3D Slicer

Data Loading and Visualization Tutorial

Tutorial Dataset

Please download the following datasets:

https://github.com/PerkLab/PerkLabBootcamp/raw/master/Data/VisualizationTutorial_HeadScene.mrb

Main user interface

Load Sample MRI Data

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The axial, sagittal, and coronal views automatically show the loaded volume

Adjust window/level

Switch to window/level mouse mode

Adjust window/level

Adjust window/level (brightness/contrast) using the left mouse button on a slice view

Switch back to view/transform mode

Maximize view

Slice view options

Position your mouse cursor over the pin icon to display the slice view toolbar

Slice view options

Once the slice viewer toolbar is shown, click on the “>>”.

Show ruler

Rotate to volume plane

Often, MRI volumes are not axis-aligned. To show the true axial view, click the ‘Rotate to volume plane’ button.

Note: This image will not be affected, but many DICOM MR images need to be aligned.

Switch to conventional layout

Link views

After linking views, if any setting is changed in a 2D view, all others follow.

Show slices in 3D

Now the slice views are linked. If you click the **‘Toggle slice visibility in 3D view’** button, then all slices will show up.

Show slices in 3D

All three anatomical slices are shown in the 3D view.

Navigating the 3D view

Use the left mouse button to **rotate**, and the right mouse button to **zoom** in and out.

Close the scene

Part 2: 3D visualization of surface models of the brain

Load tutorial scene

Drag and drop the file VisualizationTutorial_HeadScene.mrb into Slicer, then click **OK**.

Center view

Click on the small box icon to center the view, in 3D or in 2D

Explore loaded data

You can use the module list, or the favorite module toolbar to switch to the **Data module**

Explore loaded data

The Data module shows all the data in the scene.

The data items (“nodes”) can be shown/hidden, renamed, deleted, cloned, etc.

Hide the ‘skin’ model by clicking the eye icon.