

2014 UC San Diego Radiology Systems Orientation

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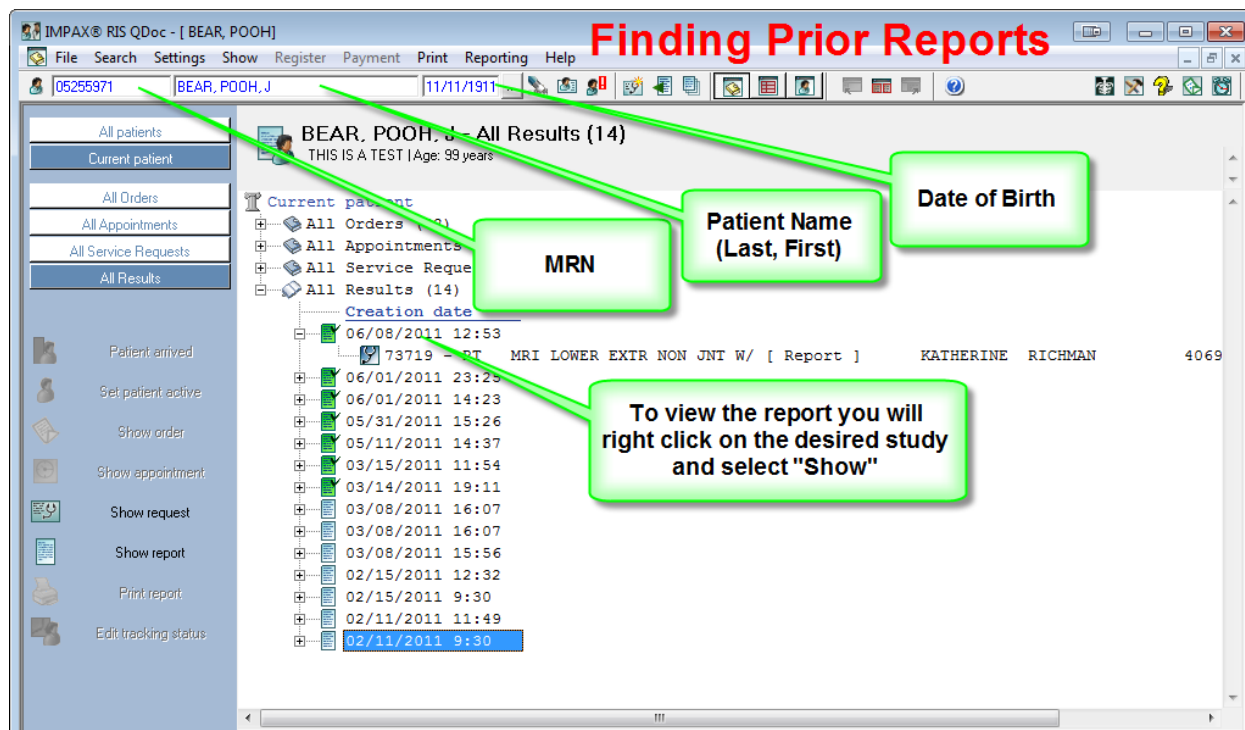
RIS (RADIOLOGY INFORMATION SYSTEM)

1. Enter your AD credentials in the appropriate fields to log into RIS



The image shows the IMPAX® RIS registration window. The title bar reads "IMPAX® RIS registration". The main area has a blue background with the text "Welcome to IMPAX® RIS" and "QDoc version 5.7". On the left, there is a small text box with copyright information: "CPT copyright 2003 American Medical Association. All rights reserved. Fee schedules, relative value units, conversion factors and/or related components are not assigned by the AMA, are not part of CPT, and the AMA is not recommending their use. The AMA does not directly or indirectly practice medicine or dispense medical services. The AMA assumes no liability for data contained or not contained herein. CPT is a registered trademark of the American Medical Association." On the right, there are input fields for "Database" (set to "QPROD"), "User name", "Password", and "Affiliation". Below these fields are "OK" and "Cancel" buttons. At the bottom left, there is copyright information for Agfa Healthcare N.V. and its affiliates.

2. Users can view a report on a radiology procedure.



The image shows the IMPAX® RIS QDoc - [BEAR, POOH] window. The title bar reads "IMPAX® RIS QDoc - [BEAR, POOH]". The menu bar includes "File", "Search", "Settings", "Show", "Register", "Payment", "Print", "Reporting", and "Help". The toolbar contains various icons. The main area displays patient information: "05255971", "BEAR, POOH, J", and "11/11/1911". Below this, it says "BEAR, POOH, J - All Results (14)" and "THIS IS A TEST | Age: 99 years". A list of results is shown, including "All Orders (0)", "All Appointments", "All Service Requests", and "All Results (14)". A table of results is displayed with columns for "Creation date", "Study", "Report", and "Referring Physician". The table lists several studies, with the most recent one highlighted in blue: "02/11/2011 9:30". A red arrow points from the "Finding Prior Reports" text to the "All Results (14)" section. A green box labeled "MRN" points to the patient ID "05255971". A green box labeled "Patient Name (Last, First)" points to "BEAR, POOH, J". A green box labeled "Date of Birth" points to "11/11/1911". A green box labeled "To view the report you will right click on the desired study and select 'Show'" points to the highlighted study in the table.

Finding Prior Reports

MRN

Patient Name (Last, First)

Date of Birth

To view the report you will right click on the desired study and select "Show"

3. Users can search past studies for a patient.

The screenshot displays the IMPAX RIS QDoc software interface. The top menu bar includes 'File', 'Settings', 'Show', and 'Help'. Below the menu, a patient identifier '05255971' and name 'BEAR, POOH, J' are shown, along with a date '11/11/1911'. The main window is divided into two panes. The left pane contains a table with columns 'Exam code', 'Radiologist', 'Assisted by', and 'Anaesthetist'. The right pane is titled 'Exam/Ordered procedure details' and 'Report details + report'. A green callout box points to a button in the top right corner, stating 'Select Patient History button to view reports, orders and appointments'. Another green callout box points to a magnifying glass icon in the left pane, stating 'This icon represents orders for the patient'. A third green callout box points to a calendar icon in the left pane, stating 'This icon represents appointments for the patient'. A red callout box in the bottom right corner states 'In this view you will have access to full reports and a list of all priot and future orders and appointments'. The bottom status bar shows 'SCOBERLY | UCSD HOSPITALS | QTRAIN' and '0%'.

IMPAX® RIS QDoc - [BEAR, POOH]

File Settings Show Help

05255971 BEAR, POOH, J 11/11/1911

Exam code Radiologist Assisted by Anaesthetist

EXAM NOT LI

EXAM NOT LI

EXAM NOT LI

EXAM NOT LI

EXAM NOT LI

73218 - LT

EXAM NOT LI

72195

73721 - RT

EXAM NOT LI

RAD3004

70553

70336

72197

78815

RAD4000

RAD3001

RAD1088

RAD4034

EXAM NOT LI

RAD3011

RAD1017

70450

EXAM NOT LI

70470

70486-CT64

72197

70336

76805

70553

F76805

76805

72195-BONE

Exam/Ordered procedure details Report details + report

Item Value

du + conclusion Conclusion only Full report

SCOBERLY | UCSD HOSPITALS | QTRAIN 0%

Select Patient History button to view reports, orders and appointments

This icon represents orders for the patient

This icon represents appointments for the patient

In this view you will have access to full reports and a list of all priot and future orders and appointments

LOGGING IN

Launch Protocol Viewer by double clicking on the desktop icon illustrated.

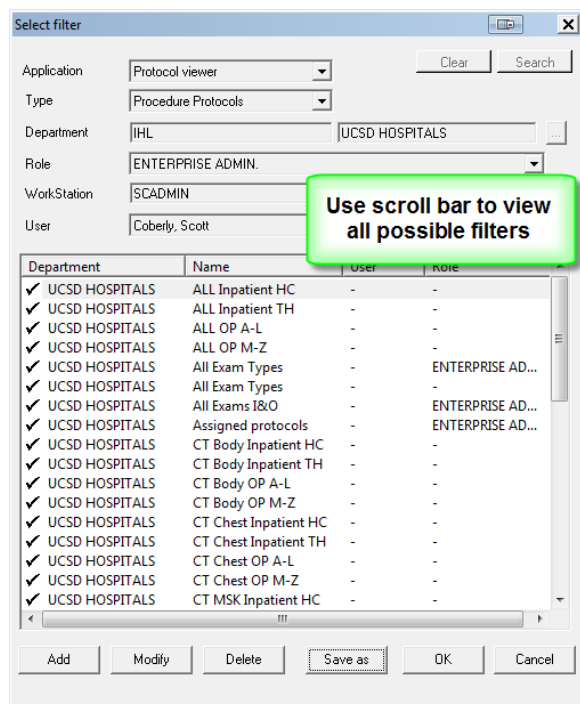
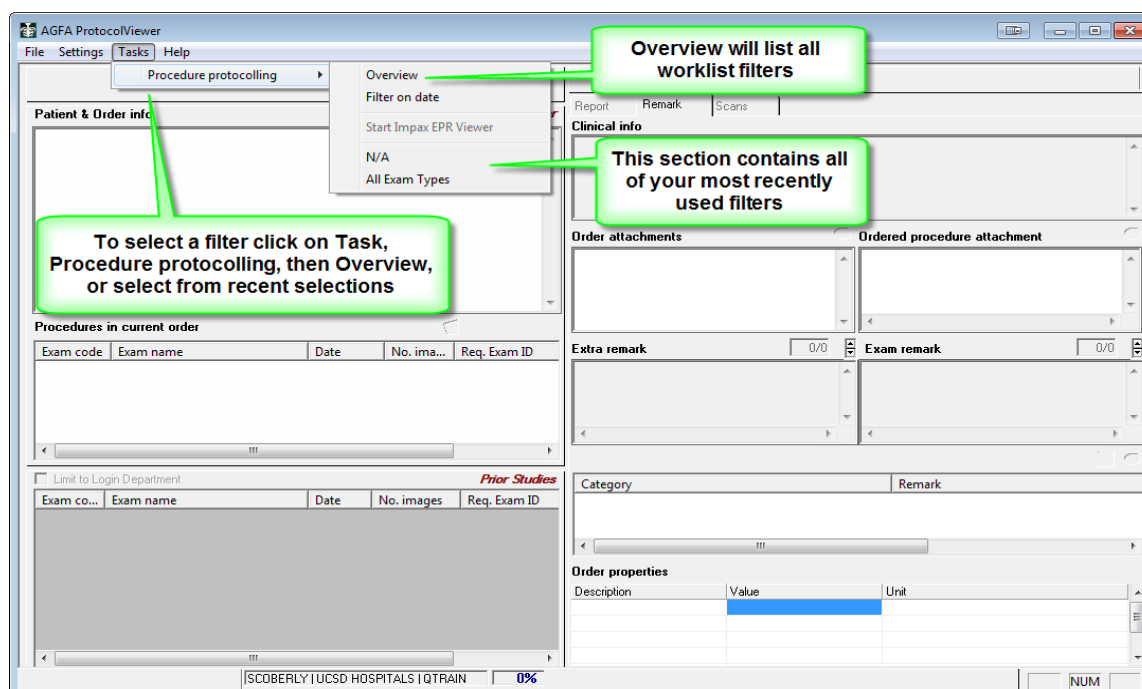


Log into the application by using your Impax login.

A screenshot of the IMPAX RIS registration window. The window has a blue header bar with the text "IMPAX® RIS registration" on the left and the AGFA HealthCare logo on the right. The main area is a solid blue color. In the center, the text "Welcome to IMPAX® RIS" is displayed in large white font. Below this, "PROTOCOLVIEWER version 5.7" is written in a smaller white font. On the left side, there is a CE mark and the text "Agfa Healthcare N.V. Septestraat 27, 2670 Mortsel, Belgium © 2010 Agfa HealthCare N.V. and/or its affiliates". On the right side, there is a login form with four fields: "Database" (a dropdown menu showing "QPROD"), "User name" (a text input field), "Password" (a text input field), and "Affiliation" (a dropdown menu). The "User name" and "Password" fields are highlighted with a red rectangular border. Below these fields are "OK" and "Cancel" buttons. A green callout box with a black border and a green arrow pointing to the "User name" field contains the text "Log in using your Impax username and password".

GETTING STARTED

When you log in, the application will display as seen here. In order to begin protocolling, it is necessary to select which section you are responsible for during your session. Double clicking on the appropriate filter will launch your work list.



Note:

The filters have been created so that Radiologists will protocol those inpatient studies for the location where they are reading. The outpatients with last names starting A-L will be protocolled by Hillcrest and M-Z by Thornton.

PROTOCOLING STEPS

Step 1

You will select a patient from the work list at the bottom of the protocol screen by clicking on the desired line.

Procedure protocolling - All Exam Types

Protocol: Prior protocol : I64ct24 (24Larynx (trauma) - W/O contrast 64 slice) ☐ Modified

Protocol information
A70490

Indications: Trauma. Include full neck if worried about tracheal injury. Otherwise, image just the larynx.

Sequences
Axial sections without contrast
Scan at 1.25mm, recons at 1.25mm bone filters
Sagittal and coronal reformats
Reformat 1.25mm sections into coronal and sagittal planes.

Remark

Protocol status: User: MCROOK Date: 6/20/2011 9:25 AM

Procedures: 1 / 2

Assign Validate Hide list Finish

Exam code	Exam name	Date	Priority	Protoc...	Patient
RAD4000	CT HEAD	5/11/2...	STAT		251462
RAD3014	MRI/MRA ABDOMEN	5/13/2...	ROUTI...		191239
RAD3001	MRI/MRA BRAIN	5/13/2...	ROUTI...		191239
RAD3030	MRI LIVER BYDDER LAB				559
RAD4000	CT HEAD				559
RAD4034	CT CHEST				559
RAD3001	MRI/MRA BRAIN				559
RAD4019	CT ABDOMEN ONLY				251401

The highlighted study is the active order you are protocolling

Step 2

As illustrated in the following screen shots you have access to attachments, patient order information (including ordering physician information), clinical history, lab values, prior exam reports and exam notes for your reference.

Patient & Order info

Patient: BEAR, POOH, J
 Patient sex: M
 Patient age: 99
 Patient number: 05255971
 Patient birthday: 11/11/1911
 Patient address: 4235 FRONT STREET 92103 SAN DIEGO
 Patient phone: (619)471-0460
 Patient second phone: -
 Patient type: -
 Patient physician: -
 Patient physician code: -
 Patient remark: THIS IS A TEST
 Method of transport: AMBULATORY

Procedures in current order

Exam code	Exam name	Date	No. images	Req. Exam ID
✓ RAD3030	MRI LIVER BYDDER LAB	-	-	-

Prior Studies

Exam co...	Exam name	Date	No. images	Req. Exam ID
73719 ...	MRI LOWER EXTR NON JNT W/...	6/8/2011	1046949	1046949
71020	CHEST 2 VIEWS, FRONTAL & LA...	6/1/2011	1046937	1046937
71030	CHEST COMPLETE, MINIMUM 4...	6/1/2011	1046936	1046936
71020	CHEST 2 VIEWS, FRONTAL & LA...	6/1/2011	1046924	1046924
71030	CHEST COMPLETE, MINIMUM 4...	6/1/2011	1046923	1046923
71010	CHEST SINGLE VIEW, FRONTAL	5/31/2...	1046914	1046914
72917 ...	MRI ENTEROGRAPHY	5/11/2...	1046861	1046861
72917 ...	MRI ENTEROGRAPHY	5/11/2...	1046862	1046862

Callouts:

- Allergies are located in the Patient Remark field
- History and Labs will be found in the remarks tab
- Review patient information and history in the Protocol Viewer window
- Comparison studies are available by clicking on the studies in this list

Patient & Order info

Patient: BEAR, POOH, J
 Patient sex: M
 Patient age: 99
 Patient number: 05255971
 Patient birthday: 11/11/1911
 Patient address: 4235 FRONT STREET 92103 SAN DIEGO
 Patient phone: (619)471-0460
 Patient second phone: -
 Patient type: -
 Patient physician: -
 Patient physician code: -
 Patient remark: THIS IS A TEST
 Method of transport: AMBULATORY

Procedures in current order

Exam code	Exam name	Date	No. images	Req. Exam ID
✓ RAD3030	MRI LIVER BYDDER LAB	-	-	-

Prior Studies

Exam co...	Exam name	Date	No. images	Req. Exam ID
73719 ...	MRI LOWER EXTR NON JNT W/...	6/8/2011	1046949	1046949
71020	CHEST 2 VIEWS, FRONTAL & LA...	6/1/2011	1046937	1046937
71030	CHEST COMPLETE, MINIMUM 4...	6/1/2011	1046936	1046936
71020	CHEST 2 VIEWS, FRONTAL & LA...	6/1/2011	1046924	1046924
71030	CHEST COMPLETE, MINIMUM 4...	6/1/2011	1046923	1046923
71010	CHEST SINGLE VIEW, FRONTAL	5/31/2...	1046914	1046914
72917 ...	MRI ENTEROGRAPHY	5/11/2...	1046861	1046861
72917 ...	MRI ENTEROGRAPHY	5/11/2...	1046862	1046862

Callouts:

- Ordered procedure attachment
- Protocol Rejected
- If the protocol has been rejected for any reason you will see this attachment. Please open to see prior protocol, who validated it, the user who rejected the protocol and their remarks.

AGFA ProtocolViewer - [CURETON, EUGENE]

File Settings Tasks Help

Patient & Order info
 Patient number: 1409231
 Patient: CUF
 Patient sex: M
 Patient age: 64
 Patient birth: 12/16/1946
 Patient address: 1409231
 Patient phone: 1409231
 Patient email: 1409231
 Ordering physician: 1409231
 Ordering physician: 1409231
 Accession number: 1409231
 Admission room: 1409231

Current order
 Reason for exam
 DX: OSTEOMYELITIS NOA-1-LOG
 Order attachments
 Scanned Order
 Scanned Documents
 Ordered procedure attachment
 Patient Note
 Exam remark
 MRI L FOOT OSTEO W/ CONTRAST

Procedures in current order

Exam name	Date	No. ima...	Req. Exam ID	Accession n
MRI/MRA LOWER EXTREMITY			1409231	41057732

Prior Studies

Exam co...	Exam name	Date	No. images	Req. Exam ID
H7363...	FOOT COMPLETE - MINIMUM 3...	3/1/2011	1290479	
H71020	CHEST 2 VIEWS - FRONTAL & L...	12/16/...	1225980	
RAD10...	X-RAY FOOT LEFT SIDE129	12/16/...	1225824	
H7363...	FOOT COMPLETE - MINIMUM 3...	12/16/...	1225711	
H71010	CHEST SINGLE VIEW - FRONTAL...	9/27/2...	1149559	
H7363...	FOOT COMPLETE - MINIMUM 3...	9/24/2...	1147789	
H7372...	MRI LOWER EXTR NONINT WO/...	6/2/2010	1041928	
H9392...	TCP02 LOWER EXTREMITY	6/1/2010	1041236	

Order properties

Description	Value	Unit
PREGNANT?	<input type="checkbox"/>	
EDD		
LMP		
HEIGHT		

Step 3

Select the protocol from the drop down list in the Procedure Protocolling screen.

Please do not chose "Ad Hoc" Protocol unless absolutely necessary, as Ad Hoc gives no indication as to CPT code, oral contrast, intravenous contrast, or imaging instructions.

Procedure protocolling - All Exam Types

Protocol: Prior protocol : se64ct10 (10Sella/Pit -w+/w/O IVC only if cant get MR CT64)

Protocol information: Prior protocol : se64ct10 (10Sella/Pit -w+/w/O IVC only if cant get MR CT64)

70480

Indications: Pituitary tumor

Contrast: 100 ml

Sequences: Axial sections, Coronal section, Scan at 0.625

Remark

Protocol status: User: 007601 Date: 3/8/2011 3:12 PM

Procedures: 5 / 27

Assign Validate Hide list Finish

Exam code	Exam name	Date	Priority	Protoc...	Patient
RAD4000	CT HEAD	5/11/2...	STAT		251462
RAD3014	MRI/MRA ABDOMEN	5/13/2...	ROUTI...		191239
RAD3001	MRI/MRA BRAIN	5/13/2...	ROUTI...		191239
RAD3030	MRI LIVER BYDDER LAB	6/1/20...	ROUTI...		052559
RAD4000	CT HEAD	6/1/20...	ROUTI...		052559
RAD4034	CT CHEST	6/3/20...	ROUTI...		052559
RAD3001	MRI/MRA BRAIN	6/3/20...	ROUTI...		052559
RAD4019	CT ABDOMEN ONLY	6/9/20...	ROUTI...		191401

Step 4

To complete the protocoling process for this patient click on the Validate button.

If you are waiting for a call back from a clinician you can press the Assign button to save the work you have done to that point.

*The Assign button only saves. It has no other functionality.

Please do not forget to double check the protocol is correct before you validate! Otherwise the original order will be modified, risking the patient receiving the wrong exam.

Procedure protocoling - All Exam Types

Protocol: br64ct07 (07CTA Brain w/IVC 64 slice) Modified

Protocol information

A70496

Indications

Subarachnoid or cerebral hemorrhage, suspected aneurysm or vascular malformation. Consult with Neurology, Neurosurgery or Neurointerventional services.

Contrast: 80 ml Omnipaque 350 at 4 ml/sec

Sequences:

Non contrast head CT

Test bolus: DFOV=22, 120 kVp, mA=75, RS=0.5, scan thickness 5mm, prep group 5 sec, 20ml of IV contrast, 20ml pre- and post-injection, rate =4ml/sec

Remark

Additional comments and modifications to the contrast order must be placed in this field

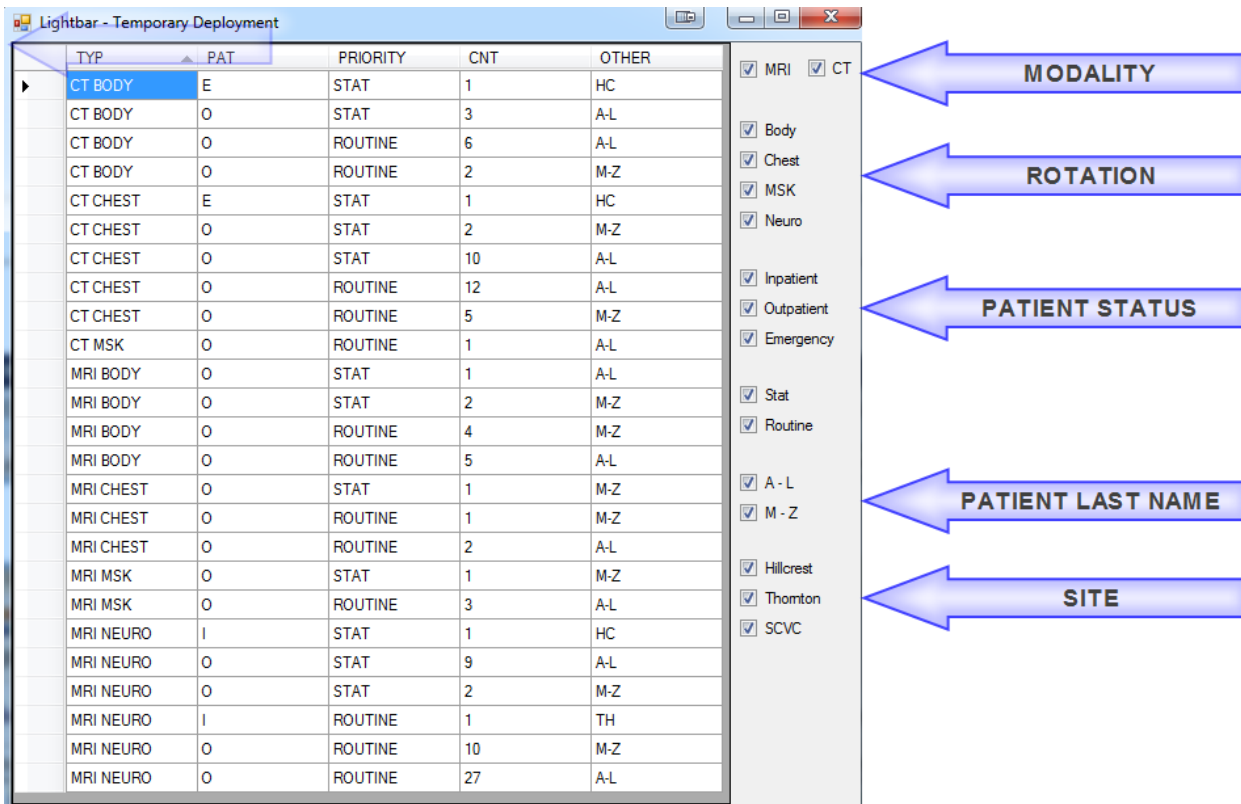
Protocol status: User: Date:

Procedures: 5 / 27

Assign Validate Hide list Finish

Exam code	Exam name	Date	Priority	Protoc...	Patient
					251462
					191239
					191239
					052559
					052559
					052559
					052559
					191401

The Light Bar application is used to display the number of orders waiting for protocols. The application is launched when booting up a radiology diagnostic workstation.



TYP	PAT	PRIORITY	CNT	OTHER
CT BODY	E	STAT	1	HC
CT BODY	O	STAT	3	A-L
CT BODY	O	ROUTINE	6	A-L
CT BODY	O	ROUTINE	2	M-Z
CT CHEST	E	STAT	1	HC
CT CHEST	O	STAT	2	M-Z
CT CHEST	O	STAT	10	A-L
CT CHEST	O	ROUTINE	12	A-L
CT CHEST	O	ROUTINE	5	M-Z
CT MSK	O	ROUTINE	1	A-L
MRI BODY	O	STAT	1	A-L
MRI BODY	O	STAT	2	M-Z
MRI BODY	O	ROUTINE	4	M-Z
MRI BODY	O	ROUTINE	5	A-L
MRI CHEST	O	STAT	1	M-Z
MRI CHEST	O	ROUTINE	1	M-Z
MRI CHEST	O	ROUTINE	2	A-L
MRI MSK	O	STAT	1	M-Z
MRI MSK	O	ROUTINE	3	A-L
MRI NEURO	I	STAT	1	HC
MRI NEURO	O	STAT	9	A-L
MRI NEURO	O	STAT	2	M-Z
MRI NEURO	I	ROUTINE	1	TH
MRI NEURO	O	ROUTINE	10	M-Z
MRI NEURO	O	ROUTINE	27	A-L

MODALITY	ROTATION	PATIENT STATUS	PATIENT LAST NAME	SITE
<input checked="" type="checkbox"/> MRI	<input checked="" type="checkbox"/> Body	<input checked="" type="checkbox"/> Inpatient	<input checked="" type="checkbox"/> A - L	<input checked="" type="checkbox"/> Hillcrest
<input checked="" type="checkbox"/> CT	<input checked="" type="checkbox"/> Chest	<input checked="" type="checkbox"/> Outpatient	<input checked="" type="checkbox"/> M - Z	<input checked="" type="checkbox"/> Thornton
	<input checked="" type="checkbox"/> MSK	<input checked="" type="checkbox"/> Emergency		<input checked="" type="checkbox"/> SCVC
	<input checked="" type="checkbox"/> Neuro			
		<input checked="" type="checkbox"/> Stat		
		<input checked="" type="checkbox"/> Routine		

Users may select any combination of search parameters.

- **MODALITY** – currently only CT and MRI are routinely protocolled.
- **ROTATION** – The website, radres.ucsd.edu, displays the assigned rotations for residents. The website, www.amion.com, displays the faculty schedule.
- **PATIENT STATUS**
 - I = inpatient
 - O = outpatient
 - E = emergency
- **PATIENT LAST NAME**
 - A-L read by Thornton staff
 - M-Z read by Hillcrest staff
- **SITE**
 - HC = Hillcrest
 - TH = Thornton
 - SCVC = Sulpizio Cardiovascular Center

EPIC: Find the Treating Physician

Hyperspace - IP INTERVENTIONAL RADIOLOGY/ANGIO - PRD - RYAN ASH

Encounters for a patient (Ctrl+S)

DOB: 10/31/1976 year old, Male

Encounter: Admission, Status: Admitted, Date: 05/06/2011, Time: 2328, Privacy Ind: Yes - OK to give, Location: UC SAN DIEGO MEDICAL CENTER, Provider: RAMOS, R

Click on Patient Station.

Click on the Admission Line.

Click on Patient Station.

Click on the Admission Line.

Hyperspace - IP INTERVENTIONAL RADIOLOGY/ANGIO - PRD - RYAN ASH

6 year old, Male, DOB: 10/31/1934, HC 7-WEST 733, Allergies: No Known Allergies, Code: FULL

Patient Overview

- [Snapshot](#)
- [Patient Overview](#)
- [Facesheet](#)
- [Code Status History](#)
- [Patient History](#)
- [RN Admission Summary](#)
- [Care Plan/Pt Education](#)
- [Treatment Team](#)
- [Discharge](#)

Vitals and Flowsheet Data

Click on

Treatment Team.

Hyperspace - IP INTERVENTIONAL RADIOLOGY/ANGIO - PRD - RYAN ASH

6 year old, Male, DOB: 10/31/1934, HC 7-WEST 733, Allergies: No Known Allergies, Code: FULL, Attend Prov: RAMOS, P, Language: English

Who to Call

Provider	Role	From	To
Kevin Jon Smith, MD	1st Call	05/06/11 2354	N
Scott Michael Francioni, MD	2nd Call	05/06/11 2354	N
Pedro R Ramos, MD	Attending Provider	05/06/11 2328	N

Other Treatment Team Providers

Not on file

Click on Web Paging


You will see the list of contact info. Click on Web Paging to page the person (remember the pager number).

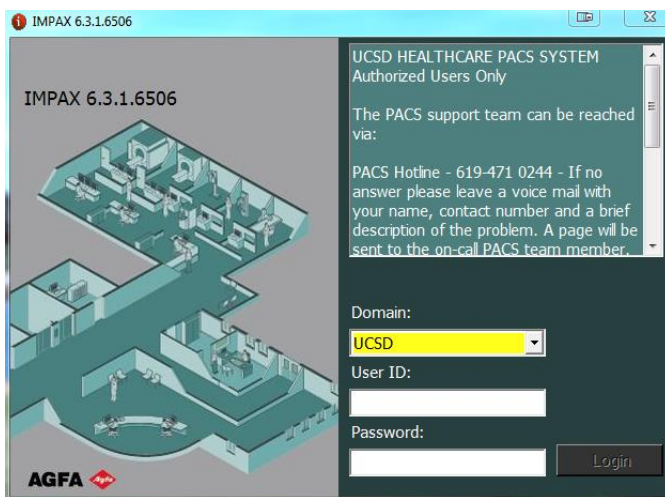
IMPAX

Impax is the AGFA software application used to store radiologic images with the UCSD PACS system. The current version is Impax 6.3.1

LOGGING IN

Access to Impax is granted through a user's UCSD active directory (AD) account. You will receive your username and password in your orientation packet. These credentials will be used to log into your UCSD email account, log onto a UCSD computer and other functions. If you are a radiology fellow, you will receive two (2) usernames and two (2) passwords. One will be designated as your "attending" credentials. These are to be used when you are reporting cases without supervision. For all other case, you will use your AD credential.

The Impax client icon is a red circle imprinted with a white "i."  When logging in, please ensure the domain is "UCSD." Enter your AD credentials and click "login."



The following screen will then appear on your monitor. The system is defaulted to have no worklists appear at sign-in. In each rotation, you will need to modify the worklists that will appear when you log into Impax. There are standard worklists developed by the attending radiologists. You will be given these listings during your rotation.

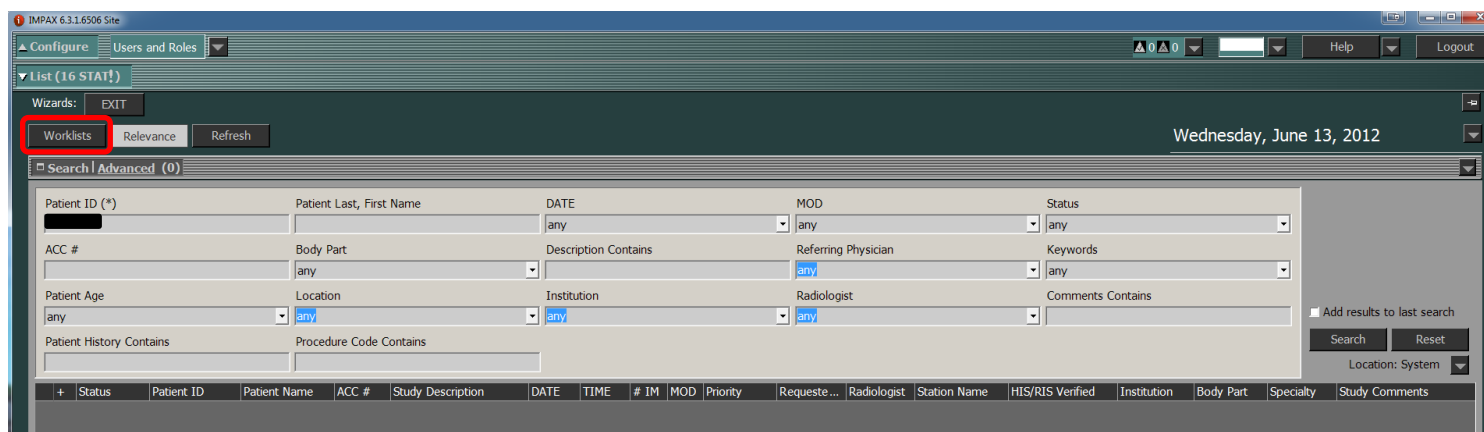


Fig. 1

WORKLISTS

To choose worklists, click on the “Worklists” button and the library will display. You can choose one or multiple worklists.

Standard worklists are built for radiologists to distribute the reporting across services. These worklists were created by the chief of each reading service, neuro, chest, etc. Reading of inpatients, emergency department patients and outpatients during regular business hours is determined by patient’s last name and hospital site. Please ensure you use the correct worklists as assigned by the attending radiologists.

The standard worklists are managed by the imaging informatics team. Users cannot edit the search criteria.

Scheduled worklists are managed by users. Any user can create a scheduled worklist to be run on a specified day or time.

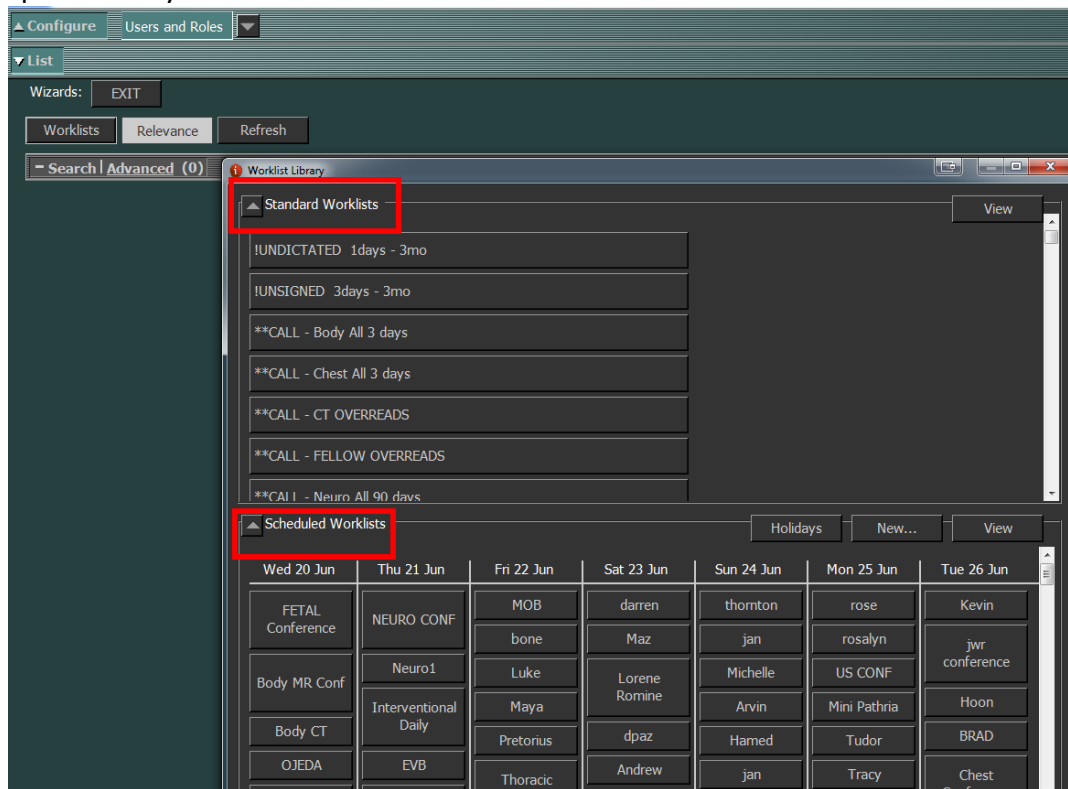


Fig. 2

Once you have chosen your worklists, you will need to click on the gray lined bar in the worklist title bar. All studies meeting the search criteria will appear below the title bar. The list is defaulted to show all STAT exams at the top and all other exams are listed alphabetically below. Before displaying images, ensure the “relevance” button is chosen. This will display any previous relevant exams with the current imaging. (Fig. 3)

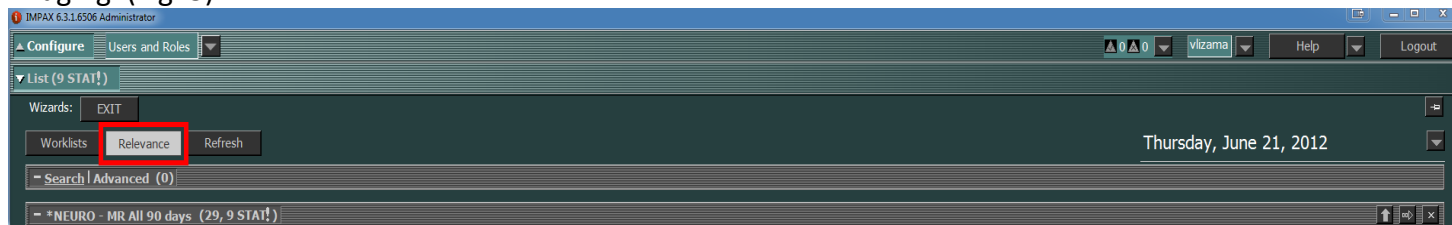


Fig. 3

WORKLIST DISPLAY

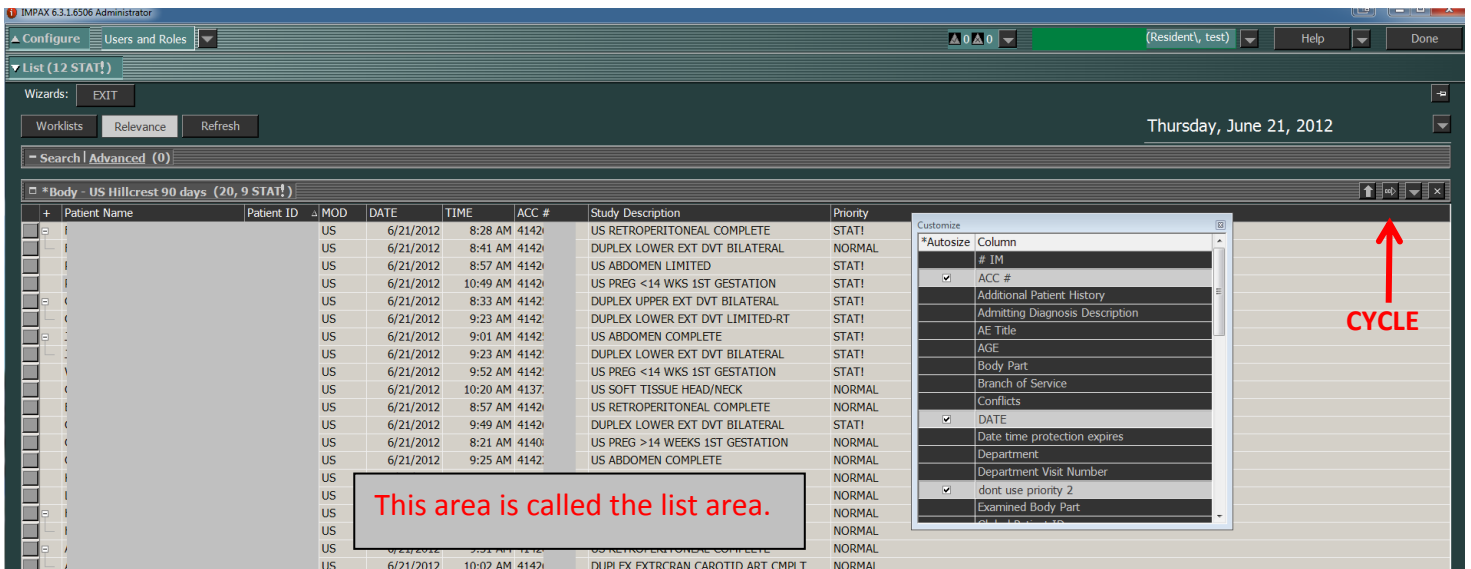


Fig. 4

Users can modify the worklist display. Right click on the black title bar of the worklist. A customize menu will appear. You can then add, delete or move columns with a drag and drop. (Fig. 4)

To view all the exams in the worklist, simply click on the “cycle” icon to the right of the worklist bar. You may also select multiple exams on the worklist to display. Once selected, right click in the window to choose the next action for this pop up box.

- | | |
|---|---|
| <ol style="list-style-type: none"> 1 Add to Cycle List 2 Cycle 3 Open images 4 Remove 5 Claim 6 Unclaim | <ol style="list-style-type: none"> 1 – Adds selection to active cycle list 2 – Creates new cycle list 3 – Opens images for selected exams 4 – Removes exams from worklist 5 – Claims the selected exams 6 – Removes radiologist listed as claiming the selected exams |
|---|---|

When choosing “cycle” the exam will be added to an open session. “Open images” will allow you to view the images but does not add it to the cycle list.

When working in Impax, a user may choose to “claim” a study. By claiming an exam, other users will be alerted that the study is being read. You can claim or unclaim a study by right clicking on the worklist as described above or when viewing images, a claim button is on the toolbar. (Fig. 5)

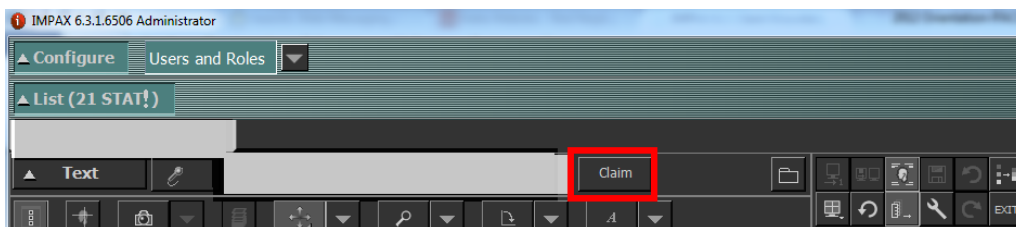


Fig. 5

TEXT AREA

Most diagnostic workstations (DS) are configured with three monitors. The middle and right monitors will display images; the left monitor will display patient history and exam information. The left monitor is commonly called the text monitor. There are six (6) layouts available. To modify the payout, right click on any title bar and choose “configure layout.” The size of each section can be changed by moving the margins.

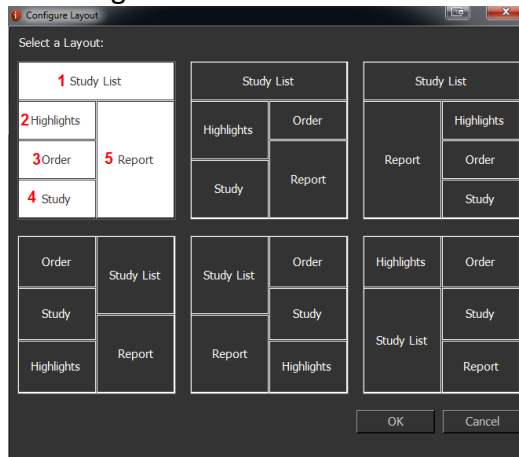


Fig. 6

Fig. 6

- 1 - Study list will display all exams available for viewing. One left click on an item will populate the other fields on this screen with information. A double click will display the images for the chosen exam.
- 2 - Highlights section displays RIS information for the chosen exam. For example:
 - Clinical information
 - Resources used for imaging
 - Requesting clinician's name and phone number
- 3 - Order section displays the responsible physician's name and phone number
- 4 - Study section also displays RIS information and tabs that can be modified to contain links within the UCSD intranet. There is also a section, “Study Comments,” where radiology residents and emergency department (ED) clinicians can enter “wet reading” comments.
- 5 - Report field displays the UCSD report for the exam. Images from outside UCSD may have their reports scanned into the exam as an image.

In the “study list” section, there is a teaching files tab. Users can view images as well as add cases. Within the text area, you can expand categories down to the anonymized images to display. (Fig. 7)

While viewing images, you can add images to a teaching file. Right click within the image. From the pop-up menu, choose “add to new teaching file” and choose the image, series or entire study. (Fig. 8)

In the text area, you can create new folders by right clicking in the area and choosing from the menu. Within the text area teaching files, you can also drag and drop exams to folders. (Fig. 9-10)

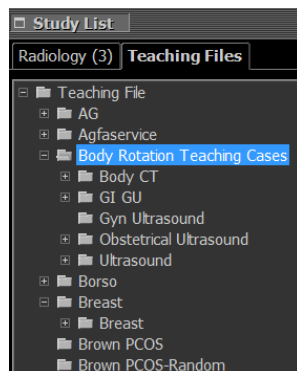


Fig. 7

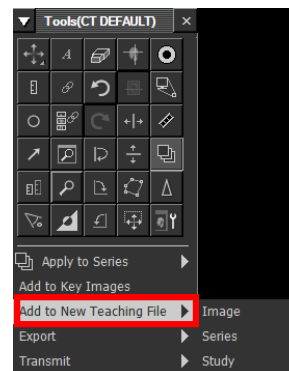


Fig. 8

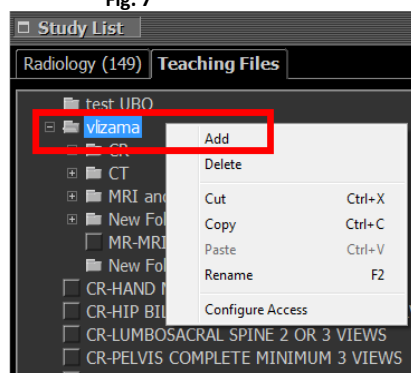


Fig. 9

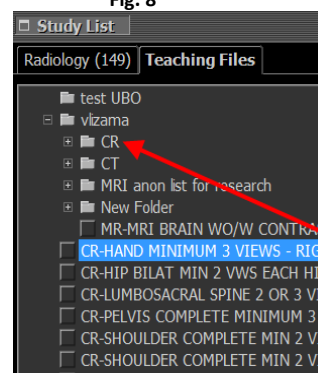


Fig. 10

Impax images can also be tagged with keywords. There are system keywords available for all users. You may also create your own keywords. Keywords are searchable items. For example, you may add a keyword of “biopsy” to a study. In follow up, you could include the keyword in a query to pull any studies with this tag.

There are system keywords that are available to all users. You may also create your own keywords. Personal keywords are not shared with other users.

There are two ways to attach a keyword to a study or to create a new keyword. On the list area you can right click and choose “keywords” from the pop-up menu. Alternatively, you can choose keywords in the “study” section of the text area. (Fig. 11) A list of the system keywords as well as your own will appear. (Fig. 12) Click on an item to attach it to your study. Click on “customize” to create a new keyword. (Fig. 13)

Study Approved

Description | Stat Dx | RadRes | Google | Faculty Schedule | Protocol | Scanned Documents | Patient Note

Patient Name: [REDACTED]
 Patient ID: 20 [REDACTED]
 ACC #: 4141 [REDACTED]

Patient Birth Date: 5/19/1979 (33)
 Patient Age: 33y1m
 Patient Sex: Female

Current Location: OP
 Institution: MOORES CANCER CENTER|CC|MOORES CANCER CENTER IMAGING

Requesting Physician: M.D. DOUCET,JAY
 Phone Number: 619 2901490
 Approved by: DIETRICH,ROSALIND
 Radiologist:
 Technologist: JOSEPH, PATRICK

DATE: 6/21/2012 1:00 PM

Study Description:
MRI BRAIN W/O CONTRAST
 Requested Procedure: 70551
 Reason for Study:
 Clinical History: >new onset seizure and asymmetric exam Last creatinine: CREAT 0.54 6/6/2012 Last BUN: BUN 7 6/6/2012 Last GFR: GFRNON >60 6/6/2012 Last GFR: No results found for this basename: GFRAA Who To Call Providers (at the time that the order was placed): Reason: >e. Seizure (new onset) Contrast: >With/without Defer to

Additional Patient History:
 Clinical History: >new onset seizure and asymmetric exam Last creatinine: CREAT 0.54 6/6/2012 Last BUN: BUN 7 6/6/2012 Last GFR: GFRNON >60 6/6/2012 Last GFR: No results found for this basename: GFRAA Who To Call Providers (at the time that the order was placed): Reason: >e. Seizure (new onset) Contrast: >With/without Defer to

Number of Images: 628
 Number of Series: 19
 Acquisition Location: CC MRI / -
 Order priority: NORMAL
 Military Rank: ROUTINE
☒ Verified

Keywords: [Empty Field]

Study Status: Approved

Fig. 11

Keywords

Assign keyword(s) to study:

- ☐ -CD SENT
- ☐ -CTAN
- ☐ 845
- ☐ ABR Breast
- ☐ ABR Cardiac
- ☐ ABR Endocrine
- ☐ ABR GI
- ☐ ABR GU
- ☐ ABR MSK
- ☐ ABR Neuro
- ☐ ABR NucS
- ☐ ABR Peds
- ☐ ABR Reproductive
- ☐ ABR Thorax
- ☐ ABR U/S

Customize... OK Cancel

Fig. 12

Keywords

- CASOLA GI
- CSSTFARRS
- f/u-ler
- FIRST TRIMESTER
- KIM
- ler-nuchal cert
- Mo Khan cases
- Reena TF
- VERGAE
- VERGAE STUDY

Add [Empty Field] Add

OK Cancel

Fig. 13

Below is a screenshot of an image within a worklist cycle, divided into three sections. (Fig. 14) HIPPA protected information has been deleted.

IMAGE AREA

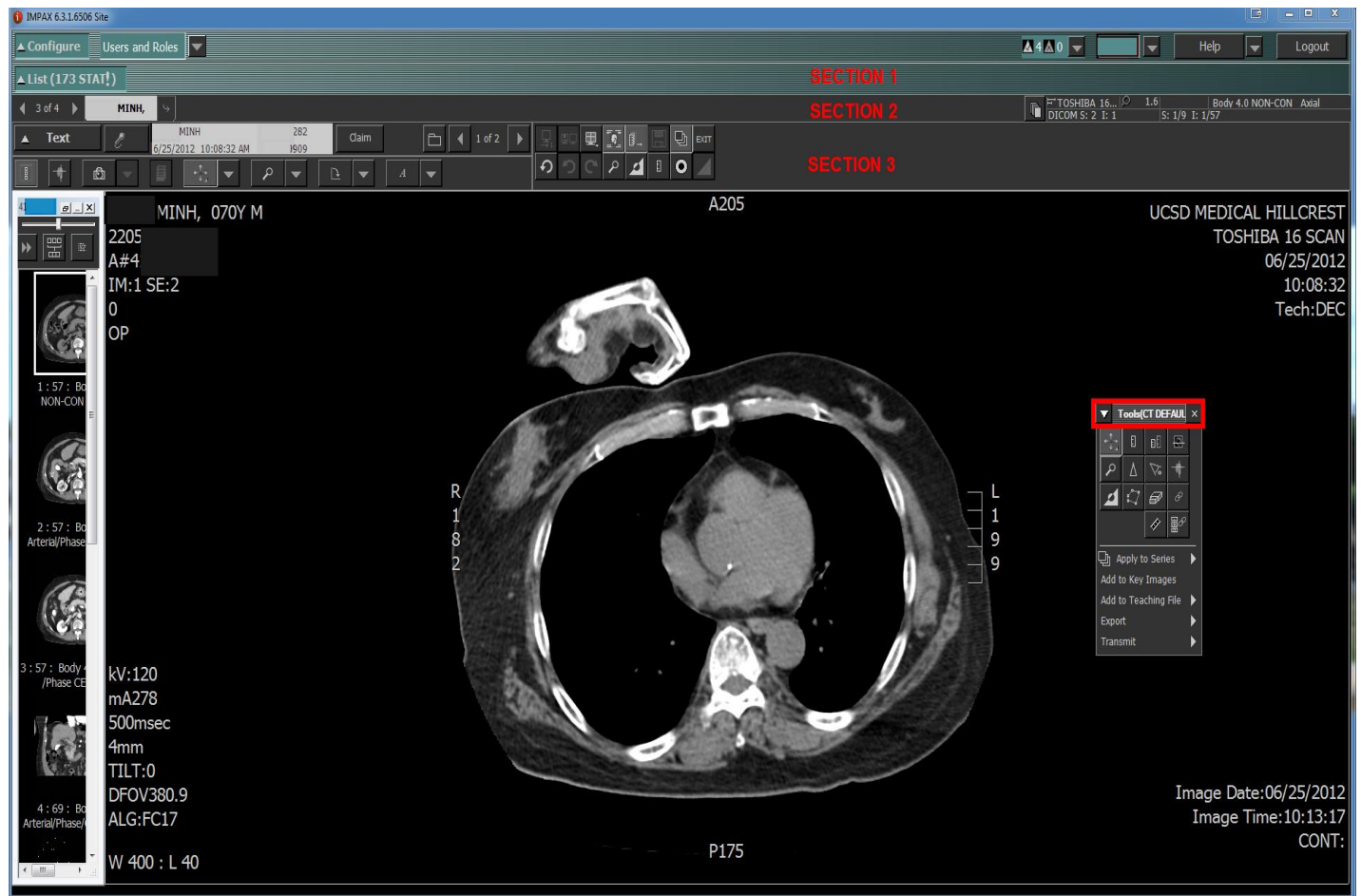


Fig. 14

Section 1: Navigation Bar

Tabs display the patients you have viewed either individually or on your cycle list. The system is defaulted to show display the navigation bar at the bottom, underneath the display area. It is the preference of most radiologists to have the navigation bar at the top. To move the bar, right click in any empty space on the bar. Place a check to the left of "Show Navigation Toolbar at the top of the screen." To place it at the bottom, remove the check mark. (Fig. 15)



Fig. 15

Section 2 Top Toolbar

Contains all the icons needed to transform images and dictate studies. There is a full glossary of tools available in the knowledge base for Impax. To access, click on the “Help” icon in the upper right corner of the screen. Some important and often used icons are listed below. Any icons can be added or deleted from the top toolbar or the context toolbar (outlined in red in section 3, Fig. 14) by dragging and dropping the icons into the desired location.

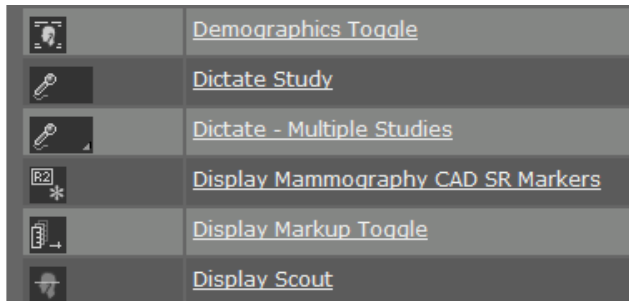


Fig. 16

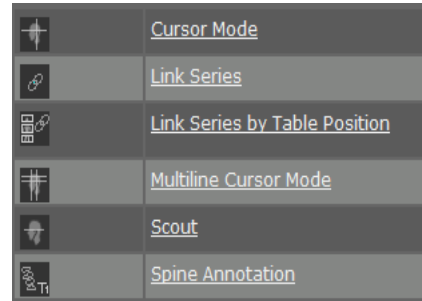


Fig. 17



Fig. 18

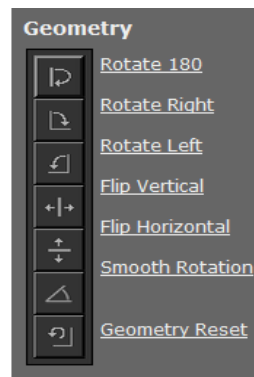


Fig. 19



Fig. 20



Fig. 21

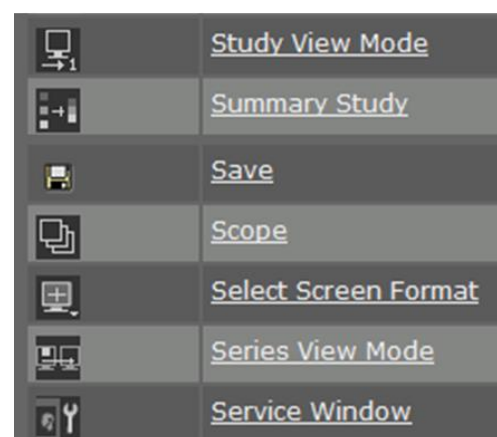


Fig. 22

Section 3 Image area

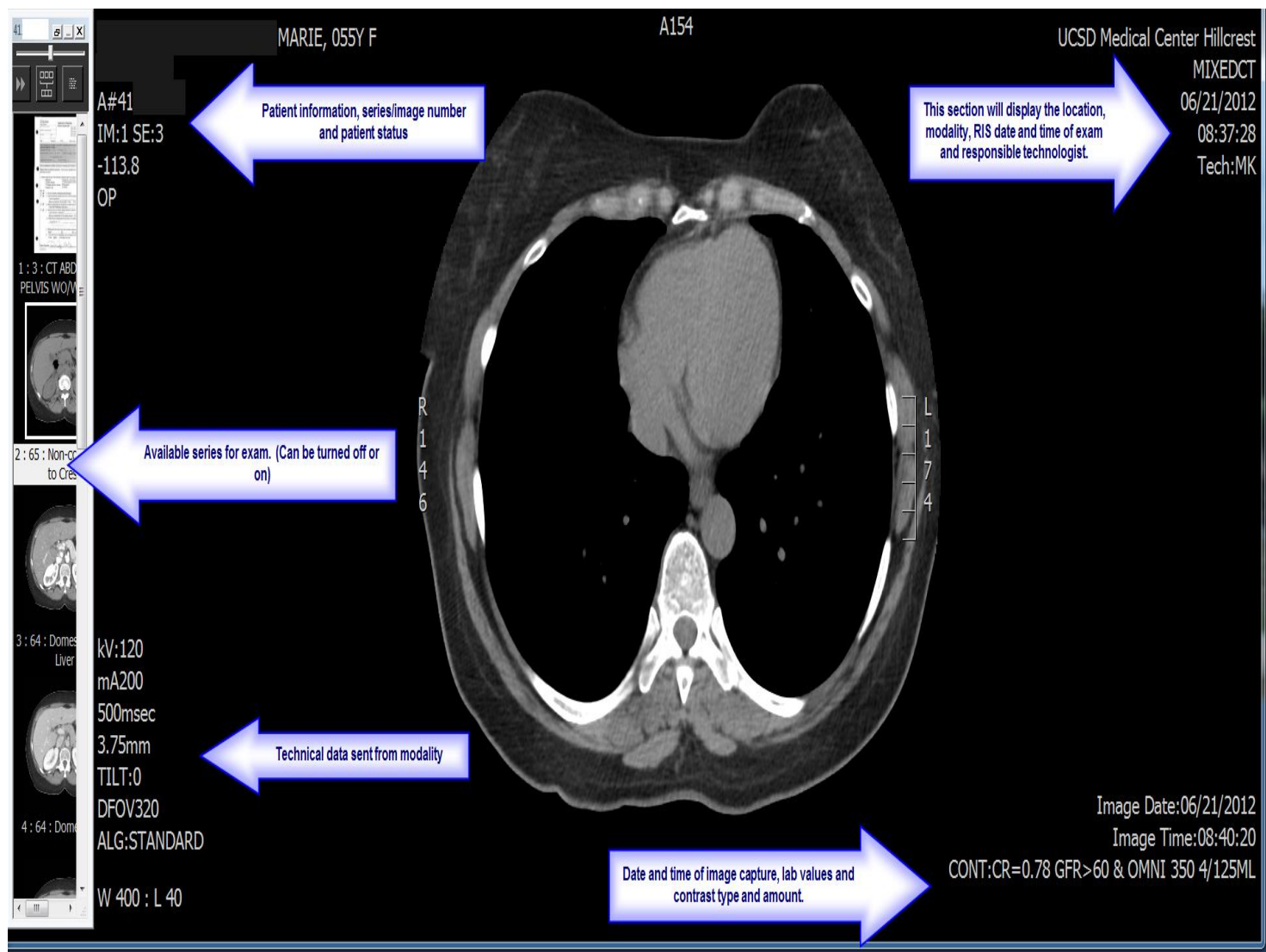
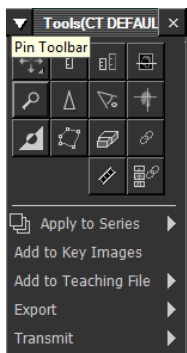


Fig. 23

The available series is defaulted to appear in the left margin of the screen. This feature can be turned on or off for each modality. It can also be moved to the top of the image area.

When the cursor is in the image area, you can right click and the context toolbar will appear. (Fig. 24) Not all available tools can be placed in the context toolbar. It is a quick link to the most commonly used tools for image modification.



(Fig. 24)

OTHER IMPORTANT FEATURES



Customize (Fig. 25)

This tool can be activated using the icon or by pressing <F12>. The system will default to the toolbar for current modality and the section, “All Tools.” You can narrow the search for tools by clicking any of the available tabs. Drag and drop the icon to either the top toolbar or the context toolbar. (While all tools can be placed on the top toolbar, not all tools are available to paste in the context toolbar.)

You can change the system defaults or add/delete other functions, for example:

Screen layout	Each modality can be configured to your preference
User profile	Useful for configuring mark up preferences
Keyboard shortcuts	System shortcuts exist, you may add or modify personal shortcuts
Wizards	System wizards exist, you may add or modify personal wizards

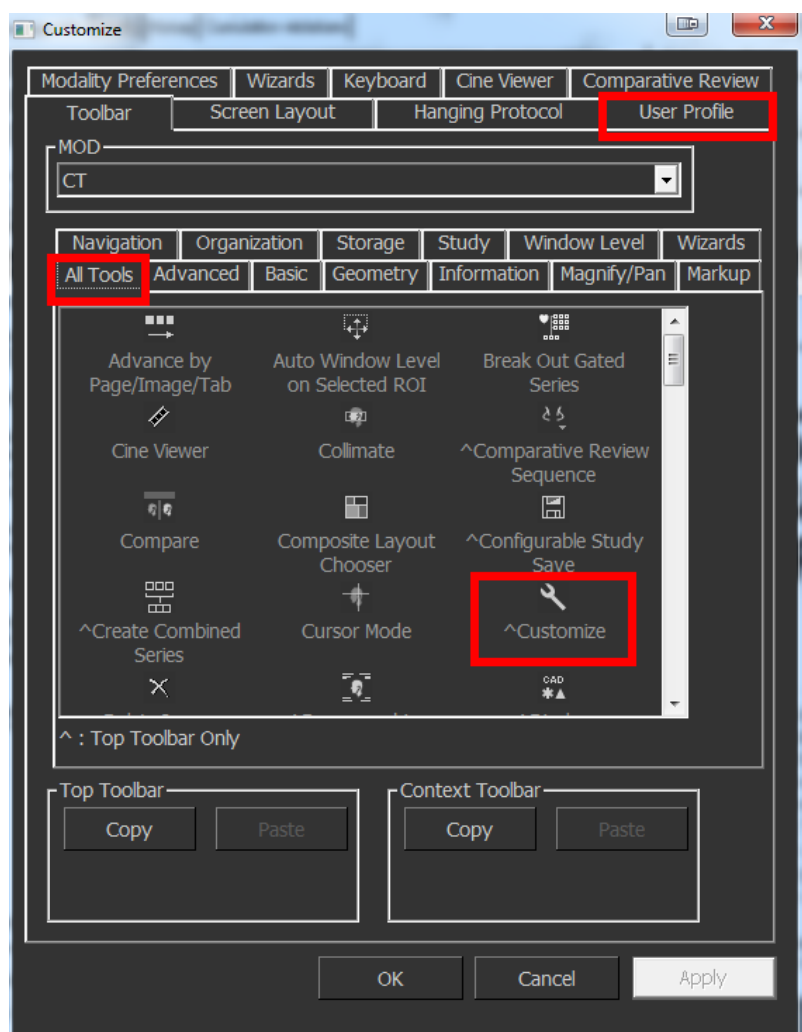
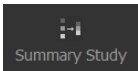


Fig. 25



Summary study (Fig. 26)

This tool enables you to choose key images from one or more studies. Once a summary study is created, you may choose this option to view only the relevant images for the case. It is an independent series and cannot be dictated separately.

You may add more images to an existing summary study by simply clicking on an image while the summary window is open. To delete an image, click on the image in the summary window and then click “remove”.



Fig. 26



Key Images

Key images will appear in the report area of Impax. They provide users with a shortcut to any diagnostically important images within a study. To add a key image, bring up the context toolbar by right clicking in the image area. Choose “Add to Key Images” on the menu. (Fig. 27) The image will then appear in the report area of the text monitor. (Fig. 28)

Please note that by default any markups will be displayed when adding the key images, even if the markups are not saved. You may also choose to include key images from prior studies. The referring clinician may choose to view only those key images. Since the key images acts as a hyperlink to a study, the clinician can then review any additional imaging done during the prior procedure.

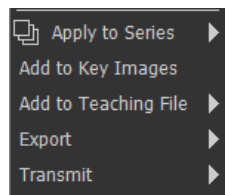


Fig. 27



Fig. 28

Spine Annotation using “Display Scout”

Axial images for CT and MR can be annotated to indicate which vertebral body is displayed. To begin annotation, click on “display scout” in the toolbar. The scout window will appear. (Fig. 29) Select one or more images to annotate. Within the scout window, click on “spine annotation” and select from system default labels or create your own label. Within the spine annotation window are additional tools. (Fig. 30)

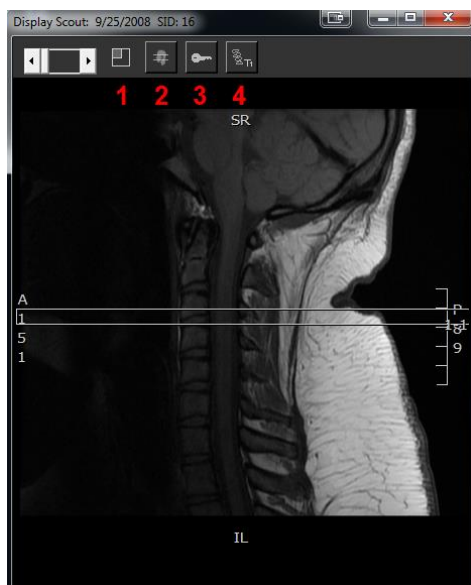


Fig. 29

- 1 – Dock scout window
- 2 – Multiline scout
- 3 – Add to key images
- 4 – Spine annotation



Fig. 30

- 1 – Customize: allows user to create own labels
- 2 – Move annotation
- 3 – Apply label and navigate to next image
- 4 – Apply label
- 5 – Skip label
- 6 – Erase label
- 7 – Change direction: allows user to change direction of navigation through images
- 8 – Close window



History

Located in the navigation pane of the image area, the history function allows a user to navigate to studies already viewed. (Fig. 31) This is a helpful tool during read out sessions or when requesting clinicians call after you have closed a case. Click on any of the line items to return to the study.

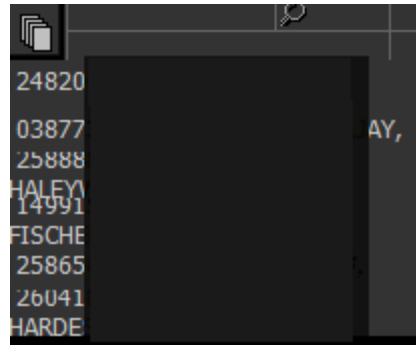


Fig. 31 (HIPPA information removed)

Linking patients

This feature allows users to view studies from multiple medical record numbers. This is only a temporary linking viewable only to the user who linked the patients and will not persist beyond the user's current Impax session. Any patient not currently being displayed or in your cycle list can be linked. If images of a patient are open, the case should be closed prior to performing a link. Select the unique patients from the search screen and click **Link Patients** in the action menu. (Fig. 32) Impax will display the images together in the image area.

	Patient Name	Patient ID	MOD	DATE	TIME	ACC #	# IM	Radiologist	Study Description	Priority
	XTESTX		CR	2/19/2010	8:36 AM		1		Mandible/Mastoids	
	XTEST,JEFFREY,	21942974	CR	5/23/2006	2:35 PM	2717149	1		CHEST SINGLE VIEW - FRONTAL - 46	
	XTEST,JEFFREY,	21942974	CR	10/16/2008	9:00 AM	40157259	3		RIBS UNILATERAL 2 VIEWS - RIGHT - 46	NORMAL
	XTEST,JEFFREY,	21942974	CR	10/16/2008	8:41 AM	40157184	3		RIBS UNILATERAL 2 VIEWS + CHEST - RIGHT - 46	NORMAL
	XTEST,JEFFREY,	21942974	CT	3/10/2010	4:07 PM	40797174	334		DEXA (BONE DENSITY) SKELETAL - 49	NORMAL
	XTEST,JEFFREY,	21942974	CR	10/22/2006	9:03 AM	40822144	2		X-RAY CHEST OUTSIDE IMAGE	NORMAL
	XTEST,ANABELLE,	24926552	CT	8/22/2011	11:34 AM	41117757	1841	STAFF	CT THORAX WITH CONTRAST	NORMAL
	XTEST,ANABELLE,	24926552	CT	10/12/2012	12:53 PM	41548754	508		CT THORAX W/O CONTRAST	NORMAL

Fig. 32

To unlink patients, select the exams and choose “**Detach Patient Links**” from the action menu. (Fig. 33)

	Patient Name	Patient ID	MOD	DATE	TIME	ACC #	# IM	Radiologist	Study Description	Priority
	XTESTX		CR	2/19/2010	8:36 AM		1		Mandible/Mastoids	
	XTEST,JEFFREY,	21942974	CR	10/16/2008	9:00 AM	40157259	3		RIBS UNILATERAL 2 VIEWS - RIGHT - 46	NORMAL
	XTEST,JEFFREY,	21942974	CR	5/23/2006	2:35 PM	2717149	1		CHEST SINGLE VIEW - FRONTAL - 46	
	XTEST,JEFFREY,	21942974	CR	10/22/2006	9:03 AM	40822144	2		X-RAY CHEST OUTSIDE IMAGE	NORMAL
	XTEST,JEFFREY,	21942974	CT	3/10/2010	4:07 PM	40797174	334		DEXA (BONE DENSITY) SKELETAL - 49	NORMAL
	XTEST,JEFFREY,	21942974	CR	10/16/2008	8:41 AM	40157184	3		RIBS UNILATERAL 2 VIEWS + CHEST - RIGHT - 46	NORMAL
	XTEST,ANABELLE,	24926552	CT	10/12/2012	12:53 PM	41548754	508		CT THORAX W/O CONTRAST	NORMAL
	XTEST,ANABELLE,	24926552	CT	8/22/2011	11:34 AM	41117757	1841	STAFF	CT THORAX WITH CONTRAST	NORMAL

Fig. 33



Dictate study

Located in the top toolbar of the image area, the dictation toggles the user to TalkStation. TalkStation is the integrated application for radiology reporting. All radiology workstations are configured to open TalkStation when launching Impax. The TalkStation window is defaulted to display on the text area monitor. Once the dictation button has been clicked, the status of the exam will change.

Status of exam:

New – Undictated study

Trainee dictation started – Dictation started but not signed by resident

Trainee dictated – Preliminary report signed by resident

Dictation started – Dictation started by attending radiologist

Dictated – Dictation completed by attending radiologist, no final signature

Reported – Dictation complete, preliminary report available

Approved – Final signed report signed by attending radiologist

TalkStation training is provided separately during orientation. Once completed, users may log into any radiology workstation and dictate a report. Resident radiologists will always work with supervision by attending radiologists; fellow radiologists with proper accreditation can work without supervision.



Fluency SYNC

Once a report has been created and assigned/signed in Fluency, the microphone (dictate study) icon is unavailable. SYNC allows a user to open the signed report to add an addendum. This icon should ONLY be used to add addenda.

TALKSTATION

Making and Finding Macros

Please use the designated macros for each rotation.

If you must make your own macro, do NOT use the tab key or the indent function. These forms of spacing display in the RIS (i.e., do not show up in the final report.) Please use the **space** key.

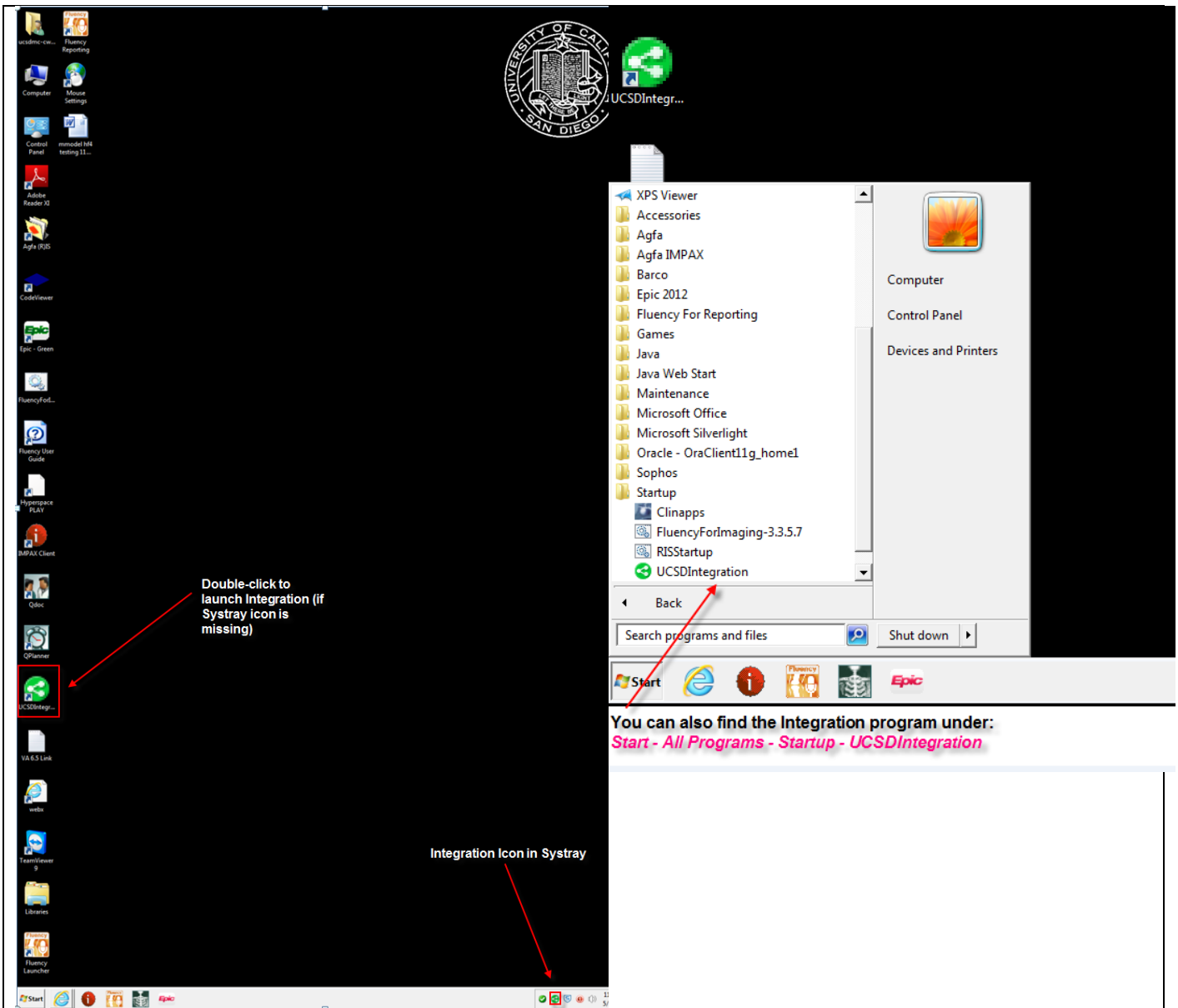
The following information must be included in all radiology reports to be considered complete and appropriate for billing considerations.

- ✓ Comparison studies
- ✓ Procedure/Technique – must include the type and amount of contrast used in procedure, for CT/MR must include sequences and technique as well as any post-processing images
- ✓ Films obtained – For example, two view chest includes a PA/Lateral view
- ✓ Findings
- ✓ Impressions
- ✓ Disclaimer (for resident reports) “I have reviewed the images with the resident and agree with the interpretation.”
- ✓ NO ABBREVIATIONS.

ANGIO/IR Cases:

- ✓ Procedure
- ✓ Operators, include full names and titles
- ✓ Medications
- ✓ Fluoroscopy time
- ✓ Disclaimer (for resident reports) “Dr. ____ was present for the entire procedure, has reviewed the report, and agrees with the resident’s interpretation.”
- ✓ NO ABBREVIATIONS.

M*MODAL FLUENCY FOR IMAGING REPORTING





Fluency for Imaging Reporting

Active Jobs | Completed Jobs | Orders List | Critical Findings

Search... [\(+ advanced search\)](#)

All: 1 | Draft: 1 | MT: 0 | Assigned: 0 | Corrected: 0

	Patient	Exam	Accession	RIS Status	Job State	Dictating Author	Signing Author
 Click to launch dictation Click to preview report	ZZTEST, DACIA MARIA 11943040 (UCSD Prod Issuer)	CHEST 2 VIEWS FRONTAL & LATERAL XR - CHEST	42178152 4/17/2014 12:38 PM	Preliminary Routine	6/10/2014 11:12 AM Draft		

Exam type and modality

Accession number

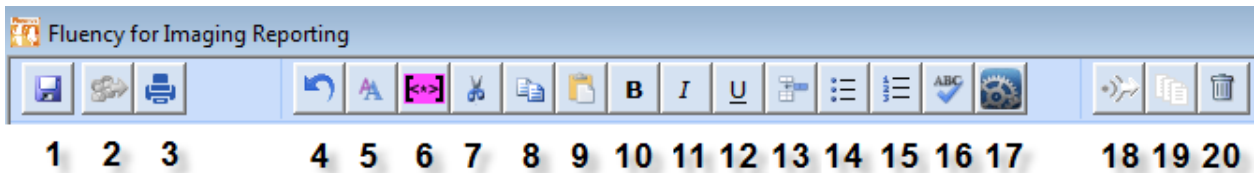
RIS Status

Job State

Dictating Radiologist

Signing Radiologist

Fluency Toolbar



- 1.) Click to save as draft [Voice Command: SAVE DRAFT]
- 2.) Click to assign this report/Click to Sign this report [voice Command: ASSIGN REPORT]
- 3.) Click to preview final report
- 4.) Click to undo [Voice Command: UNDO THAT]
- 5.) Click to change font size (7 different sizes)
- 6.) Click to insert a token [Voice Command: INSERT TOKEN] Note: Two tokens cannot be inserted back to back without a space between them.
- 7.) Cut – Ability to remove selected text from the current location and place it on the workstation's 'clipboard' for pasting into a new location.
- 8.) Copy – Ability to copy selected text from the current location and place it on the workstation's 'clipboard' for pasting into a new location.
- 9.) Paste – ability to paste text stored on the workstation's 'clipboard' into a new location
- 10.) Bold [Voice Command: BOLD SELECTION]
- 11.) Italic [Voice Command: ITALICIZE SELECTION]
- 12.) Underline [Voice Command: UNDERLINE SELECTION]
- 13.) New Subsection [Voice Command: NEW SUBSECTION]
- 14.) Click to create a bulleted list [Voice Command: NEW LIST; NEXT ITEM]
- 15.) Click to create an ordered list [Voice Command: ITEM NUMBER ONE, ...; NEXT ITEM]
- 16.) Click to run Spell Check [Voice Command: CHECK SPELLING]
- 17.) Fluency Settings
 - Keep Fluency on Top
 - Microphone Wizard
 - Edit my Vocabulary
 - Update Preferences
 - Manage My Templates
 - Radimetrics Patient View
 - About

Only Used for Narrative Mode

- 18.) Submit Audio – Ability to submit recorded audio for processing, which will be returned as a report draft.
- 19.) Batch Mode - Ability to turn batch mode on and off.
- 20.) Click to delete job [Voice Command: DELETE JOB] Note: A job that already has HL7 messages sent (e.g. Resident Assigned, Sent to MT) cannot be deleted.

Dashboard

The dashboard will display a count of jobs applicable for the current user. Clicking on the job list will close the current dictation and return the user to the job lists. The user will be prompted if there are unsaved changes to the current report.

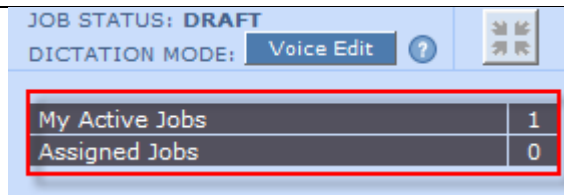
My Active Jobs

Displays the number of currently active jobs for the user. Active jobs are considered jobs started, but not yet signed and includes jobs in the following states:

Draft (Suspended)
Corrected
Resident Assigned
Sent to Transcription

Completed Jobs (Today)

Displays the total number of dictations that have been completed by the Radiologist that day.

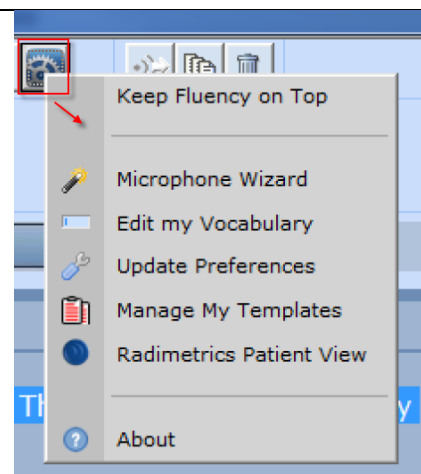


The screenshot shows a software interface with a blue header. On the left, it says 'JOB STATUS: DRAFT' and 'DICTATION MODE: Voice Edit'. On the right, there are window control icons. Below the header is a table with two rows: 'My Active Jobs' with a value of '1' and 'Assigned Jobs' with a value of '0'. The table is highlighted with a red border.

My Active Jobs	1
Assigned Jobs	0

Fluency Settings

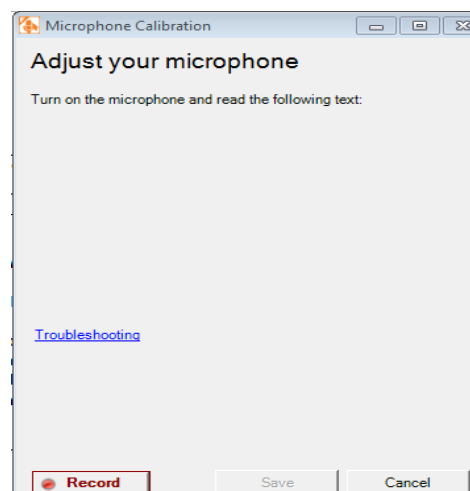
To access the Fluency Settings, click the settings icon from the toolbar



Fluency Microphone Wizard

Recommended to run when starting the day on the workstation. It ensures that the microphone is connected and receiving audio at the appropriate audio level. The wizard also records the user's dictation to improve speech recognition.

- To access the wizard, click on the Fluency Settings icon and click Microphone Wizard from the drop down menu.
- Hold down the Record button and read the available text. Speak as you normally would during a dictation. The audio level will be displayed as the recording occurs.
- Click on the 'Finish Wizard' button when finished reading text.



Fluency Reporting User Preferences

Dictation Windows Settings

Editor Display	Select your choice of editor display color schemes from the options available: Daylight, Dawn, Dusk, or Night. There is also an option to set a custom color scheme as a user preference.
Launch in Compact Mode	Check this box to launch the dictation window in compact mode. While in compact mode, the dictation window is not visible. This option can be used for users who prefer to not have the Fluency Editor visible when dictating.
Show Audio Controls	Displays the audio controls (Play, Stop, Fast-Forward, etc) in the Fluency Window.
Spell Check on Sign	Check this box to automatically run the Spellchecker before the job is signed.
Template Starting Mode	Set whether to begin jobs in Narrative mode or Voice Edit mode. This setting can be overridden by a specific template.
Downtime mode	Set the preferred way to work during a downtime. If the M*Modal Server is unavailable, you may continue working using either Batch Mode or Voice Edit Mode.
Auto Save Frequency	Choose how frequently the system auto-saves your report drafts.
Send To Transcription In Batch Mode	When this option is selected, dictations done in Batch Mode are automatically sent to transcription when the user concludes the dictation.

Text Editor Settings

Enable Auto-complete hints	When typing in the Fluency editor, suggested words will be displayed. Hit the <tab> key to select the suggested word.
Highlight misspelled words	When this option is checked, misspelled words are underlined in red and can be corrected by right clicking on the entry to see a list of appropriate corrections.
Highlight Relevant Words	Check this box to highlight clinically relevant words in the editor (e.g. Left, Right, Ascending, Descending) Note: This setting only applies to drafts returned from Narrative mode.
Recognition Confidence Threshold	Select the threshold for highlighting words with low recognition confidence. Scale is from Very Low (Less words highlighted) to Very High (More Words Highlighted). The default is set to Off. Note: This setting only applies to drafts returned from Narrative mode.
Enable Author Highlighting	When this box is checked, edits made by other users will be highlighted in a different background color.
Default Font Size	Set the default font size of the editor window. This option can also be set from within the Fluency window.
Line breaks per paragraph	Specify the number of new lines to insert when the NEW PARAGRAPH voice command issues. The default value is one line break.
Enable Auto Punctuation	When this box is checked, the NLP engine will attempt to add punctuation to a report where appropriate. Users who prefer to dictate their own punctuation should disable this option. Note: This setting only applies to Voice Edit mode.

Microphone Settings

Microphone Mode (Narrative)	Select your preference for using the record button. <ul style="list-style-type: none"> Push to Talk: Press and hold the record button while speaking. Toggle: Click the record button once to start recording, the click it again to stop recording. Note: If you experience the addition of small words while in toggle mode, please switch to Push to Talk
Microphone Mode (Voice Edit)	Select your preference for using the record button. <ul style="list-style-type: none"> Push to Talk: Press and hold the record button while speaking. In voice edit mode, push to talk is the recommended setting and will result in faster recognition of commands.

Fluency Reporting User Preferences

Dictation Window Settings

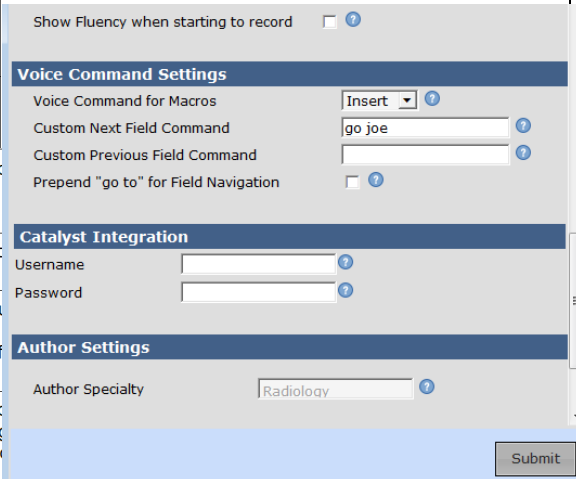
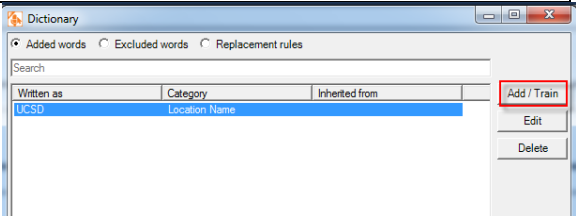
- Editor Display: Daylight
- Launch in compact mode: ☐
- Show Audio Controls: ☒
- Spell check on Sign: ☐
- Template Starting Mode: Voice Edit
- Downtime Mode: Voice Edit
- Auto Save Frequency: 1 minute
- 'Ding' for voice commands: ☐
- Enable Voice Edit Audio: ☒

Text Editor Settings

- Enable Auto-complete hints: ☒
- Highlight misspelled words: ☒
- Highlight relevant words: ☒
- Recognition Confidence Threshold: Off
- Enable author highlighting: ☒
- Default Font Size: 15 pt (Medium)
- Line Breaks per paragraph: 2
- Enable Auto Punctuation: ☒

Microphone Settings

- Microphone Integration: Philips Speechmike
- Microphone Mode (Narrative): Push to Talk
- Microphone Mode (Voice Edit): Push to Talk
- Insert/Overwrite On Rewind: Insert
- F1 Button: No Action
- F2 Button: No Action
- F3 Button: No Action
- F4 Button: No Action
- EOL Button (VE Mode Only): Delete Selected Text
- INS/OVR Button (VE Mode Only): No Action
- Launch Mic Wizard on Startup: ☐
- FF/RW Speed: 5x
- Use FWD/RWD for field navigation: ☒
- Skip tokens when navigating: ☒

	<ul style="list-style-type: none"> Toggle: Click the record button once to start recording, the click it again to stop recording. 	
Insert/Overwrite On Rewind	Select your preference for whether to insert or overwrite after rewinding while in Narrative Mode.	
Function Buttons	Set the preferred behavior for the microphone function buttons (including EOL and INS/OVR). If these options are grayed out then a system administrator has locked this down at the system level. See below for a list of the function button options	
Microphone Gain	Select the appropriate microphone volume to achieve optimal recording quality. Adjust this value if accuracy is low. A recommended starting value is 20000. This value should mainly be adjusted by running the Microphone Wizard	
Launch Mic Wizard on Startup	When this option is selected the microphone wizard will launch when the application is loaded.	
FF/RW Speed	Select the speed for fast forwarding and rewinding through a recording while in Narrative mode.	
Use FWD/RWD for field navigation	When this option is selected, the fast forward and rewind buttons will operate as next field and previous field commands when in voice edit mode.	
Skip tokens when navigating	When this option is selected, tokens will be skipped over when using the FF/RW microphone buttons for field navigation. Note: This preference is only applied when the <i>Use FWD/RWD for field navigation</i> preference is checked	
Voice Commands for Macros	This feature allows the user to specify the voice command to use to launch a macro. The default is "INSERT" - additional options are OPEN and LAUNCH.	
	<ul style="list-style-type: none"> Toggle: Click the record button once to start recording, the click it again to stop recording. 	
Insert/Overwrite On Rewind	Select your preference for whether to insert or overwrite after rewinding while in Narrative Mode.	
Function Buttons	Set the preferred behavior for the microphone function buttons (including EOL and INS/OVR). If these options are grayed out then a system administrator has locked this down at the system level. See below for a list of the function button options	
Microphone Gain	Select the appropriate microphone volume to achieve optimal recording quality. Adjust this value if accuracy is low. A recommended starting value is 20000. This value should mainly be adjusted by running the Microphone Wizard	
Launch Mic Wizard on Startup	When this option is selected the microphone wizard will launch when the application is loaded.	
FF/RW Speed	Select the speed for fast forwarding and rewinding through a recording while in Narrative mode.	
Use FWD/RWD for field navigation	When this option is selected, the fast forward and rewind buttons will operate as next field and previous field commands when in voice edit mode.	
Skip tokens when navigating	When this option is selected, tokens will be skipped over when using the FF/RW microphone buttons for field navigation. Note: This preference is only applied when the <i>Use FWD/RWD for field navigation</i> preference is checked	
Voice Commands for Macros	This feature allows the user to specify the voice command to use to launch a macro. The default is "INSERT" - additional options are OPEN and LAUNCH.	
Edit My Vocabulary		
<p>To add a new word, perform the following steps:</p> <p>Select added words radio button and click the Add button.</p> <ul style="list-style-type: none"> Type the word that you wish to add in the blank field. To improve recognition you can Record Pronunciation of the added word. Select the word category (Name, Location, Medication, etc.) Click OK 		
		
		

Written as

UCSD

Category

Location Name

Inherited from

Add / Train

Edit

Delete

Record Pronunciation

Name

Location

Medication

Other

Save

Cancel

1) Type the word and select which type of word it is

2) Click on Record Pronunciation

UCSD

Record Pronunciation

Name

Location

Medication

Other

Save

Cancel

3) Say the word and click Save

Excluded Words

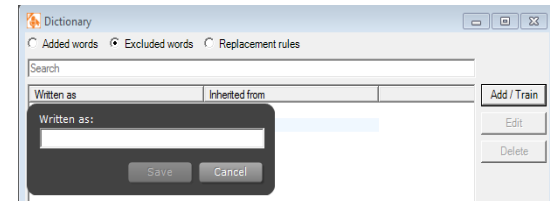
Ability to specify words that should not be included in the report.

To exclude a word, perform the following steps:

Select the Excluded Words radio button and click Add.

- Type the word that you do not wish to see in the dictation.

Click OK.



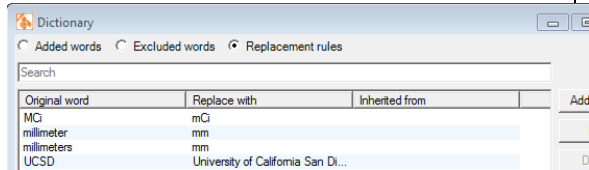
Replacement Rules

Ability to create a collection of words or phrases that will be used to substitute the spoken form.

Select the Replacement Rules radio button and click Add.

- Enter the original text into the Original Word field (ex: cabbage)
- Enter the replacement text into the Replace With Field (ex: CABG)

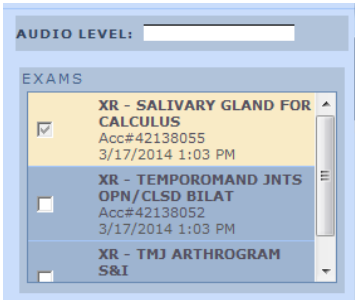
Click Save.



Exams

Displays a list of reportable exams for the patient in context. The main exam that was launched for dictation will be highlighted in yellow. Other reportable exams will be displayed below the main exam with checkboxes.

Linking studies



To associate another accession number with the main exam, click on the corresponding checkbox. A prompt will be displayed when attempting to associate an exam from a different modality or an exam outside of a 4 hour window of the main exam.

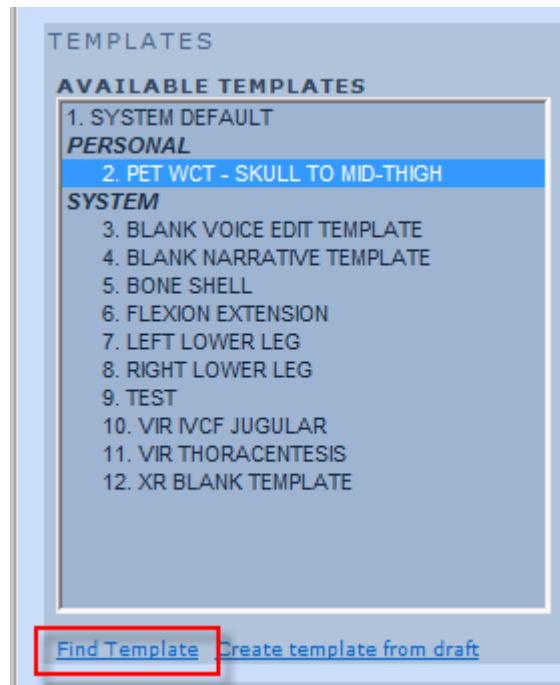
Templates

Available templates for the exam loaded for dictation will be displayed in the templates section. A template often serves as the starting point for a new document and may contain sections, subsections, fields and tokens, each possibly containing text. Fluency supports both user templates and system templates.

User template with procedure code match >>
System template with procedure code match

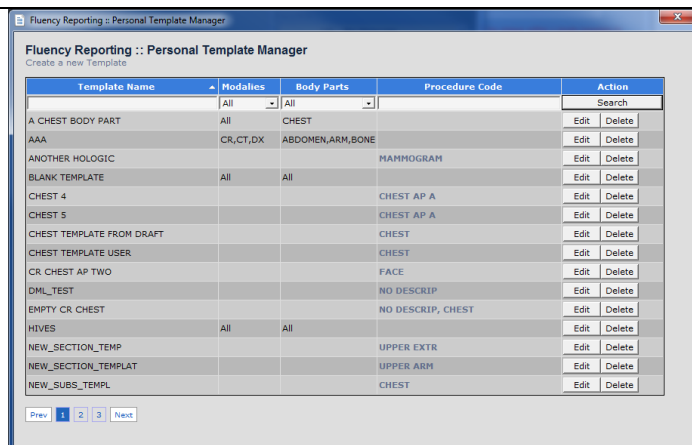
If multiple templates match the current exam, the highest ranking template will be chosen by default. Additional templates will be displayed in the Templates window based on match of Modality and Body Part.

Note: After selecting a template, it is possible to hide/minimize the template section by clicking on the TEMPLATES header. This will leave more room for the other content on the right side of the document. This setting will be remembered between dictations.



Manage My Templates

The Template Manager allows users to create personal templates as well as edit or delete existing templates.



Find a Template

If you want to use a template other than any that are displayed by default (e.g. a template belonging to another user), you can click on the Find Template link. The Find Template window will appear.

The 'Find Template' window displays search criteria on the left and a list of templates on the right. The search criteria include:

- TEMPLATE NAME: (empty)
- OWNER: ANY
- MODALITY: XR
- BODY PART: ALL

 Below the search criteria are 'Reset' and 'Search' buttons. The list of templates includes:

- PET WCT - SKULL TO MID-THIGH

 A red arrow points to the 'PET WCT - SKULL TO MID-THIGH' template, with a label 'Template Name'. Another red arrow points to the 'Search' button, with a label 'Click on drop down to select Template Owner'. A third red arrow points to the 'Template Preview' section, which shows a detailed description of the template, including 'EXAM DESCRIPTION:', 'CLINICAL HISTORY:', 'COMPARISON:', and 'TECHNIQUE:'. The 'Template Preview' section also includes an 'Insert' button at the bottom right.

The 'Find Template' window displays search criteria on the left and a list of templates on the right. The search criteria include:

- TEMPLATE NAME: (empty)
- OWNER: ALL USER TEMPLATES
- MODALITY: ALL
- BODY PART: ALL

 Below the search criteria are 'Reset' and 'Search' buttons. The list of templates includes:

- CT SINUS -LEE
- CT SINUS RL
- CT SINUS RLEE
- CT STROKE
- CT STROKE
- CT STROKE
- CT STROKE CODE
- CT STROKE CODE
- CT STROKE CODE
- CT STROKE PROTOCOL
- CT THORACIC
- CT THORACIC FL
- CT THORACIC SPINE
- CT THORAX WO TYAGI
- CT TMJ
- CT TMJ STUPID
- CT UROGRAM 2012

 A red arrow points to the 'CT STROKE' template, with a label '1) Select a Template to copy'. Another red arrow points to the 'COPY TO MY TEMPLATES' checkbox, with a label '2) Click to check the box next to COPY TO MY TEMPLATES'. A third red arrow points to the 'Insert' button, with a label '3) Click Insert'.

Create a Template

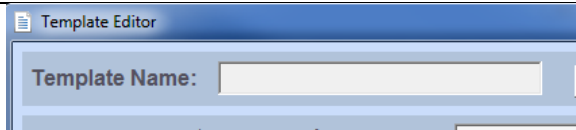

Clicking on Create template from draft allows users to create a new document template from the available draft report.

1. Click on Create template from draft

The 'TEMPLATES' window displays a list of available templates. The list includes:

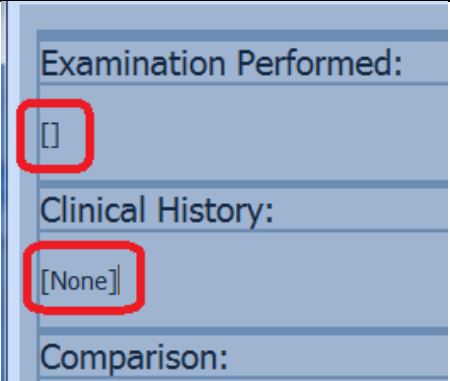
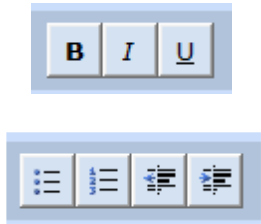
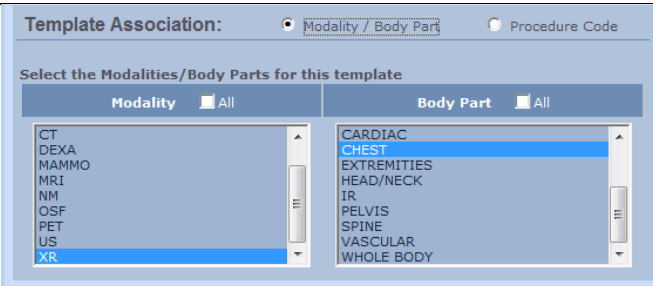
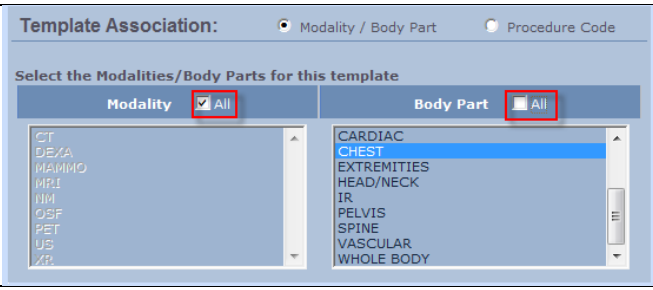
- 1. SYSTEM DEFAULT
- PERSONAL
- 2. PET WCT - SKULL TO MID-THIGH
- SYSTEM
- 3. BLANK VOICE EDIT TEMPLATE
- 4. BLANK NARRATIVE TEMPLATE
- 5. BONE SHELL
- 6. FLEXION EXTENSION
- 7. LEFT LOWER LEG
- 8. RIGHT LOWER LEG
- 9. TEST
- 10. VIR I/CF JUGULAR
- 11. VIR THORACENTESIS
- 12. XR BLANK TEMPLATE

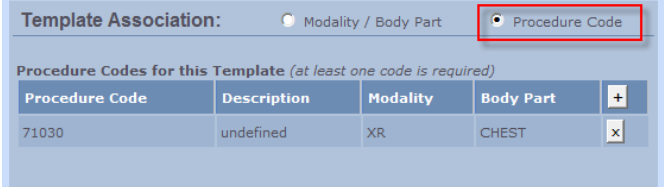
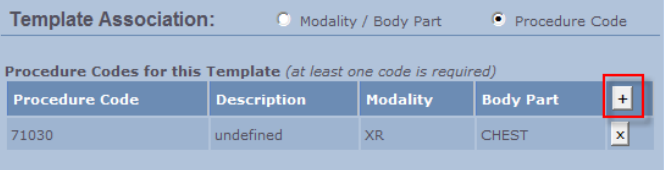
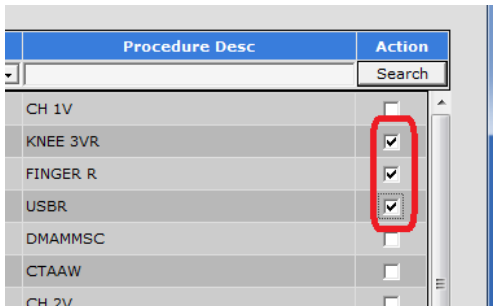
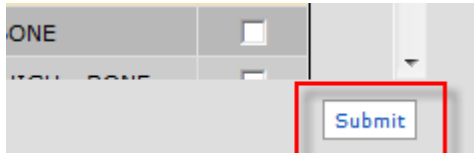
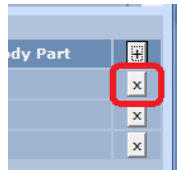
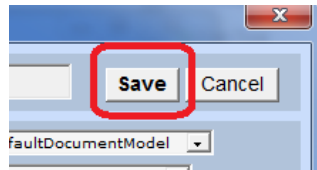
 At the bottom of the window, there are two buttons: 'Find Template' and 'Create template from draft'. The 'Create template from draft' button is highlighted with a red box.

2. Enter a Template name. The name must be unique and it can be used as a voice command to launch the template.	
3. Insert/Modify the template content – template content can be added by typing or using the microphone as if you're in Voice Edit mode.	
3.1 Inserting Tokens – tokens are place holders for data to be inserted into the report from external systems (e.g. and order). To insert a token, click on the Insert Token icon, select the token from a list and click Submit.	

Available Tokens

Accession Number	The Id of the Exam as ordered in the RIS (e.g. 79856566)
Body Part	The body part which is associated with the order for the exam (e.g. ABDOMEN)
Comparisons	ISITE Only. Displays the procedure description, exam date, and accession number of every comparison exam loaded on the canvas page
Completed Date	The date the exam was completed in the RIS (also known as the exam date) in the format m/d/yyyy (e.g. 1/24/1971)
Completed Time	The date/time the exam was completed in the RIS (also known as the exam date/time) in the format m/d/yyyy h:m a/p (e.g. 1/24/1971 11:30 AM)
Current Time (24h)	The current time in 24h format H:m (e.g. 09:30)
CurrentDate	The current date in the format m/d/yyyy
CurrentUser	The full name of the user logged in to Fluency Reporting
Gender	The gender of the patient. Will be one of M,F,U (e.g. F)
Job ID	The Id of the Job which is an incrementing value automatically created by the Fluency database (e.g. 42345)
Medical Record Number	Medical Record Number (e.g. 000045678)
Modality	The modality associated with the procedure code for the exam as defined in the exam code dictionary (e.g. CT)
Ordered Time	The time the order for this exam was placed in the format m/d/yyyy h:m a/p (e.g. 1/24/1971 11:30 AM)
Ordering Physician	User data field OBR-37 built from OBR-16.++
Patient Birth Date	The patient's date of birth in the format m/d/yyyy
Patient Class	The type of patient. Will be one of I (inpatient), E (emergency), O (outpatient) (e.g.)
Patient Name	The name of the patient in the form LAST, FIRST MI (e.g. DOE, JANE B)
PatientAge	The current age of the patient at the time of the exam (e.g. 43 y/o)
Procedure Code	The procedure code which is associated with the order for the exam (e.g. CTABD1)
Procedure Description	The procedure description which is associated with the order for the exam (e.g.; CT ABDOMEN W CONTRAST)
Radimetrics Dosage	This is the Radimetrics patient dosage
Reason for Exam	The reason the exam was performed as supplied in the order (e.g. MVA)
Scheduled Time	The time exam was scheduled for in the format m/d/yyyy h:m a/p (e.g. 1/24/1971 11:30AM)
Status	The current RIS status of the exam. Will be one of the A, D, P, F, X, C
Subspecialty Code	The subspecialty Code which is associated with the order for the exam (e.g. BODY)
Updated Time	The time the order for this exam was last updated in the format m/d/yyyy h:m a/p (e.g. 1/24/1971 11:30 AM)

<p>3.2 Adding Simple Fields – to insert a simple field, type an opening and closing bracket anywhere in the template. They can be navigated to by using the FF/RW keys on the microphone or by issuing the NEXT FIELD or PREVIOUS FIELD voice command.</p>	
<p>3.3 Other formatting options: There are other formatting options in the toolbar which can be used to modify the look and feel of the document template.</p> <p>Bulleted and Numbered Lists can also be inserted in a report template.</p> <p>Note: When the final message is sent via HL7, the formatting will be stripped in most cases</p>	
<p>4 Associate the Template: Templates can be associated with specific modalities and or body parts or with specific procedure codes. This will make it easy to create, for example, a "global" CT template or a global CHEST template. Templates can also be globally associated, for</p>	
<p>5 Click on the Modality / Body part checkbox to associate with a specific modalities and/or body parts.</p>	
<p>5.1 Hold down the CTRL key to select multiple entries from the modality and or body part lists.</p>	
<p>5.2 To select all entries, click on the All checkbox for the corresponding entries</p>	

<p>5.3 Click on the Procedure Code checkbox to associate with a specific modalities and/or body parts</p> <p>Click on the Procedure Code checkbox to associate with a specific modalities and/or body parts</p>	 <p>Template Association: Modality / Body Part Procedure Code</p> <p>Procedure Codes for this Template (at least one code is required)</p> <table><thead><tr><th>Procedure Code</th><th>Description</th><th>Modality</th><th>Body Part</th><th></th></tr></thead><tbody><tr><td>71030</td><td>undefined</td><td>XR</td><td>CHEST</td><td><input checked="" type="checkbox"/></td></tr></tbody></table>	Procedure Code	Description	Modality	Body Part		71030	undefined	XR	CHEST	<input checked="" type="checkbox"/>						
Procedure Code	Description	Modality	Body Part														
71030	undefined	XR	CHEST	<input checked="" type="checkbox"/>													
<p>5.4 Click on the + icon under the procedure codes section.</p>	 <p>Template Association: Modality / Body Part Procedure Code</p> <p>Procedure Codes for this Template (at least one code is required)</p> <table><thead><tr><th>Procedure Code</th><th>Description</th><th>Modality</th><th>Body Part</th><th></th></tr></thead><tbody><tr><td>71030</td><td>undefined</td><td>XR</td><td>CHEST</td><td>+</td></tr></tbody></table>	Procedure Code	Description	Modality	Body Part		71030	undefined	XR	CHEST	+						
Procedure Code	Description	Modality	Body Part														
71030	undefined	XR	CHEST	+													
<p>5.5 In the Add Exam Code to Template dialog, use the filter options to search for a specific procedure code and click the Search button.</p>	 <table><thead><tr><th>Procedure Desc</th><th>Action</th></tr></thead><tbody><tr><td>CH 1V</td><td><input type="checkbox"/></td></tr><tr><td>KNEE 3VR</td><td><input checked="" type="checkbox"/></td></tr><tr><td>FINGER R</td><td><input checked="" type="checkbox"/></td></tr><tr><td>USBR</td><td><input checked="" type="checkbox"/></td></tr><tr><td>DMAMMSC</td><td><input type="checkbox"/></td></tr><tr><td>CTAAW</td><td><input type="checkbox"/></td></tr><tr><td>CH 2V</td><td><input type="checkbox"/></td></tr></tbody></table>	Procedure Desc	Action	CH 1V	<input type="checkbox"/>	KNEE 3VR	<input checked="" type="checkbox"/>	FINGER R	<input checked="" type="checkbox"/>	USBR	<input checked="" type="checkbox"/>	DMAMMSC	<input type="checkbox"/>	CTAAW	<input type="checkbox"/>	CH 2V	<input type="checkbox"/>
Procedure Desc	Action																
CH 1V	<input type="checkbox"/>																
KNEE 3VR	<input checked="" type="checkbox"/>																
FINGER R	<input checked="" type="checkbox"/>																
USBR	<input checked="" type="checkbox"/>																
DMAMMSC	<input type="checkbox"/>																
CTAAW	<input type="checkbox"/>																
CH 2V	<input type="checkbox"/>																
<p>5.6 Click the Submit button. The window will close and the procedure codes will be added to the list.</p>																	
<p>5.7 To remove a procedure code, click on the [x] button next to a procedure code.</p>																	
<p>5.8 Save the template by clicking on the Save button or Cancel to cancel changes</p>																	
<p>To Edit an existing Template</p> <ul style="list-style-type: none">• Locate the template in the list of Personal Templates. Enter in a name or partial name of a filter or the associated procedure code to narrow the search.• Select the Edit button for the template.• The Template Editor window will appear. From here you can edit the template information. Note: The template base cannot be modified.																	

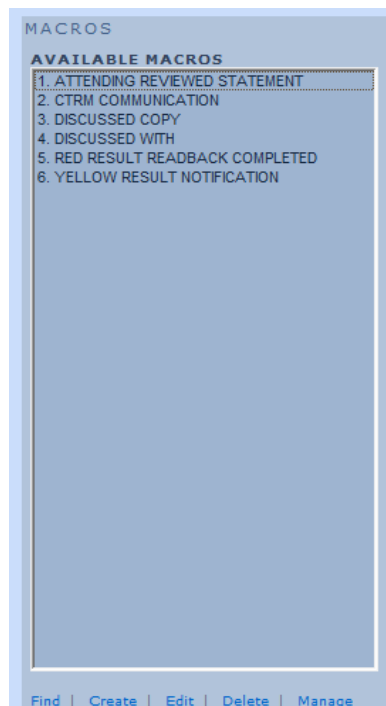
Macros

Macros are snippets of text, either a series of words, a sentence or multiple sentences that can be inserted into the document as part of the reporting process through manual selection within the macro list. Macros can be created at the user level or the system level.

Available macros will be displayed in the Macros section and will display a list of available Macros for that specific user. Macros can be inserted into the report as needed. Users have the option to Create, Edit, or Delete a Macro from the interface.

Note: The Macros section will only be displayed while in Voice Edit mode.

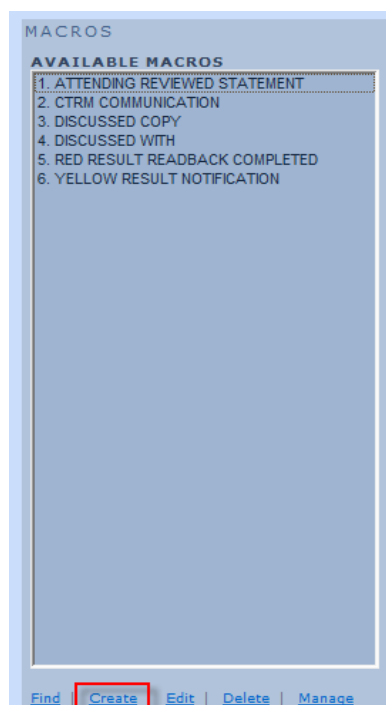
Note: After selecting a macro, it is possible to hide/minimize the macros section by clicking on the MACROS header. This will leave more room for the other content on the right side of the document. This setting will be remembered between dictations.



Create a Macro

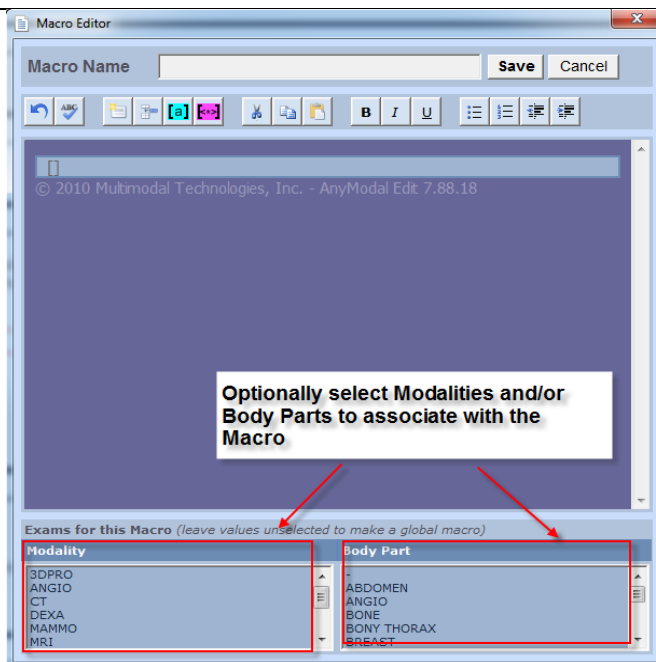
To create a macro, perform the following steps:

- Click on the 'Create Macro' text. A floating window titled Macro Editor will display. Any text selected in the editor will be carried over into the macro editor.
- Enter the Macro Name. This name will also be used as a voice command for inserting the macro: INSERT <MACRO_NAME>. The name must be unique and once it is created, it cannot be changed.
- Enter or exit the content of the Macro. The same voice and keyboard commands that are used when doing a dictation can be used in this window.



- Optionally select Modalities and/or Body Parts to associate with the Macro. This will limit the macro from displaying in the list for matching exams.
- Click Save to save the macro or Cancel to exit without saving.

Note: If a modality or body part was not selected, the Macro will display in the Macro list for every exam launched in Fluency.



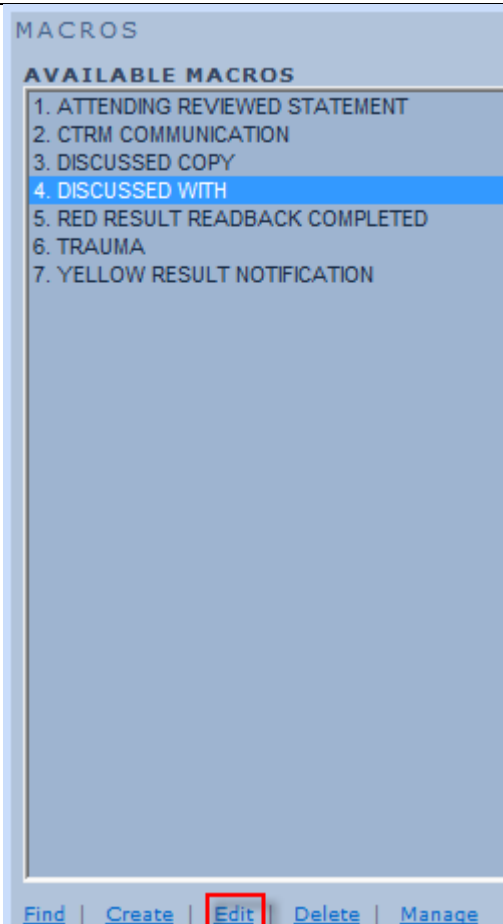
Edit a Macro

To edit a macro, perform the following steps:

- Click on the 'Edit Macro' text. A floating window titled Macro Editor will display populated with the existing Macro information.
- Edit the text of the Macro or select/edit the Modality and/or Body Part.

Note: The name of the macro cannot be changed once it is created.

- Click Save to save the macro or Cancel to exit without saving.



Find a Macro

Similar to Find a Template, if you want to insert a macro that does not display by default (e.g. a macro belonging to another user), you can click on the Find Macro link (or FIND MACRO voice

command). The Find Macro window will appear.

By default, the window will show you macros belonging to you matching the same modality as the exam you are dictating. The following search items can be modified:

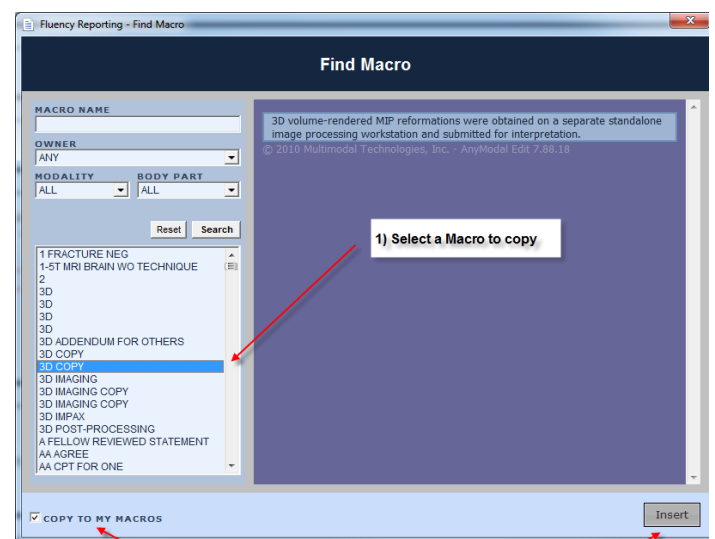
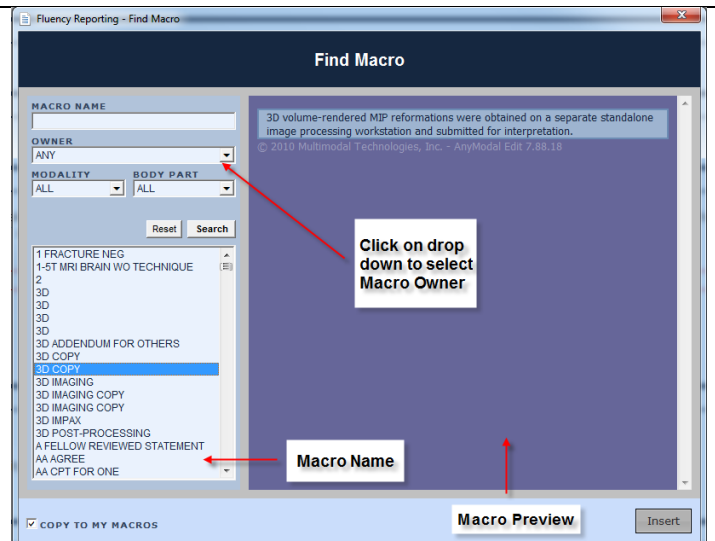
- Macro Name (partial matches allowed)
- Owner: select a specific user, all users, system level or all macros
- Modality and Body Part

Enter your search information and click the Search button. The list will populate with any macros that match your search criteria. Clicking on the macro name will display a preview of that macro.

When a macro is selected, a checkbox in the lower right hand corner may appear giving you the following options:

- If the macro belongs to another user, you have the option to copy this macro to your personal macro list.
- If the macro belongs to you, you have the option to update the association of that template so it will match the current exam you are dictating.

Click the Insert button to insert the macro into the current report.



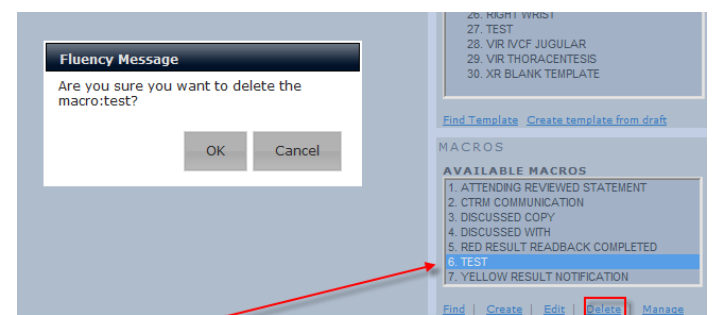
Delete a Macro

To delete a macro, perform the following steps:

- Select one of the macros from the list.
- Click on the 'Delete Macro' text. A message box will display confirming that the selected Macro should be deleted.
- Click Yes to delete the macro or No to cancel without deleting.

Note: This option cannot be undone.

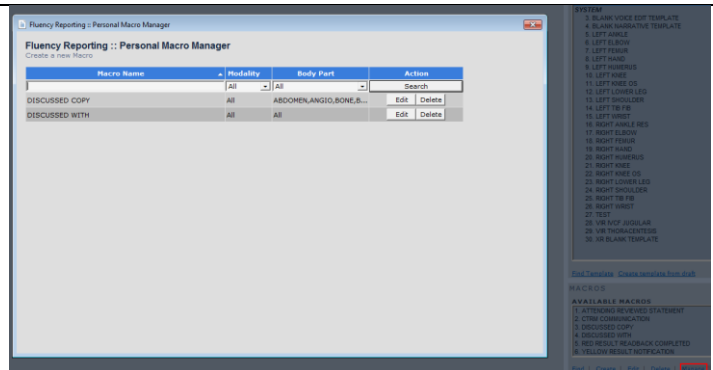
Note: Fluency users do not have the permission to delete system level macros.



Manage Macros

Users can manage their personal macros similar to editing their personal templates. To manage macros, follow these steps:

- Click on the **Manage** link in the macros area.
- The personal Macro Manager will appear
- Every personal macro will be displayed, 15 per page
- Click the Edit button on a specific row to display the Macro Editor
- Click the Delete button on a specific row to delete the macro



Inserting a Macro into a report

To insert a macro into a report, move the cursor to the position of the report where the macro is to be inserted (this can be done with the mouse, keyboard or voice commands). There are three options to insert a macro:

- Double click on the macro in the list
- Insert using a voice command: INSERT <MACRO_NAME>
- Insert using the macro index: INSERT MACRO ONE which corresponds to the number index of the macro

Content Highlighting

Content in Fluency editor window when creating/editing a report is color coded to assist in the display of the report. The following color codes are supported:

Token Content	Content added by tokens is highlighted in purple. Tokens are placeholders for data pulled in from external systems, such as data from the RIS Order.
Field Content	Voice Enabled Fields are highlighted in teal.
Template / Macro Content	Content that was added as part of the template or added as part of a macro will be rendered in grey as a visual indicator that this information does not need to be checked again for errors.
Dictated / Edited Content	Any content edited by the current user either by typing or dictating will be rendered in black (exact color depends on the skin being applied)
Transcription Edits	Any edits made by transcription are highlighted in yellow/orange. Note: Highlighting edits made by a transcriptionist can be enabled/disabled with the Enable Author Highlighting user preference.

Please see the screen capture below for an example of how content is highlighted using the Dawn skin

MRN: D1000 DOB: 9/27/1957 SEX: M

[34 y/o female with chest pain] ← **Token Content**

Comparison:

[CR Chest dated 5/4/2012] ← **Template / Macro Content**

Technique:

Axial images of the chest were obtained with administration of [100 mL] Omnipaque 300. ← **Field Content**

Findings:

[There are two masses in the superior segment. The larger and more anterior of these measures 3.7 x 3.8 x 3.5 cm. The second and more posterior is also slightly more ← **Dictated/Typed Content**

inferior and measures 3.0 x 2.9 x 3.1 cm. Both of these have a thick wall with central necrosis with air fluid levels. There is a small amount of surrounding inflammatory change and a few associated satellite nodular densities measuring up to 5 mm in diameter.]

Impression:

Two thick walled centrally necrotic lesions with air fluid levels centrally and surrounding ← **Transcription Edits**

Create Critical Findings :

- Select Option 1: I've already spoken with or am attempting to speak with the physician
- Select one of the predefined levels (see image below). At this point, you can also go back to select a different workflow or close the window to cancel the Critical Findings process.

Red Alert – Findings that are potentially immediately life-threatening.

Examples include:
pneumothorax Ischemic bowel
Intracerebral hemorrhage.

You MUST phone and notify the ordering Physician ASAP.

Orange Alert – Findings that could result in mortality or significant morbidity if not appropriately treated urgently.
Examples include: Intra-abdominal abscess Impending pathological hip fracture.

Yellow Alert – Findings that could result in mortality or significant morbidity if not appropriately treated, but are not immediately life-threatening or urgent.

The screenshot shows the 'Create Critical Findings' window with the 'Workflow' tab selected. The window has three tabs: 'Workflow', 'Level', and 'Details'. Below the tabs, it says 'Please select a Workflow Option:'. There are two options presented in dashed boxes:

- Option 1:** I've already spoken with or am attempting to speak with the physician and only want to document this finding.
- Option 2:** I'd like to add this finding to a worklist so the appropriate physician may be contacted.

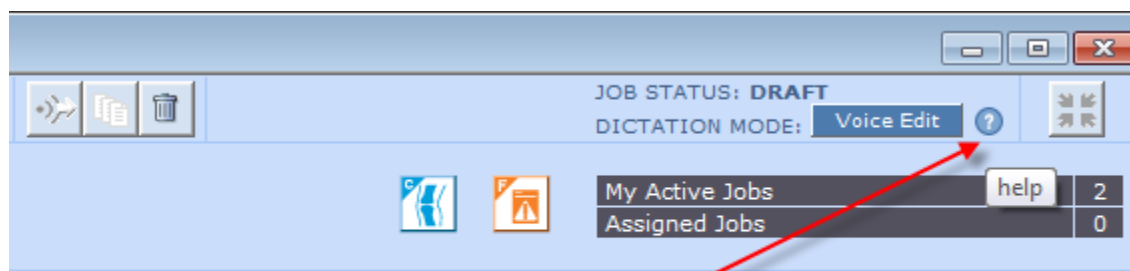
The screenshot shows the 'Create Critical Findings' window with the 'Level' tab selected. The window has three tabs: 'Workflow', 'Level', and 'Details'. Below the tabs, it says 'Please select a Level:'. There are three levels presented in colored boxes:

- Red Alert** (Due within 1 hour): Findings that are potentially immediately life-threatening. Examples include: pneumothorax Ischemic bowel Intracerebral hemorrhage.
- Orange Alert** (Due within 4 hours): Findings that could result in mortality or significant morbidity if not appropriately treated urgently. Examples include: Intra-abdominal abscess Impending pathological hip fracture.
- Yellow Alert** (Due within 2 days): Findings that could result in mortality or significant morbidity if not appropriately treated, but are not immediately life-threatening or urgent. Examples include: Lung nodule Solid renal mass.

Line item: **CTRM: 1001** signals the information to be sent over to EPIC

The screenshot shows a software window titled "Create Critical Findings" with tabs for "Workflow", "Level", and "Details". The "Details" tab is active, showing a template for a communication line item. The template includes a "Findings" section, a "Findings:" label with a small icon, and a "Communication" section. The communication text is: "The ordering physician, [**<Ordering Physician>**], was paged on [**<CurrentDate>**] at [**<CurrentTime>**] in order to facilitate communication of the above mentioned critical findings." Below the text is the line item code "CTRM:1001". At the bottom, there is a copyright notice "© 2010 Multimodal Technologies, Inc. - AnyModal Edit 7.88.18" and three buttons: "Append to Report", "Add Follow Up", and "Acknowledge and Close".

Voice Edit Commands



Fluency Voice Commands List

Clicking on Question Mark Icon will give you a list of Voice Edit commands that Fluency utilizes.