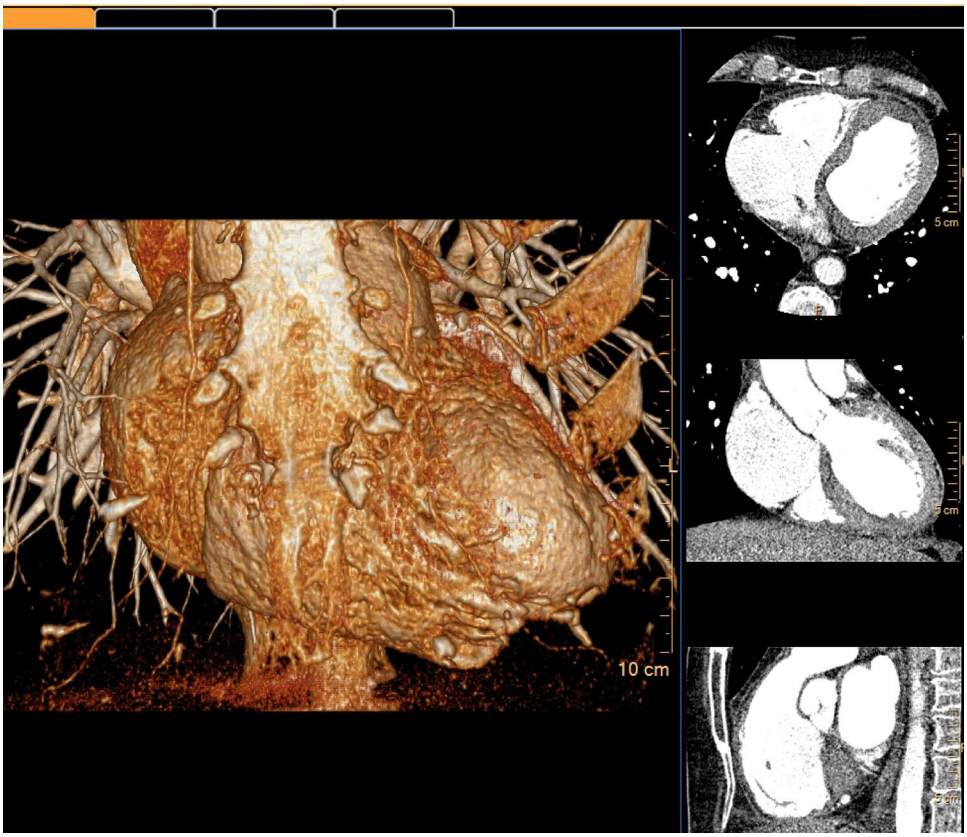
Cardiac Viewer Volume Mode

The Cardiac Volume Viewer is based on the CT Volume viewer. Mode functions specific to the Cardiac Viewer are described in the following sections. Volume mode functions that are not unique to the Cardiac Viewer are only summarized in the following pages.

NOTICE

For detailed Volume mode instructions, see section “CT Viewer Volume Mode” on page 38.



Load Multiple Studies in Application

To load multiple studies in the application:

1. Use the **Ctrl** key when selecting studies from the Directory list.
2. Select the application from the Applications menu.
3. Confirm the studies are from the same patient.

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NOTICE

When loading data into an application, ensure the orientation shown on the images is consistent with the images' appearance. This precaution is required for data that contains wrong orientation information because the data will be incorrectly presented within the application.

Cardiac Viewer Volume Tools

Use the Cardiac Volume Viewer Tools to review images as acquired by the scanner.

NOTICE

For detailed Volume mode instructions, see section “CT Viewer Volume Mode” on page 38.

WARNING

Cross sectional images might rotate around the centerline. Please note orientation annotations on images.

In cases where the orientation annotations are not displayed on the image - you must not assume any specific orientation. For correct orientation information - use only the images which display such information.

One or more of the following image types may appear in this application: curved MPR, straightened MPR, volume images, and thick slab images. Measurements you make on such processed images can sometimes be misleading. When saving such images, make sure they are labeled properly.

Objects in thick curved MPR images may appear distorted. Use caution when making measurements on MPR images.

When using the Inject Dye (3D) tool verify the correctness of volume segmentation. If necessary, correct the dye tracing using correction tools supplied by this application.

See **Report**, **Film**, **CT Common Processes** and **CT Common Tools** for information on using common options, tools, functions, and processes.

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Orientation

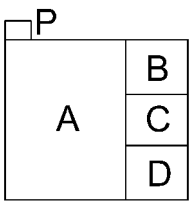
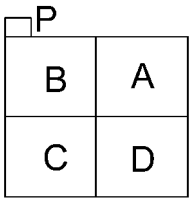
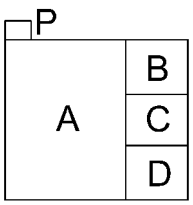
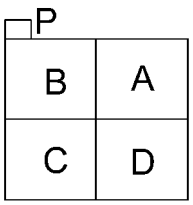
The Orientation tools in the Volume viewing mode are the same as in the Slab viewing mode. You can change the image orientation between the General Axes and the Cardiac axes modes. Click the down arrow to switch between the two orientation modes.

Flip

Use this button to flip all displayed images right to left.

Layouts

There are 2 factory layouts, the 1+3 layout, which consists of one main image and 3 reference images, and the 2x2 layout, which consists of 4 equal size viewports.

Viewing Mode	Layout	Viewport Contents
Cardiac Volume viewing Cardiac Axes 	1+3 Layout  2x2 layout  	Viewport contents: • A - volume image (click orientation button to select short, horizontal long, vertical long) • B - axial image • C - coronal image • D - sagittal image • P - phase tab
Cardiac Volume viewing General Axes 	1+3 Layout  2x2 layout  	Viewport contents: • A - volume image (click button to select axial, coronal, sagittal) • B - axial image • C - coronal image • D - sagittal image • P - phase tab

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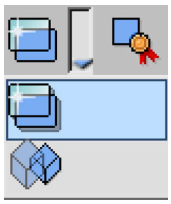
Compare

The Compare function allows you to perform a side-by-side review of selected images.

Relate

The Relate function helps orient yourself in the viewer. Clicking a location in one viewport marks the same location in other viewports, and other viewing modes.

Glass View and Show Transparent



In the Glass View mode a contoured foreground anatomy is displayed against a glass-like transparency background. The background transparency shows all volumes removed by either bone removal or clipping. Click Show Transparent to view, in a semi-transparent mode, all volumetric anatomy that you have removed using various sculpting, clipping, or other tissue functions. (Bone is shown with less transparency than other tissues.)

High Quality

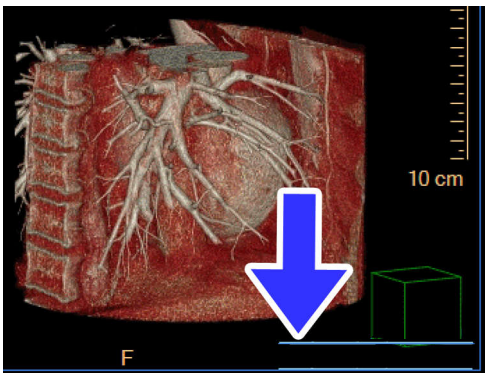
Click this button to adjust the rendering parameters to display a sharper image to enhance details.

Calculate Volume

Click this button to calculate the volume of the currently active tissue(s). Clicking the button changes the volume image so the protocol is at100% opacity. A blue highlight appears on the reference images. The calculated volume is that of the pixels colored blue on the reference images.

Modify Standard Cardiac Angles

Change the standard cardiac angles on the volume image to modify the orientation of the volume image. Select either from a preset option or enter exact angles manually. The angles are located in the lower right-hand corner of the volume image.



NOTICE

The standard cardiac angles may be modified on Volume images within the Cardiac Viewer, the Comprehensive Cardiac Analysis application, and the EP Planning application.

Use Preset Options

Use the preset options to adjust the common viewing angles. In the bottom right-hand corner of the image, click on the drop-down menu to select the viewing angle:

- RAO 30
- AP
- LAO 60
- LAO 60 Cranial 20
- Left Lateral
- LAO 45 Caudal 15
- RAO 45
- RAO 120 Cranial 10

NOTICE

In addition to setting the angles, use the Roll/Rotate tool to grab and rotate the image. The cardiac angles are updated in real time.

Manually Enter Angles

For a precise view, use the drop-downs and insert fields to enter the angles.

1. Select either **RAO** or **LAO** from the second drop-down menu.
2. Click in the filed next to the RAO/LAO selection and enter the appropriate angle.
3. Select either **Caudal** or **Cranial** from the drop-down menu.
4. Click in the filed next to the Caudal/Cranial selection and enter the appropriate angle.

Cardiac Viewer Volume Functions

To access additional Slab Viewer functions, click the down arrow in the tab window, or hover the mouse over the tab window. The list of available functions displays.

See **Report**, **Film**, **CT Common Processes** and **CT Common Tools** for information on using common options, tools, functions, and processes.

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Series

The Series list in Slab scene displays a list of the phase series loaded into the Viewer. It only contains original images.

See **Report**, **Film**, **CT Common Processes**, and **CT Common Tools** for information on using common options, tools, functions, and processes.

Bookmarks

While using a viewer or an application, you can record a bookmark at any time to “save the current status” of your work.

Curve

The Curve function allows you to draw a curve (or load an existing curve to produce a curved path to produce a Curved Planar Reformat (cMPR) image, or a curved path for the Endo viewer’s fly through function.

Tissue Segmentation

The Tissue Segmentation function allows you to better visualize various tissues of interest by segmenting them. Target Volume, Bounding Cube, and Clipping Planes tools can be used to define the area of interest.

See **Report**, **Film**, **CT Common Processes**, and **CT Common Tools** for information on using common options, tools, functions, and processes.

Clip

The Clip function is used to remove unwanted anatomy from the volume images.

Batch

The Batch function allows you to create a group of images for viewing, saving, reporting and filming purposes.

See **Report**, **Film**, **CT Common Processes**, and **CT Common Tools** for information on using common options, tools, functions, and processes.

Tissue Management

The Tissue Management function allows you to control the viewing of the active tissue, based on the tissue definitions for the current study that have been created in the current work session, or that were previously saved for this study, from this and other applications.

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Fusion

The Fusion Viewer employs standard CT Viewer functions, allowing you to view PET and SPECT images, and to fuse NM images with CT images. Instructions for using the Fusion function are provided in the CT Viewer section. See section “CT Viewer Fusion Mode” on page 61

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