2014
UC San Diego
Radiology Systems
Orientation
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1. Enter your AD credentials in the appropriate fields to log into RIS

2. Users can view a report on a radiology procedure.
3. Users can search past studies for a patient.
LOGGING IN

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

Log into the application by using your Impax login.
GETTING STARTED

When you log in, the application will display as seen here. In order to begin protoctolling, 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 protocol 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.

*Image of a protocoling screen showing an example study with the text:*

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.

- 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.
- 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.
Step 3
Select the protocol from the drop down list in the Procedure Protocling 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.
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.
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.

Users may select any combination of search parameters.

- **MODALITY** – currently only CT and MRI are routinely protooled.

- **ROTATION** – The website, radres.ucsd.edu, displays the assigned rotations for residents. The website, [www.amion.com](http://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

Click on Patient Station.
Click on the Admission Line.
Click on Treatment Team.

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.”

![Image of Impax login screen]

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.

![Image of Impax worklist screen]

**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.

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.
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.

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)
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 layout, right click on any title bar and choose “configure layout.” The size of each section can be changed by moving the margins.

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)
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)
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](image1.png)

**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](image2.png)
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.
Section 3  Image area

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.
**OTHER IMPORTANT FEATURES**

![Customize (Fig. 25)](image)

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
Summary study (Fig. 26)
This tool enables you to chose 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”.

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.
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)

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

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.

Fig. 32

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

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.
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.
Enter your AD credentials in the appropriate fields. Make sure the domain is set to UCSD.
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.

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'T 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.
  - 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.
  - 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.
<table>
<thead>
<tr>
<th><strong>Edit My Vocabulary</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>To add a new word, perform the following steps:</strong></td>
</tr>
<tr>
<td>Select added words radio button and click the Add button.</td>
</tr>
<tr>
<td>- Type the word that you wish to add in the blank field. To improve recognition you can Record Pronunciation of the added word.</td>
</tr>
<tr>
<td>- Select the word category (Name, Location, Medication, etc.)</td>
</tr>
<tr>
<td>- Click OK</td>
</tr>
</tbody>
</table>
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.

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
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

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

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.

Bulleted and Numbered Lists can also be inserted in a report template.

**Note:** When the final message is sent via HL7, the formatting will be stripped in most cases.

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

5. Click on the Modality / Body part checkbox to associate with a specific modalities and/or body parts.

5.1 Hold down the CTRL key to select multiple entries from the modality and or body part lists.

5.2 To select all entries, click on the All checkbox for the corresponding entries.
5.3 Click on the Procedure Code checkbox to associate with a specific modalities and/or body parts

Click on the Procedure Code checkbox to associate with a specific modalities and/or body parts

5.4 Click on the + icon under the procedure codes section.

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.

5.6 Click the Submit button. The window will close and the procedure codes will be added to the list.

5.7 To remove a procedure code, click on the [x] button next to a procedure code.

5.8 Save the template by clicking on the Save button or Cancel to cancel changes

To Edit an existing Template

- 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:

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Token Content</td>
<td>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.</td>
</tr>
<tr>
<td>Field Content</td>
<td>Voice Enabled Fields are highlighted in teal.</td>
</tr>
<tr>
<td>Template / Macro Content</td>
<td>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.</td>
</tr>
<tr>
<td>Dictated / Edited Content</td>
<td>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)</td>
</tr>
<tr>
<td>Transcription Edits</td>
<td>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.</td>
</tr>
</tbody>
</table>

Please see the screen capture below for an example of how content is highlighted using the Dawn skin.
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:** intraabdominal 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.
Line item: **CTRM: 1001** signals the information to be sent over to EPIC

**Voice Edit Commands**

**Fluency Voice Commands List**

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