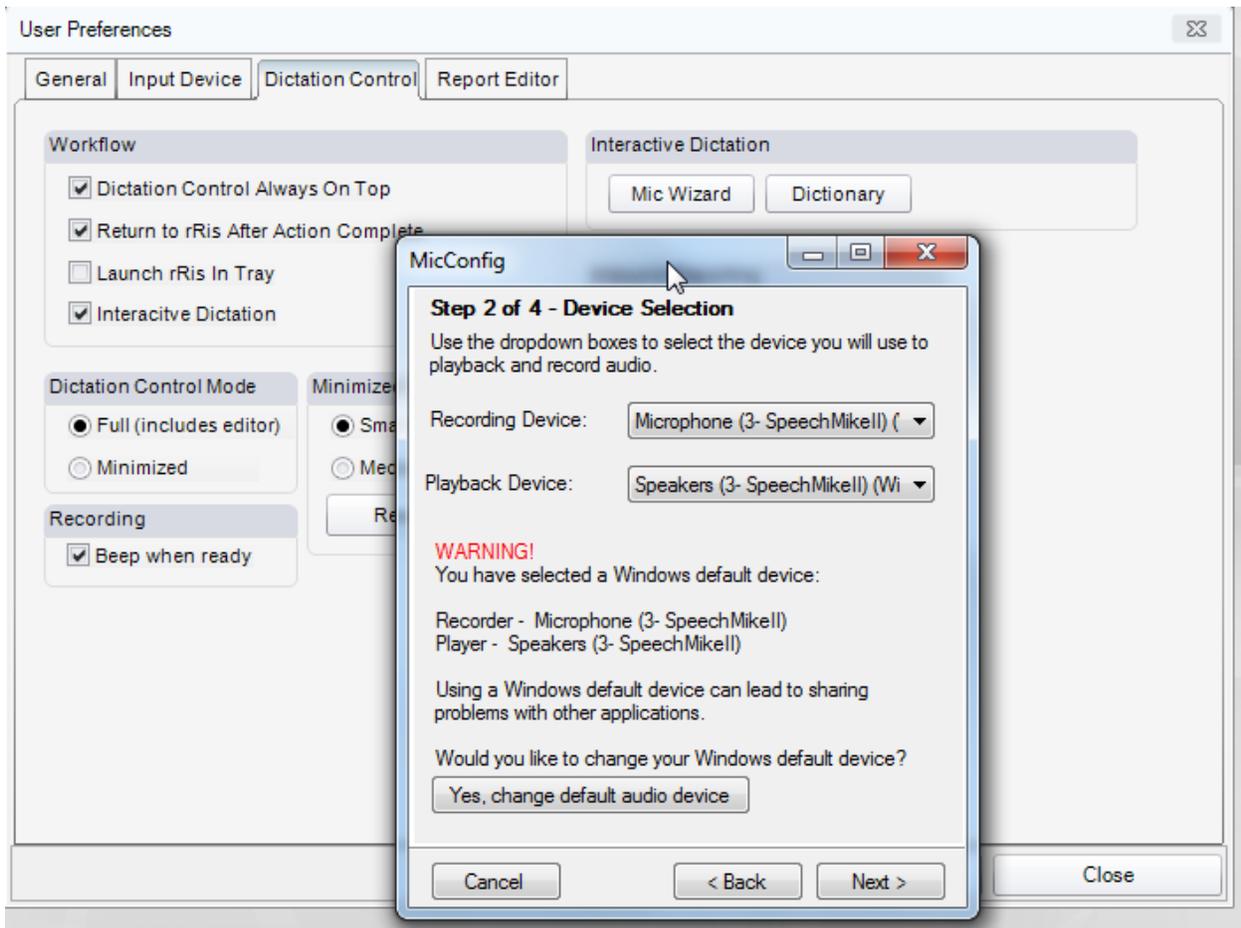


Figure 4.30 – MicConfig wizard. Step 2 of 4 Device Selection

## **Reporting – RegFreeCom**

We have provided the manifest files along with our application files in the installation directory. Now with these new files they will register themselves on demand.

The two files we use with regfree com are AnyModalCaptureCtrl.dll and AnyModalEditCtrl2.dll. We added four files to the root of the MainApp project. They are:

AnyModalCaptureCtrl.dll,

AnyModalCaptureCtrl.sxs.manifest,

AnyModalEditCtrl2.dll and

AnyModalEditCtrl2.sxs.manifest

These files are set to copy into the build directory and will need to be updated as new releases are provided from MModal. Note that the manifest files typically don't change unless the interface to either dll changes.

## Rewind Desktop Interactive Dictation

In previous builds that included Interactive Dictation we didn't have the ability to rewind the dictation when working in Interactive Mode. MModal will need to supply a "true" fix for this deficiency. Until then this temporary fix for rewind has been added into the application. There is no visual representation of the rewinding action (bouncing ball affect) in the document.

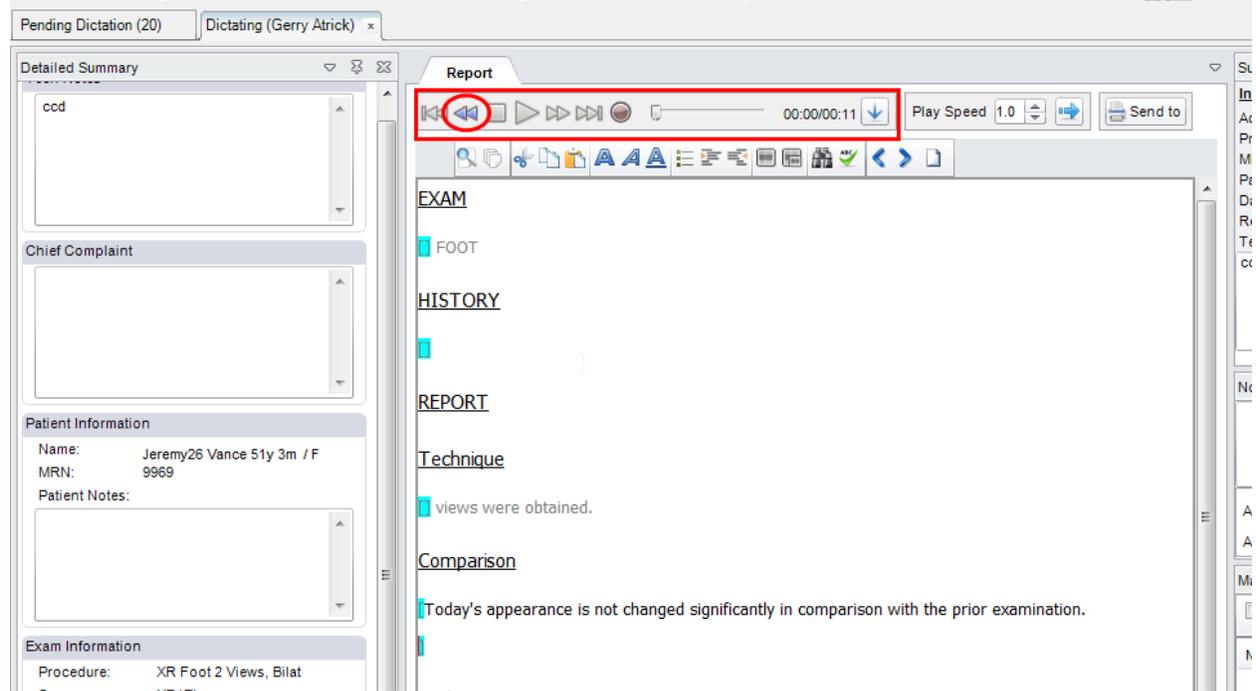


Figure 4.31 – Interactive Dictation rewind feature. Rewinding from Philips Speechmike

## Tentatively Sign (AKA Sign Opps)

A new status of *TentativelySigned1* was created which will hold a signed report for a configurable amount of time.

The screenshot shows a software interface with a window titled 'Tentatively Signed (1)' and 'Pending Signature (29)'. Below the title bar is a toolbar with a refresh icon and a search icon. The main area is a table with the following columns: Flags, Status, Procedures, Scheduled Date, First Name, and Last. The table contains one record with the following data: Status: TentativelySigned1, Procedures: CT Abdomen W & P..., Scheduled Date: 12-28-2011 11..., First Name: Greta, Last: Gable.

Flags	Status	Procedures	Scheduled Date	First Name	Last
Contains: [filter]	Contains: [filter]	Contains: [filter]	Equals: [filter]	Contains: [filter]	Conta
	TentativelySigned1	CT Abdomen W & P...	12-28-2011 11...	Greta	Gable

Figure 4.32 - Tentatively Signed Work List displaying 1 record in TentativelySigned1 status

Once the time has elapsed we have a service that will pick the job up and send it through for report distribution and billing.

A new System Config entry called **MaxAutoSignTime** has been created to (1.) assign a default value for time allotted to hold an exam in TentativelySigned1 status and (2.) allows the user to set a different system time greater or less than the default time.

The screenshot shows a 'Lookup Tables - SystemConfig' window. On the left is a tree view with categories: General, Insurance, Mammography, Procedure, Scheduling, and System. The 'System' category is expanded, showing sub-items like CanceledStudyReason, FormCategory, FormsAndLabels, NetworkPrinter, Organization, PACServer, QueueSubscription, SiteGroup, and SystemConfig. The main table displays the following data:

System Config Code	Value	Default	Description
MaxAutoSignTime	10	5	(value = 0/9999) Determines the maximum allowed ti...

Figure 4.33 – System Config table displaying MaxAutoSignTime

Four new access strings have been added for this feature:

**Clinical.UserPreferences.TentativeSigning** that will control if the user has access to turn the feature on or off in the User Preference screen. This would typically be added to an admin group who generally configures user preferences for each user via the Configuration screens. This access string may also be given to radiologist groups if they require the ability to change and manage this at that level.

**WL.TentativelySigned** was added to control access to the work list for radiologist or individual users.

**WL.TentativelySignedAll** – A work list that will display all Tentatively Signed records for all users. Usually only accessed by an Admin type user.

**Clinical.ReleaseTentativelySignedReport** was added to control access to the right click context menu to push the exam through.

The user preference Tentative Signing is accessible if the **Clinical.UserPreferences.TentativeSigning** access string is enabled. Checking it will enable the **hold time** spinner box. This hold time value is the amount of time before the report will be automatically moved to Signed status. The default value will be the default for the system configuration value **MaxAutoSignTime** or the value assigned to it. The user preference cannot be more than the value (default or user entered) of the System Config Code.

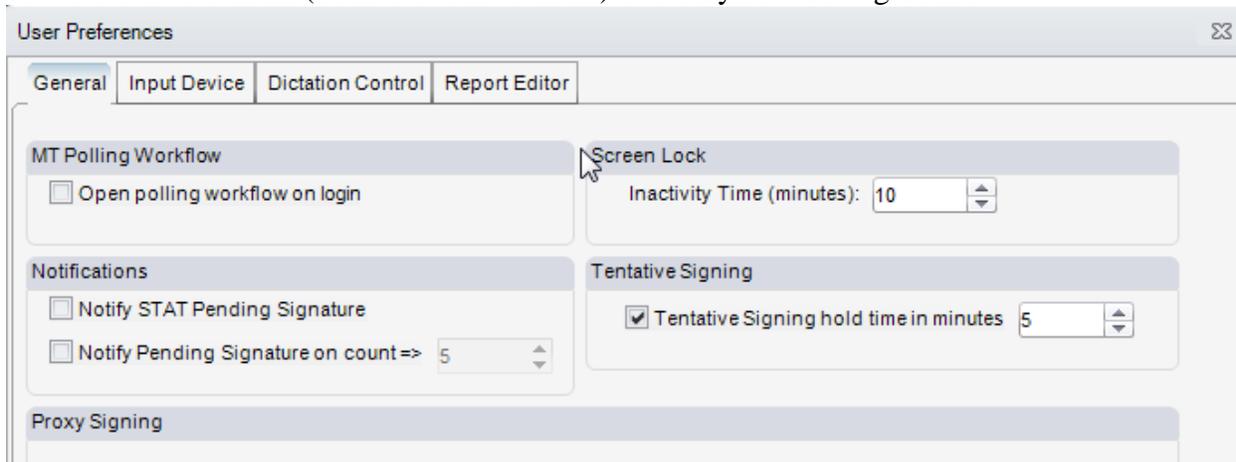


Figure 4.34– Tentatively Signing User Preference

If the User Preference was already set and the Value of system config entry for MaxAutoSignTime is changed to be less than the user preference, the next time the user opens User Preferences a message prompt will be displayed informing that your value has been adjusted.

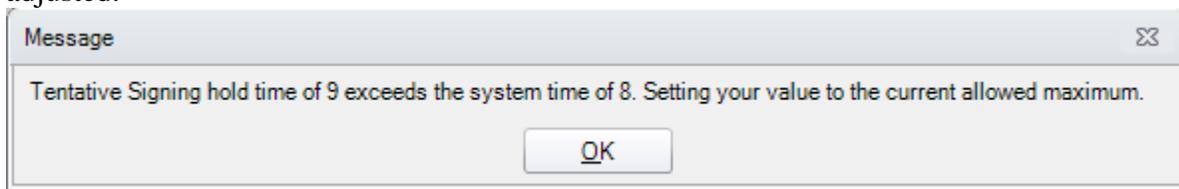


Figure 4.35 – Message pop up displayed if the user preference is more than the current system config value

## **Updated Meaningful Use Permissions**

Changed permission codes for the following access strings.

1. Clinical.ConfigureMeaningfulUse
2. Clinical.eLabOrdering
3. Clinical.ePrescribeAdministrator
4. Clinical.ePrescribeRadiologist
5. Clinical.ePrescribeStaff

Updated permissions to be this.

1. MU.ConfigureMeaningfulUse
2. MU.eLabOrdering
3. MU.ePrescribeAdministrator
4. MU.ePrescribeRadiologist
5. MU.ePrescribeStaff
6. MU.TransitionOfCare \*\*New permission for the transition of care checkbox on the order tab

## **Miscellaneous High Priority Items**

1. Race, Smoking, preferred language, ethnicity need a config setting that will make them required at registration.
2. Scheduling – Summary tab should be the default tab.
3. Personnel – Need a Notes section where notes can be added and displayed about a person
4. Image request – if you add more than one study, the patient is no longer an option for the deliver-to functionality
5. When patient folder is open, the New Appointment menu item assumes it should take patient context. This is no longer desired, so now it will not take patient context, unless the smaller New Appointment button is used within the patient folder itself.
6. Registration – Must be able to enter a PreCert number and expiry date in the registration grid.
7. Registration – Change checkbox on billing codes to say “Show previous PreCert and CPT codes”
8. Technologist – Patient tab should be read-only, except patient notes.
9. Scheduling – Default tab should be patient.
10. Verbal Order – Change the Free Text option to be the default for studies, not the multi-type ahead.
11. Technologist - LMP, pregnancy check, and Tech name should be required on Complete, not on start.
12. Tech Worklist – Want to also see Checking in status
13. Tech Worklist – Do not want to see discontinued exams in this WL.
14. Technologist - Billing code grid columns should be in the order of Abn, units, change reason code, billing code
15. Various billing codes grids: PreCert expiry date column showed a time portion, when it should only have been date.

## 5. Resolved Defects

Bugs, Suggested Features and Support Issues resolved in build 1.31. The extract is taken from Redmine bug tracking system and only displays defects resolved in 1.31.

#	Status	Tracker	Priority	Subject	Category	Target version
711	Closed	Bug	High	Dictation - Send To throws error	Thick Client GUI	1.26
725	Resolved	Bug	Normal	Pending Dictation > Open Suspended exam can cancel will return error.	Thick Client GUI	1.26
745	Closed	Bug	Normal	Should not be allowing State as free text	Thick Client GUI	1.25
761	Closed	Bug	Normal	Closing the Report History will through series of messages	Thick Client GUI	1.28
762	Resolved	Bug	Normal	Seen this error when closing Report Drafted	Thick Client GUI	1.28
784	Closed	Bug	Normal	Delete drug allergy and try to access eRx (newcrop) will through error	Thick Client GUI	1.28
789	Closed	Bug	Normal	Clinical Summary CCR to view/print or export throws error	Thick Client GUI	1.28
799	Resolved	Bug	High	Configurable Modality Scheduling	Thick Client GUI	1.29
805	Closed	Bug	High	Failed PACS Correction > Flag on modality does not work	Thick Client GUI	1.29
808	Closed	Bug	Normal	After logging in get error on Dictation control	Thick Client GUI	1.30

## RADNET, Inc. – eRAD RIS Pre-Release Notes

810	Resolved	Bug	Normal	advanced search times are not correct in relation to current system time	Thick Client GUI	1.30
812	Resolved	Bug	High	Open dictate data window to add addendum will throw error	Thick Client GUI	1.30
814	New	Bug	High	Cannot preview reports	Thick Client GUI	1.30
816	Closed	Bug	High	State selection does not save	Thick Client GUI	1.30
819	Closed	Bug	High	“Inactive” lateral codes are showing up in scheduling screen. Any values “inactive” values in lookup should not be “selectable” in combo boxes.	Thick Client GUI	1.30
825	Closed	Bug	Normal	Inactive rooms appear in advanced scheduling	Thick Client GUI	1.30
829	Closed	Bug	Normal	Meaningful Use - Automated Measure report return duplicate user	Mgt Reports	1.30
830	Closed	Bug	High	View / Edit on a signed report will throw error on Report tab	Thick Client GUI	1.30
835	Closed	Bug	High	Perform exam - laterality codes are not retained once you start the exam.	Thick Client GUI	1.31
836	Closed	Bug	Normal	Country field defaults to USA if zip code is entered first.	Thick Client GUI	1.31
837	Closed	Bug	Normal	Removing country code changes state format	Thick Client GUI	1.31

## 6. Known Limitations

The following are Bugs, Suggested Features, and Support Issues found in build 1.31. This build is the current QE build and testing is ongoing. The list may increase in size. This document will not be updated or re-released.

#	Status	Subject	Category	Target version
839	Resolved	Interactive dictations will stay in Dictated status if use submit button	Thick Client GUI	1.31
840	New	Order tab name on reschedule	Thick Client GUI	1.31
842	Resolved	Interactive dictation can freeze after dictating on Suspended exam with no audio	Thick Client GUI	1.31
843	New	Playback device selected in Mic Wizard is not being used.	Thick Client GUI	1.31
845	New	Non Interactive User cannot playback interactive dictations	Mgt Reports	1.31
846	New	Tentitive signing hold time message	Admin Tools	1.31
847	Resolved	Pending Dictation / Dictated / Report Drafted / Pending Review / Dictated need to be appended with (All)	Thick Client GUI	1.31
848	Resolved	Mammography directory for lookups	Admin Tools	1.31
853	New	Follow up orders - Need to add the ability to cancel follow up orders	Thick Client GUI	1.31
854	New	Mammo Layletters are not being sent for distribution	Thick Client GUI	1.31
855	New	Follow up work lists still have Post Exam in context menu	Thick Client GUI	1.31
856	New	Mammo exams > Recommendation and Tissue Density are not saving	Thick Client GUI	1.31
857	New	Mammo Follow Up Orders - Target date not searched on schedule	Thick Client GUI	1.31

## RADNET, Inc. – eRAD RIS Pre-Release Notes

---

858	New	Interactive dictation suspended throws Anymodel error when opened by non interactive user.	Thick Client GUI	1.31
859	New	Procedures scheduled with default laterality are not saved when flag for Laterality required is N	Thick Client GUI	1.31
860	Resolved	Attempting to create Technical Repeat throws error	Thick Client GUI	1.31
674	Resolved	Cancelled Orders work list buttons not enabled	Thick Client GUI	1.31