

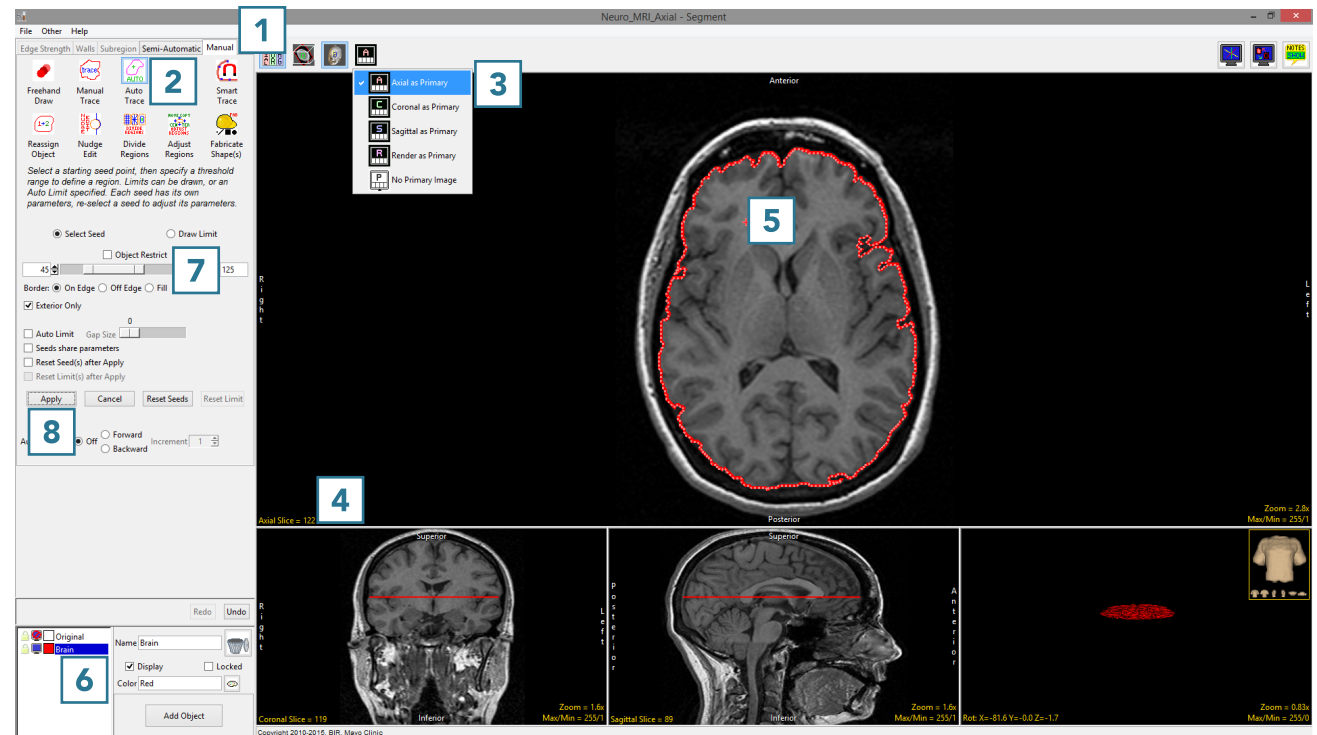


Auto Trace

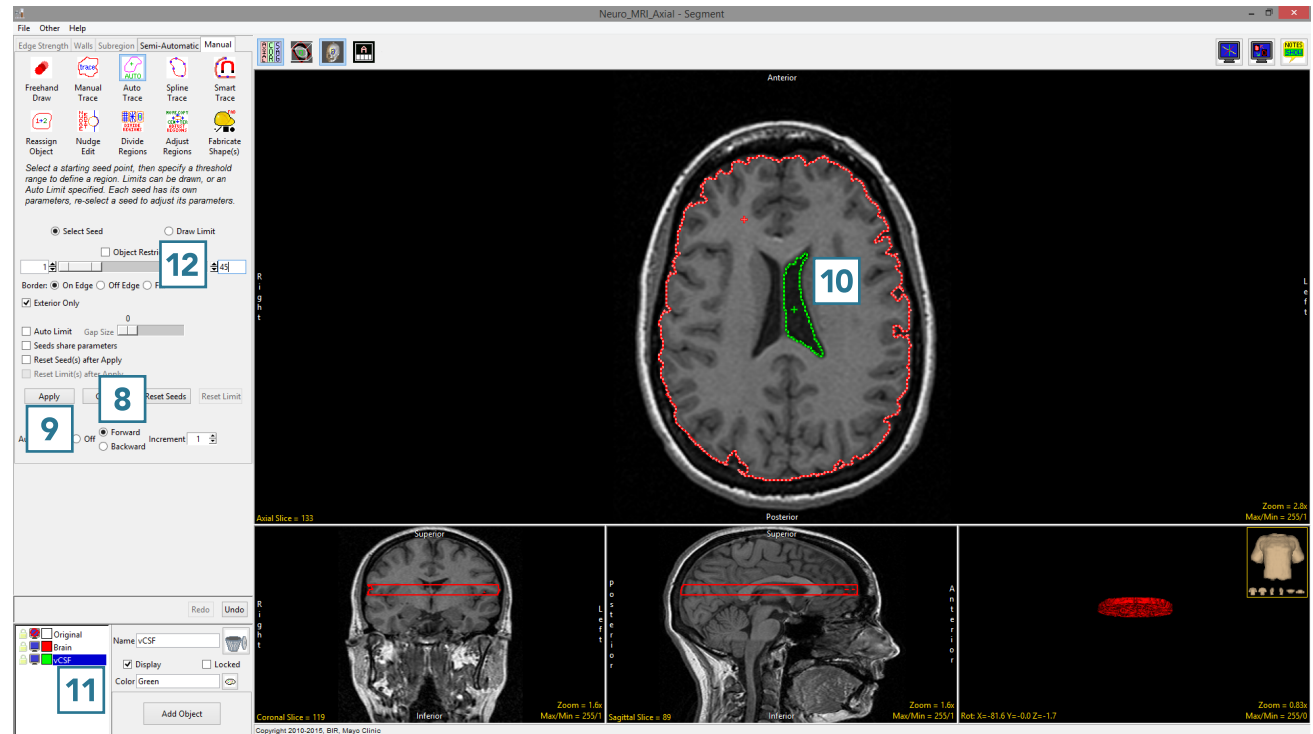
The Auto Trace tool enables the user to define and extract regions of interest from the image data using 2D seeded region growing. Region definition begins with a seed pixel, manually set by the user, on a structure of interest. Next, a threshold range is established by the user to define the boundary of the structure. The 2D region is defined by all the pixels in the threshold range that are connected to the seed pixel.

22. Using Auto Trace to Define a 2D Region of Interest

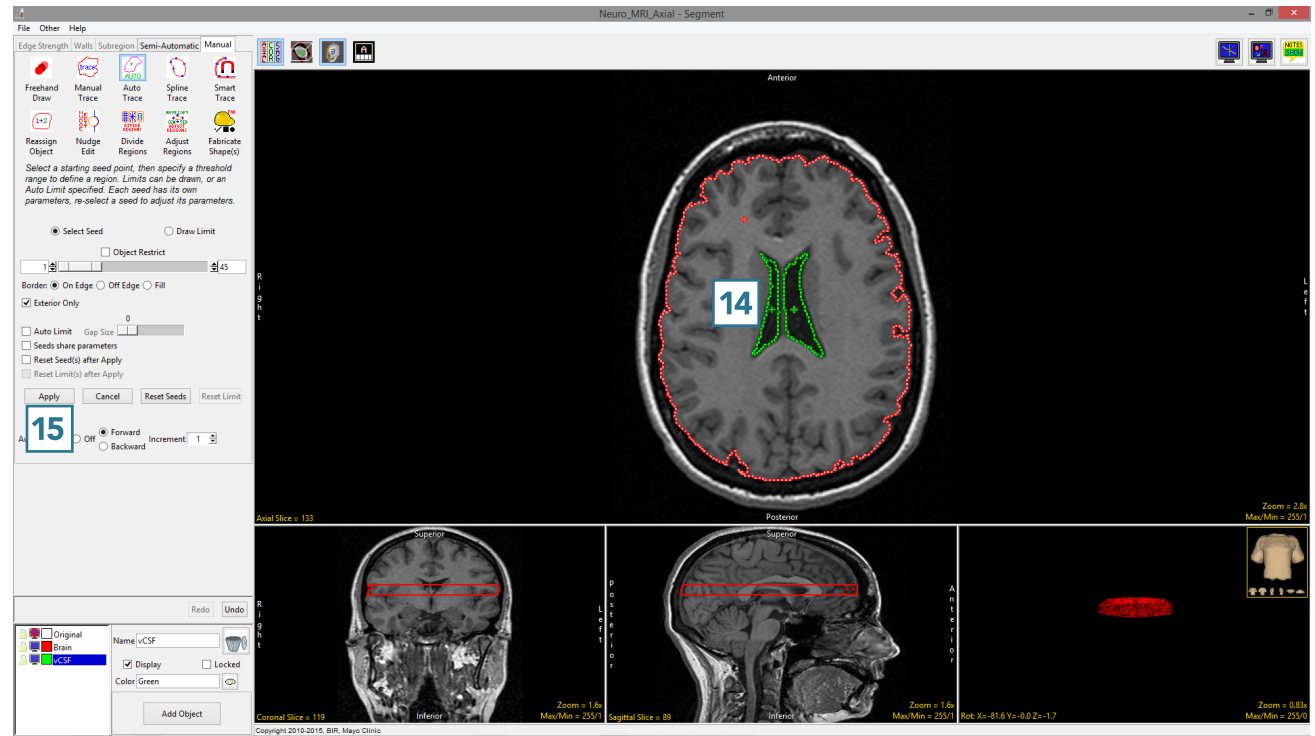
- Select a data set and open Segment.
- Select Manual **1** and choose Auto Trace. **2**
- Set the primary display to Axial **3** and double-click Slice **4** to move to axial slice 122.
- Set a seed pixel in the white matter. **5**
- Rename Object_2 to Brain **6** and then adjust the minimum and maximum threshold values **7** to define the brain.
- Click Apply **8** to trace the brain on this slice.



- Scroll forward to slice 123. The + key can also be used instead if your mouse has no scroll wheel.
- Since the seed point and threshold range are automatically carried forward, the brain will be redefined on this slice.
- Set the Auto Advance option to Forward **8** and click Apply. **9** The brain will be traced on this slice and the display will automatically move forward to slice 124.
- Continue to apply the auto trace to the brain up to slice 133. If the initial seed point is copied to a slice where it does not fall within the brain, reset the seed point and threshold range and click Apply to set a new auto trace on that slice.
- Click in the ventricular CSF to set a seed point. **10**
- Add a new Object and rename it vCSF. **11** Note that the second seed point will change color to match the color of the new object. Adjust the threshold range to define the vCSF object. **12**



- Set a second seed point to define the remaining vCSF **14** and click Apply. **15**



- Continue clicking Apply to trace the Brain and vCSF objects. If a seed point is copied to a location where it is no longer on the target object, **16** move the seed point back onto the object **17** and continue to apply the auto trace.
- Stop defining objects at slice 137.
- Select File > Save Object Map to save your work.

