User Pre-Release Notes

for RADNET rRIS
Build 1.19

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1. Purpose

This document describes some of the new features and changes implemented in rRIS as of the end of Sprint 19. This pre-release version of rRIS is referred to as Build 1.19.

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 rRIS Development team for the RadNet RIS management team.

3. Installing/Accessing the Application

The installation instructions for the rRIS 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 1.19 is considered a new core release of the application and will require a reinstallation of rRIS. This is accomplished by navigating to the rRIS 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 Spencer MacDougall with the PEI RIS Development Team.

4. New Features and Enhancements

Document Distribution History Screen

The document distribution history screen is a new work list that displays the list of all distributed jobs for a particular study. The work list is accessed via a context menu (right click on mouse) from the Patient Mode work list.
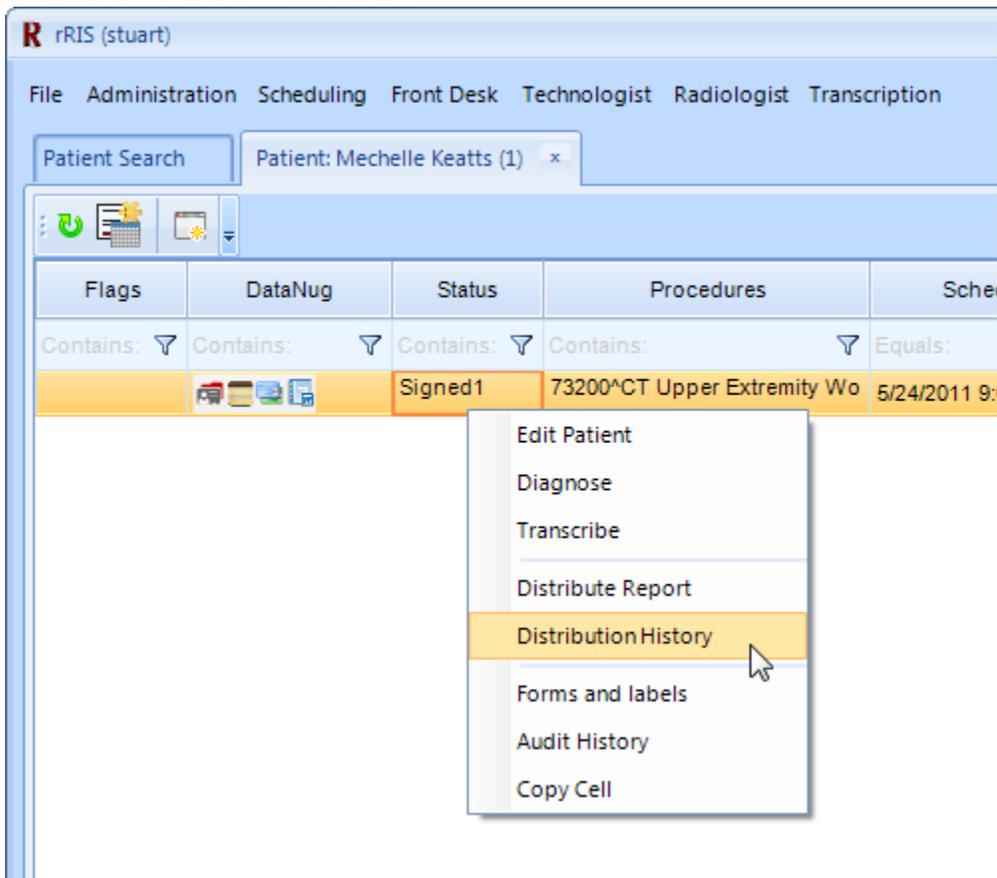

Figure 4.1 – Accessing Distribution History work list from context menu

This new work list will allow the user to not only view jobs for a particular study but the user also has the ability to edit, pause, retry, cancel and create new jobs. Jobs in cancelled or completed status can be retried, but the original job stays in the work list as part of its history. If a job is in Pending or In Progress, the retry button is not an option.

Document distribution key	Interpretation key	Study key	Version	Delivery method	Destination	Status	Retry count	Available datetime	Last exception	Priority
Equals:	Equals:	Equals:	Equals:	Contains:	Contains:	Contains:	Equals:	Equals:	Contains:	Equals:
2	1	22373	7	Fax	(902) 555-5556	Pending		03/08/2011 10:03:34 AM		0
3	1	22373	7	Fax	9025555584	Pending		03/08/2011 10:05:25 AM		0

New Job   Edit Job   Pause Job   Cancel Job   Retry Job   Auto Refresh ☑

Figure 4.2 – Document Distribution History Work List

Creating a new job will open the Distribute Report window with all fields blank. Search option is available for locating a recipient. Selecting an address will populate the users default delivery information into the remaining fields.

Distribute Report

|	
Recipient:	Noye, Darcy T
Location:	951 Home St., Summerside, MD, 90...
Delivery Method:	Fax
Fax Number:	(464) 654-6546
Priority:	High

OK   Cancel

Figure 4.3 – Distribute Report

Duplicate Patient Safety Net

To reduce the risk of creating a duplicate patient, patient search has been modified to increase a user's chances of finding an existing patient. A background search will be completed for the patient once 3 key fields of *first name, last name, and birthdate* are populated. The results window will popup if there are close matches found. If there are no close matches, the search result window will not be displayed.

Patient search will now also support searching on other variations of name and birthdate. When the *Search Other Variations (keyboard shortcut = Alt + O)* is checked the following name and birthdate characteristics will also be searched.
1. Starts with search is performed
2. Then a sounds like search (name is Stuart, but user entered Stewart)
3. Then a sounds like and a transposed birthdate (DOB entered 12-01-1970, but patients actual DOB is 01-12-1970)
4. If a name component entered is only one character it will perform a starts with instead of a sounds like. (EX: . firstname sounds like s, lastname sounds like smith will be converted to firstname starts with s, lastname sounds like smith)
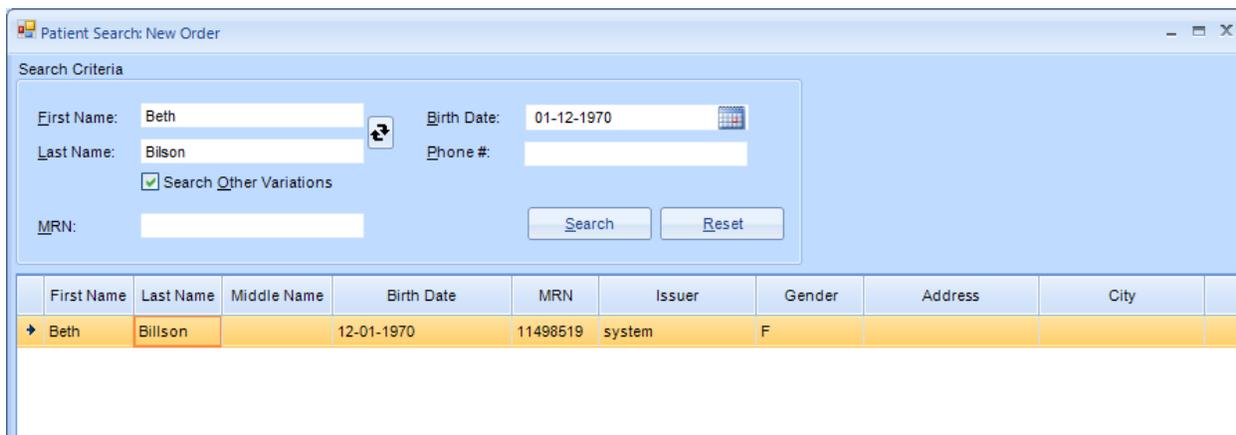
Figure 4.4 – Patient Search window with "Search other variations" checked. In this example it matched on approximate last name and transposed birthdate.

Enhance Special Accommodations

A check box for Special Accommodations has been added to the order tab. When the box is checked a drop down list box and free text field becomes enabled. The list box has Yes/No values, and the text box allows for a maximum of 100 characters. A flag is added under the Flags column on main work lists, and also in patient history on Perform Exam data window.
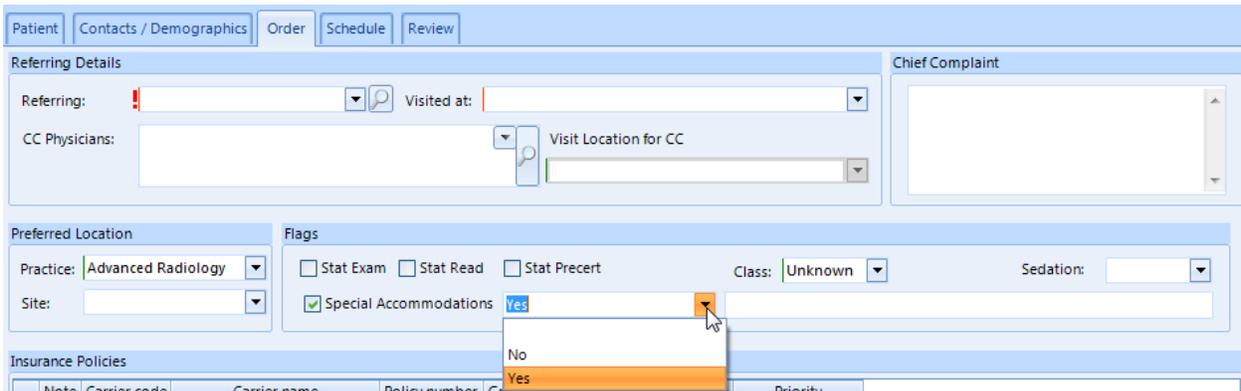
Figure 4.5 – Special Accommodations.

Indication Code Search Provider

An easy way to search indication codes was required for the user. In Build 1.19 a menu item was added to the provider list.
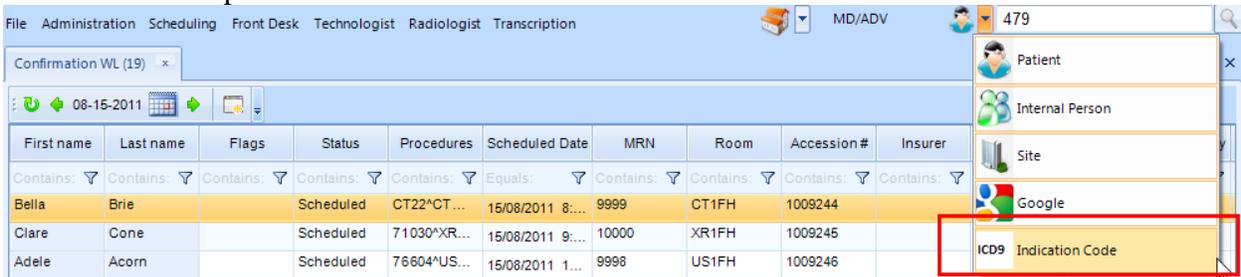
Figure 4.6 – Ability to search for Indication Code.

Selecting Indication Code from search list will open a new window. The user can search by code and full or partial description.
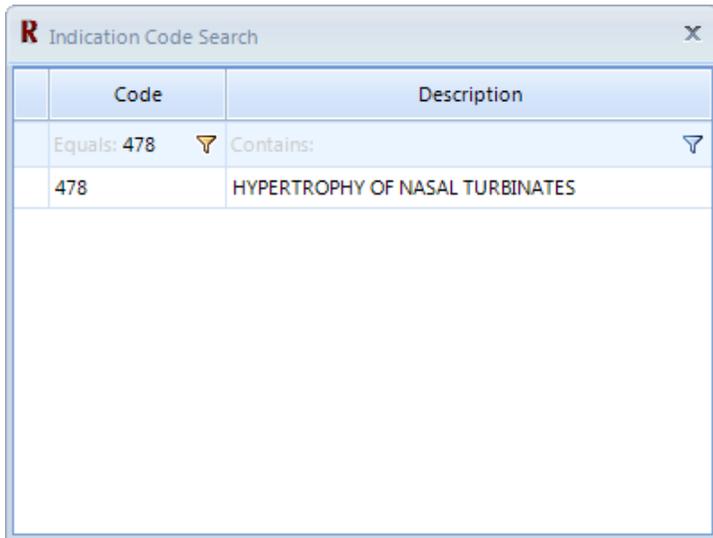
Figure 4.7 - Indication Code Search window

Inpatient Workflow

Patients can be identified at the visit level as to whether they are outpatients, inpatients, emergency, etc.   A new combo list box was added to the order tab for the scheduler, registration and technologists. This is a mandatory field.

Figure 4.8 – Patient Class

A new system configuration setting "PatientClassDefaultCode" has been added to default the value in the Class list box field on the order tab. The value can be any active Patient Class Code from the PatientClass lookup table. In figure 4.9 below shows the PatientClass lookup table codes and descriptions as well as the new systemconfig setting with the patient class code value for Outpatient making it the default value for the Class field on Order tab as displayed in Figure 4.8.
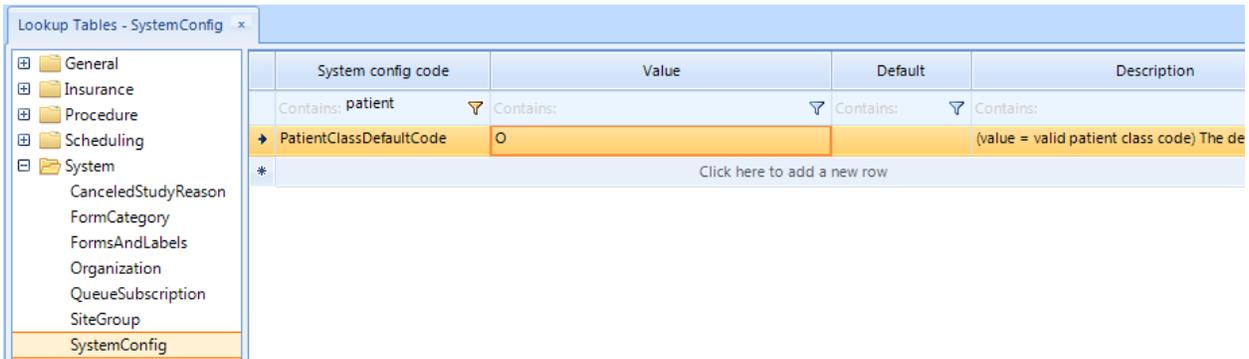
Figure 4.9 – PatientClass lookup and SystemConfig setting for defaulting Class field.

Medical Record Access

The ability to capture who has access to a patient's medical records, and the duration the persons access is valid has been added. Located on the Contacts / Demographics tab the user will have the option to Add, Edit, and Remove access. The previous button will display expired medical record access for this patient. If a patient is merged, medical record access entries are carried over to the "new" patient's demographics.
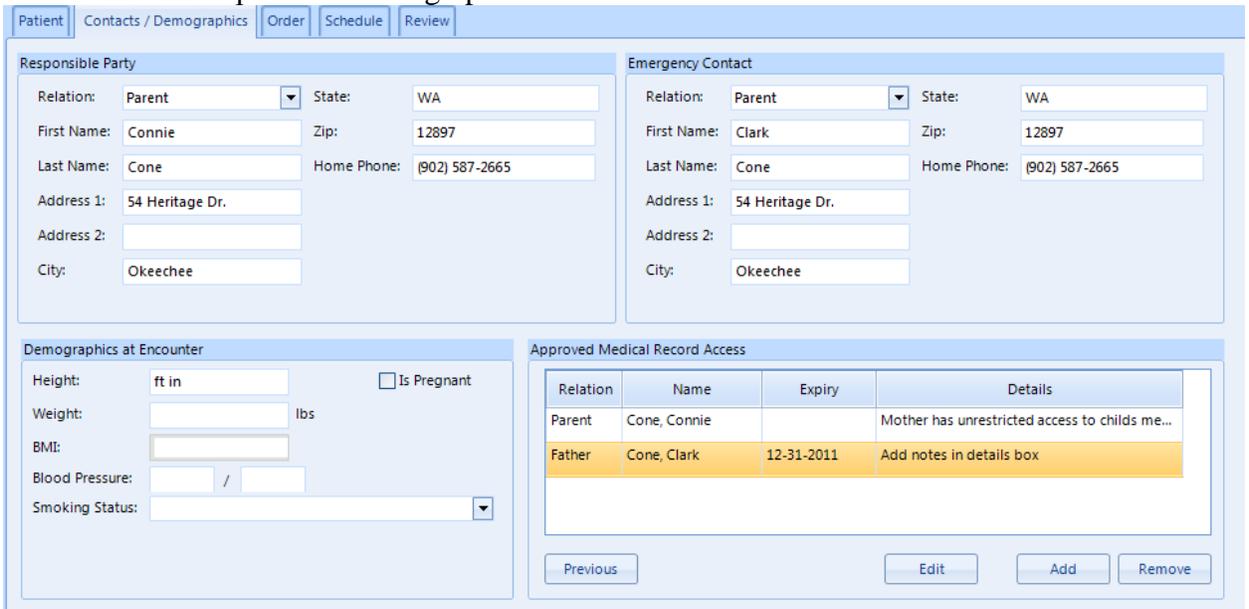
Figure 4.10 – Approved Medical Record Access data pane

The Add (or edit) Medical Record Access window captures the approved parties demographic details, relationship to patient, expiration of access, and details text box to capture notes. If an expiration date is not selected, that person's access will not expire.

Figure 4.11 – Medical Record Access window.

No Alternate Phone Flag

Users needed the ability to capture if the patient has an alternate phone number, and if no alternate phone number is available mark the patient as such. A new check box "No Alternate Phone" was added. When this checked box is selected the Work Phone and Other Phone fields are disabled. In Figure 4.12 the Other Phone Alternate number was entered before the check was added to "No Alternate Phone" box. As you can see the phone number is retained just in case the check box is selected by accident there is no risk of lost data.

Figure 4.12 – No Alternate Phone check box

PreCert Expiration Date.

In some cases Precertification numbers have expiration dates. In build 1.19 the IVT, Confirmation, Registration, and Perform Exam data windows, the user now has the ability to add or edit the PreCert expiration date.

Figure 4.13 – Perform Exam and Registration windows with Pre Cert Expiration added.

Reschedule Studies

When rescheduling a study the user will now be prompted with a popup window and have to provide a reason from a pre-configured list to enable the OK button to continue with rescheduling. If the patient has multiple studies scheduled for that day, the user will have the option to select which studies are to be rescheduled. The study that was selected from the work list is selected by default. If cancel is selected the user is returned to work list and no action is taken on any of the studies.

If the patient has a scheduled series, each study of the series will be listed with series named displayed. They may choose to select all or only some of the studies that belong to the series. If they choose to only select some of the studies, the series rules will be broken and will now follow normal scheduling procedures.

Figure 4.14 – Rescheduling studies for patient with multiple studies in one day.

Selecting the Studies check box will select all studies listed. Selecting Referrer (in Figure 4.14 the referrers are Darcy Noye and Harvey Wallbanger) will auto select all studies listed directly for that order. If 2 separate orders were scheduled from the same referrer, the second scheduled orders studies will not be selected. If more than one study is selected to be rescheduled, each study will have its own order tab, and multiple procedure rows will be displayed on the exam tab.
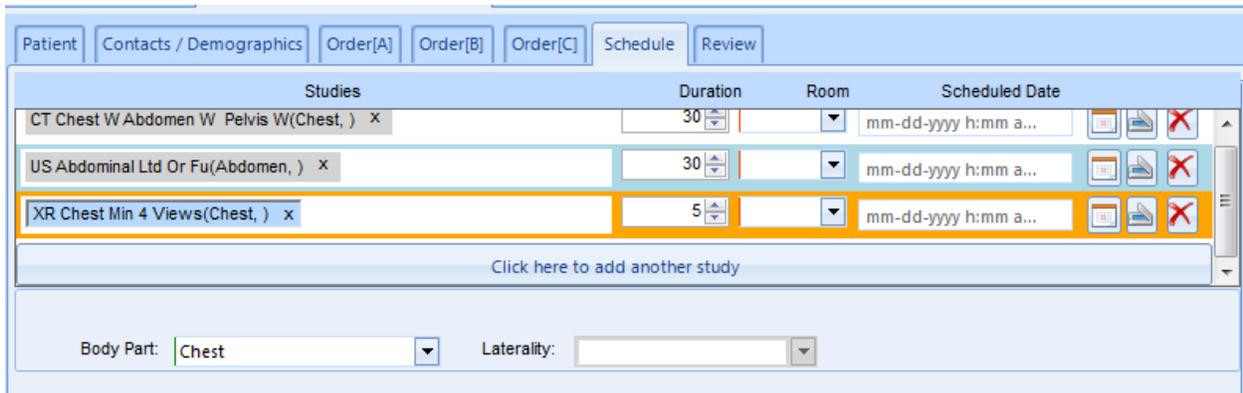
Figure 4.15 – Multiple studies selected for reschedule from different referrers but originally scheduled for same day.

Review Scheduled Information

The review tab will display a summary of information for the study(s) to be scheduled, or that has already been scheduled. Captured in this new text area is the scheduled procedure name, date and time of the schedule, study duration, site name, CPT code and description for each study. Also the address for the site is also displayed.
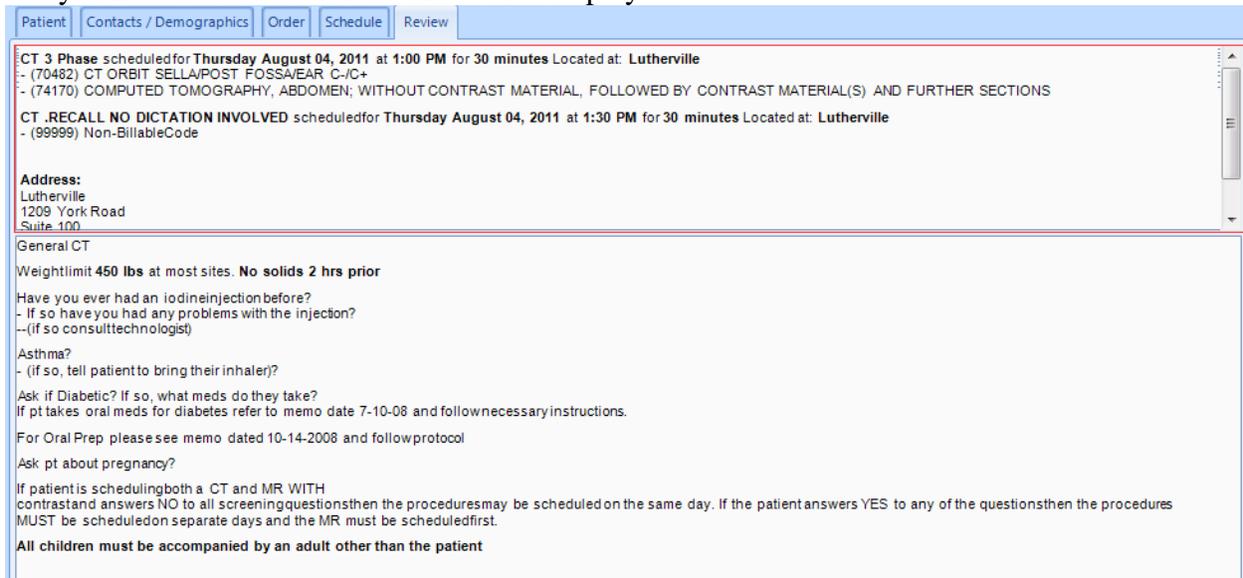
Figure 4.16 – Review tab

Scanned By Displayed in Scanning Grid

After a document is scanned, the user that scanned the document in now displayed under a new column in the work list called "Scanned By".
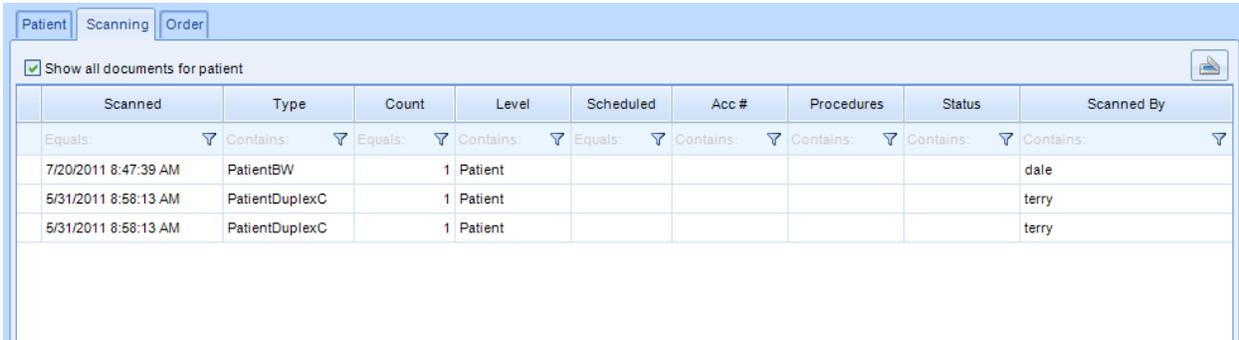
Figure 4.17 – Scanning tab grid.

Schedule Walk In

A new menu option called Walk-in located under the Front Desk menu added.
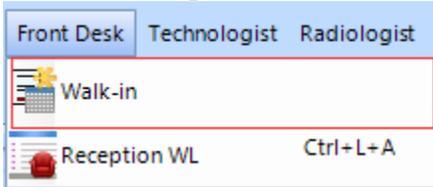
Figure 4.18 – New Walk-in menu option

The window that opens is the Registration window without any patient data. This gives the user the ability to create order, schedule, and arrive or check-in patient without selecting a pre-existing scheduled study from the work list. A new MRN is defaulted for creation of a new patient. If an existing patient is used, the MRN will change to that of the patient selected.

Figure 4.19 – Walk-in data window

Restricted Modality Times (Soft Block)

A new method of marking a modality as unavailable had been introduced in build 1.19. This "soft block" will inform a user that a modality may not be available, or may have restrictions for specified period of time. Figure 4.20 displays where the block is configured. Selecting the modality, and a new data pain on the bottom right will allow the user to configure a specified time (From date → To date and time of day is captured). The description entered is what the user will see when scheduling.
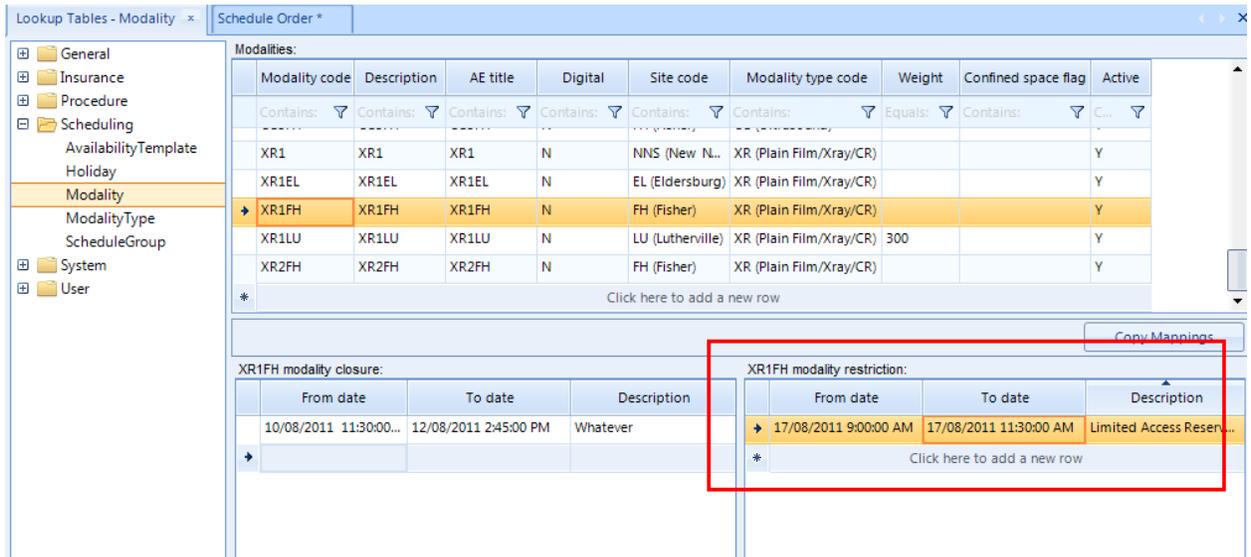
Figure 4.20 – Add or Edit Restricted Modality Times

When scheduling you perform an appointment search. The time results returned that fall in the time frame specified for modality restriction will have a red colored background. Hover the mouse pointer over the red colored time slot will display the description entered for the Modality restriction.
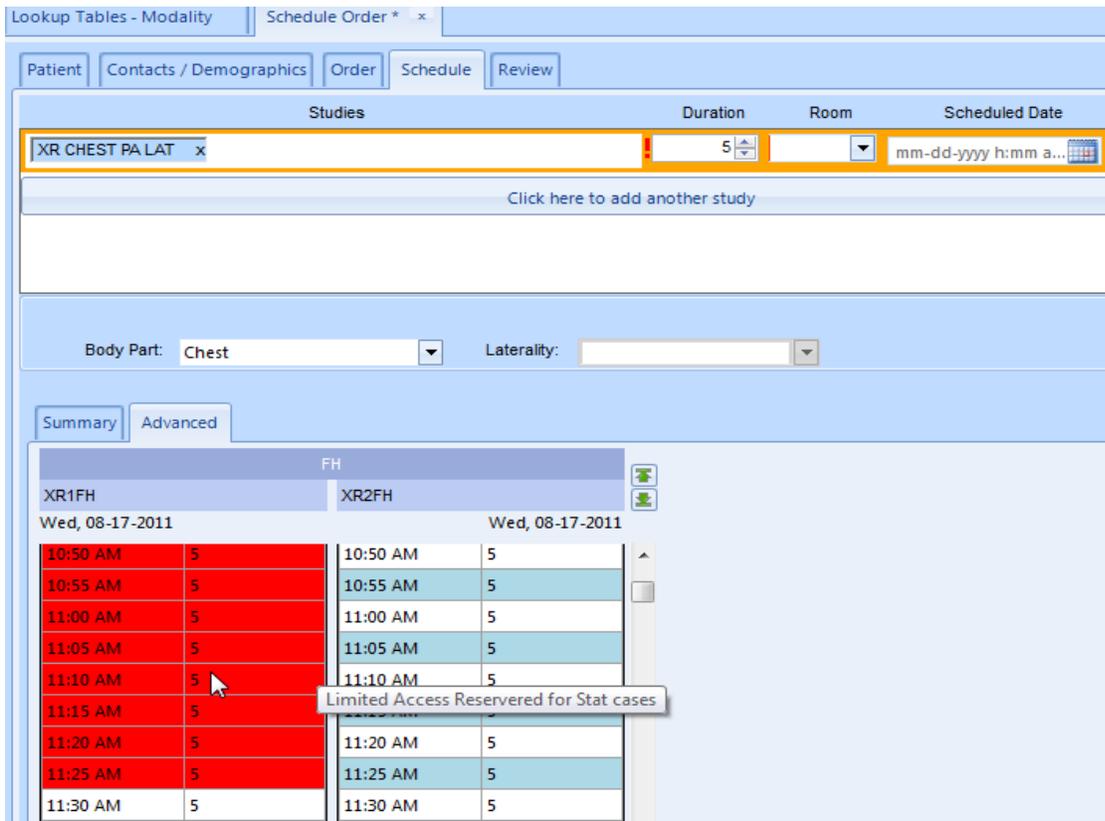
Figure 4.21 – Restricted time in search with description

Selecting a restricted time slot will prompt the user informing that this time is restricted giving the user the option of proceeding in selecting the current time slot, or cancelling and selecting a different time. If yes is selected, the booking proceeds as normal
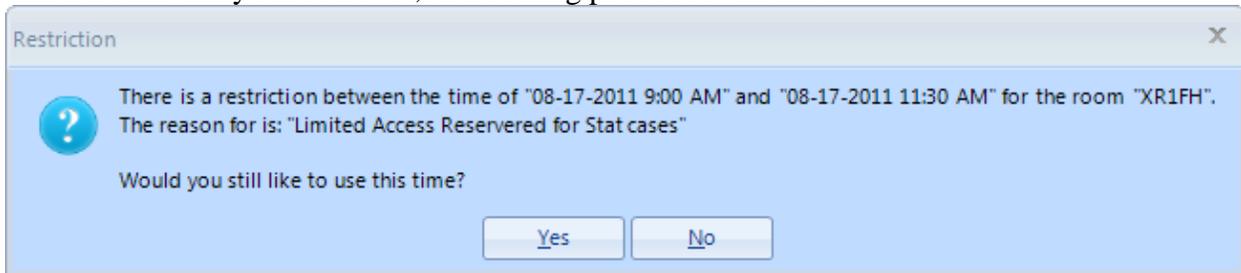
4.22 – Message prompt informing user that restricted time was selected.

Stat Precertification Flag

A new check box "Stat Precert" has been added to the order tab so the user may flag studies that require pre-certification ASAP are first to be processed. The default sort order for the IVT work list has been configured so precert stat items show at the top. A new flag ![flag] for precert stat items will now also display in the flag column.
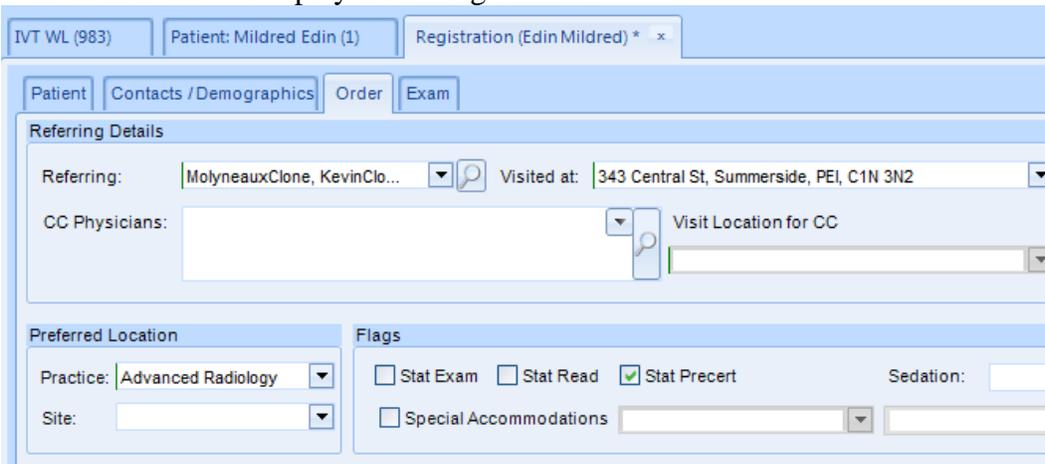
Figure 4.23 – Stat Precert flag check box.

Figure 4.24 – IVT worklist Stat Precert flag

Diagnostic Reporting Text Expander

To enhance and improve productivity a Text Expander is available for diagnostic reporting. This feature can be turned on / off with a user preference. If the user has this option on, a base file is downloaded from the database at first time use. They can add and remove text stored in their

file. When changes are made, it is saved back to the database. The client machine will be updated if the stored copy is newer than the local copy. The text expander can be edited by selecting the option from a context menu (right click) within the report.
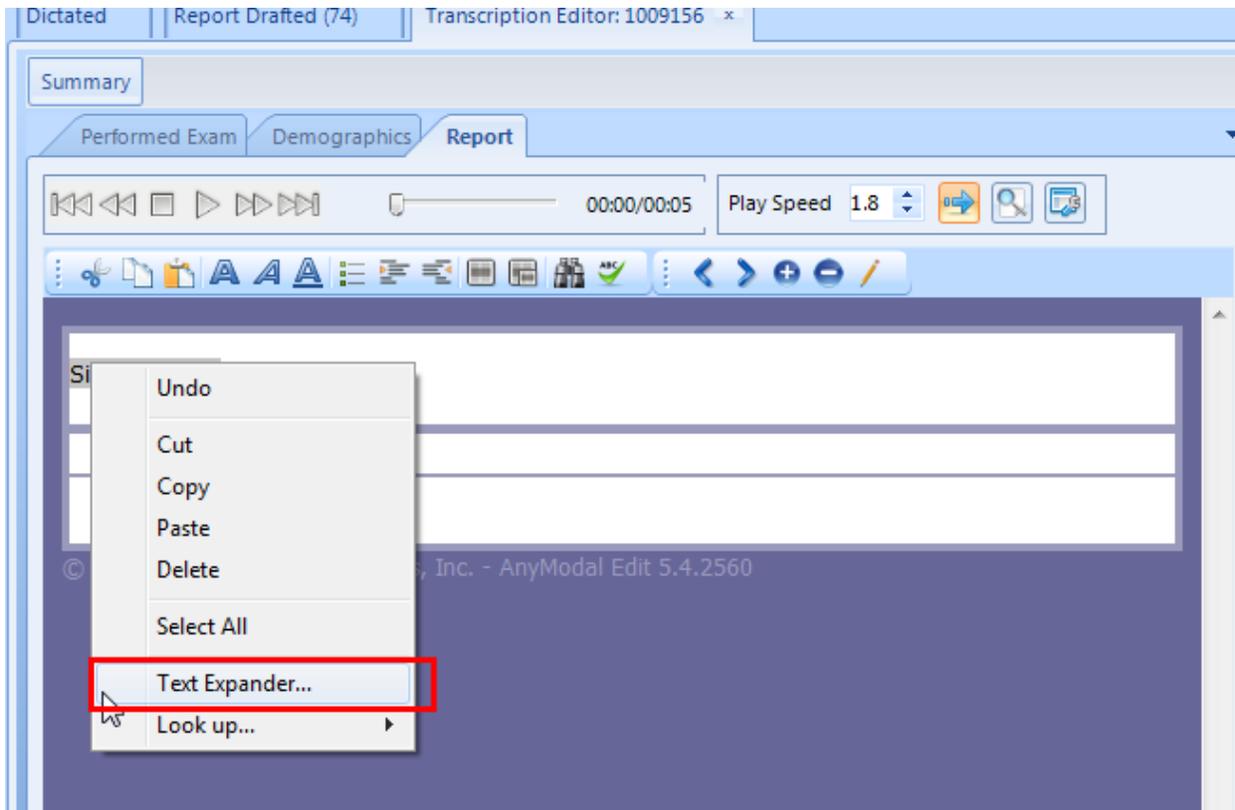
Figure 4.25 – Accessing Text Expander

The dialog box will open displaying a pre-defined list from the base file. The user can add additional text and save for future entries. The next time the user enters text that matches with text in the "Replace" column, it will recognize that the text entered is to be replaced with the expanded or corrected text specified.
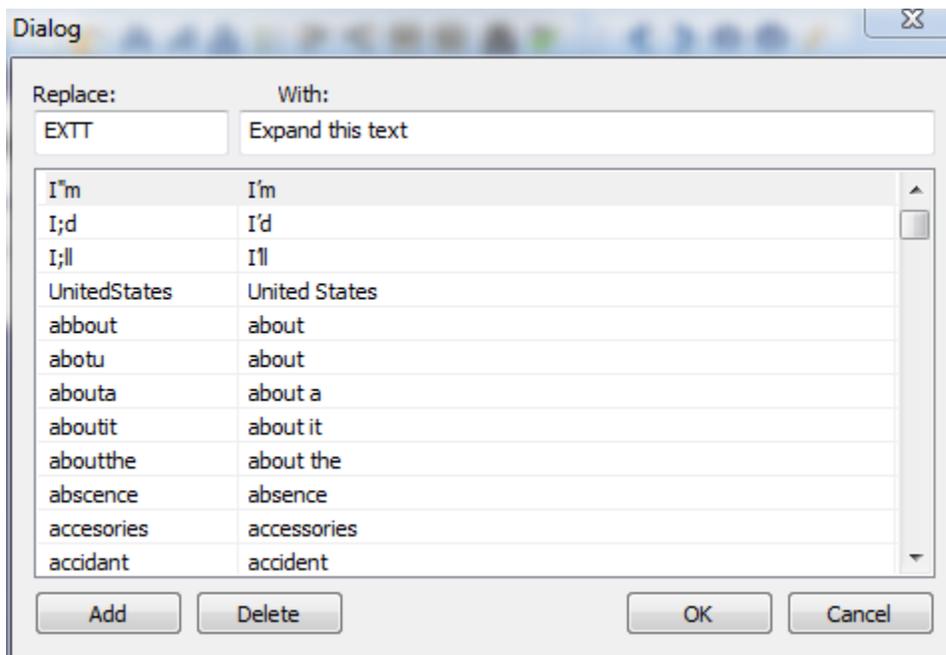
Figure 4.26 – Text Expander Dialog window

The following is additional information from MModal help file:

> *"AME comes with a builtin text expander. This expander is disabled by default to prevent conflict with 3rd party text expanders used by the MT (like for example InstantText, Shorthand, Shortcut, ...). To enabled it call ICdsEditorCtrl.SetProperty("TextExpanderEnabled", "true"). If the MT has a version of MS Word installed on their machine then AME will import the MT's Word AutoCorrect text mappings the first time TextExpanderEnabled is set to true. After setting TextExpanderEnabled the MT can right click a word in AME and click "Text Expander..." to edit text mappings: the MT can delete mappings, add new mappings, and replace existing mappings. AME will replace text whenever the user types one of her abbreviations followed by a spacebar press or punctuation symbol keystroke (period, comma, colon).*

> *The text expander functionality somewhat overlaps with AME's context-dependent Auto Completion. MTs have to decide on their own in which situations they want to use which technology: the text expander make sense for the most frequent and longer phrases consisting of multiple words - like for example mapping "tpi" to "the patient is", whereas auto-complete makes sense for long but less frequent individual words."*

Report Utility

In build 1.19 a Report Utility has been added for use by Radiologists and Transcription so they may see the history of the report, what was changed, and who changed it. Figure 4.27 shows the ICON to open the utility.
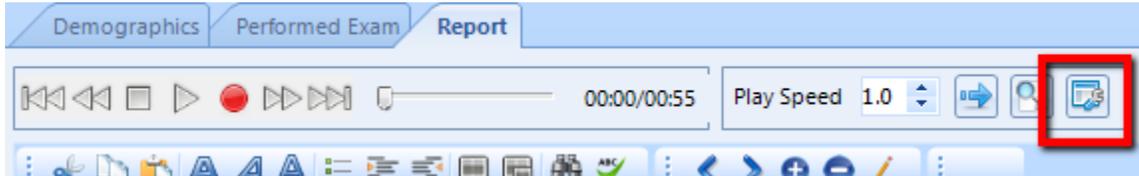
Figure 4.27 – Report Editor Control

Upon load, a tree view will display the history of the report. The user can select which version they would like to view as well as play back the dictation for that interpretation. The user may also enter another accession number to view the report and play back the dictation. The study info panel displays information about the patient and specific history of the study.
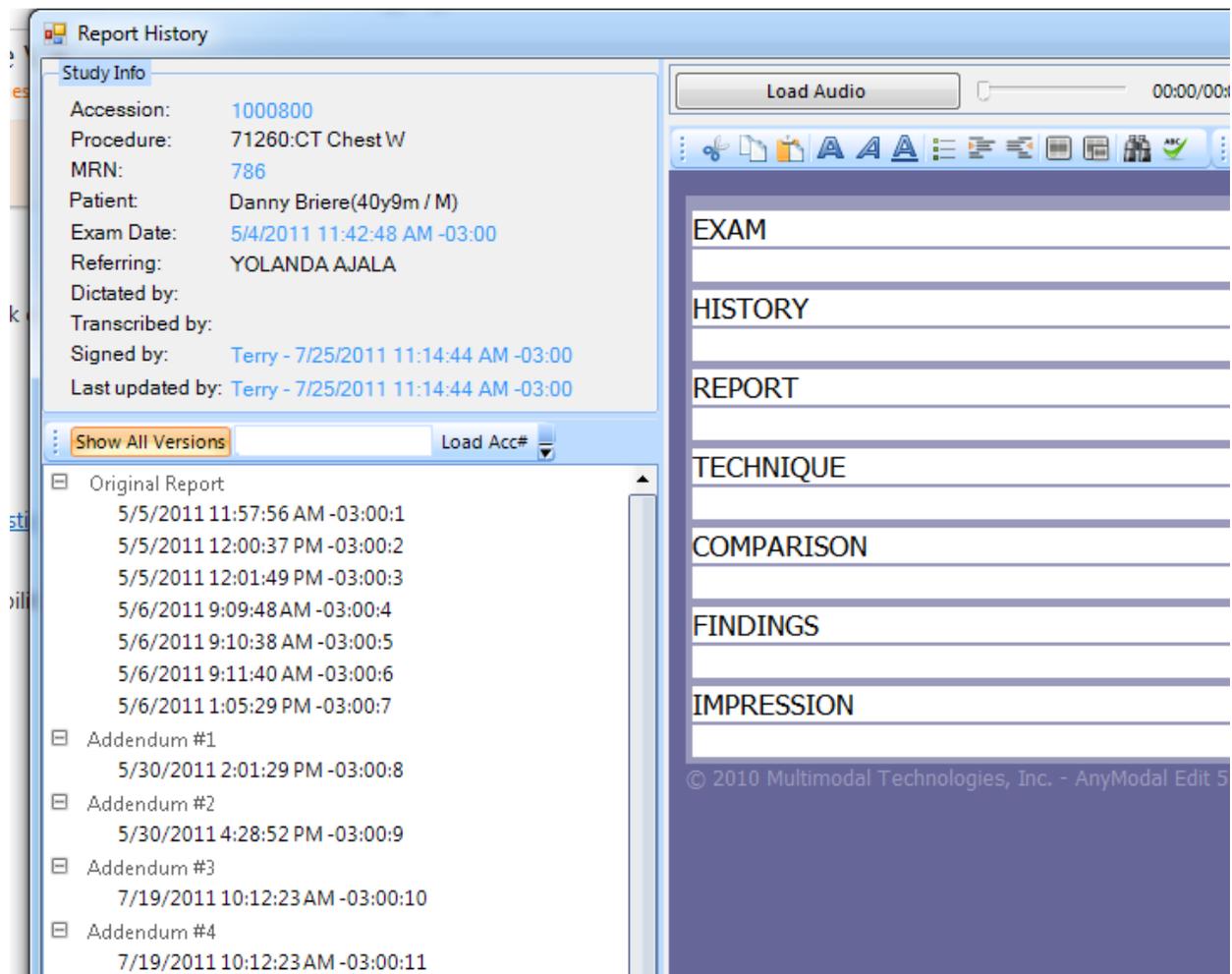
Figure 4.28 – Report History

Reporting Screen Refactor (Configurability)

In build 1.19 comes with a redesigned reporting screen. The users may customize the reporting screen to fit their individual needs and preferences.
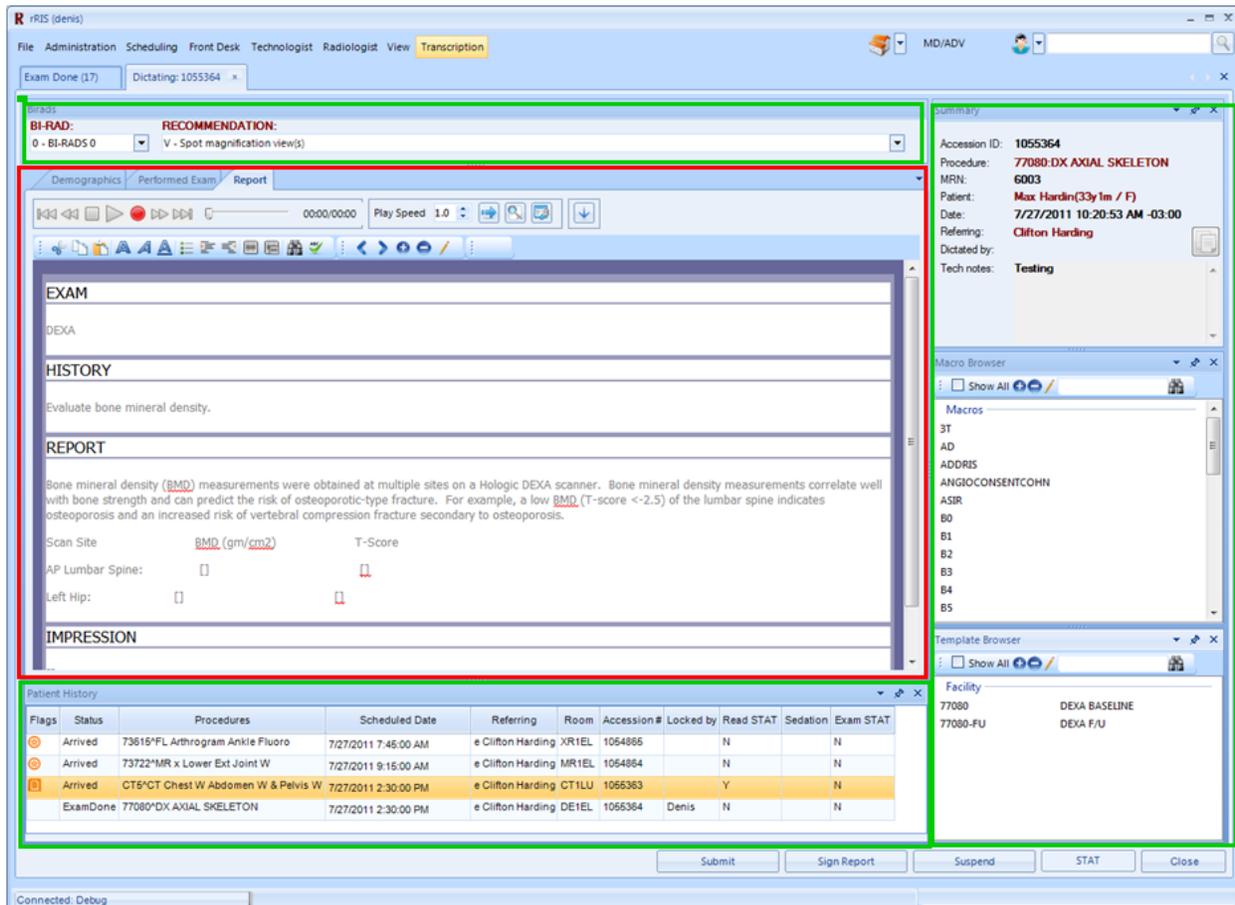
Figure 4.29 – Reporting window

Document Window: (red outline figure 4.29)
This is the main part of the screen, the report and the data panes. These controls have limited
flexibility, they can be moved around and docked in different ways, but they cannot be floated or
closed. They can also only be tabbed documents within the main document area (red). They
cannot be docked on the perimeter with the tool windows (green).

Tool Window: (green outline figure 4.29)
These controls are much more flexible, they can be docked anywhere in the bounds of the
reporting screen, they can be displayed as a tabbed document window next to the document
window as if it was one. It can be floating above the rRIS, or on another screen. They can be
pinned so that they stay visible or they can be unpinned so that they auto hide to a small tab.

One exception is the BIRAD control, when it is required for the study it cannot be hidden or auto hidden.
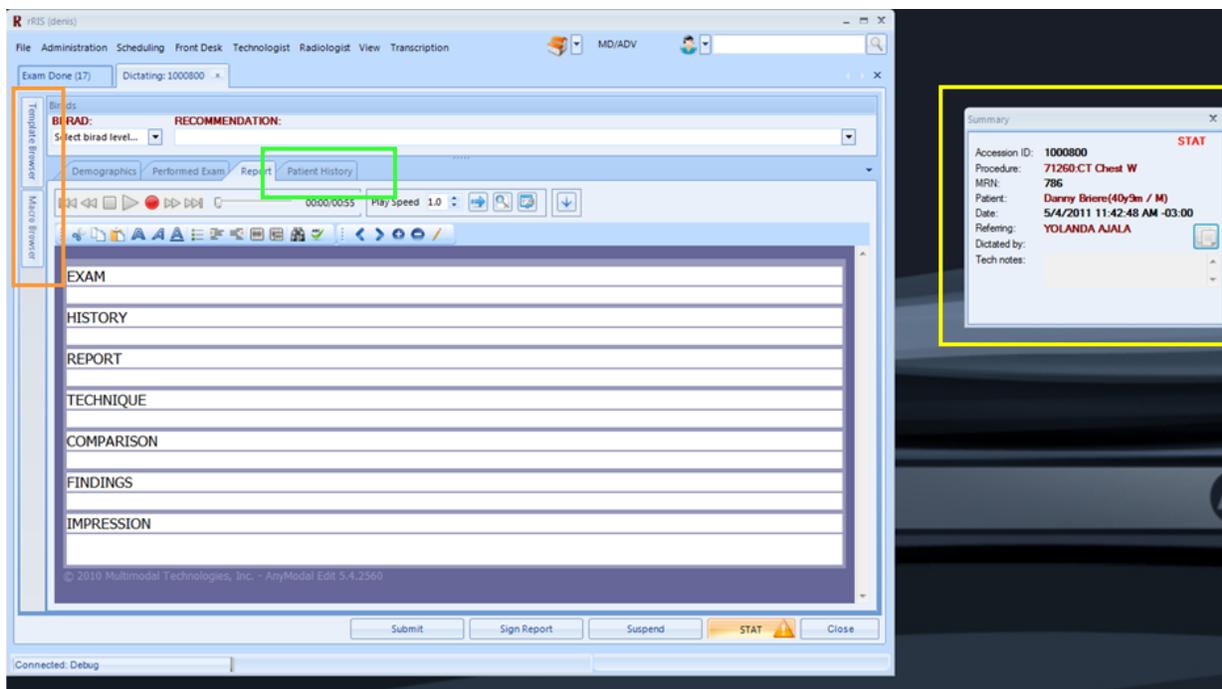
Figure 4.30 – Various configurations of reporting screen.

In Figure 4.30 we have the summary screen that is floating on the desktop on the right of the rRIS. Patient history is a tab next to the report tab (sequence of tabs can be re-arranged), and the macro and template browser are unpinned to make them auto hide on the left side of the window. Hover the mouse over the unpinned data panes (template browser and macro browser) will expand that data pane into view.

In Figure 4.31 you will see a new "View" menu. This menu is present in the dictate and reporting windows. Expanding the menu allows the user to select which data panes they wish to view. If one of the data panes is accidently closed, it can be re-opened from this menu. You will also notice that you can "Save Layout" changes and "Reset Layout" changes. Adjusting the layout during the session doesn't automatically save the layout on exit of the window. If the user adjusts the layout to their liking, select Save Layout will retain the layout for all future sessions. Reset layout will remove any changes made and revert back to the default layout.
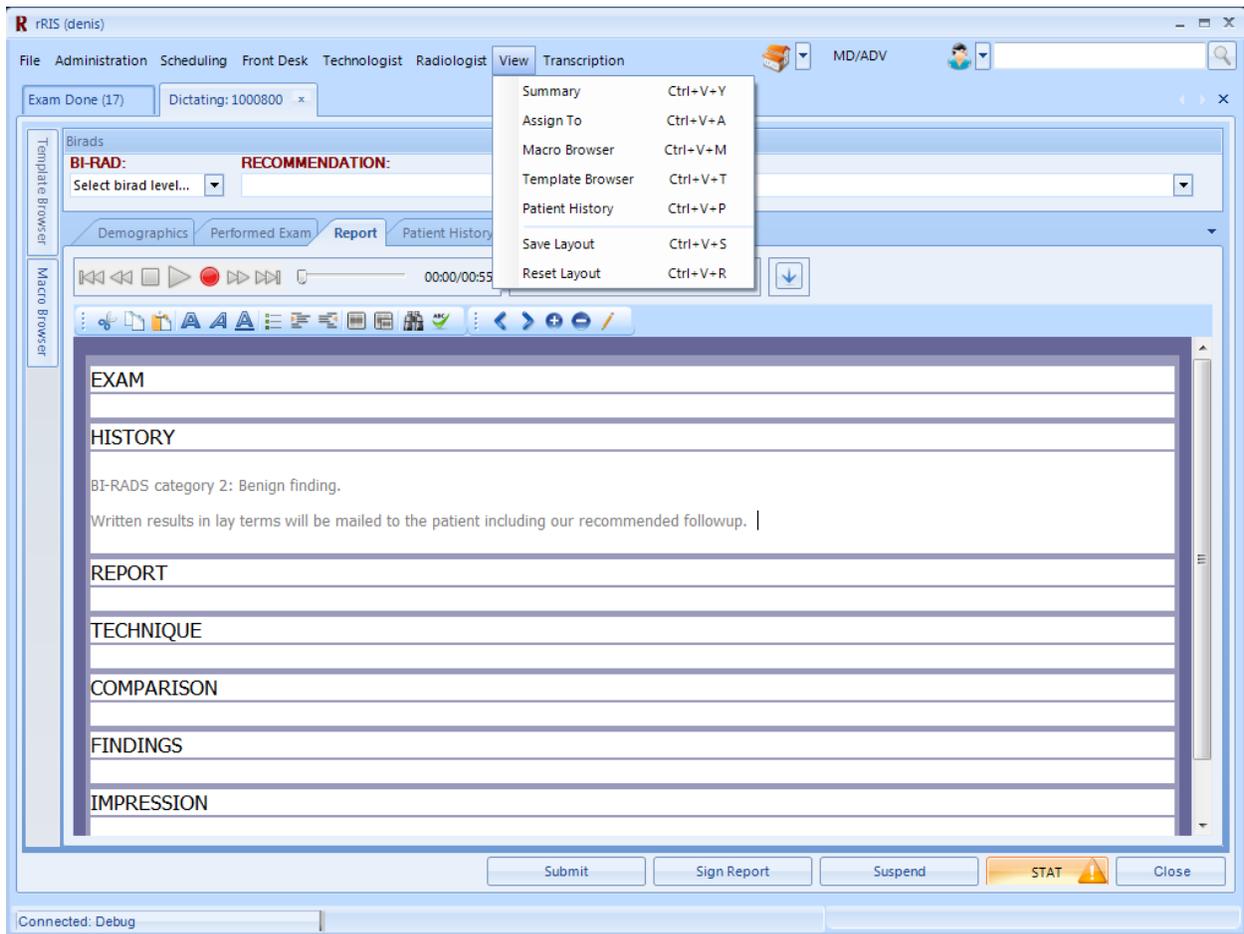
Figure 4.31 – View menu

Letter of Intent Added to Precert Status

Letter of Intent was added as a Precert status with the item still being considered at "required". Figure 4.32 displays the new addition to the Precert status flag list.

Figure 4.32 – Pre Cert Required Flag addition (letter of intent)

Stat Prelim Form

A new form was added in Build 1.19. A study is flagged as a stat exam the Stat Prelim Form will be an option to select to print. Figure 4.33 shows an example of the form.

ADVANCED RADIOLOGY
Trusted by more doctors. Preferred by more patients.

Lutherville
1209 York Road
Lutherville, MD 21093
Phone:(410) 580-2240
Fax: (410) 580-2270

STAT PATIENT RESULTS

Please deliver to: Ian Power   Fax Number: (410) 580-2270   Phone Number: (410) 580-2240

Patient Name: Green, Miguel   DOB: 9/27/1971

MR# 821   Date of Exam: 8/16/2011

Type of Exam	☐ Positive	☐ Negative	☐ No Charge	☐ Fax Final Report
CT42^CT Chest W & Abdomen W/Wo				

This is a prelimary impression of the exam(s) performed on your patient; the final report(s) will be sent to your office.

☐ AM
Radiologist: _____   Faxed by: _____   Date/Time: _____   ☐ PM
(Advanced Radiobgy Representative - PRINT NAME)

☐ AM
Verbally confirmed receipt of fax with: _____   Time called: _____   ☐ PM
(Advanced Radiobgy Representative - PRINT NAME)

Caller: _____   Date:
(Advanced Radiology Representative - PRINT NAME)

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Patient Name: Green, Miguel   DOB: 9/27/1971   1

Figure 4.33 – Stat Prelim Form

Referring Physician Notification Management Report

When a new user is added to the system and flagged as a referring physician or when a user is modified and the original referring physician flag was set to NO and changed to YES, this report will capture this activity to assist in tracking new referrers added.

Referring Physician Notification
Date Range: 8/10/2011 - 8/17/2011

Referring Physician Name	Practice	Address Type	Address	Phone	Email
Muttery, Troy Date Added: 8/15/2011	ADV	Home	584 Rough and Tumble Hills Rocky Road AZ 25874	(902) 548-6547	
		Work	132 Orphy Dr. Seaside DE 45874	(902) 548-7464	
O'rourkes', Abdu'la Hugh-Prince O'rourkes' Date Added: 8/12/2011	ADV	Work	123 Western Highway St. Eleanor's RI 25148	(902) 485-6554	o'roukes'@hugh-prince.com
Sand#@(#$*, Herbert (Herb)+_(@*#$ Date Added: 8/12/2011	ADV	Work	954 Ninth' St. Pitt$ville DE 33333	(902) 548-7899	

Referring Physician Notification   RadNet – Confidential and Proprietary   Date Run: 8/17/2011 2:20 PM
http://peidev1/ReportServer/QE Current/Management Reports   Page 1 of 1   RMIS\darcyn

Figure 4.34 – Referring Physician Management Report

5. Known Limitations

Bugs, Suggested Features, and Support Issues are now tracked in a web based system called Redmine. The following is a snapshot of the issues found in Build 1.19.

#	Status	Subject	Category	Target version	% Done	Resolved Version
490	New	Edit order - Cannot change procedure	Thick Client GUI	1.19	0	
491	New	IVT procedure column does not update	Thick Client GUI	1.19	0	
492	New	Cannot cancel an order	Thick Client GUI	1.19	0	
494	New	Aborted exams not retaining studies when returned to pending orders	Thick Client GUI	1.19	0	
495	New	Refresh issue with scrolling available time slots for scheduling.	Thick Client GUI	1.19	0	
498	New	Unknown Referring - Exception thrown trying to edit order	Thick Client GUI	1.19	0	
488	Resolved	Review Scheduled Info tab data missing on Reschedule.	Thick Client GUI	1.19	100	1.20
489	Resolved	Remove cancelled room info will cause an exception	Admin Tools	1.19	100	1.20
496	Resolved	Error on room / time availability	Thick Client GUI	1.19	100	1.20
497	Resolved	Appointment screen (work list) room field returns procedures.	Thick Client GUI	1.19	100	1.20
499	Resolved	Patient Search - Search other variations not complete	Thick Client GUI	1.19	100	1.19