



ImageGrid® *StreamVue*

User Manual

Software Version 4.1



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IFU-010 REV 27-MAR-2026

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Intended Use of this Document

This user manual is a reference guide detailing the software's proper installation, configuration and general usage. The screens on your monitor may vary slightly from those in this guide.

This user manual is not intended to be used as instructional material for implementing medical procedures or as a substitute for live (in-person) instruction by a trained professional.

Product Intended Use

The Candelis® Radiology Picture Archiving Communications System (PACS) is a computer-based image storage/retrieval system that stores and recalls digital images from different imaging modalities, e.g. CT, digital radiography, nuclear medicine, ultrasound, magnetic resonance imaging (MRI). Images and data can be stored, communicated, manipulated and displayed within the system or across computer networks at distributed locations. It may consist of image acquisition devices, a host computer, image archiving devices, and display stations connected by a communications network.

The ImageGrid® PACS is a system intended for professional use only.

Explanation of Symbols

The following symbols may appear on the device or product labelling:

Symbol	Explanation
	Manufacturer
	Manufacture date
	Prescription use only
	Consult operating instructions
	Caution
	Serial number
	Reference number or device model
	Compliance with the Directive 93/42/EEC as Class II device
	Device may not be thrown in the trash but must be recycled according to the European Waste Electrical and Electronic Equipment Directive

WARNINGS:

- CAUTION   Consult Dell Instructions For Use prior to installation.
- CAUTION   Consult EIZO Instructions For Use prior to installation.
- CAUTION   Consult Barco Instructions For Use prior to installation.
- CAUTION  ImageGrid Measurement Tools are for "reference only" and are not to be used for diagnostic purposes.
- CAUTION  **DO NOT** place within 1.83 meters (6 feet) of a patient or in explosive environments where flammable gases such as anesthesia or oxygen may be present.

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How To Use This Document

This document is a reference manual for ImageGrid StreamVue®. It describes system requirements, access methods, core viewer workflows, and user-configurable features for trained healthcare professionals, including radiologists. This document is not instructional material for performing medical procedures and is not a substitute for live training provided by qualified personnel. ImageGrid StreamVue® is intended for professional use only. User account creation and administrative configuration are managed in the separate ImageGrid PACS administration application and are documented in the corresponding administration manual.

System Requirements

The following are the minimum requirements for systems using the ImageGrid StreamVue® software. The workstation requirements are based on typical usage scenarios. For requirements of your specific implementation, please contact your Candelis support representative.

Workstation - User

Component	Specification
CPU	Intel® Core™ i5 or later
RAM	8 GB or more
OS	Windows 11/Pro, 64-bit or macOS (Intel or Apple Silicon)
Browser	Google Chrome, Apple Safari, Mozilla Firefox, or Microsoft Edge
NIC	Single 1000 Mbps
Storage	HDD, 200 GB or more
Monitor	20 inch, 1600 x 1200

Workstation - Radiologist

Component	Specification
CPU	Intel® Core™ i7 or later
RAM	32 GB or more
OS	Windows 11/Pro, 64-bit or macOS (Intel or Apple Silicon)
Browser	Google Chrome, Apple Safari, Mozilla Firefox, or Microsoft Edge
NIC	Single 1000 Mbps
Storage	HDD, 200 GB or more
Monitor	Diagnostic Displays
Video Card	NVIDIA® Quadro® P1000 or better
Mammography	Barco MXRV-x100 or MXRT-x700 video card

Firewall Settings (Outbound ports)

Port	Purpose
443	HTTPS secure connection
1986	ImageGrid StreamVue® streaming channel

When connecting to an ImageGrid PACS® server over a wide-area network (WAN), a network bandwidth of at least 100Mbps for each connection is required.

REQUIRED: Install anti-virus software on each client.

Installation & Access

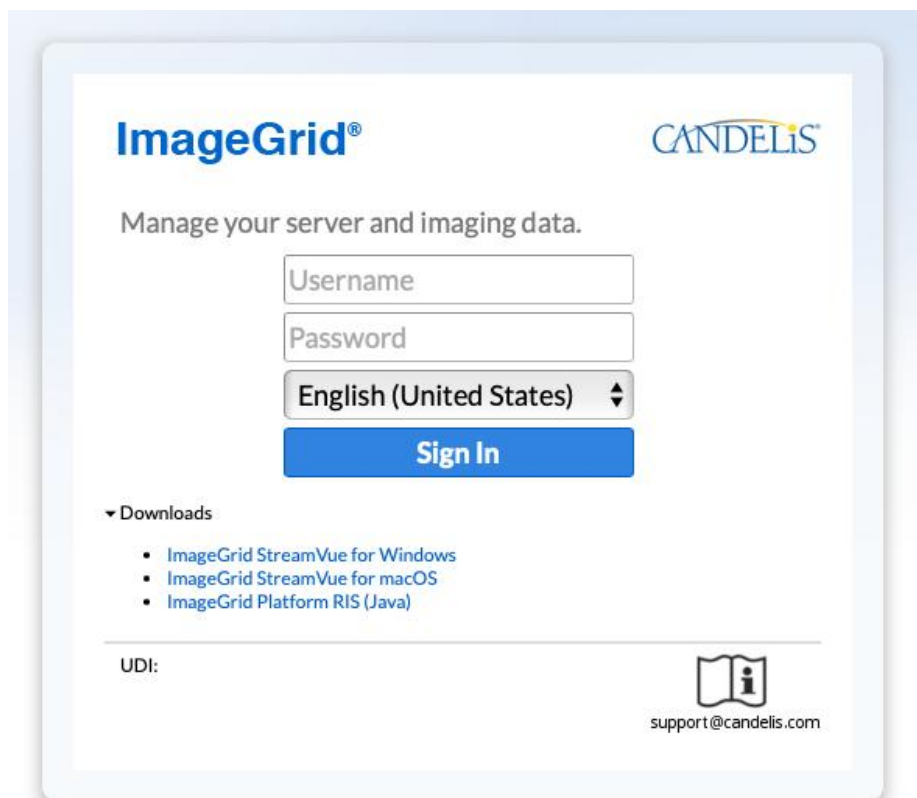
ImageGrid StreamVue® is a zero-footprint thin client that streams diagnostic viewport images directly from the ImageGrid PACS server. No DICOM image data or PHI is stored on the client workstation.

Users must have an account configured in the ImageGrid PACS system before signing in. User accounts and passwords are managed in the ImageGrid PACS administration interface. Refer to the ImageGrid PACS administration manual for account creation and account management procedures.

Installing ImageGrid StreamVue® on Windows

Download Procedure

1. Open a web browser.
2. Navigate to the ImageGrid server using its hostname or IP address (e.g., <https://<server-ip>>).
3. Select Downloads.
4. Click the ImageGrid StreamVue® for Windows installer link.
5. A file named setup.exe will download.



Downloads

Installation Procedure

1. Run setup.exe.
2. The application installs under the Windows Programs directory.
3. Administrator privileges may be required.
4. Follow the on-screen installer prompts.

Installing ImageGrid StreamVue® on macOS

Download Procedure

1. Open a web browser.
2. Navigate to the ImageGrid server using its hostname or IP address (e.g., <https://<server-ip>>).
3. Select Downloads.

4. Click the ImageGrid StreamVue® for macOS installer link.
5. A .dmg file will download.

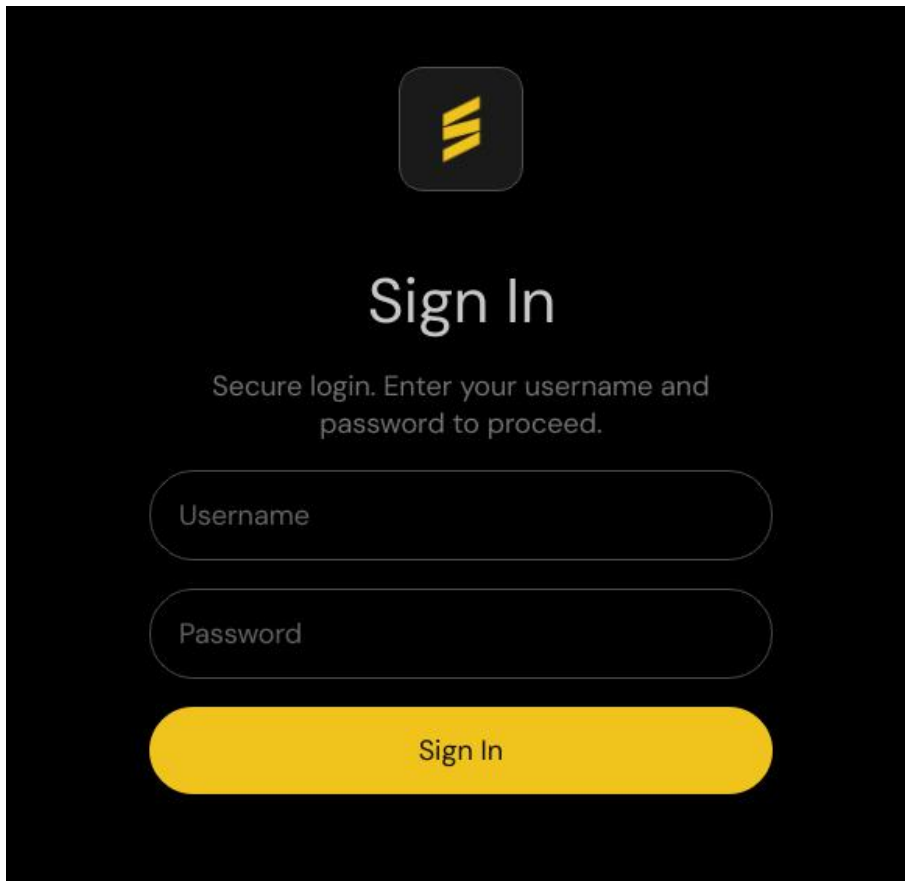
Installation Procedure

1. Open the .dmg file.
 2. Drag ImageGrid StreamVue® into the Applications folder.
 3. Launch the application from Applications.
-

Accessing ImageGrid StreamVue® via Web Browser

Access Procedure

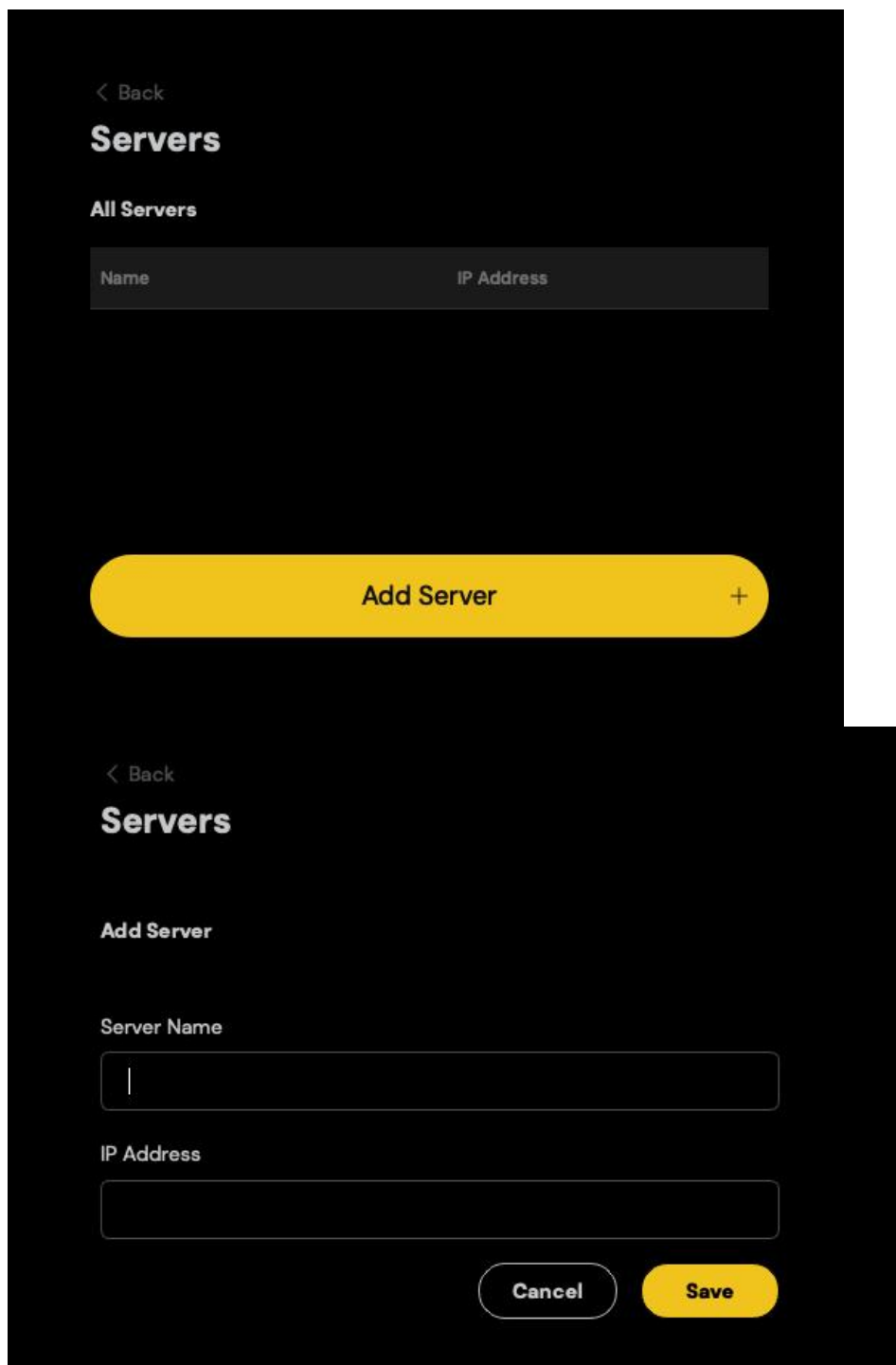
1. Open a supported browser.
2. Navigate to: <https://<server-address>/viewer>
3. Enter username and password.



Web Login

First-Time Configuration (Windows & macOS Clients)

The first time the ImageGrid StreamVue® application is started, a server address must be configured before sign-in. On the login screen, click the gear icon in the lower-right corner to open the server configuration dialog. Click **Add Server**, enter a friendly name for the ImageGrid PACS server and its IP address or DNS hostname, and then click **Save**. When you are finished adding servers, click **< Back** to return to the login screen.

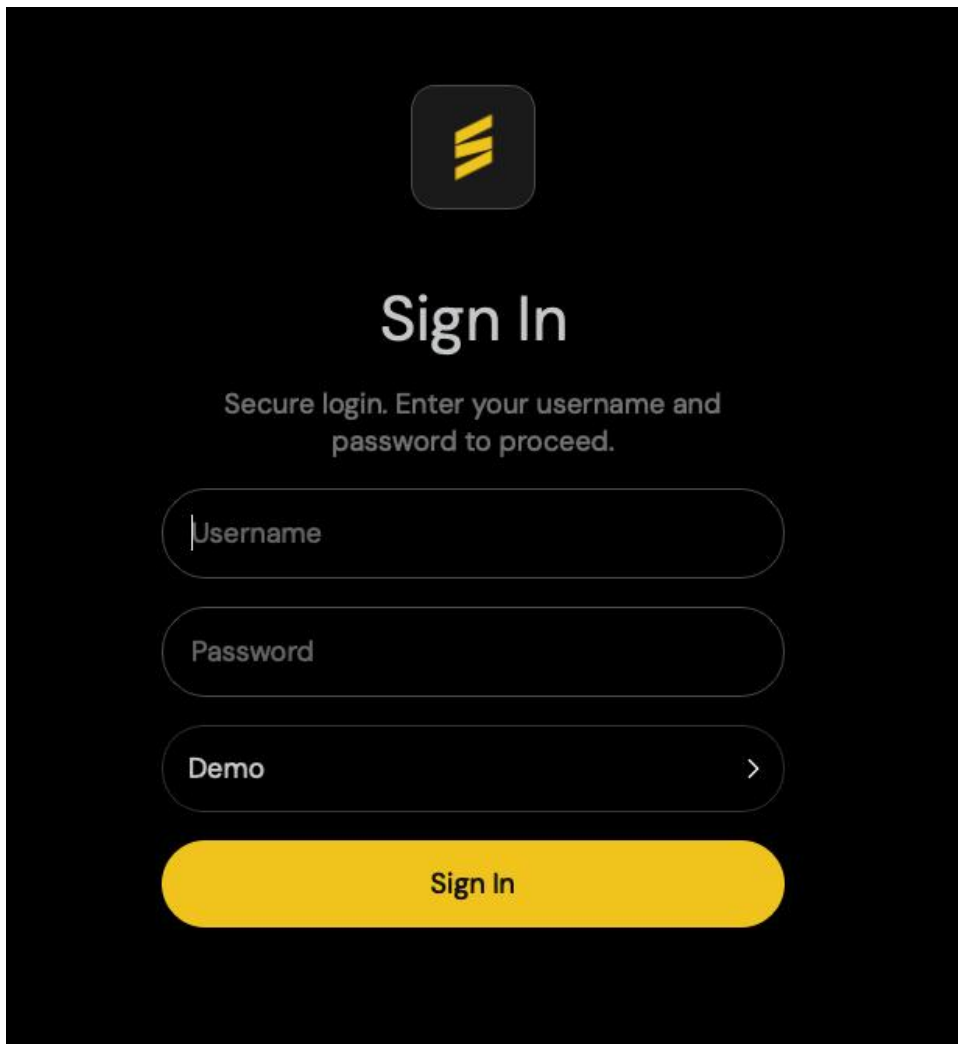


Username and passwords are not stored in the server configuration.

Signing In

Obtain a username and password from the site administrator. The user account must be configured in ImageGrid PACS with access to at least one AE Title.

Enter your username and password, select the appropriate server, and click **Sign In**.



The login screen features a dark blue background. At the top center is a logo consisting of three yellow slanted bars. Below the logo, the text "Sign In" is displayed in a large, white, sans-serif font. Underneath, a smaller white font reads "Secure login. Enter your username and password to proceed." There are three input fields: the first is labeled "Username" and contains a cursor; the second is labeled "Password"; and the third is labeled "Demo" with a right-pointing chevron icon. At the bottom is a large, rounded yellow button with the text "Sign In" in black.

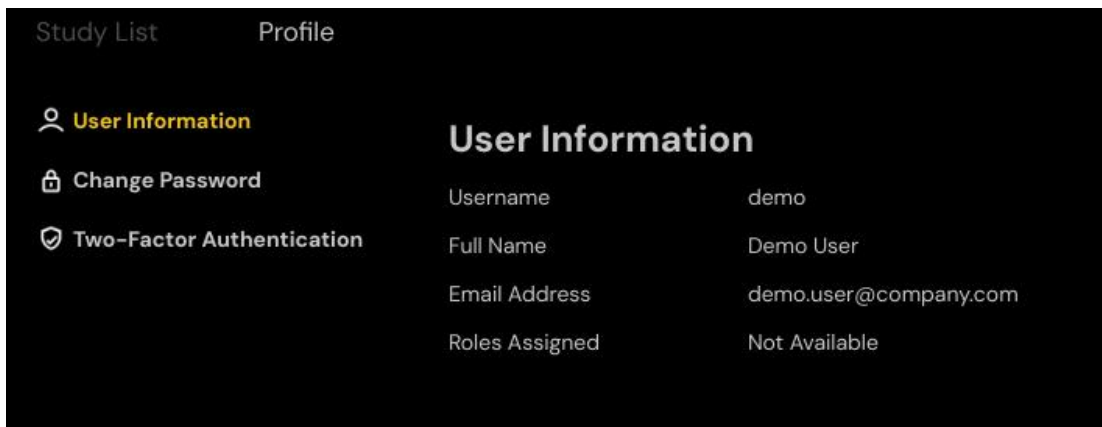
StreamVue Login

User Account Management

Manage the user account by clicking on the User Account icon in the lower left corner of the application. The user account panel contains three sections:

User Information

This section displays the user's login name, full name, email address and roles assigned. This information is read-only.



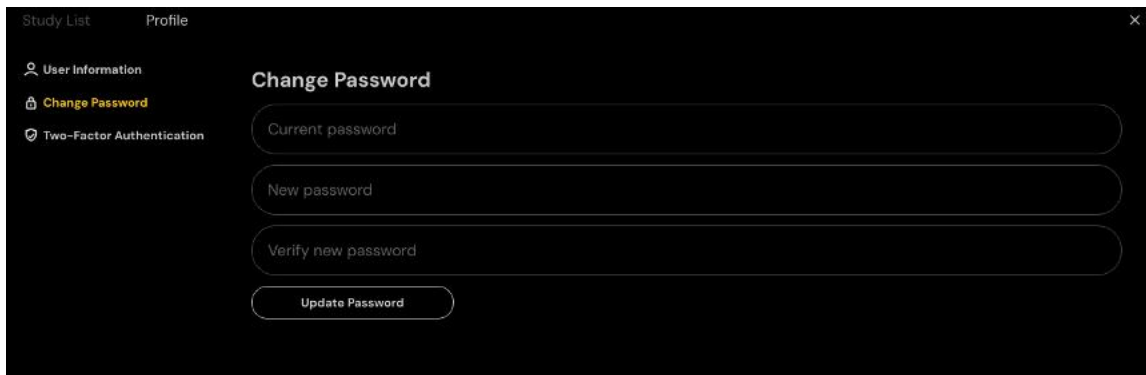
The panel has a dark blue header with two tabs: "Study List" and "Profile". The "Profile" tab is active. On the left is a sidebar with three items: "User Information" (with a person icon), "Change Password" (with a lock icon), and "Two-Factor Authentication" (with a shield icon). The "User Information" section is expanded, showing a table with the following data:

User Information	
Username	demo
Full Name	Demo User
Email Address	demo.user@company.com
Roles Assigned	Not Available

User Information

Change Password

Users may change their password by entering the current password and a new password. Password strength and complexity are controlled by site policy settings in ImageGrid PACS.



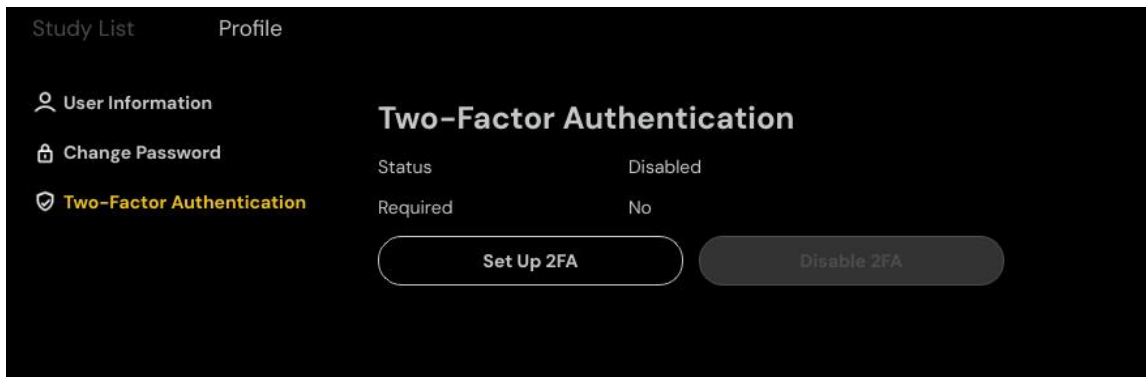
The screenshot shows a dark-themed user profile interface. At the top, there are tabs for 'Study List' and 'Profile'. On the left, a sidebar contains three menu items: 'User Information' with a person icon, 'Change Password' with a lock icon and highlighted in orange, and 'Two-Factor Authentication' with a shield icon. The main content area is titled 'Change Password' and contains three input fields labeled 'Current password', 'New password', and 'Verify new password'. Below these fields is a button labeled 'Update Password'.

Change Password

Two-Factor Authentication

If two-factor authentication is not required by the site security policy, users may set up 2FA by clicking **Set Up 2FA**. An authenticator app is required to set up two-factor authentication. If 2FA is no longer desired, click **Disable 2FA**.

If two-factor authentication is required by the site security policy, the buttons are disabled.

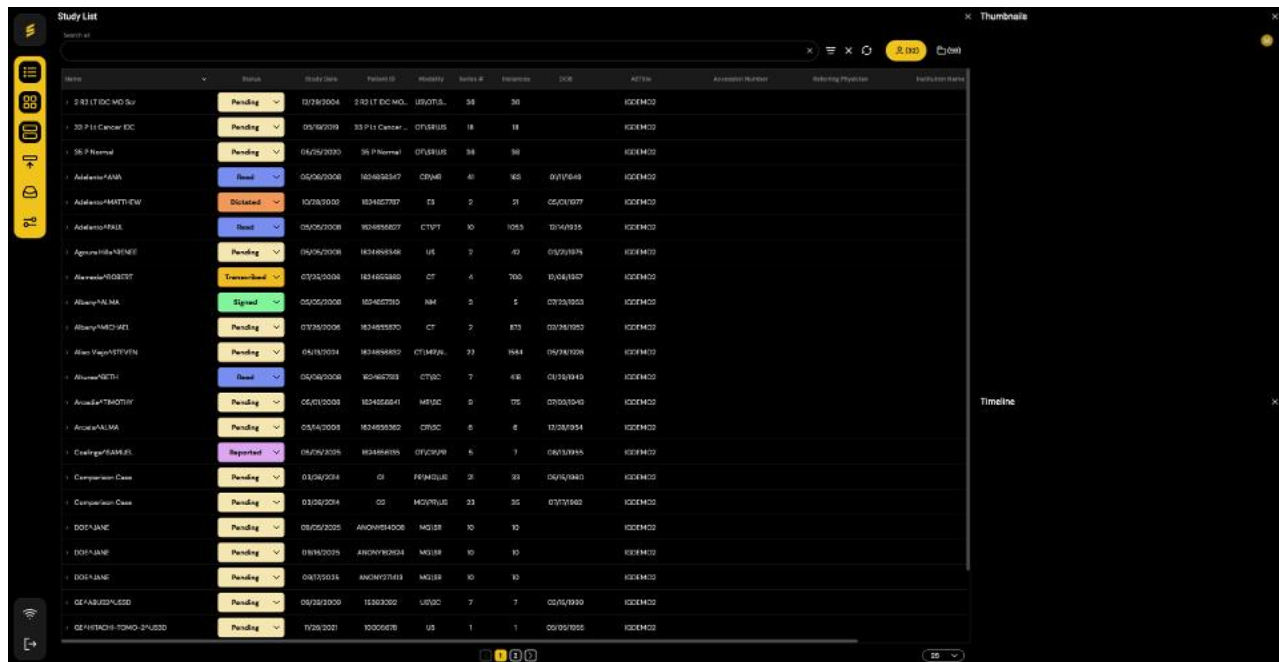


The screenshot shows the 'Two-Factor Authentication' section of the user profile interface. The sidebar on the left has 'Two-Factor Authentication' highlighted in orange. The main content area is titled 'Two-Factor Authentication' and displays the status: 'Status Disabled' and 'Required No'. At the bottom, there are two buttons: 'Set Up 2FA' and 'Disable 2FA'. Both buttons are disabled, indicated by their greyed-out appearance.

Two-Factor Authentication

Application Overview

ImageGrid StreamVue® provides a unified interface consisting of the menu bar, main content area, and optional thumbnail and timeline sidebars. When a study is opened, the imaging toolbar appears at the bottom of the workspace. This UI behavior is described in later sections.



Menu Bar

The menu bar appears by default as a left vertical sidebar, but may be relocated to a top horizontal bar. It is divided into two icon groups.

Icon	Function	Description
	Worklist	Opens the Worklist tab. Highlighted when open. Closed by closing the tab; reopened by clicking the icon.
	Thumbnail Sidebar	Opens/closes the thumbnail sidebar. Highlighted when open.
	Timeline Sidebar	Opens/closes the timeline sidebar. Highlighted when open.
	Menu Bar Location	Toggles the menu bar between left vertical and top horizontal layout.
	Open Study (Local)	Opens a file browser to load a local study folder or DICOMDIR. Local studies are view-only.
	Settings	Opens the Settings dialog as a tab in the main content area.
	Connection Indicator	Shows network connection status. Indicates when connection is lost.
	User Account	Opens the user account panel, including profile and password information.

Icon	Function	Description
	Logout	Logs the user out and returns to the login screen.

Session Management

Overview

This section describes viewer session controls that are available after sign-in. User account creation, role assignment, and permission management are performed in the separate ImageGrid PACS administration application.

Signing Out

Step 1 Click the logout icon in the lower-left corner of the interface.

Step 2 Confirm the sign-out action if prompted.

Signing out ends the current session and returns the user to the login screen.

Connection Status Indicator

The Connection Status icon indicates whether the viewer is currently connected to the server.

The icon is located in the lower left corner of the interface.



Connection

- When the viewer is connected to the server, the connection icon appears normally.
- If the viewer is not connected to the server, a bar appears through the connection icon, indicating that the connection has been lost.

When the connection is unavailable, studies and server-based features may not be accessible until the connection is restored.

Users should verify their network connection or contact system support if the connection remains unavailable.

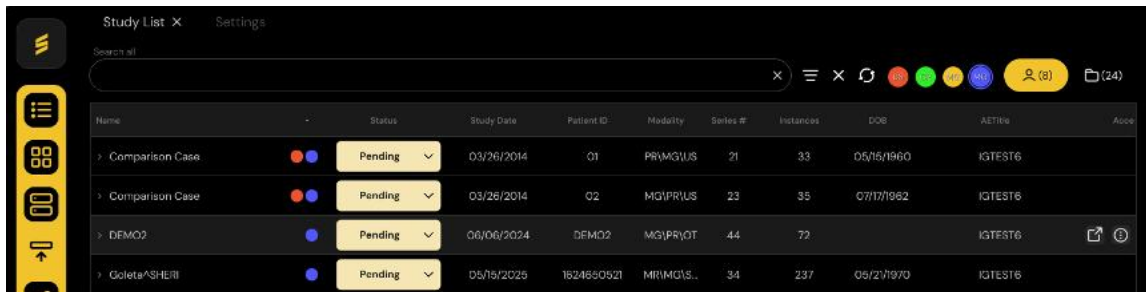
Viewing Studies

Overview

This section explains how to locate, filter, search, and open studies from the Worklist.

Worklist Overview

The Worklist displays available imaging studies based on user permissions and assigned AE Titles.



The screenshot shows the 'Study List' window with a search bar and a table of studies. The table has columns for Name, Status, Study Date, Patient ID, Modality, Series #, Instances, DOB, AETitle, and Accession. The studies listed are:

Name	Status	Study Date	Patient ID	Modality	Series #	Instances	DOB	AETitle	Accession
> Comparison Case	Pending	03/26/2014	Q1	PRYMGUS	21	33	05/15/1960	IGTEST6	
> Comparison Case	Pending	03/26/2014	Q2	MOIPRIUS	23	35	07/17/1962	IGTEST6	
> DFMO2	Pending	06/06/2024	DFMO2	MGIPRYOT	44	72		IGTEST6	
> Goleta^SHERI	Pending	05/19/2025	1624650521	MRI/MGUS...	34	237	05/23/1970	IGTEST6	

Worklist

Each row represents a study and may include:

- Patient Name
- Medical Record Number
- Modality
- Study Date
- Status

Filtering the Worklist

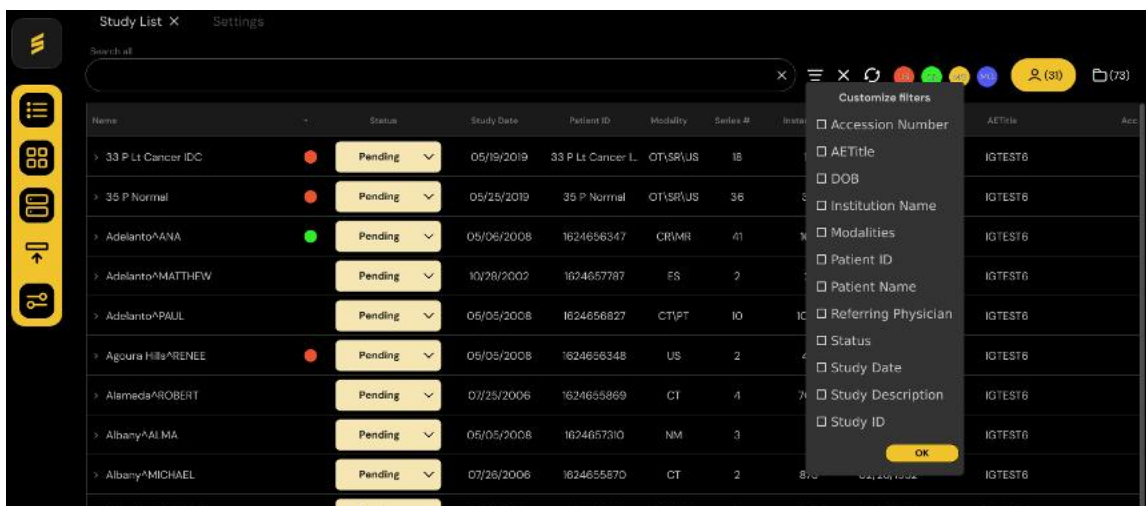
The Worklist can be filtered to narrow results.

Step 1 Locate the filter fields at the top of the Worklist.



Worklist filter icon

Step 2 Choose filter criteria from one or more available fields. Examples include patient name, patient ID, modality, or study date.



The screenshot shows the 'Study List' window with the filter menu open. The menu lists the following filter criteria:

- ☐ Accession Number
- ☐ AETitle
- ☐ DOB
- ☐ Institution Name
- ☐ Modalities
- ☐ Patient ID
- ☐ Patient Name
- ☐ Referring Physician
- ☐ Status
- ☐ Study Date
- ☐ Study Description
- ☐ Study ID

The studies listed in the table are:

Name	Status	Study Date	Patient ID	Modality	Series #	Instances	DOB	AETitle	Accession
> 33 P Lt Cancer IDC	Pending	05/19/2019	33 P Lt Cancer L	OT/USR/US	18			IGTEST6	
> 35 P Normal	Pending	05/25/2019	35 P Normal	OT/USR/US	36			IGTEST6	
> Adelanto^ANA	Pending	05/05/2008	1624656347	CR/MR	41			IGTEST6	
> Adelanto^MATTHEW	Pending	10/28/2002	1624657787	FS	2			IGTEST6	
> Adelanto^PAUL	Pending	05/05/2008	1624656827	CT/P	10			IGTEST6	
> Agoura Hills^RENEE	Pending	05/05/2008	1624656348	US	2			IGTEST6	
> Alameda^ROBERT	Pending	07/25/2006	1624655869	C1	4			IGTEST6	
> Albany^ALMA	Pending	05/05/2008	1624657310	NM	3			IGTEST6	
> Albany^MICHAEL	Pending	07/28/2006	1624655870	CT	2			IGTEST6	

Worklist filter

Step 3 Press **Enter** or select **OK** to apply the filter.

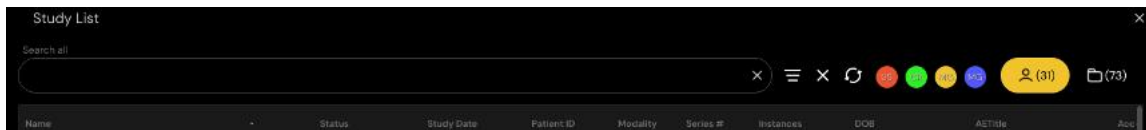
Interactive filter fields appear at the top of the Worklist. Users may adjust the entered values to refine the results.

Clearing Filters

Remove the entered criteria and refresh the Worklist.

Searching the Worklist

Users may search for a specific study using available search fields.



Study Search

Common search options include:

- Patient Name
- Medical Record Number
- Accession Number
- Study Date
- Modality

Enter the appropriate information in the search field and execute the search. Matching results appear in the Worklist.

Worklist Status

Overview

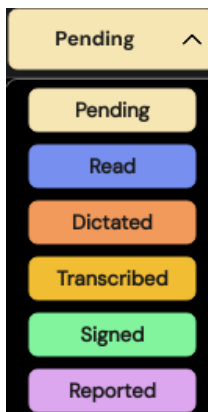
The Worklist Status indicator displays the current reporting stage of a study. Status labels help users quickly identify the progress of interpretation and reporting for each case.

The status can be viewed directly in the Worklist and may also be modified depending on user permissions and workflow configuration.

Viewing Status

The status of each study appears within the Worklist entry.

Clicking the **Status** field opens a dropdown menu displaying the available status options.



Worklist Status

Users can select the appropriate status to reflect the current stage of the reporting process.

Available Status Types

Pending

Indicates that the study has not yet been reviewed or interpreted.

This is typically the default status when a study first appears in the Worklist.

Read

Indicates that the study has been reviewed by the interpreting physician but the report has not yet been dictated or finalized.

Dictated

Indicates that the physician has dictated the report for the study.

The report may still require transcription or editing before completion.

Transcribed

Indicates that the dictated report has been transcribed into written form but has not yet been finalized or signed.

Signed

Indicates that the report has been reviewed and electronically signed by the interpreting physician.

Once signed, the report is considered finalized.

Reported

Indicates that the finalized report has been distributed or made available to referring physicians or external systems.

Changing Study Status

To update the status of a study:

1. Locate the study in the Worklist.
2. Click the **Status** field for the study.
3. Select the desired status from the dropdown list.

The Worklist will immediately update to reflect the new status.

Workflow Notes

- Status options may vary depending on system configuration.
- Certain statuses may only be available to users with appropriate permissions.
- Status changes help coordinate workflow between radiologists, transcription services, and referring providers.

Opening a Study

Step 1 Select a study from the filtered or full Worklist.

Step 2 Single-click the study to display the thumbnail preview images.

Step 3 Double-click the study to open the images in the viewer.

If a hanging protocol is available, the images open automatically according to the predefined layout.

If no hanging protocol is available, the images open using the default viewer layout.

Viewer Panels

Thumbnail Panel

Overview

The Thumbnail Panel provides a visual preview of images within a selected study or series. Thumbnails allow quick navigation and on-the-fly image selection.



Thumbnails

Thumbnail Panel Location

The Thumbnail Panel is located on the right side of the viewer interface.

Adjusting Thumbnail Panel Size

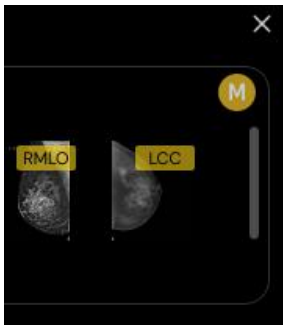
To resize the Thumbnail Panel:

Step 1 Position the mouse cursor in the middle of the column divider between the viewport and the Thumbnail Panel.

Step 2 Click and drag to adjust the width of the thumbnail area.

Adjusting Thumbnail Image Size

An "M" icon located in the top right corner of the Thumbnail Panel allows users to adjust thumbnail display size.



M Icon

Click the icon for **Small**, **Medium**, or **Large** which changes the thumbnail image size.

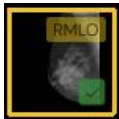
Viewing Images from Thumbnails

Images can be viewed directly from the Thumbnail Panel.

Click and drag a thumbnail image into the viewport to display the image immediately.

Viewed Image Indicator

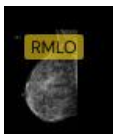
A green check mark at the bottom of each thumbnail indicates that the image has been viewed.



Viewed Image

View Label

At the top of each thumbnail image, a label identifies the specific view.



View Label

ABUS CAD Indicator

For ABUS studies with CAD available, a purple indicator appears on the thumbnail.



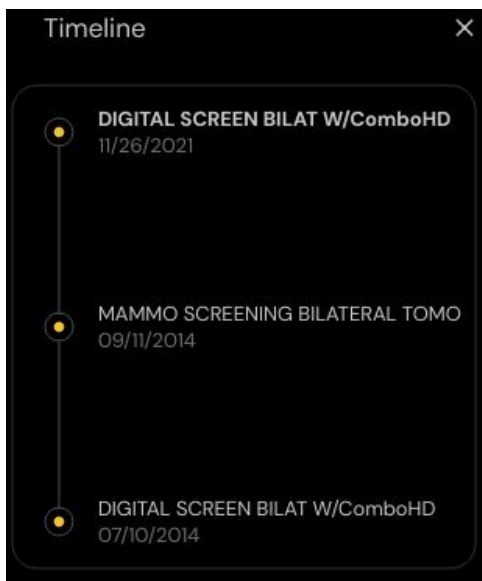
ABUS CAD

The purple indicator signifies that CAD is available for that specific view.

Timeline Panel

Overview

The Timeline feature displays the patient's imaging history by showing available prior studies. This allows users to quickly review historical exam information while viewing the current study.



Timeline

Timeline Location

By default, the Timeline Panel is located on the right side of the viewer interface.

Toggling the Timeline

The Timeline can be turned on or off using the **Timeline** icon located on the left side of the viewer interface.

Click the Timeline icon to show or hide the Timeline Panel.

Adjusting Timeline Panel Size

The Timeline Panel can be resized in the same manner as the Thumbnail Panel.

To adjust the panel size:

Step 1 Position the mouse cursor on the divider between the viewport and the Timeline Panel.

Step 2 Click and drag the divider to increase or decrease the width of the Timeline area.

Timeline Functionality

The Timeline displays a chronological history of available prior studies for the selected patient.

Each entry may include:

- Study Date
- Study Description

The Timeline provides quick visual context of the patient's imaging history during review of the current exam.

Toolbar and Radial Menu Functions

Toolbar Reference

The horizontal toolbar appears when a study is opened and provides access to image manipulation, navigation, measurement, annotation, CAD/TOMO, and 3D tools.

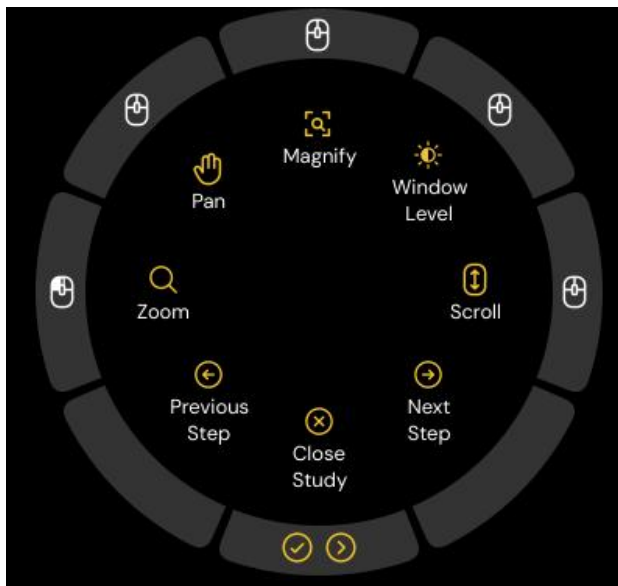
Icon	Tool Name	Description
Image Appearance Controls		
	Invert Image Pixels	Reverses pixel intensity values.
	Text Overlays Switch	Toggles DICOM tag overlays for the active viewport.
	All Text Overlays Switch	Toggles overlays for all viewports.
	Minimap Switch	Shows or hides the minimap.
	Flip Image Vertically	Flips the image vertically.
	Flip Image Horizontally	Flips the image horizontally.
	Rotate CCW 90°	Rotates image counter-clockwise 90°.
	Reset Rotation	Restores default orientation.
	Rotate CW 90°	Rotates image clockwise 90°.
	Adjust Zoom	Enables zoom control.
	Adjust Level	Adjusts brightness.
	Adjust Window	Adjusts contrast.
	Window/Level Preset	Selects preset window/level configurations.
	Reset Image Settings	Restores default W/L, zoom, and rotation.
Navigation & View Management		
	Cine Switch	Plays or pauses cine mode.
	Change Series Layout	Adjusts viewport layout.
	Quadrant Roaming	Quickly navigates zoomed-in regions.
	True Size	Displays image at true physical scale.
	Show DICOM Tags	Opens the DICOM tag list.
Secondary Capture & Utility Tools		

Icon	Tool Name	Description
	Trigger Secondary Capture	Saves the viewport as a DICOM Secondary Capture.
Measurement Tools		
	Caliper Tool	Measures distance.
	Angle Tool	Measures angles.
	Cobb Angle Tool	Scoliosis angle measurement.
	Arrow Tool	Adds pointing arrow.
	Ellipse Tool	Elliptical ROI; pixel statistics.
	ROI Tool (Free-Draw)	Freehand region of interest.
Annotation Tools		
	Add Annotation	Adds text or graphic annotations.
CAD & TOMO Tools		
	Show/Hide CAD Info	Toggles CAD overlays.
	Show/Hide TOMO Axis	Displays tomosynthesis axis.
	Open/Close CAD Layout	Opens CAD-optimized layout.
Multi-Series & 3D Tools		
	Reference Lines	Shows cross-series reference lines.
	3D Cursor	Synchronizes cursor across planes.
	Create All 3D Views	Generates multi-planar 3D views.
	Select Views Layout	Selects MPR/3D layouts.
	Reference Lines (Inner Series)	For secondary series.
	3D Cursor (Inner Series)	3D cursor for additional series.
ABUS Tools		
	Nipple Location	Marks nipple position.
	Distance to Nipple	Measures distance relative to nipple.

Radial Menu

Overview

The Radial Menu allows users to quickly access and assign commonly used tools directly within the image viewport. It improves efficiency by reducing the need to return to the main toolbar.



Radial Menu

Activating the Radial Menu

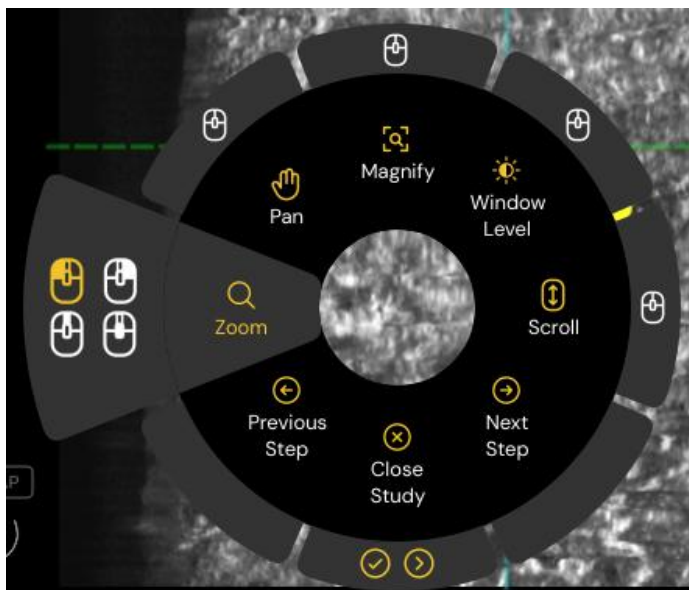
Right-click anywhere inside the image viewport.

The Radial Menu appears at the cursor location.

Assigning a Tool to a Mouse Button

Step 1 Right-click to open the Radial Menu.

Step 2 Move the mouse toward the desired feature.



Radial mouse

Step 3 Left-click on the feature.

Step 4 Move the mouse toward the outer edge to select one of the available mouse button options.

Step 5 Click to confirm the assignment.

This allows users to customize mouse behavior based on reading preferences.

Common Tools Available

The Radial Menu provides quick access to:

- Zoom
- Pan
- Magnify
- Scroll

Study Navigation Shortcuts

The Radial Menu can also be used for workflow progression:

- Left-click **Next Study** to advance directly to the next case
- Left-click **Close Study** to exit the current study

These shortcuts help streamline case review during high-volume reading sessions.

Image Navigation

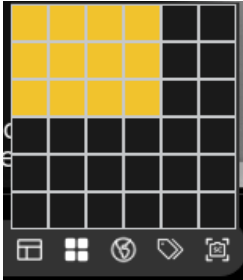
Change Layout

The Layout icon is located near the center of the imaging toolbar.



Change Layout

Click the button to display the Layout Editor pane.

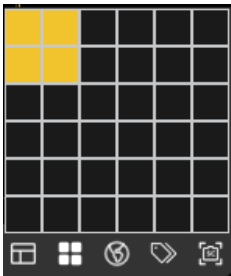


Layout editor pane

Editing the Series Layout

Edit the layout of the series on the screen by clicking one of the buttons in the **Layout Series** grid.

Example: select a layout with **2 rows and 2 columns**.



2x2 layout

Scrolling Through Instances

Overview

Scrolling instances allows the user to navigate through individual images within a series. The method used may vary depending on the modality, number of instances, and clinical workflow preference.

Available Scrolling Methods

Instances can be reviewed using the following methods:

- Sidebar navigation
- Mouse wheel scrolling
- Cine playback
- Tomo axis line for tomosynthesis mammography

Sidebar Navigation

The sidebar provides a visual representation of the position within the series.

To scroll using the sidebar:

Step 1 Position the cursor over the sidebar scroll control.

Step 2 Click and drag the scroll control up or down to move through instances.

The displayed image in the active viewport updates in real time as the scroll position changes.

This method is useful for rapid movement across large series.

Mouse Wheel Navigation

The mouse wheel allows precise, frame-by-frame navigation.

To scroll using the mouse wheel:

Step 1 Place the cursor inside the active viewport.

Step 2 Rotate the mouse wheel forward to advance to the next instance.

Step 3 Rotate the mouse wheel backward to return to the previous instance.

This method is commonly used for routine CT and MR review and allows fast, continuous reading without leaving the viewport.

Cine Tool

Overview

The Cine tool allows playback of multi-frame imaging studies. This feature is commonly used for ultrasound, cardiac, and other dynamic imaging studies.

Activating the Cine Tool

Step 1 Click the **Cine** tool icon located on the imaging toolbar.



Cine button

Step 2 Move the mouse cursor to the bottom of the viewport to activate the Cine Panel.



Cine Bar

Playback Controls

A multi-frame image can be viewed in the forward or reverse direction.

- Click the forward arrow once to begin forward playback.
- Click the reverse arrow once to begin reverse playback.
- Click the same arrow a second time to pause playback.

Manual Frame Navigation

For multi-frame instances only, frames may be manually reviewed using the slider located in the Cine Panel.

Move the slider left or right to scroll through all available frames.

Playback Speed Control

The playback speed control is located at the end of the Cine bar.

To adjust playback speed, move the speed control to increase or decrease the frame rate.

- Increasing the speed displays frames more quickly.
- Decreasing the speed slows playback for detailed review.

Tomo Axis for Tomosynthesis

For tomosynthesis mammography studies, the Tomo axis line provides controlled slice navigation.

The Tomo axis represents the stack of tomosynthesis slices and allows targeted movement through the volume.

Activating the Tomo Axis

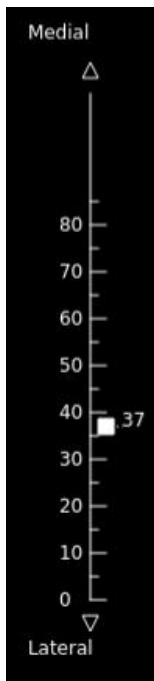
Step 1 Click on the image within the viewport for which you would like to enable the Tomo axis.

Step 2 Click the **Tomo Axis** icon located in the toolbar.



Tomo Axis icon

The Tomo axis line appears on the image.



Tomo axis line

Using the Tomo Axis

Click and drag along the Tomo axis line to move through slices.

As the axis position changes, the displayed slice updates accordingly.

This method allows precise control of slice depth and is especially useful for breast tomosynthesis review.

Navigating Through Slices

The Tomo Axis line is fully interactive.

To scroll through tomosynthesis slices:

Step 1 Click on the axis line.

Step 2 Grab the reference point or handle on the line.

Step 3 Drag it along the axis.

As you move the reference point:

- The tomosynthesis slices update in real time
- The displayed image changes according to the selected depth

Alternative Slice Navigation Methods

Tomosynthesis slices can also be navigated using:

- Mouse wheel scrolling
 - Cine playback controls
 - Sidebar
-

Measurement and Annotation Tools

Overview

The Measurement Tools allow users to evaluate distance, size, and location directly within the image viewport.

All tools can be activated via the imaging toolbar or assigned keyboard shortcuts, if configured.

Caliper Tool (Distance Measurement)

The Caliper tool is used to measure linear distance between two points on an image.

How to Use

Step 1 Click the **Caliper** icon in the imaging toolbar.



Caliper

Step 2 Click once to set the starting point.

Step 3 Drag to the desired endpoint.

Step 4 Click again to finalize the measurement.

The measurement value displays automatically on the image.

Notes

- Multiple calipers can be placed on a single image
- Measurements are displayed in millimeters (mm)
- Calipers can be selected and repositioned after placement
- To delete a caliper, select it and press **Delete**

Marker Tool (Adjustable Circle)

The Marker tool places an adjustable circular reference marker within the image.

This is useful for:

- Highlighting a region of interest
- Drawing attention during case review
- Presentation and teaching purposes

How to Use

Step 1 Activate the Marker tool from the toolbar.



marker ellipse

Step 2 Click on the image to place the marker.

Step 3 Drag to adjust size.

Step 4 Reposition as needed.

The marker can be toggled on and off using its assigned hotkey.

Angle Measurement Tool

The Angle tool measures the angle formed by three points.

How to Use

Step 1 Select the **Angle** tool from the toolbar.



angle

Step 2 Click to place the first point.

Step 3 Click to place the vertex, or middle point.

Step 4 Click to place the third point.

The angle measurement displays automatically in degrees.

ROI (Region of Interest) Tool

The ROI tool defines a selected image region for density or pixel value analysis, if supported by the modality.

Depending on system configuration and modality, ROI may display:

- Mean pixel value
- Standard deviation
- Min/Max values

How to Use

Step 1 Select the **ROI** tool from the toolbar.



ROI

Step 2 Draw the ROI over the desired area.

Step 3 Release to generate the measurement values.

ROI can be resized or repositioned after placement.

Notes

ROI functionality may vary depending on modality such as CT, MG, or Tomo.

To remove an ROI:

Step 1 Click the ROI boundary.

Step 2 Press **Delete**.

Arrow Tool

The Arrow tool is used to point to a specific anatomical structure or finding without applying a measurement.

Common Uses

- Highlighting areas of concern
- Teaching and presentation cases
- Clarifying findings during review
- Internal documentation

How to Use

Step 1 Select the **Arrow** tool from the imaging toolbar.



arrow

Step 2 Click on the image where you want the arrow tip to begin.

Step 3 Drag in the desired direction.

Step 4 Release to place the arrow.

The arrow remains fixed in position until manually adjusted or deleted.

Editing an Arrow

Click directly on the arrow to select it.

Drag the tip or tail to reposition and adjust orientation.

Deleting an Arrow

Click on the arrow to select it, then press **Delete**.

Text Annotation Tool

The Text Annotation tool allows users to place free-text labels directly on the image.

Common Uses

- Teaching cases
- Internal notes during review
- Highlighting specific findings
- Presentation screenshots

How to Use

Step 1 Select the **Text Annotation** tool from the imaging toolbar.



Annotation

Step 2 Click on the image where you want the text placed.

Step 3 Enter the desired text.

Step 4 Confirm to place the annotation.

The text remains anchored to the selected location.

Editing Text

Click the text annotation to select it.

Modify the text.

Reposition by dragging to a new location.

Deleting Text

Click on the annotation to select it, then press **Delete**.

Measurement Editing and Management

Measurements remain visible unless manually removed.

Tools can be toggled on and off.

Measurements are study-specific and do not carry over to other studies.

Users can clear all measurements from the current image using the reset option.

Deleting a Measurement

To delete a measurement:

Step 1 Click directly on the measurement annotation, line, or ellipse to select it.

Step 2 Press the **Delete** key on the keyboard.

The selected measurement is removed immediately.

Reference Lines (Cross-Reference Lines)

Reference lines display the anatomical location of one image plane on another plane.

Examples include:

- Axial slice position displayed on coronal view
- Coronal position displayed on sagittal view

This allows accurate multi-planar correlation.

How to Activate Reference Lines

Step 1 Load multi-planar views such as Axial, Coronal, and Sagittal.

Step 2 Select the desired viewport.

Step 3 Enable **Reference Lines** using the toolbar icon.



reference line

When active, moving through slices in one plane updates the reference line in the corresponding plane.

The reference line indicates the exact anatomical position of the current slice.

Adjusting Reference Lines

Reference lines are interactive.

Step 1 Click directly on a reference line in the viewport.

Step 2 Click and drag the line to a new position.

The corresponding image plane updates automatically to reflect the new anatomical location.

This allows fast manual navigation across planes without scrolling through slices individually.

Survey Mode (3D Cursor)

Survey Mode enables a synchronized 3D cursor across multiple views.

When active, crosshairs appear in corresponding anatomical positions across axial, coronal, and sagittal images.

How to Use

Step 1 Select an image in the viewport.

Step 2 Activate **Survey Mode (3D Cursor)** using the toolbar icon.



3D Cursor

Step 3 Move the cursor within one plane.

The corresponding anatomical location updates in other planes.

Best Used For

- Correlating findings across multiple views
- Tomosynthesis review
- Multi-planar navigation

CAD (Computer-Aided Detection) Toggle

The CAD toggle allows users to turn CAD markers on or off during image review.

CAD overlays may include:

- Suspicious region markers
- Highlighted densities
- Detection prompts

Turning CAD On

Click the CAD button in the imaging toolbar.



C A D

CAD markers appear on the image if CAD data is available for the study.

Turning CAD Off

Click the CAD button again.

CAD overlays are hidden, but the CAD data is not removed.

Hanging Protocol Editor and View Controls

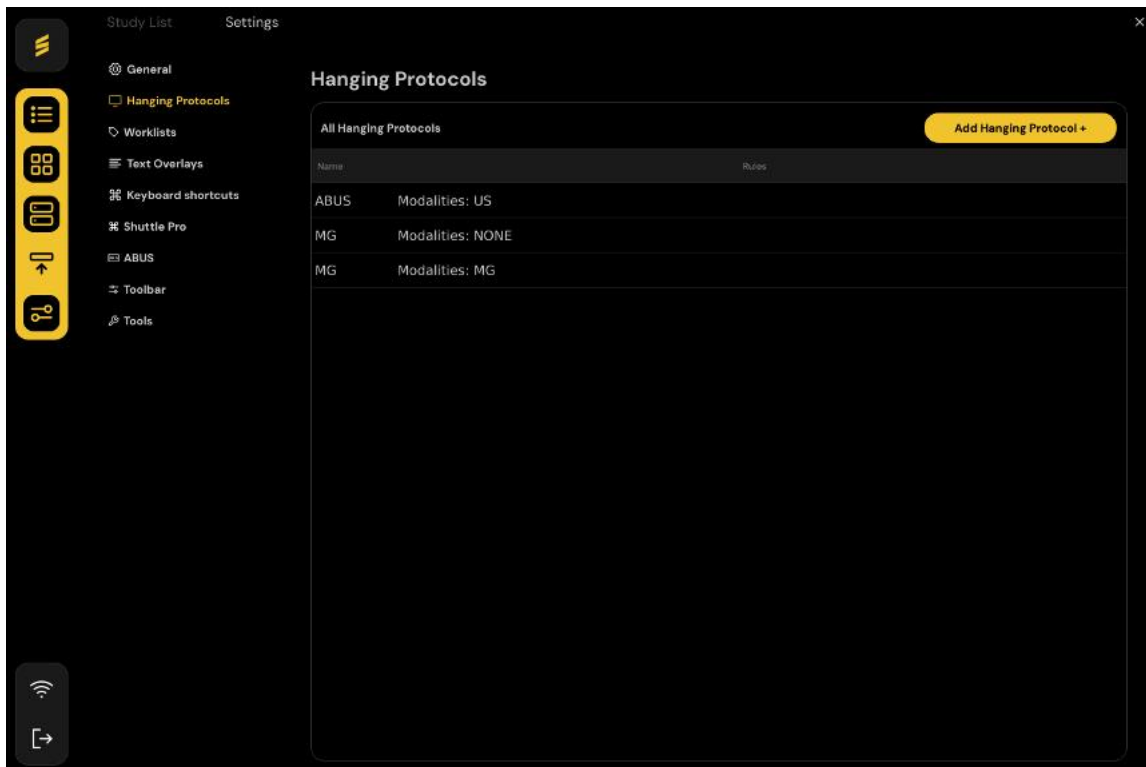
Hanging Protocol Editor

The Hanging Protocol Editor allows users to define how imaging studies are automatically displayed when opened. Hanging protocols determine the layout, image placement, and rules used to match studies and series.

Users can create custom protocols based on study attributes such as modality, institution, referring physician, or study description.

Accessing Hanging Protocol Settings

1. Open the **Settings** panel.
2. In the left navigation menu, select **Hanging Protocols**.



Hanging Protocol Editor

The **All Hanging Protocols** page displays all currently configured protocols.

Each protocol entry shows:

- **Name** – The protocol name
- **Rules** – Conditions used to match studies

To create a new protocol:

1. Click **Add Hanging Protocol +**

Creating a Hanging Protocol

When creating a new protocol, the user must first define the protocol name and the study matching rules.

< Hanging protocols / Create hanging protocol

Hanging Protocols

Add protocol rules

Protocol Name

Add protocol name

Match the following rules

Add rule +

Cancel

Next

Add Hanging Protocol

Steps:

1. Enter a **Protocol Name**
2. Click **Add rule +** to define how studies should match the protocol
3. Select the desired rule parameter
4. Configure the matching value
5. Click **Next** to continue to the layout editor

Defining Protocol Matching Rules

Protocol rules determine when a hanging protocol will be applied.

Users can define rules based on study metadata.

< Hanging protocols / Create hanging protocol

Hanging Protocols

Add protocol rules

Protocol Name

Add protocol name

Match the following rules Add rule +

Modalities

- Institution Name
- Modalities
- Referring Physician
- Study Description

ANY

Cancel Next

Hanging Protocol rules

Available rule parameters include:

- **Institution Name**
- **Modalities**
- **Referring Physician**
- **Study Description**

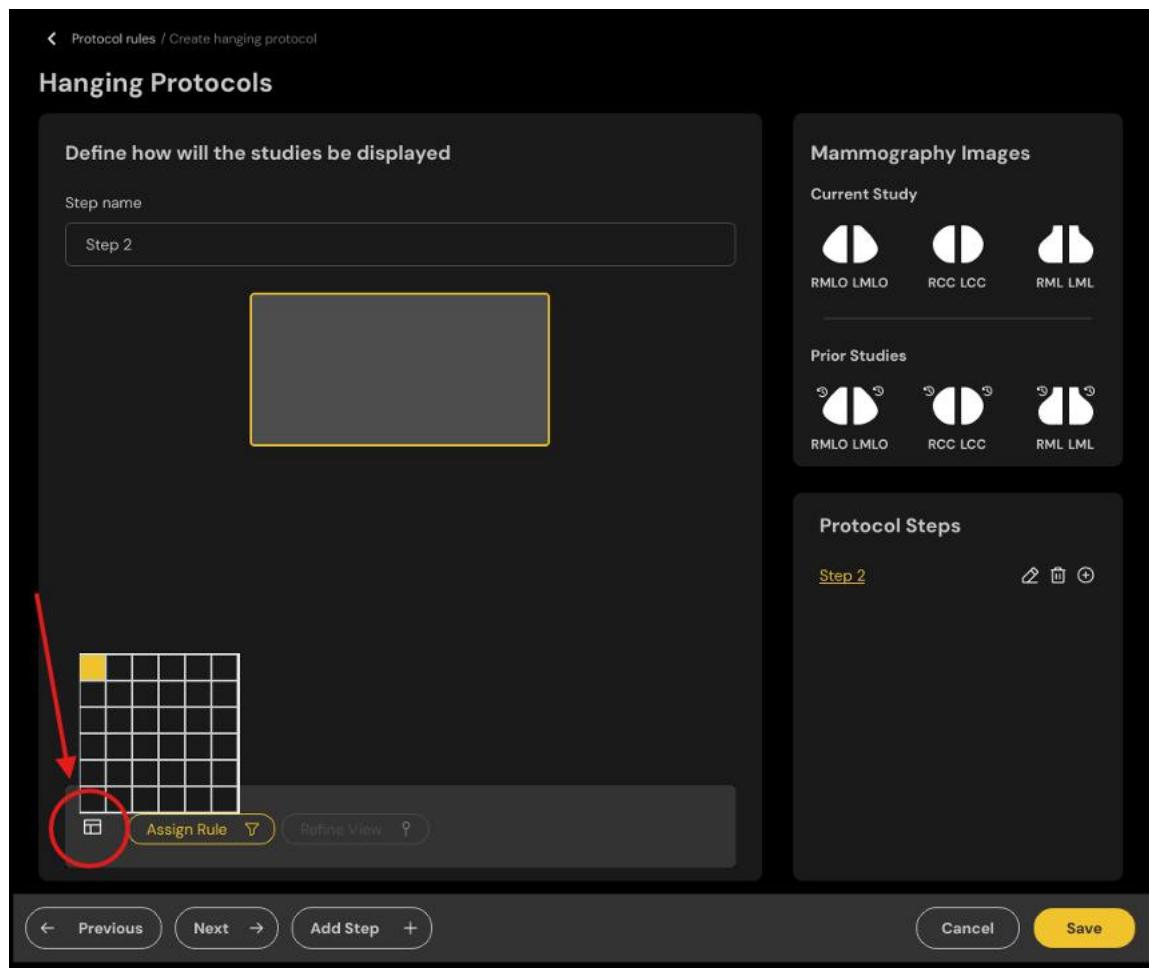
Example:

- Modality **equals** MG
- Institution **equals** Breast Center

Multiple rules may be combined to create more specific protocol behavior.

Layout Editor

After defining rules, the **Layout Editor** allows users to configure how studies will be displayed.



HP Layout Editor

The editor includes:

- **Viewport Layout Grid**
- **Image Assignment Tools**
- **Protocol Steps Panel**

Users can define how images are arranged across viewports.

Steps:

1. Enter a **Step name**
2. Select a **layout configuration** from the layout grid
3. Assign rules to each viewport

The layout grid allows users to choose the number of viewports displayed.

Assigning Image Rules to Viewports

Each viewport can be configured to display specific image types.

To assign a rule:

1. Select a viewport in the layout grid
2. Click **Assign Rule**
3. Select an existing rule from the list or create a new one
4. Click **Apply**

Assign Rule

Select an existing rule or create a new one

LMED

LMED

Select ⓘ

OT TEST

OT

Select ⓘ

LUOQ

LUOQ

Select ⓘ

REMD

REMD

Select ⓘ

Add rule +

Cancel

Apply

Assign Rule

The viewport will now display images that match the selected rule.

Creating a New Image Rule

If a rule does not exist, users can create a new rule.

Add Rule

Rule Name

RUOQ

Include Images

That match the following rules

Modality

EQUALS

ANY

Image Laterality

Image Plane

Image Type

Modality

Presentation Intent Type

Prior Index

Protocol Name

Series Description

Study Description

View Position

Add parameter +

Save

Add Rule

Steps:

1. Click **Add rule +**
2. Enter a **Rule Name**
3. Select the image parameters to match
4. Click **Add parameter** if additional conditions are required
5. Click **Save**

Available rule parameters include:

- **Image Laterality**
- **Image Plane**
- **Image Type**
- **Modality**
- **Presentation Intent Type**
- **Prior Index**
- **Protocol Name**
- **Series Description**
- **Study Description**
- **View Position**

These parameters allow precise control over which images appear in each viewport.

Protocol Steps

Protocols can contain multiple steps.

Each step represents a different layout configuration that can be navigated during study review.

Users can:

- **Add Step** – Create a new viewing step
- **Edit Step** – Modify an existing step
- **Delete Step** – Remove a step

Steps are displayed in the **Protocol Steps** panel.

Saving a Hanging Protocol

After configuring rules and layouts:

1. Click **Save**

The protocol will now appear in the **All Hanging Protocols** list and will automatically apply when studies match the defined rules.

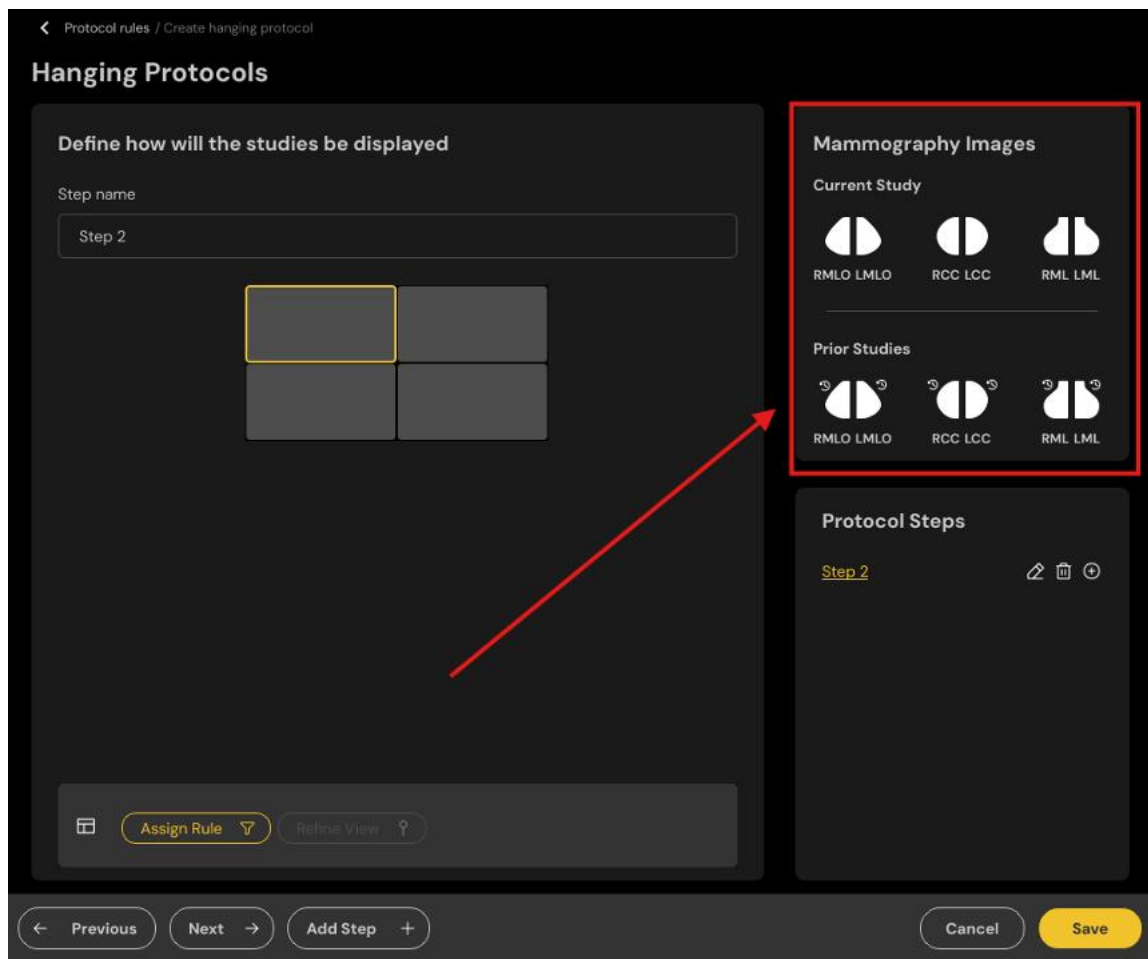
Assigning Mammography (MG) Views

For **Mammography protocols**, the available mammography views appear in the **Mammography Images panel** on the right side of the editor.

Common MG views include:

- **RMLO**
- **LMLO**
- **RCC**
- **LCC**
- **RML**
- **LML**

Users can assign mammography images to viewports using **drag and drop**.



Drag and Drop

Current Study is represented by view icons in the top row; prior studies are represented by view icons in the bottom row.

Steps:

1. Select the desired **layout grid**.
2. Locate the MG view in the **Mammography Images** panel.
3. **Drag the view icon** from the panel.
4. **Drop it onto the desired viewport**.

The viewport will display the selected mammography view when the protocol is applied.

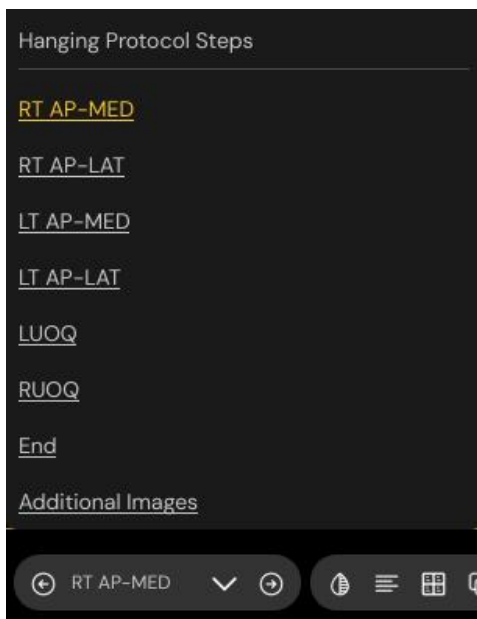
Both **Current Study** and **Prior Study** images can be assigned depending on the protocol configuration.

Click Save once finished.

Steps Tools (Hanging Protocol Navigation)

The Steps Tools are used to navigate and manage Hanging Protocol workflows.

The hanging protocol panel is located in the lower left corner of the image view area and is visible when a study triggers a hanging protocol.



Hanging Protocol Steps

Hanging Protocols control:

- Viewport layout
- Series placement
- Image positioning
- Display configuration

Previous Step

Moves to the previous step within the active Hanging Protocol sequence.

Use this to return to a prior layout state or review earlier stages in a structured comparison workflow.

Steps Menu

Opens the Hanging Protocol menu.

From this menu, users can:

- Select a predefined Hanging Protocol
- Switch between different layout configurations
- Apply structured viewing workflows

Hanging Protocols may define:

- Viewport arrangements
- Series mapping
- Prior versus current comparison layouts
- Modality-specific display rules

Next Step

Moves forward to the next step within the active Hanging Protocol.

Use this to progress through structured viewing states and advance through predefined comparison sequences.

Image Display Controls

Trigger Secondary Capture

Creates a secondary capture image from the current viewport.

To create a Secondary Capture, click the icon located on the toolbar.



Secondary Capture

This captures:

- Current image
- Applied annotations
- Measurements, if visible

This tool is useful for documentation, teaching files, and case sharing.

Thumbnails Switch

Toggles the visibility of the Thumbnail Panel.

The switch is located on the left side panel. To toggle, click icon.



Thumbnails Icon

- When enabled, the Thumbnail Panel appears.
- When disabled, the Thumbnail Panel is hidden to maximize viewport space.

Cine Switch

Enables or disables Cine functionality for multi-frame studies.

To enable, click the icon located in the toolbar.



Cine 3

- When enabled, Cine controls become available.
- When disabled, Cine playback controls are hidden.

Quadrant Roaming

Quadrant Roaming changes the viewing mode by zooming into the image quadrants for closer inspection.

To enable, click the icon located in the toolbar.



Quadrant Roaming

- When enabled, the viewport zooms into the upper quadrants of the image.
- When disabled, the image returns to the standard full-view display.

True Size

Displays the image at true physical scale.

To enable, click the icon located in the toolbar.



True Size

- When enabled, the image displays at 1:1 scaling based on resolution and monitor calibration.
- When disabled, the image scales to fit the viewport.

Show DICOM Dump

Displays detailed DICOM header information.

When enabled, a DICOM metadata panel is shown.

To enable, click the icon located in the toolbar.



Dicom dump

This includes technical acquisition data and study attributes and may be used for technical review, troubleshooting, or verification of acquisition parameters.

Invert Image Pixels

Reverses image contrast.

To enable, click the icon located in the toolbar.



Invert contrast

- Click once to invert
- Click again to return to standard contrast

This is commonly used for visibility enhancement and reader preference.

Text Overlays Switch

Toggles standard overlay information on or off.

To enable, click the icon located in the toolbar.



Text Overlay

- When enabled, patient and image information display
- When disabled, basic overlay text is hidden

All Text Overlays Switch

Toggles DICOM overlay data. To enable, click the icon located in the toolbar.



All dicom text overlay

- When enabled, DICOM information is displayed
- When disabled, all overlay information is removed for a clean image view

Minimap Switch

Displays or hides the minimap navigation tool. To enable, click the icon located in the toolbar.



Minimap

When enabled:

- A small overview map appears
- The current zoom position is shown
- Quick repositioning within a zoomed image is possible

When disabled, the Minimap is hidden.

Flip Tools

Flip Image Vertically

To enable, click the icon located in the toolbar.



Flip Image Vertically

Flips the image top-to-bottom.

Click again to return to the original orientation.

Flip Image Horizontally

To enable, click the icon located in the toolbar.



Flip image Horizontal

Flips the image left-to-right.

Click again to restore the original orientation.

Zoom Tool

The Zoom slider controls image magnification directly from the toolbar.

How to Use

Step 1 Locate the **Zoom** slider in the toolbar.



Zoom tool

Step 2 Click and drag the slider bar.

- Drag right to increase magnification
- Drag left to decrease magnification

The image updates in real time as the slider is adjusted.

While zoomed, click and drag within the image to pan.

Use the Minimap, if enabled, for repositioning.

Return to default magnification by sliding back to the baseline position.

Brightness Tool

The Brightness slider adjusts overall image luminance.

How to Use

Locate the **Brightness** slider in the toolbar.



Brightness tool

Click and drag the slider:

- Drag right to increase brightness
- Drag left to decrease brightness

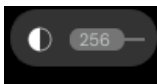
Changes are applied instantly to the active viewport.

Contrast Tool

The Contrast slider adjusts the difference between light and dark regions of the image.

How to Use

Locate the **Contrast** slider in the toolbar.



Contrast tool

Click and drag the slider:

- Drag right to increase contrast
- Drag left to decrease contrast

The image updates dynamically as the slider moves.

Select w/ Preset

Applies predefined display configurations.

How to Use

Step 1 Click **Select w/ Preset**.



Preset

Step 2 Choose a preset from the available list.

The image automatically adjusts to the selected window, level, and display parameters.

Presets allow quick standardization without manual slider adjustments.

ABUS Tools and Features

ABUS Support

The viewer provides dedicated tools and navigation features optimized for ABUS studies.

Auto-Generated Views

For ABUS studies, StreamVue automatically generates standardized views upon study load.

These views are pre-configured for optimal anatomical orientation and review efficiency.

No manual reconstruction is required.

View Layout Selection

Users can customize the viewport layout using the **Views Layout** button.

How to Select a Specific View

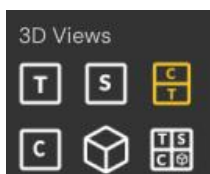
Step 1 Click the **Views Layout** icon.



ABUS layout

Step 2 Select a viewport.

Step 3 Choose the desired view from the available options.



ABUS layout 2

Available View Options

Single View options:

- Sagittal
- Coronal
- Transverse

Split View options:

- Dual-plane split configurations
- Multi-plane split window layouts

These layouts allow simultaneous visualization of multiple orientations.

ABUS Reference Lines

Reference lines are available in ABUS studies for multi-planar correlation.



ABUS reference lines

When enabled:

- The anatomical position of one plane is displayed on the corresponding planes
- Moving through slices updates the reference line position dynamically

Reference lines are interactive:

- Click and drag a reference line
- The corresponding view updates automatically to the selected anatomical location

This allows precise cross-plane navigation.

ABUS 3D Cursor

The 3D Cursor tool allows synchronized localization across sagittal, coronal, and transverse views.

How to Use

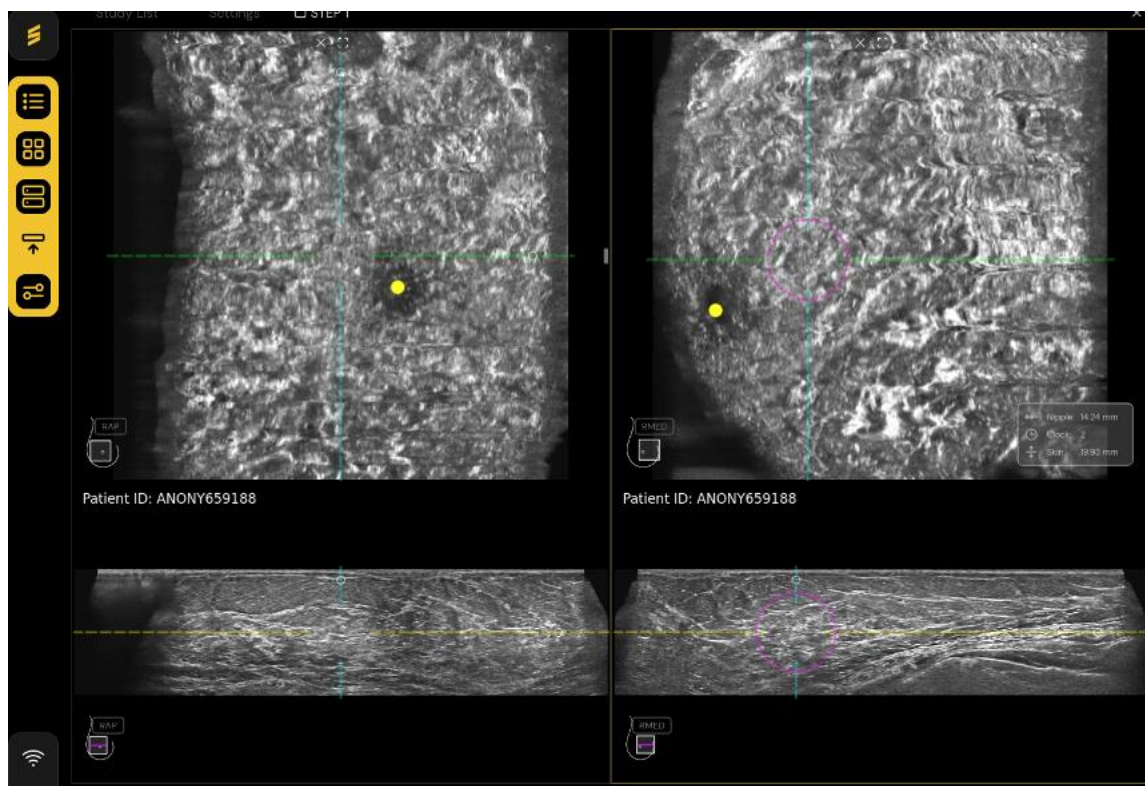
Step 1 Activate the **3D Cursor** tool.



ABUS 3D Cursor

Step 2 Click on a structure within one plane.

The corresponding anatomical position displays in all synchronized views.



ABUS 3D Cursor View

This improves lesion localization and spatial understanding.

Nipple Location Button

The Nipple Location button allows the user to manually mark the nipple position within the ABUS image.

How to Use

Step 1 Select the **Nipple Location** button from the toolbar.



ABUS Nipple Location

Step 2 Click on the image at the exact location of the nipple.

A marker is placed to indicate position.

This marker assists with anatomical orientation and improves correlation between views.

Distance to Nipple

The Distance to Nipple tool provides standardized lesion localization within ABUS studies.

When activated, this tool enables the 3D Cursor feature and automatically displays structured measurement data across all synchronized views.

How to Use

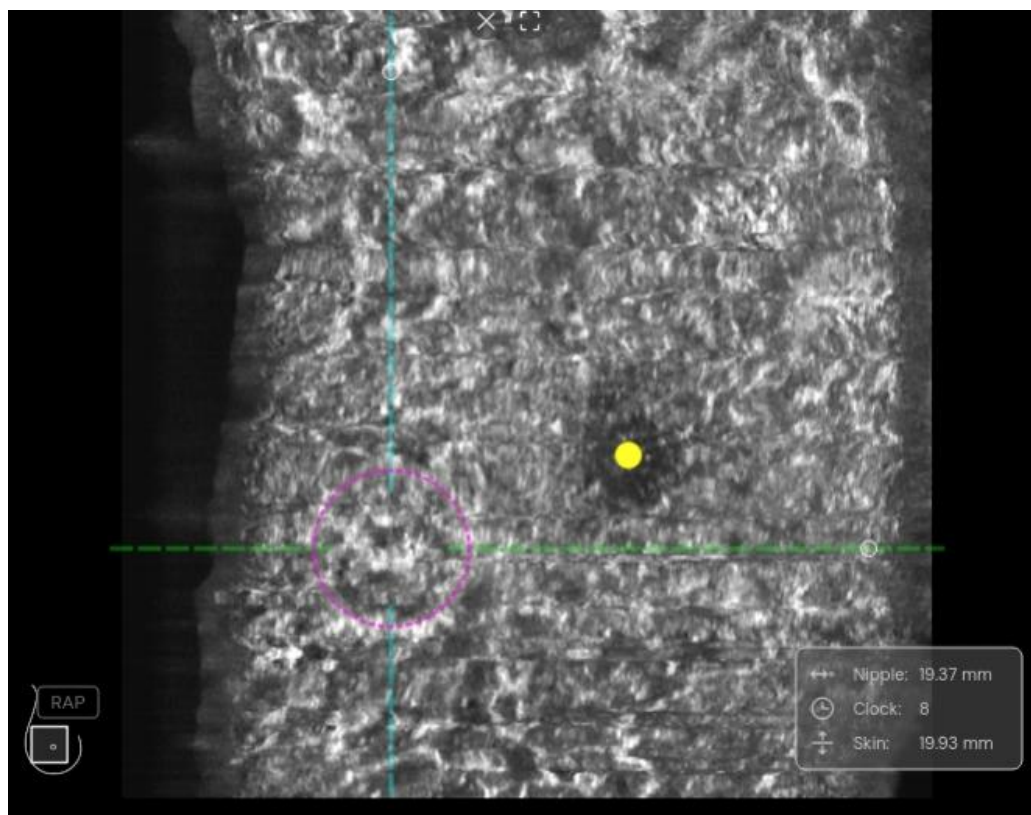
Step 1 Activate the **Distance to Nipple** tool from the imaging toolbar.



distance to nipple

Step 2 Click on the area of interest within the image.

A circle with reference lines appears at the selected location.



Distance to nipple 2

The circle marks the selected point.

Reference lines extend from the circle.

The marker automatically displays in the corresponding anatomical location across synchronized views.

You may also click and drag to refine placement before releasing.

A box in the right corner appears with nipple position, clock position, and distance to skin measurements.

Measurement Display

After selecting or navigating to a point using the Distance to Nipple tool, a measurement box appears in the lower right corner of each viewport.

The box displays:

- Top number: Distance to Skin
- Middle number: Clock Position
- Bottom number: Distance to Nipple

This provides standardized localization information for reporting and documentation.

ABUS CAD Layout

The CAD Layout button provides an interactive review mode for ABUS studies.

When activated, the layout changes to display a dedicated CAD navigation view alongside the primary ABUS viewport.

This allows focused review of CAD-identified areas while maintaining full anatomical context.

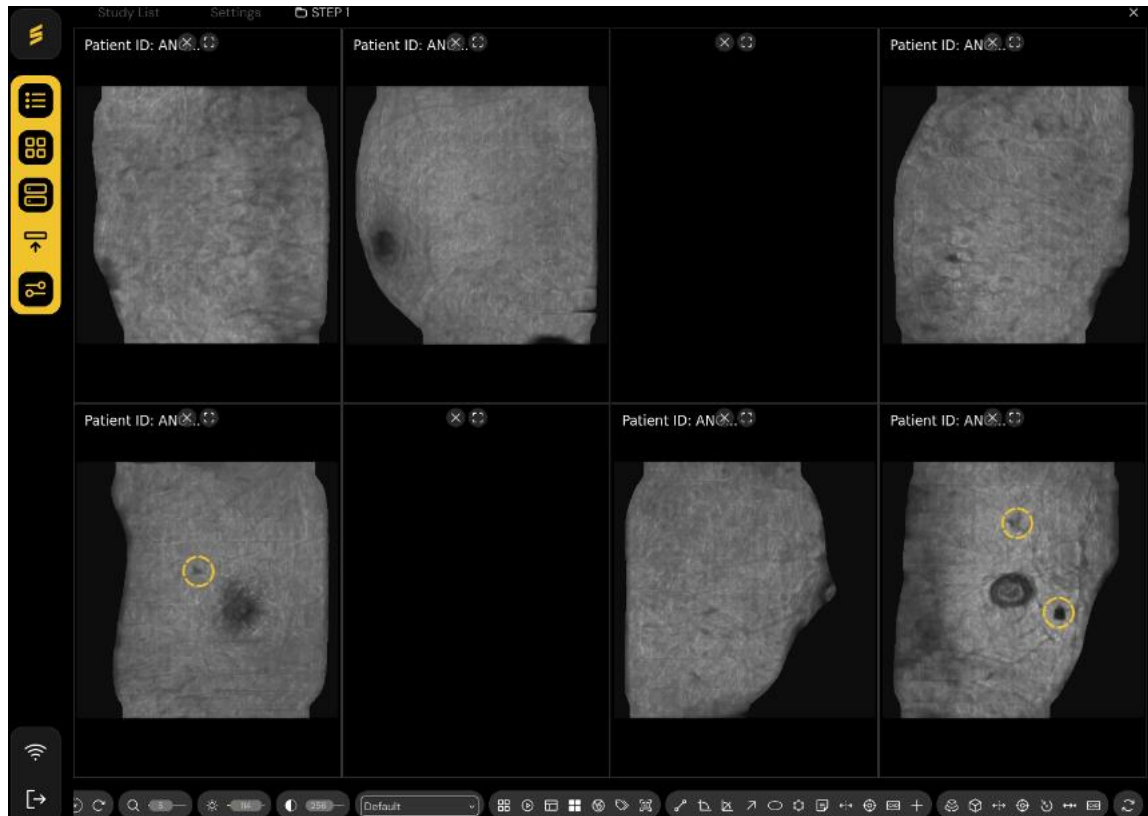
Activating CAD Layout

Click the **CAD Layout** button from the imaging toolbar.



ABUS CAD

The viewer opens an interactive CAD layout.



Interactive Cad Layout

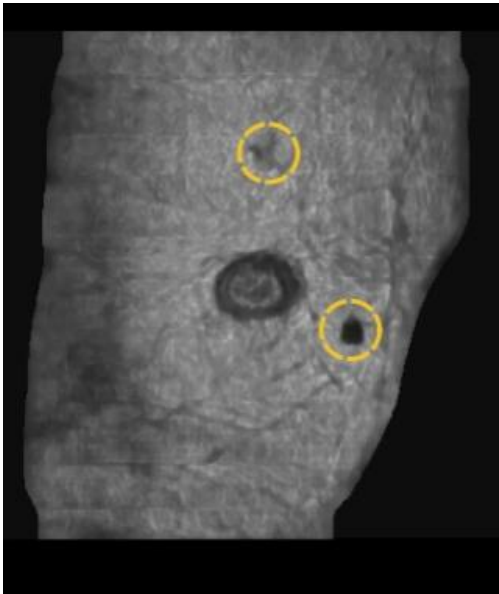
The layout includes:

- A CAD overview panel
- A corresponding ABUS image viewport

Reviewing a CAD Area

To evaluate a CAD-identified region:

Step 1 Double-click on a highlighted CAD area.

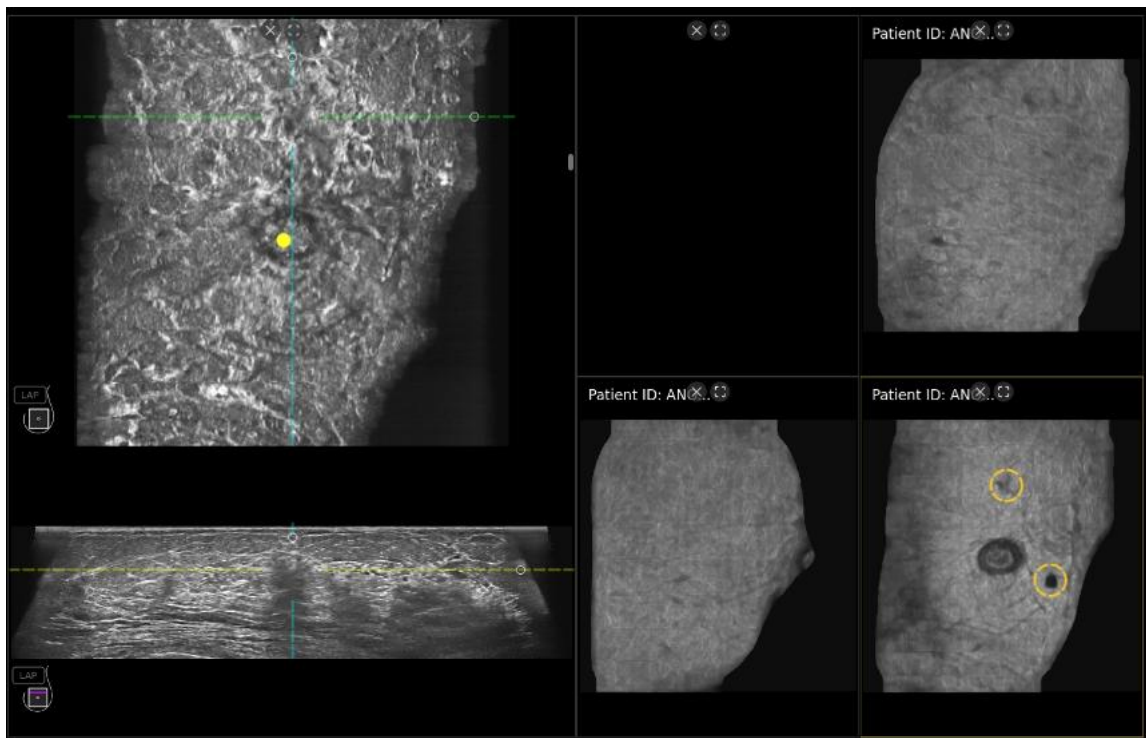


CAD area

The system will:

- Display the CAD area of interest
- Navigate directly to the corresponding slice
- Update the opposite viewport to show the exact anatomical location within the ABUS image stack

This allows immediate correlation between the CAD marker and the source image.



Cad area highlight

Interactive Anatomical Navigation

You may also click on any area of the anatomy within the overview panel.

The opposite viewport automatically updates to display that exact location in the ABUS image.

This allows manual navigation independent of CAD prompts.

Settings and Customization

Toolbar Settings

The Toolbar Settings section allows users to customize which tools appear in the viewer toolbar.

Tools can be enabled or disabled individually, or entire tool groups can be turned on or off.

Accessing Toolbar Settings

Step 1 Navigate to the left navigation panel.

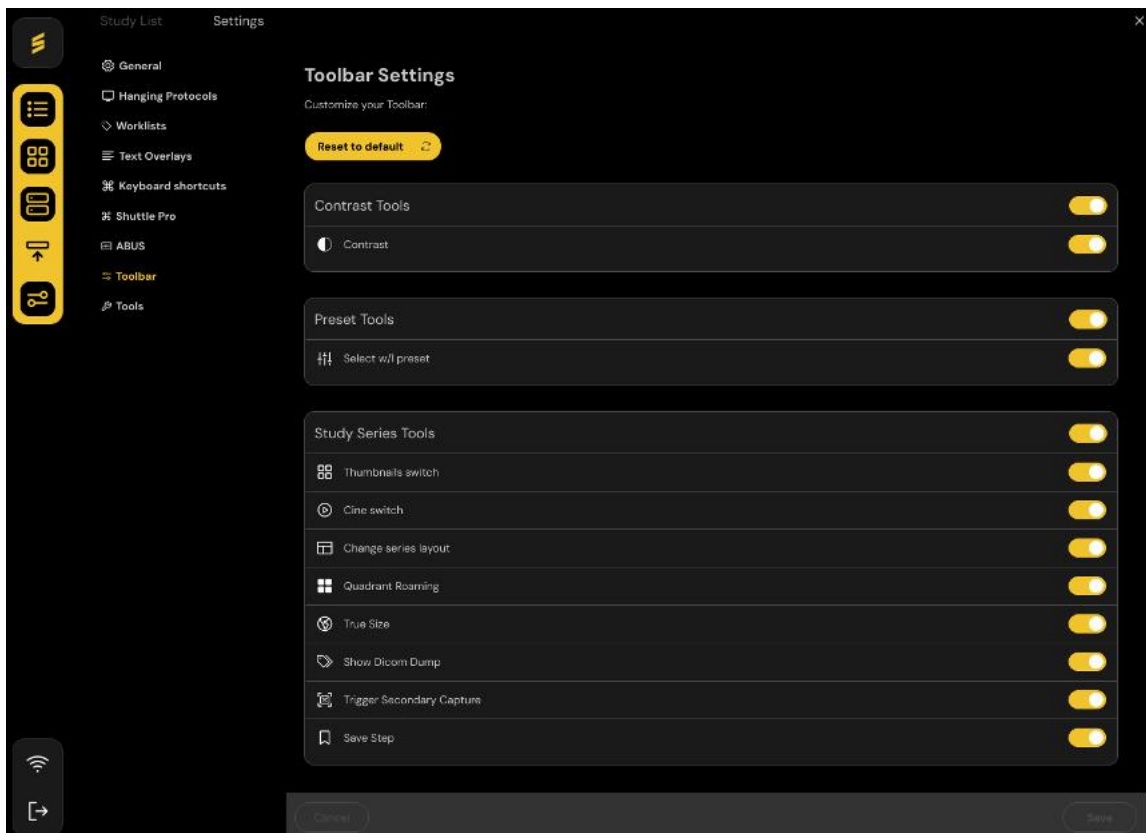
Step 2 Select **Settings** (bottom icon).



Settings icon

Step 3 Click **Toolbar**.

The Toolbar Settings window appears.



Toolbar Settings 3

Customizing the Toolbar

Tools are organized into groups. Each group contains related tools that can be enabled or disabled using toggle switches.

To enable or disable a tool:

Step 1 Locate the tool.

Step 2 Use the toggle switch to turn the tool on or off.

When a tool is disabled, it no longer appears in the viewer toolbar.

You can also toggle entire groups of tools on or off. The group toggle is located at the top of each tool group next to the group name.

Turning the group toggle off disables all tools within that group.

Resetting the Toolbar

Click **Reset to default** to restore the original toolbar configuration.

Toolbar Tool Groups

Steps Tools

- Previous Step
- Steps Menu
- Next Step

Viewport Widget Tools

- Invert image pixels
- Text overlays switch
- All text overlays switch
- Minimap switch

Flip Tools

- Flip image vertically
- Flip image horizontally

Rotation Tools

- Rotate 90° CCW
- Current Rotation
- Rotate 90° CW

Zoom Tools

- Zoom

Brightness Tools

- Brightness

Contrast Tools

- Contrast

Preset Tools

- Select w/ preset

Study Series Tools

- Thumbnails switch
- Cine switch
- Change series layout
- Quadrant Roaming
- True Size
- Show DICOM Dump

Measure Tools

- Line tool
- Angle tool
- Cobb Angle tool
- Arrow tool
- Ellipse tool
- ROI tool

- Annotation tool
- Reference lines
- 3D Cursor
- Show / Hide CAD Info
- Show / Hide Tomo Axes

3D Tools

- Create all 3D views
- Select Views Layout
- Reference Lines (Inner Series)
- 3D Cursor (Inner Series)
- Nipple Location
- Distance to Nipple
- Open / Close CAD Layout

Reset Tools

- Reset Image Settings

Tools Options

The Tools Options section allows users to configure behavior for certain viewer tools. These settings control how Cine playback operates during image review.

Accessing Tools Options

Step 1 Navigate to the left navigation panel.

Step 2 Select **Settings** (bottom icon).



Settings icon

Step 3 Click **Tools**.

The Tools Options window appears.

Available Tool Options

Cine: Ping-Pong Mode

When enabled, Cine playback moves forward through the image frames and then reverses direction when it reaches the end, creating continuous back-and-forth playback.

Cine: AutoPlay

When enabled, Cine playback automatically begins when a series that supports Cine is opened.

Cine: AutoPlay for HP

When enabled, Cine playback automatically starts when studies are opened using a hanging protocol that contains cine-capable series.

Enabling or Disabling Options

Each option can be turned on or off using the checkbox next to the setting.

- Checked: the option is enabled
- Unchecked: the option is disabled

ABUS Settings

The ABUS Settings panel allows users to configure default viewing behavior for Automated Breast Ultrasound studies.

Accessing ABUS Settings

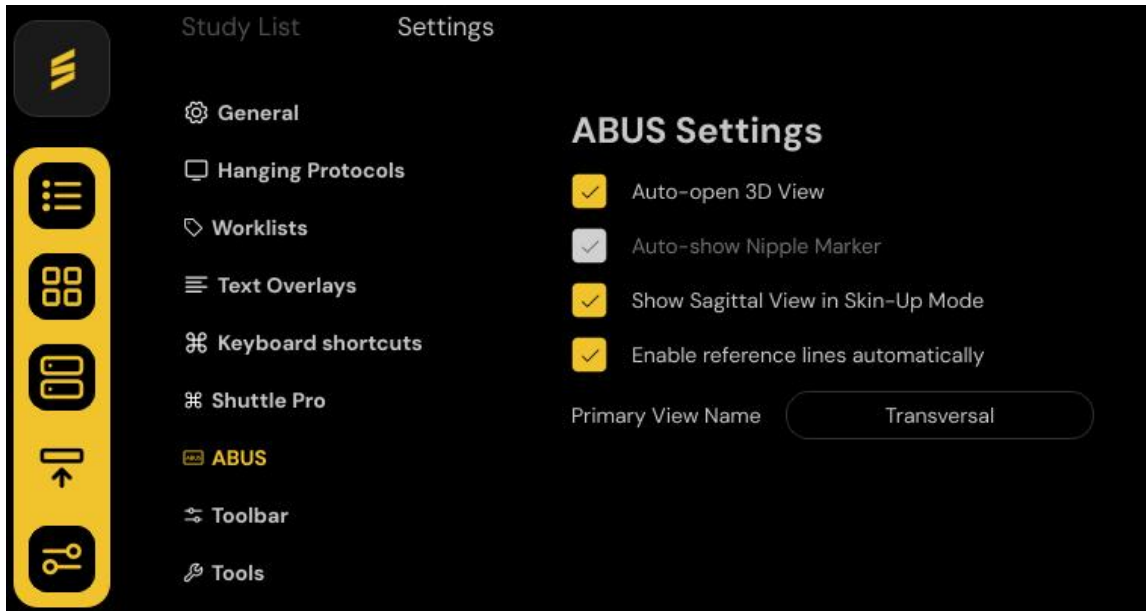
Step 1 Navigate to the left panel.

Step 2 Select the **Settings** icon at the bottom.



Settings icon

Step 3 Click **ABUS** from the settings menu.



ABUS Settings

Available Configuration Options

Auto Open 3D View Automatically opens the 3D reconstruction view when an ABUS study is launched.

Auto Show Nipple Marker Displays the nipple marker by default to assist with orientation and anatomical reference.

Show Sagittal View in Skin-Up Mode Ensures sagittal images are displayed in standardized skin-up orientation.

Enable Reference Lines Automatically Automatically activates reference lines between views to improve spatial correlation during review.

Select Primary View Name Choose the preferred naming convention for the primary plane:

- Transversal
- Axial

This selection determines how the main view is labeled throughout the study.

Worklists Settings

The Worklists Settings section allows users to configure how studies are grouped and displayed in the Worklist. Rules can be created to automatically organize studies based on selected criteria such as modality.

Worklists help users quickly locate and prioritize studies by applying filtering rules.

Accessing Worklists Settings

Step 1 Navigate to the left navigation panel.

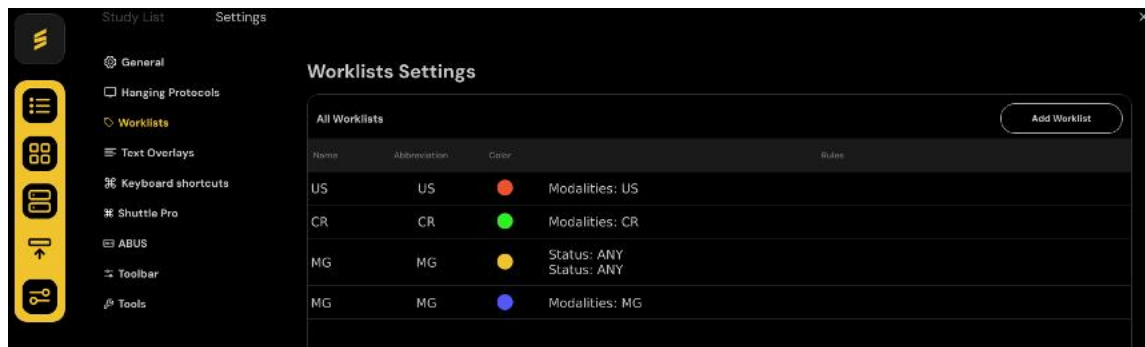
Step 2 Select **Settings** (bottom icon).



Settings icon

Step 3 Click **Worklists**.

The Worklists Settings window appears.



Worklists Settings

Creating a Worklist

Step 1 In the **Name** field, enter the name of the worklist.

Step 2 Select a color to visually identify the worklist.

Step 3 Under **Match the following rules**, choose the criteria used to filter studies.

Step 4 Select the desired rule condition from the dropdown menu.

Example: **Modalities -> ANY**

Step 5 Click the **Add (+)** button to add additional rules if needed.

Multiple rules can be combined to create more specific worklists.

Removing a Rule

Click the **X** button next to the rule.

The rule is removed from the configuration.

Notes

- Worklists automatically update as studies matching the defined rules become available
- Colors help visually distinguish worklists within the Worklist
- Multiple rules can be applied to refine the filtering criteria

Text Overlays Settings

The Text Overlays section allows users to configure what study and patient information appears directly on the image viewer. Text overlays display key metadata such as patient information, study details, and imaging attributes.

Users can create custom overlays that apply automatically based on selected rules.

Accessing Text Overlay Settings

Step 1 Navigate to the left navigation panel.

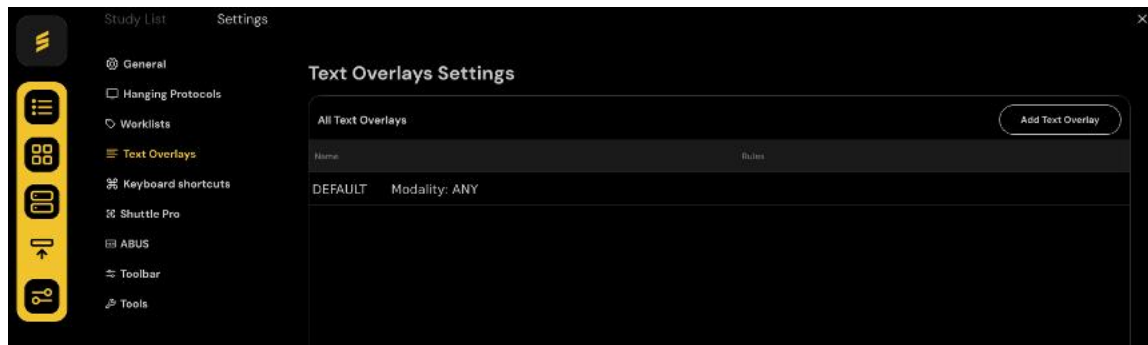
Step 2 Select **Settings** (bottom icon).



Settings icon

Step 3 Click **Text Overlays**.

The Text Overlays Settings window appears and shows a list of all configured overlays.



Text Overlay settings

Viewing Existing Overlays

The **All Text Overlays** panel displays all available overlays.

Each overlay includes:

- Name of the overlay
- Rules that determine when the overlay is applied

Example: **DEFAULT — Modality: ANY**

Selecting an overlay opens the configuration screen for editing.

Creating a Text Overlay

Step 1 Click **Add Text Overlay**.

Step 2 Enter a name in the **Name** field.

Step 3 Under **Match the following rules**, define when the overlay will apply.

Example: **Modality -> ANY**

Step 4 Click the **Add (+)** button to add additional rules if needed.

Multiple rules can be used to create more specific overlay conditions.

Configuring Overlay Fields

The overlay editor displays a preview grid representing the image viewer layout.

Text fields can be placed within the grid to determine where information appears on the image.

Available metadata fields include:

- Accession Number
- DOB
- Image Laterality
- Image Type
- Instance #
- Institution Name
- Modality
- Patient ID
- Patient Name
- Referring Physician
- Series Description
- Study Date
- Study Description

- View Position

To add a field to the overlay:

Step 1 Select the desired metadata field from the list.

Step 2 Place it within the preview grid area.

Fields can be removed or adjusted as needed.

Saving Changes

After configuring the overlay and rules, click **Save**.

The overlay automatically applies to studies that match the defined rules.

Canceling Changes

Click **Cancel** to exit the editor without saving changes.

Keyboard Shortcuts

The Keyboard Shortcuts section allows users to assign custom key combinations to frequently used tools and functions. This allows faster navigation and interaction within the viewer without using the mouse.

Accessing Keyboard Shortcuts

Step 1 Navigate to the left navigation panel.

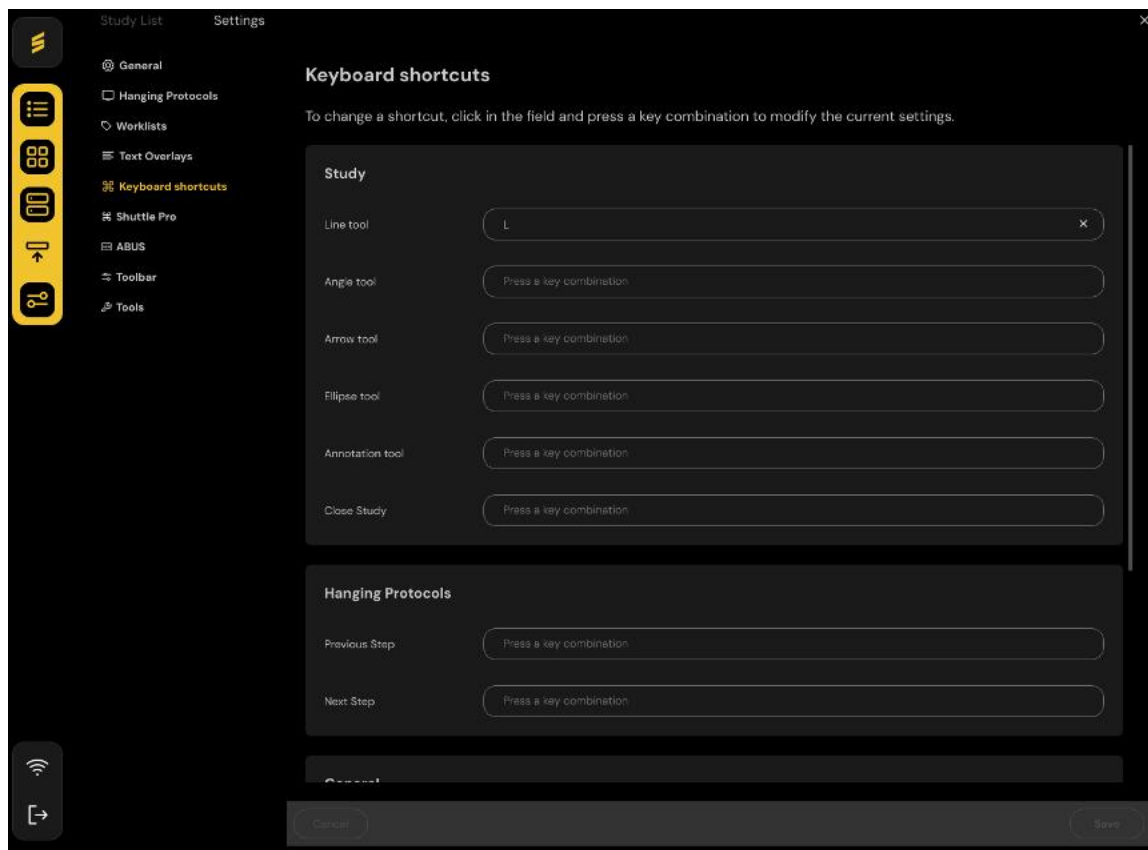
Step 2 Select **Settings** (bottom icon).



Settings icon

Step 3 Click **Keyboard Shortcuts**.

The Keyboard Shortcuts settings window appears.



Keyboard Shortcuts

Changing a Shortcut

Step 1 Locate the tool or function you want to modify.

Step 2 Click inside the shortcut field.

Step 3 Press the desired key or key combination on the keyboard.

The new shortcut is automatically assigned.

To remove a shortcut, click the **X** icon next to the assigned key.

Common Shortcut Categories

Study Tools

- Line tool
- Angle tool
- Arrow tool
- Ellipse tool
- Annotation tool
- Close Study

Hanging Protocol Navigation

- Previous Step
- Next Step

General Interface Controls

- Show / Hide Worklist
- Show / Hide thumbnails
- Show / Hide timeline
- Change menu position
- Show / Hide settings

Shuttle Pro Settings

The Shuttle Pro section allows users to assign actions to the buttons on the Shuttle Pro device. Each button can be configured to perform a specific function within the viewer.

Accessing Shuttle Pro Settings

Step 1 Navigate to the left navigation panel.

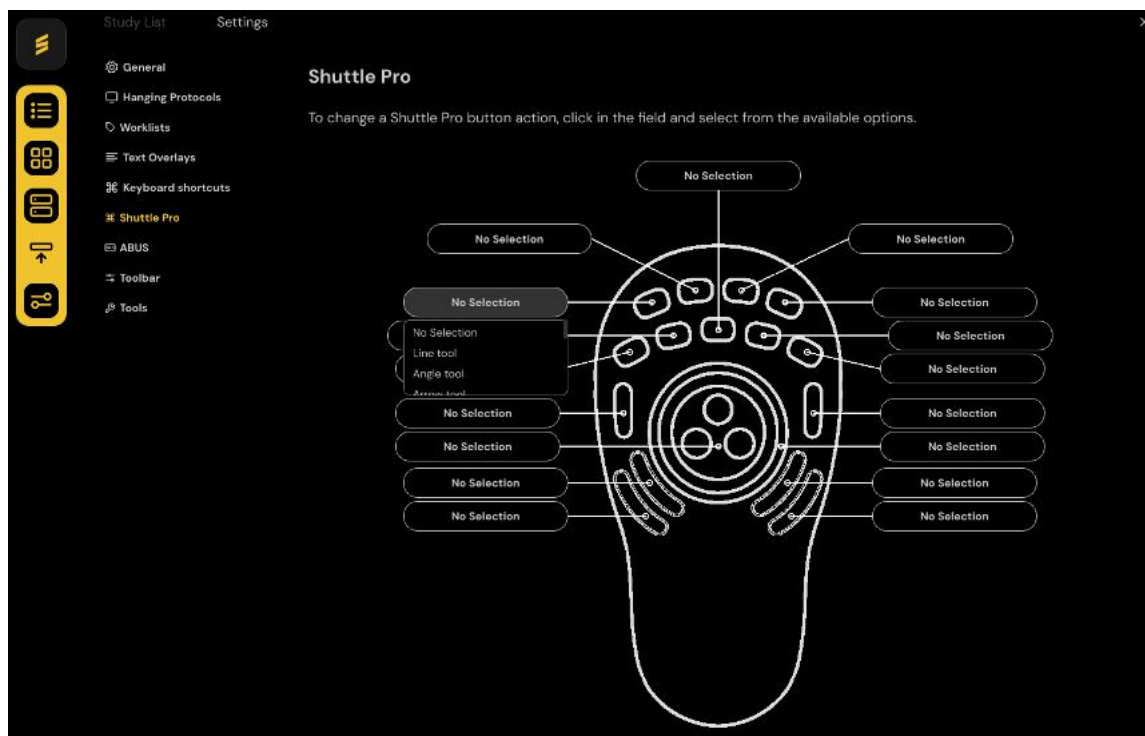
Step 2 Select **Settings** (bottom icon).



Settings icon

Step 3 Click **Shuttle Pro**.

The Shuttle Pro settings window appears.



Shuttle Pro Settings

Configuring Shuttle Pro Buttons

The Shuttle Pro configuration screen displays a diagram of the device with each programmable button.

Each button is connected to a selection field where an action can be assigned.

To assign an action:

Step 1 Click the field labeled **No Selection** next to the desired button.

Step 2 Select an action from the available options.

The selected function is assigned to that button.

Changing a Button Assignment

Click the action field associated with the button you want to modify.

Select a different function from the available options.

The new function replaces the previous assignment.

Notes

- Each Shuttle Pro button can be independently configured
 - Buttons without assigned actions display **No Selection**
 - Customizing Shuttle Pro buttons allows users to quickly access frequently used tools and functions while reviewing studies
-

Behavior in Case of Network Delays, Data Errors, or Incomplete Transfers

Access to the ImageGrid PACS® system requires network connectivity. In cloud deployments, internet connectivity is required. In on-premises deployments, access to the local institutional network is required.

If the ImageGrid PACS® system receives delayed, corrupted, incomplete, or improperly formatted DICOM data from an external system, the following behaviors may occur:

- Images may load partially or may fail to load.
- Missing instances or corrupted frames may result in incomplete studies.
- Metadata inconsistencies (e.g., mismatched timestamps or patient identifiers) may trigger warnings or prevent display.
- The viewer may display a message requesting that the retrieval be retried or that the PACS administrator be contacted.

If any of the above occur, users should: 1. Retry the query or retrieval. 2. Verify that the source PACS or modality is operational. 3. Contact the local PACS administrator or healthcare IT department if the issue persists.

These behaviors reflect connectivity or interoperability issues and do not modify data stored on the source system.

Cybersecurity Considerations and User Responsibilities

ImageGrid StreamVue® is a thin-client viewing application that does not store patient data locally. However, it serves as a primary user interface to the ImageGrid PACS system, which may be deployed on-premises or in cloud-hosted environments. Overall system cybersecurity therefore depends on appropriate configuration and operational practices within the customer IT environment.

Users and administrators are responsible for implementing and maintaining reasonable cybersecurity safeguards to protect patient information and system availability. Strong password practices should be enforced for all user accounts, including the use of complex passwords that are unique to the ImageGrid system and changed periodically. Where available, two-factor authentication (2FA) using an authenticator application such as Google Authenticator or Microsoft Authenticator is strongly recommended to reduce the risk of unauthorized access.

If the organization maintains centralized identity services, integration with directory services such as Microsoft Active Directory or LDAP should be enabled to support centralized account management, password policies, and user deactivation. Idle session timeouts should be configured to automatically log users out after periods of inactivity in order to safeguard protected health information (PHI) displayed on the screen.

Network security controls should be implemented in accordance with institutional policies. Firewalls should be configured to block all unnecessary network ports and services. ImageGrid StreamVue® requires outbound network access to the ImageGrid PACS system using TCP ports 443 (HTTPS/TLS) and 1986. No other inbound or outbound ports are required for normal operation. Workstations running ImageGrid StreamVue® should also be protected with up-to-date anti-virus and endpoint protection software.

These measures help reduce the risk of unauthorized access, data exposure, and system misuse, particularly in networked or cloud-hosted environments.

Bug Reporting and Cybersecurity Incident Reporting

Candelis maintains formal processes for tracking, investigating, and resolving software defects and cybersecurity-related issues. Users are encouraged to report suspected software bugs, unexpected behavior, or potential cybersecurity incidents as soon as they are identified.

All bugs and cybersecurity incidents should be reported by contacting Candelis Technical Support to open a support incident. Reports can be initiated by phone or through established customer support channels. When reporting an issue, users should provide a clear description of the observed behavior, the system environment, and any relevant error messages or circumstances surrounding the event.

Reported issues are reviewed and triaged by Candelis support personnel and escalated internally as appropriate. This process supports timely investigation, corrective action, and communication with affected customers in accordance with Candelis quality and post-market surveillance procedures.

Candelis Technical Support

Technical Support Helpline	+1 888-893-7062
Contact Online	https://www.candelis.com/contact-tech-support