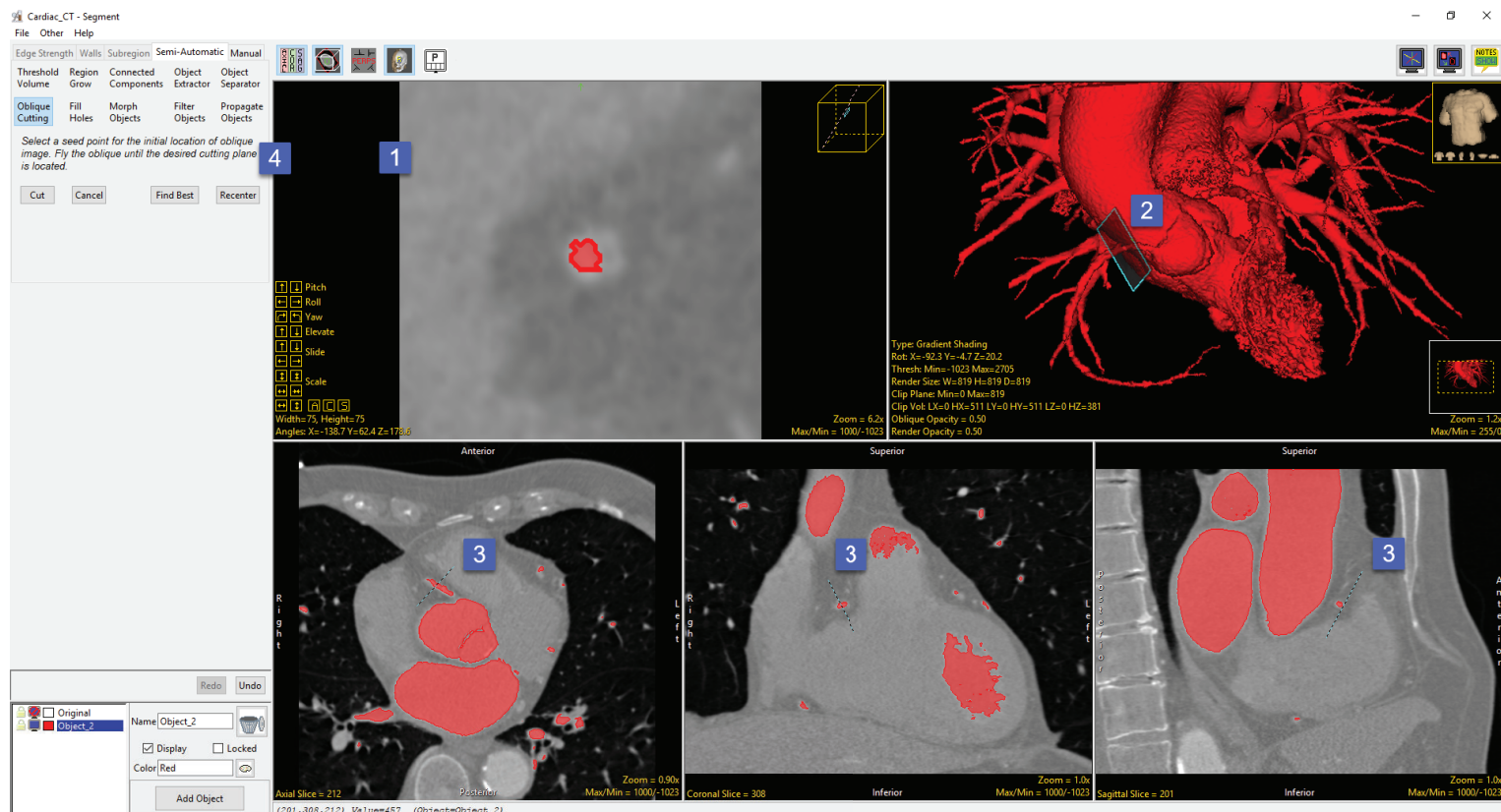




Oblique Cutting

The Oblique Cutting tool enables the specification and display of an oblique cut plane in the volume image. The selected object can be split at the cut plane, with the smaller region after the split assigned to a different object as specified in the object control window. This tool is particular useful for splitting and reassigning vessels to new objects.

When the Oblique Cutting tool is selected the user must click on the image in the approximate location where the cut is to be placed, this can be done by clicking on the rendering or any of the orthogonal views. Once selected the Obliques window will open [1] and the oblique cut plane will be displayed on the rendering [2] and as a blue dashed line on the orthogonal displays. [3] The following Oblique Cutting options [4] will be made available:





Oblique Cutting Options

The following Oblique Cutting Options are available:

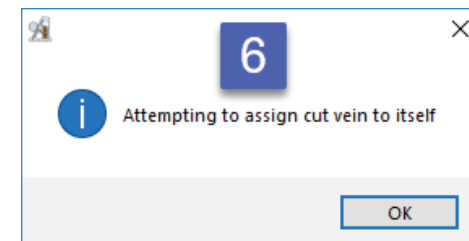
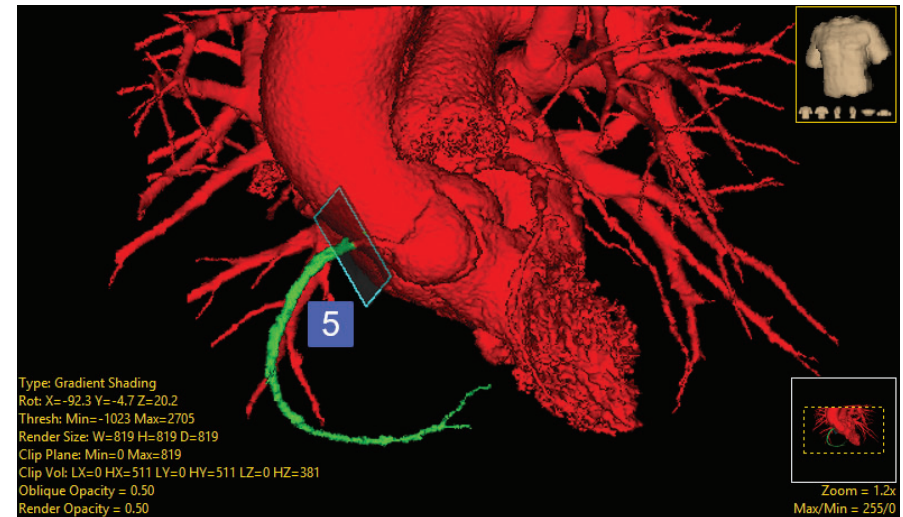
Cut: When the Cut option is clicked the selected object is split at the location of the oblique cut plane, the smaller object after the split is assigned to the object currently selected in the object control window [5]. If the same object is selected a message will be returned stating 'Attempting to assign cut vein to itself'. [6] Click OK to dismiss the warning and then select or add a new object in the object control window.

Cancel: Selecting cancels will cancel the Oblique Cut, the Oblique Cut options will no longer be available and then Oblique Cut Plane will be removed from the orthogonal slice displays.

Find Best: The Find Best option searches for the oblique image which contains the most circular representation of the selected object.

Recenter: Recenters the oblique plane. The center of the selected object on the oblique plane is computed. The oblique plane is then adjusted so that this computed center is displayed as the center in the oblique window.

Additional Options: The oblique cut plane can be adjusted by dragging an edge of the plane on the rendered image or by dragging the endpoints or center of the cut plane lines displayed on the orthogonal images.



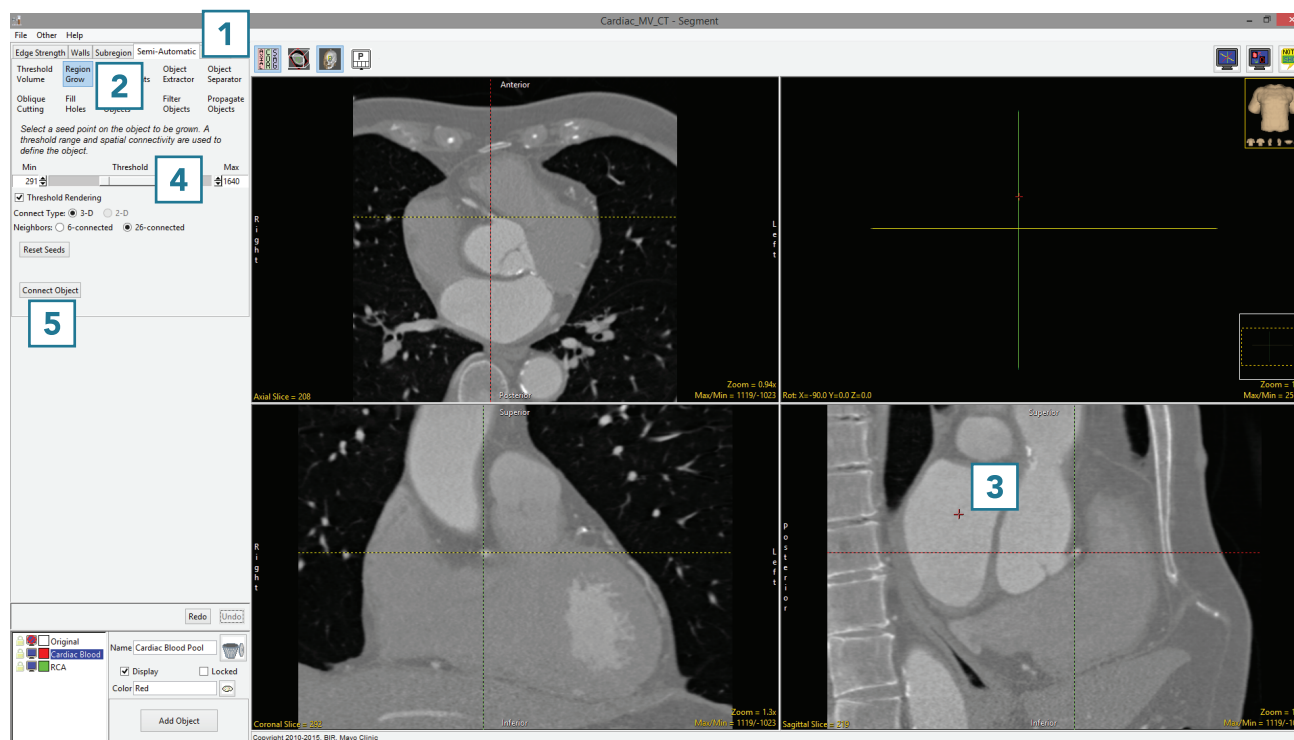


Oblique Cutting of Objects

Here we will use Oblique Cutting to specify and display an oblique cut plane in a dataset.

To follow along, download the data set Cardiac_CT from analyzedirect.com/data and load into Analyze using Input/Output.

- Select the data set and open Segment.
- Select Semi-Automatic [1] and choose Region Grow [2].
- Set a seed point in the middle of the left atrium [3].
- Define a threshold range to describe the blood pool [4] and click Connect Object [5].





Oblique Cutting of Objects (continued)

- Add a new object and name it RCA (right coronary artery) [6].
- Select Oblique Cutting [7].
- Rotate the rendering of the heart so the RCA is visible [8].
- Move your cursor to the base of the RCA and click to set a seed point on the RCA [9].





Oblique Cutting of Objects (continued)

- The Segment interface will update while the Oblique Cutting algorithm finds the best plane to cut the RCA from the main heart object.
- If the computed cut plane is not ideal you can adjust the plane interactively on the rendering [10] or on any of the slice displays [11].
- The navigation tools can also be used on the oblique image [12].
- Select Cut [13] to cut the data.





Oblique Cutting of Objects (continued)

- The RCA will be separated from the main object and assigned to the RCA object [14].
- To return to the regular display, click on the Toggle Obliques button to switch off the display of the oblique image.
- Select File > Save Object Map to save your work.

