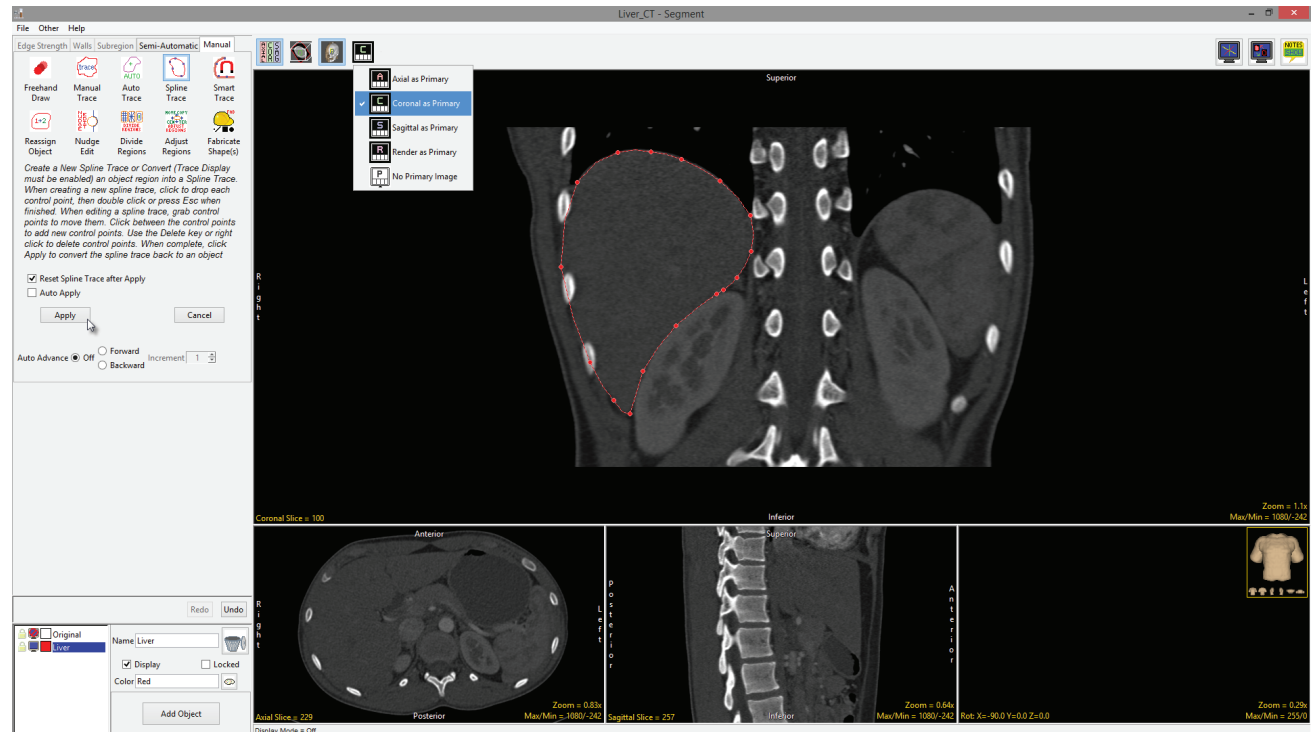# Spline Trace

The Spline Trace tool allows users to define curved regions of interest. Splines are flexible curve traces with movable control points that are useful for creating smooth edge traces.

The available options are as follows:

**Reset Spline Trace after Apply:** Resets (deletes) the spline trace after the region is defined. Spline traced regions are defined after the user double-clicks or presses the escape (Esc) key to close the trace ending the tracing process, the trace is applied when the Apply button is clicked, the 'A' key on your keyboard is pressed, the user right-clicks on the spline trace and selects Apply from the menu or the Auto Apply option is enabled.

**Auto Apply:** When selected the spline trace is automatically applied once the user double-clicks or presses the escape key to close the trace.
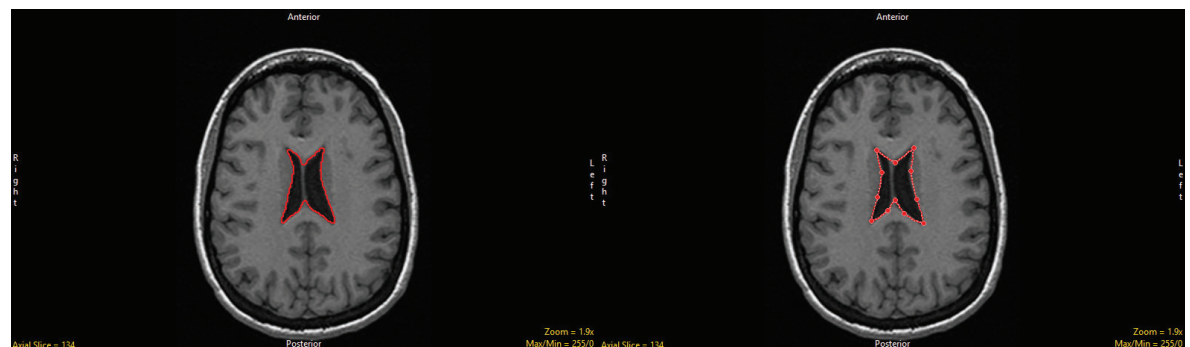
# Spline Trace Options

**Auto Advance:** The auto advance option automatically moves users to a new slice, as defined by the auto advance options, once the current edit is defined. Note the auto advance will occur after the user releases the left mouse button and the edit is applied to the current slice. The auto advance option is a productivity tool allowing users to move through the image data without having to move the cursor from the current orientation window that regions are being defined on. The following options are available.

- Off: Off is the default option for auto advance. When off is selected auto advance is disabled.

- Forward: Specifies that auto advance will move forward through the image data (slice number increases).

- Backwards: Specifies that auto advance will move backwards through the image data (slice number decreases).

- Increment: Specifies the number of slices the auto advance will move forward or backwards.

**Right click options:** Right clicking on the Spline trace provides users with the following options:

- Apply: Applies the trace.

- Cancel: Cancels the trace, deleting the trace and controls points.

- Auto Apply on Control Point Adjust: This option is only available when Auto Apply is enabled and when editing a Spline Trace or trace converted to a Spline Trace. When selected any edits made to the trace will be automatically applied when a control point is moved.

- Delete Control Point: Deletes the control point the cursor if currently over.

- Delete Spline: Deletes the trace and controls points.

Note: Clicking on an object border when the Spline Trace is selected will convert the object region into a spline with adaptable control points.

# Using Spline Trace to Define a Region of Interest

- Select a data set and open Segment.

- Select Manual [1] and choose Spline Trace. [2]

- Set the primary display to Coronal [3] and double-click Slice [4] to move to coronal slice 100.

- To begin drawing a spline, position the cursor on the image and left-click [5]. Reposition the cursor and left-click to continue drawing the spline around the object of interest [6.]

- Double-click to end and close the spline.

- Note that control points can be moved. Click a control point, drag to a new location and the Spline will update.

- Select Apply [7] to apply the spline trace.

- Use File > Save Object Map to save your work.