

Enhanced Image Viewer

User Guide



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1. Introduction

1.1. Purpose

This manual describes the Enhanced Image Viewer. It is intended for clinicians who use hosting applications such as JLV and need access to images. This manual assumes that a current version of the Enhanced Image Viewer is installed and that users are familiar with the Microsoft Windows environment.

1.2. Document Orientation

1.2.1. Organization of the Manual

This document contains the following sections to assist in walking the reader through accessing and using the Enhanced Image Viewer application:

[Section 1 – Introduction](#)

Describes the document and is designed to aid the reader in how best to follow the document.

[Section 2 – Enhanced Image Viewer Overview](#)

Describes how the Enhanced Image Viewer works. Explains the main Enhanced Image Viewer Window and how the Enhanced Image Viewer handles images.

[Section 3 – Using the Enhanced Image Viewer](#)

Describes how to use the Enhanced Image Viewer. References the image manipulation toolbars and explains how close the viewer.

[Section 4 – Troubleshooting](#)

Describes how to access some of the information contained in the Enhanced Image Viewer that will assist the user in troubleshooting some issues that may occur when using the application.

[Glossary](#)

Defines the Acronyms and Terms used and referenced in this document.

[Appendix – Supported File Extensions](#)

Describes the various file extensions of those images supported and that can be viewed with the Enhanced Image Viewer application.

1.2.2. Coordination

Use of the Enhanced Image Viewer is subject to the following provisions:



Caution: Federal law restricts this device to use by or on the order of either a licensed practitioner or persons lawfully engaged in the manufacture or distribution of the product.



The Enhanced Image Viewer is not intended for the primary interpretation of radiology exams. When the Enhanced Image Viewer is installed on approved and properly maintained hardware, primary interpretation of other image types is permissible by licensed practitioners at their discretion.



The FDA classifies VistA Imaging, and the Enhanced Image Viewer (as a component of VistA Imaging) as a medical device. Unauthorized modification to VistA Imaging, including the Enhanced Image Viewer, such as the installation of unapproved software, will adulterate the medical device. The use of an adulterated medical device violates US federal law (21CFR820).

1.2.3. Disclaimers

This is a controlled document. No changes to this document may be made without the express written consent of the VistA Imaging Office of Enterprise Development group.

While every effort has been made to assure the accuracy of the information provided, this document may include technical inaccuracies and/or typographical errors. Changes are periodically made to the information herein and incorporated into new editions of this document. Product names mentioned in this document may be trademarks or registered trademarks of their respective companies, and are hereby acknowledged.

VistA Imaging Office of Enterprise Development

Department of Veterans Affairs

Internet: [REDACTED]

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1.2.3.1. Software Disclaimer

This software was developed at the Department of Veterans Affairs (VA) by employees of the Federal Government in the course of their official duties. Pursuant to title 17 Section 105 of the United States Code this software is not subject to copyright protection and is in the public domain. VA assumes no responsibility whatsoever for its use by other parties, and makes no guarantees, expressed or implied, about its quality, reliability, or any other characteristic. We would appreciate acknowledgement if the software is used. This software can be redistributed and/or modified freely if any derivative works bear some notice that they are derived from it, and any modified versions bear some notice that they have been modified.


1.2.3.2. Documentation Disclaimer

The appearance of external hyperlink references in this manual does not constitute endorsement by the Department of Veterans Affairs (VA) of this Web site or the information, products, or services contained therein. The VA does not exercise any editorial control over the information you may find at these locations. Such links are provided and are consistent with the stated purpose of the VA.

1.2.4. Documentation Conventions

This document uses the following conventions:

- Controls, options, and button names are shown in **Bold**.
- A vertical bar is used to separate menu choices. For example: “Click **File** | **Open**” means: “Click the **File** menu, then click the **Open** option.” □ Keyboard key names are shown in bold and in brackets.
- Sample output is shown in monospace.
- When this document is used online, hyperlinks are indicated by [blue text](#).
- Useful or supplementary information is shown in a **Tip**. □ Important or required information is shown in a **NOTE**.


- Critical information is indicated by: 

1.2.5. References and Resources

Additional information about VistA Imaging can be found at:

- VistA Imaging: 

1.3. Enterprise Service Desk and Organizational Contacts

If you encounter any problems using the Enhanced Image Viewer, contact your local Imaging Coordinator or support staff. If the problem cannot be resolved locally, use YourIT Service Desk Manager to place a service request, or contact the Enterprise Service Desk at .

2. Enhanced Image Viewer Overview

2.1. How the Enhanced Image Viewer Works

The Enhanced Image Viewer adds image display capabilities to hosting applications in the same way the Clinical Display application adds image display capabilities to the Computerized Patient Record System (CPRS). The Enhanced Image Viewer is a web-based application and currently

provides a subset of features of Clinical Display. The image viewer will be enhanced over time to include all features of Clinical Display.

With the Enhanced Image Viewer, a user can display images associated with progress notes or radiology reports.

The Enhanced Image Viewer can be launched from a hosting application such as JLV.

Note that certain Clinical Display features (such as filters) and image types (such as EKG images stored on MUSE servers) are not currently available in the Enhanced Image Viewer.

2.2. Main Enhanced Image Viewer Window

The image below (Figure 1) shows the main Enhanced Image Viewer window and its various components.

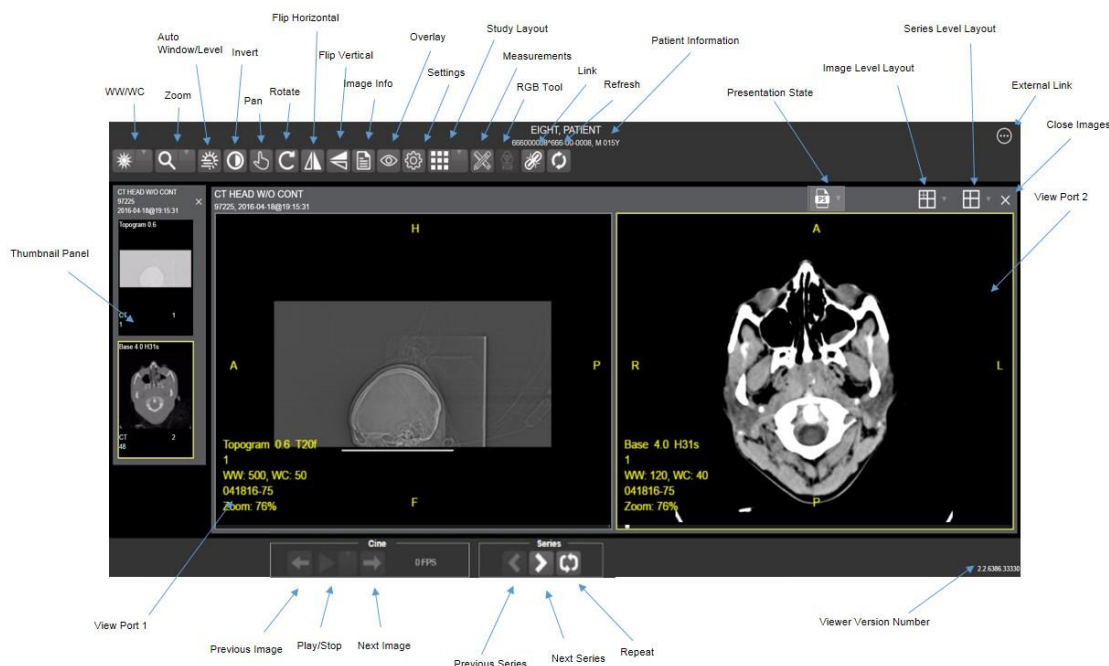


Figure 1

2.3. Enhanced Image Viewer Web-Based Application

The Enhanced Image Viewer Web Application enables users to access patient images using VA approved versions of Internet Explorer. The Enhanced Image Viewer can be accessed using hosting applications such as JLV.

The Enhanced Image Viewer Web Application allows users to locate and display any patient images available to the VA from VistA Imaging, including DoD images.

3. Viewing Images

3.1. Launching the Viewer

Upon launching the viewer, the following loading screen (Figure 2) will display:



Figure 2

The first time a study is launched, the images will be pre-processed and loaded into a cache on the VIX server. After the images are cached, the next time that study is selected, the study will take less time to load.

If there is trouble loading an image or multiple images, the following screen will display (Figure 3) with the option to either proceed or empty the cache and try again. If the proceed option is selected, the study will load without the problem images. If the cache is emptied, the viewer will attempt to re-process all the images for the study.



Figure 3

3.2. Loading Images

When the Enhanced Image Viewer window opens, it displays thumbnail placeholders until the thumbnails themselves are retrieved. [See table in section 3.3.1](#) for an example of a thumbnail.

To display images associated with thumbnails,

- 1 On the left side of the Enhanced Image Viewer window, locate the thumbnail for the desired image.
- 2 Click the desired thumbnail. A progress window will be display as shown below (Figure 4), until the loading of the image is complete:

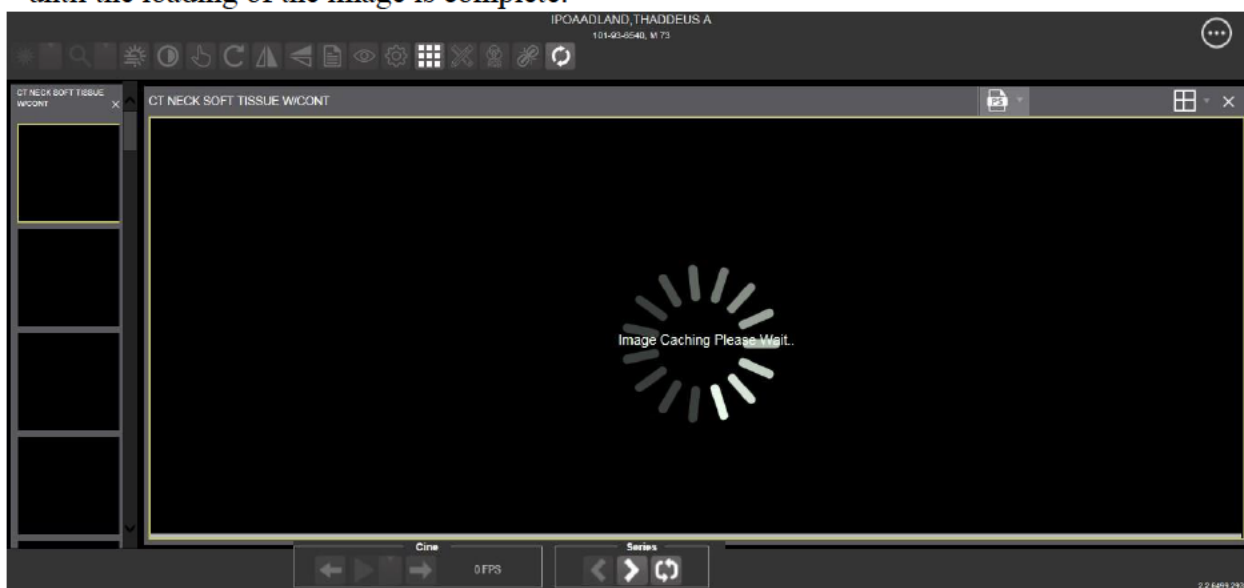






Figure 4


3.3. Working with Images

The functions described below are used to change how the images are displayed.

NOTE: Any changes made to the images as described below apply only to the current session. They will not be saved for subsequent sessions.

3.3.1. Viewing Images and Manipulating View Layout

Button Icon	Button Name and Function	Description
	Image Level Layout	The image level layout button allows users to select how many images within each series are displayed within the view port for each series.
	Series Level Layout	The image series layout button manipulates how many series within the study will display on the view port.
	Close Images	The close images button will close the currently selected image from the view port.
	Thumbnail	The title of the series appears at the top left of the thumbnail. The type of image appears at the bottom left, with the number of images in the series directly below that. The series number is found on the bottom right of the thumbnail. For DICOM images, the modality code appears on the bottom left.

	<h3>Thumbnail Panel</h3>	<p>To adjust the size of the thumbnail panel, click and drag the right edge of the panel. This will affect how many thumbnails are shown per row within the panel, but will not alter the size of the thumbnails. When hovering over the view port and viewing non-stacked images, use the mouse wheel to scroll between the different series displayed in the thumbnail panel. Drag and drop can be used to drag thumbnails to the view port. A yellow outline will appear around the thumbnail that is currently being viewed in the view port.</p>
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3.3.2. Viewing Stacked Images

When viewing a stacked image series, use the mouse wheel to scroll between the images in the stack. Upon scrolling, if multiple series are displayed in the view port, scout lines will appear on the images of the other series in a different plane to indicate what part of the body the series is displaying. See Figure 5 below.

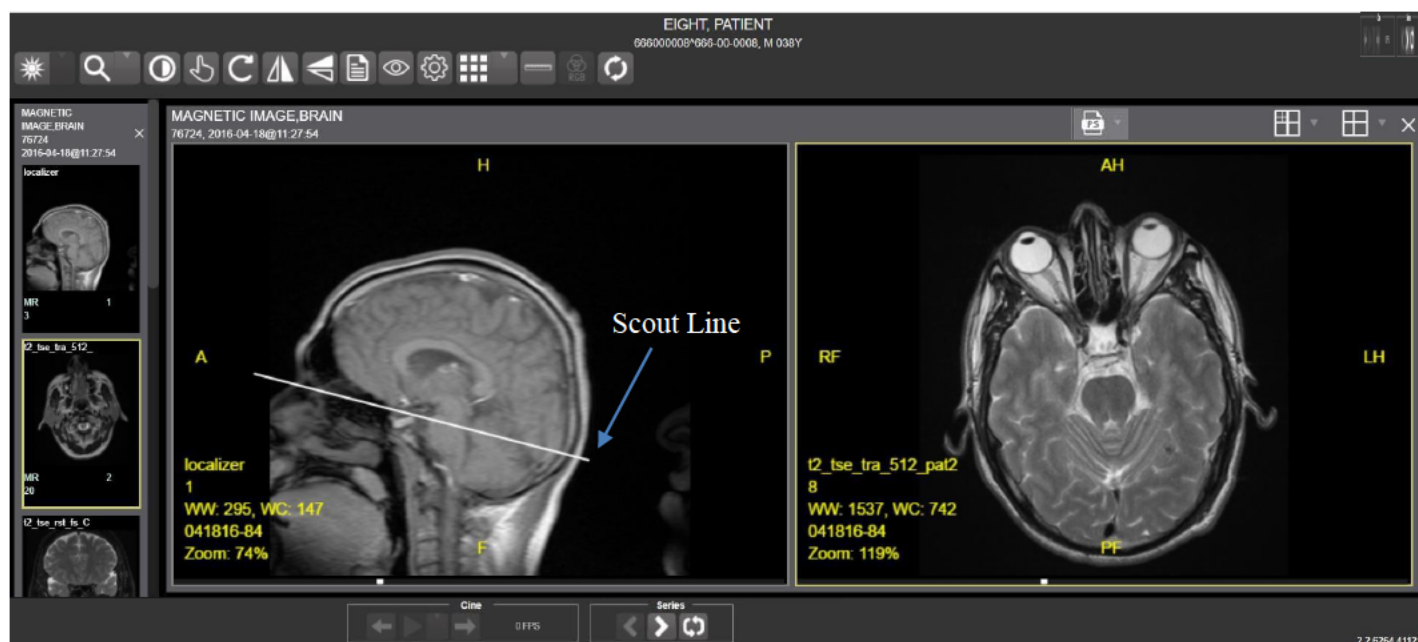


Figure 5

3.3.3. Using the Image Navigation Toolbar

The navigation toolbar will appear automatically when applicable.. See Figure 6 below:

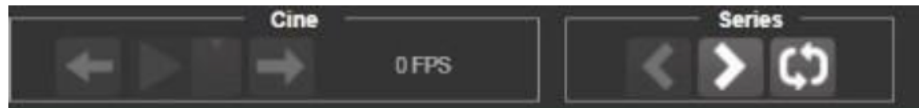






Figure 6

Button Icon	Button Name and Function	Description
	Previous Series and Next Series	The previous and next series buttons allow users to toggle between the various image series in the study.
	Previous Image and Next Image	The previous and next image buttons allow users to scroll through the images within the currently selected series.
	Play and Stop	The play and stop buttons will begin and end playing through a cine image series.
	Repeat	When the repeat series button is selected, the current series will repeat. When it is deselected, all the series will play through before repeating the current series.

- While a series is playing, a number will appear next to the image navigation toolbar. The first number is the frame rate the series is currently playing, and the second number is the frame rate the series was recorded at. See Figure 7 below.



Figure 7

- NOTE: The first time a series plays, it may play slower as the images are caching. Once the images are cached, the series will play faster.

3.3.4. Document Viewer

When viewing a document, the document viewer will load and the image viewer toolbars will be disabled. See Figure 8 below for an example of the document viewer.

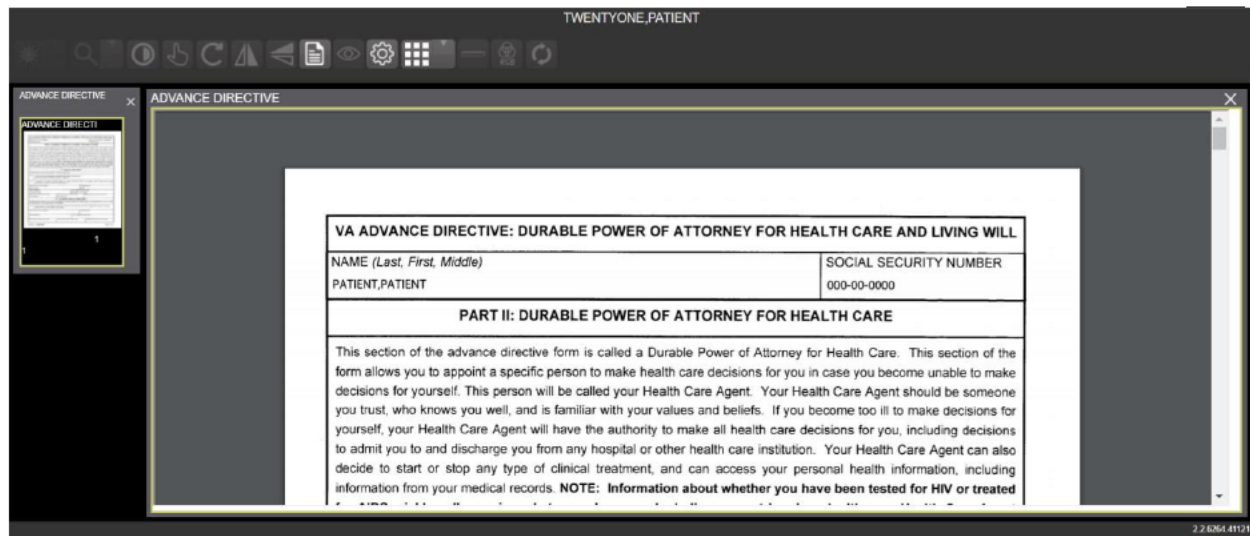


Figure 8

3.3.5. Printing an Image

To print an image, right click on the image and a drop down bar will display. See Figure 9 below for an example.



Figure 9

After selecting the print option, user may select from print options. The user will also need to select a print reason and enter their digital signature. After print options are selected, the image will open in a new tab in a printable form. The user can now print the image by pressing File | Print, or Ctrl+P. See Figure 10 below for an example.

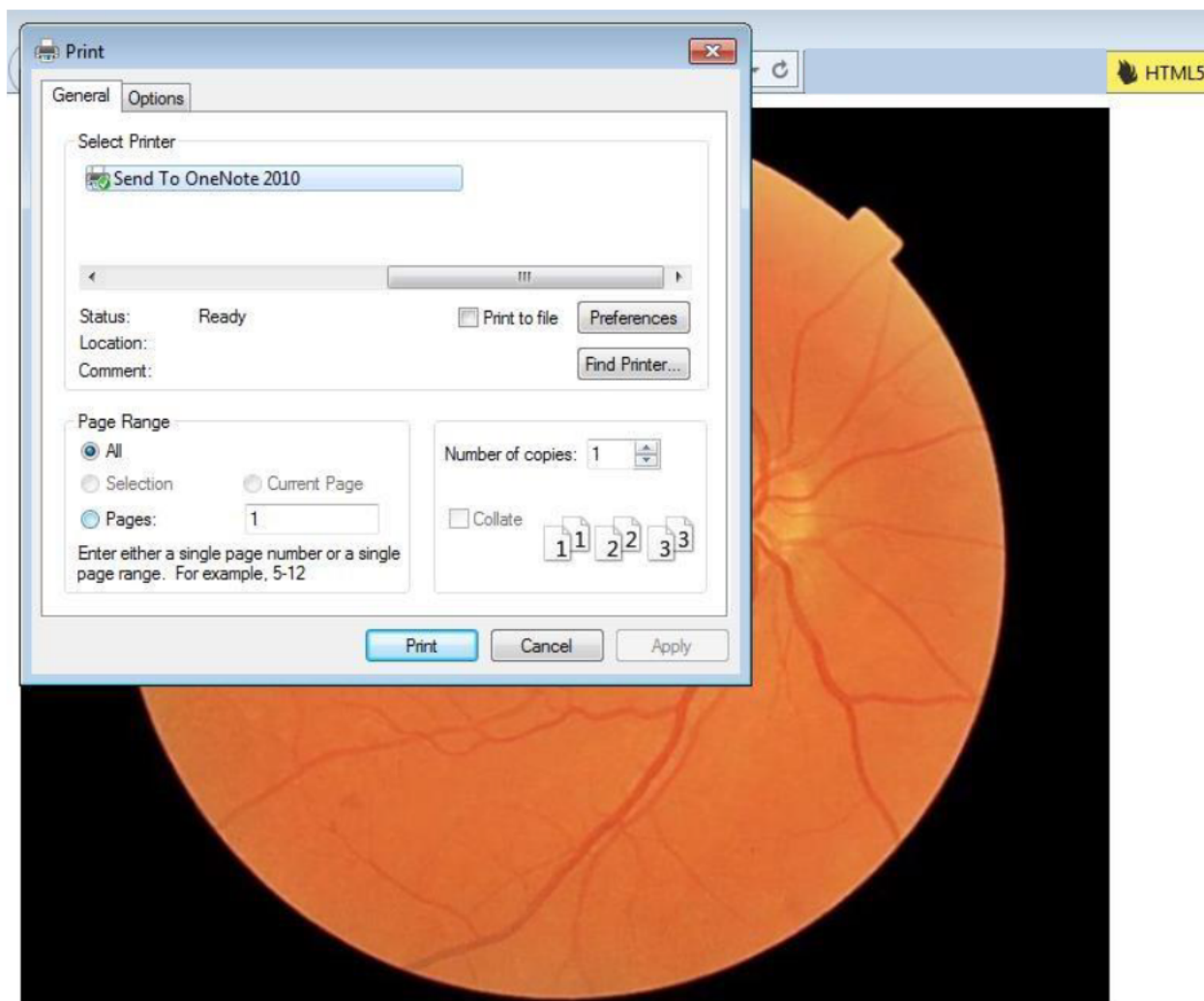


Figure 10

3.3.6. Exporting an Image

To export an image, right click on the image and a drop down bar will display. See Figure 11 below for an example.

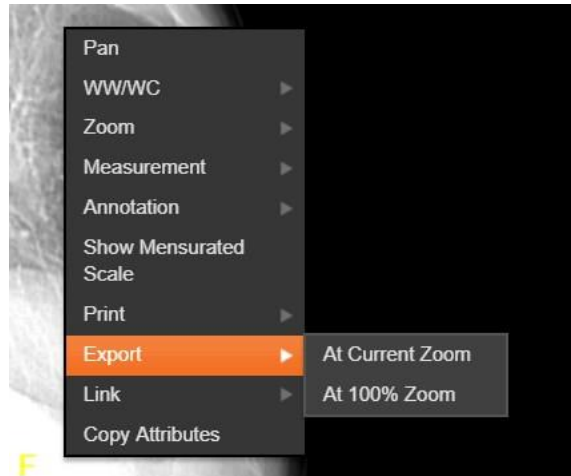


Figure 11

After selecting desired zoom, user will be prompted to enter digital signature. Once the signature is entered, the image will be exported.

3.3.7. External Links

Click the button in the top right corner of the viewer (shown below in Figure 12) to view the External Links options (Figure 13).



Figure 12

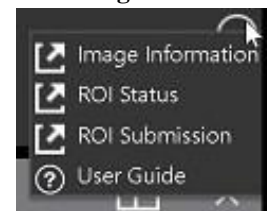


Figure 13

3.3.7.1. ROI Print Queue Status and ROI Submission

To view the ROI Print Queue Status, click **ROI Status** on the External Links menu and the following screen will display. (Figure 14)

Work Filter

- Show today's work
- Show work from the last 7 days
- Show all work

Search:

Patient Name	SSN	Patient ID	Status	Last Updated	DICOM Rowing
ZZZRETFOURSIXTYFIVE.PATIENT	*****2445	dfn(21)	EXPORT_QUEUE	02/21/2018@14:55:55	
ZZZRETFOURSIXTYFIVE.PATIENT	*****2445	dfn(21)	EXPORT_QUEUE	02/21/2018@20:27:06	
ZZZRETFOURSIXTYFIVE.PATIENT	*****2445	dfn(21)	EXPORT_QUEUE	02/22/2018@11:50:31	
ZZZRETFOURSIXTYFIVE.PATIENT	*****2445	dfn(21)	EXPORT_QUEUE	02/23/2018@10:52:47	
ZZZRETFOURSIXTYFIVE.PATIENT	*****2445	dfn(21)	EXPORT_QUEUE	02/24/2018@09:07:05	
TWENTYONE.PATIENT	*****0021	lcn(10121V598061)	FAILED_LOADING_STUDY	01/03/2018@08:17:09	
TWENTYONE.PATIENT	*****0021	lcn(10121V598061)	FAILED_LOADING_STUDY	01/03/2018@08:20:19	
TWENTYONE.PATIENT	*****0021	lcn(10121V598061)	ROI_COMPLETE	undefined	

Showing 1 to 8 of 8 entries

Refresh

Figure 14

To perform ROI Submissions, click **ROI Submission** on the External Links menu and the following screen will display. (Figure 15)

TWENTYONE.PATIENT
lcn(10121V598061)

Show: 10 entries

Search:

Procedure	Date	Location	Release
RAD CT	2018-08-28T16:44:00-04:00	VA	<input type="checkbox"/>
	2018-08-28T16:44:00-04:00	VA	<input type="checkbox"/>
	2018-08-28T16:44:00-04:00	VA	<input type="checkbox"/>
CLIN	2018-06-25T00:01:00-04:00	VA	<input type="checkbox"/>
RAD PR	2017-10-11T13:02:00-04:00	VA	<input type="checkbox"/>
XRAY	2017-10-11T13:02:00-04:00	VA	<input type="checkbox"/>
CLIN	2017-09-26T00:01:00-04:00	VA	<input type="checkbox"/>
CON/PROC	2017-09-20T10:44:00-04:00	VA	<input type="checkbox"/>
CON/PROC	2017-09-20T10:44:00-04:00	VA	<input type="checkbox"/>
RAD CT	2017-09-12T18:43:00-04:00	VA	<input type="checkbox"/>

Showing 1 to 10 of 38 entries

Previous 1 2 3 4 Next

Submit ROI CD Request

Select All

Figure 15

To print, select one or more items and click **Submit ROI CD Request**. Then, select the target printer or CD (for dicom images only) and the reason for printing. Then, enter electronic signature and selected items will print to the selected target.

3.4. Using the Enhanced Image Viewer Toolbar

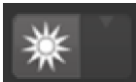





The toolbar provides access to a variety features of the Viewer while viewing an image. Dependent upon the type of image, some of these capabilities may be unavailable (will be grayed out indicating that the specific functionality is not accessible). See Figure 16 below for an example of a grayed out toolbar button. See Figure 17 below for an image of the toolbar.




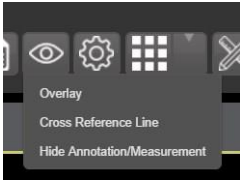








Figure 16



Figure 17

Button Icon	Button Name and Function	Description
	WW/WC (Window/Level)	Provides the ability to set the WW/WC (Window/Level) View. When the WW/WC button is selected, click and drag on the desired image to alter the grayscale value of the image. For CT images, a CT preset menu will be available with the following options: Default, the Abdomen, the Bone, the Brain, the Head/Neck, the Lung, or to Customize.
	Zoom	Provides the ability to resize the image to 100%, or Fit to Window, or Fit Width to Window, or Fit Height to Window, or to Customize the sizing. When the Zoom button is selected, click and drag the image to zoom in and out.
	Auto Window/Level	Provides the ability to click and drag on selected image to adjust the window/level.
	Invert	Inverts the image.
	Pan	When selected, click and drag the image to pan and view the desired area.
	Rotate	Rotates the Image 90 degrees' counterclockwise.

	Flip Horizontal	Flips the Image horizontally.
	Flip Vertical	Flips the Image vertically.
	View Image Info	Views the DICOM Attributes and Metadata for the Image.
	Overlay	“Overlay” toggles the overlay on and off. “Cross Reference Line” toggles the scout lines on and off. “Hide Annotation/Measurement” either shows or hides the annotations and measurements the user has created on the image.
	Settings	Provides the ability to set the Annotation, Cine, Layout Preferences. For more information on the settings, see section 3.4.2 below .
	Study Level	Provides the ability to set the Study Level to 1x1, 1x2, 1x3, 2x1, 2x2, 2x3, 3x1, 3x2, or 3x3.
	Measurements	Provides the ability to access the 2D Length, the Angle Tool, 2D Point, 2D Length Calibration, or Delete All. For more information on the measurement options, see section 4.4 below .
	RGB Tool	Access the RGB Tool. For more information on the RGB tool, see section 4.5 below .
	Link	Allows user to select two image stacks and scroll simultaneously.
	Refresh	Provides the ability to refresh the image to its original settings.

3.4.1. Viewing Information on an Image

- To view an image’s information, select the **Image Info** Button.
- To view the **DICOM** information, select **DICOM Header**.
- A screen showing the **DICOM Attributes** will display as shown below (Figure 18):

Dicom Header				
Group	Element	Description	VR	Value
0008	0008	Image Type	CS	ORIGINALPRIMARYAXIALCT_SOM5 SEQ
0008	0016	SOP Class UID	UI	1.2.840.10008.5.1.4.1.1.2
0008	0018	SOP Instance UID	UI	1.2.840.113754.1.7.500.0.20160419.113013.1
0008	0020	Study Date	DA	20160418
0008	0023	Content Date	DA	19980907
0008	0030	Study Time	TM	
0008	0033	Content Time	TM	
0008	0050	Accession Number	SH	041816-72
0008	0060	Modality	CS	CT
0008	0070	Manufacturer	LO	SIEMENS
0008	0090	Referring Physician's Name	PN	PROVIDER~TWENTY
0008	1030	Study Description	LO	CT HEAD W/O CONT

Figure 18

- To view the **Imaging Data** for the Image, select the **Imaging Data** option.
- A screen showing the **Image Metadata** will display as shown below (Figure 19):

[illegible]

Figure 19

3.4.2. Changing the Settings of an Image

- Select the **Settings** button to view or update the settings options.
- The following screen will be displayed (Figure 20):

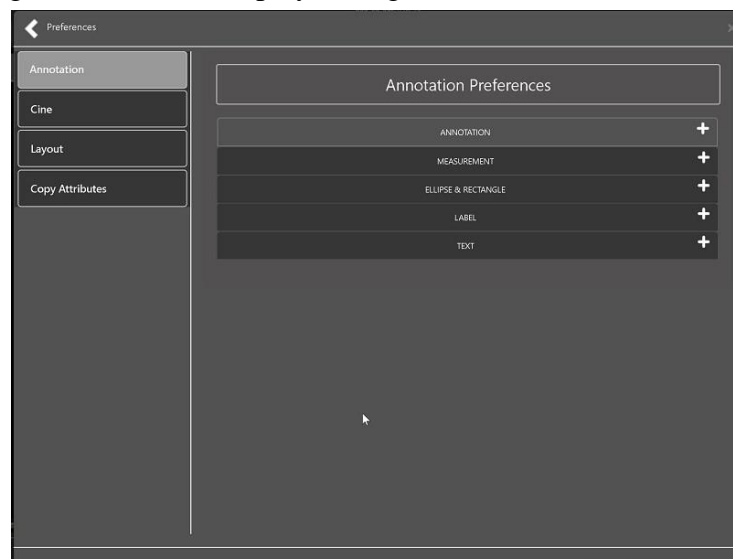


Figure 20

- Click **Annotation** and the following screen will display (Figure 21)

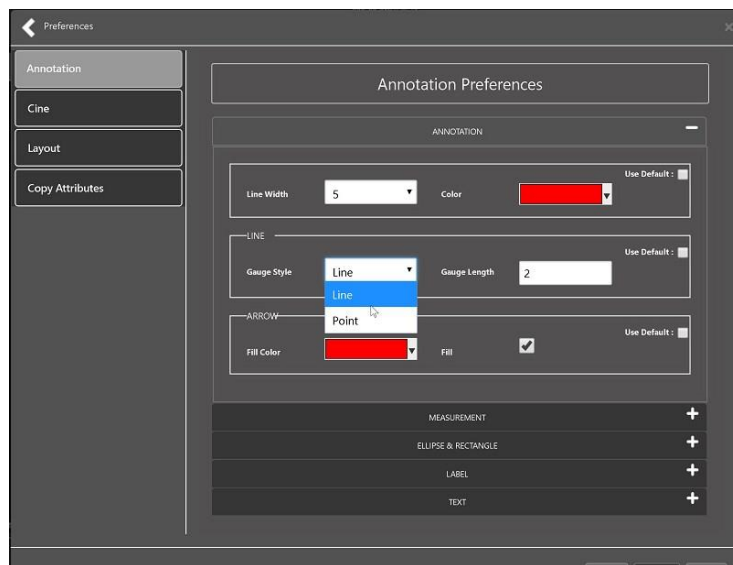


Figure 21

- Click **Measurement** and the following screen will display (Figure 22):

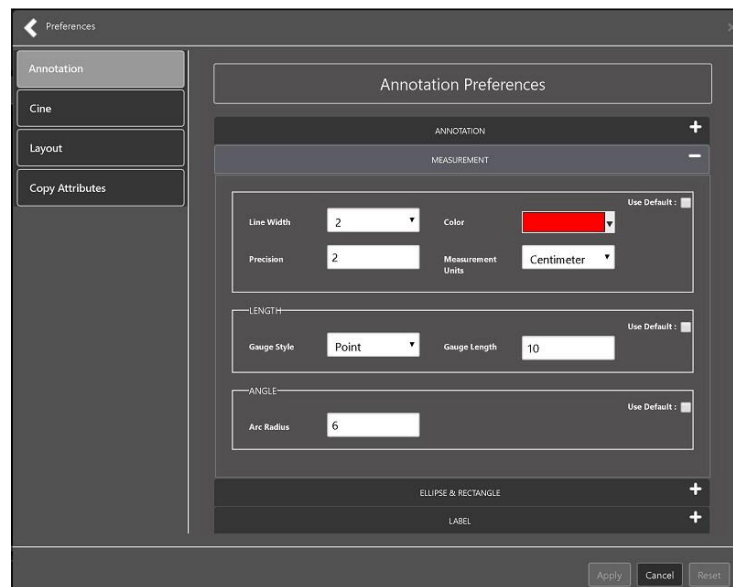


Figure 22

- Click **Ellipse and Rectangle** and the following screen will display (Figure 23):

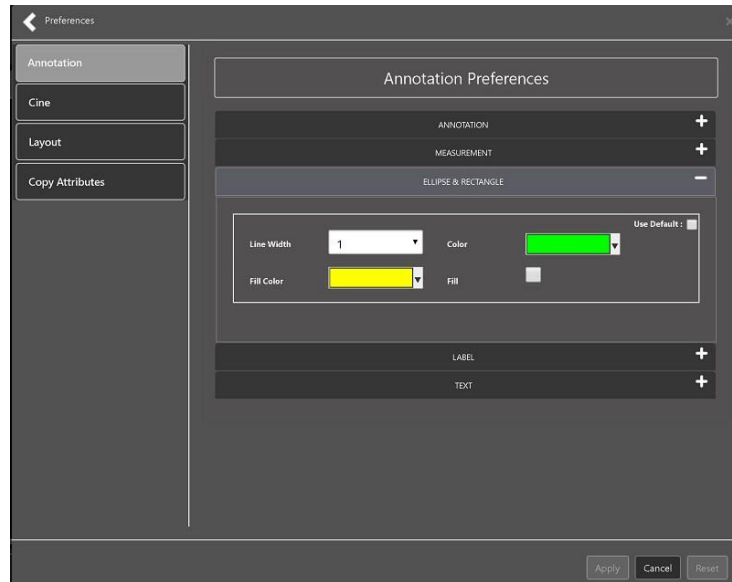
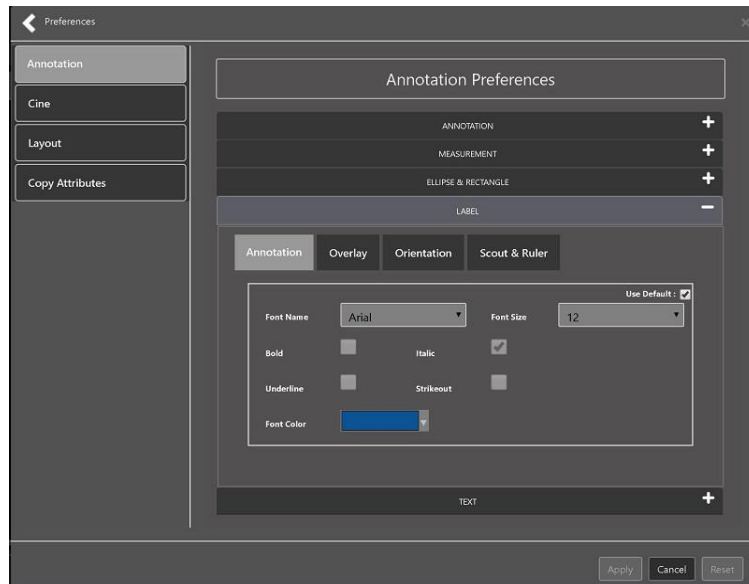


Figure 23

- Click **Label** and the following screen will display (Figure 24):



-

Figure 24

- Under the Label preferences, toggle between **Annotation**, **Overlay**, **Orientation**, and **Scout & Ruler** to set all Label preferences
- Click **Text** and the following screen will display (Figure 25):

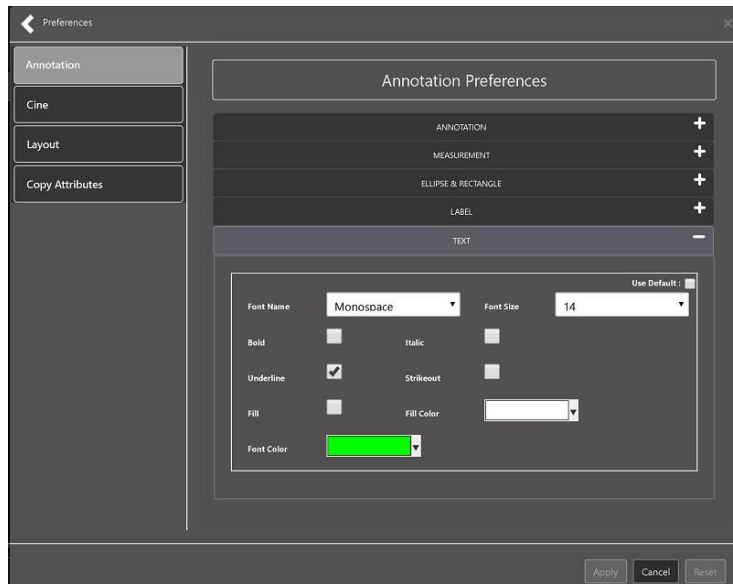


Figure 25

- To view or update the Cine Settings, select the **Cine Preference** and the following screen will display (Figure 26):

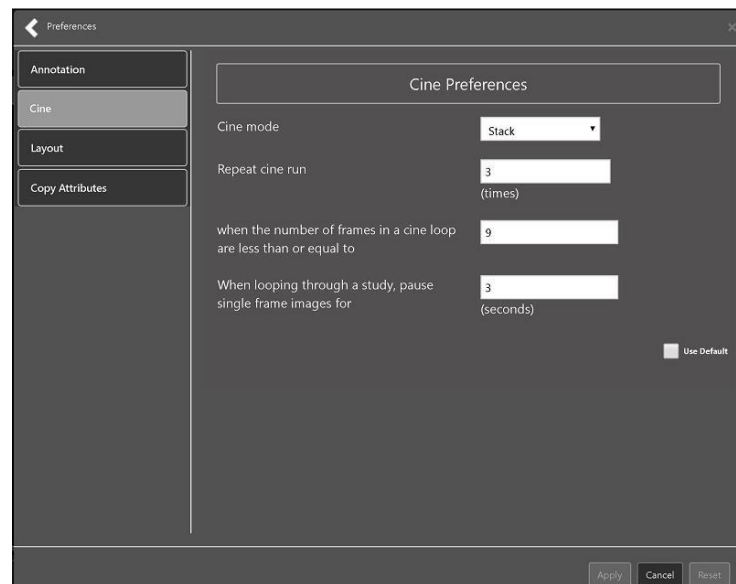


Figure 26

- To view the Layout settings, select the **Layout Preference** and the following screen will display (Figure 27):

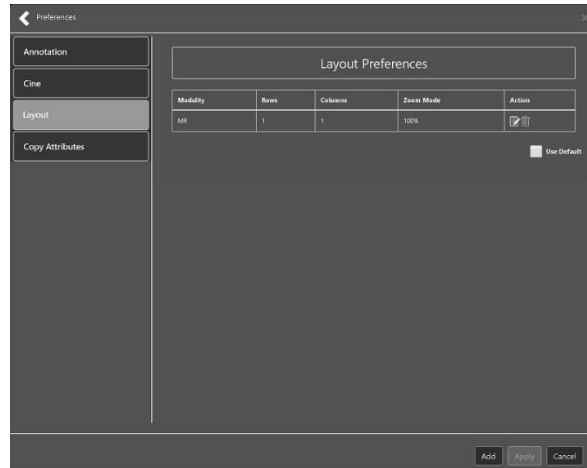


Figure 27

- Click **Add** in the bottom right of the window to add a new layout preference (Figure 28)

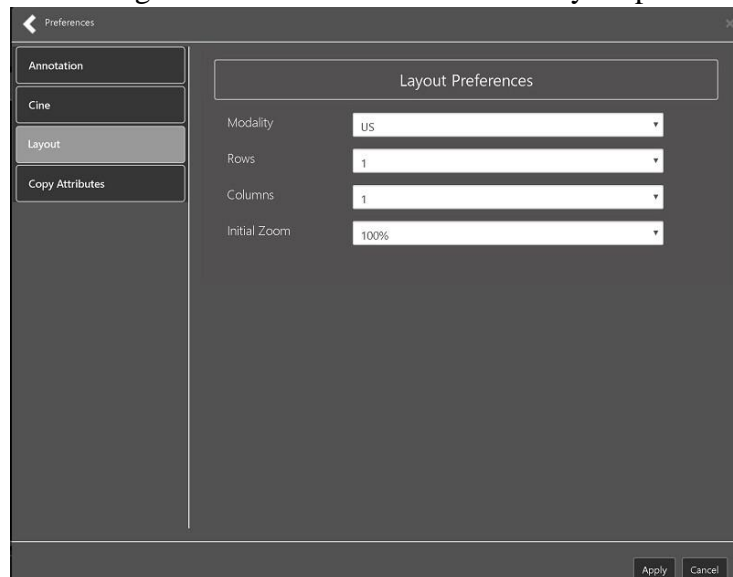


Figure 28

- To view the Copy Attributes settings, select the **Copy Attributes Preference** and the following screen will display (Figure 29):

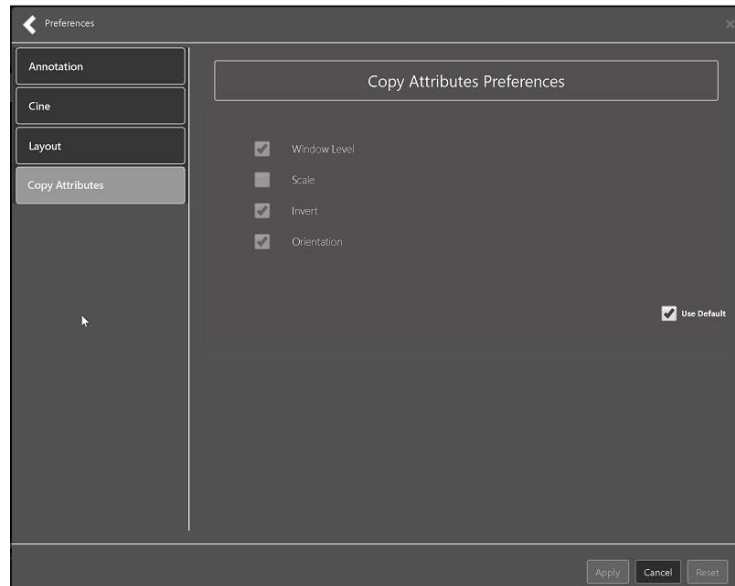


Figure 29

3.4.3. Changing the Study Layout

- To change the study layout, select the **Study Layout** Button.
- The following screen will display (Figure 30):

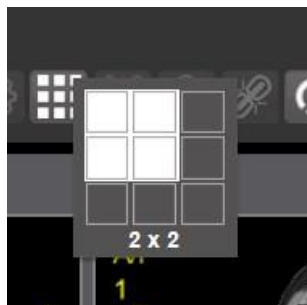


Figure 30

- Select the study level that you best suits your purpose.

3.4.4. Presentation State

To view presentation state options, click the **PS Icon** (Figure 31) and the following menu will appear. (Figure 25)



Figure 31

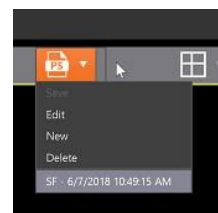


Figure 32

The presentation state icon will be available only if there are presentation states associated with the study there is an annotation drawn on the image currently being viewed. The bottom of the drop down menu will display all saved presentation states associated with the study. To view additional information about a specific presentation state, hover over it in the drop down menu.

3.4.5. Using the Measurements Tools

- To use the various measurement tools, select the **Measurements** Button.

- The following screen will display (Figures 33, 34, 35):

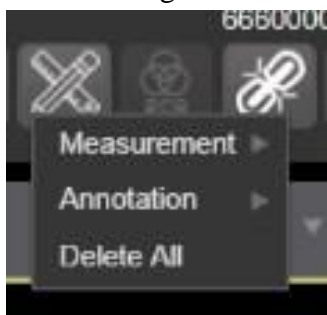


Figure 33

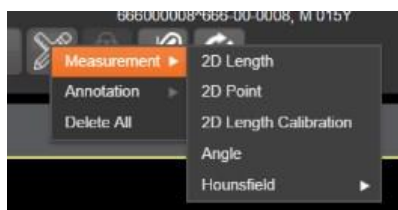


Figure 34

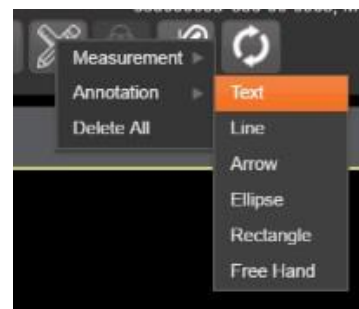


Figure 35

- The **2D Length** option draws the necessary line(s) to obtain desired measurements.
- The **Angle Tool** draws the necessary line(s) to measure the desired angle.
- The **2D Point** tool places the necessary dots to obtain desired measurements. This option is typically used for ultrasound studies to measure velocity.
- The **2D Length Calibration** option calibrates measurements to ensure accurate data. Images with DICOM info use the DICOM info to inform measurement calibration, but images without this data need calibration to show accurate data. See Figure 36 below.

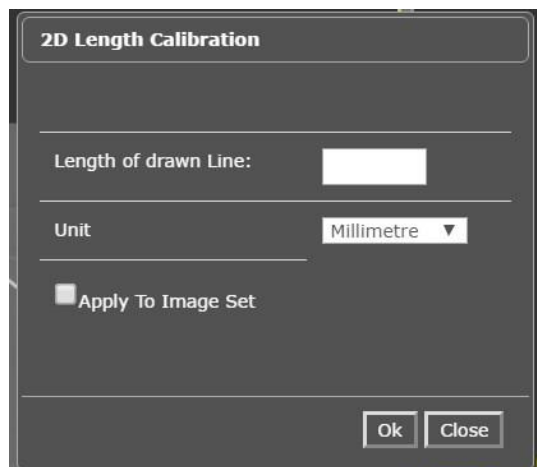


Figure 36

The **Hounsfield** tool takes circular and rectangular density measurements. See Figure 37 below.

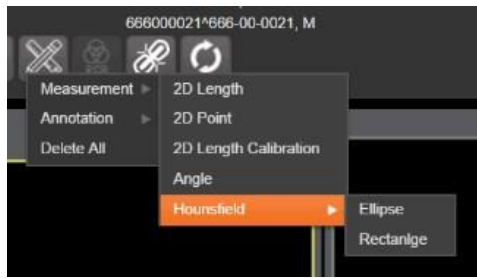


Figure 37

- The **Text** tool allows users to create text boxes on the image.
- The **Line** tool draws straight lines on the image.
- The **Arrow** tool draws straight arrows on the image.
- The **Ellipse** tool draws ellipses on the image.
- The **Rectangle** tool draws rectangles on the image.
- The **Free Hand** tool connects points that have been specified by the user to create any desired shape.
- To delete all of the measurements and markings that you have made on the current image, select the **Delete All** option.

3.4.6. Using the RGB Tool

The **RGB Tool** button filters the image for certain color channels to allow for various observations. When selected, a drop-down menu (Figure 38) will appear that allows the user to select the desired color channel.



Figure 38

3.5. Closing the Enhanced Image Viewer

To close the Enhanced Image Viewer window, click the “X” on the tab in the browser. See Figure 39 below.

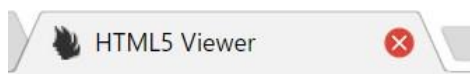


Figure 39

NOTE: The Enhanced Image Viewer closes automatically with a different patient selection.

4. Image QA

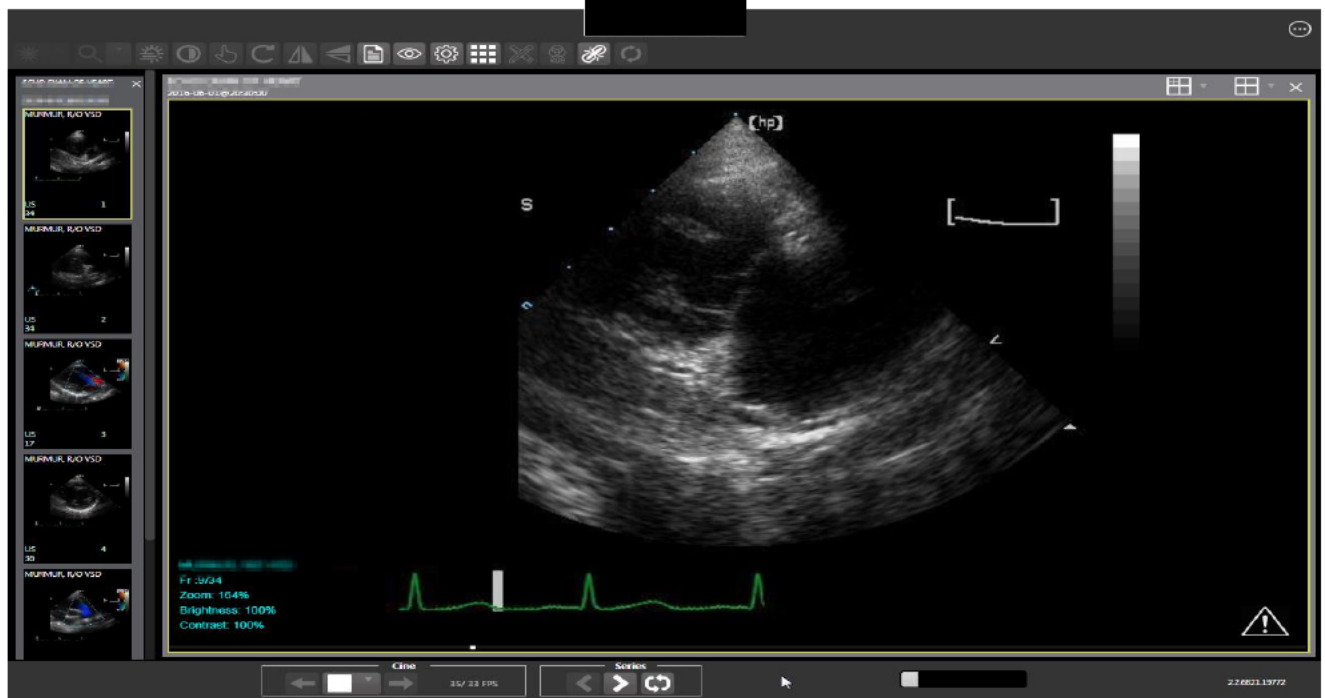


Figure 40

Click the External Link button on the Viewer page and a drop-down menu will appear.

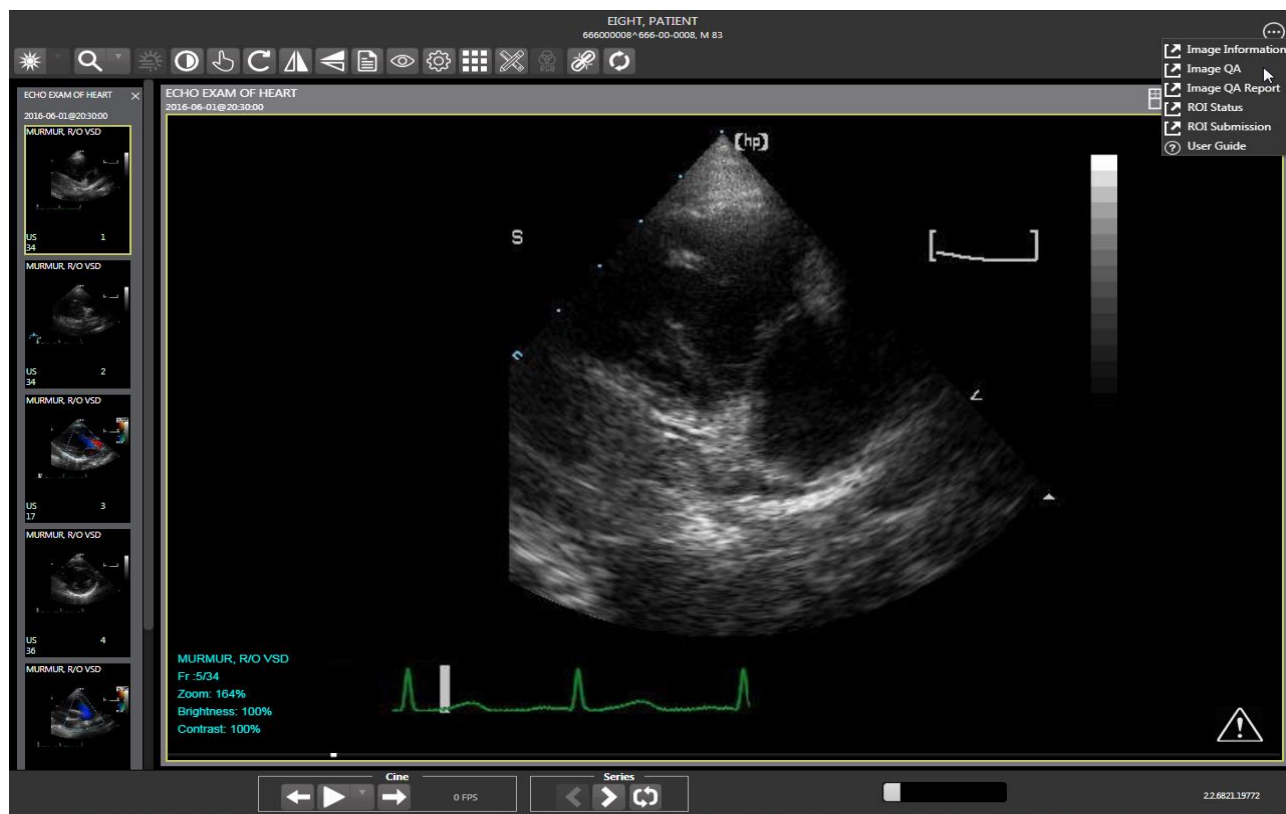


Figure 41

4.1. Image Information

Select the **Image Information** link from the menu. Image information page will load.

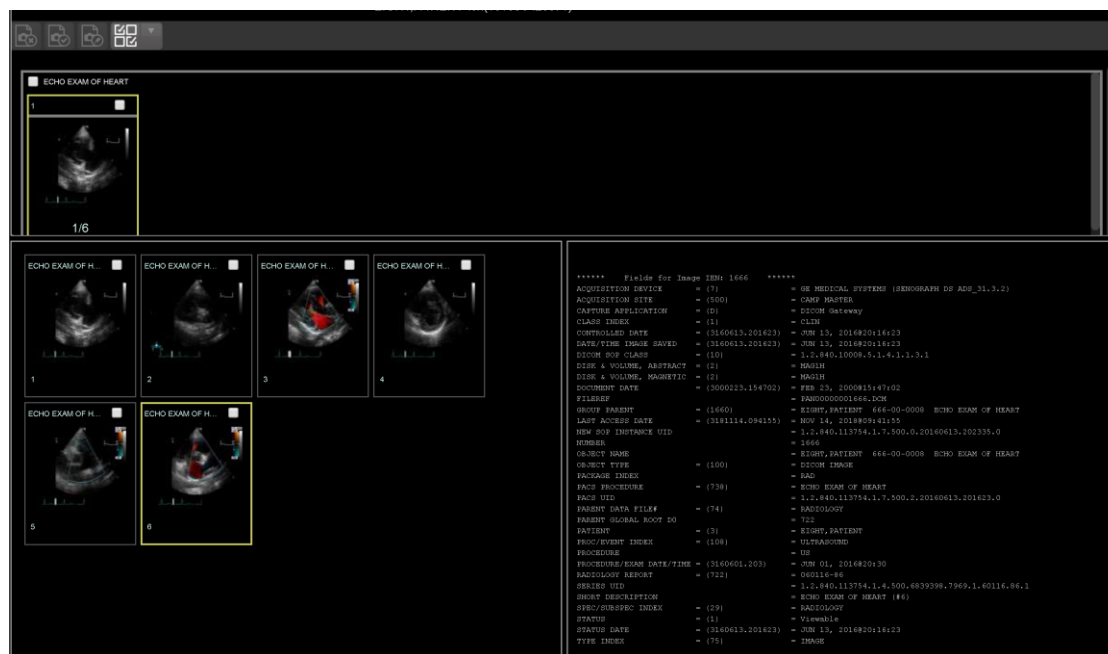


Figure 42

Select any image and click **Image Edit** button on the toolbar. Image editor dialog will open.

To edit a field, click on the checkbox to the left to enable the dropdown control or the textbox. Click **Save** to save the image index fields.

Figure 43

Image QA

Select the Image QA from external link to open the QA review page.

Figure 44

Click **Select** button from **Search Filters** group to open the **Select Date Range** window. Select a date range.

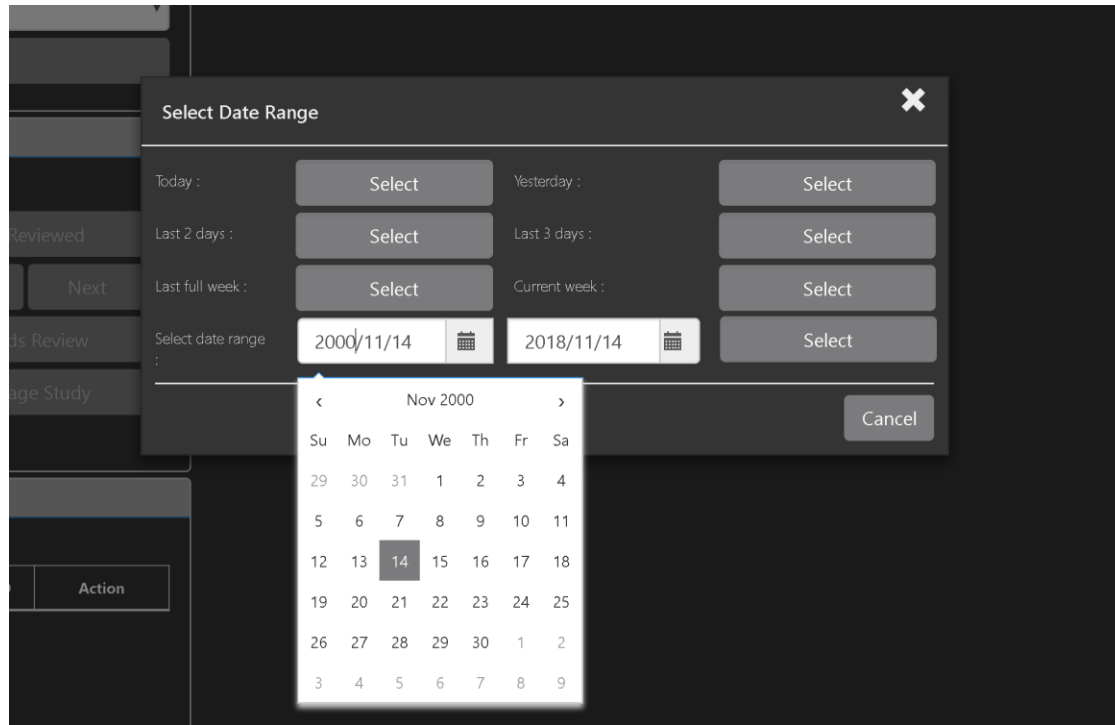


Figure 45

Captured By dropdown will be populated by a list of users valid for the selected date range.

Search Filters

Select Date Range: Date range [Select]

Captured By: Radtech,Fiftytwo ▼

Has Status of: Radtech,Fiftytwo ▼

Peren (%) return: 1 ▼ Or [] ▼

Select Filter: 15 ▼

[Search]

Image Information

Figure 46

Click '**Has Status of**' dropdown and choose one or more image view status.

Search Filters

Select Date Range: Date range [Select]

Captured By: Radtech,Fiftytwo ▼

Has Status of: Select image status ▼

Peren (%) return: [] ▼

Select Filter: [] ▼

- ☐ Viewable
- ☐ QA Reviewed
- ☐ Needs Review
- ☐ Image Never Existed

[Search]

Image Information

Figure 47

Restrict the study count in the search results using the '**% return**' dropdowns. Left dropdown is in percentage of study items to be displayed. Right dropdown is the maximum number of items to be displayed.

Search Filters

Select Date Range:

Captured By:

Has Status of:

Percen (%) return: Or

Select Filter:

Image Information

Patient : <patient name>
 SSN : <SSN>
 Short Desc : <short desc>

QA Reviewed

Prev Next

Figure 48

Choose a filter using the **'Select Filter'** dropdown.

Search Filters

Select Date Range:

Captured By:

Has Status of:

Percen (%) return: Or

Select Filter:

Image Information

Patient : <patient name>
 SSN : <SSN>
 Short Desc : <short desc>
 Type : <type>
 Specialty : <spec/subspec>

Needs Review

Figure 49

Click **'Search'** to search for studies.

First study in the list of studies found is automatically displayed on the right.

Click on the **'Viewer'** icon (circled in red) to display the study.

Click on the **'Images'** icon (circled in yellow) to display the images tab for the study. You can also click on the 'Images' tab at the top after the study is displayed.

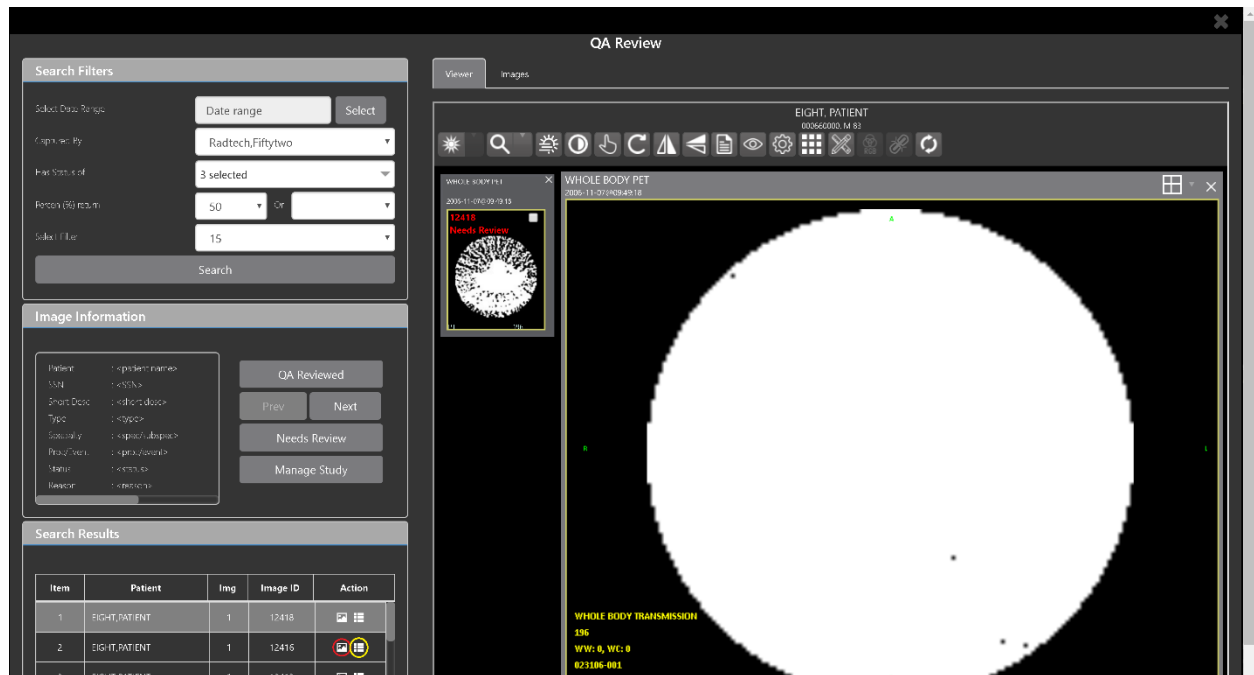


Figure 50

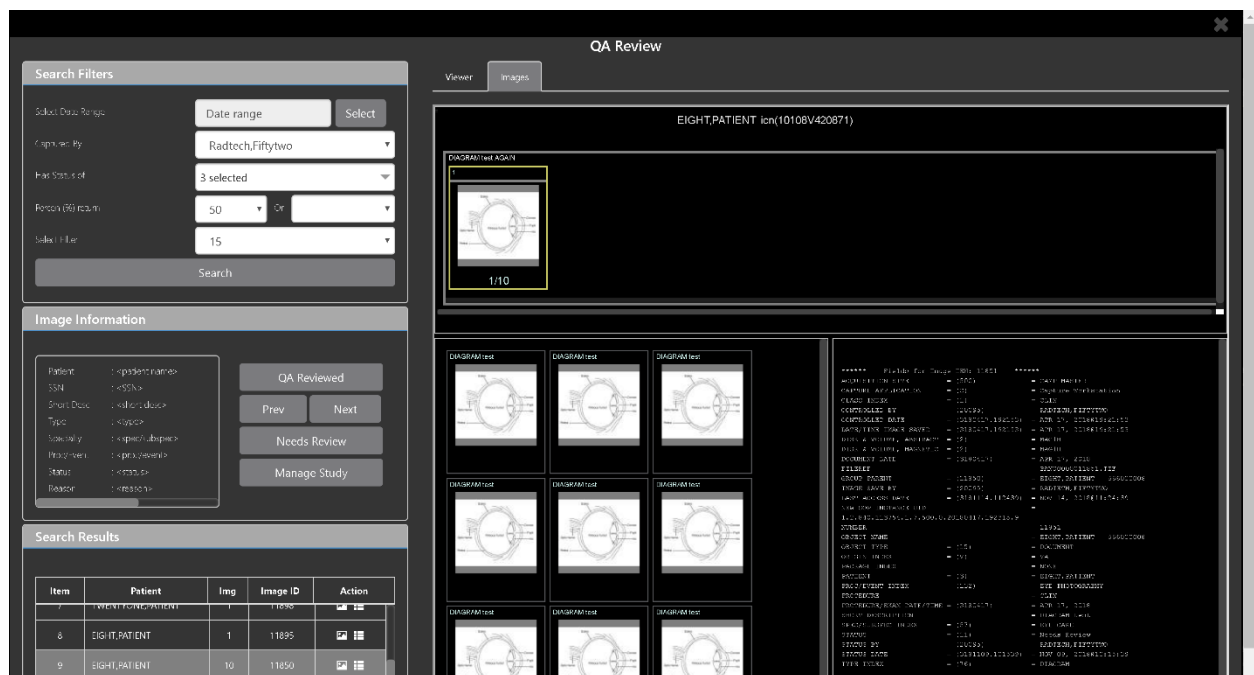


Figure 51

4.2. Viewing and setting Image Status

Highlight an image in the thumbnail panel. Its image information, including the view status will be displayed in a panel on the left (highlighted in blue).

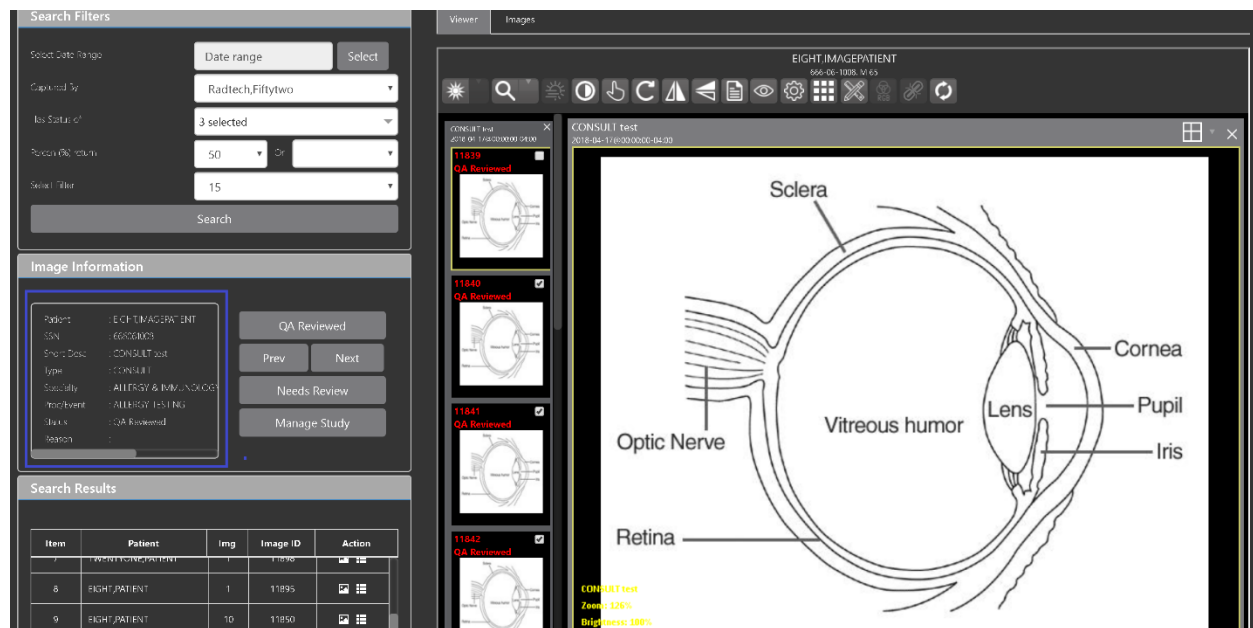


Figure 52

Click on an image thumbnail to highlight it and display the corresponding image. More than one thumbnails can be highlighted using the shift key.

Click 'QA Reviewed' or 'Needs Review' button to set the corresponding image status. You can also right click on the image or the image thumbnail to set the image status.



Figure 53

You can also invoke the Image Index Editor window by clicking on the '**Image Index Edit**' menu item.

Use the **Prev** and **Next** buttons to traverse the search results.

Click **Manage Study** button to display the **Images** tab for the study.

4.3. Image QA Report

Select the image QA report from the viewer page external link to open the QA report page.

The screenshot displays a window titled "QA Statistics Reports" with a close button (X) in the top right corner. The window is divided into two main sections. The left section, titled "New Report Parameters", contains three sub-sections: "Date Range" with "From" and "To" date pickers set to 09/07/2018 and a "Range : Today" link; a checkbox section with "Include Deleted Images" (unchecked) and "Include Existing Images" (checked); and "Return Image Counts By" with radio buttons for "Grouped by Status" (selected) and "Grouped by Users and Status". A "Run Report" button is at the bottom. The right section, titled "Report requests for user : RADTECH,FIFTYTWO", features a table with columns: Report Type, Status, From, To, Started At, and Ended At. Below the table, it says "No Selection" and includes "Refresh List" and "View Report" buttons.

Report Type	Status	From	To	Started At	Ended At
No Selection					

Figure 54

Fill the required fields in the report parameters and click **Run Report** button

New Report Parameters

Date Range

From :

2000/11/14

To :

2018/11/14

Range : 18 year(s) 4 day(s)

☐ Include Deleted Images
 ☒ Include Existing Images

Return Image Counts By

☐ Grouped by Status
 ☐ Grouped by Users and Status

Run Report

QA Statistics Reports

Report requests for user : RADTECH.FIFTYTWO

Report Type	Status	From	To	Started At	Ended At
T&D	T&D	11/14/1950	11/14/2018	11/14/2018 01:52:48	11/14/2018 01:52:49
T&D	T&D	11/14/1950	11/14/2018	11/14/2018 01:52:43	11/14/2018 01:52:44
T&D	T&D	11/14/2018	11/14/2018	11/14/2018 08:42:52	11/14/2018 08:42:52
T&D	T&D	11/14/1920	11/14/2018	11/14/2018 08:43:32	11/14/2018 08:43:33
T&D	T&D	11/14/1925	11/14/2018	11/14/2018 09:08:41	11/14/2018 09:08:42
T&D	T&D	11/14/1930	11/14/2018	11/14/2018 05:07:59	11/14/2018 05:08
T&D	T&D	11/14/1940	11/14/2018	11/14/2018 04:13:39	11/14/2018 04:13:39
T&D	T&D	11/14/1945	11/14/2018	11/14/2018 08:43:2	11/14/2018 08:43:2
T&D	T&D	11/14/1950	11/14/2018	11/14/2018 01:49:07	11/14/2018 01:49:07
T&D	T&D	11/14/2000	11/14/2018	11/14/2018 08:02:44	11/14/2018 08:02:45

No Selection

Refresh List

View Report

Select any item and click **View Report** button then selected image statistic will load in the page.

TBD	TBD	11/15/1920	11/15/2018	11/15/2018 04:53:31	11/15/2018 04:53:32
TBD	TBD	11/15/1930	11/15/2018	11/15/2018 04:52:55	11/15/2018 04:52:56
TBD	TBD	11/15/1932	11/15/2018	11/15/2018 04:53:08	11/15/2018 04:53:08
TBD	TBD	11/15/1950	11/15/2018	11/15/2018 04:45:15	11/15/2018 04:45:16
TBD	TBD	11/15/2000	11/15/2018		
TBD	TBD	11/15/2018	11/15/2018	11/15/2018 04:45:01	11/15/2018 04:45:01

No Selection

Refresh ListView Report

Image Report Statistic

This Report Was Started At: 11/15/2018 04:45:15

For Date Range: 11/15/1950 thru 11/15/2018

Range : 68 year(s) 17 day(s)

Report Flags :

Include existing images

Return image counts grouped by users and status

Export

User	Status	Entities	Pages	QA%
Radtech,Fiftytwo	Viewable	757	2879	
Radtech,Fiftytwo	QA Reviewed	29	365	
Radtech,Fiftytwo	Needs Review	31	66	
Radtech,Fiftytwo		817	3310	3.55
<undefined>	Viewable	8532	8532	
<undefined>		8532	8532	0
Totals		9349	11842	0.31

Click **Export** to generate a csv file using the results.

5. Troubleshooting

To display version information and message history about the Enhanced Image Viewer, click the **Viewer Version Number** located in the lower right corner of the Enhanced Image Viewer window. See Figure 40 below.

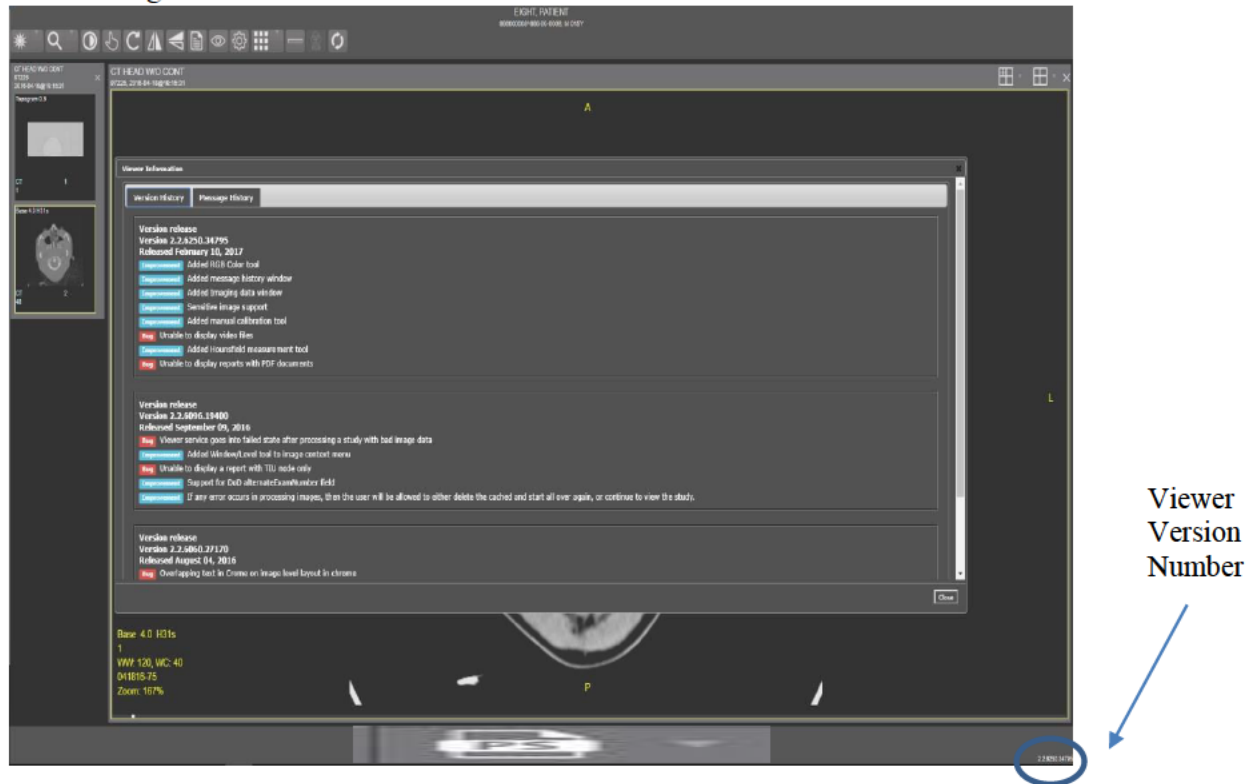


Figure 57

To exit the window, click the “X” in the top right corner.

The **Imaging Info** found in the top toolbar can also be used for troubleshooting. See [section 3.4.1](#) for more info.

Glossary

Acronym /Term	Definition
Enhanced Image Viewer	Enhanced Image Viewer
CPRS	Computerized Patient Record System
DICOM	Digital Imaging and Communications in Medicine
EKG	Electrocardiogram
FAQ	Frequently Asked Questions
FDA	Food and Drug Administration
ID	Identifier or Identification
JLV	Joint Legacy Viewer
Multi-frame	A DICOM image that contains multiple two-dimensional pixel planes in a single file. When the file is displayed, each plane (frame) is presented as a separate image. This separation is automatically handled in the Radiology Viewer.
MUSE	A third-party cardiology information system used to store and manage EKG (electrocardiogram) images. If a VA facility stores their images in MUSE, they will not be accessible to the Enhanced Image Viewer.
VA	Veteran Affairs
VistA	Veterans Health Information System and Technology Architecture

Appendix – Supported File Extensions

Extension	Description	Associated Viewer
756	Historical 756	Radiology Viewer or Full Resolution Viewer depending on image type.
ABS	Abstract file	Abstract area
ASC	ASCII text file	Not Supported
AVI	Motion video	Video Player
BIG	X-ray file 2000K	Radiology Viewer
BMP	Bitmap	Full Resolution Viewer
BW	Black and white	Radiology Viewer or Full Resolution Viewer depending on image type.
DCM	DICOM	Radiology Viewer
DOC	MS Word document	Microsoft Word
DOCX	MS Word document	Microsoft Word
HTM	Web HTM document	Not Supported
HTML	Web HTML document	Not Supported
JPG	JPEG full color	Full Resolution Viewer
MHT	MIME HTML web page archive	Not Supported
MHTML	MIME HTML web page archive	Not Supported
MP3	Motion video MPEG-3	Not Supported
MP4	Motion video MPEG-4	Not Supported
MPEG	Motion video MPG	Not Supported
MPG	Motion video MPG	Not Supported
PAC	X-ray PAC image	Radiology Viewer
PDF	Adobe PDF	Full Resolution Viewer

RTF	Rich text format	MS Word
TGA	TARGA image	Radiology Viewer
TIF	Tagged Image File Format	Full Resolution Viewer
WAV	Audio wave file	Not Supported