



Merge PACS™

8.1

WORKSTATION CD VIEWER USERS GUIDE

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IBM Watson Health™

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INDICATIONS FOR USE:

Merge PACS™ is a Picture Archiving and Communication System (PACS) for multi-modality (CT, MR, PT, US, MG, BTO, CR, DR/DX, NM, XA, RF, secondary capture (SC), and other DICOM-compliant modalities) image processing and display, diagnostic reading and reporting, communication, printing, and storage of medical imaging studies and other patient data. Intended clinical users include radiologists, orthopedic and other surgeons, referring physicians, technologists, and other qualified medical professionals.

Data can be received directly from acquisition modalities, CAD systems, and other image processing systems, or indirectly via importing. Data that is not DICOM-compliant, such as photos, can be converted to DICOM format by Merge PACS.

Merge PACS provides image manipulation tools to enable users to view and compare images such as: linking, MPR, MIP, 3D image fusion/ registration of CT, MR, and PET; as well as CVR (Color Volume Rendering), measurements (linear distances, angles, areas, SUV, etc.), and annotations (for example, outline and label regions of interest, label spinal vertebrae).

The Real Time Worklist (RTWL) displays the real-time status of radiology activity and provides customizable workflow management capabilities. Communication of critical results is facilitated and documented through optional, configurable components.

The Patient Dashboard provides a composite view of patient data, both imaging and non-imaging. Multi-tier patient identity matching provides a comprehensive view even when dealing with multiple disparate patient identities.

Order and report information generated by the HIS/RIS and report creation systems are received and displayed via the transmission of HL7 messaging.

Lossless (reversible) and lossy (irreversible) image compression are supported for viewing, storage and communication. Merge PACS displays full fidelity DICOM images for use in the diagnostic interpretation of mammography using MG or BTO images. Thick slab MIP presentation can be applied to BTO images.

Lossy compressed images and digitized screen film images must not be used for primary diagnosis of mammography studies, and only display monitors that have regulatory clearance for mammography interpretation should be used for the interpretation of mammography studies.

CAUTION: Federal law restricts this device to sale by or on the order of a physician.

CAUTION: Not for diagnostic use on a mobile device such as a smart phone or a tablet.

INSTRUCTIONS FOR USE:

Instructions for use are available electronically in PDF format. Paper format can be requested by contacting Customer Support and will be provided free of charge within seven calendar days of receiving the request. The paper format can also be provided at the time of delivery if so requested at the time of order.

CANADIAN DEVICE IDENTIFIER: Merge PACS



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Chapter 1. System Requirements

The following is a list of the minimum recommended hardware requirements for using the basic features of the Merge PACS Workstation CD Viewer:

Specification	Recommended
Base Unit	Examples: Dell Precision T3610 or HP Z240
CPU	(1) Intel Xeon E5-1620 v2 Quad-core 64 bit processor
CPU Specifications	3.6GHz +, 10MB Cache
Memory	16GB, DDR3 ECC
Video Cards	
<i>High-resolution image display</i>	(1) nVidia Quadro K2000D-2GB, PCIe, x16 *PNY Model # VCQK2000D-PB
<i>Worklist</i>	(1) nVidia Quadro K600-1GB, PCIe PNY Model # VCQK600-PB
Video Driver Version	nVidia 311.35 (Merge qualified)
Hard Drive Specifications	2 500 GB SATA 10K RPM or 2 300 GB 15K SAS
Network Ports	(1) Wired, Gigabit
Operating System	Windows 7 Professional 64 bit
Web Browser	Microsoft Internet Explorer, versions 7, 8 or 9.
Anti-Virus Software	Full-featured (i.e., "corporate" or "enterprise") version of an industry-standard anti-virus program
Optical Drive	16x, DVD+/-RW
Audio	Must be equipped with functioning speakers and a sound card to listen to audio annotations via the optional VoiceClip feature.

NOTE: Many customers and their referring physicians have 32-bit workstations deployed for clinical review. 32-bit workstations are not recommended for diagnostic reading due to the limitations on study size and performance.

Chapter 2. Selecting a Study

When you first insert the CD containing patient images into your computer's CD player, the main CD Viewer **Study List** page will be displayed with a list of all studies contained on the CD, as in the following example:

CD VIEWER

Found 13 studies. Display reports and key images

Actions	Name	DOB	Sex	Date & Time	Description	Modality	Accession ...	Status	Image
[Icons]	Doe, Jonathan Q	5643	M	08/11/2004 10:03 PM	SC (VRT)	CT	1		3 3
[Icons]	Doe, Jonathan Q	5643	M	06/27/1997 12:30 PM	DR	RF,DR			1 1
[Icons]	Doe, Jonathan Q	5643	M	08/18/1998 12:00 AM	DX	DX	123456		1 1 1
[Icons]	Doe, Jonathan Q	5643	M	01/28/2000 10:05 PM	MR	MR			8 4 9
[Icons]	Doe, Jonathan Q	5643	M	11/07/1997 1:02 PM	NM	NM			4 4
[Icons]	Doe, Jonathan Q	5643	M	08/22/1997 4:13 PM	CR	CR	0-13343...		1 1
[Icons]	Doe, Jonathan Q	5643	M	10/20/1998 11:05 AM	MG	MG	12345		1
[Icons]	Doe, Jonathan Q	5643	M	05/13/2000 3:04 PM	CT	CT			5 4 7 74 8 18
[Icons]	Doe, Jonathan Q	5643	M	01/16/2001 9:51 AM	Angio	XA			7 4 7 2
[Icons]	Doe, Jonathan Q	5643	M	10/04/2001 11:06 AM	Renal Sc...	NM			1 1
[Icons]	Doe, Jonathan Q	5643	M	07/16/2003 2:18 PM	Specials*	CT,PT			126 154
[Icons]	Doe, Jonathan Q	5643	M	04/23/2002 12:17 PM	PET	PT			12
[Icons]	Doe, Jonathan Q	5643	M	08/17/2001 9:05 AM	Liver Scan	NM			1

List of Studies on CD

NOTE: Depending on the options that were selected when the CD was created, if there is only one study on the CD it may be automatically launched into the Image Viewer, as described in Chapter 3 below. If this is the case, you will not need to select the study, but the Study List will still be displayed in a separate window.

Each entry on the Study List contains a set of **action icons** on the left that you can click on to perform different tasks, and **data columns** on the right that display information about each Study, as shown in the following example:

Action Icons **Data Columns**

Actions	Name	DOB	Sex	Date & Time	Description	Modality	Accession ...	Status	Image
[Icons]	Doe, Jonathan Q	5643	M	08/11/2004 10:03 PM	SC (VRT)	CT	1		3 3
[Icons]	Doe, Jonathan Q	5643	M	06/27/1997 12:30 PM	DR	RF,DR			1 1
[Icons]	Doe, Jonathan Q	5643	M	08/18/1998 12:00 AM	DX	DX	123456		1 1 1
[Icons]	Doe, Jonathan Q	5643	M	01/28/2000 10:05 PM	MR	MR			8 4 9





Action Icons and Data Columns

NOTE: If there are more studies on the CD that can be displayed on the screen, a scroll bar will be displayed on the right side of the screen that you can use to view the additional studies.

NOTE: You can sort the list of studies by clicking on any of the column headings (Date & Time, Description, Modality, etc.)

2.1. Action Icons

For each Study listed on the Study List, one or more of the following action icons may be available, depending on the Study:

Icon	Name	General Description
	Open Study	Open Study in the primary Image Viewer window, as described in Chapter 3 below. NOTE: You can also open a Study by clicking on the patient's name in the Name column or clicking on one of the icons in the Image column.
	Open Study in Secondary Viewer	Open the Study in a Secondary Merge PACS Viewer window. This feature is typically used when you are already viewing a Study and want to open this Study in a secondary Viewer without exiting the previous Study.
	View Reports	Launch the Report Viewer as a separate pop-up window. For more information on using the Report Viewer, refer to Chapter 4 below.
	VoiceClip	Listen to the audio comments, if any, that have been recorded for this Study. For details on using VoiceClip to listen to audio annotations, refer to Chapter 5 below

2.2. Data Columns

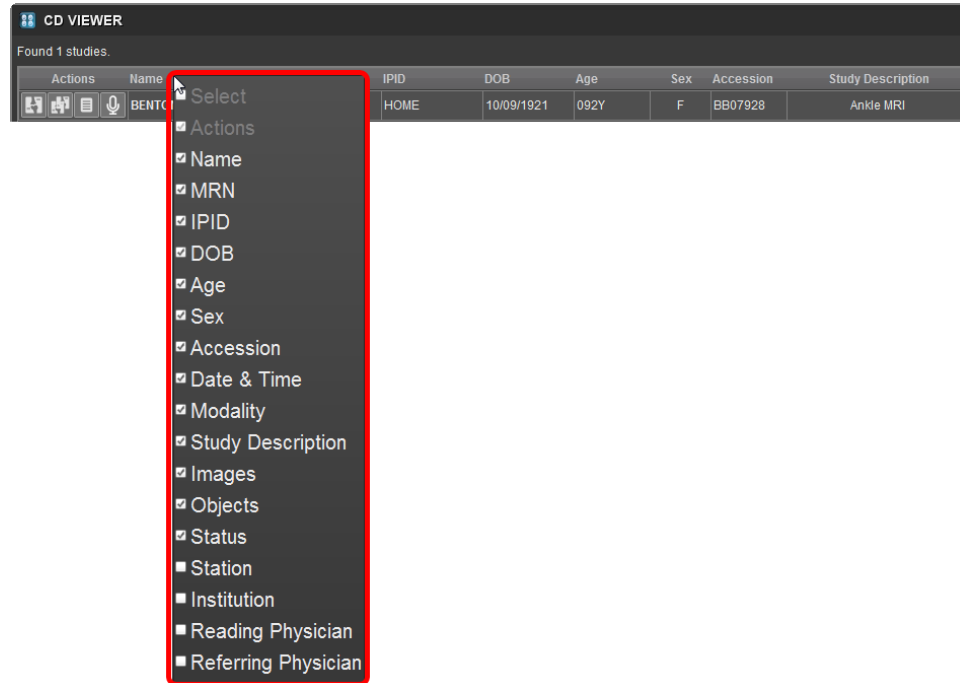
2.2.1. In General

The following general data columns can be displayed on the Study List:

- Patient Name
- MRN
- IPID (Issuer of Patient ID)
- Date of Birth
- Age
- Sex
- Accession Number
- Study Date/Time
- Modality
- Study Description
- Image Count per Series
- Objects
- Status
- Station Name
- Institution
- Reading Physician
- Referring Physician

2.2.2. Selecting the Data Columns to Display

To add or remove a data column from the Study List, click on any of the column headings once with the **right** mouse button to cause the Data Column Selection Menu to be displayed, as in the following example:

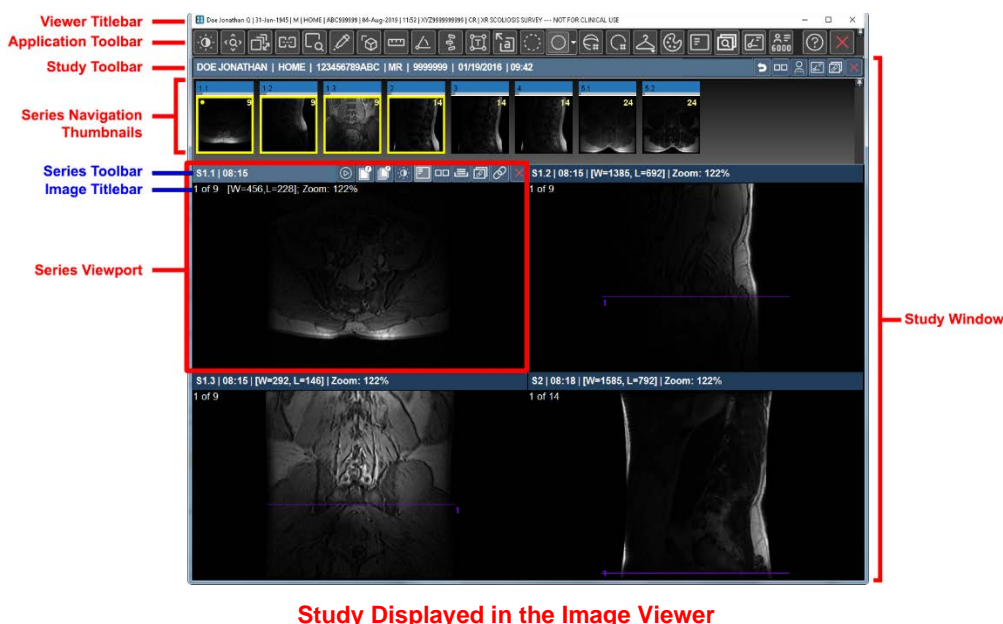


The Study List Display Column Selection Menu

Check the box next to the column you would like to add, or uncheck the box next to a column you would like to remove.

Chapter 3. Viewing Studies

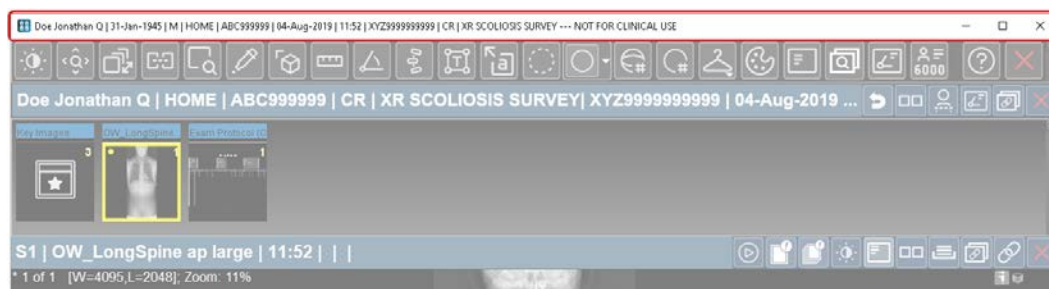
As described in the previous Section, when you select a study for viewing it will be displayed within the Image Viewer, as in the following example:



NOTE: Mammography images are displayed without laterality or view position within the CD Viewer, but you can view this information within the DICOM Attributes Viewer for each image, as described in subsection 3.6.3 below.

3.1. The Viewer Titlebar

The **Viewer Titlebar** displays information about the patient and study currently being viewed:



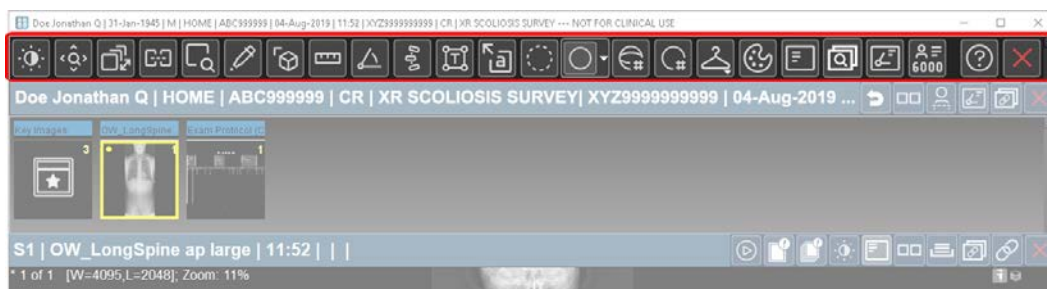
The Viewer Titlebar

The Viewer Titlebar displays the following information about the patient and primary study being viewed:

- Name
- Issuer of Patient ID (IPID)
- Accession Number
- Date of Birth
- Medical Record Number (MRN)
- Modality
- Sex
- Study Time/Date
- Primary Study Description

3.2. The Viewer Toolbar












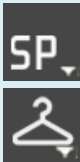
The **Viewer Toolbar** displays various tools that apply to the Image Viewer as a whole:










The Viewer Toolbar

The following tools may be available, depending on the type of study. Note that once a tool has been selected, your mouse cursor will change to reflect that tool.

Tool	Name	General Description
	Window/Level	Allows you to adjust the Window and Level [contrast and brightness] of an image "on the fly" by dragging the mouse cursor over the image.
	Zoom/Pan Combo	Allows you to simultaneously pan an image with the mouse cursor and resize it using the mouse center wheel.
	Page Images	Allows you to page sequentially ("scroll") through the images in a Series Viewport by clicking and dragging the mouse cursor up or down.
	Auto Registration Toggle	If any DICOM registration objects have been included with this Study, allows you to toggle off and on whether the Cross-reference Lines tool, the Automatic Series Synchronization and the 3D Cursor tool will work between 2D views of Series that do not share a common geometric frame of reference or only between Series that do share a common geometric frame of reference.
	Magnify	Allows you to enlarge selected portions of an image with the mouse cursor.
	Probe	Allows you to use the mouse cursor to determine the intensity value for a selected pixel of an image in a Series Viewport.

Tool	Name	General Description
	3D Cursor	Allows you to click any part of an image displayed in one Series Viewport with the mouse cursor and have the images displayed in the other Series Viewports (containing orthogonal or other planes) be updated based upon the position of the cursor.
	Line Measurement	Allows you to use the mouse cursor to measure in millimeters the actual (as opposed to the displayed) distance between two points on an image, as well as mark the image with an appropriate annotation.
	Angle Measurement	Allows you to use the mouse cursor to add an angle measurement to an image.
	Cobb Angle Measurement	Allows you to use the mouse cursor to add a Cobb angle (or "Cobb's angle") measurement to an image.
	Text Annotation	Allows you to use the mouse cursor to add annotated text to an image.
	Pointer Text	Allows you to use the mouse cursor to add a labeled arrow to an image.
	ROI Measurement	Allows you to use the mouse cursor to add a statistics display for a specified area of an image. The tool displays the minimum and maximum pixel intensity values for a selected area of an image, the average pixel value and the standard deviation for the selected region, and a measurement of the selected region's area (other than for PET images).
	Circle Tool	Allows you to use the mouse cursor to draw a circle (either plain or measured) to an image.
	Circle Tool Preferences	Allows you to select whether the Circle Tool will draw a plain or measured circle.
	Region Analysis Area Measurement	Allows you to add a region analysis measurement display of a selected 2D circular region. The tool will display the area, mean, maximum, minimum and the standard deviation reported in either SUV, HU, or pixel values (depending on the type of image).
	Region Analysis Volume Measurement	Allows you to add a region analysis measurement display of a selected 3D spherical volume for applicable series. In general, the tool will display the volume, mean, maximum, minimum and the standard deviation reported in either SUV, HU, or pixel values (depending on the type of image). For volume analysis regions drawn or shown on a MIP view specifically, however, the tool will only display the volume measurement and not the pixel-related values.
	Study Presentation Menu	Allows you to select among any study presentation steps that have been included for this study as well as return to the default layout based on the type of modality. Note that if there are no study presentations available, the tool will be displayed as a coat hanger instead.

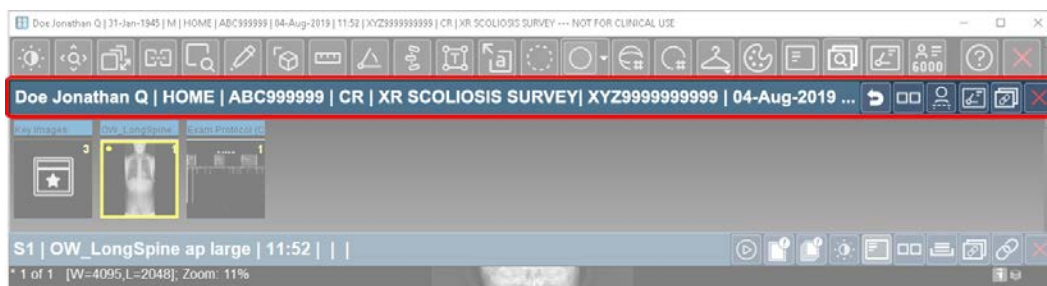
Tool	Name	General Description
	Toggle Color Bar	Toggles the display of the MPR Viewport Color Bar on and off. Note that, when not in an MPR Viewport, a grayscale color bar will be displayed on the right side of the main Viewer in all cases, even if a color mapping option has been selected.
	Application Level DICOM Overlay Toggle	Turns the DICOM Overlay display off for all Series Viewports that currently have images displayed in them.
	Displayed FOV Match	When multiple series are being viewed simultaneously, allows you to link the magnification of the patient anatomy in all series so that a visual comparison of relative size of anatomical structures is possible.
	Toggle Annotations	Toggles the display of any existing annotations on and off.
	Toggle DICOM 6000 Overlay	Toggles the display of DICOM 6000 Overlays, if available, on and off for all Series Viewports that currently have images displayed in them.
	Merge PACS CD Viewer Help	Launches this User Guide in PDF format.
	Close Study	Closes the Image Viewer and returns to the main Study List.

Repeatedly right-clicking on an **image** will toggle the cursor among the following commonly used mouse modes:

- **Window/Level**
- **Line Measurement**
- **Page Images**
- **ROI Measurement**

3.3. Study Toolbar

The **Study Toolbar** displays information about the currently open study as well as tools that apply to that study:



Study Toolbar







3.3.1. Study Information

The left side of the Study Toolbar displays the following information about the study being viewed:

- **Patient Name**
- **Issuer of Patient ID (IPID)**
- **Medical Record Number (MRN)**
- **Modality**
- **Study Description**
- **Accession Number**
- **Study Date/Time**

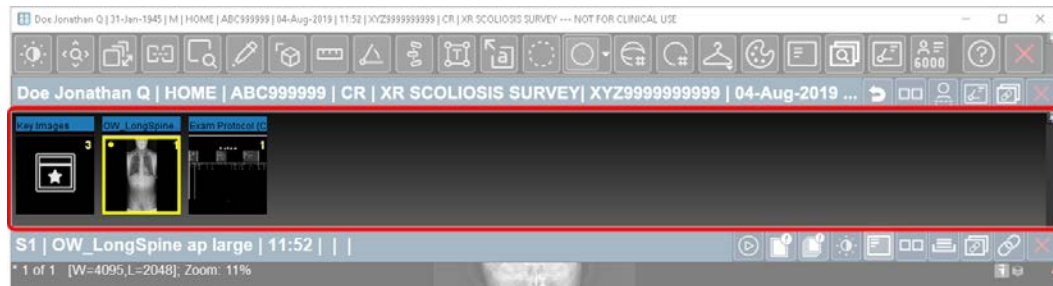
3.3.2. Available Tools

The following tools may be available, depending on the type of study and how you have configured the Study Toolbar. Note that once a tool has been selected, your mouse cursor will change to reflect that tool.

Tool	Name	General Description
	Reset Presentation	Resets all parameters (W/L, zoom, pan, etc.) to default values.
	Series Layout	Displays the Series Tiling Menu that allows you to select a preset Series tiling layout or enter a manual layout. This determines the number and layout of Series Viewports on the screen for this study.
	Cross-reference Lines	Toggles the display of any available reference lines on and off when you are viewing multiple Series. This feature is used primarily for CT and MR images where there are sequential "slices". With CT studies, there is typically a master or "scout" image against which the images of a second Series are referenced. With MR studies, on the other hand, there are typically multiple viewing angles of the same set of images, and the references lines will show the relationship between the linked Series.
	Display Annotations	Toggles the display of any annotations on and off.
	Auto Series Synchronization	Toggles Series synchronization on and off. When enabled, this will link together all Series in the same plane for navigational purposes. Thus, if you have three axial Series displayed in different Series Viewports and turn on Auto Series Synchronization, paging through the images in one of the axial Series will cause the images in the other axial Series to page as well.
	Close Study	Closes the Image Viewer and returns to the main Study List.

3.4. Series Navigation Thumbnails

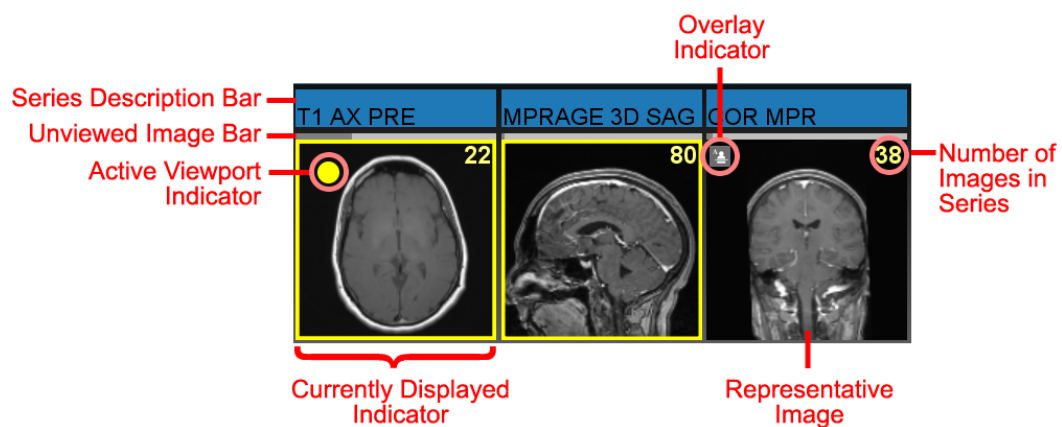
The **Series Navigation Thumbnails** allow you to quickly move among multiple Series of images.



Series Navigation Thumbnails

3.4.1. Overview

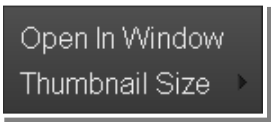
Each Series Navigation Thumbnail can display a variety of information, as illustrated in the following example:



Series Navigation Thumbnails Overview

To load a particular Series into a Series Viewport, use your left mouse button to **drag and drop** the navigation thumbnail for the desired Series into an existing Series Viewport.

3.4.2. Thumbnail Right-click Menu



Right-clicking on an individual Series Navigation Thumbnail will immediately cause the **Thumbnail Right-click Menu** to pop-up, as shown in the example on the left.

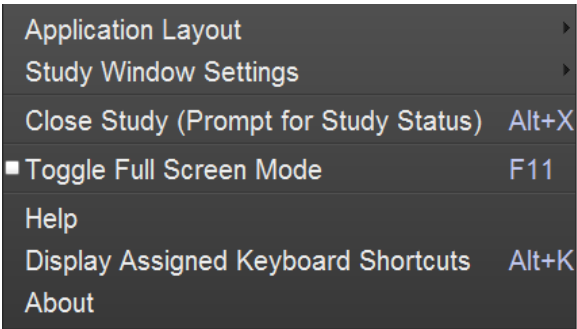
The Thumbnail Right-click Menu

The Thumbnail Right-click Menu has the following possible options:

Option	General Description
Open in Window	Open the Series in a separate pop-up “clone” window, as described in subsection 3.6.4 below.
Thumbnail Size	Change the size of the Series Navigation Thumbnails.

3.5. Study-Right-click Menu

Right-click anywhere to the right of the Series Navigation Thumbnails to display the **Study Right-click Menu**:



The Study Right-click Menu

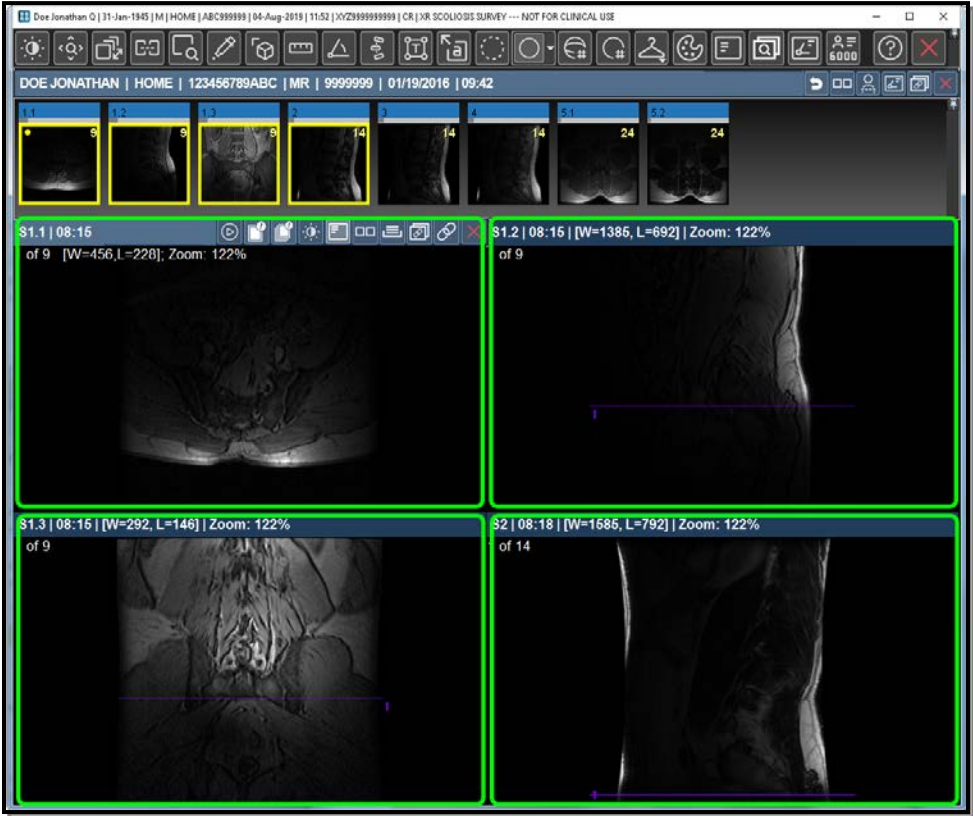
The Study Right-click Menu has the following possible options:

Option	General Description
Application Layout	Select the general layout for viewing multiple studies.
Study Window Settings	Change any of the following study-level settings: <ul style="list-style-type: none">• DICOM Overlay Toggle• Show Annotations• Show Cross-reference Lines• Study Invert Toggle• Study Window Layout
Close Study	Close the current study.

Option	General Description
Toggle Full Screen Mode	Display the current study in full-screen display mode with all non-image details hidden. Full Screen Display mode can be toggled on and off by pressing F11.
Help	Launches this User Guide in PDF format.
Display Assigned Keyboard Shortcuts	Displays a printable list of currently assigned keyboard shortcuts in a separate pop-up window.
About	Displays system information, including the current version of the Merge PACS Workstation you are using, your Windows operating system and username, memory and disk usage, etc.

3.6. Series Viewports

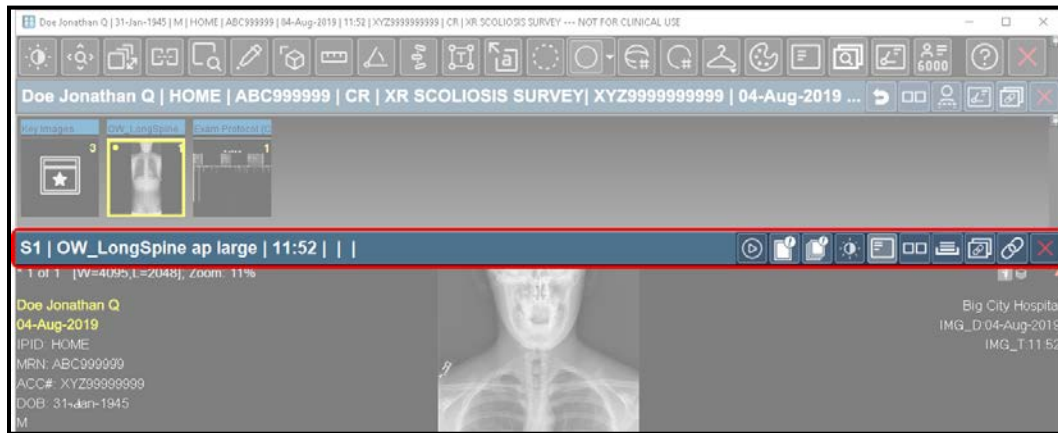
The Image Viewer can be divided into a number of individual viewing windows called “Series Viewports,” as shown in the following example:



Series Viewports

3.6.1. Series Toolbar

Each Series Viewport has a **Series Toolbar** that displays information for the Series in the Series Viewport as well as various tools that apply to that Series Viewport, as in the following example:



Series Toolbar

a. Series Information

The left side of the Series Toolbar displays the following information about the Series:

- **Series Number**
- **Series Description**
- **Series Time**
- **Window/Level**
- **Zoom Factor**

If the size of the viewport is too small to include all the information described above, it can still be viewed as a “tool tip” by hovering your mouse briefly over the Series Toolbar without clicking, as in the following example:













Series Toolbar Tool Tip

NOTE: If the Image-level Manipulation option has been enabled for this Series Viewport from the Series Right-click Menu, as described in subsection 3.6.3 below, Window/Level and Zoom factor will be displayed in the Image Titlebar, as described in subsection 3.6.2 below, and not here.

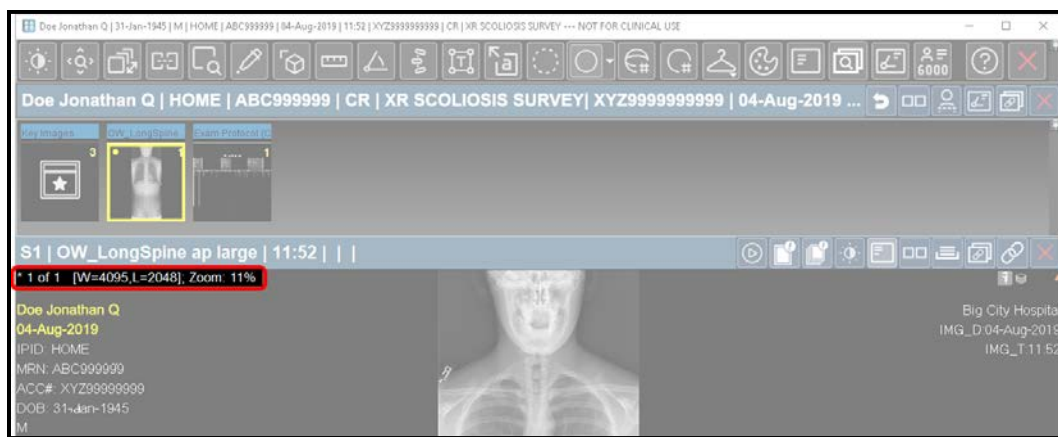
b. Available Tools

The right side of the Series Toolbar shows the available tools that apply to the series currently being displayed in the Series Viewport:

Tool	Name	General Description
	Cine	Rapidly pages through the images in this Series. The speed of the paging can be controlled by dragging the mouse cursor up and down within the Series Viewport.
	Select Image	Select/Deselect this image [this feature is not currently supported in the CD Viewer].
	Select Series	Select/Deselect this series [this feature is not currently supported in the CD Viewer].
	Window/Level Menu	Choose a window/level option for the selected Series Viewport.
	Series Level DICOM Overlay Toggle	Toggles DICOM Overlay display for this Series Viewport on and off.
	Image Layout	Allows you to change the number of images that can be displayed simultaneously within this Series Viewport.
	Global Stack	Allows you to page from the end of one series to the beginning of the next one.
	Grouping	Allows you to group together multiple Series Viewports so that various tools (Window/Level, Pan, Zoom, etc.) will be applied to all selected Series Viewports when applied to one.
	Manual Linking	Allows you to link series that are in different frames of reference. The Manual Linking feature can also be used if you want to link only certain related series instead of all of them.
	Clear Viewport	Removes the currently displayed Series from the Series Viewport.

3.6.2. Image Titlebar

Each Series Viewport has an **Image Titlebar** that displays information about the image currently showing in the Series Viewport, as in the following example:



The Image Titlebar

By default, the Image Titlebar will display just the image number and the compression ratio (if the image has been lossy compressed). If the Image-level Manipulation option has been enabled for this Viewport from the **Series Right-click Menu**, as described in subsection 3.6.3, Window/Level and Zoom factor will also be displayed here.

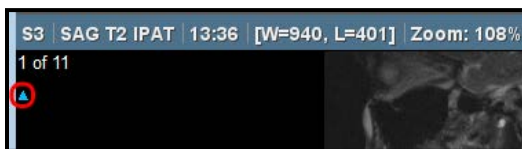
NOTE: If an image has been compressed multiple times ("recompressed"), the highest compression ratio used will be displayed.

Images that have been flagged as a Key Image will have an orange triangle displayed beneath their Image Titlebar, as in the following example:



Key Image Indicator

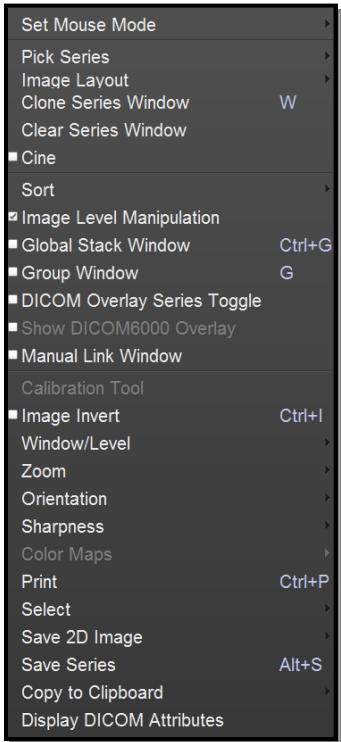
Images that have been selected will have a blue triangle displayed beneath their Image Titlebar, as in the following example:



Selected Image Indicator

NOTE: Image selection is not currently used.

3.6.3. Series Right-click Menu



Right-clicking on a Series Viewport and holding the mouse button down for a few seconds will bring up the **Series Right-click Menu**, as shown in the example to the left.

The Series Right-click Menu contains a variety of additional navigation, layout, and image manipulation options, as well as the ability to save and print an image. Some of the options available on the Right-click Menu are also available elsewhere in the Image Viewer, and are included here for your convenience.

Note that, depending on the study and the type of modality involved, your login privileges, and your general system configuration, one or more of these options may not be available, in which case they will appear "grayed out" in the menu.

The Series Right-click Menu

The Series Right-click Menu has the following possible options:

Option	General Description
Set Mouse Modes	Select from a variety of tools (note that your mouse cursor will change to reflect the chosen tool).
Pick Series	Pick a Series to be viewed in the selected Series Viewport.
Image Layout	Change the number of images that can be displayed simultaneously within this Series Viewport.
Clone Series Window	Display the contents of the active Series Viewport in a new pop-up Series Viewport window, as described in subsection 3.6.4 below.
Clear Series Window	Remove the series being displayed in the selected Series Viewport.
Cine	Turn on the Cine feature to rapidly page through images in a series.

Option	General Description
Sort	<p>Allows you to change the order of the images displayed in the Series Viewport according to one of the following options:</p> <ul style="list-style-type: none"> • Image Number Ascending • Image Number Descending • Image Position Ascending • Image Position Descending • Image Acquisition Time Ascending • Image Acquisition Time Descending • Image Echo Number Ascending • Image Echo Number Descending
Image Level Manipulation	When selected, various image manipulation tools (Window/Level, Pan, Zoom, etc.) will only apply to the image currently displayed and will not affect other images in the Series. Also, when selected, the Viewport Title will display the Window/Level and Zoom factor for each image.
Global Stack Window	Allows you to page from the end of one series to the beginning of the next one.
Group Window	Manually link multiple Series Viewports together for display purposes.
DICOM Overlay Series Toggle	Turn on the DICOM Overlay display for the selected Series Viewport.
Show DICOM6000 Overlay	Turn on the DICOM6000 Overlay display for the selected Series Viewport.
Manual Link Window	Link series that are in different frames of reference (whether in the same study or between two studies in Compare Studies Mode). The Manual Linking feature can also be used if you want to link only certain related series instead of all of them.
Calibration Tool	Manually calibrate the various measurement annotations for DICOM images that do not have valid pixel spacing information associated with them when they are sent from the modality.
Invert	Reverse the black and white pixels of the images in the selected Series Viewport
Window/Level	Select a window/level option for the selected Series Viewport, as well as manage your personal Window/Level presets.
Zoom	Select a magnification level for the images in the selected Series Viewport.
Orientation	Temporarily change the orientation of the selected image (flip, rotate, etc.)
Sharpness	Apply a filter that improves the edges of certain structures within an image

Option	General Description
Color Maps	Choose a color mapping option, if available, for the selected Series Viewport
Print	Send the selected image, together with any user annotations, to a printer
Select	Not currently supported in the CD Viewer.
Save 2D Image	Save the selected image, together with any user annotations, to your hard drive in a variety of available image formats.
Save Series	Save the entire series, together with any user annotations, to your hard drive in a variety of available image formats.
Copy to Clipboard	Temporarily copies the currently displayed image to your computer's memory so that it can be pasted into another application (e.g., by pressing Ctrl-V while inside that application).
Display DICOM Attributes	View the complete set of DICOM attributes for the selected image. Note that Mammography images are displayed without laterality or view position within the CD Viewer, but you can view this information within the DICOM Attributes Viewer for each image.

3.6.4. Clone Windows

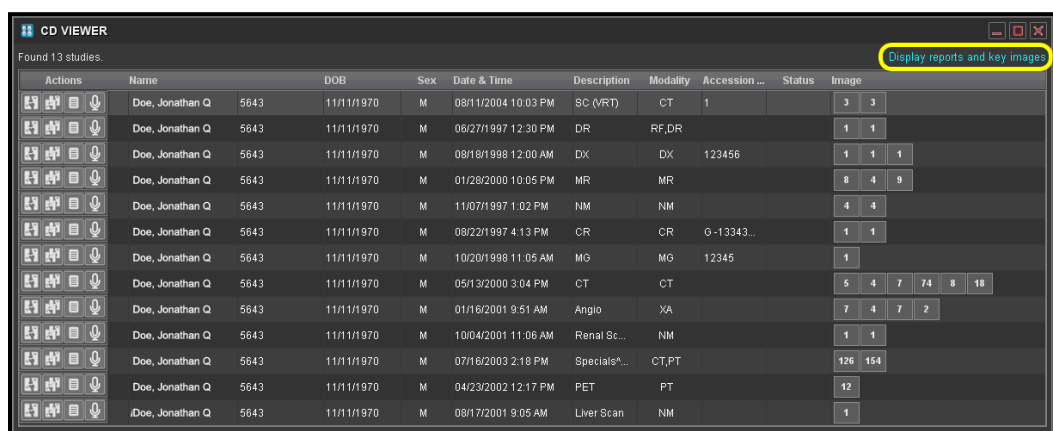
Clone windows are stand-alone Series Viewports that are displayed as separate pop-up windows. A typical use case scenario would be to position the clone window on a color monitor so as to easily view color images on that monitor when needed.

Clone windows can be invoked in two ways:

- From within an **existing Series Viewport**, by selecting the **Clone Series Window** option from the **Series Right-click Menu** for that Viewport. If invoked this way, the clone window will display the contents of that Series Viewport and preserve all the current settings of that Series Viewport (Window/Level, Zoom, etc.).
- From a **Navigation Thumbnail**, either by double-clicking on the Thumbnail or by selecting the **Open in Window** option from the **Thumbnail Right-click Menu** for that Thumbnail. Note that if you want to open additional series in separate clone windows (as opposed to reusing the currently open clone window), hold down the **Shift** key while double-clicking.

Chapter 4. Viewing Key Images and Reports

If there are any reports and/or key images associated with the studies on the CD, you can view them by clicking on the **Display reports and key images** link at the top of the main CD Viewer page, as in the following example:



CD VIEWER

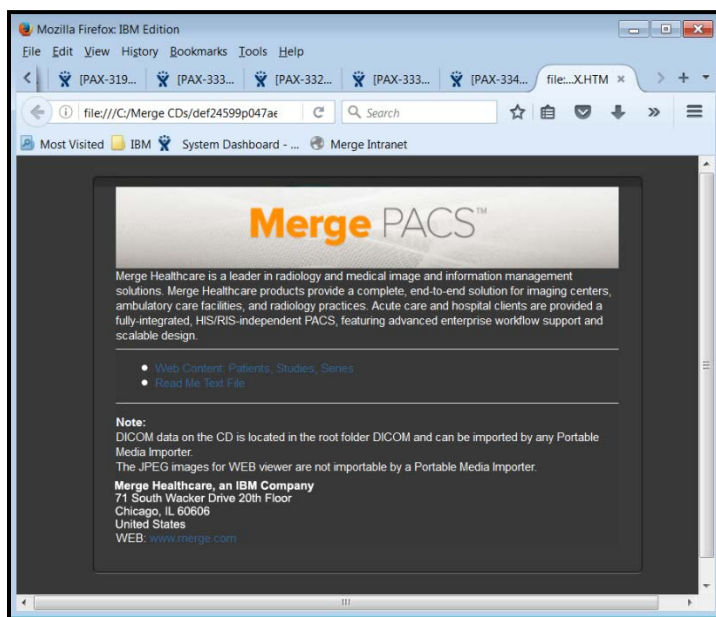
Found 13 studies.

Display reports and key images

Actions	Name	DOB	Sex	Date & Time	Description	Modality	Accession ...	Status	Image
[Icons]	Doe, Jonathan Q	5643	M	08/11/2004 10:03 PM	SC (VRT)	CT	1		3 3
[Icons]	Doe, Jonathan Q	5643	M	06/27/1997 12:30 PM	DR	RF,DR			1 1
[Icons]	Doe, Jonathan Q	5643	M	08/18/1998 12:00 AM	DX	DX	123456		1 1 1
[Icons]	Doe, Jonathan Q	5643	M	01/28/2000 10:05 PM	MR	MR			8 4 9
[Icons]	Doe, Jonathan Q	5643	M	11/07/1997 1:02 PM	NM	NM			4 4
[Icons]	Doe, Jonathan Q	5643	M	08/22/1997 4:13 PM	CR	CR	G-13343...		1 1
[Icons]	Doe, Jonathan Q	5643	M	10/20/1998 11:05 AM	MG	MG	12345		1
[Icons]	Doe, Jonathan Q	5643	M	05/13/2000 3:04 PM	CT	CT			5 4 7 74 8 18
[Icons]	Doe, Jonathan Q	5643	M	01/16/2001 9:51 AM	Angio	XA			7 4 7 2
[Icons]	Doe, Jonathan Q	5643	M	10/04/2001 11:06 AM	Renal Sc...	NM			1 1
[Icons]	Doe, Jonathan Q	5643	M	07/16/2003 2:18 PM	SpecialsA...	CT,PT			126 154
[Icons]	Doe, Jonathan Q	5643	M	04/23/2002 12:17 PM	PET	PT			12
[Icons]	Doe, Jonathan Q	5643	M	08/17/2001 9:05 AM	Liver Scan	NM			1

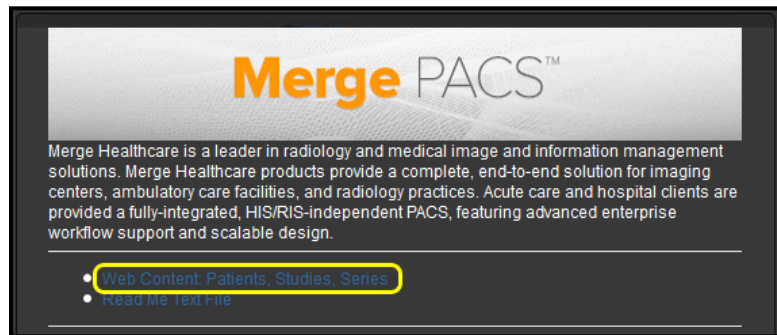
Accessing Reports and Key Images

When you click on the **Display reports and key images** link, the Merge PACS Report and Key Image HTML page will open up in your default web browser, as in the following example:



Merge PACS Report and Key Image HTML Viewer

Click on the **Web Content: Patients, Studies, Series** link in the middle of the page, as in the following example:



The Web Content: Patients, Studies, Series Link

At the **Web Content: Patients, Studies, Series** page, click on the name of the patient, as in the following example:

Patient	Patient ID	DOB	Sex	Total Studies
GENERATED 818827	456834729	01/15/1924	Male	1

Total 1 Patient

Name of Patient

The **Study List** page is displayed, as in the following example:

Study Description	Study Date	Study Time	Accession Number	Total Series	Total Images	Referring Physician Name	Key Images	Reports
View hand_000	12/18/2001	08:14:16	87659765	2	2	Referring Physician	Key Images	Reports
View ankle_ap_vista	12/18/2001	08:03:14	122351	2	2	Referring Physician	Key Images	Reports

Total 2 Studies

The Study List Page

4.1. Viewing Key Images

If there are any key images, you can click on the **Key Images** link for the desired study on the **Study List** page, as in the following example:

Study List
Doe, Jonathan Q > Study List

Patient Name: Doe, Jonathan Q
Patient ID: 121801_01

	Study Description	Study Date	Study Time	Accession Number	Total Series	Total Images	Referring Physician Name	Key Images	Reports
View	hand_000	12/18/2001	08:14:16	87659765	2	2	Referring Physician	Key Images	Reports
View	ankle_ap_vista	12/18/2001	08:03:14	122351	2	2	Referring Physician	Key Images	Reports

Total 2 Studies

Selecting Key Images to View

Small versions of the key images will be displayed as in the following example:

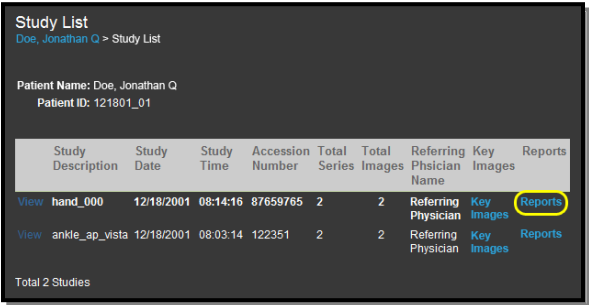


Key Images

Click on any key image to see a full-sized version of it.

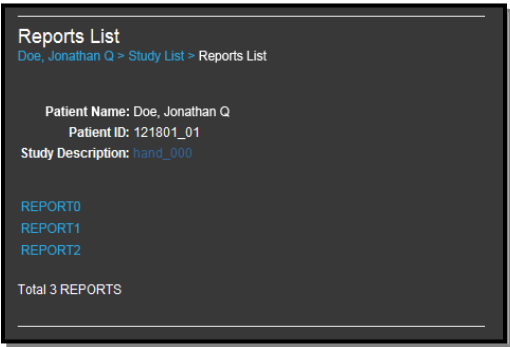
4.2. Viewing Reports

If there are any reports, you can click on the **Reports** link for the desired study on the **Study List** page, as in the following example:



Selecting Reports to View

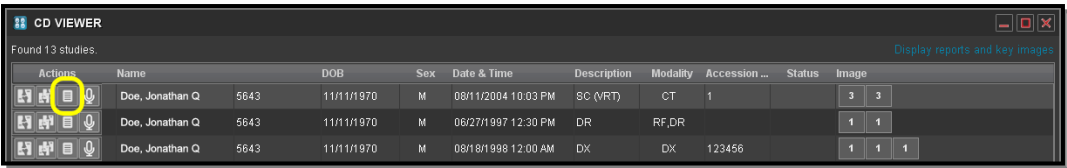
A list of reports for the selected study will be displayed, as in the following example:



List of Reports

Click on the link to the desired report to view it.

You can also access the Reports List page for a study by clicking on the **Report icon** for that study at the main **Study List** window, as in the following example:

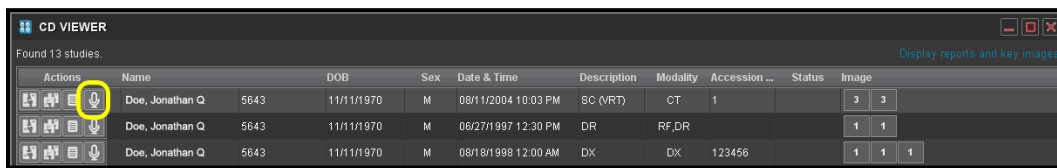


The Report Icon

NOTE: The Report Icon will only be active for a study if there are any reports for that study; otherwise, it will be grayed out.

Chapter 5. Listening to Audio Comments

If there are any audio comments associated with a study, you can listen to those comments by clicking on the **VoiceClip** icon for that study at the main Study List window, as in the following example:

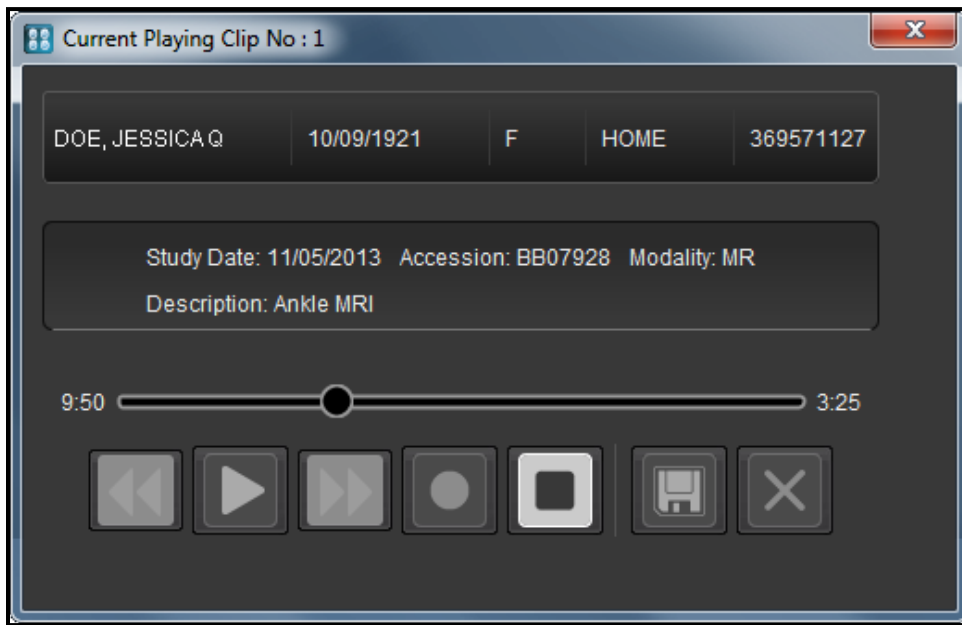


The VoiceClip Icon

NOTE: The VoiceClip Icon will only be active for a study if there are any audio comments for that study; otherwise, it will be grayed out.





NOTE: You must have speakers connected to your computer and correctly installed in order to listen to audio comments.

When you click on the VoiceLink icon, the **VoiceClip Player** window will be displayed in **play only** mode, as in the following example:



Listening to an Audio Comment with VoiceClip

- The audio comment should begin playing automatically once the VoiceClip Player window is opened.
- The following buttons will be enabled when accessing the VoiceClip Player in playback-only mode:

Button	Name	General Description
	Previous	Click this button to play the previous audio comment, if any. Comments are listed in reverse chronological order (newest comment first), so the “previous” comment will be the next most recent, if any.
	Play	Click this button to play back an audio annotation that has previously been recorded.
	Next	Click this button to play the next audio comment (in reverse chronological order), if any. Comments are listed in reverse chronological order (newest comment first), so the “next” comment will be the next oldest, if any.
	Stop	Click this button to stop playing back an audio annotation.

- When finished, exit the VoiceClip Player window by clicking on the small **X** in the upper right corner.