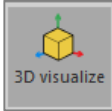
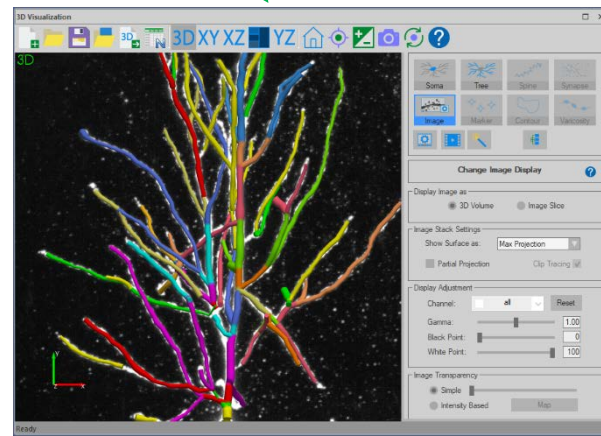
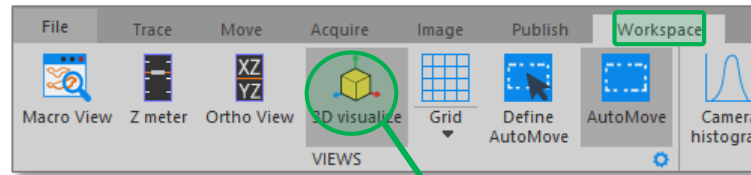


To open the 3D window, click the button  in the Trace or the Workspace ribbon.





Use your mouse to navigate.

To use the pivot point, click the icon in the toolbar then click in the image to place the new pivot point. You can now rotate (by dragging the mouse) from your chosen point.

Define a new pivot point to rotate around the point of your choice.

- Drag to rotate.
- Scroll the mouse wheel to zoom.
- Hold down Shift and drag to pan.

3D Visualization

3D XYXZ YZ

Soma Tree Spine

Image Marker Contour

Change Image Display

Display Image as

3D Volume Image Slice

Image Stack Settings

Show Surface as: Max Projection

Partial Projection Clip Tracing

Display Adjustment

Channel: all Reset

Gamma: 1.00

Black Point: 0

White Point: 100

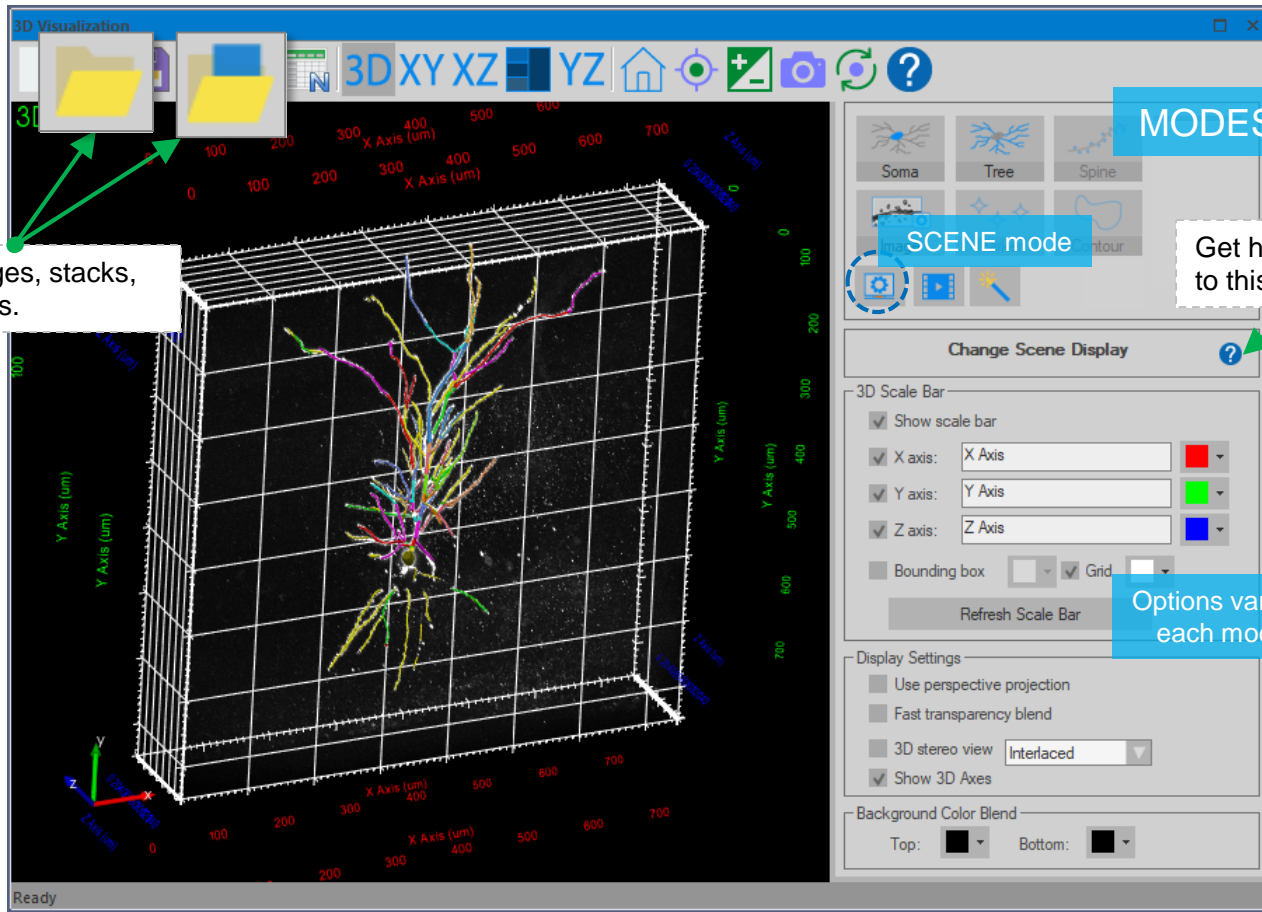
Image Transparency

Simple Intensity Based Map

Ready



Use the SCENE mode to modify display settings such as the 3D scale bar or the background color.



Open images, stacks, or data files.

MODES

SCENE mode

Get help specific to this mode.

Options vary for each mode.



Once your file is loaded, the **IMAGE** panel is displayed.

- For typical stacks, you have the option to view the stack as cross-sections (IMAGE SLICE) instead of 3D VOLUME.
- For images with very large Z spacing and small XY spacing, select SECTIONS.

Show surface as

Min projection

The image foreground is brighter than the structures (e.g., brightfield).

Max projection

The image background is darker than the structures (e.g., fluorescent & confocal).

Alpha composite

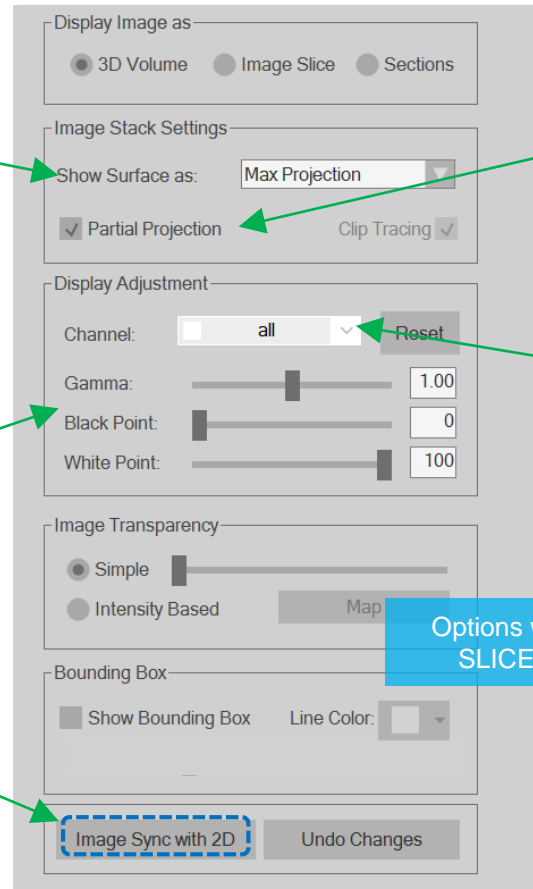
Adds 3D depth and more detail.

Gamma/black point/white point

Enhance 3D display only.
Adjustments are not saved.

Image sync with 2D

Apply changes made via Image Adjustments in the 2D window (typically for multichannel images).



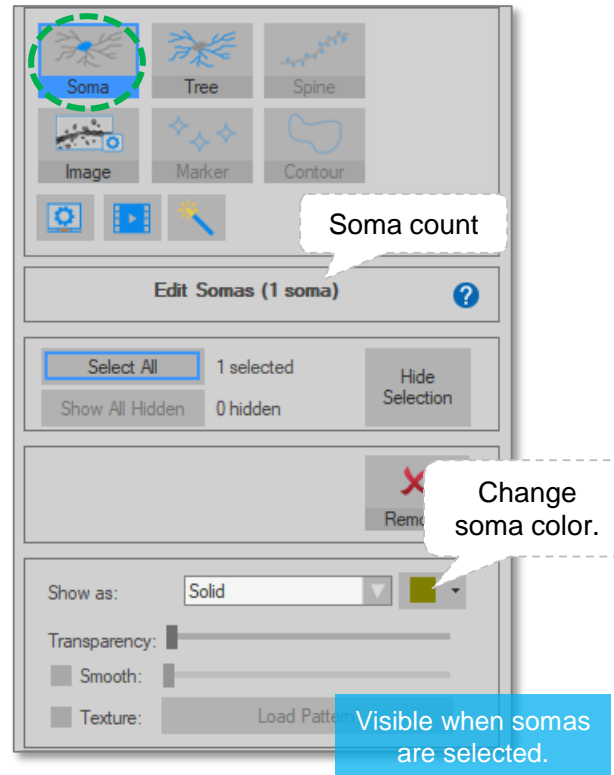
Partial projection

Display a subset of the data in X,Y or Z.

Channel

Apply the adjustments to a single channel in a multichannel image.
Adjustments are not saved.

Options will vary for IMAGE SLICE and SECTIONS





Use the **Edit Trees** panel to connect or detach branches, or to specify tree types for later analysis.

A screenshot of the "Edit Trees" software panel. The panel has a top section with icons for "Soma", "Tree", "Spine", "Image", "Marker", and "Contour". The "Tree" icon is highlighted with a green dashed circle. Below this is a section titled "Edit Trees (32 trees)" with a help icon. It contains buttons for "Select All" (32 selected), "Show All Hidden" (0 hidden), and "Hide Selection". The next section has icons for "Points", "Detach", "Connect", and "Remove". Below that are dropdown menus for "Type" (set to "Dendrite") and "Show as" (set to "Solid"). A blue callout box points to the "Type" dropdown with the text "Select a type for later analysis." Another blue callout box points to a small blue square next to the "Type" dropdown with the text "Change tree color." A third blue callout box points to the "Type" dropdown area with the text "Visible when trees are selected." The bottom section includes a "Texture" field, a "Load Pattern" button, a checked "Color by branch order" checkbox, and a "Thickness" section with a slider and a "Cancel" button.

You can also select individual trees by clicking in the image.

Change tree color.

Select a type for later analysis.

Visible when trees are selected.

The screenshot shows the 'Edit Spines (4 spines)' panel in NeuroLucida. At the top, there are icons for 'Soma', 'Tree', 'Spine', 'Image', 'Marker', and 'Contour'. The 'Spine' icon is highlighted with a green dashed circle. Below these icons are buttons for 'Select All' (4 selected), 'Show All Hidden' (0 hidden), 'Classify manually', 'Points', and 'Re-assign'. A dropdown menu for 'Type' is set to 'None' with a red color swatch. Below that are 'Show as' (Solid), 'Transparency' (slider), 'Smooth' (checkbox), and 'Texture' (Load Pattern) options. A blue callout box points to the 'Smooth' checkbox.

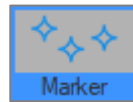
You can also select individual spines by clicking them.

Confirm spine head or re-assign to different branch.

Classify manually.

Change spine color.

Visible when spines are selected.



You can edit markers in the 3D window, but markers must be placed in the 2D window.



You may also draw a marquee to select one marker or multiple markers.

A screenshot of the 'Edit Markers' panel in NeuroLucida. The panel has a title bar 'Edit Markers (3 Markers)'. Below the title bar are buttons for 'Select All' (1 selected), 'Show All Hidden' (0 hidden), and 'Hide Selection'. There is a dropdown menu for 'Marker Type' set to 'Marker 5' and a 'Transparency' slider. A 'Remove' button is also present. At the bottom, there is a 'Marker Sizing' section with radio buttons for 'In Pixels = 16' (selected), 'In Micrometers = 20', and 'Intrinsic'. An information icon (i) is next to the 'In Micrometers' option with the text 'Pixel and micrometer sizing apply to all markers.' The 'Marker' icon in the top toolbar is circled in green.

Markers count

Visible when markers are selected.

Resize



You can edit contours in the 3D window, but contours must be drawn in the 2D window.

You may also click a contour or draw a marquee around contours to select contours.

A screenshot of the "Edit Contours (2 contours)" panel in NeuroLucida. The panel has a title bar with a question mark icon. Below the title bar is a "Select By Type:" dropdown menu. There are three buttons: "Select All" (with "1 selected" next to it), "Show All Hidden" (with "0 hidden" next to it), and "Hide Selection". Below these are two buttons: "Points" (with a blue line and dots icon) and "Remove" (with a red X icon). At the bottom, there is a "Show as:" dropdown menu set to "Line" and a color selection box with a cyan square. Below that is a "Transparency:" slider.

Visible when contours are selected.



Easily create video clips (mp4 format).

The screenshot shows the 'Create Movies' panel in the NeuroLucida software. At the top, there are icons for 'Soma', 'Tree', 'Spine', 'Image', 'Marker', and 'Contour'. Below these is a 'Create Movies' section with a question mark icon. Under 'Auto-Rotate Options', there is a checkbox for 'Auto-Rotate' and a circular dial for setting the rotation angle. The dial has markers for 0°, 90°, 180°, and 270°. A white callout bubble points to the dial with the text 'Slide to define an angle for rotation.' Below the dial is a 'Speed' slider. A second white callout bubble points to the slider with the text 'Use the slider to set the auto-rotation speed.' At the bottom of the panel is a large 'Start Recording' button.



Export to a third-party 3D rendering program (.stl, .obj, .wrl) .

