

## Using iNtuition – CPR Tool (Centerlines) Quick Guide for Customers

### Notices

#### Precautions and Warnings Related to Software Use

This quick step guide is not a replacement for the full manual. Please review the Aquarius iNtuition<sup>™</sup> Client User Manual for all warning messages, notices and precautions prior to using the software.

#### About the Guides

Aquarius iNtution<sup>™</sup> Quick Step Guides are intended to be used as a step-by-step guide through typical workflows and should be used in conjunction with clinical application training. The guides are not a substitute for clinical applications training.

#### **Regulatory Notice**

Some images may display tools that are not cleared for clinical or diagnostic use the FDA-510k and may only be used for research purposes only. If you are interested in these application tools, please contact your account representative for more information.

Note: Customers who have an integration with a PACS system, please verify upgrade timelines with your PACS vendor.

### For additional support, or to Contact TeraRecon, Inc.

United States 1 (877) 996-0100 email: <u>support@terarecon.com</u> 24-hour Emergency toll-free number is (617) 424-9405

#### Europe

+49-(0)69-9510352-255 for all European customers 0800-837273266 for customers in Germany, Switzerland/Austria, and France email: <u>support@terarecon.com</u> 24-hour Emergency toll-free number is 1 (617) 424-9405

#### International Support

1 (650) 653-4290 (U.S.) email: <u>support@terarecon.com</u> 24-hour Emergency number is 1 (617) 424-9405

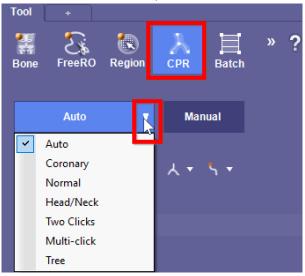


4000 East 3<sup>rd</sup> Ave, Suite 200 Foster City, CA 94404

### Quick Steps: CPR Tool

To use the Centerline Tool:

- 1. After the CPR tool is open choose the type of centerline.
  - a. To do this, left click on the down arrow for options & select from list.



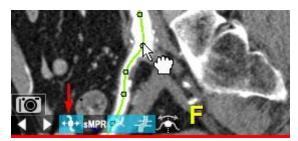
- 2. To generate a centerline:
  - a. Using Auto, Coronary or Normal: Hold Shift + left click to drop a centerline.
  - b. Using Two Clicks: Hold Shift + left click on the desired starting point and left click on desired endpoint.
  - c. Using **Multi-click**: Scroll through the data set to find the area to start "plotting" the line.
    - Hold shift + left mouse click in the anatomy on multiple areas/slices.
      - This does NOT need to be done on every slice.
      - When complete; left click on the "FINISH" button located on the right side of the screen, inside the CPR Tool panel.

Multi-click	Y	Manual	Finish

- d. Note: Centerlines can be created in any plane and off any of the view boxes: main, axial, sagittal or coronal.
- 3. To edit the centerline:
  - a. Hold down the Shift key while the mouse is in either CPR view port.
  - b. Entering Edit Mode:
    - Right mouse-clicking directly on the green centerline, choose Edit from the menu.
    - OR Select the edit icon located at the bottom of the CPR window.



- Note: when using either of the above methods, the user must exit edit mode when finished either by deselecting the edit icon or through the right mouse menu.
- 4. To adjust the centerline control points:
  - a. Position the cursor directly on a green dot, left mouse click & hold and drag the dot to the desired location.



- b. To add a control point: left mouse clicking on the centerline where control point is desired.
- c. To delete a control point: Right mouse clicking directly on the point to be deleted and choose **delete control point** from Right Click Menu .
- 5. The Redraw Tool: allows you to edit one section of a centerline without affecting the rest of the centerline a. Enable the redraw preference setting.
  - Preference Settings > Viewer > CPR > Interactive 2 > Select Enable editing centerline by recreating a bath on image > Click OK

Preference		×
General Application Error CommandLine Remote Dicom Ser Patient List Series List Viewer ToolBar Workflow Mask Measure / Annotatic Multi data / 4D Capture CPR Interactive Interactive Interactive SAT Batch LowAtt Launch program Mouse Operation	Interactive 2 Edit setting for centerline Particle editing centerline by re-creating a path on image You can edit centerline by repeating shift + click on image. Re-center while editing cross-section Display setting for centerline Display centerline during rotation	
	ок	Cancel

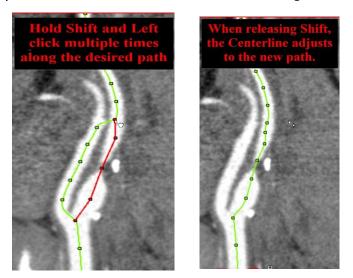
b. To edit by drawing a line:

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the section.

Hold down the Shift key and the Right Mouse button simultaneously and drag the mouse to redraw

- c. To edit using multi-clicks:
- Hold down the **Shift** key and then left mouse click multiple times along the desired path.
- d. \*\*For both options the user MUST start and end on the existing centerline\*\*



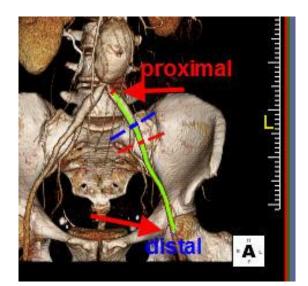
- 6. To change the CPR layout:
  - a. Use right mouse menu or select layout menu from top tool bar to get additional layout options.



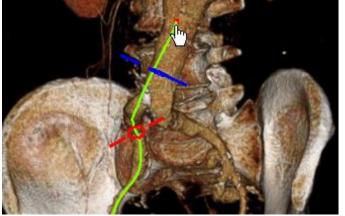
- 7. Right mouse-click directly on the centerline to obtain options specifically for the centerline:
  - a. Delete above, delete below, delete branch, change root, edit, etc.
    - b. This menu can be obtained by right mouse clicking on the desired centerline in either the CPR view ports or the main viewer. When selecting a centerline in the main viewer, the right mouse menu will have additional options.

Delete Below Delete Branch Delete Tree Delete All Trees Edit Smooth Embedded Geometry Embedded Geometry (Stent Template) Get Greater Curve Measure Curvature/Tortuosity Change Root Break Tree Connect to Closest Tree MAR Strengthened MAR	3	Delete Above (to the Red Dot)
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Break Tree Connect to Closest Tree MAR		Measure Curvature/Tortuosity
Connect to Closest Tree MAR		Change Root
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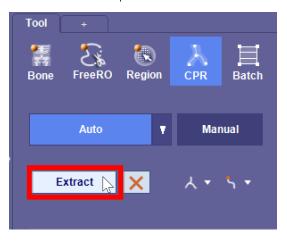
- 8. The red and purple points at either end of the centerline demonstrate which end the software believes is the proximal and distal ends of the line.
  - a. Red is proximal.
  - b. Blue is distal.

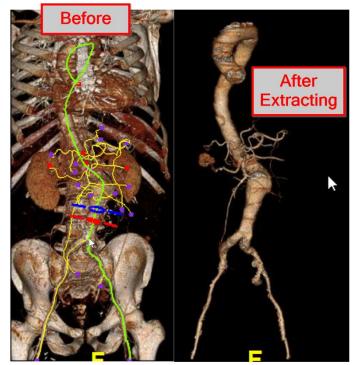


- c. To change the direction of the centerline, use the right mouse menu of the centerline and select **Change Root**.
- 9. To extend a centerline:
  - a. Move your cursor to either end of the centerline in the main viewer.
  - b. When the cursor changes to a hand, depress and hold the left mouse and drag the centerline endpoint to the desired position (Do <u>NOT</u> hold the Shift key when extending centerlines).



10. To create a 3D image, only displaying the anatomy where centerlines are present, left click on the Extract icon in the CPR tool panel.





\*\*The above images show the centerline before Extract and after Extract has been selected\*\*