



# Slicer4Minute Tutorial

Sonia Pujol, Ph.D.

Surgical Planning Laboratory  
Harvard University

# Slicer4Minute Tutorial

The image shows a Windows File Explorer window on the left and the 3D Slicer 4.3.1 application window on the right. The File Explorer window displays a folder named 'slicer4minute' selected, with a red arrow pointing from it to the 3D Slicer window. The 3D Slicer window shows a 'Welcome' screen with a red arrow pointing to a 3D view of a brain slice with axes labeled S, R, P, L, I.

**Drag and drop the “slicer4minute” MRML scene to the Slicer window**

Name	Date modified	Type	Size
.DS_Store	6/23/2014 4:12 PM	DS_STORE File	7 KB
grayscale.nrrd	6/23/2014 4:12 PM	NRRD File	20,353 KB
hemispheric_white_matter.vtk	6/23/2014 4:12 PM	VTK File	6,270 KB
left_eyeball.vtk	6/23/2014 4:12 PM	VTK File	56 KB
Master Scene View	6/23/2014 4:12 PM	PNG image	212 KB
optic_chiasm.vtk	6/23/2014 4:12 PM	VTK File	14 KB
optic_nerve_L.vtk	6/23/2014 4:12 PM	VTK File	28 KB
optic_nerve_R.vtk	6/23/2014 4:12 PM	VTK File	29 KB
optic_tract_L.vtk	6/23/2014 4:12 PM	VTK File	18 KB
optic_tract_R.vtk	6/23/2014 4:12 PM	VTK File	16 KB
right_eyeball.vtk	6/23/2014 4:12 PM	VTK File	52 KB
Skin.vtk	6/23/2014 4:12 PM	VTK File	3,393 KB
skull_bone.vtk	6/23/2014 4:12 PM	VTK File	4,712 KB
slicer4minute	6/23/2014 4:12 PM	Slicer supported file	59 KB

3D Slicer 4.3.1-2014-06-22

File Edit View Help

Modules: Welcome to Slicer

3DSlicer

## Welcome

Load DICOM Data Load Data

Customize Slicer Download Sample Data

Feedback

Share your stories with us and let us know about how 3D Slicer has enabled your research.

We are always interested in improving 3D Slicer, and every submission will be carefully read.

See more at <http://goo.gl/6BvcHm>.

About

The Main Window

Loading and Saving

Display

Data Probe: C:/Users/aminp/Desktop/S...te/slicer4minute.mrml

L  
F  
B

S  
R  
P  
L  
I

S: 0.000mm R: 0.000mm A: 0.000mm

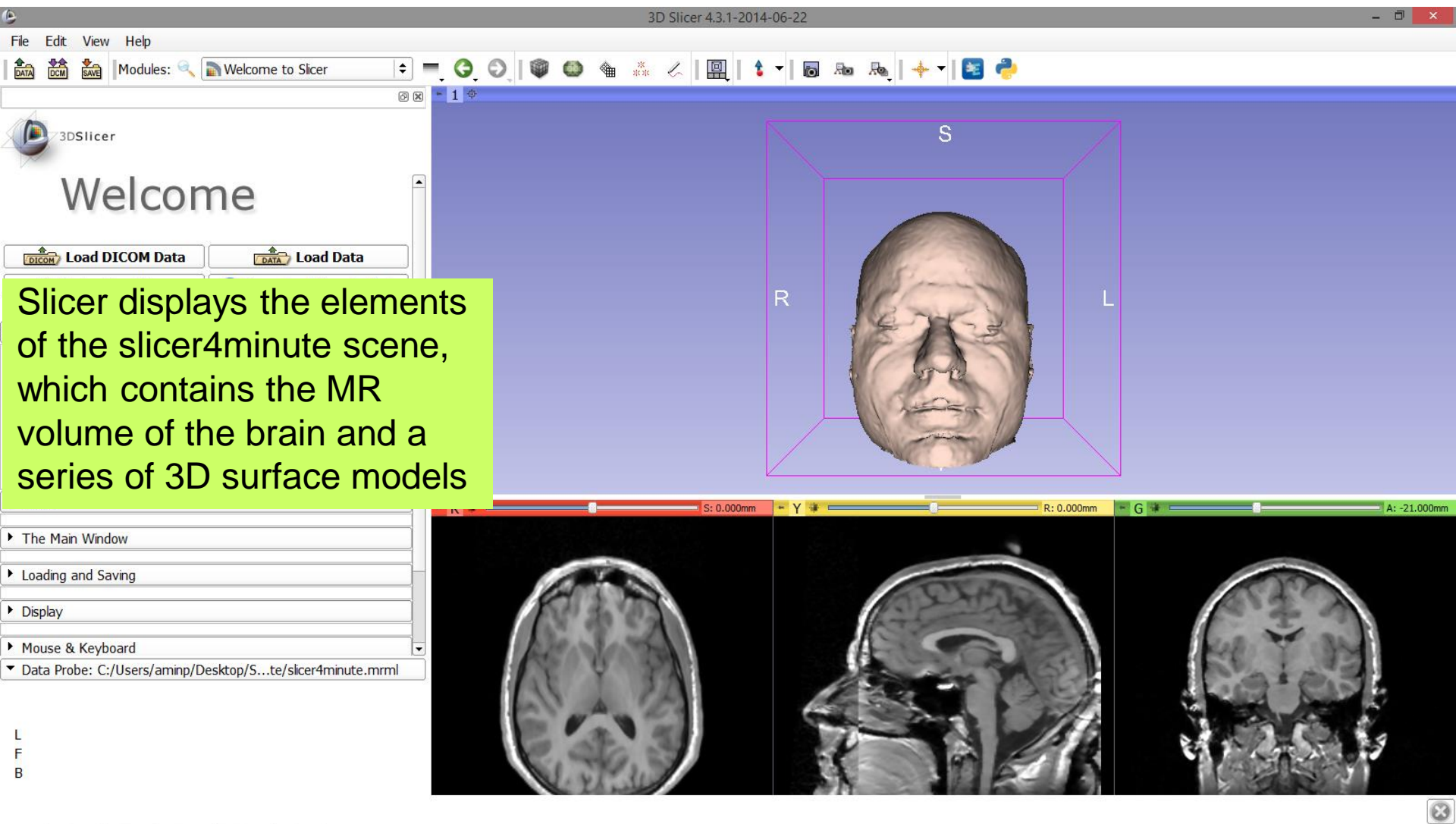
# Slicer4Minute Tutorial

The image shows two overlapping windows. The background window is 'Slicer4Minute', a file explorer showing a directory of files including .DS\_Store, grayscale.nrrd, hemispheric\_white\_matter.vtk, left\_eyeball.vtk, Master Scene View, optic\_chiasm.vtk, optic\_nerve\_L.vtk, optic\_nerve\_R.vtk, optic\_tract\_L.vtk, optic\_tract\_R.vtk, right\_eyeball.vtk, Skin.vtk, skull\_bone.vtk, and slicer4minute. The foreground window is '3D Slicer 4.3.1-2014-06-22', displaying a 'Welcome to Slicer' dialog and a 3D view of a brain slice with a purple bounding box and labels S, R, P, L, I. A dialog box titled 'Add data into the scene' is open, showing a table with one entry: 'C:/Users/aminp/Desktop/Slicer4Minute/Slicer4Minute/slicer4minute.mrml' with a description of 'MRML Scene'. A red arrow points from a yellow text box to the 'OK' button in the dialog.

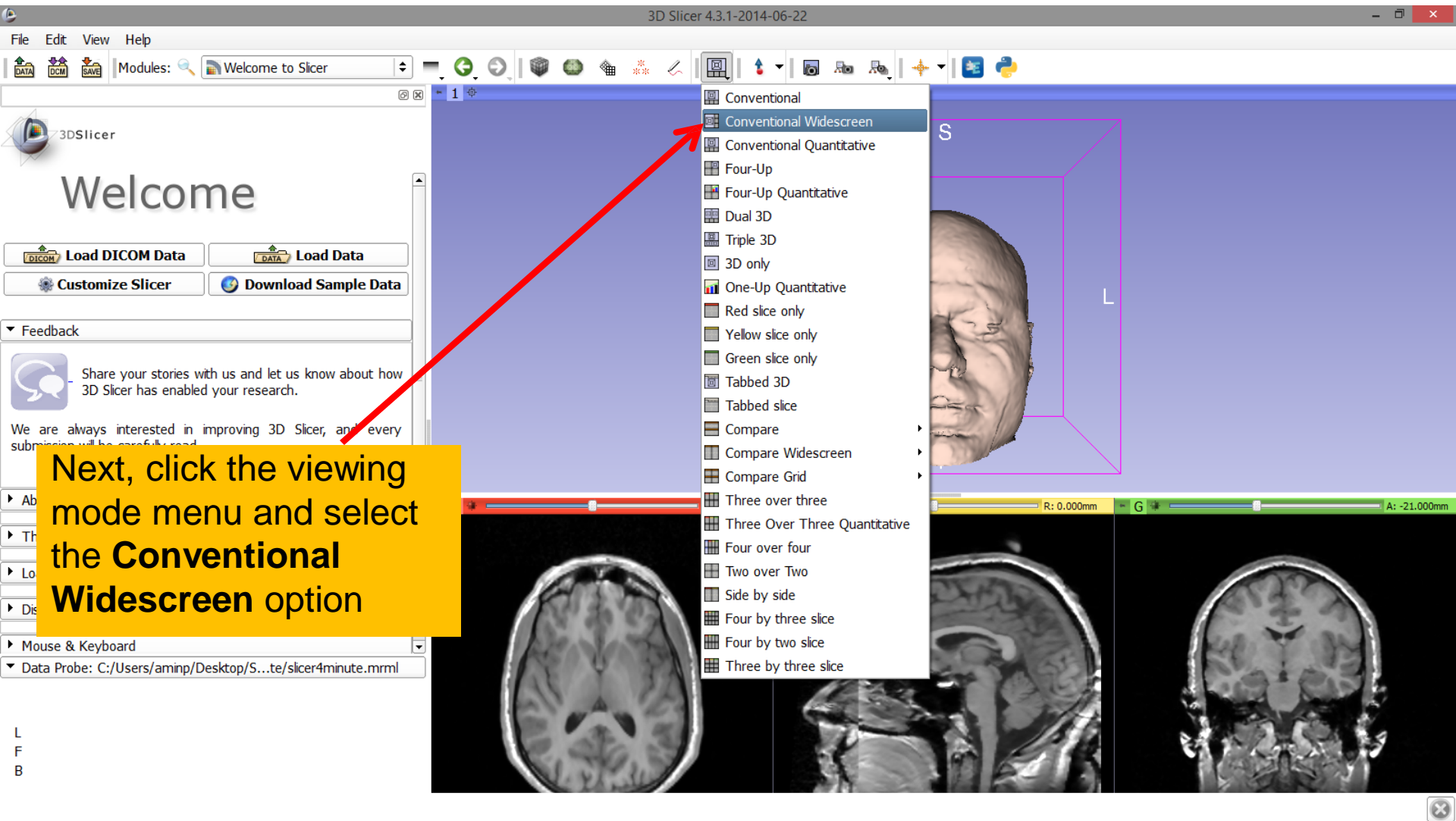
File	Description
<input checked="" type="checkbox"/> C:/Users/aminp/Desktop/Slicer4Minute/Slicer4Minute/slicer4minute.mrml	MRML Scene

After dragging and dropping the “MRML Scene” into the Slicer window, click on **OK**

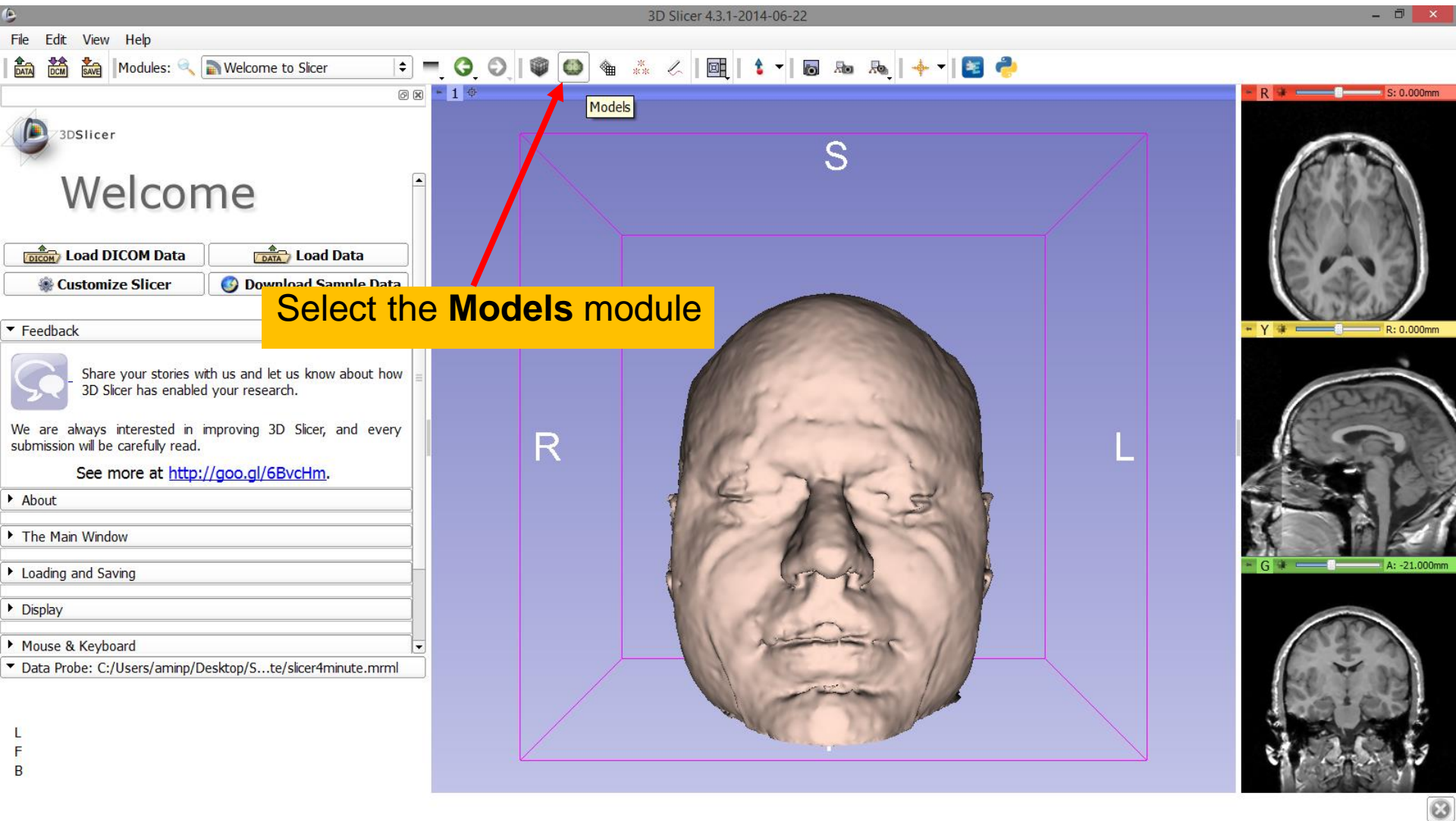
# Slicer4Minute Tutorial



# Slicer4Minute Tutorial



# Slicer4Minute Tutorial





# Slicer4Minute Tutorial

3D Slicer 4.3.1-2014-06-22

File Edit View Help

Modules: Models

3DSlicer

Help & Acknowledgement

Include Fibers  Scroll to...

Scene

hemispheric_white_matter.vtk	1.00
left_eyeball.vtk	1.00
optic_chiasm.vtk	1.00
optic_nerve_L.vtk	1.00
optic_nerve_R.vtk	1.00
optic_tract_L.vtk	1.00
optic_tract_R.vtk	1.00
right_eyeball.vtk	1.00
Skin.vtk	1.00
skull_bone.vtk	1.00

Information

Display

Clipping

Data Probe: C:/Users/aminp/Desktop/S...te/slicer4minute.mrml

L  
F  
B

R L

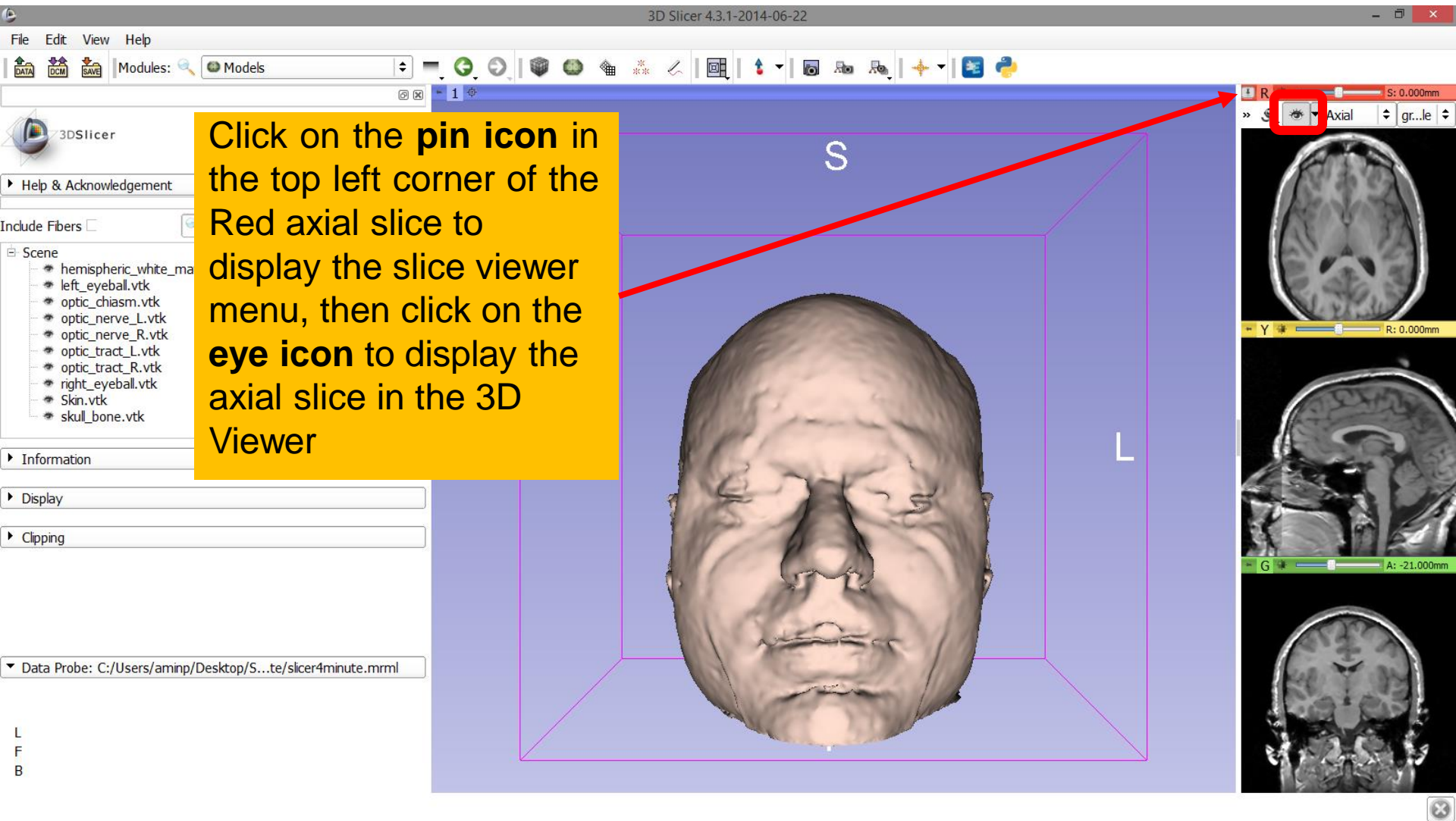
R S: 0.000mm

Y R: 0.000mm

G A: -21.000mm

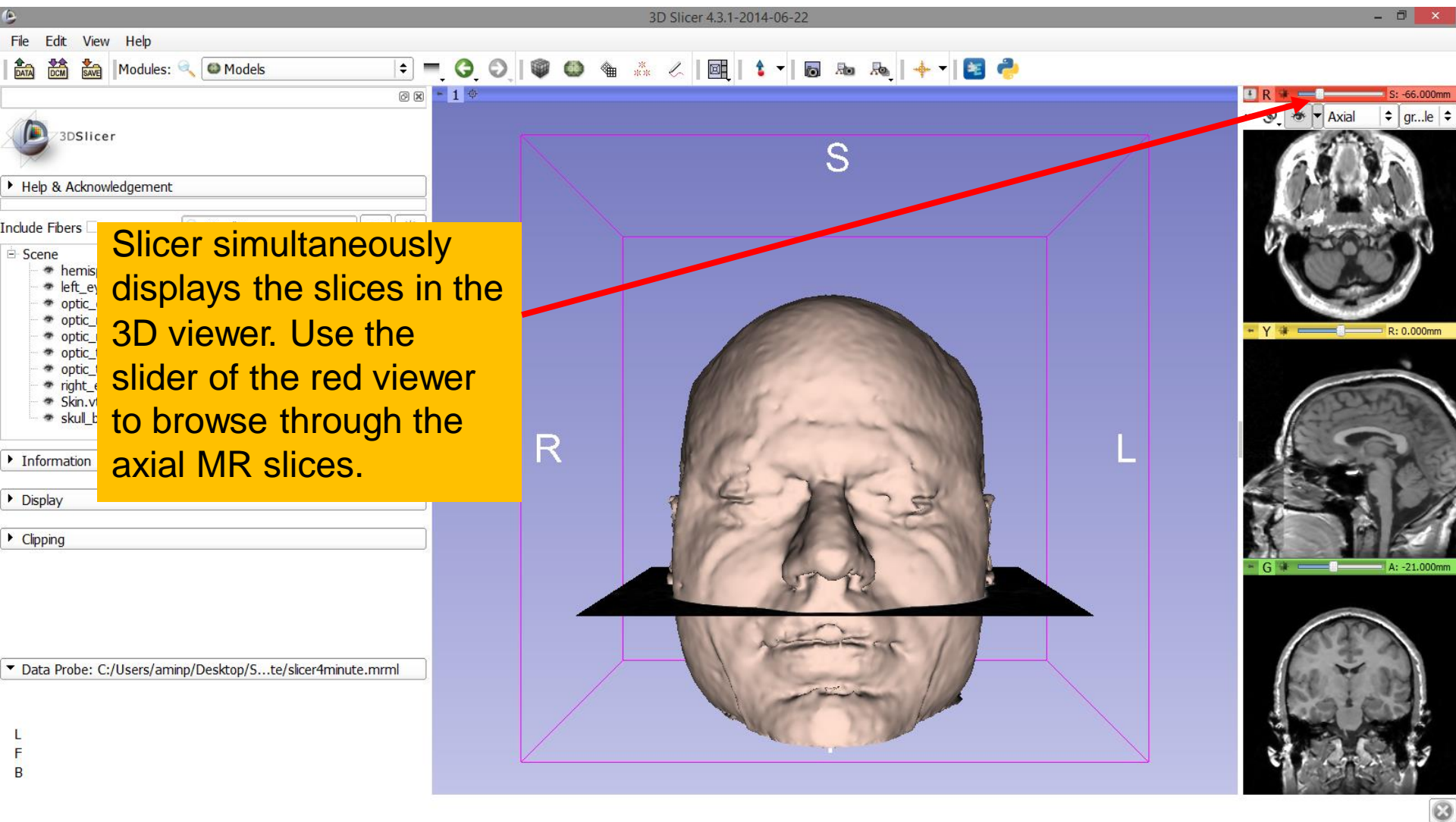
The **Models** module GUI displays the list of models loaded in the **slicer4minute** scene, their color, and the value of their opacity (between 0.0 and 1.0)

# Slicer4Minute Tutorial

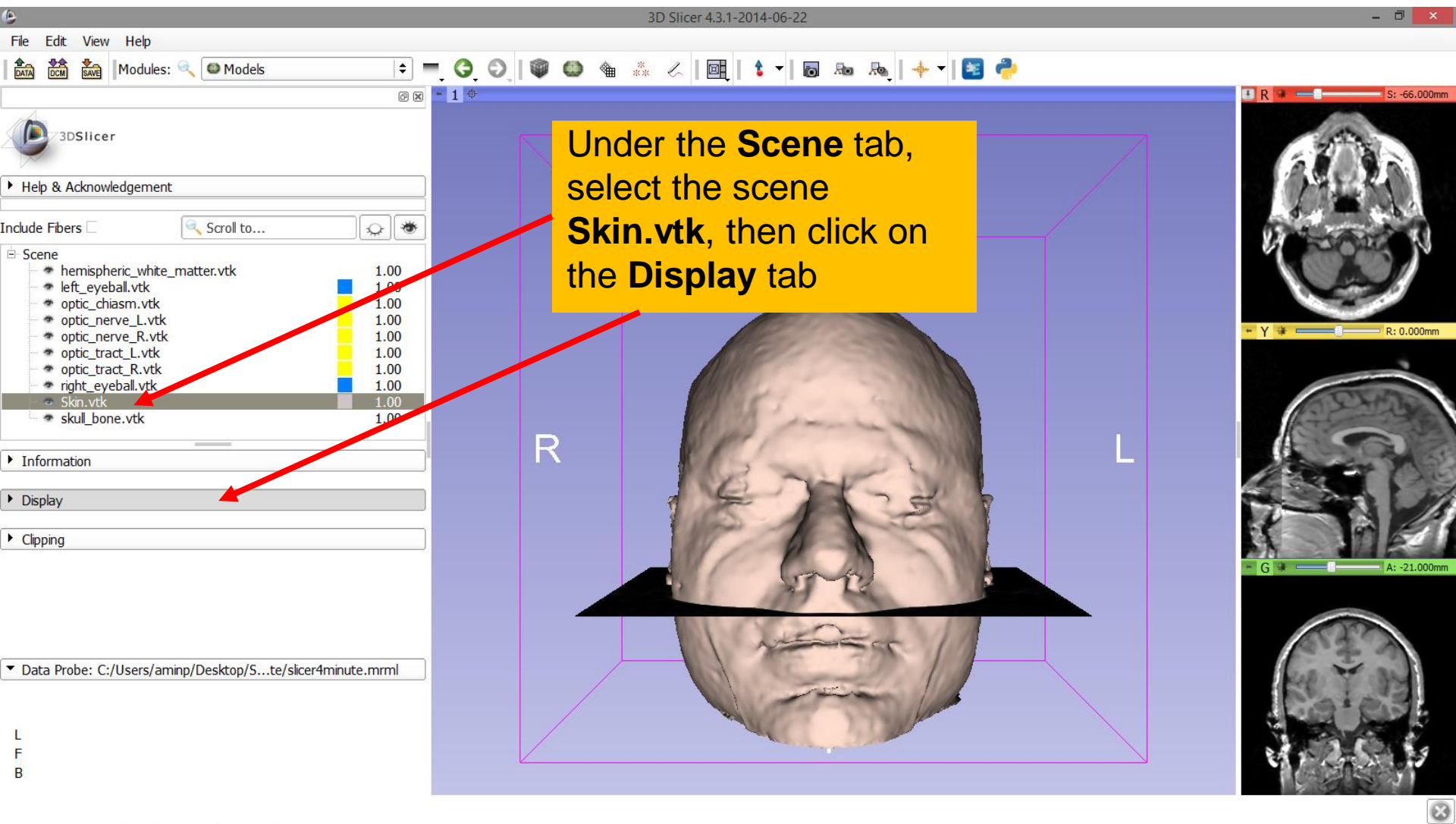




# Slicer4Minute Tutorial



# Slicer4Minute Tutorial



# Slicer4Minute Tutorial

3D Slicer 4.3.1-2014-06-22

File Edit View Help

Modules: Models

3DSlicer

- optic\_nerve\_L.vtk 1.00
- optic\_nerve\_R.vtk 1.00
- optic\_tract\_L.vtk 1.00
- optic\_tract\_R.vtk 1.00
- right\_eyeball.vtk 1.00
- Skin.vtk 0.30**
- skull\_bone.vtk 1.00

Information

Display

Visibility

Visible:

View: All

Clip:

Slice Intersections Visible:

Slice Intersections Thickness: 1 px

Representation

Color

Color: #ffddce

**Opacity: 0.30**

Edge visibility:

Edge Color: #000000

Data Probe: C:/Users/aminp/Desktop/S...te/slicer4minute.mrml

R L

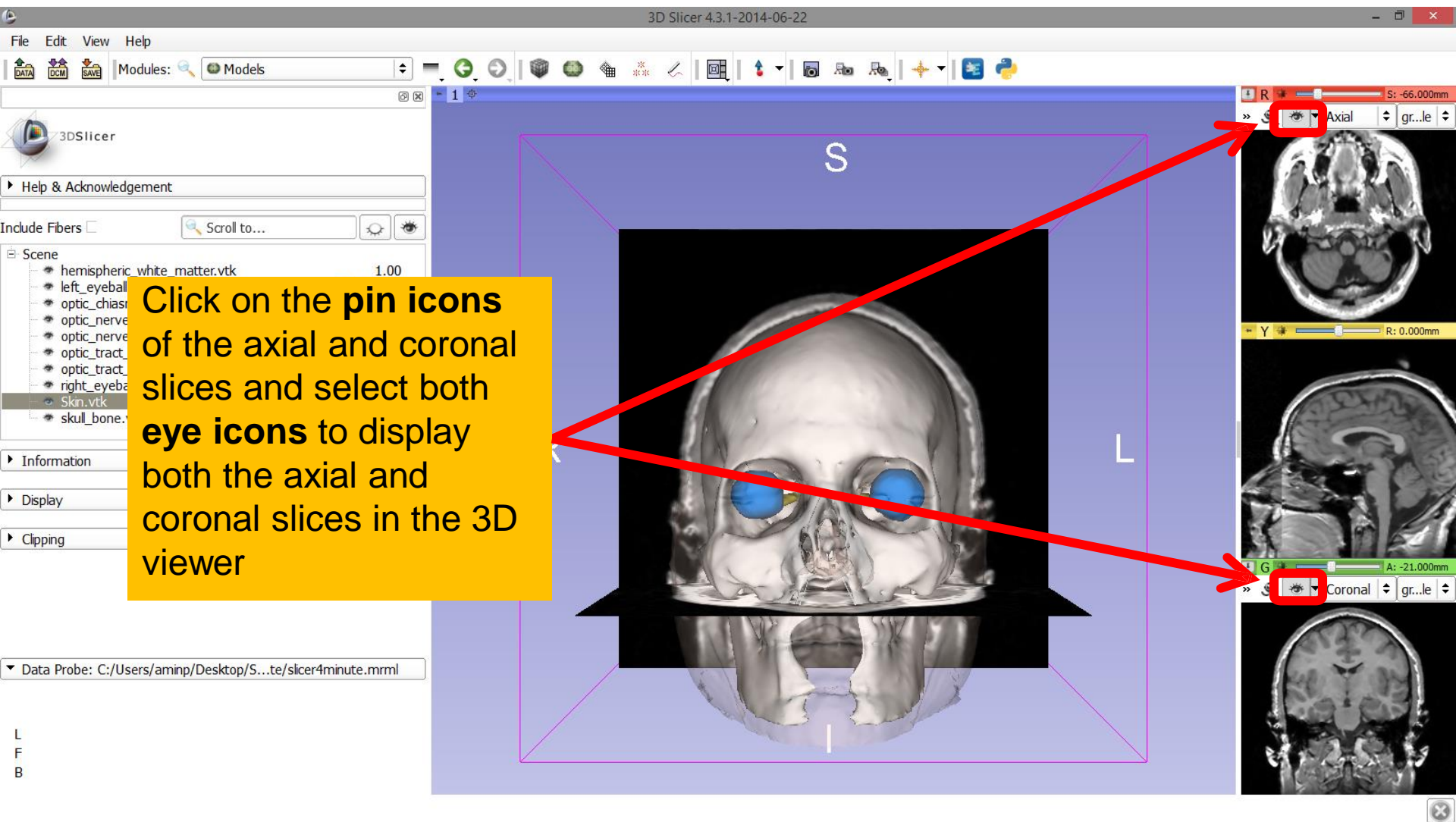
S: -66.000mm

Y R: 0.000mm

G A: -21.000mm

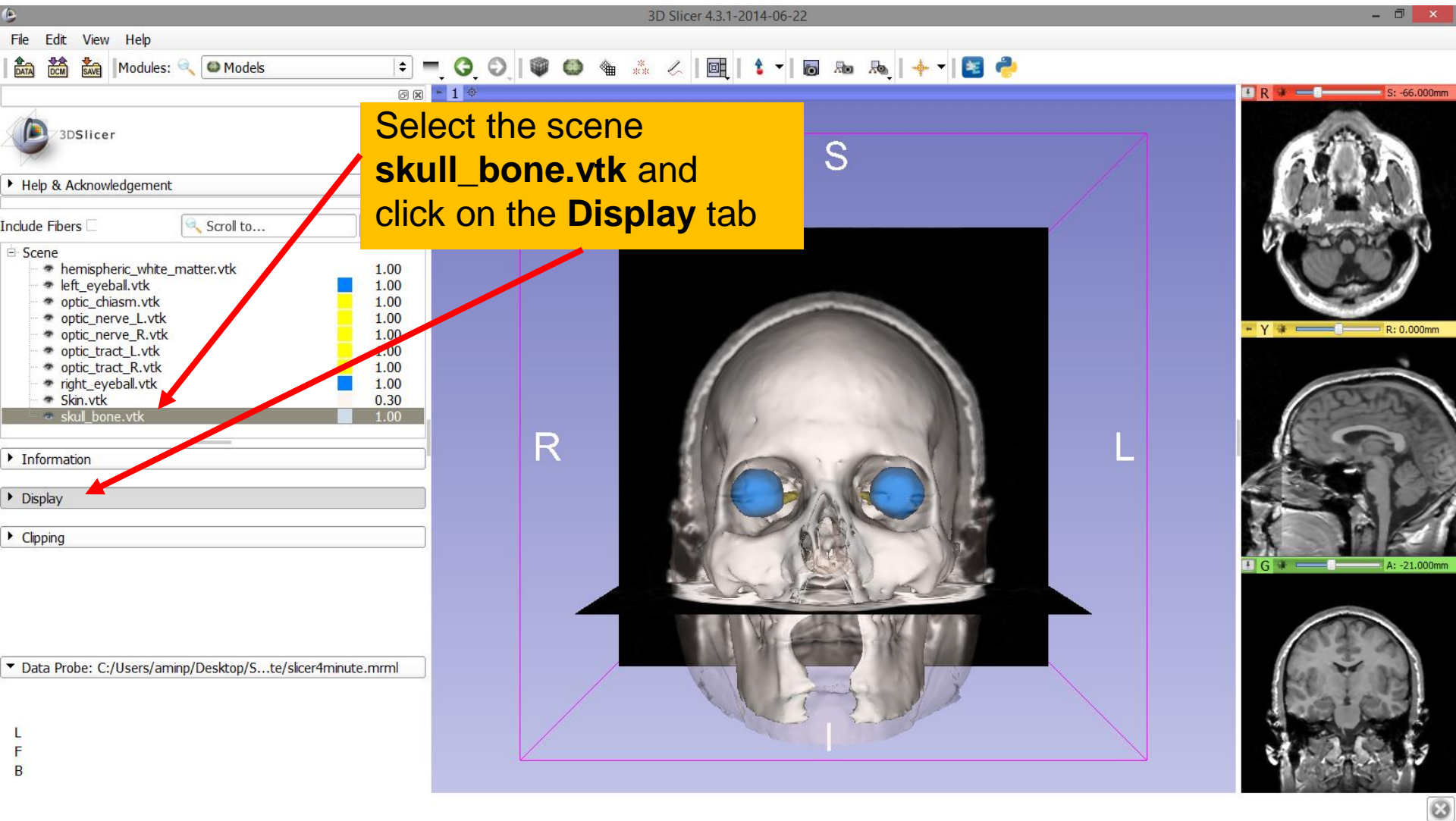
L F B

# Slicer4Minute Tutorial





# Slicer4Minute Tutorial



# Slicer4Minute Tutorial

The screenshot shows the 3D Slicer interface. The main 3D viewer displays a brain model with a yellow callout box pointing to the 'Visible' checkbox in the 'Display' tab. The callout box contains the following text:

Under the **Display** tab, uncheck the option for **Visible**. The white matter surface, as well as the left and right optic nerves, appear in the 3D viewer

The 'Display' tab is expanded, showing the 'Visibility' section with the 'Visible' checkbox unchecked. The 'View' dropdown is set to 'All'. The 'Clip' checkbox is unchecked. The 'Slice Intersections Visible' checkbox is unchecked. The 'Slice Intersections Thickness' is set to '1 px'. The 'Data Probe' is set to 'C:/Users/aminp/Desktop/S...te/slicer4minute.mrml'.

The 3D viewer shows a brain model with a white matter surface and optic nerves. The axes are labeled 'S' (Superior), 'A' (Anterior), and 'R' (Right). The 'Include Fibers' panel is visible on the left, showing a list of models with their visibility status. The 'Information' panel is also visible, showing the 'Display' tab selected.

Model Name	Visibility
hemispheric_white_matter.vtk	1.00
left_eyeball.vtk	1.00
optic_chiasm.vtk	1.00
optic_nerve_L.vtk	1.00
optic_nerve_R.vtk	1.00
optic_tract_L.vtk	1.00
optic_tract_R.vtk	1.00
right_eyeball.vtk	1.00
Skin.vtk	0.30
skull_bone.vtk	1.00



# Slicer4Minute Tutorial

3D Slicer 4.3.1-2014-06-22

File Edit View Help

Modules: Models

3DSlicer

Help & Acknowledgement

Include Fibers  Scroll to...

Scene

Scene	Opacity
hemispheric_white_matter.vtk	1.00
left_eyeball.vtk	1.00
optic_chiasm.vtk	1.00
optic_nerve_L.vtk	1.00
optic_nerve_R.vtk	1.00
optic_tract_L.vtk	1.00
optic_tract_R.vtk	1.00
right_eyeball.vtk	1.00
Skin.vtk	0.30
skull_bone.vtk	1.00

Information

Display

Visibility

Visible:

View: All

Clip:

Slice Intersections Visible:

Slice Intersections Thickness: 1 px

Data Probe: C:/Users/aminp/Desktop/S...te/slicer4minute.mrml

L  
F  
B

Select the scene **hemispheric\_white\_matter.vtk**, and under the **Display** tab check the option **Clip**

# Slicer4Minute Tutorial

3D Slicer 4.3.1-2014-06-22

File Edit View Help

Modules: Models

3DSlicer

Include Fibers  Scroll to:

Scene

- hemispheric\_white\_matter.vtk
- left\_eyeball.vtk
- optic\_chiasm.vtk
- optic\_nerve\_L.vtk
- optic\_nerve\_R.vtk
- optic\_tract\_L.vtk
- optic\_tract\_R.vtk
- right\_eyeball.vtk
- Skin.vtk
- skull\_bone.vtk

0.30  
1.00

Information

Display

Clipping

Clipping Type:  Union  Intersection

Red Slice Clipping:  Positive  Negative

Yellow Slice Clipping:  Positive  Negative

Green Slice Clipping:  Positive  Negative

Data Probe: C:/Users/aminp/Desktop/S...te/slicer4minute.mrml

L  
F  
B

S  
I  
A  
P

R S: -57.000mm  
Y R: 0.000mm  
G A: -21.000mm

# Slicer4Minute Tutorial

3D Slicer 4.3.1-2014-06-22

File Edit View Help

Modules: Models

3DSlicer

Include Fibers  Scroll to...

Scene

- hemispheric\_white\_matter.vtk 1.00
- left\_eyeball.vtk 1.00
- optic\_chiasm.vtk 1.00
- optic\_nerve\_L.vtk 1.00
- optic\_nerve\_R.vtk 1.00
- optic\_tract\_L.vtk 1.00
- optic\_tract\_R.vtk 1.00
- right\_eyeball.vtk 1.00
- Skin.vtk 0.30
- skull\_bone.vtk 1.00

Information

Display

Clipping

Clipping Type:  Union  Intersection

Red Slice Clipping:  Positive  Negative

Yellow Slice Clipping:  Positive  Negative

Green Slice Clipping:  Positive  Negative

Data Probe: C:/Users/aminp/Desktop/S...te/slicer4minute.mrml

L  
F  
B

R  
P  
A

S: -40.000mm  
R: 0.000mm  
A: -30.000mm

Use the slider of the axial and coronal slices to expose the optic chiasm



# Slicer4Minute Tutorial

3D Slicer 4.3.1-2014-06-22

File Edit View Help

Modules: Models

3DSlicer

- optic\_nerve\_L.vtk 1.00
- optic\_nerve\_R.vtk 1.00
- optic\_tract\_L.vtk 1.00
- optic\_tract\_R.vtk 1.00
- right\_eyeball.vtk 1.00
- Skin.vtk 0.50**
- skull\_bone.vtk 1.00

Information

Display

Visibility

Visible:

View: All

Clip:

Slice Intersections Visible:

Slice Intersections Thickness: 1 px

Representation

Color

Color: #ffffff

Opacity: 0.50

Edge visibility:

Data Probe: C:/Users/aminp/Desktop/S...te/slicer4minute.mrml

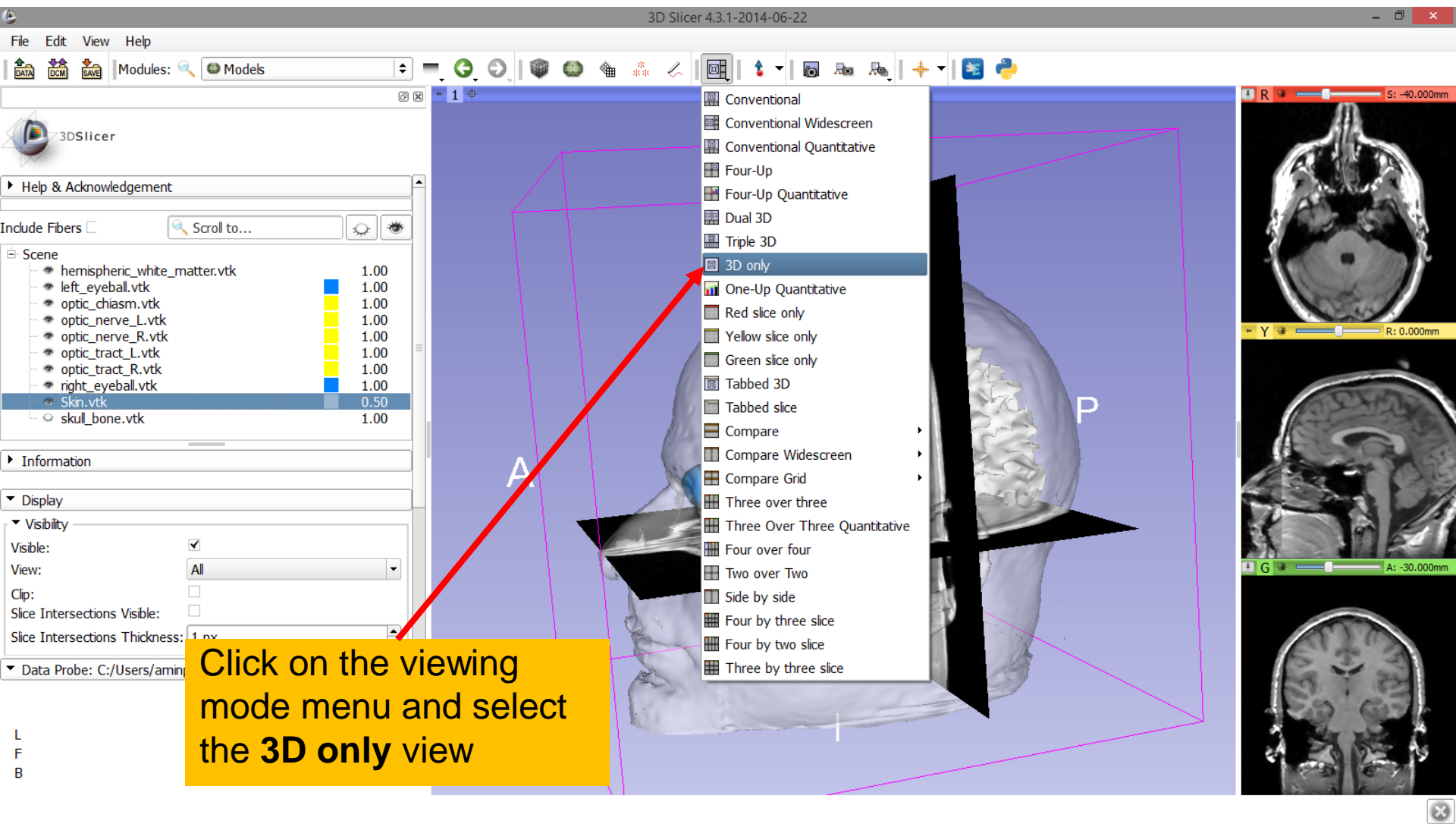
L  
F  
B

S  
A  
R  
P

S: -40.00mm  
R: 0.000mm  
A: -30.000mm

Select the scene **Skin.vtk** again, and under the **Display** tab slightly increase the opacity

# Slicer4Minute Tutorial



# Slicer4Minute Tutorial

The screenshot shows the 3D Slicer interface. The main 3D view displays a brain model with a semi-transparent skull and internal structures. A yellow callout box is overlaid on the 3D view, containing the following text:

The slice viewers disappear. Click on the **pin icon** of the 3D viewer and select the option **Spin** the 3D view

The interface includes a top menu bar (File, Edit, View, Help), a toolbar with various icons, and a left sidebar with panels for 'Include Fibers', 'Scene', 'Information', 'Display', 'Visibility', and 'Data Pro'. The 'Scene' panel lists several models with their visibility and opacity values. The 'Visibility' panel shows 'Visible' checked and 'View' set to 'All'. The 'Data Pro' panel shows 'L', 'F', and 'B' options. The 3D view has a coordinate system with axes labeled P, S, R, L, A, and I. The slice viewers on the right show axial, sagittal, and coronal slices of the brain. The status bar at the bottom right shows 'R: -40.000mm', 'S: -40.000mm', and 'A: -30.000mm'.

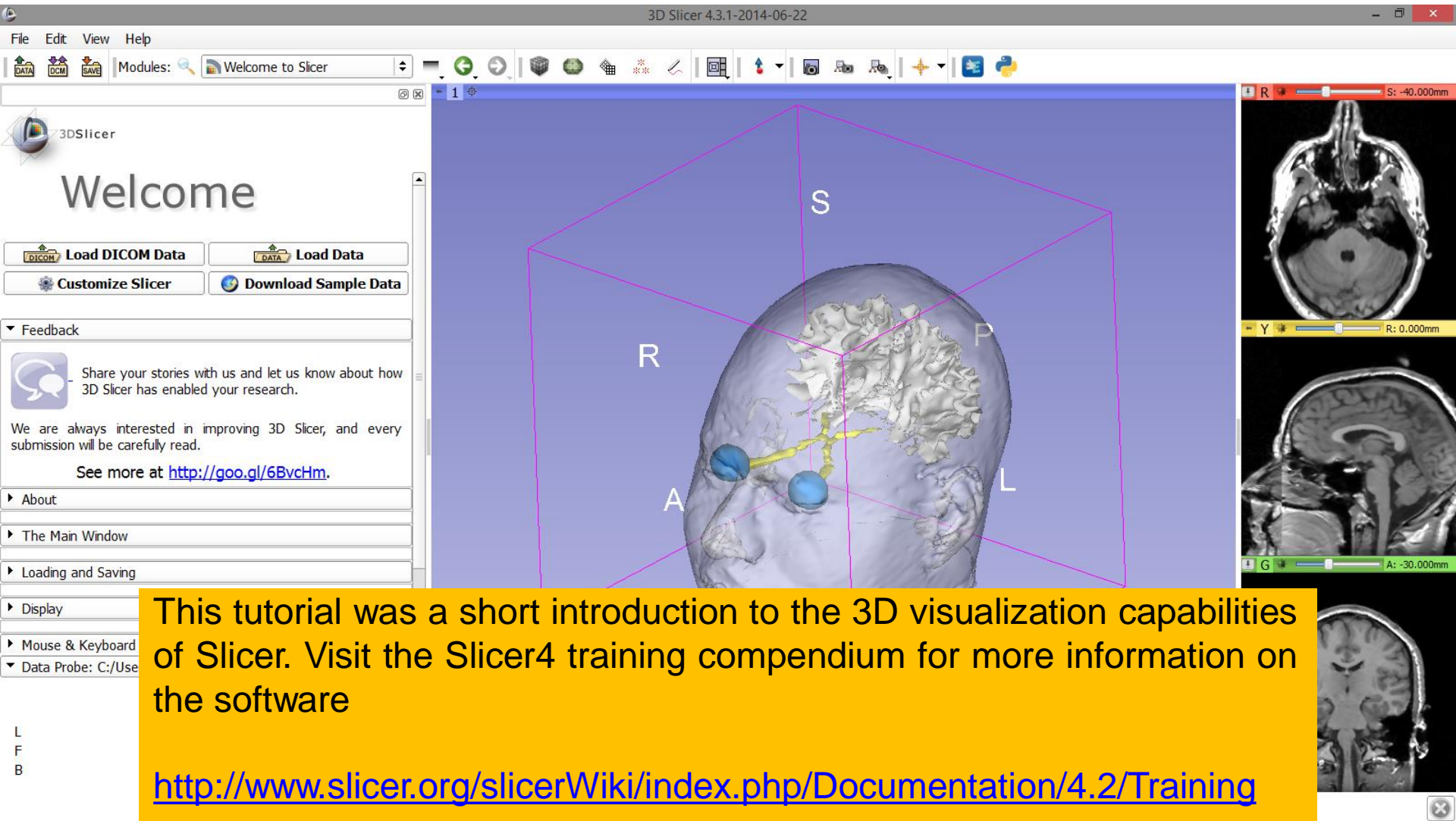


# Slicer4Minute Tutorial

The screenshot shows the 3D Slicer software interface. The main window displays a 3D model of a head with a semi-transparent skull and internal structures. A red box highlights a button in the toolbar, which is used to stop the model from spinning. The interface includes a menu bar (File, Edit, View, Help), a toolbar with various icons, and several panels on the left: 'Help & Acknowledgement', 'Include Fibers', 'Scene' (listing models like hemispheric\_white\_matter.vtk, left\_eyeball.vtk, etc.), and 'Information' (with 'Display' and 'Visibility' sub-sections). On the right, there are three axial, sagittal, and coronal MRI slices. A green text box in the bottom left corner contains the following text:

The 3D model starts to spin. Click the same option to stop the model from spinning

# Slicer4Minute Tutorial



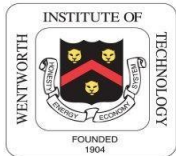
# Acknowledgments



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