

## 5. Making Freehand Trace Measurements

The Trace tool provides all the functionality of the Line tool, while allowing the user to define a curved trace.

- Select MRI\_3D\_Head and open Measure. **1**
- Select the 1D Sample Type. **1**
- Choose Sample Trace. **2**
- Check any measurements you want to make from the Lines Traces tab. **3**
- Define a freehand trace on the data. **4**
- The measurements selected will be returned to the Stats review area **5** once tracing is completed.
- If the Auto Log Stats **6** checkbox is selected, the measurements will be added to the Lines log **7** which can be saved as a .CSV file.



Download the MRI\_3D\_Head data set to follow along <http://analyzedirect.com/data/>

The screenshot shows the 'Neuro\_MRI\_Axial - Measure' application window. The interface is divided into several sections:

- Top Left (1):** A 'Sample Type' dropdown menu set to '1-D'.
- Top Right (2):** A toolbar with various drawing tools, including a freehand trace tool.
- Middle Left (3):** A 'Lines Traces' tab with checkboxes for 'Orient', 'Name', 'End Point Locations', 'Maximum', 'Minimum', 'Mean', and 'Standard Deviation'. The 'Distance' checkbox is checked.
- Center (4):** A large 3D MRI scan of a brain slice with a green freehand trace drawn over a specific region.
- Bottom Left (5):** A 'Stats' section displaying measurement results: 'Orient = Axial', 'A = (48.85, 127)', 'B = (61.143, 127)', and 'Distance = 95.33 mm'.
- Bottom Right (6):** An 'Auto Log Stats' checkbox which is checked.
- Bottom (7):** A 'Lines' log table showing the recorded measurement data.

Index	Orient	X1	Y1	Z1	X2	Y2	Z2	Distance
1	Axial	48	85	127	61	143	127	95.33