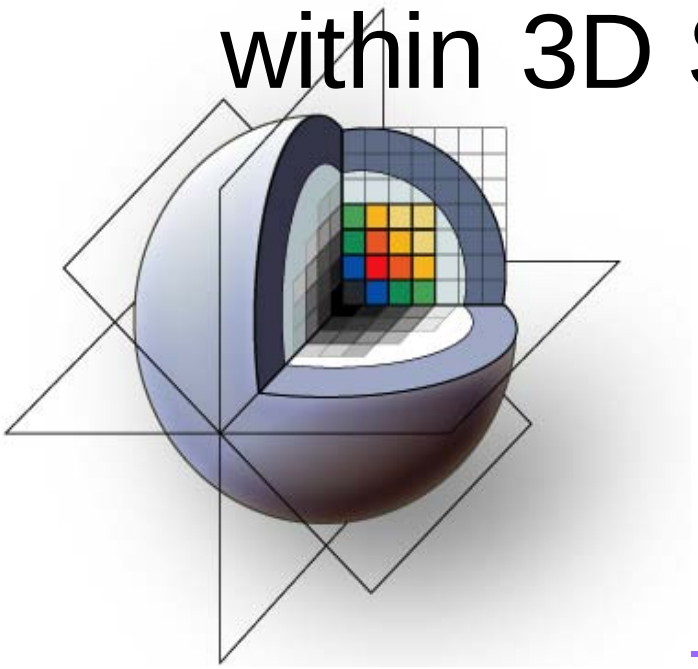
Slicer3 Training Tutorial

Manual segmentation of orbit structures from isotropic MRI data within 3D Slicer for windows



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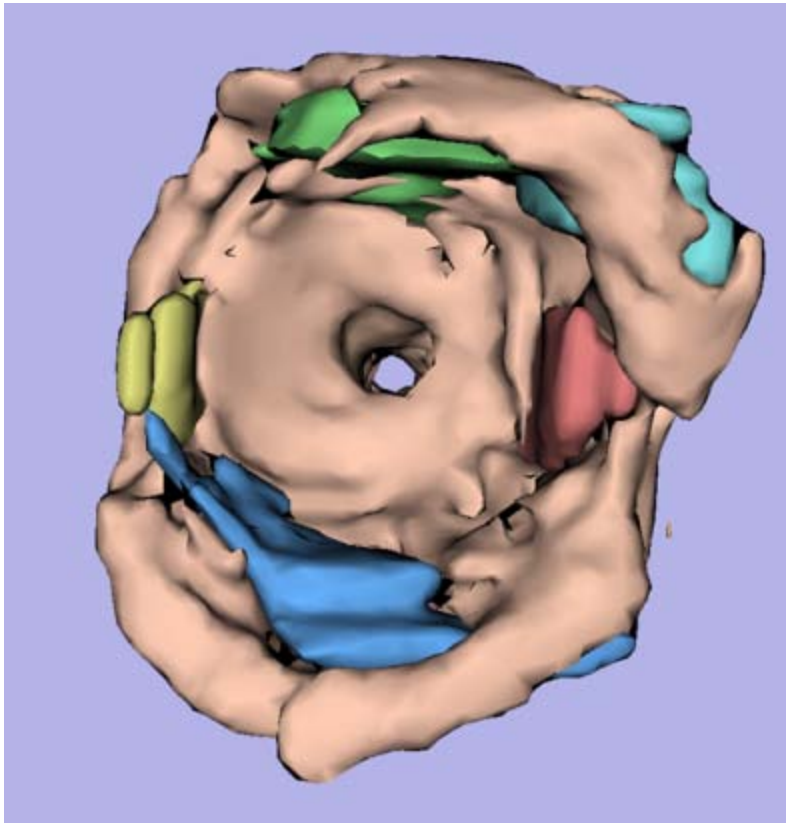
Surgical Planning Laboratory

Brigham and Women's Hospital

Harvard Medical School

Massachussets General Hospital

Learning Objective



Guiding you step by step through the process of manual segmentation of human orbit structures from isotropic MRI data within 3D Slicer

Prerequisites

This tutorial assumes that you have already completed the tutorial **Data Loading and Visualization**. Tutorials for **Slicer3** are available at the following location:

- **Slicer3** tutorials
http://www.na-mic.org/Wiki/index.php/Slicer3.2:Training

Materials

This tutorial requires the installation of the **Slicer3** software and the tutorial dataset. They are available at the following locations:

- **Slicer3** download page (***Slicer 3.2***)

http://www.slicer.org/pages/Downloads/

- Tutorial dataset (***<name of dataset>***)

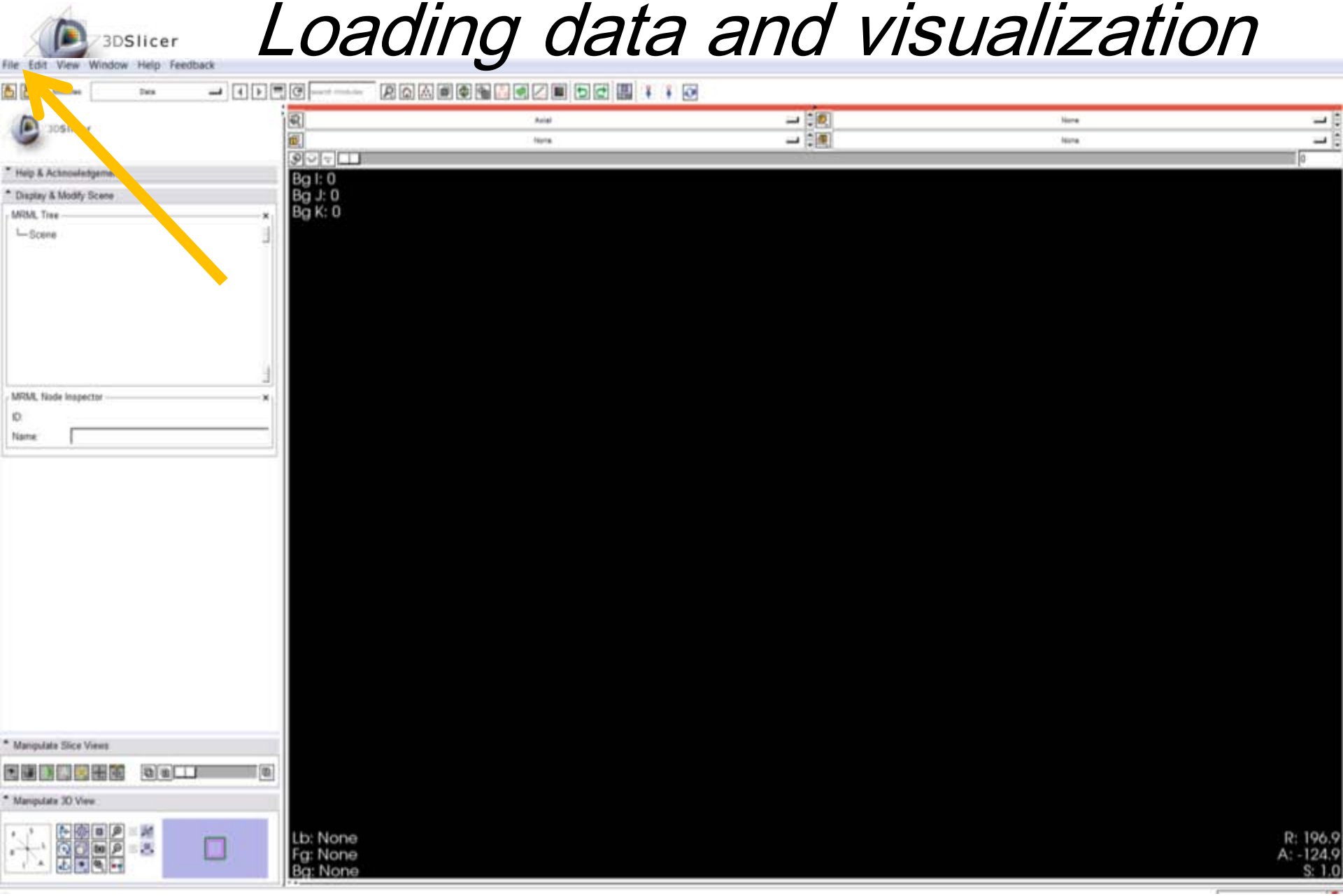
http://www.na-mic.org/Wiki/index.php/Slicer3.2:Training

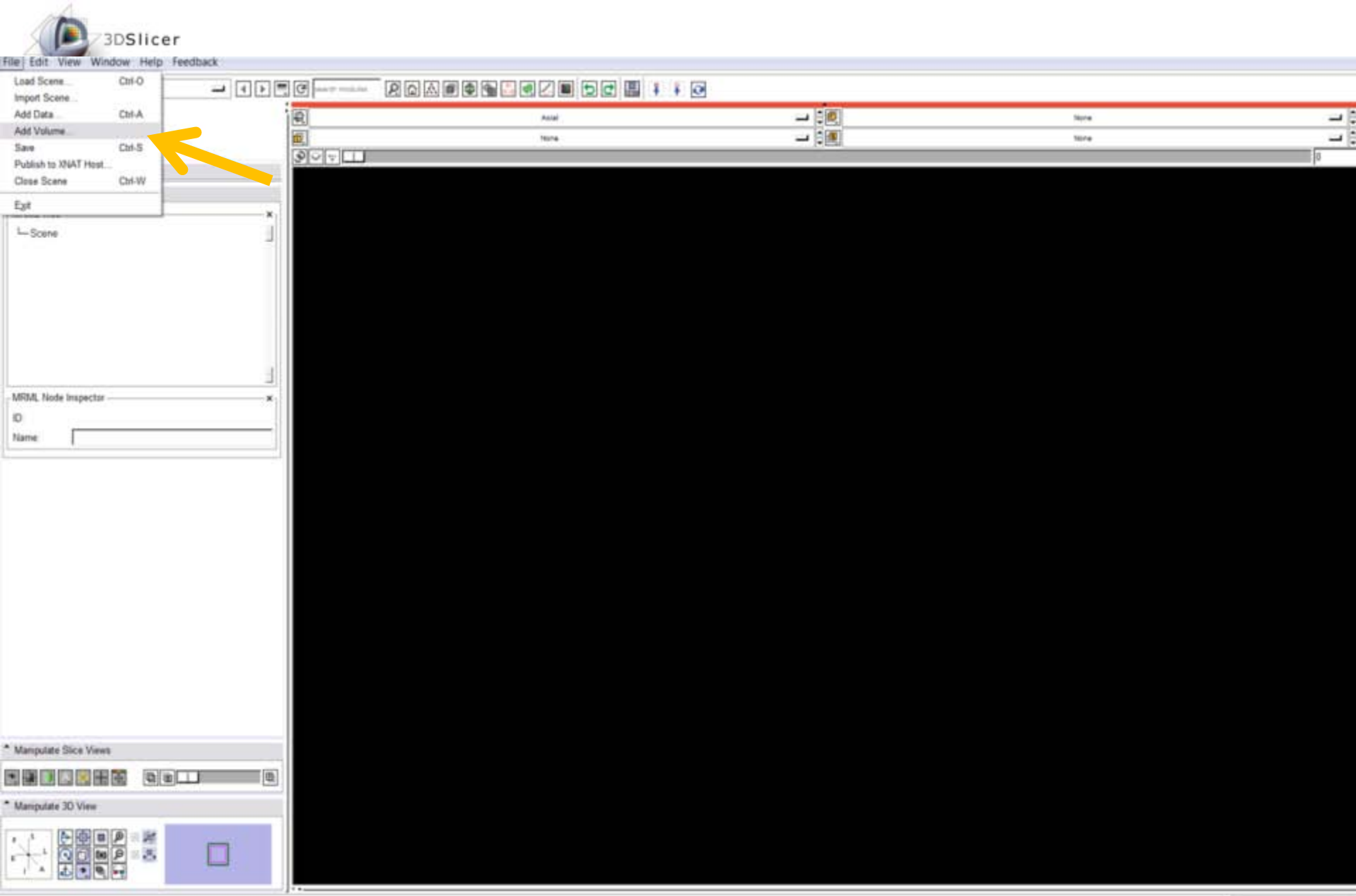
Disclaimer: *It is the responsibility of the user of Slicer to comply with both the terms of the license and with the applicable laws, regulations, and rules.*

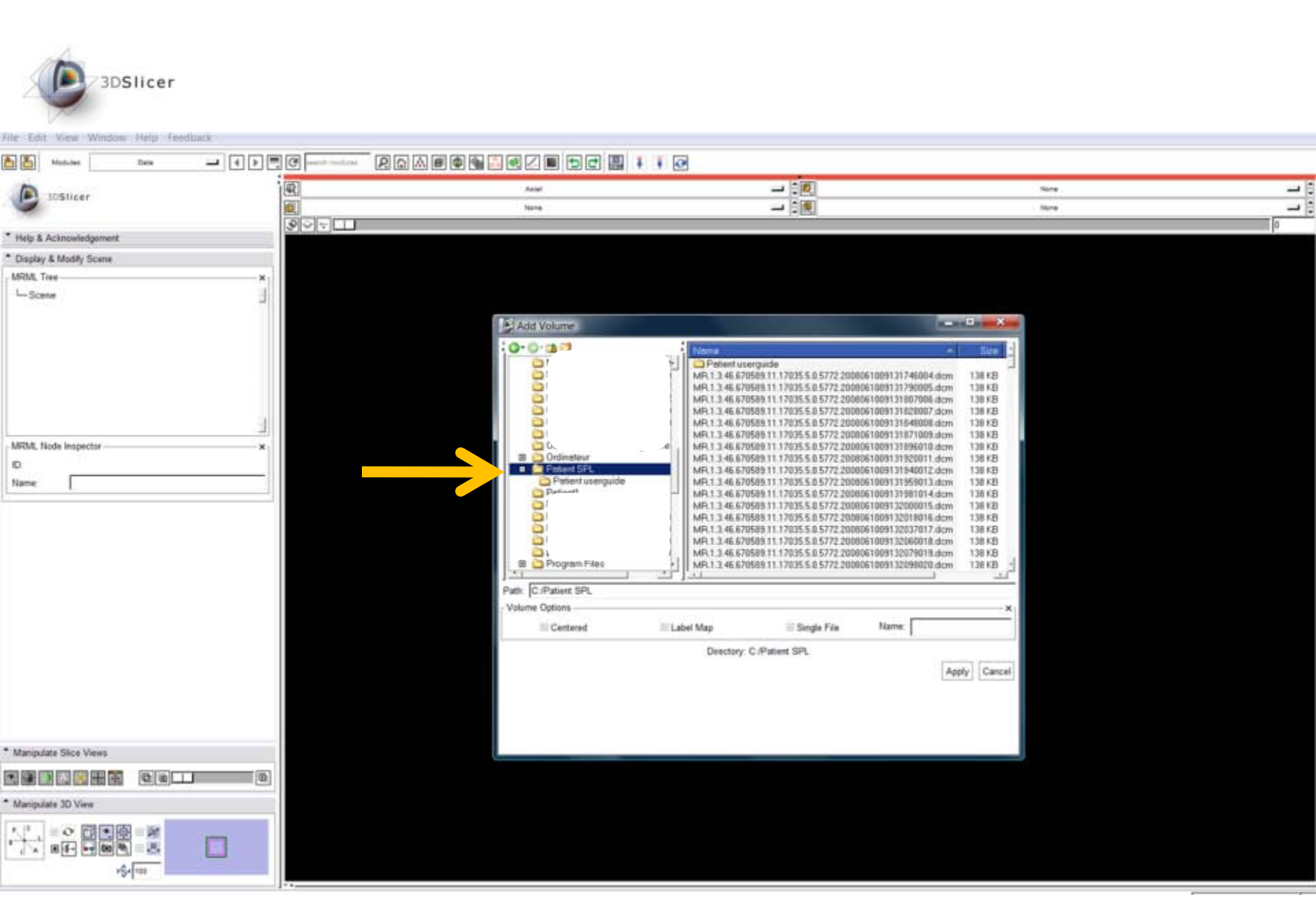
Overview

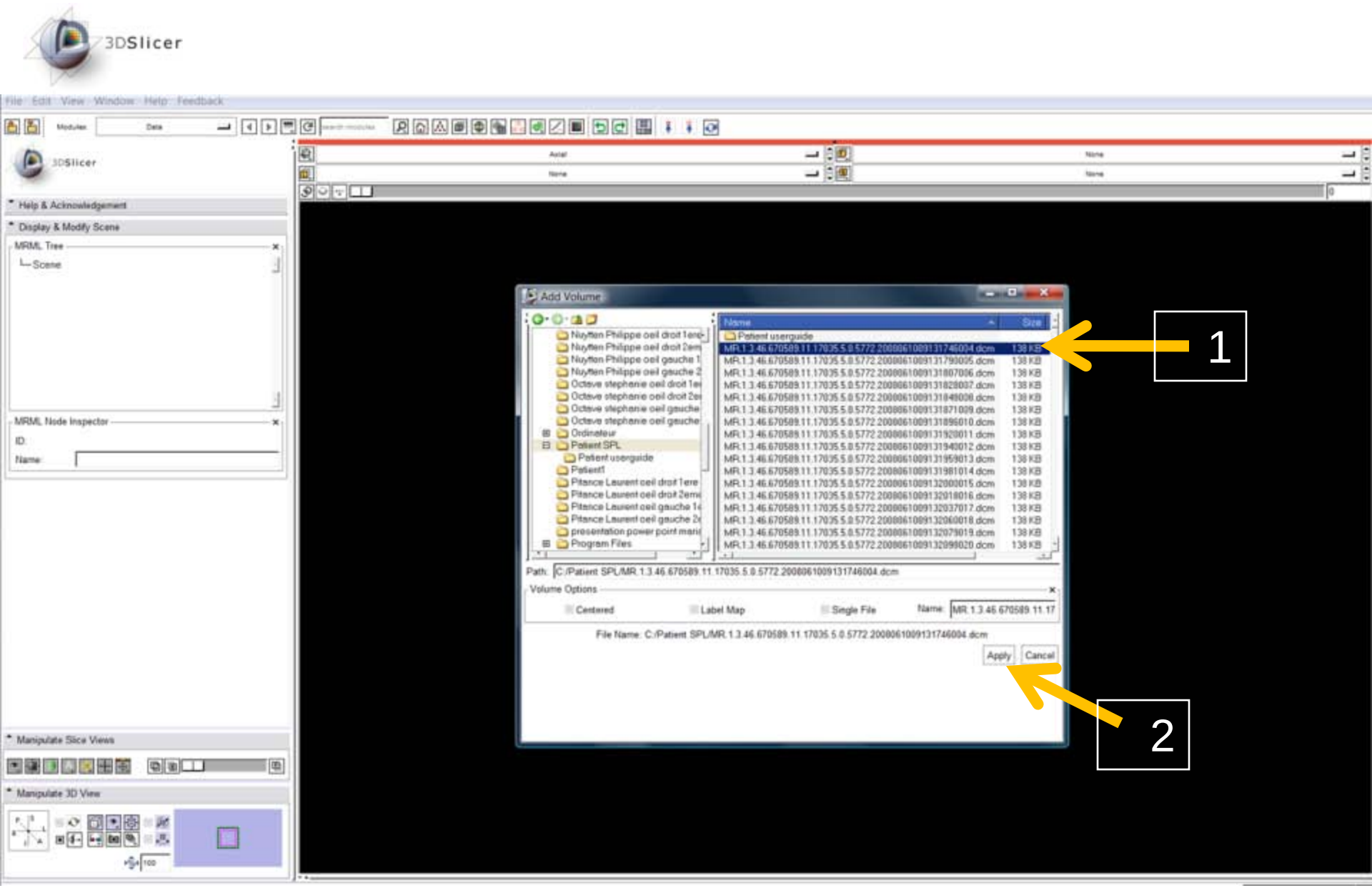
Loading data and visualization	slides 6-13
Volumes module	slides 14-25
Editor module	slides 26-38
Basic tools	slides 39-54
Save data	slides 55-64
Re-loading data	slides 65-70
Example: choice of colors	slides: 71-73
3D reconstruction	slides 74-89

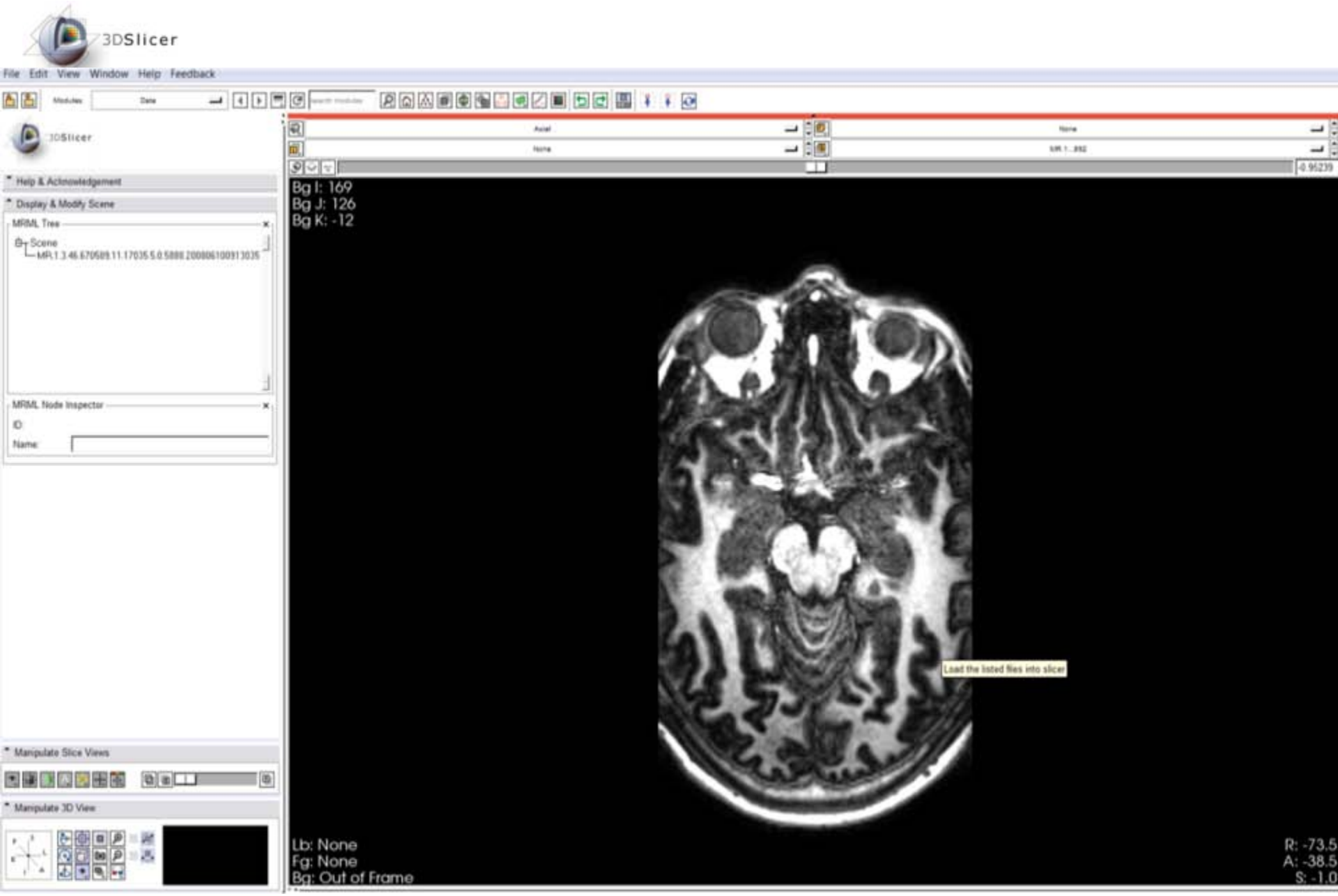
Loading data and visualization

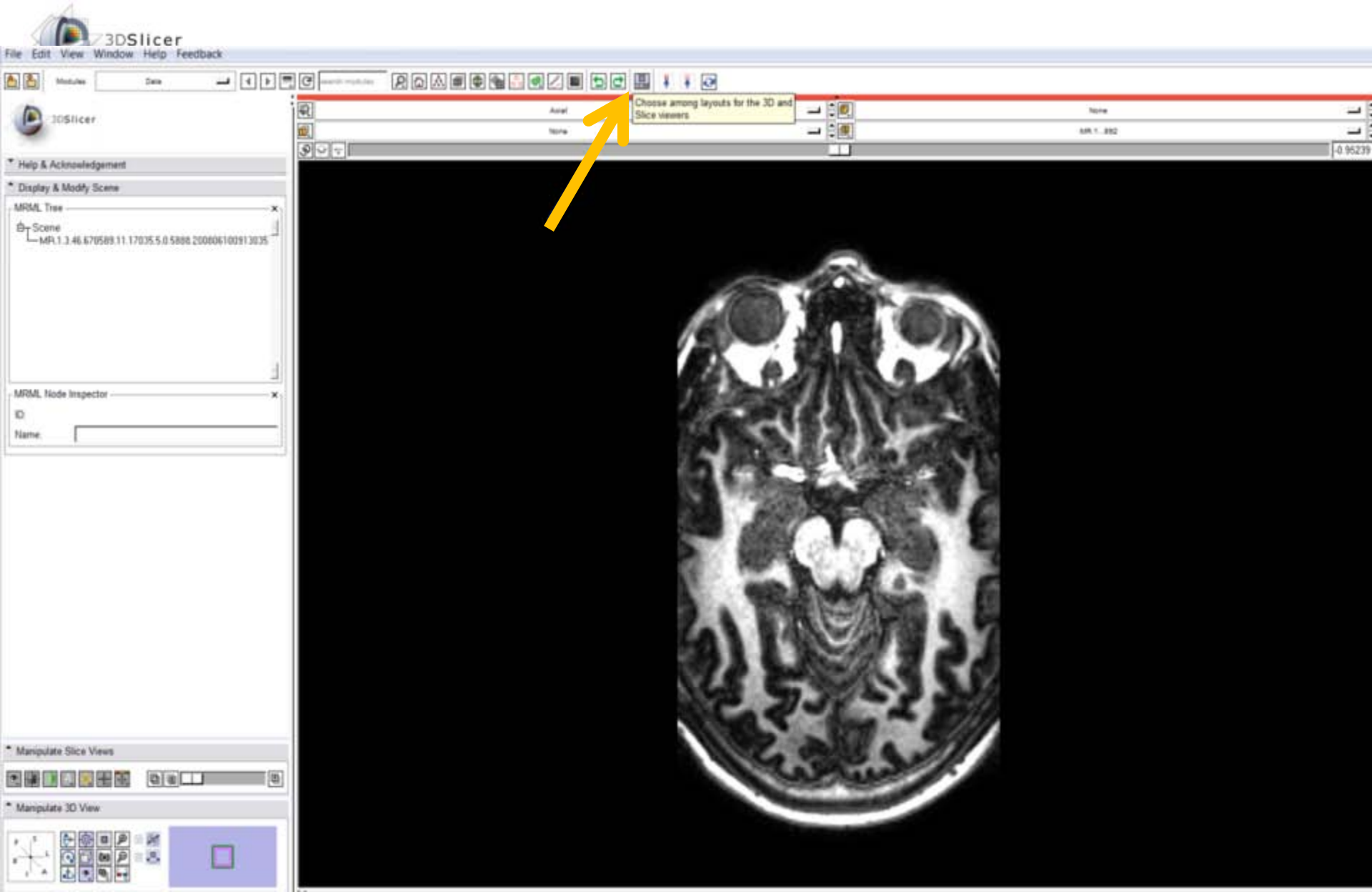


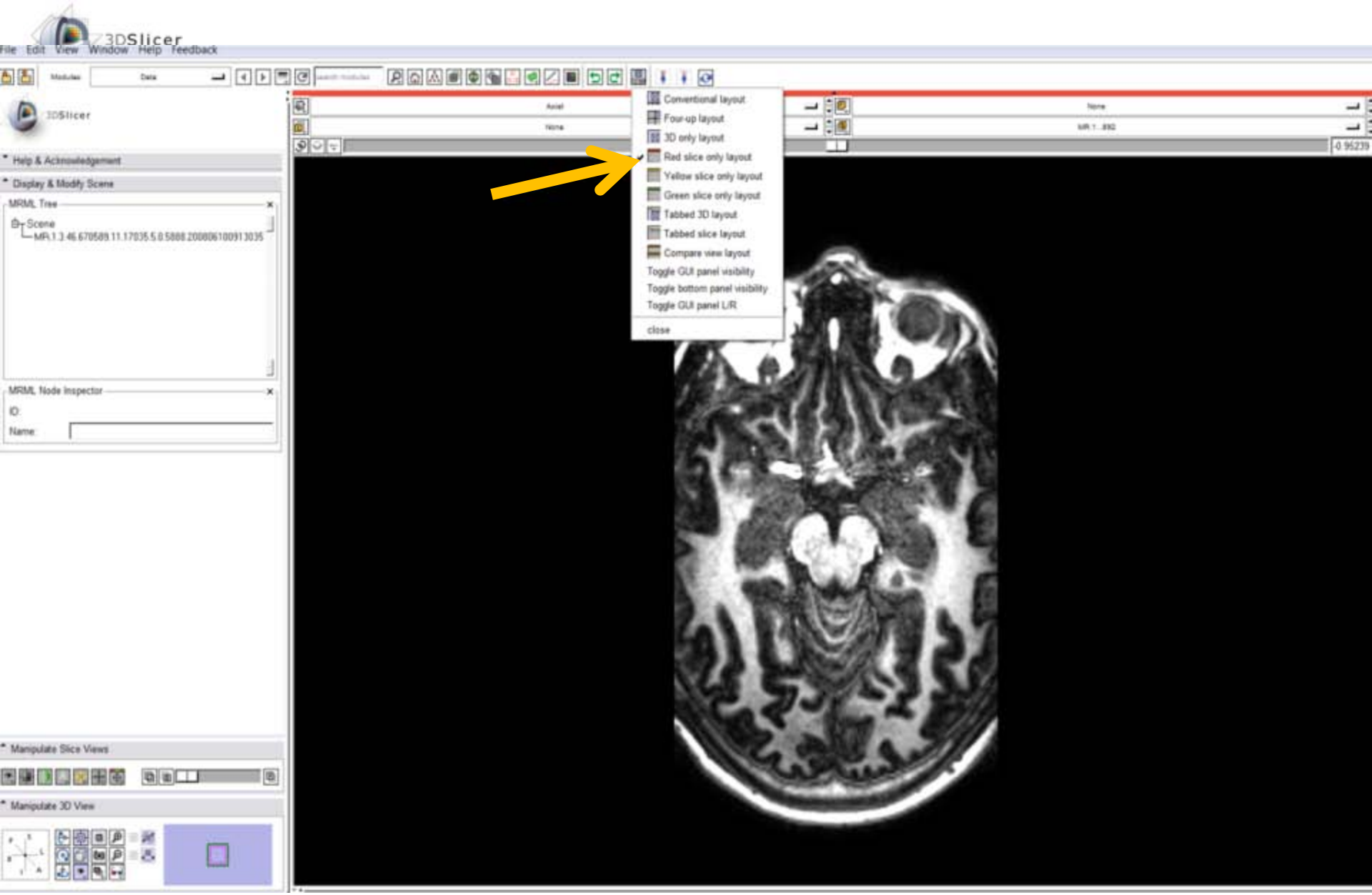

3DSlicer
File Edit View Window Help Feedback
Load Scene... Ctrl-O
Import Scene...
Add Data... Ctrl-A
Add Volume...
Save Ctrl-S
Publish to XNAT Host...
Close Scene Ctrl-W
Exit
Scene
MRML Node Inspector
ID
Name
Manipulate Slice Views
Manipulate 3D View

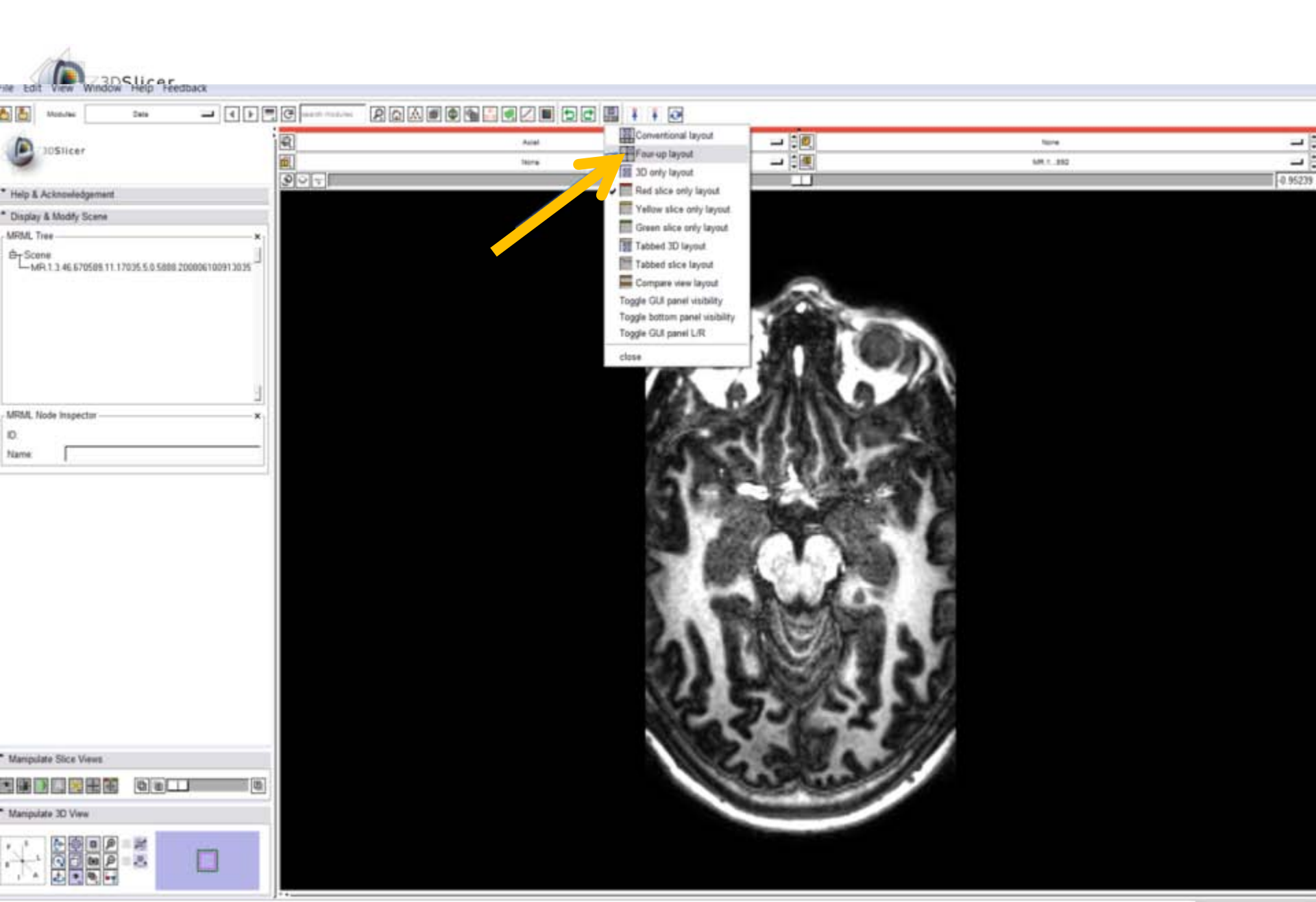

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Display & Modify Scene
MRML Tree
Scene
MRML Node Inspector
ID
Name
Manipulate Slice Views
Manipulate 3D View
Add Volume
Name
Size
Patient userguide
Ordinateur
Patient SPL
Patient userguide
Program Files
Path: C:/Patient SPL
Volume Options
Centered
Label Map
Single File
Name:
Directory: C:/Patient SPL
Apply
Cancel


3DSlicer
Add Volume
Patient userguide
Apply
Cancel
1
2

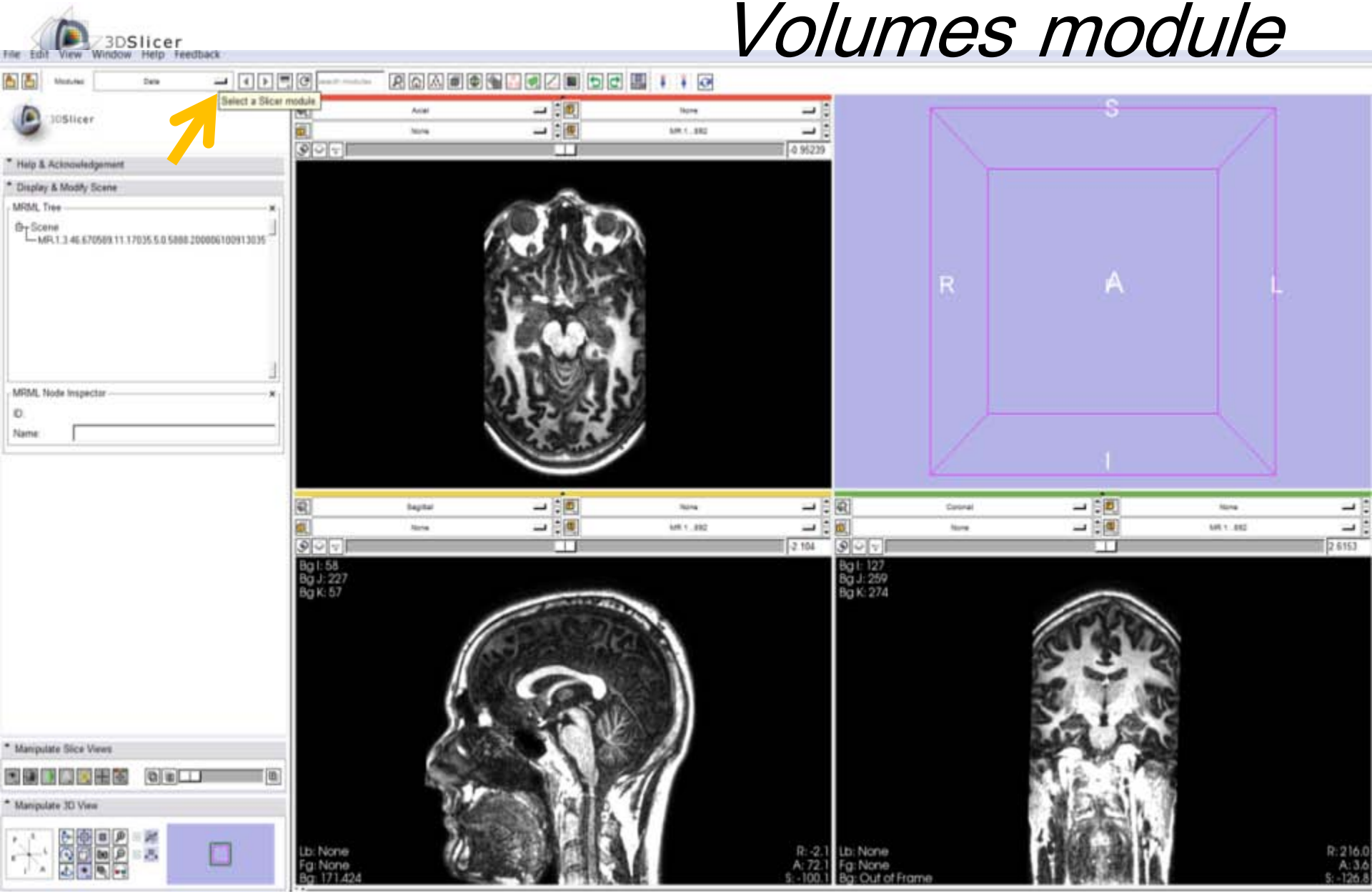

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Display & Modify Scene
MRML Tree
Scene
MRML Node Inspector
ID
Name
Manipulate Slice Views
Manipulate 3D View
Bg I: 169
Bg J: 126
Bg K: -12
Load the listed files into slicer
Lb: None
Fg: None
Bg: Out of Frame
R: -73.5
A: -38.5
S: -1.0

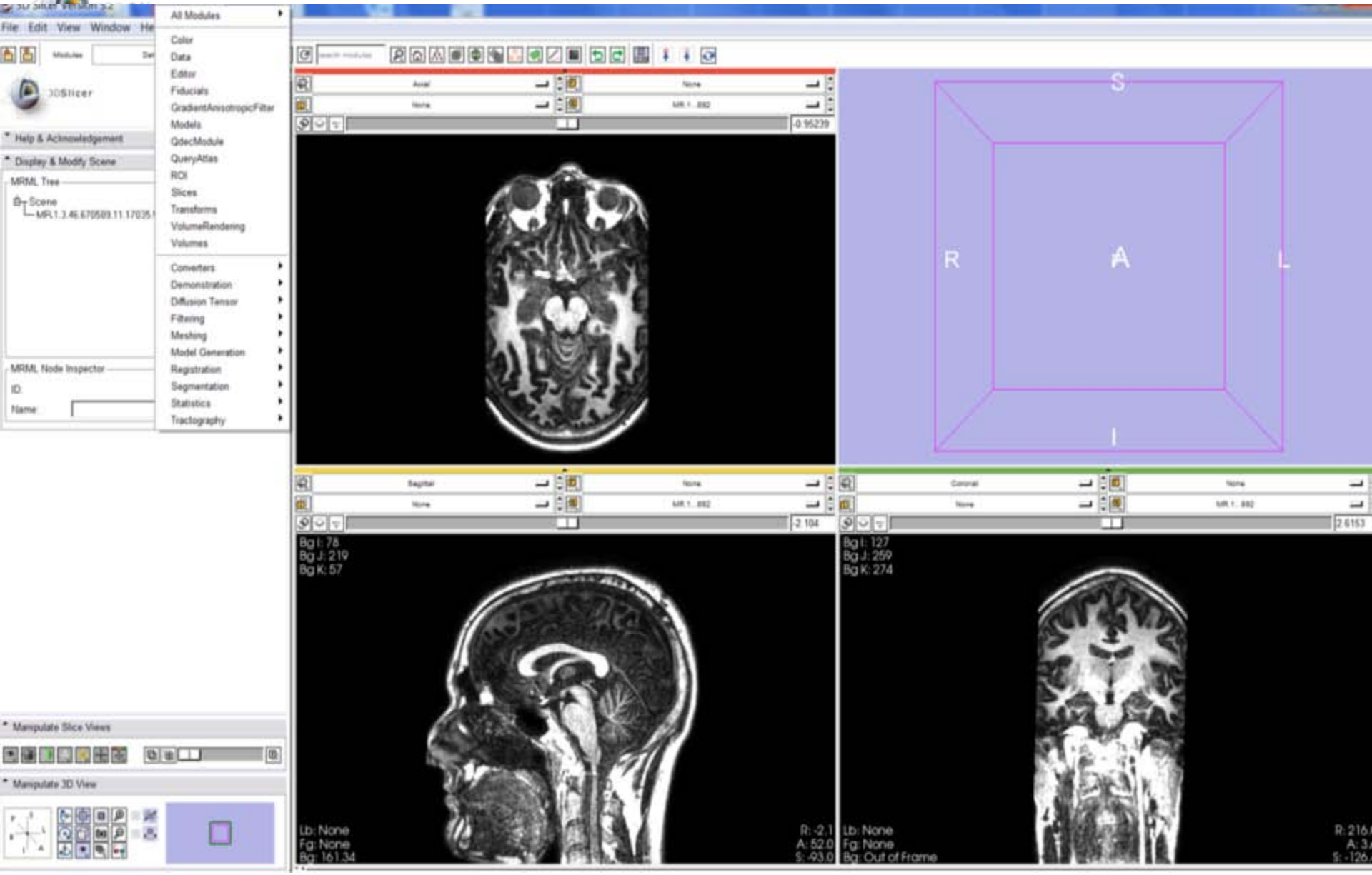

3DSlicer
File Edit View Window Help Feedback
Choose among layouts for the 3D and Slice viewers
Help & Acknowledgement
Display & Modify Scene
MRML Tree
Scene
MRML Node Inspector
ID
Name
Manipulate Slice Views
Manipulate 3D View

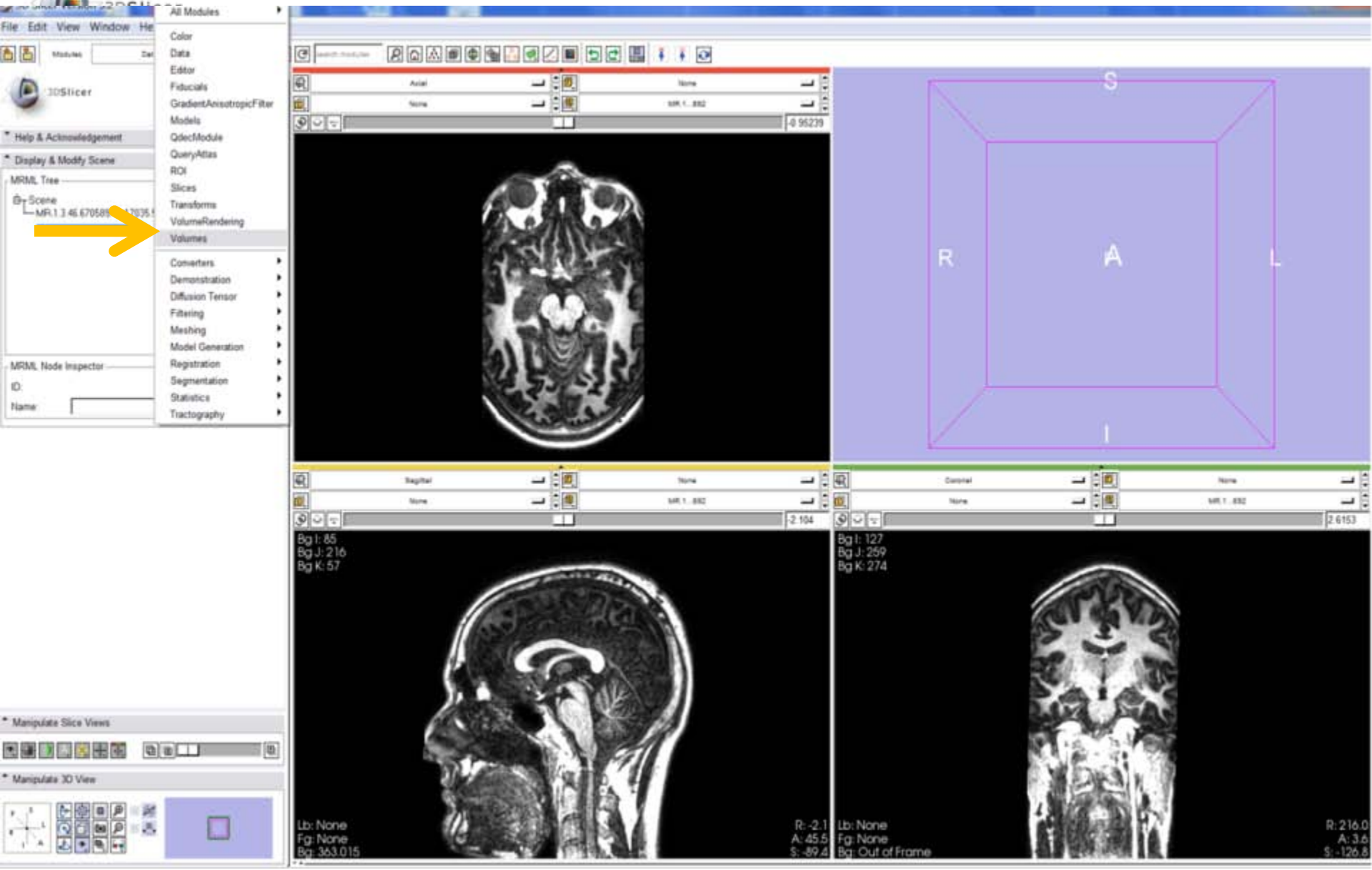

3DSlicer
File Edit View Window Help Feedback
Conventional layout
Four-up layout
3D only layout
Red slice only layout
Yellow slice only layout
Green slice only layout
Tabbed 3D layout
Tabbed slice layout
Compare view layout
Toggle GUI panel visibility
Toggle bottom panel visibility
Toggle GUI panel L/R
close
Help & Acknowledgement
Display & Modify Scene
MRML Tree
Scene
MRML Node Inspector
ID
Name
Manipulate Slice Views
Manipulate 3D View


3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Display & Modify Scene
MRML Tree
Scene
MRML Node Inspector
ID
Name
Manipulate Slice Views
Manipulate 3D View
Conventional layout
Four-up layout
3D only layout
Red slice only layout
Yellow slice only layout
Green slice only layout
Tabbed 3D layout
Tabbed slice layout
Compare view layout
Toggle GUI panel visibility
Toggle bottom panel visibility
Toggle GUI panel L/R
close

Volumes module




File Edit View Window
All Modules
Color
Data
Editor
Fiducials
GradientAnisotropicFilter
Models
QdecModule
QueryAtlas
ROI
Slices
Transforms
VolumeRendering
Volumes
Converters
Demonstration
Diffusion Tensor
Filtering
Meshing
Model Generation
Registration
Segmentation
Statistics
Tractography
3DSlicer
Help & Acknowledgement
Display & Modify Scene
MRML Tree
Scene
MRML Node Inspector
ID
Name
Manipulate Slice Views
Manipulate 3D View
S
R
A
L
I
Bg I: 78
Bg J: 219
Bg K: 57
Lb: None
Fg: None
Bg: 161.34
Bg I: 127
Bg J: 259
Bg K: 274
Lb: None
Fg: None
Bg: Out of Frame


File Edit View Window
All Modules
Color
Data
Editor
Fiducials
GradientAnisotropicFilter
Models
QdecModule
QueryAtlas
ROI
Slices
Transforms
VolumeRendering
Volumes
Converters
Demonstration
Diffusion Tensor
Filtering
Meshing
Model Generation
Registration
Segmentation
Statistics
Tractography
Help & Acknowledgement
Display & Modify Scene
MRML Tree
Scene
MRML Node Inspector
ID:
Name:
Manipulate Slice Views
Manipulate 3D View
S
R
A
L
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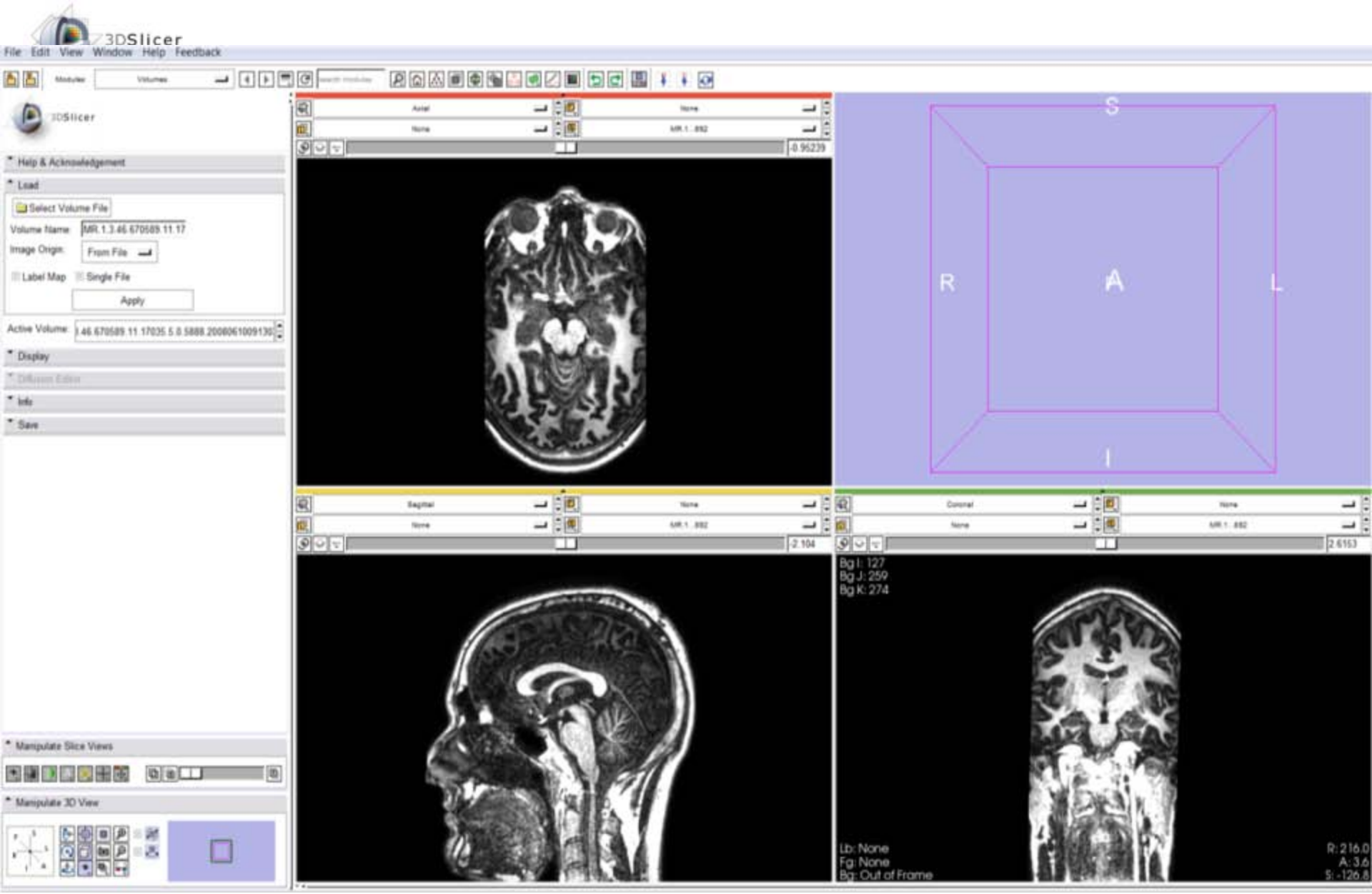
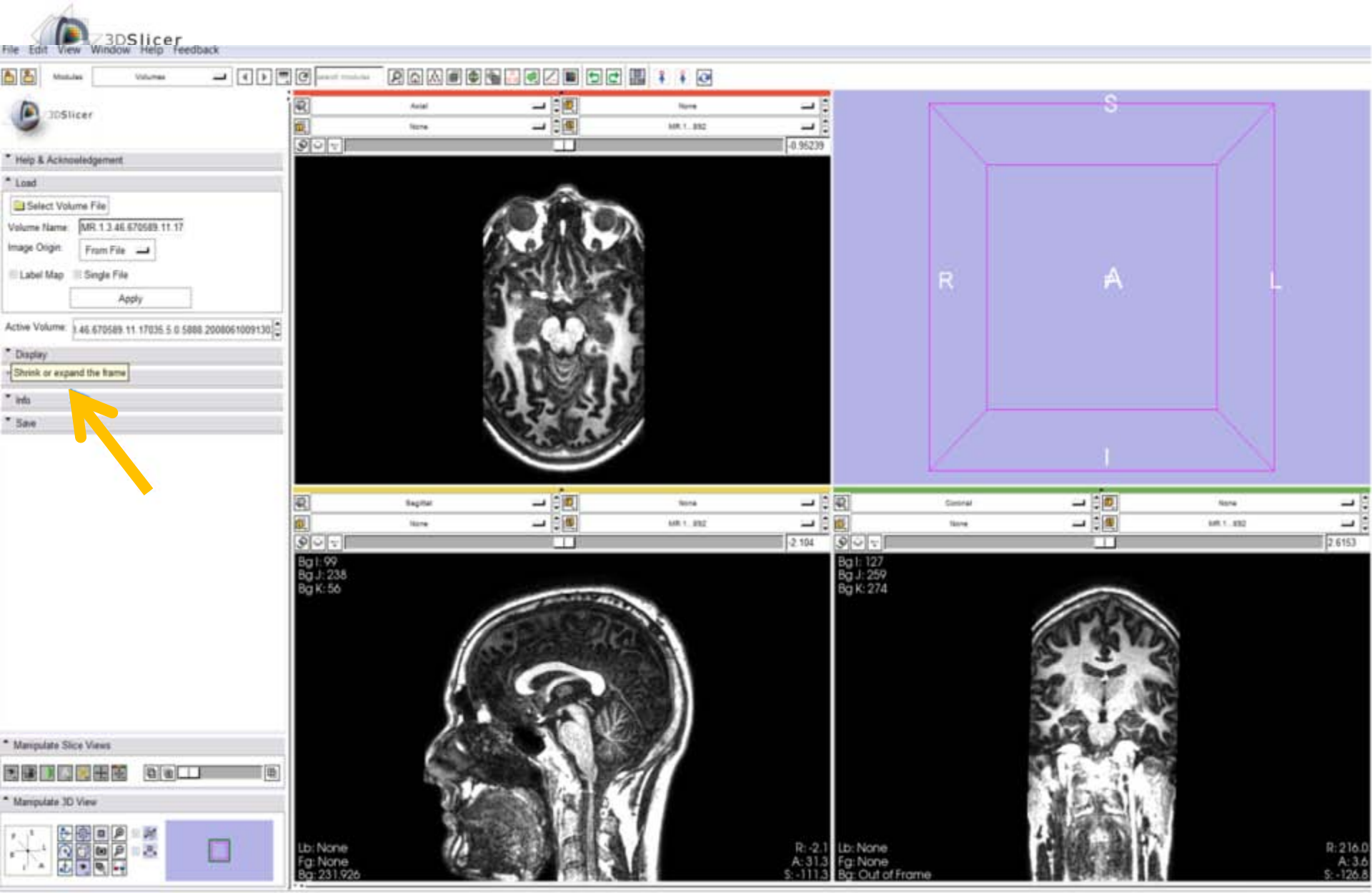
Bg I: 85
Bg J: 216
Bg K: 57
Lb: None
Fg: None
Bg: 363.015
R: -2.1
A: 45.5
S: -89.4
Bg I: 127
Bg J: 259
Bg K: 274
Lb: None
Fg: None
Bg: Out of Frame
R: 216.0
A: 3.6
S: -126.8


3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Load
Select Volume File
Volume Name
Image Origin
From File
Label Map
Single File
Apply
Active Volume
Display
Info
Save
Manipulate Slice Views
Manipulate 3D View
S
R
A
L
I
Bg I: 127
Bg J: 259
Bg K: 274
Lb: None
Fg: None
Bg: Out of Frame


3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Load
Select Volume File
Volume Name:
Image Origin:
From File
Label Map
Single File
Apply
Active Volume:
Display
Shrink or expand the frame
Info
Save
Manipulate Slice Views
Manipulate 3D View
Axial
Sagittal
Coronal
S
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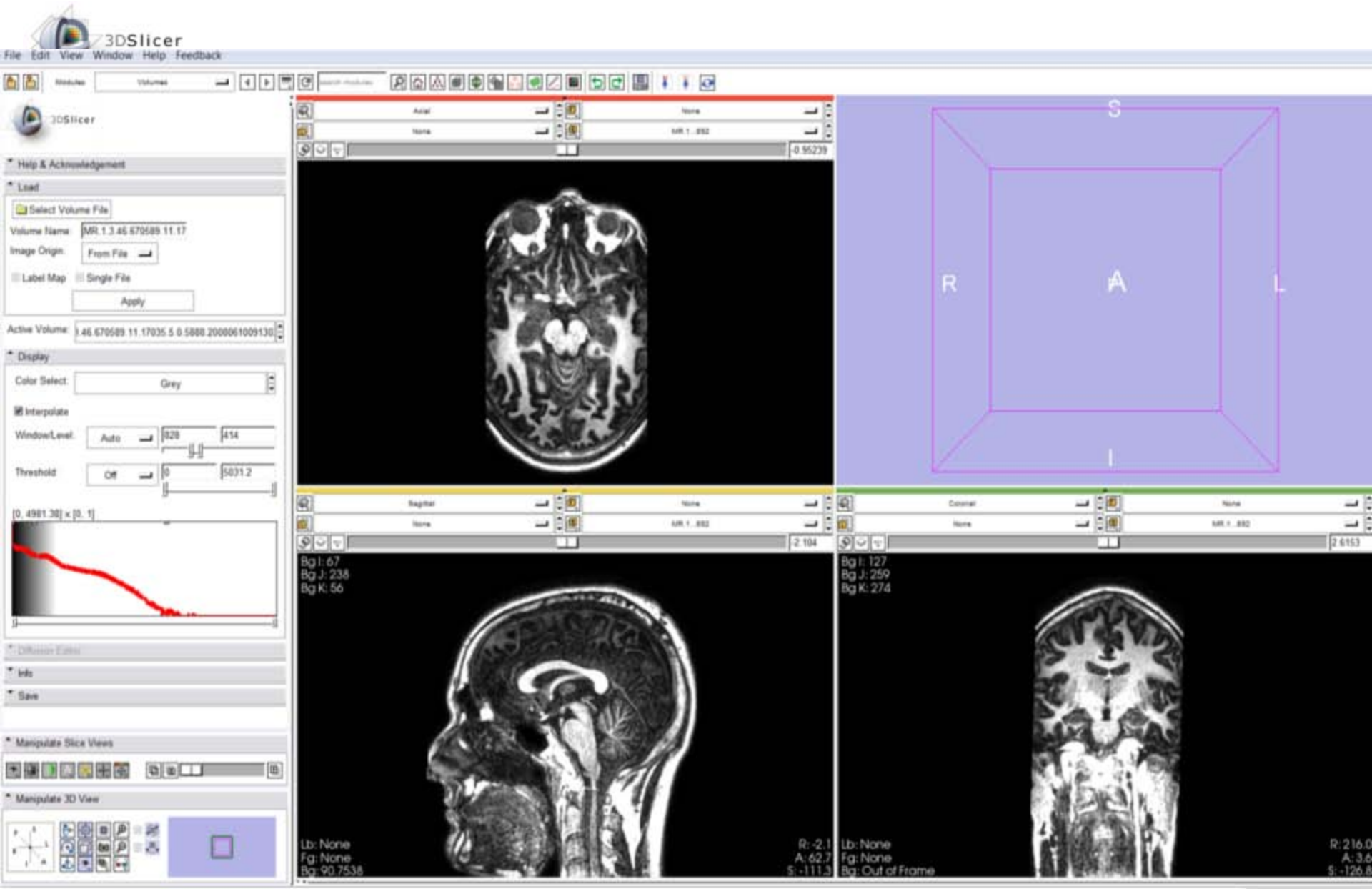
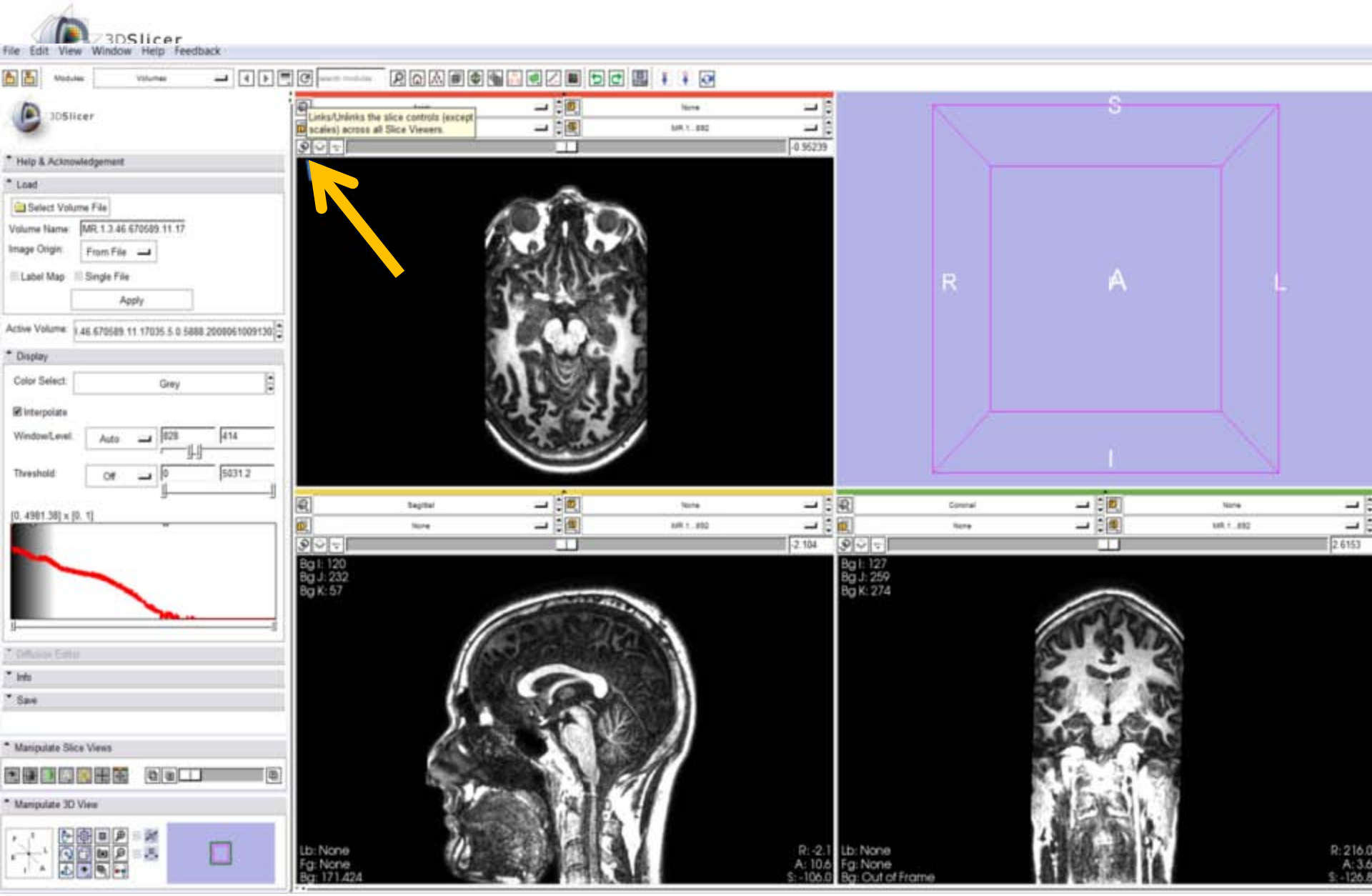
I
Bg I: 99
Bg J: 238
Bg K: 56
Bg I: 127
Bg J: 259
Bg K: 274
Lb: None
Fg: None
Bg: 231.926
Lb: None
Fg: None
Bg: Out of Frame


3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Load
Select Volume File
Volume Name:
Image Origin:
From File
Label Map
Single File
Apply
Active Volume:
Display
Color Select:
Grey
Interpolate
Window/Level:
Auto
Threshold:
Off
Info
Save
Manipulate Slice Views
Manipulate 3D View
S
R
A
L
I
Bg I: 67
Bg J: 238
Bg K: 56
Lb: None
Fg: None
Bg: 90.7538
Bg I: 127
Bg J: 259
Bg K: 274
Lb: None
Fg: None
Bg: Out of Frame


3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Load
Select Volume File
Volume Name
Image Origin
From File
Label Map
Single File
Apply
Active Volume
Display
Color Select
Grey
Interpolate
Window/Level
Auto
Threshold
Off
Info
Save
Manipulate Slice Views
Manipulate 3D View
S
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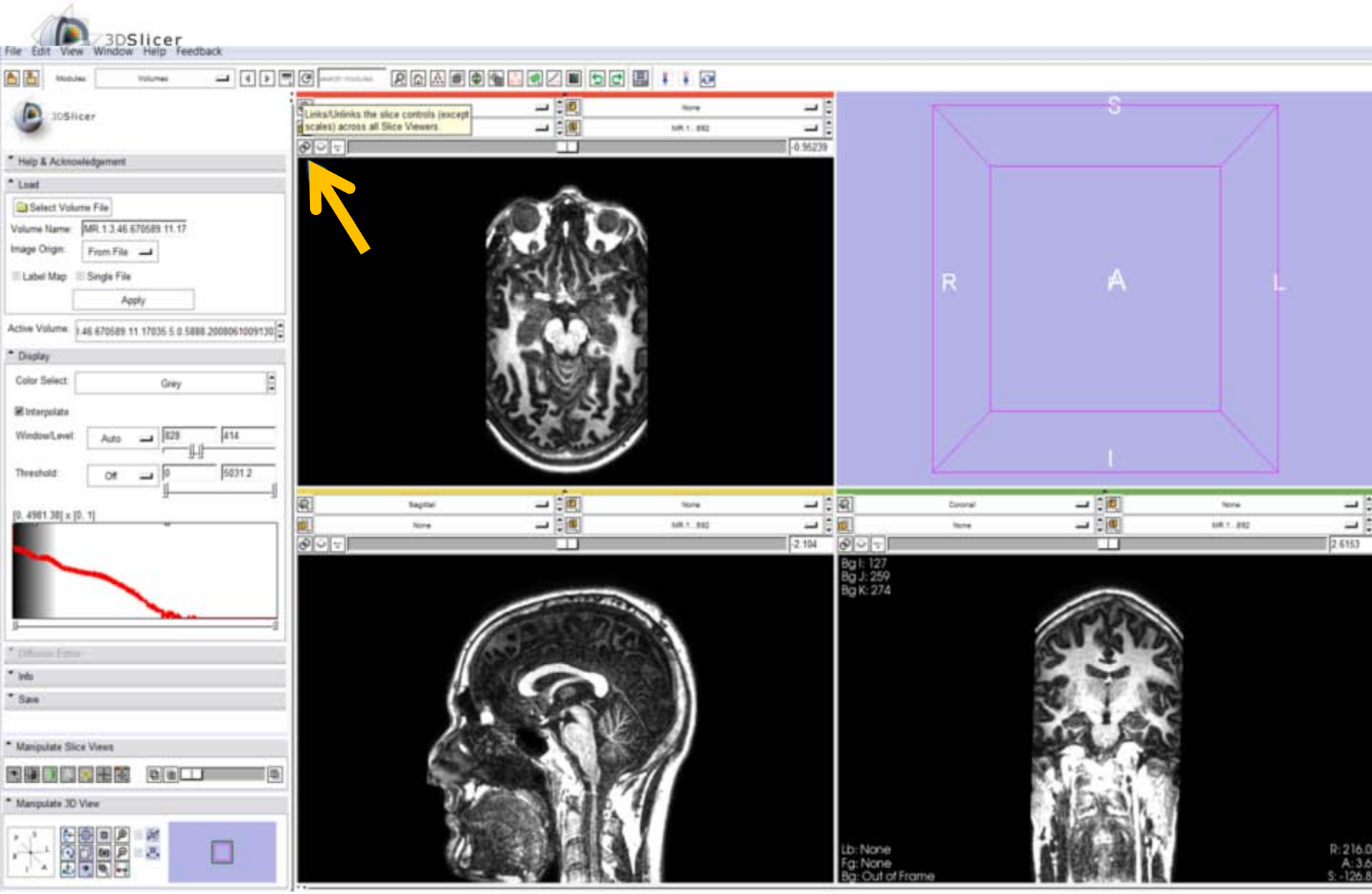
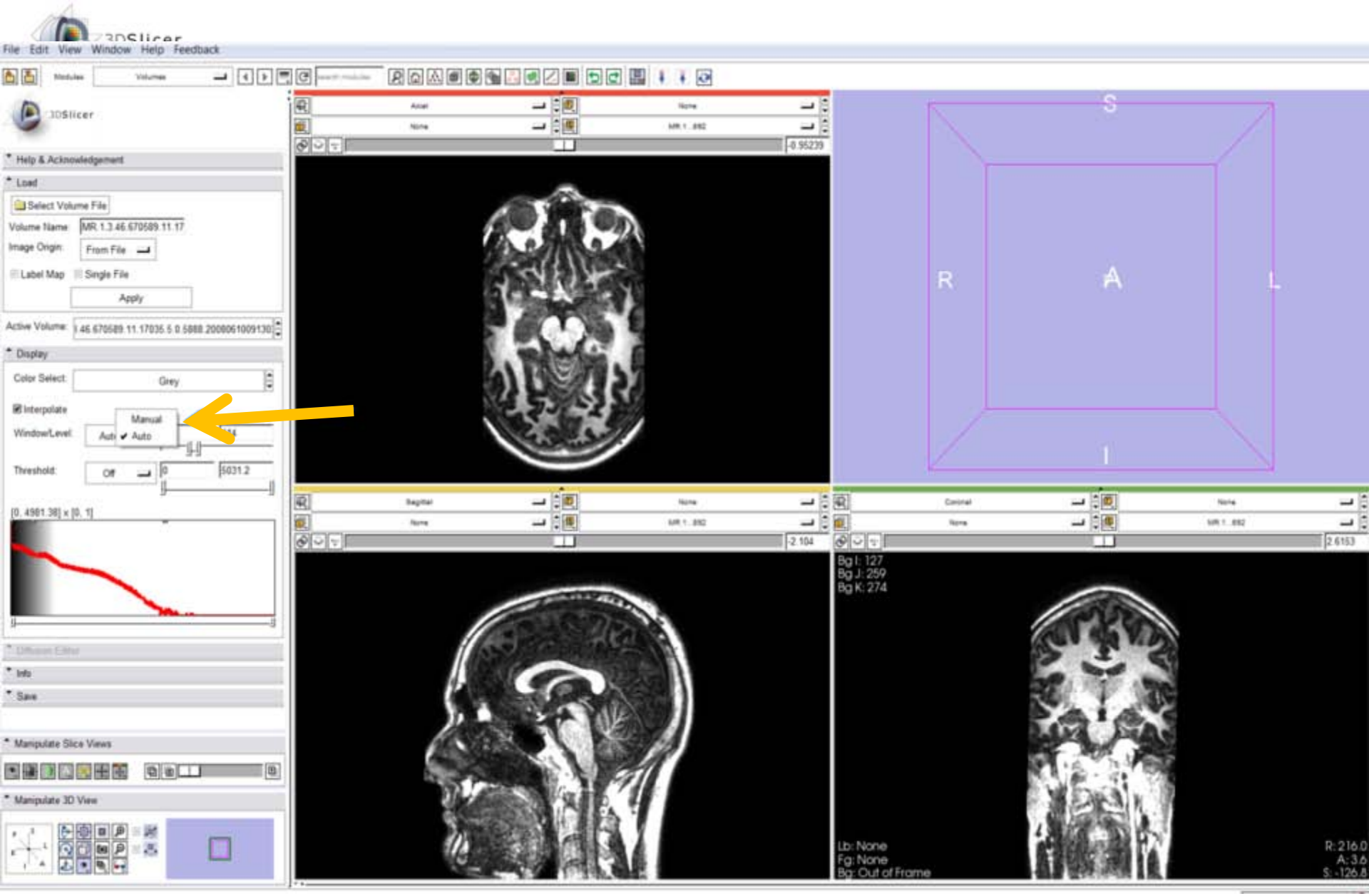
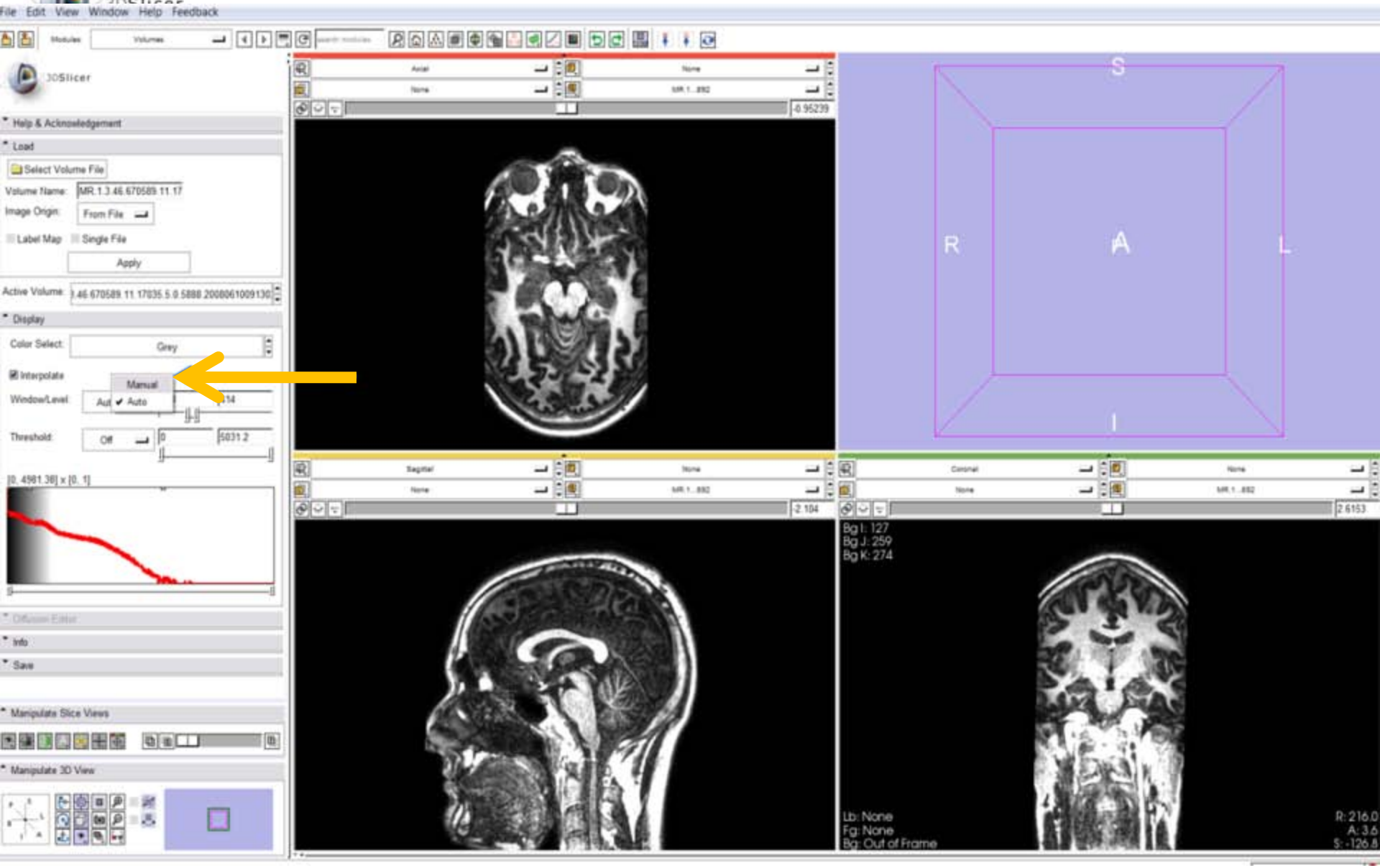
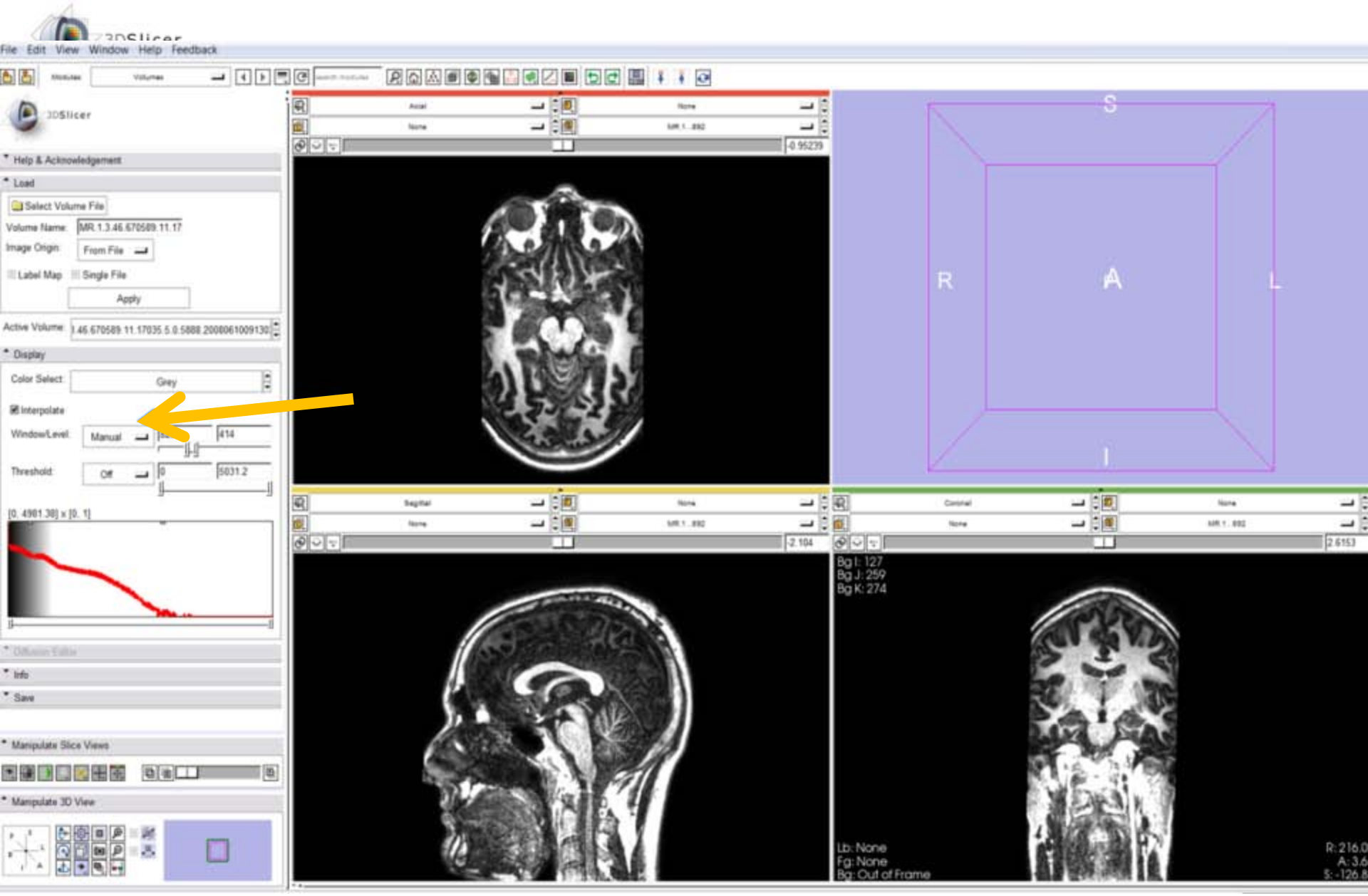
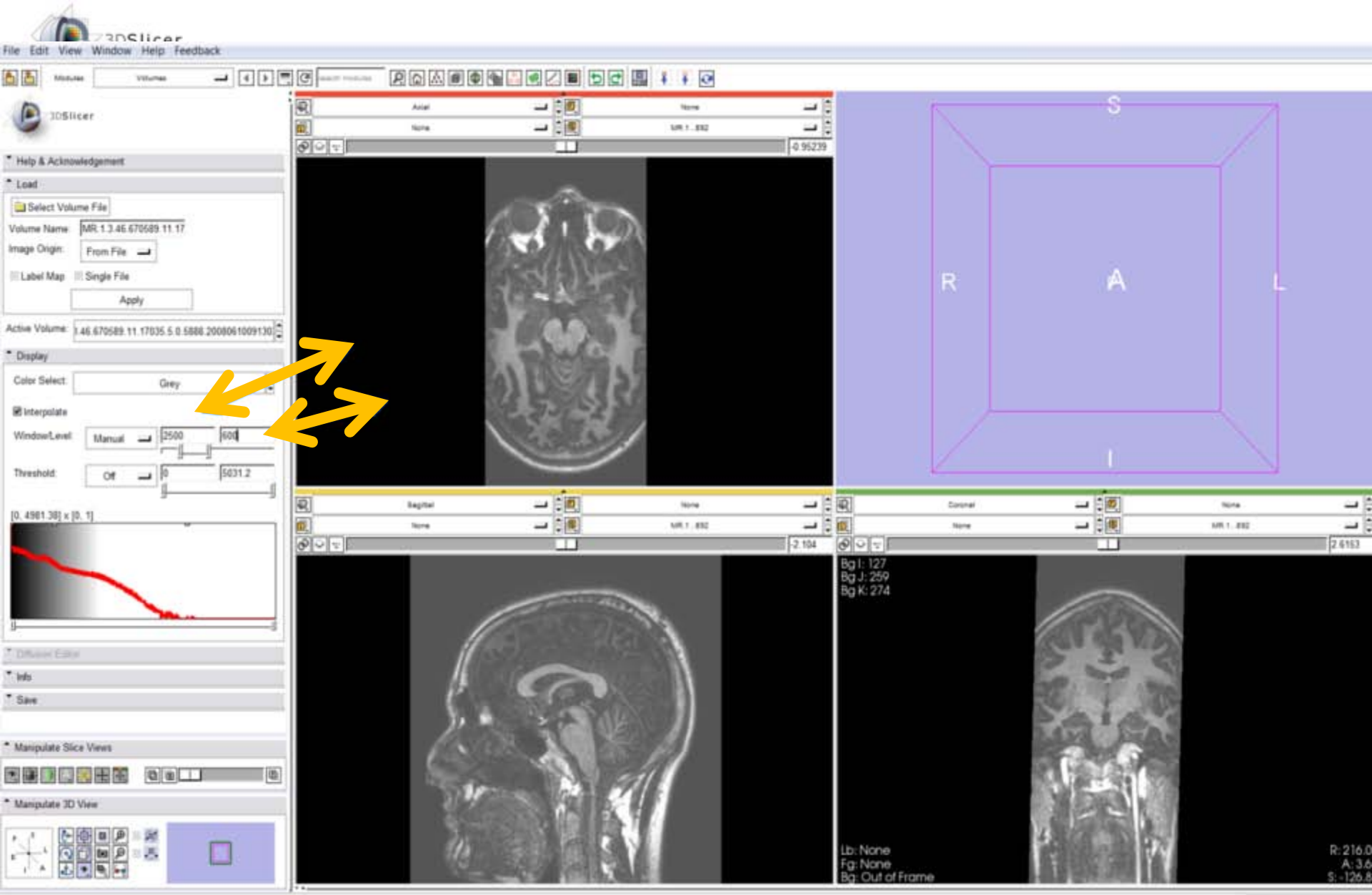
A
L
I
Bg I: 120
Bg J: 232
Bg K: 57
Lb: None
Fg: None
Bg: 171.424
Bg I: 127
Bg J: 259
Bg K: 274
Lb: None
Fg: None
Bg: Out of Frame


3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Load
Select Volume File
Volume Name:
Image Origin:
From File
Label Map
Single File
Apply
Active Volume:
Display
Color Select:
Grey
Interpolate
Window/Level:
Auto
Threshold:
Off
Info
Save
Manipulate Slice Views
Manipulate 3D View
Links/Unlinks the slice controls (except scales) across all Slice Viewers
S
R
A
L
I
Bg I: 127
Bg J: 259
Bg K: 274
Lb: None
Fg: None
Bg: Out of Frame

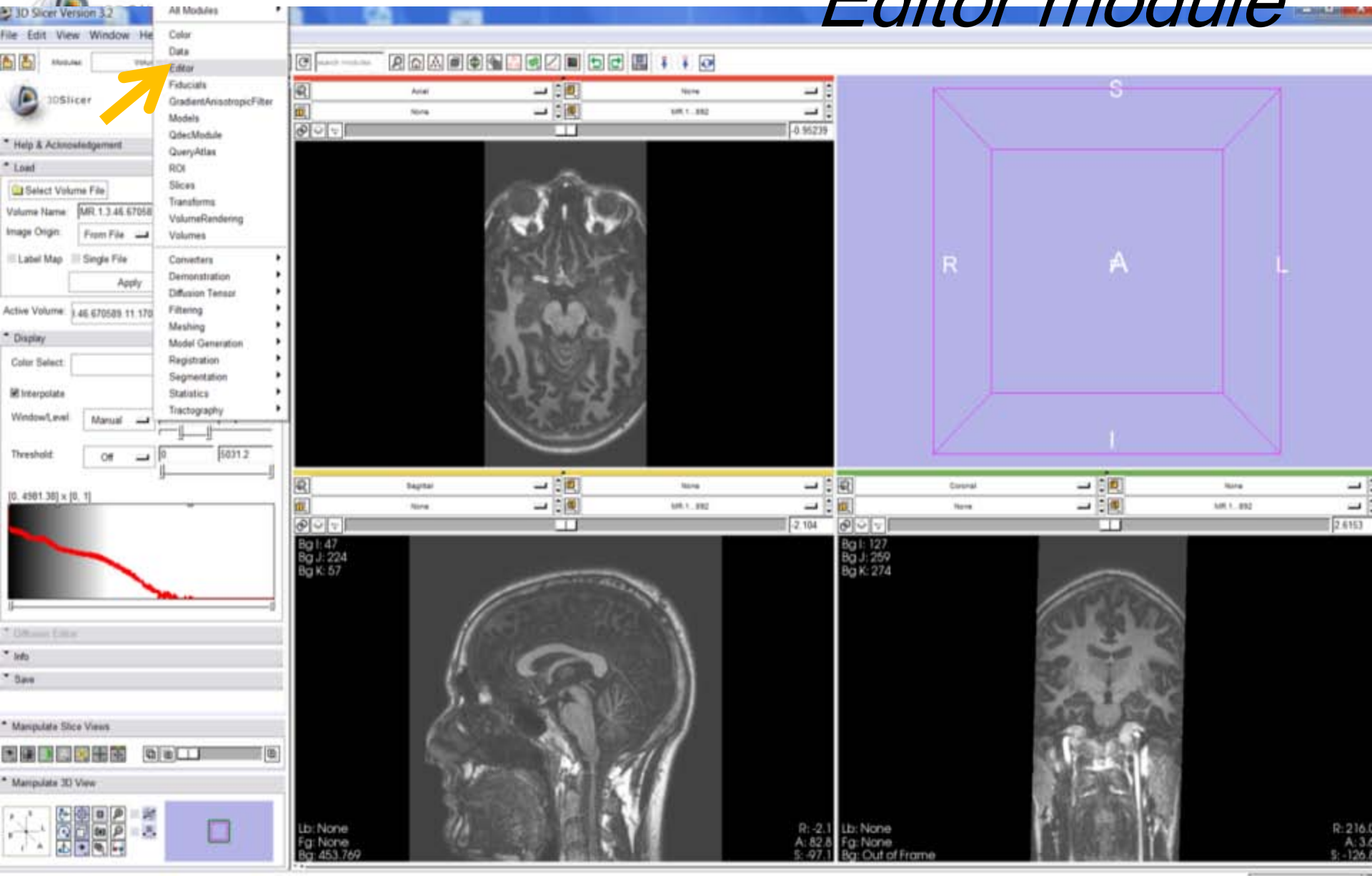

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Load
Select Volume File
Volume Name:
MR.1.3.46.670589.11.17
Image Origin:
From File
Label Map
Single File
Apply
Active Volume:
Display
Color Select:
Grey
Interpolate
Manual
Auto
WindowLevel:
Threshold:
Off
Info
Save
Manipulate Slice Views
Manipulate 3D View
S
R
A
L
I
Bg I: 127
Bg J: 259
Bg K: 274
Lb: None
Fg: None
Bg: Out of Frame
R: 216.0
A: 3.6
S: -126.8

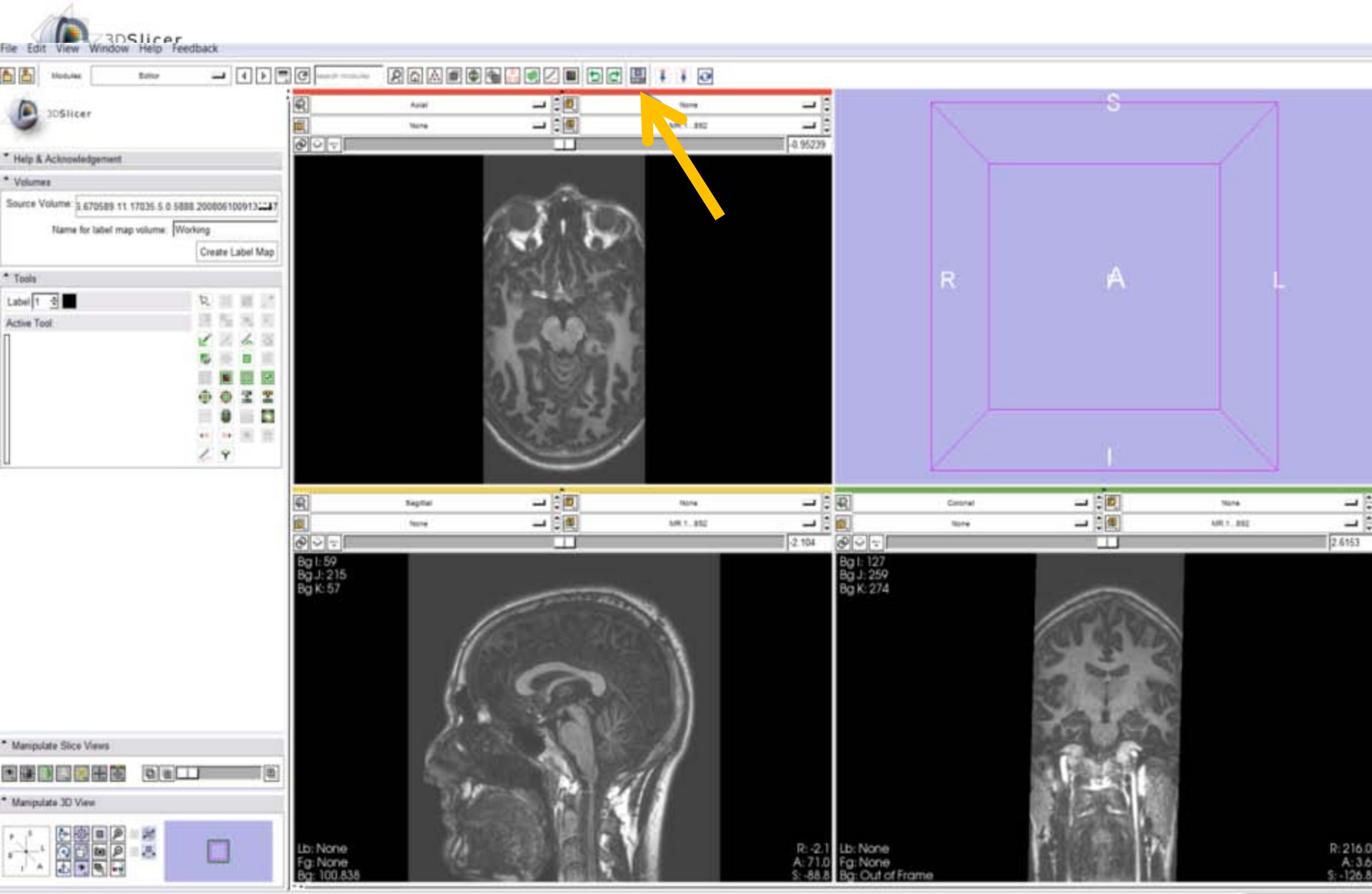

File Edit View Window Help Feedback
Help & Acknowledgement
Load
Select Volume File
Volume Name:
Image Origin:
From File
Label Map
Single File
Apply
Active Volume:
Display
Color Select:
Grey
Interpolate
Manual
Auto
Window/Level
Threshold:
Off
Info
Save
Manipulate Slice Views
Manipulate 3D View
S
R
A
L
I
Bg I: 127
Bg J: 259
Bg K: 274
Lb: None
Fg: None
Bg: Out of Frame
R: 216.0
A: 3.6
S: -126.8

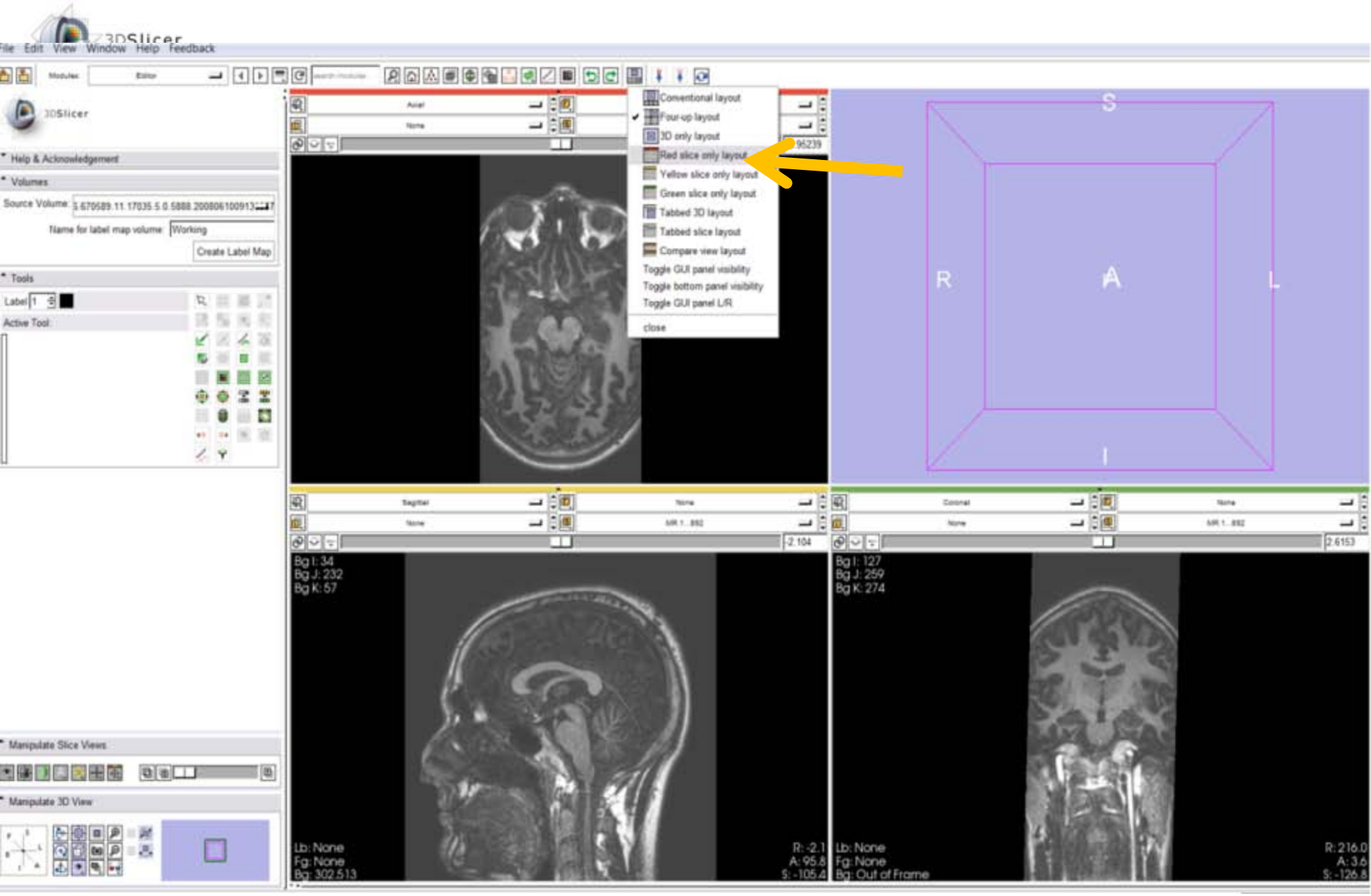

File Edit View Window Help Feedback
3DSlicer
Help & Acknowledgement
Load
Select Volume File
Volume Name:
MR.1.3.46.670589.11.17
Image Origin:
From File
Label Map
Single File
Apply
Active Volume:
Display
Color Select:
Grey
Interpolate
Window/Level:
Manual
414
Threshold:
Off
5031.2
[0, 4961.38] x [0, 1]
Info
Save
Manipulate Slice Views
Manipulate 3D View
S
R
A
L
I
Bg I: 127
Bg J: 259
Bg K: 274
Lb: None
Fg: None
Bg: Out of Frame


3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Load
Select Volume File
Volume Name
Image Origin
From File
Label Map
Single File
Apply
Active Volume
Display
Color Select
Grey
Interpolate
Window/Level
Manual
Threshold
Off
Info
Save
Manipulate Slice Views
Manipulate 3D View
S
R
A
L
I
Bg I: 127
Bg J: 259
Bg K: 274
Lb: None
Fg: None
Bg: Out of Frame

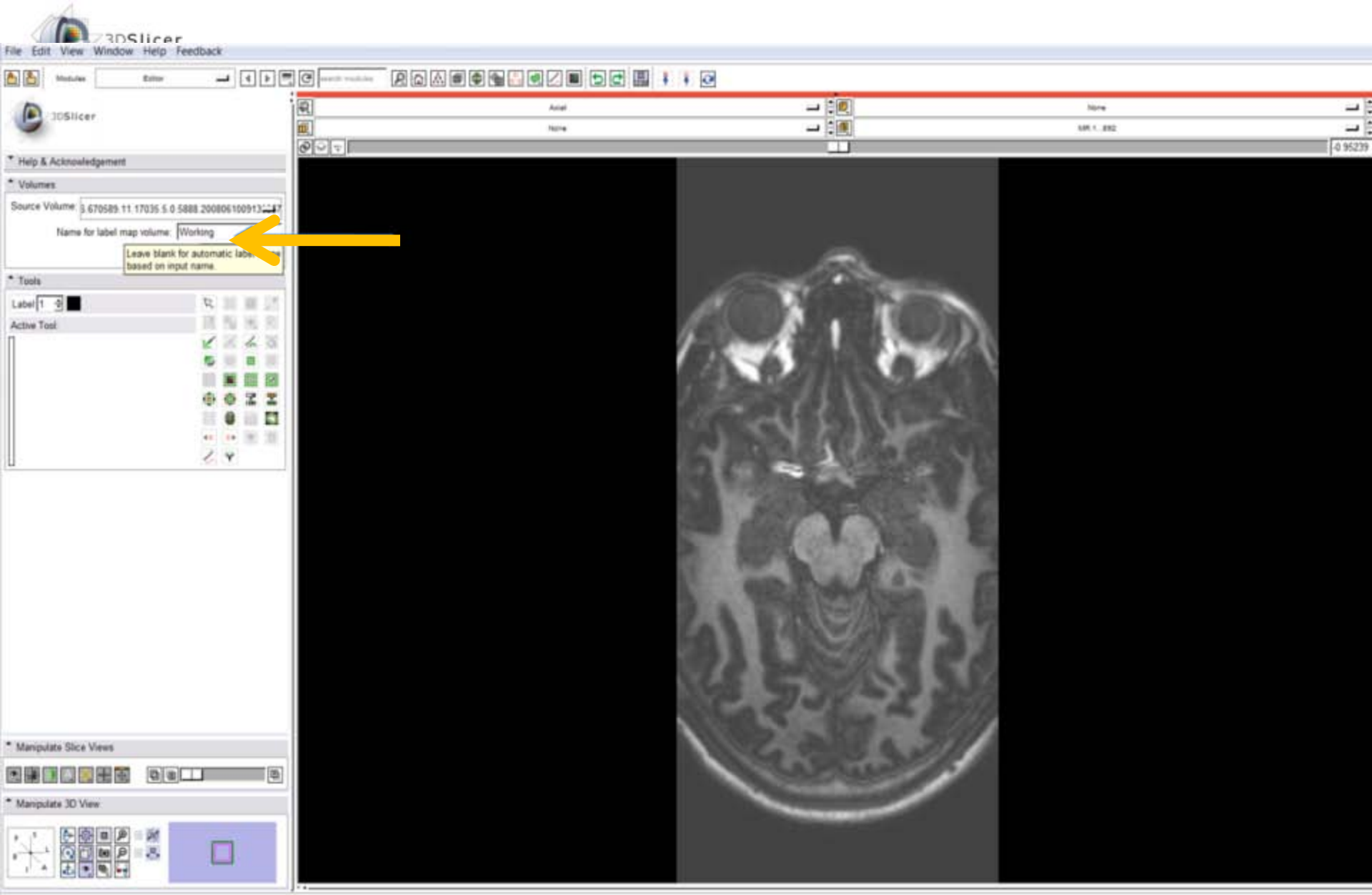
Editor module

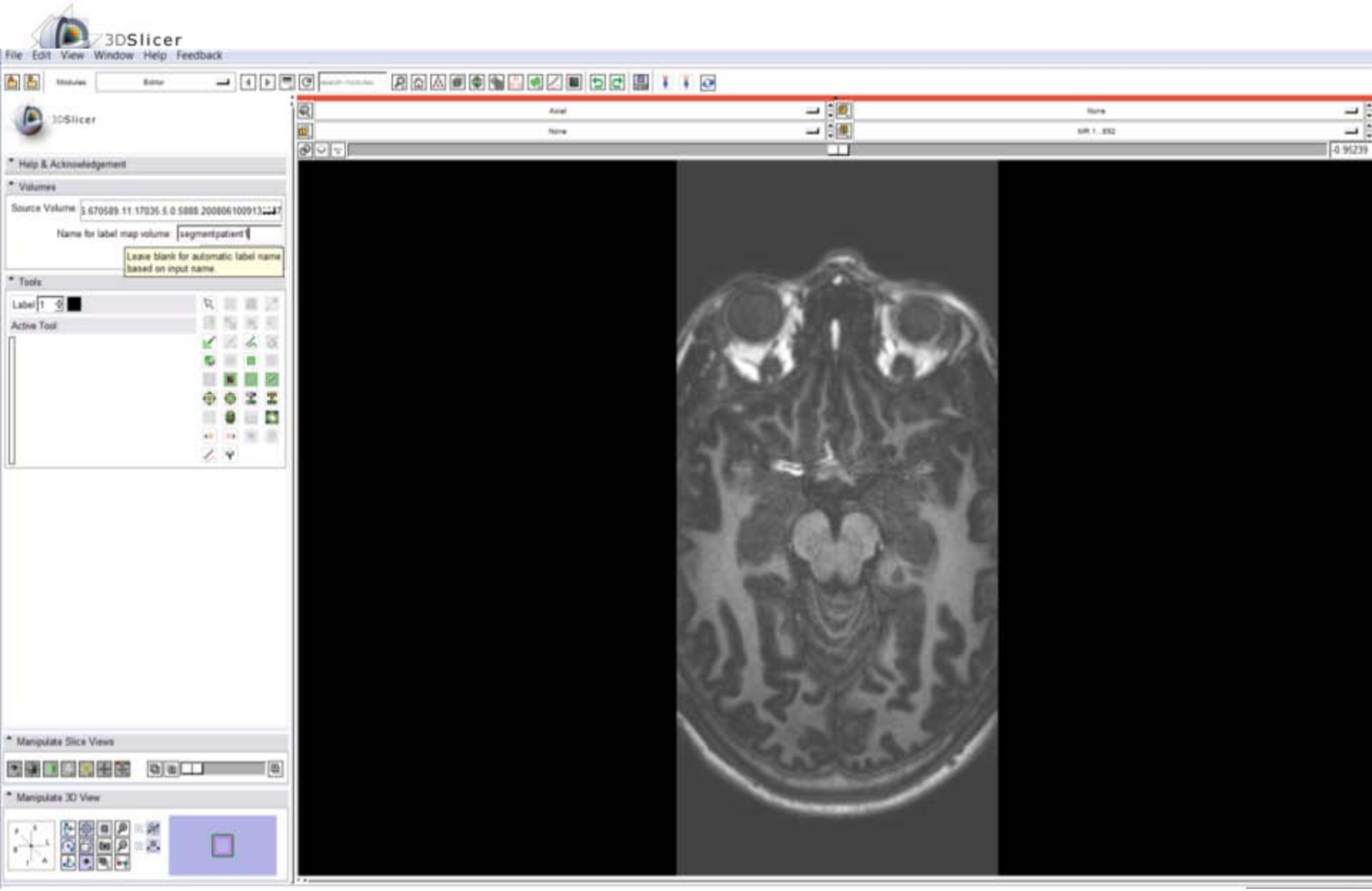


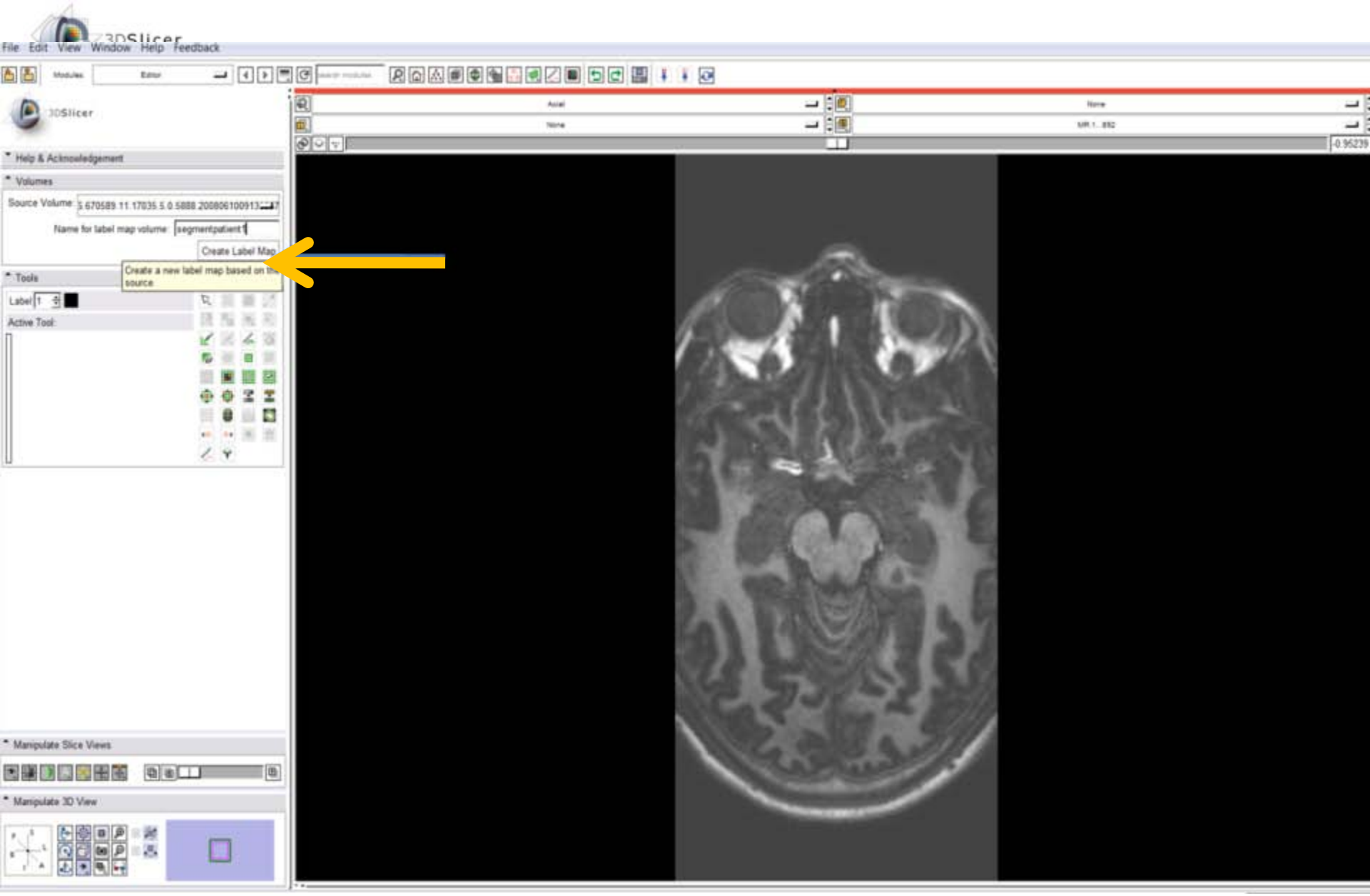

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume
Name for label map volume:
Working
Create Label Map
Tools
Label
Active Tool:
Manipulate Slice Views
Manipulate 3D View
S
R
A
L
I
Bg I: 59
Bg J: 215
Bg K: 57
Lb: None
Fg: None
Bg: 100.838
R: -2.1
A: 71.0
S: -88.8
Bg I: 127
Bg J: 259
Bg K: 274
Lb: None
Fg: None
Bg: Out of Frame


3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume
Name for label map volume
Working
Create Label Map
Tools
Label
Active Tool
Manipulate Slice Views
Manipulate 3D View
Conventional layout
Four-up layout
3D only layout
Red slice only layout
Yellow slice only layout
Green slice only layout
Tabbed 3D layout
Tabbed slice layout
Compare view layout
Toggle GUI panel visibility
Toggle bottom panel visibility
Toggle GUI panel L/R
close
S
R
A
L
I
Bg I: 34
Bg J: 232
Bg K: 57
Lb: None
Fg: None
Bg: 302.513
R: -2.1
A: 95.8
S: -105.4
Bg I: 127
Bg J: 259
Bg K: 274
Lb: None
Fg: None
Bg: Out of Frame
R: 216.0
A: 3.6
S: -126.8

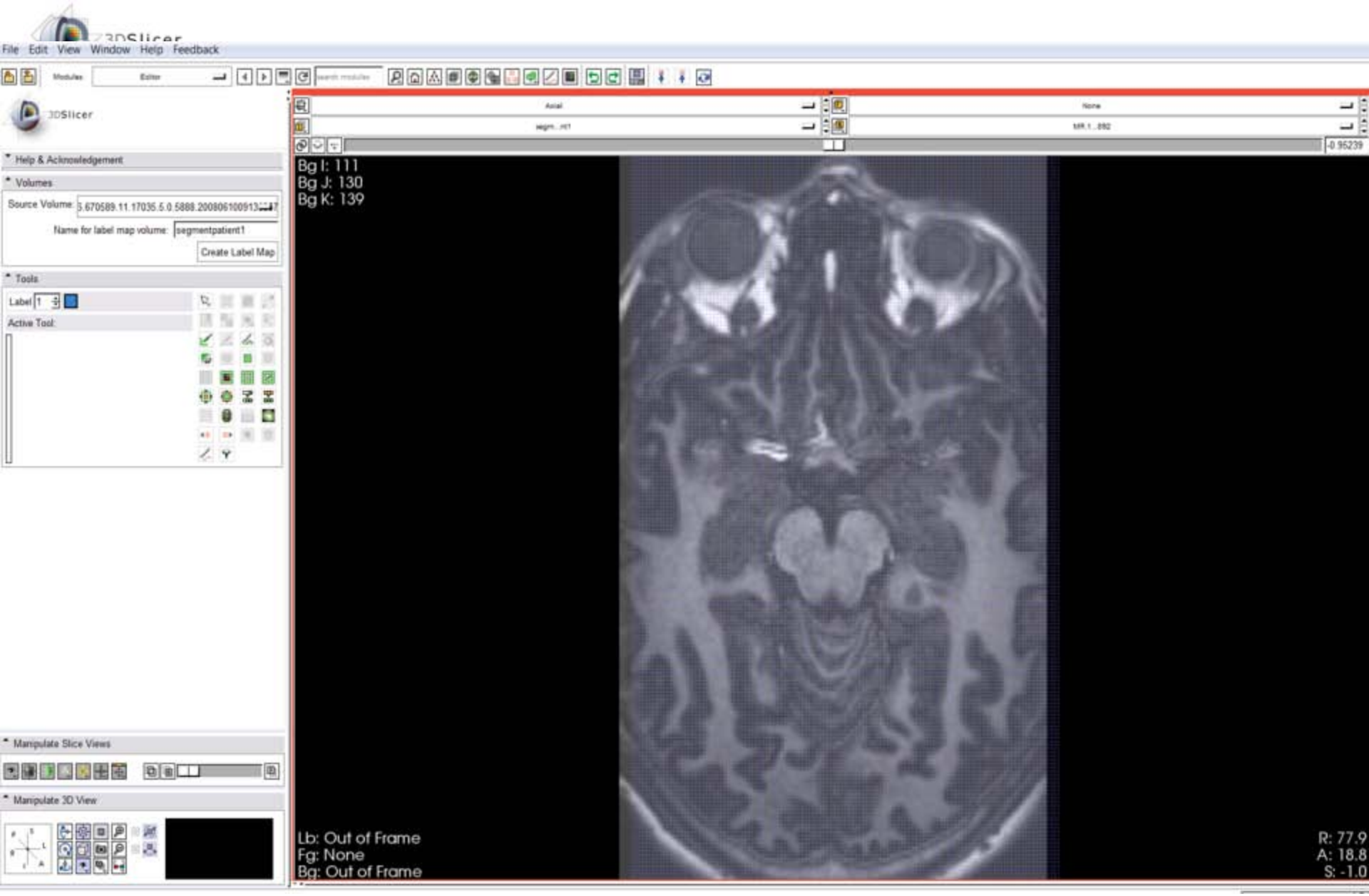
3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume
Name for label map volume: Working
Create Label Map
Tools
Label 1
Active Tool:
Manipulate Slice Views
Manipulate 3D View
Bg I: 3
Bg J: 129
Bg K: 133
Lb: None
Fg: None
Bg: Out of Frame
R: 71.2
A: 126.9
S: -1.0

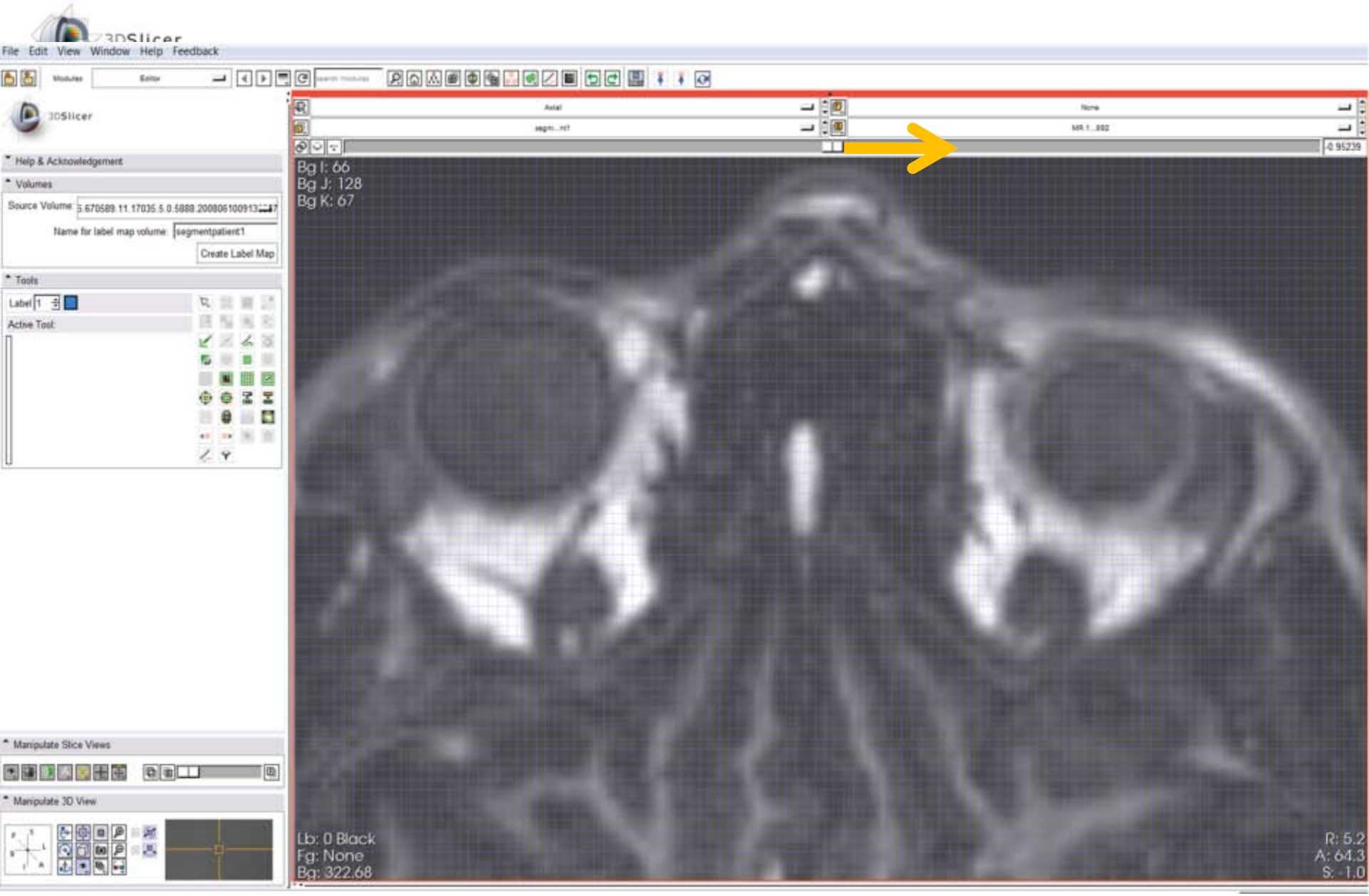

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume:
Name for label map volume:
Working
Tools
Label
Active Tool
Manipulate Slice Views
Manipulate 3D View

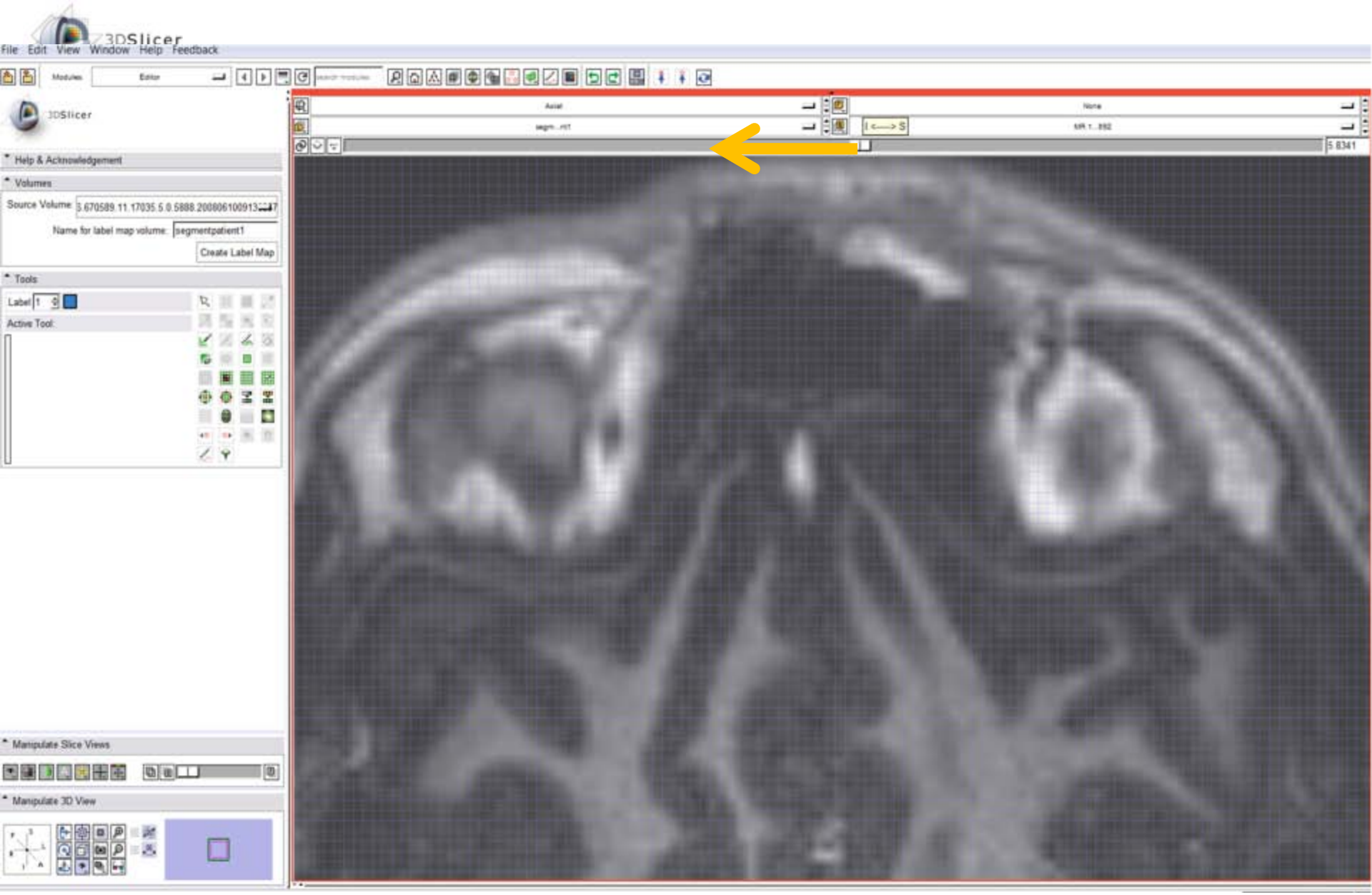

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume
Name for label map volume
segmentpatient1
Leave blank for automatic label name based on input name
Tools
Label
Active Tool
Manipulate Slice Views
Manipulate 3D View

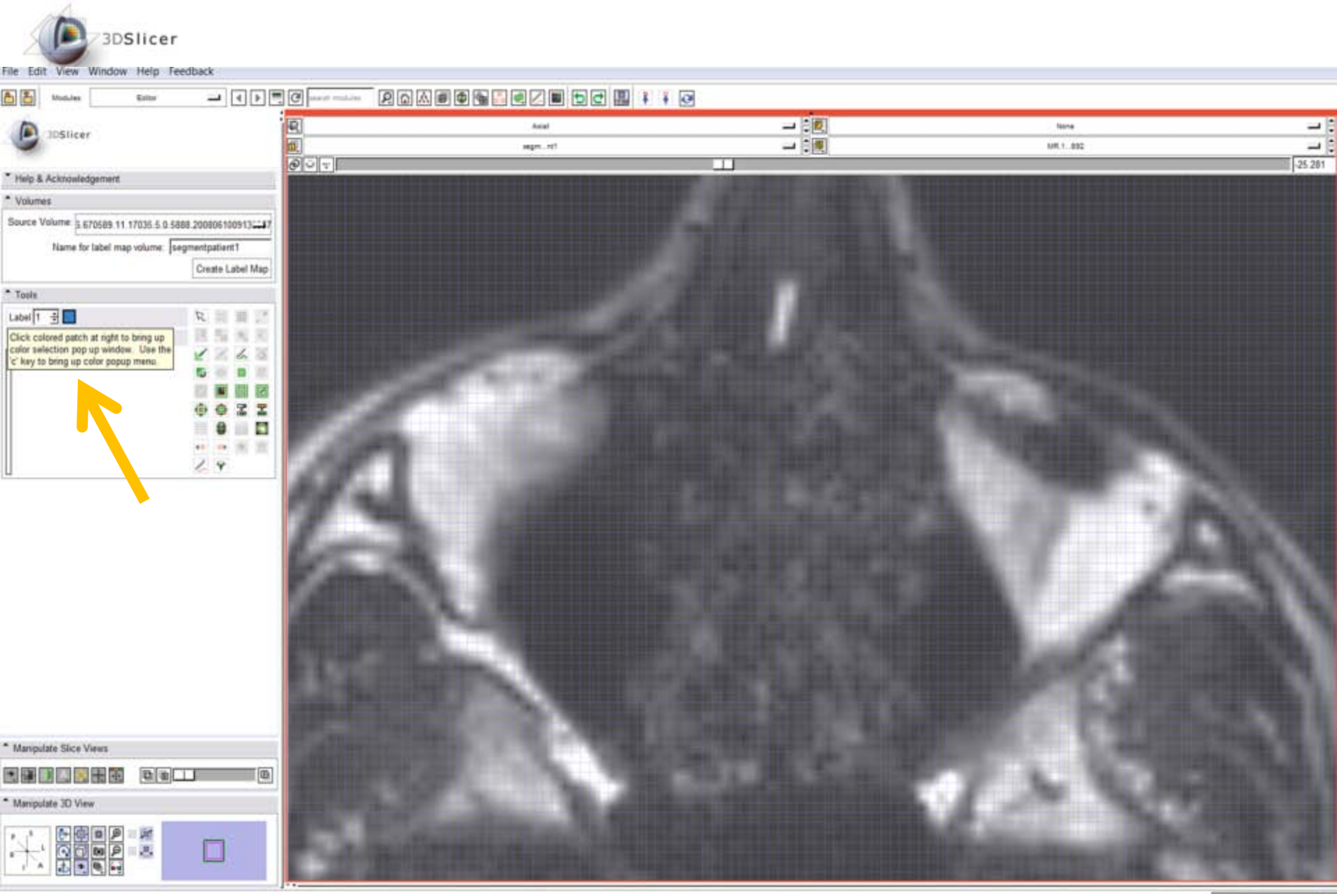

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume:
Name for label map volume:
segmentpatient1
Create Label Map
Tools
Label
Active Tool:
Manipulate Slice Views
Manipulate 3D View

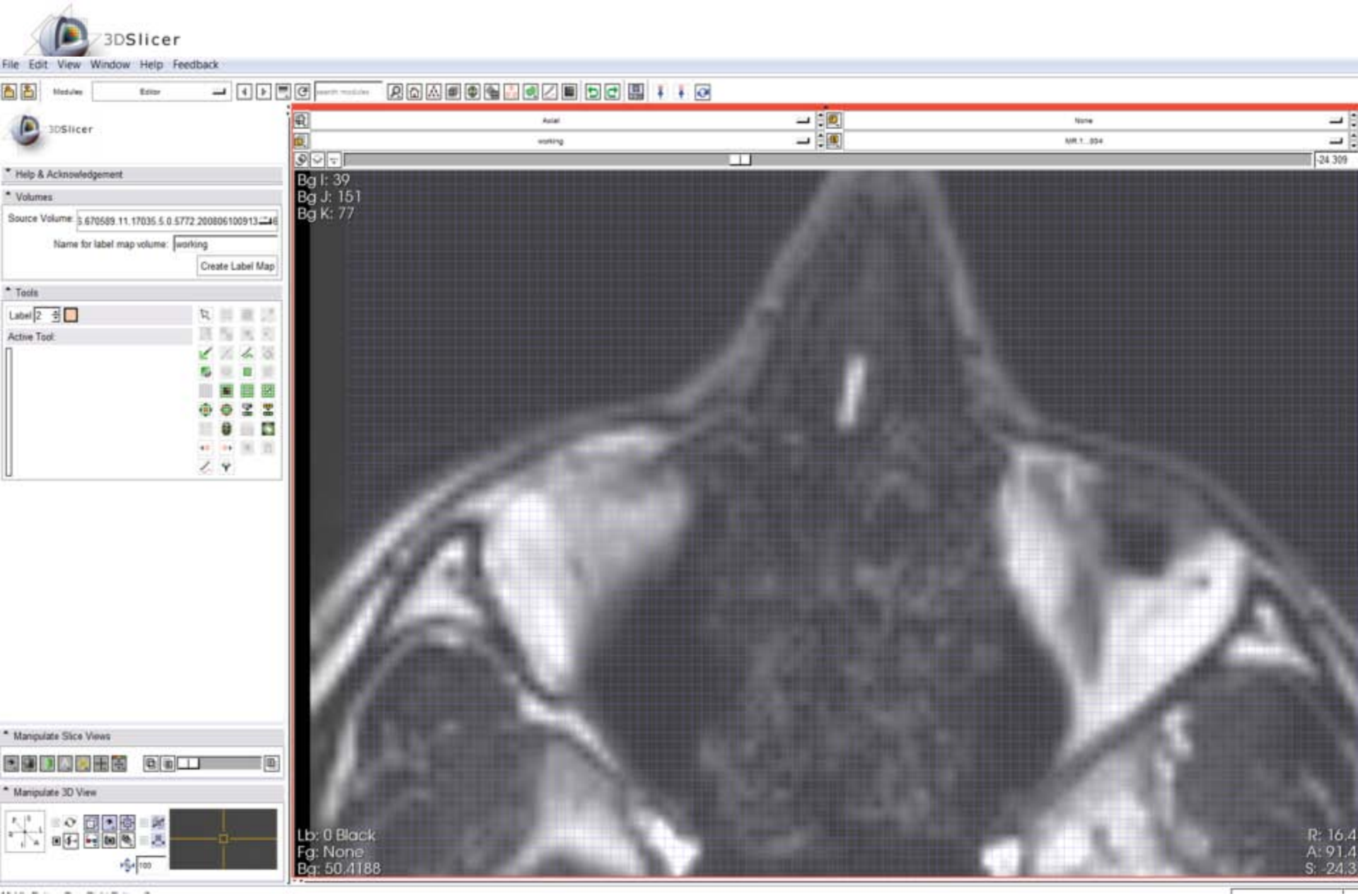
3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume
Name for label map volume
segmentpatient1
Create Label Map
Create a new label map based on the source.
Tools
Label
Active Tool
Manipulate Slice Views
Manipulate 3D View


3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume:
Name for label map volume:
segmentpatient1
Create Label Map
Tools
Label
Active Tool:
Manipulate Slice Views
Manipulate 3D View
Bg I: 111
Bg J: 130
Bg K: 139
Lb: Out of Frame
Fg: None
Bg: Out of Frame
R: 77.9
A: 18.8
S: -1.0

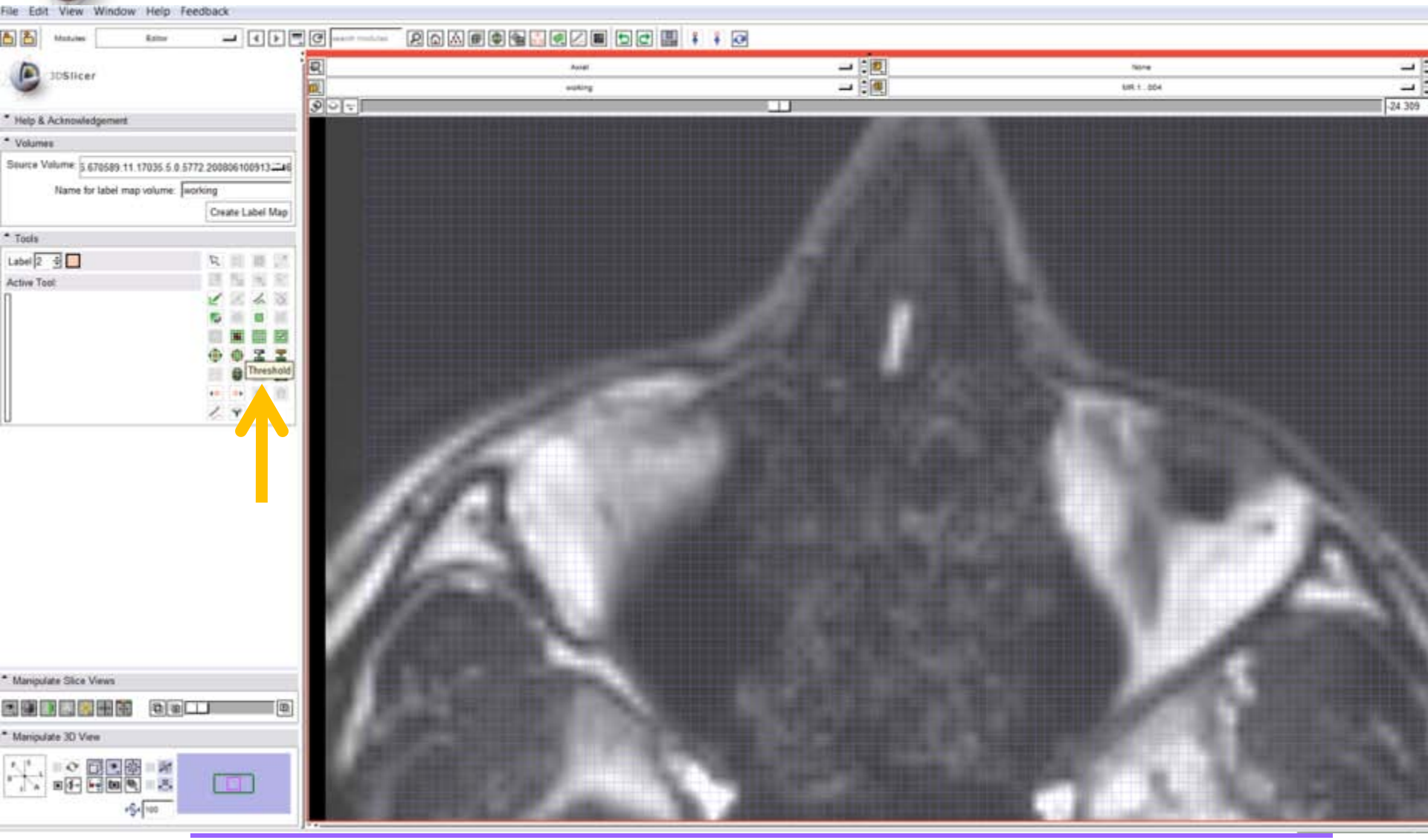

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume
Name for label map volume:
segmentpatient1
Create Label Map
Tools
Label
Active Tool:
Manipulate Slice Views
Manipulate 3D View
Bg I: 66
Bg J: 128
Bg K: 67
Lb: 0 Black
Fg: None
Bg: 322.68
R: 5.2
A: 64.3
S: -1.0

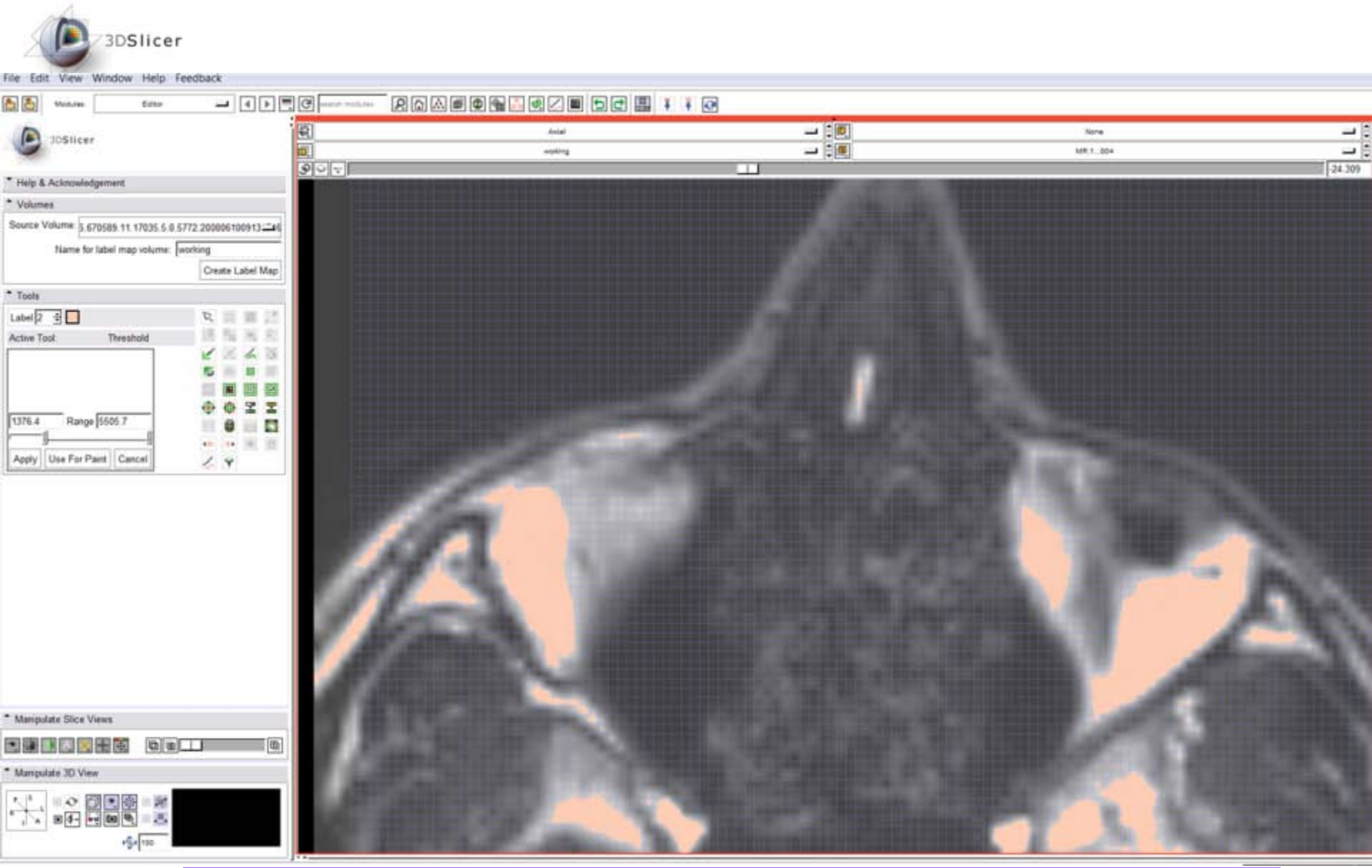

3DSlicer
File Edit View Window Help Feedback
Modules:
Editor
3DSlicer
Help & Acknowledgement
Volumes
Source Volume:
Name for label map volume:
segmentpatient1
Create Label Map
Tools
Label
Active Tool:
Manipulate Slice Views
Manipulate 3D View
Axial
None
I <---> S
S 8341

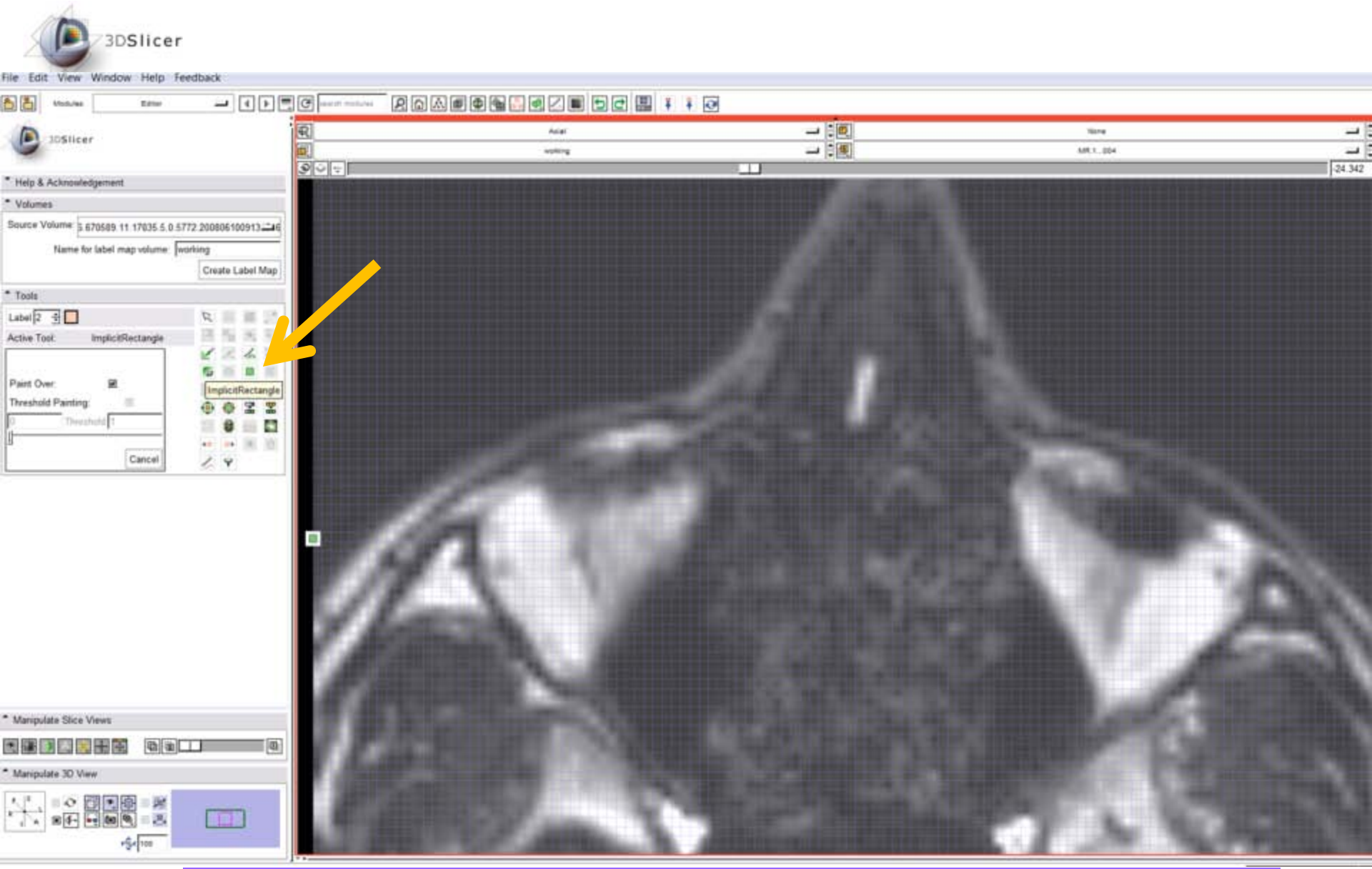

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume
Name for label map volume:
segmentpatient1
Create Label Map
Tools
Label
Click colored patch at right to bring up color selection pop up window. Use the 'c' key to bring up color popup menu.
Manipulate Slice Views
Manipulate 3D View

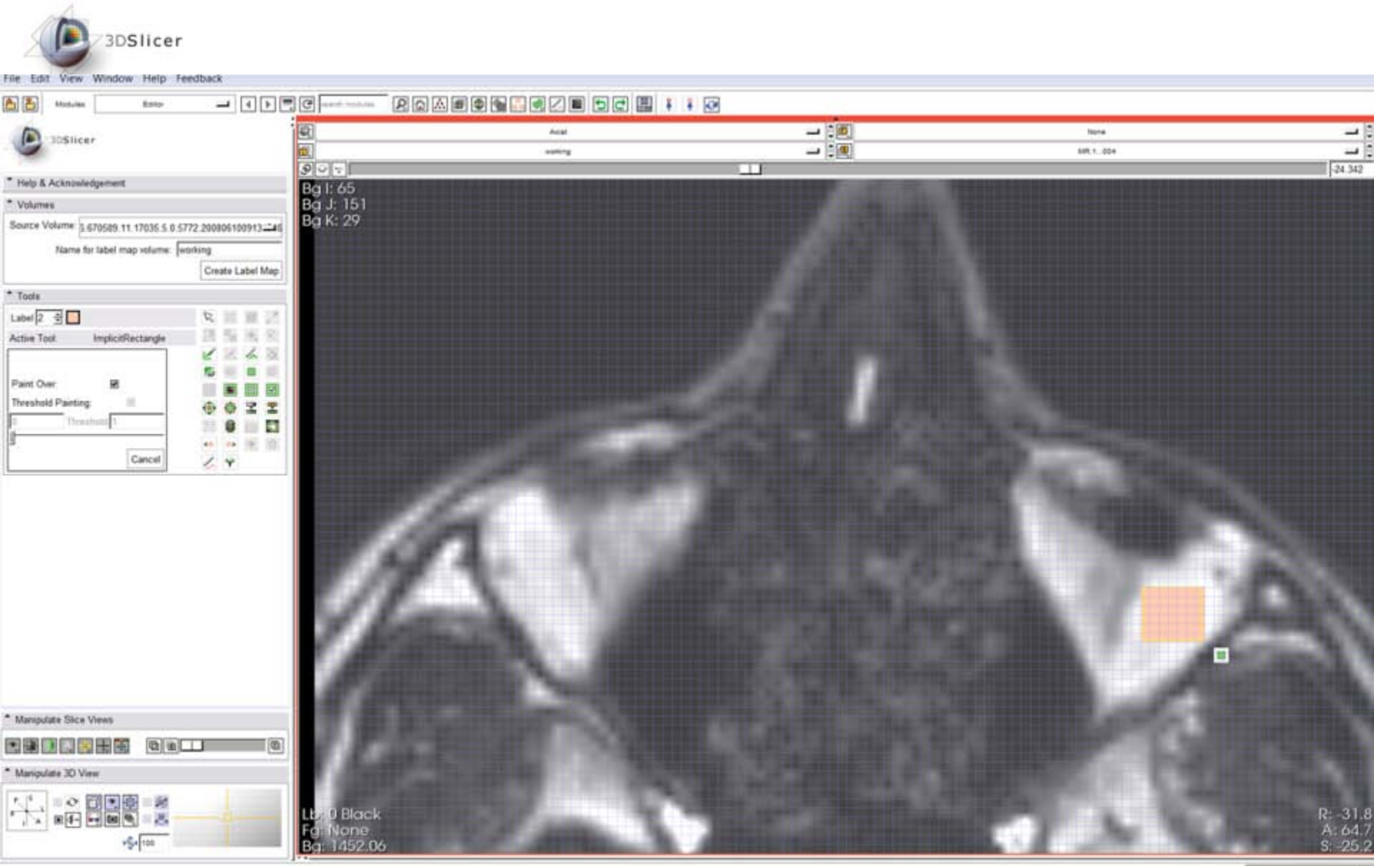

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume:
Name for label map volume: working
Create Label Map
Tools
Label 2
Active Tool:
Manipulate Slice Views
Manipulate 3D View
Bg I: 39
Bg J: 151
Bg K: 77
Lb: 0 Black
Fg: None
Bg: 50.4188
R: 16.4
A: 91.4
S: -24.3

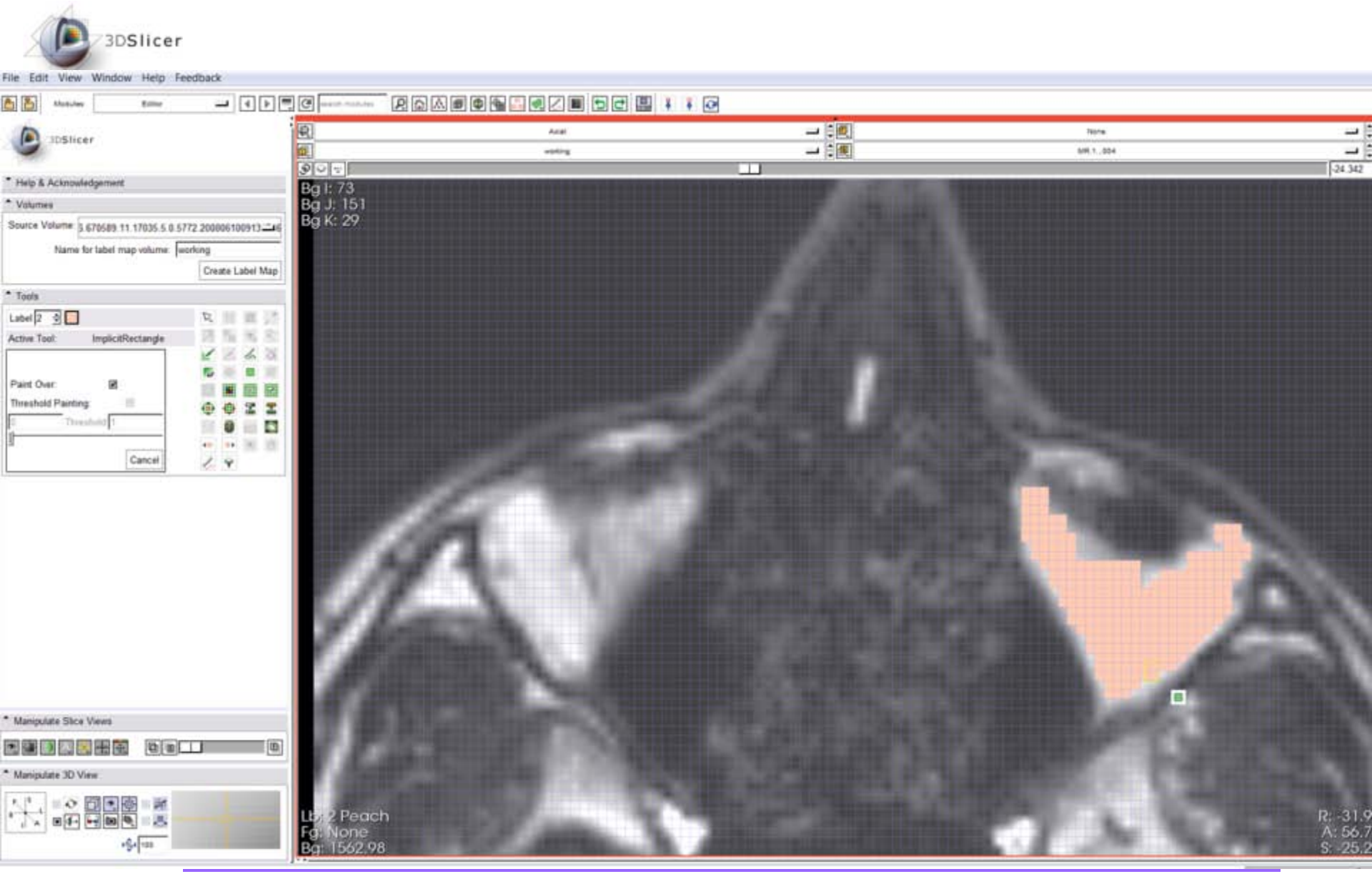
Basic tools

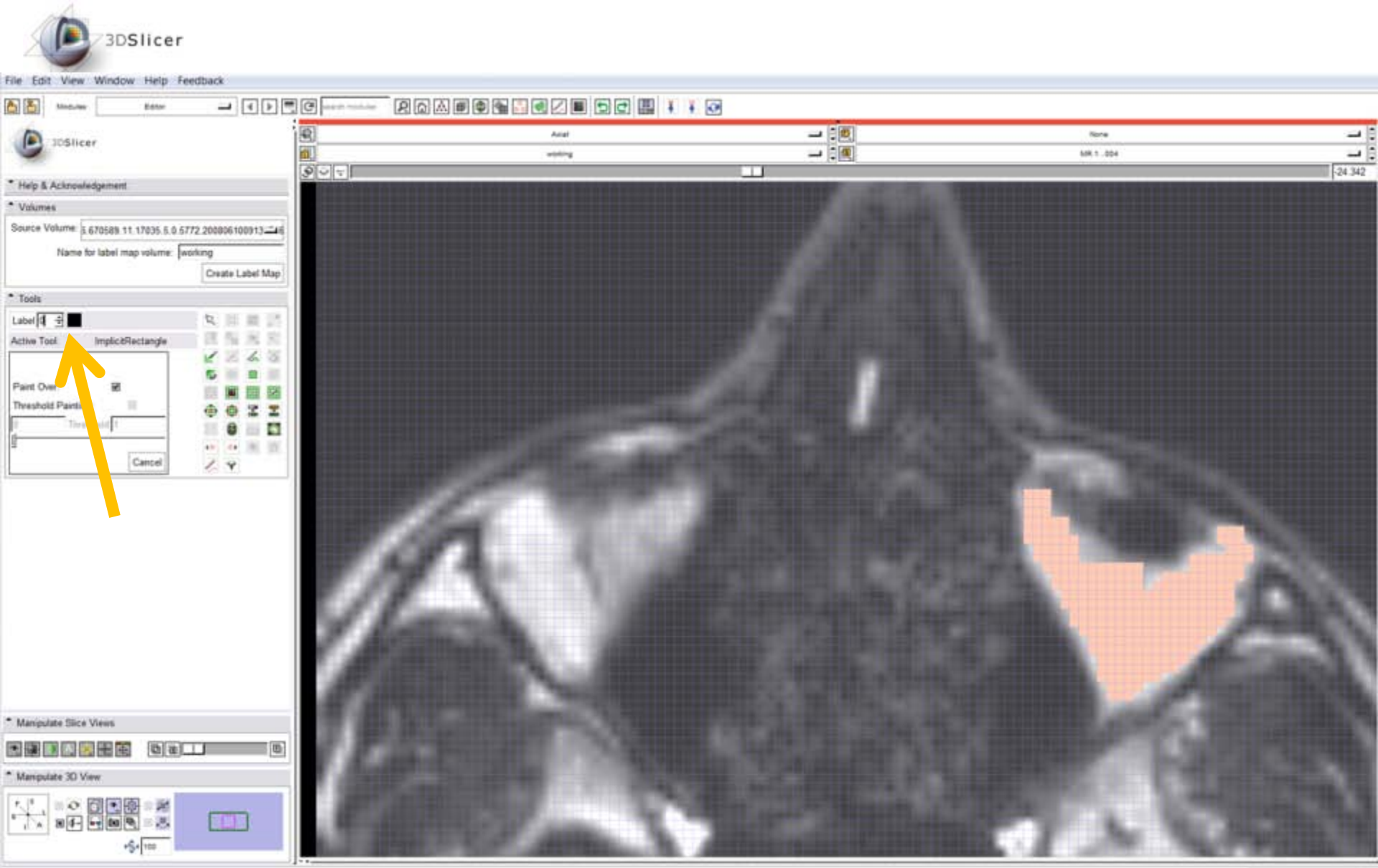

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume:
Name for label map volume: working
Create Label Map
Tools
Label 2
Active Tool:
Threshold
Manipulate Slice Views
Manipulate 3D View

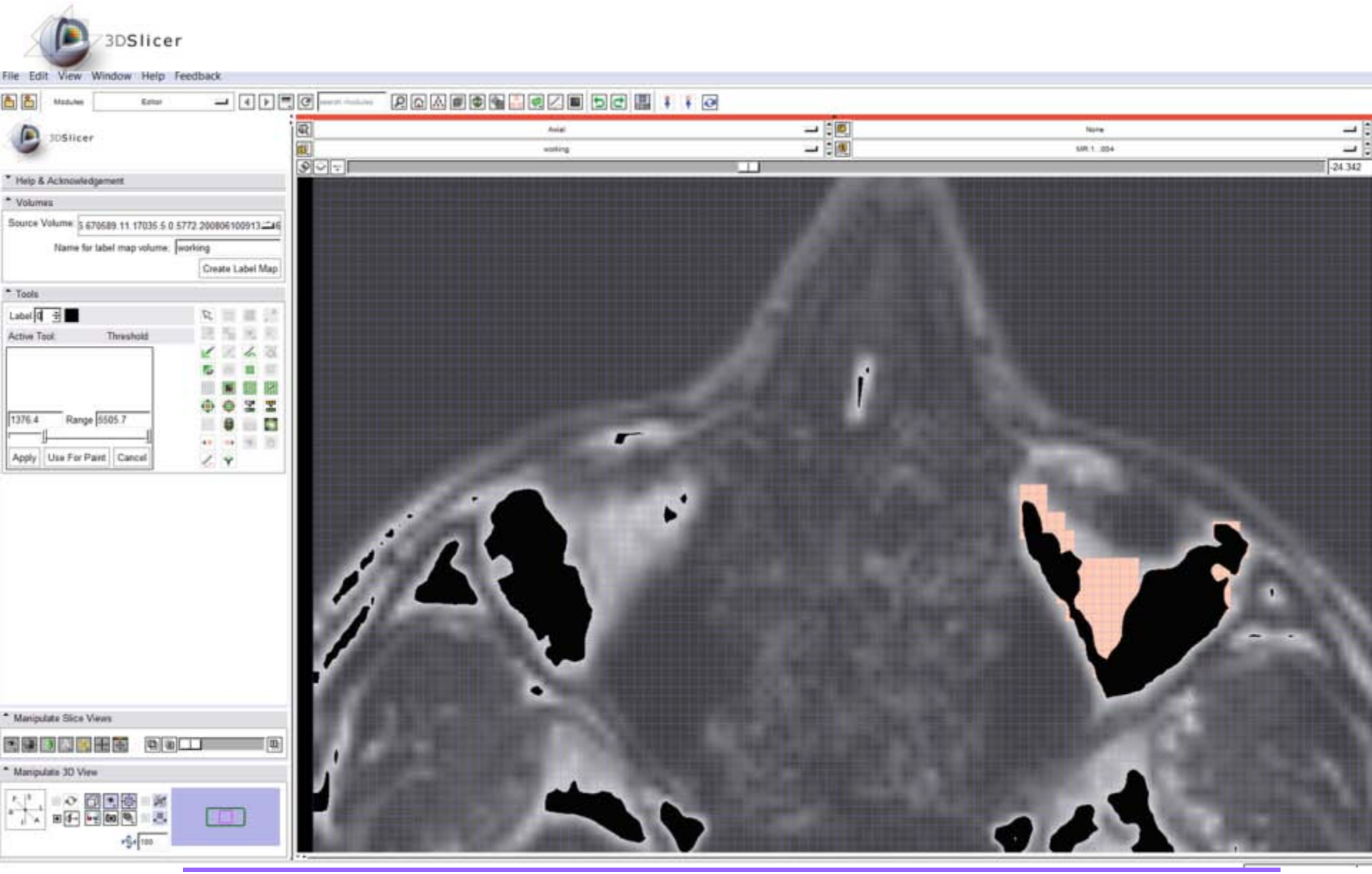

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume:
Name for label map volume: working
Create Label Map
Tools
Label
Active Tool: Threshold
Range
Apply
Use For Paint
Cancel
Manipulate Slice Views
Manipulate 3D View

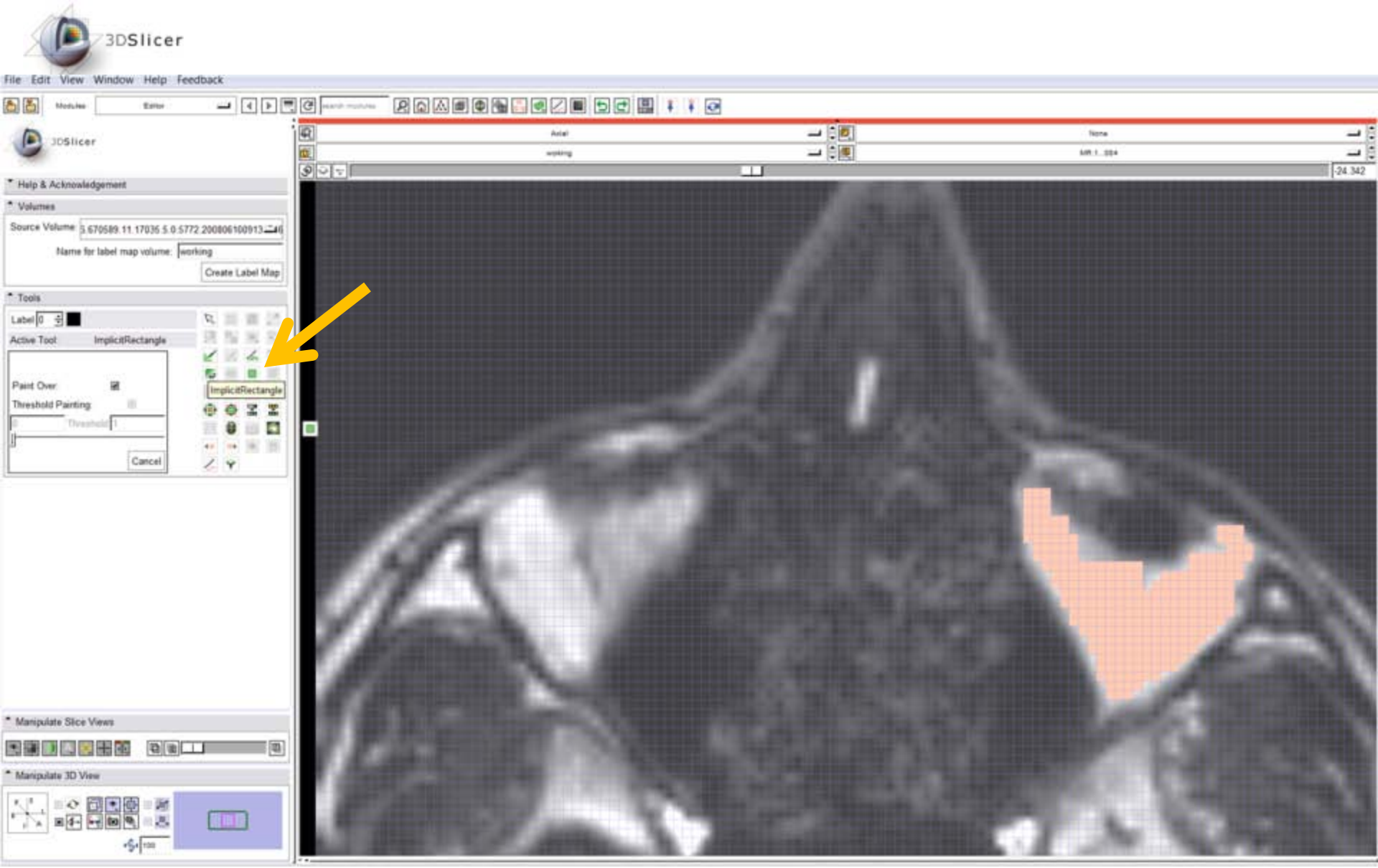

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume:
Name for label map volume:
working
Create Label Map
Tools
Label
Active Tool:
ImplicitRectangle
Paint Over
Threshold Painting
Cancel
Manipulate Slice Views
Manipulate 3D View

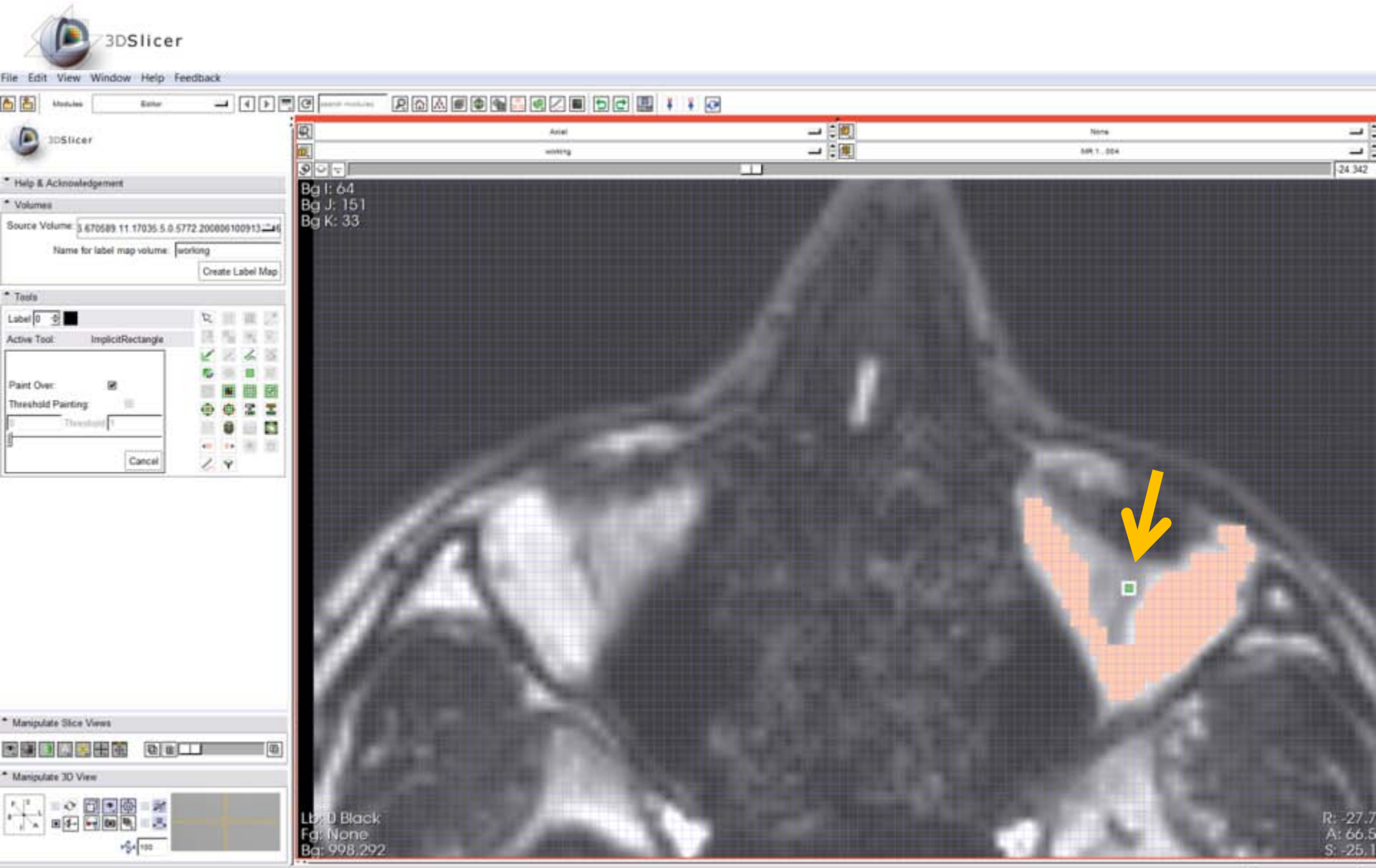

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume
Name for label map volume: working
Create Label Map
Tools
Label 2
Active Tool: ImplicitRectangle
Paint Over
Threshold Painting
Cancel
Manipulate Slice Views
Manipulate 3D View
Bg I: 65
Bg J: 151
Bg K: 29
Lb: 0 Black
Fg: None
Bg: 1452.06
R: -31.8
A: 64.7
S: -25.2

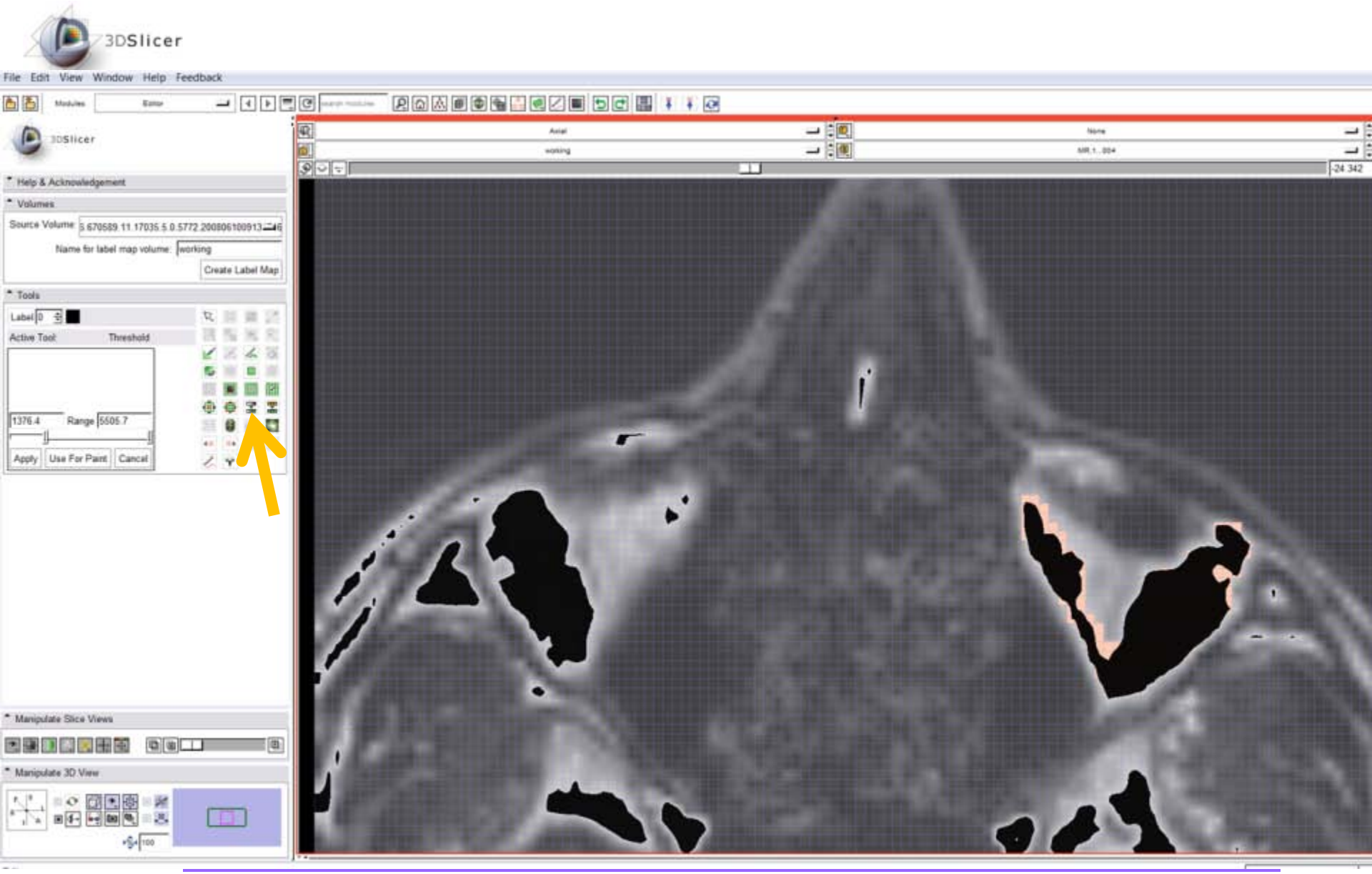

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume:
Name for label map volume: working
Create Label Map
Tools
Label: 2
Active Tool: ImplicitRectangle
Paint Over:
Threshold Painting:
Cancel
Manipulate Slice Views
Manipulate 3D View
Bg I: 73
Bg J: 151
Bg K: 29
Fg: None
Bg: 1562.98

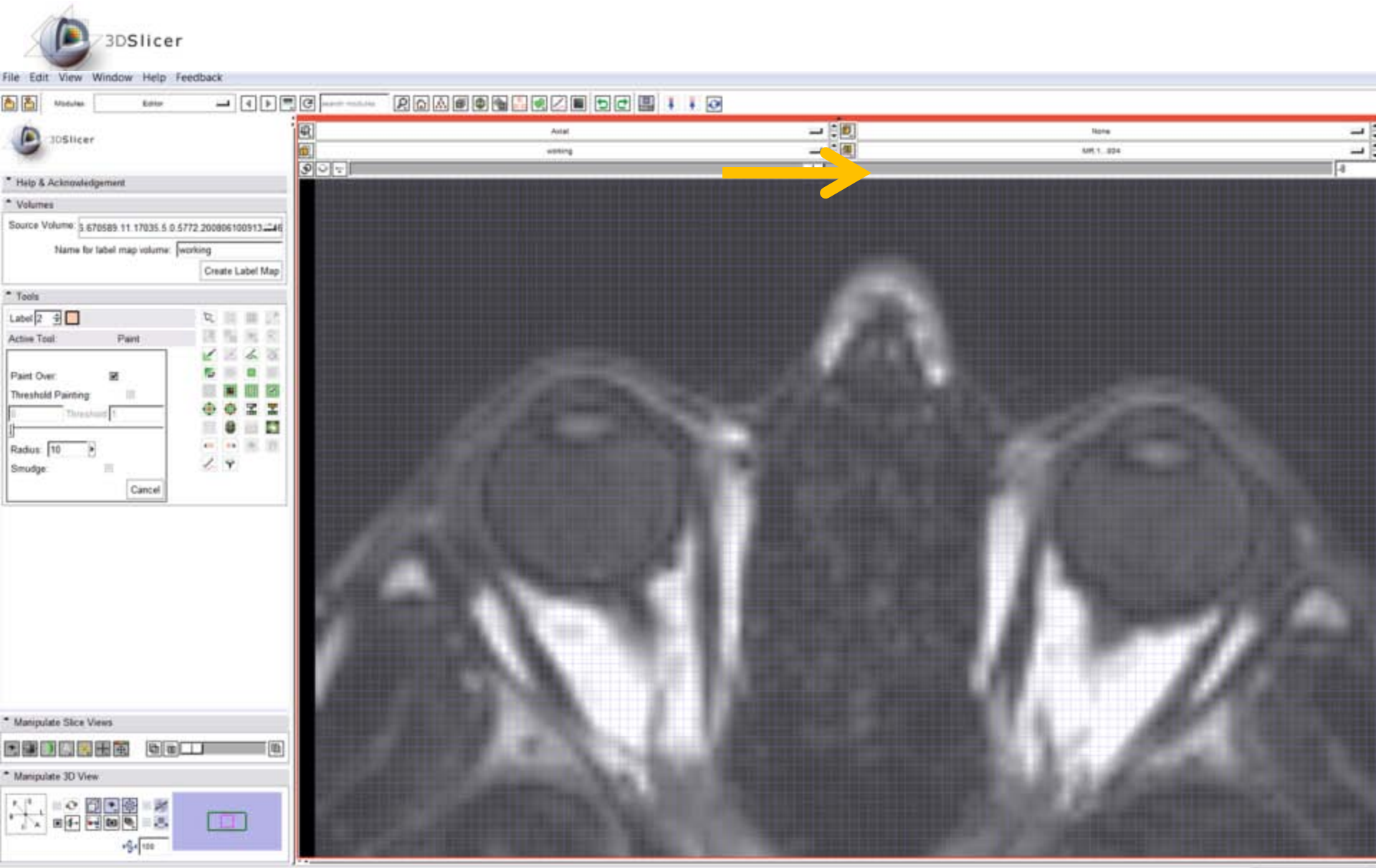

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume:
Name for label map volume: working
Create Label Map
Tools
Label
Active Tool: ImplicitRectangle
Paint Over
Threshold Paint
Cancel
Manipulate Slice Views
Manipulate 3D View

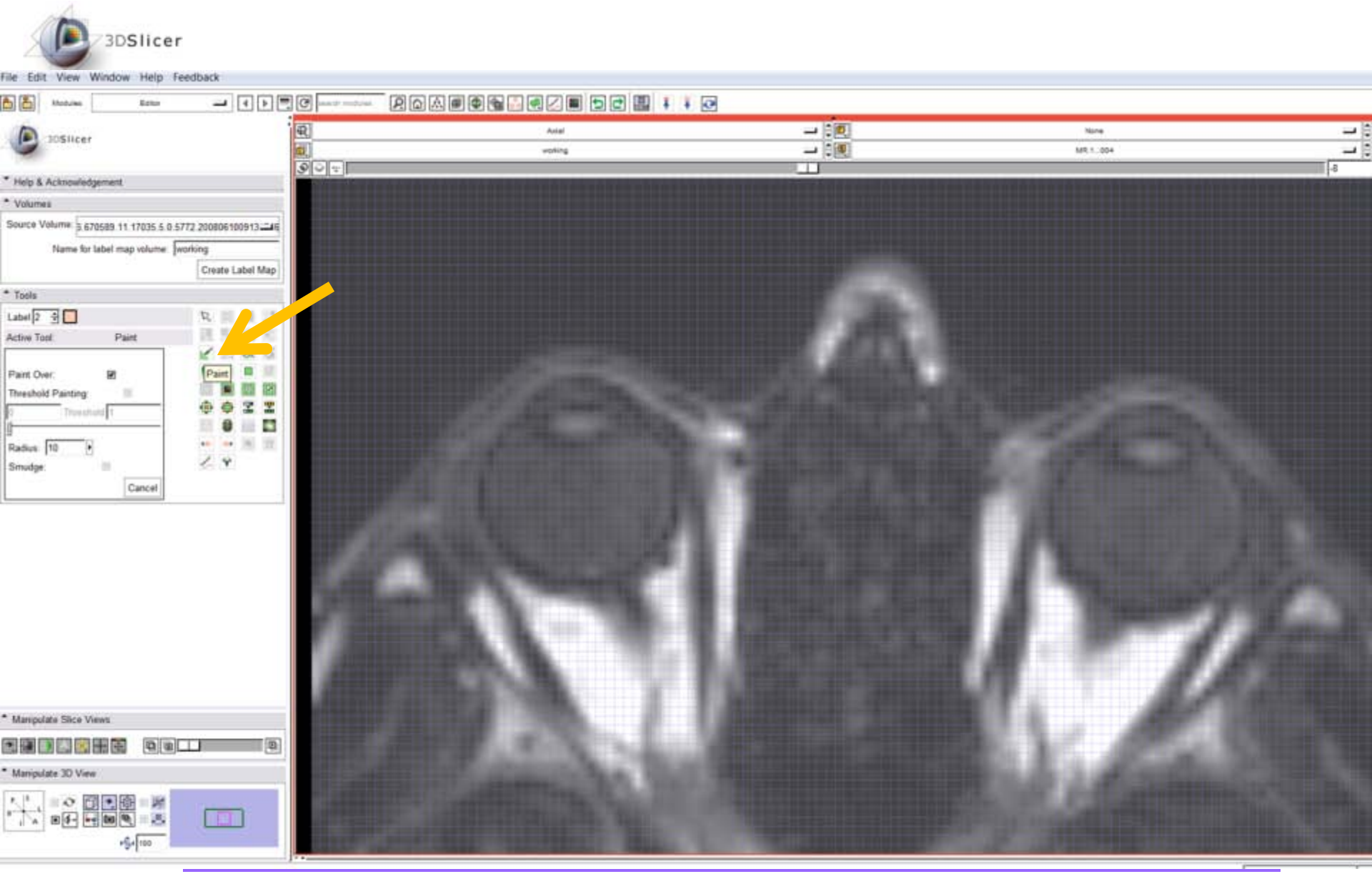

3DSlicer
File Edit View Window Help Feedback
Modules
Editor
3DSlicer
Help & Acknowledgement
Volumes
Source Volume:
Name for label map volume:
working
Create Label Map
Tools
Label
Active Tool:
Threshold
1376.4
Range
5505.7
Apply
Use For Paint
Cancel
Manipulate Slice Views
Manipulate 3D View
Axial
working
None
-24.342

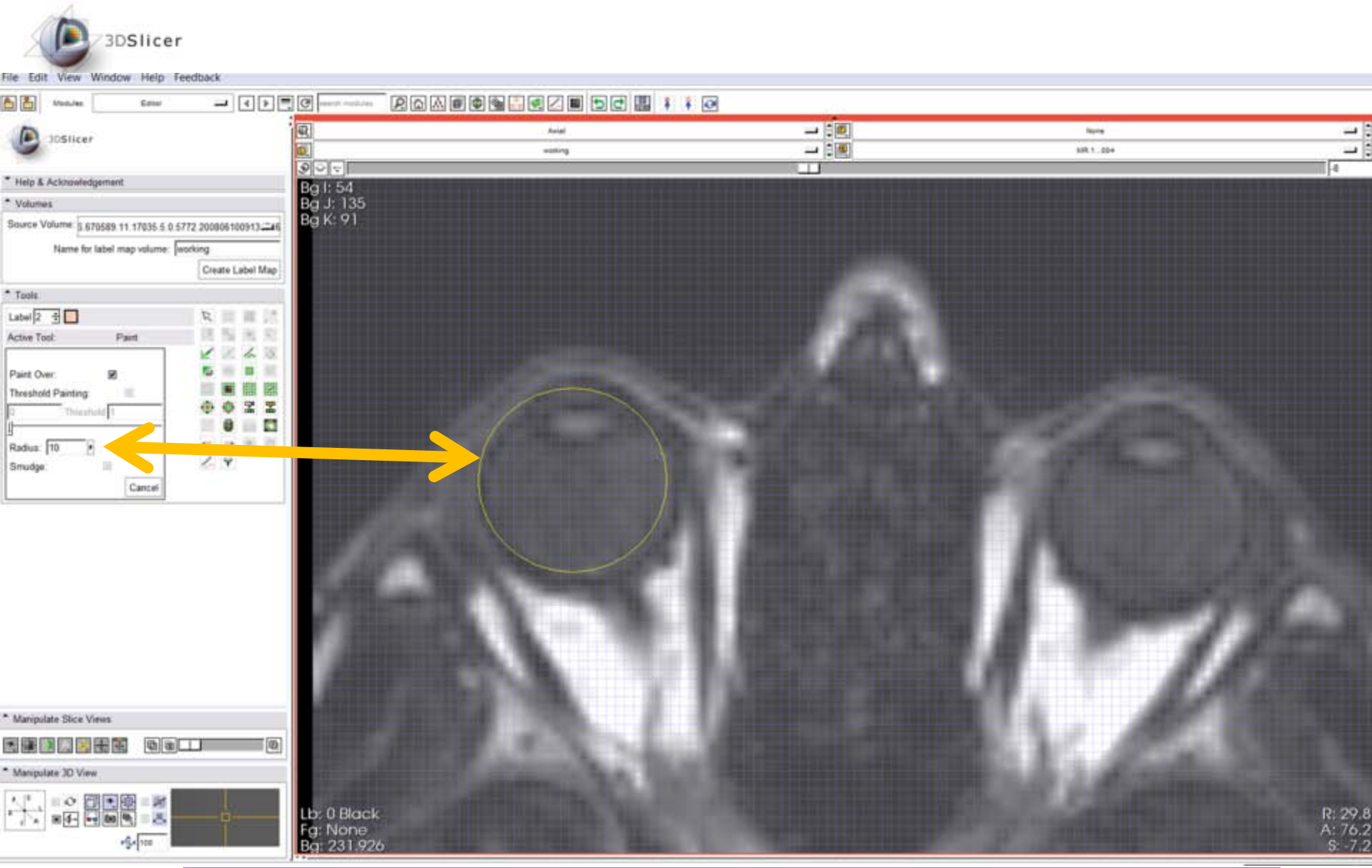

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume
Name for label map volume: working
Create Label Map
Tools
Label
Active Tool ImplicitRectangle
Paint Over
Threshold Painting
Cancel
ImplicitRectangle
Manipulate Slice Views
Manipulate 3D View

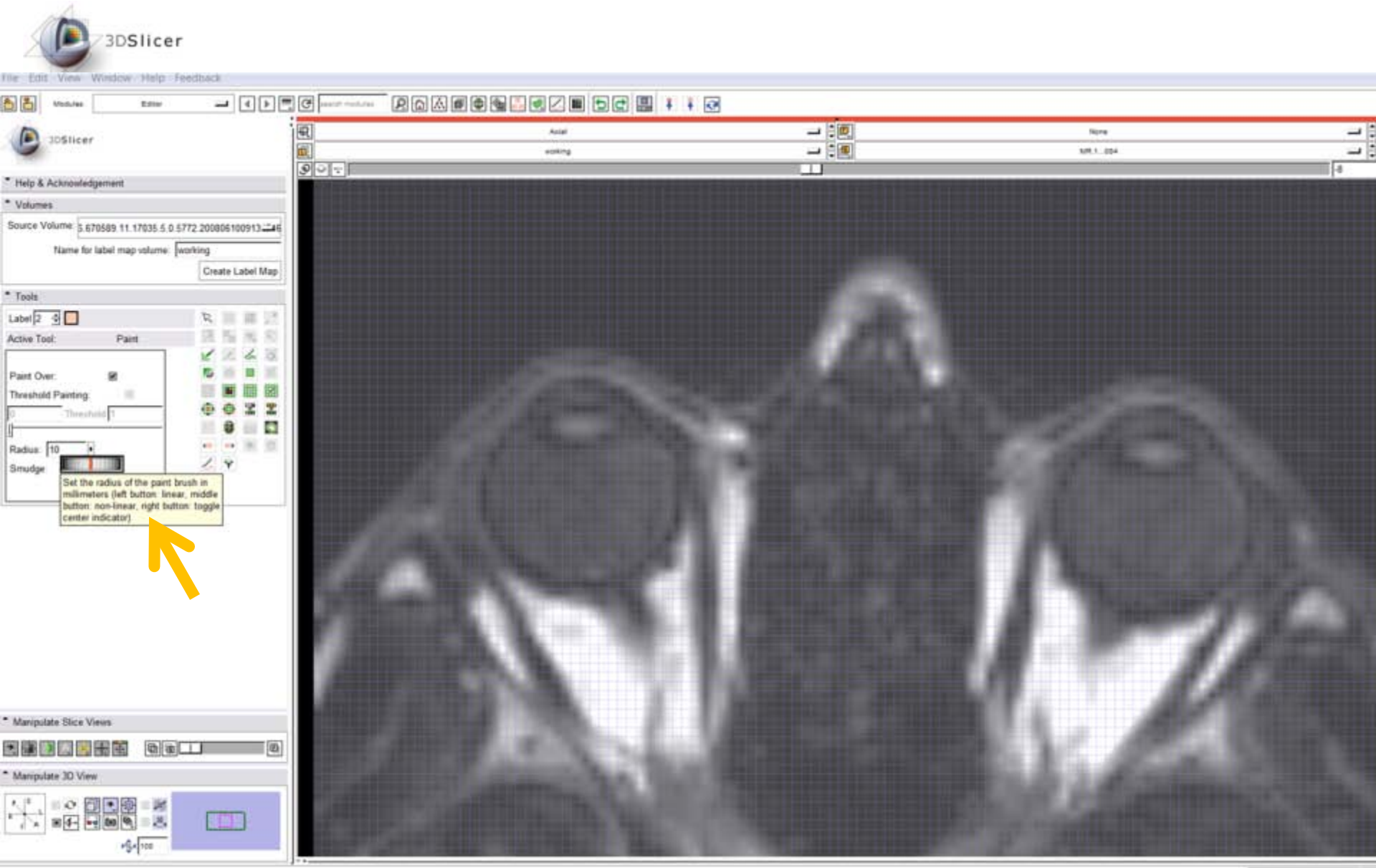

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume:
Name for label map volume:
working
Create Label Map
Tools
Label
Active Tool:
ImplicitRectangle
Paint Over:
Threshold Painting
Cancel
Manipulate Slice Views
Manipulate 3D View
Bg I: 64
Bg J: 151
Bg K: 33
Lb: 0 Black
Fg: None
Bg: 998.292

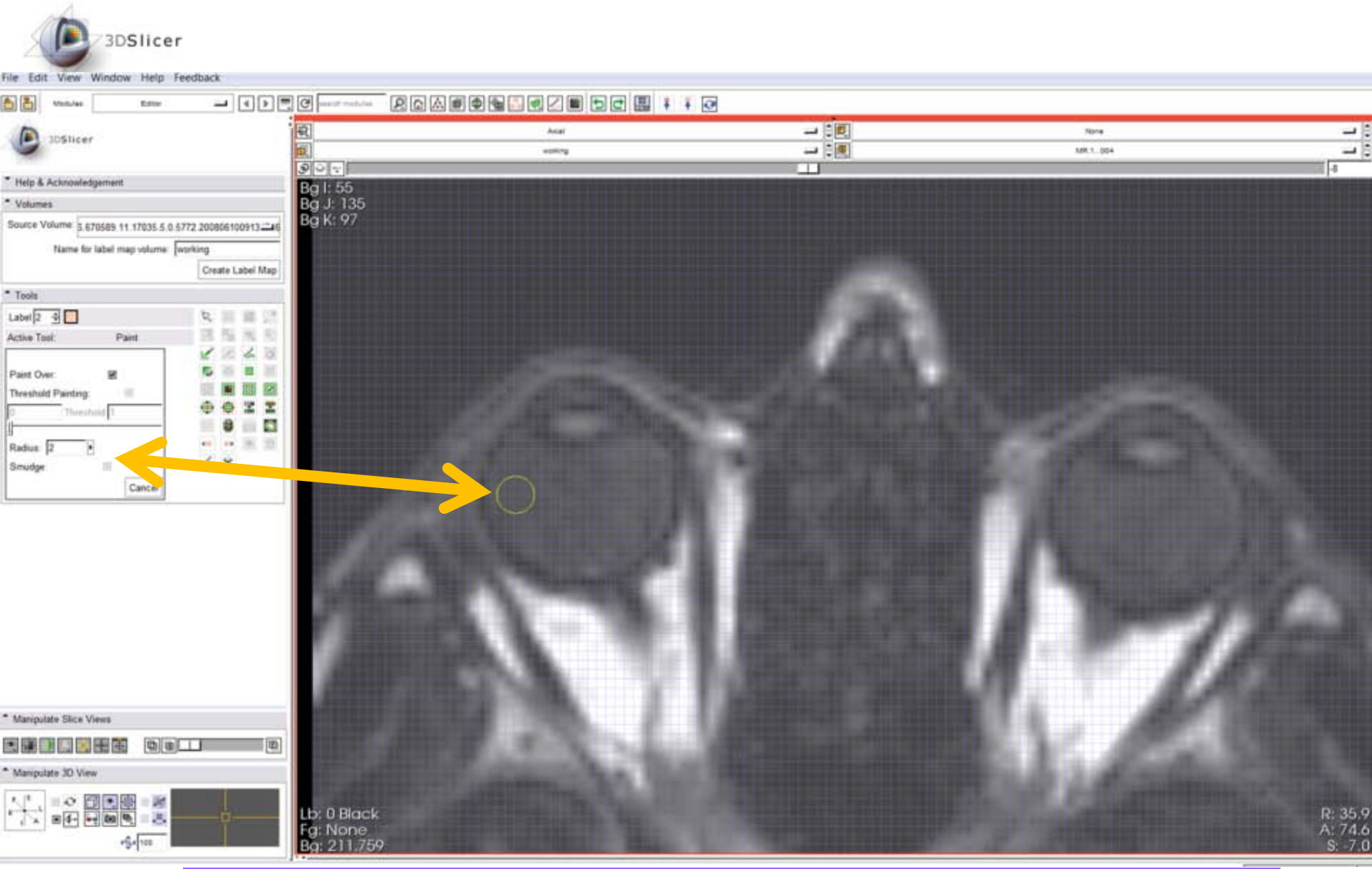

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume
Name for label map volume: working
Create Label Map
Tools
Active Tool
Threshold
Range
Apply
Use For Paint
Cancel
Manipulate Slice Views
Manipulate 3D View

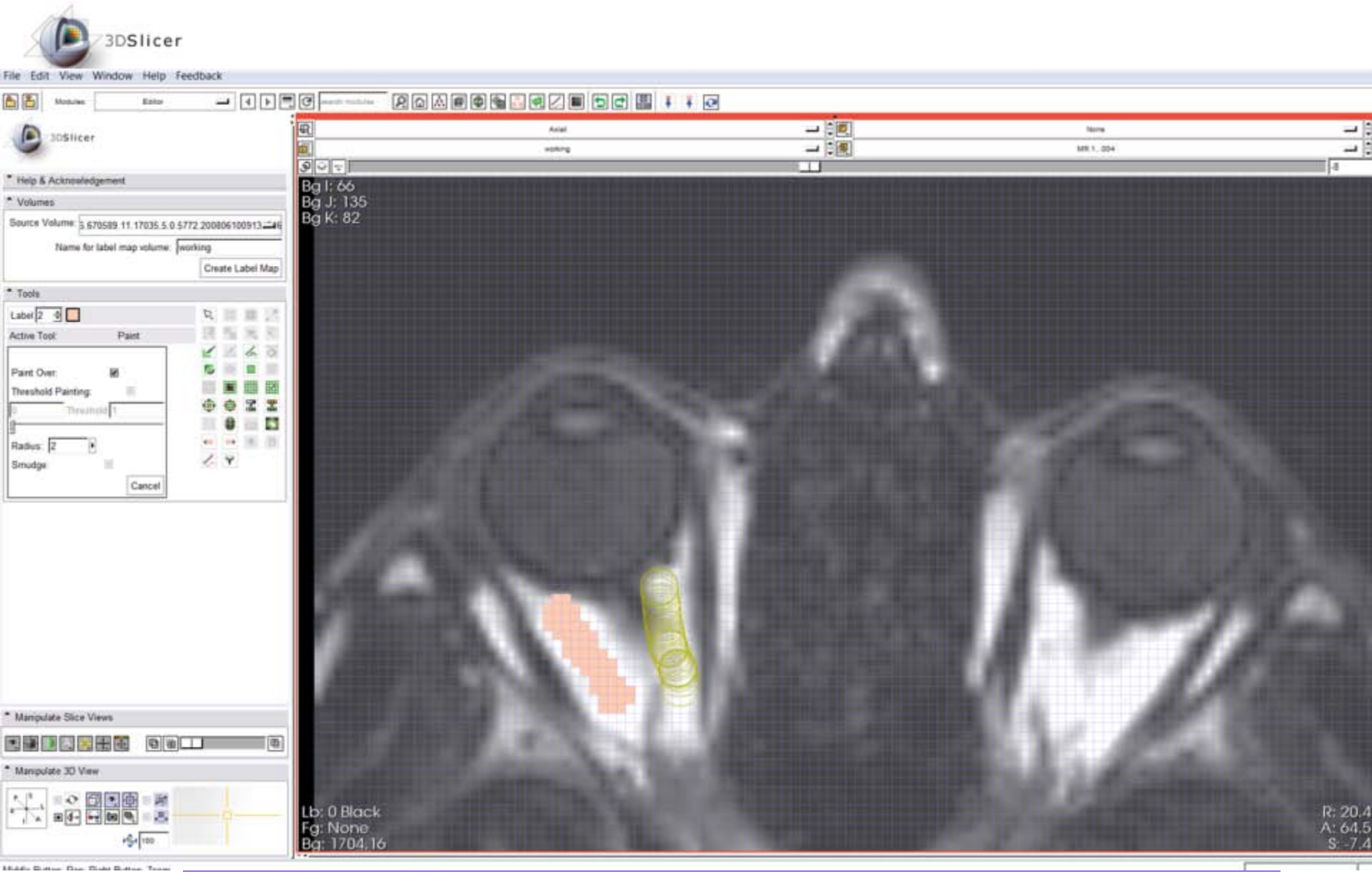

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume:
Name for label map volume: working
Create Label Map
Tools
Label 2
Active Tool: Paint
Paint Over
Threshold Painting
Radius: 10
Smudge
Cancel
Manipulate Slice Views
Manipulate 3D View


3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume:
Name for label map volume: working
Create Label Map
Tools
Label 2
Active Tool: Paint
Paint Over:
Threshold Painting:
Radius 10
Smudge:
Cancel
Paint
Manipulate Slice Views
Manipulate 3D View

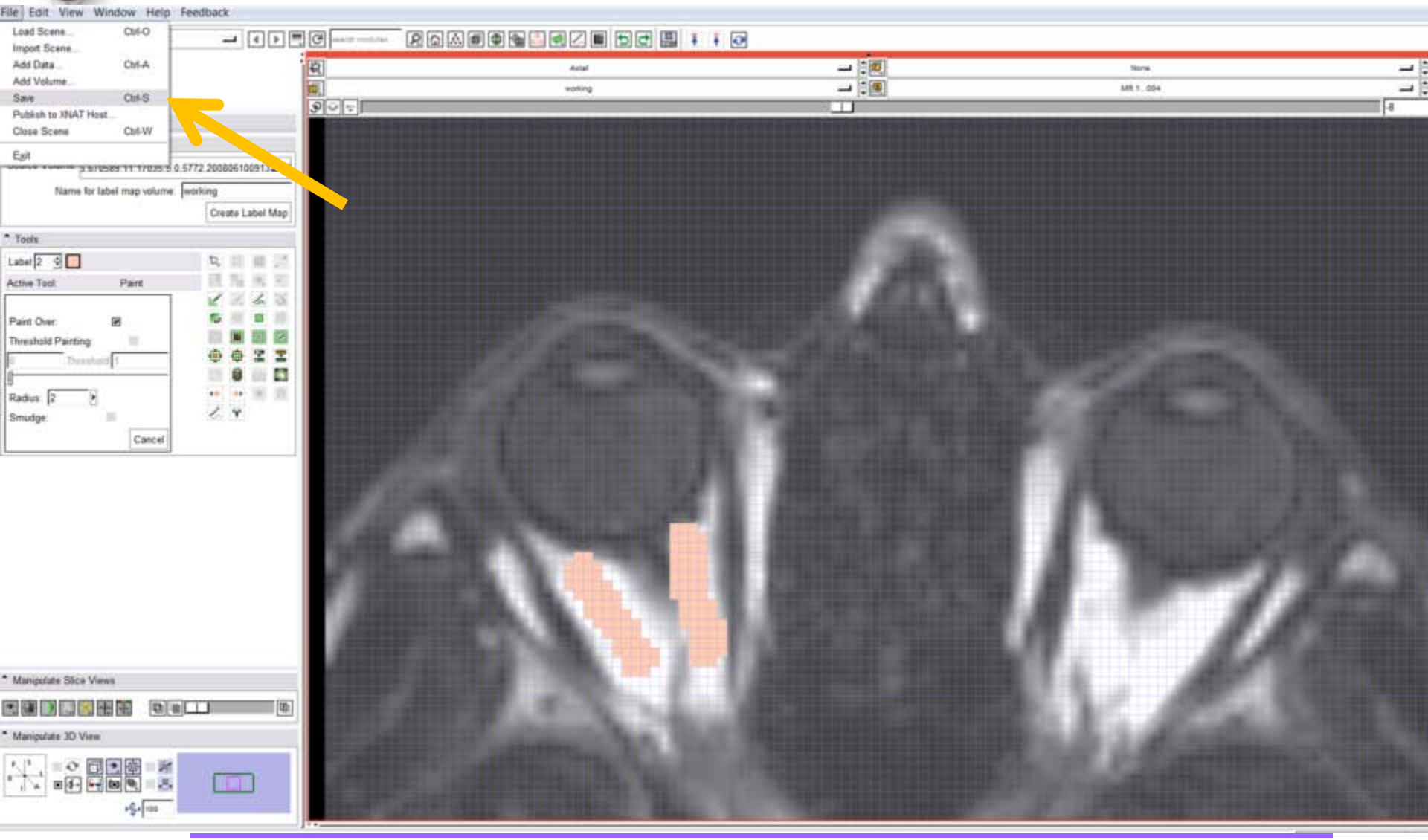

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume:
Name for label map volume: working
Create Label Map
Tools
Label: 2
Active Tool: Paint
Paint Over:
Threshold Painting:
Radius: 10
Smudge:
Cancel
Manipulate Slice Views
Manipulate 3D View
Bg I: 54
Bg J: 135
Bg K: 91
Lb: 0 Black
Fg: None
Bg: 231.926
R: 29.8
A: 76.2
S: -7.2

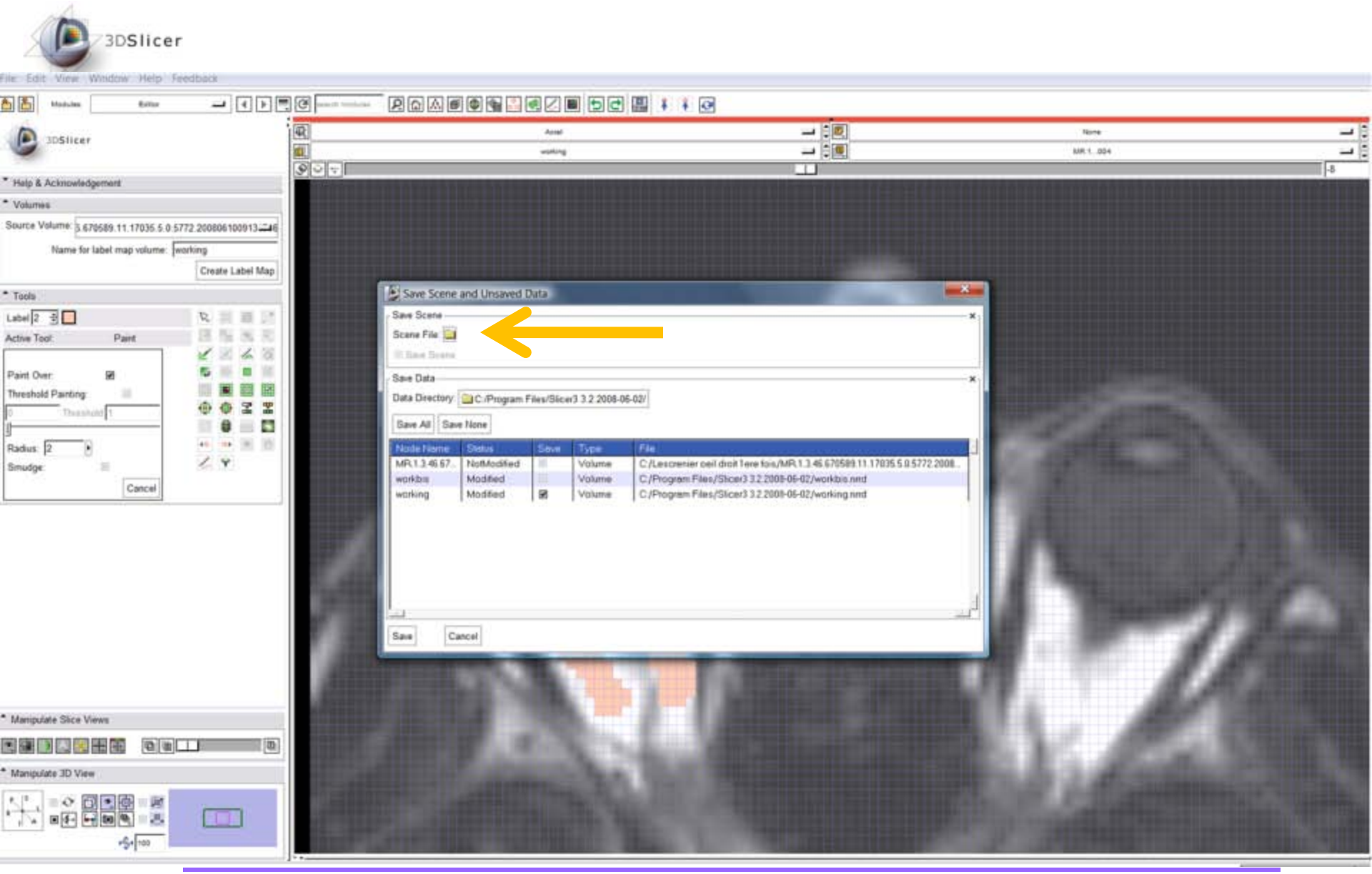

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume:
Name for label map volume:
working
Create Label Map
Tools
Label
Active Tool:
Paint
Paint Over:
Threshold Painting
Radius:
10
Smudge
Set the radius of the paint brush in millimeters (left button: linear, middle button: non-linear, right button: toggle center indicator)
Manipulate Slice Views
Manipulate 3D View

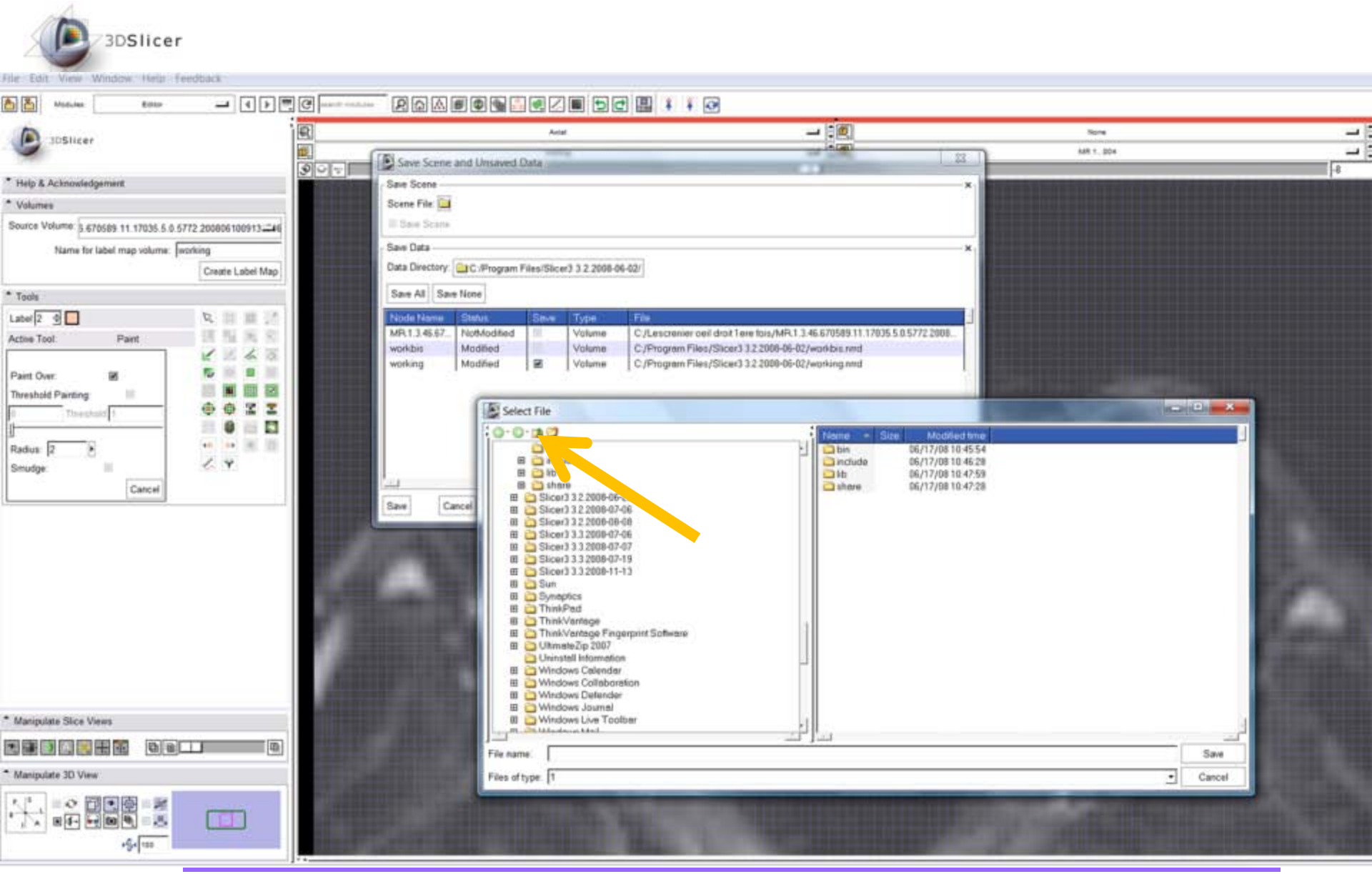

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume
Name for label map volume: working
Create Label Map
Tools
Label 2
Active Tool: Paint
Paint Over
Threshold Painting
Radius 2
Smudge
Cancel
Manipulate Slice Views
Manipulate 3D View
Bg I: 55
Bg J: 135
Bg K: 97
Lb: 0 Black
Fg: None
Bg: 211.759
R: 35.9
A: 74.6
S: -7.0

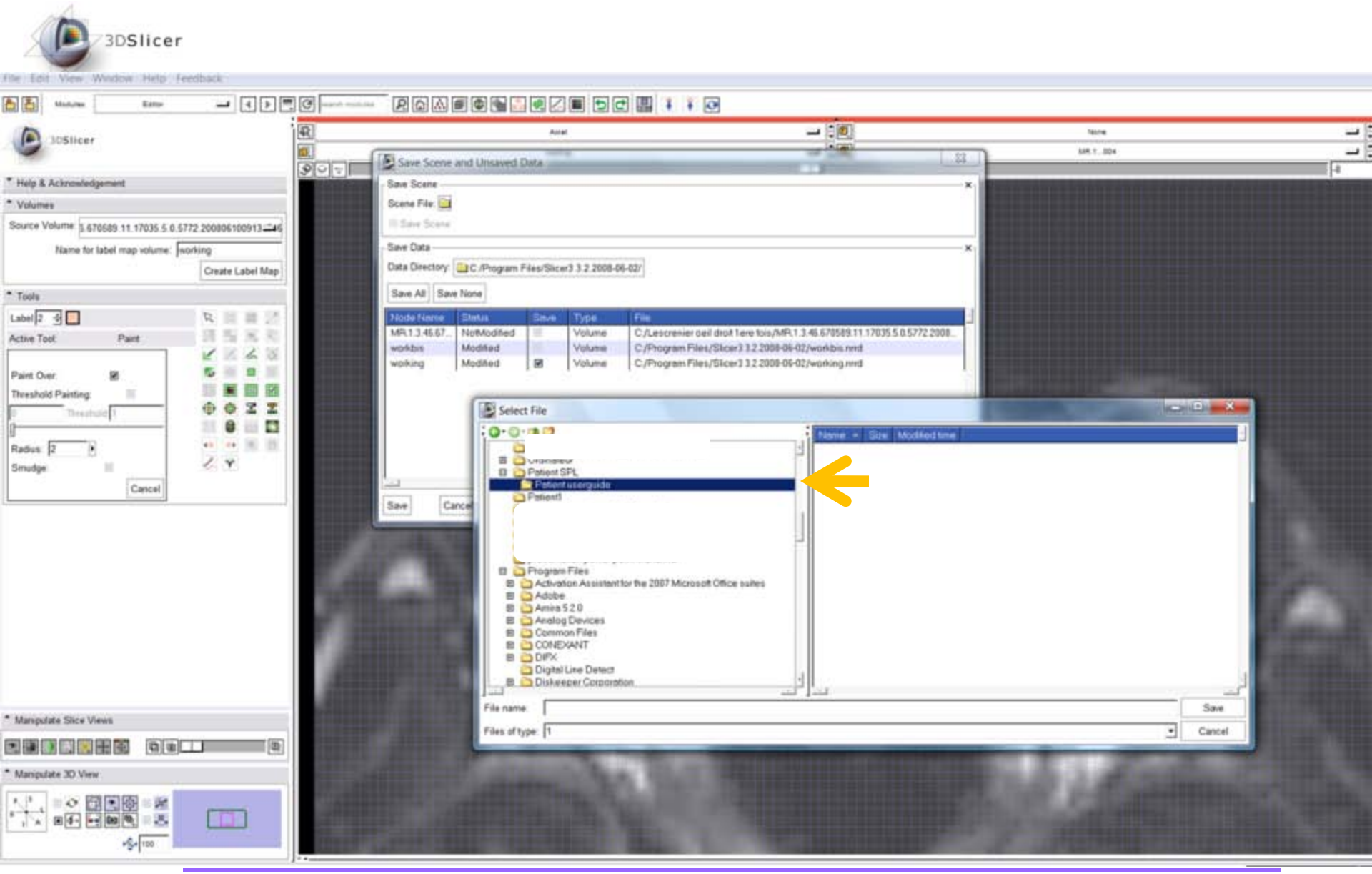

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume:
Name for label map volume: working
Create Label Map
Tools
Label 2
Active Tool: Paint
Paint Over:
Threshold Painting:
Radius: 2
Smudge
Cancel
Manipulate Slice Views
Manipulate 3D View
Bg I: 66
Bg J: 135
Bg K: 82
Lb: 0 Black
Fg: None
Bg: 1704.16
R: 20.4
A: 64.5
S: -7.4

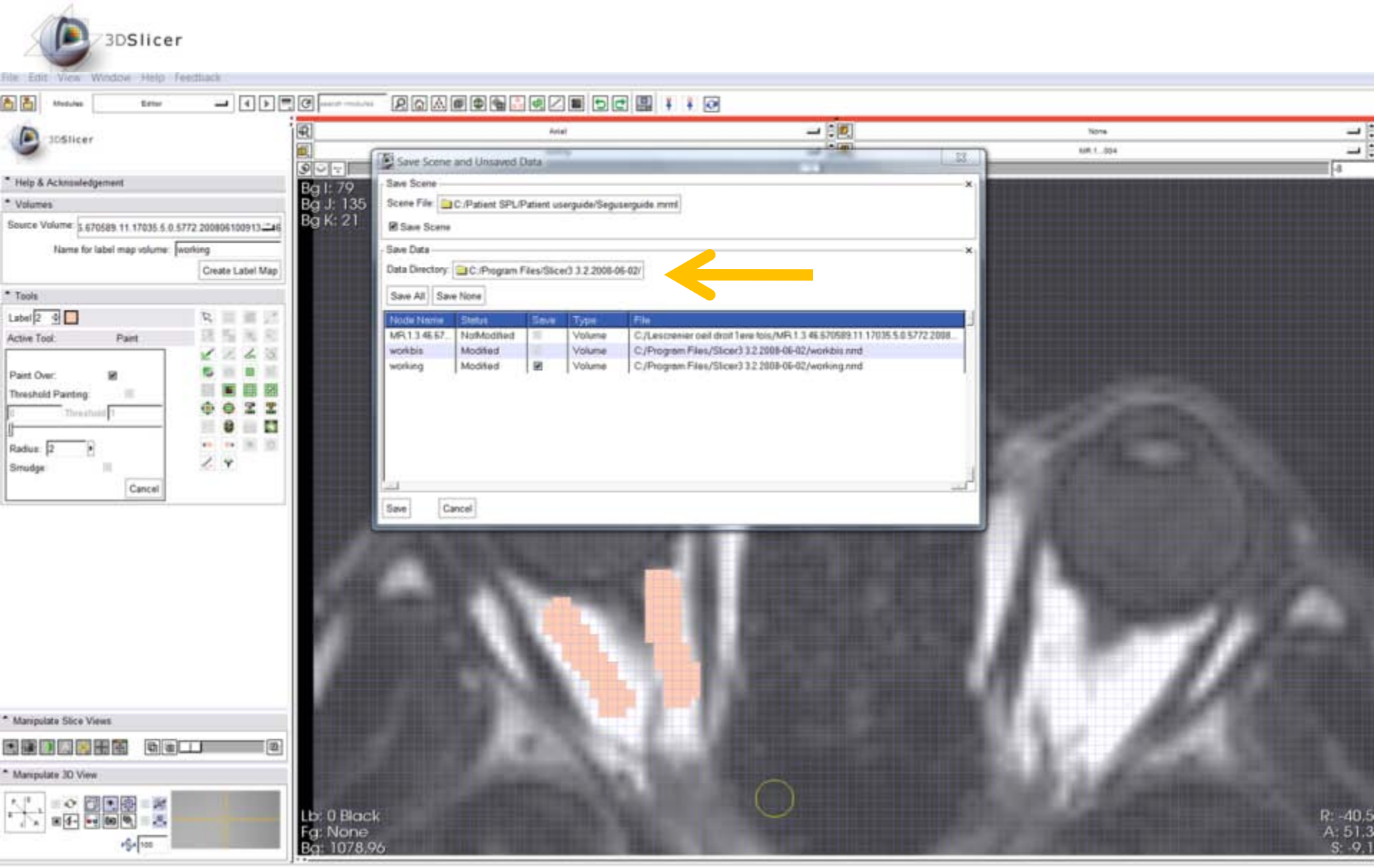
Save data

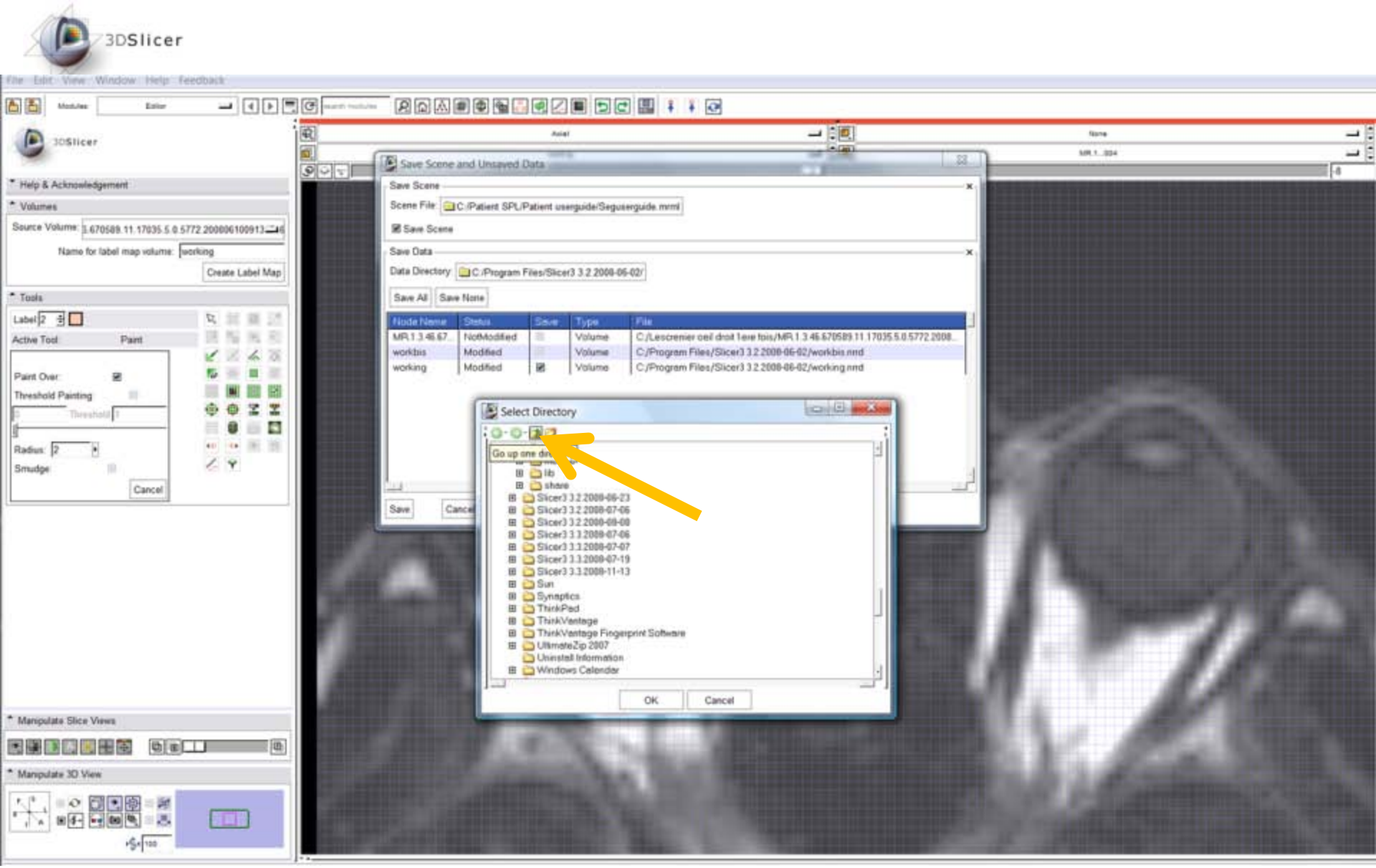

3DSlicer
File Edit View Window Help Feedback
Load Scene... Ctrl-O
Import Scene...
Add Data... Ctrl-A
Add Volume...
Save Ctrl-S
Publish to XNAT Host...
Close Scene Ctrl-W
Exit
Name for label map volume: working
Create Label Map
Tools
Label 2
Active Tool: Paint
Paint Over:
Threshold Painting
Radius 2
Smudge:
Cancel
Manipulate Slice Views
Manipulate 3D View

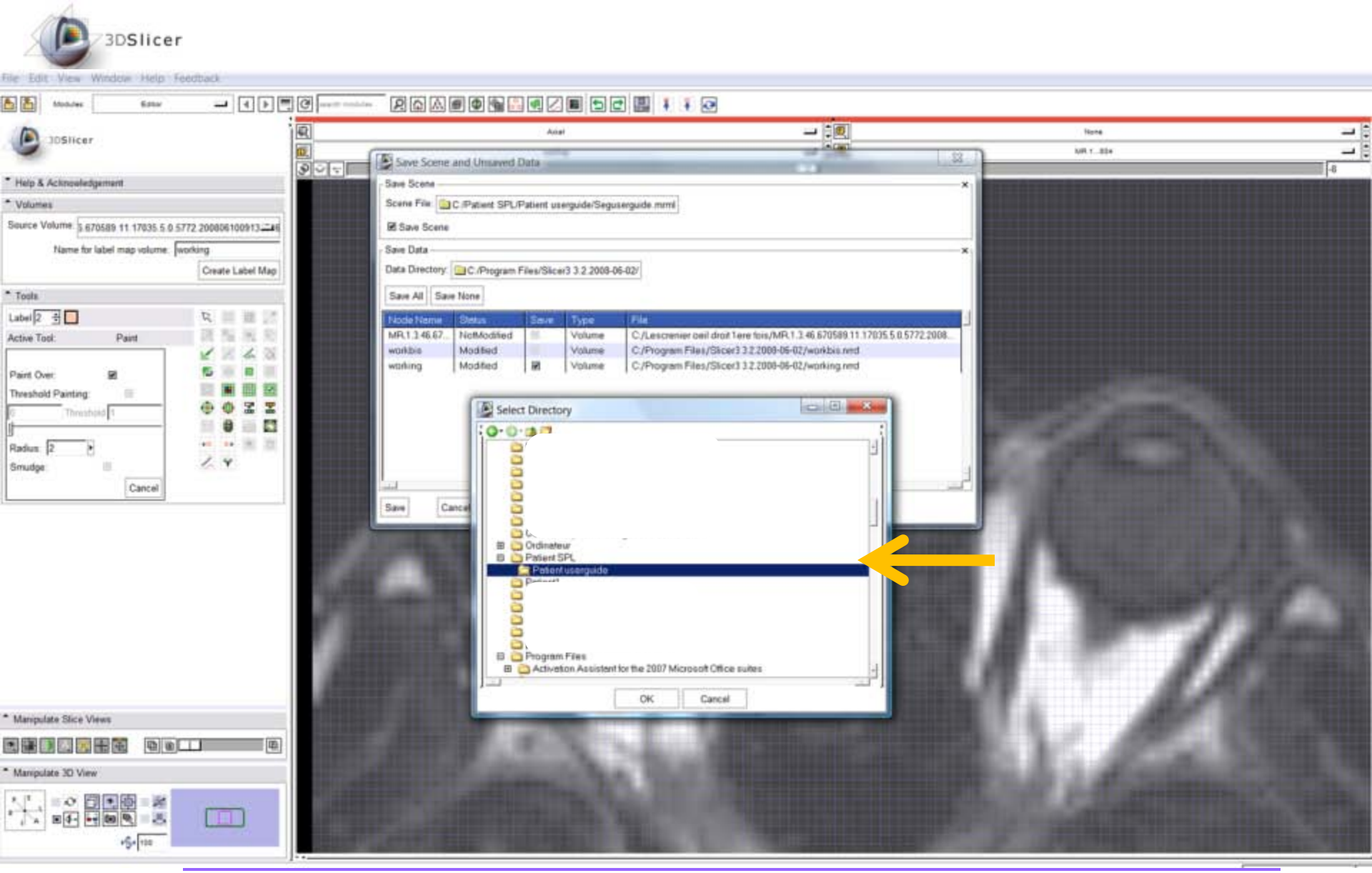

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume:
Name for label map volume: working
Create Label Map
Tools
Label: 2
Active Tool: Paint
Paint Over:
Threshold Painting:
Radius: 2
Smudge:
Cancel
Manipulate Slice Views
Manipulate 3D View
Save Scene and Unsaved Data
Save Scene
Scene File:
Save Data
Data Directory: C:/Program Files/Slicer3 3.2 2008-06-02/
Save All
Save None
Node Name
Status
Save
Type
File
MR1.3.46.67..
NotModified
Volume
C:/Lescrenier ceil droit 1ere fois/MR1.3.46.670589.11.17035.5.0.5772.2008..
workbis
Modified
Volume
C:/Program Files/Slicer3 3.2 2008-06-02/workbis.nrrd
working
Modified
Volume
C:/Program Files/Slicer3 3.2 2008-06-02/working.nrrd
Save
Cancel

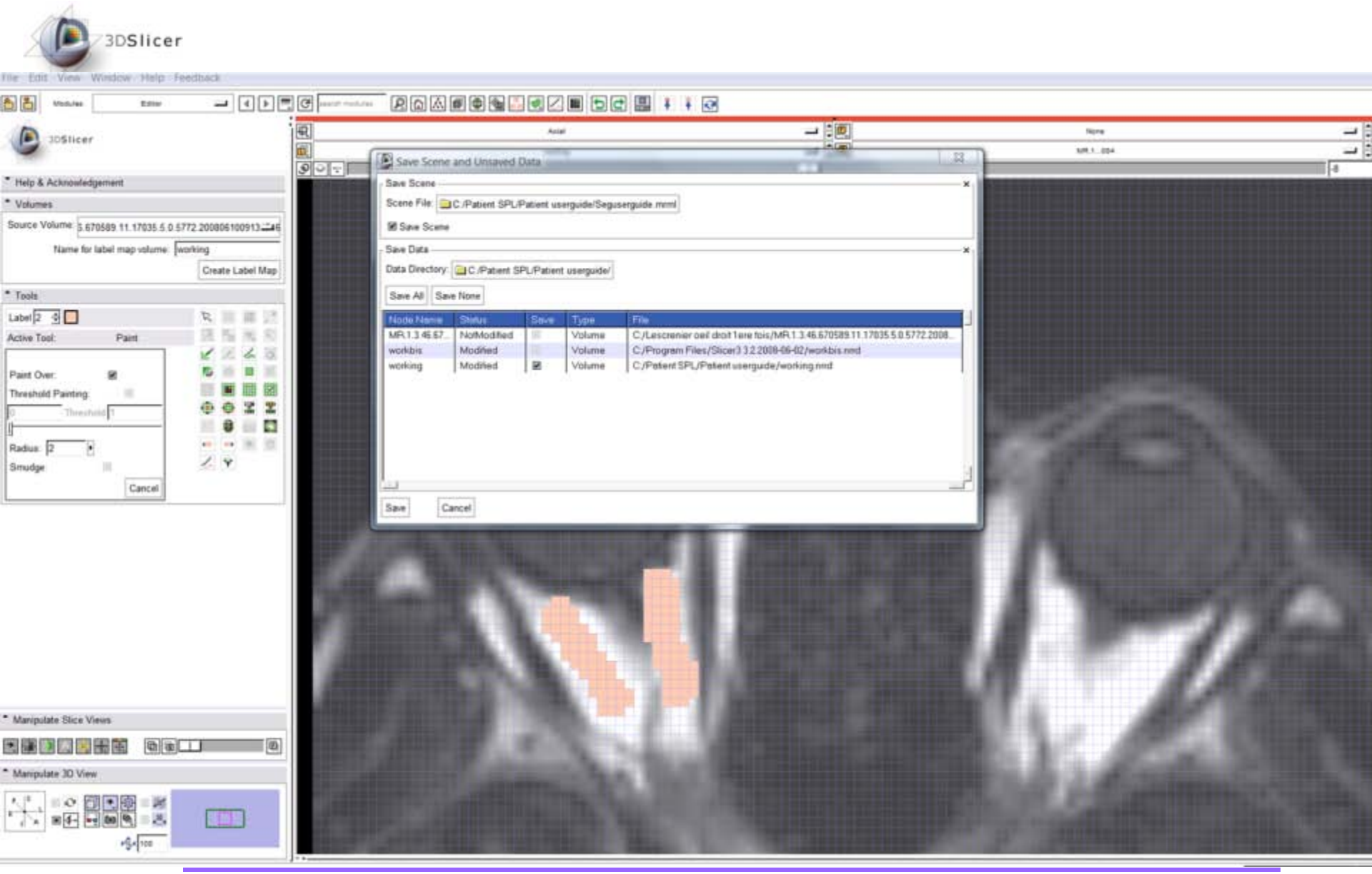

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume:
Name for label map volume:
working
Create Label Map
Tools
Label:
Active Tool:
Paint
Paint Over:
Threshold Painting:
Radius:
Smudge:
Cancel
Manipulate Slice Views
Manipulate 3D View
Save Scene and Unsaved Data
Save Scene
Scene File:
Save Data
Data Directory:
C:/Program Files/Slicer3 3.2.2008-06-02/
Save All
Save None
Node Name
Status
Save
Type
File
MR.1.3.46.67...
NotModified
Volume
C:/Lescrenier oeil droit 1ere tois/MR.1.3.46.670589.11.17035.5.0.5772.2008...
workbis
Modified
Volume
C:/Program Files/Slicer3 3.2.2008-06-02/workbis.nrrd
working
Modified
Volume
C:/Program Files/Slicer3 3.2.2008-06-02/working.nrrd
Save
Cancel
Select File
Name
Size
Modified time
bin
06/17/08 10:45:54
include
06/17/08 10:46:28
lib
06/17/08 10:47:59
share
06/17/08 10:47:28
Slicer3 3.2.2008-07-06
Slicer3 3.2.2008-08-08
Slicer3 3.3.2008-07-06
Slicer3 3.3.2008-07-07
Slicer3 3.3.2008-07-19
Slicer3 3.3.2008-11-13
Sun
Synaptics
ThinkPad
ThinkVantage
ThinkVantage Fingerprint Software
UltimateZip 2007
Uninstall Information
Windows Calendar
Windows Collaboration
Windows Defender
Windows Journal
Windows Live Toolbar
File name:
Files of type:
Save
Cancel

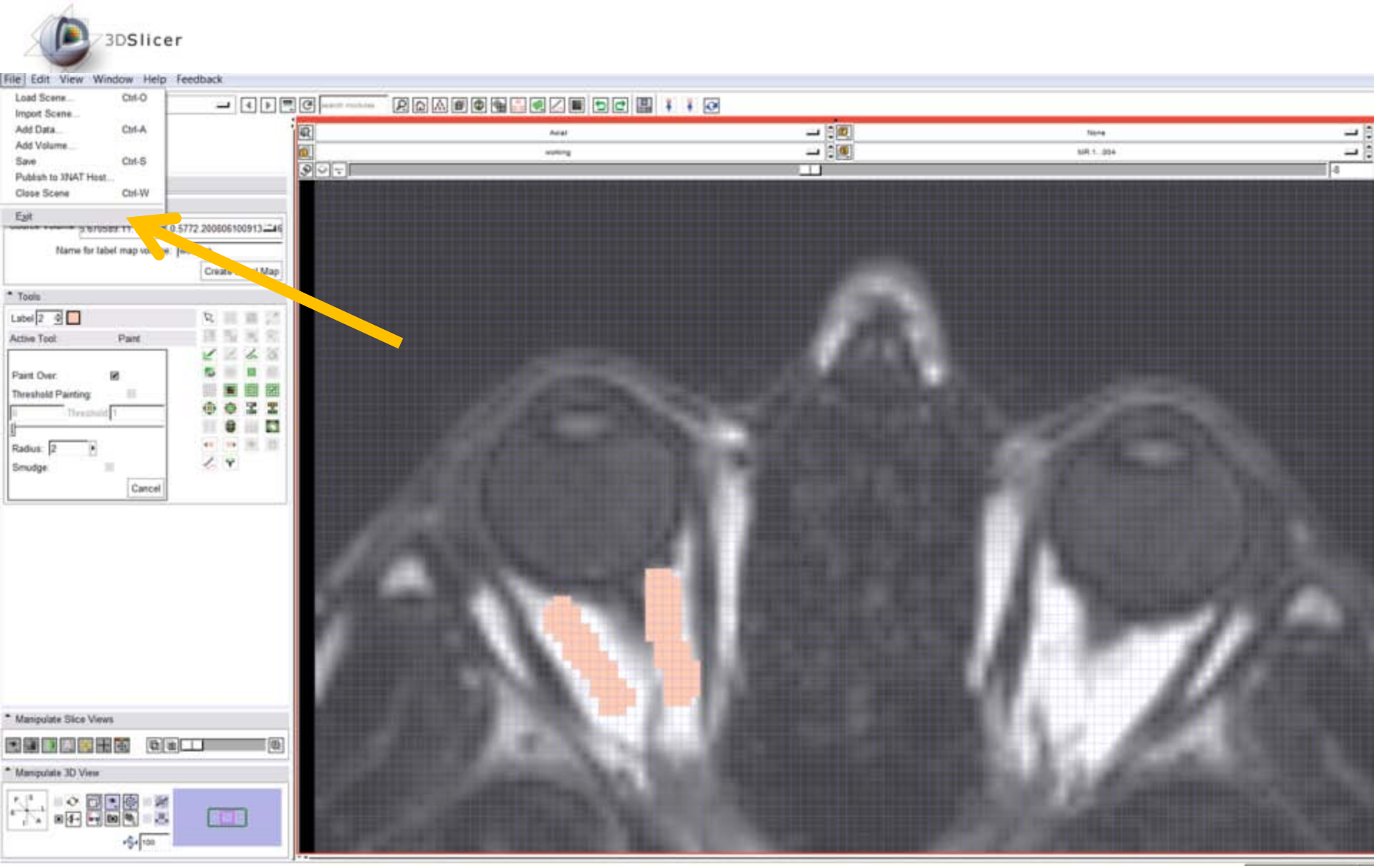

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume:
Name for label map volume:
working
Create Label Map
Tools
Active Tool:
Paint
Paint Over
Threshold Painting
Radius
Smudge
Cancel
Manipulate Slice Views
Manipulate 3D View
Save Scene and Unsaved Data
Save Scene
Scene File:
Save Data
Data Directory:
C:/Program Files/Slicer3 3.2.2008-06-02/
Save All
Save None
Node Name
Status
Save
Type
File
MR1.3.46.67...
NotModified
Volume
workbis
Modified
Volume
C:/Program Files/Slicer3 3.2.2008-06-02/workbis.nrrd
working
Modified
Volume
C:/Program Files/Slicer3 3.2.2008-06-02/working.nrrd
Save
Select File
Patient SPL
Patient userguide
Patient1
Program Files
Activation Assistant for the 2007 Microsoft Office suites
Adobe
Amira 5.2.0
Analog Devices
Common Files
CONEXANT
DIFX
Digital Line Detect
Diskeeper Corporation
Name
Size
Modified time
File name:
Files of type:
Save
Cancel

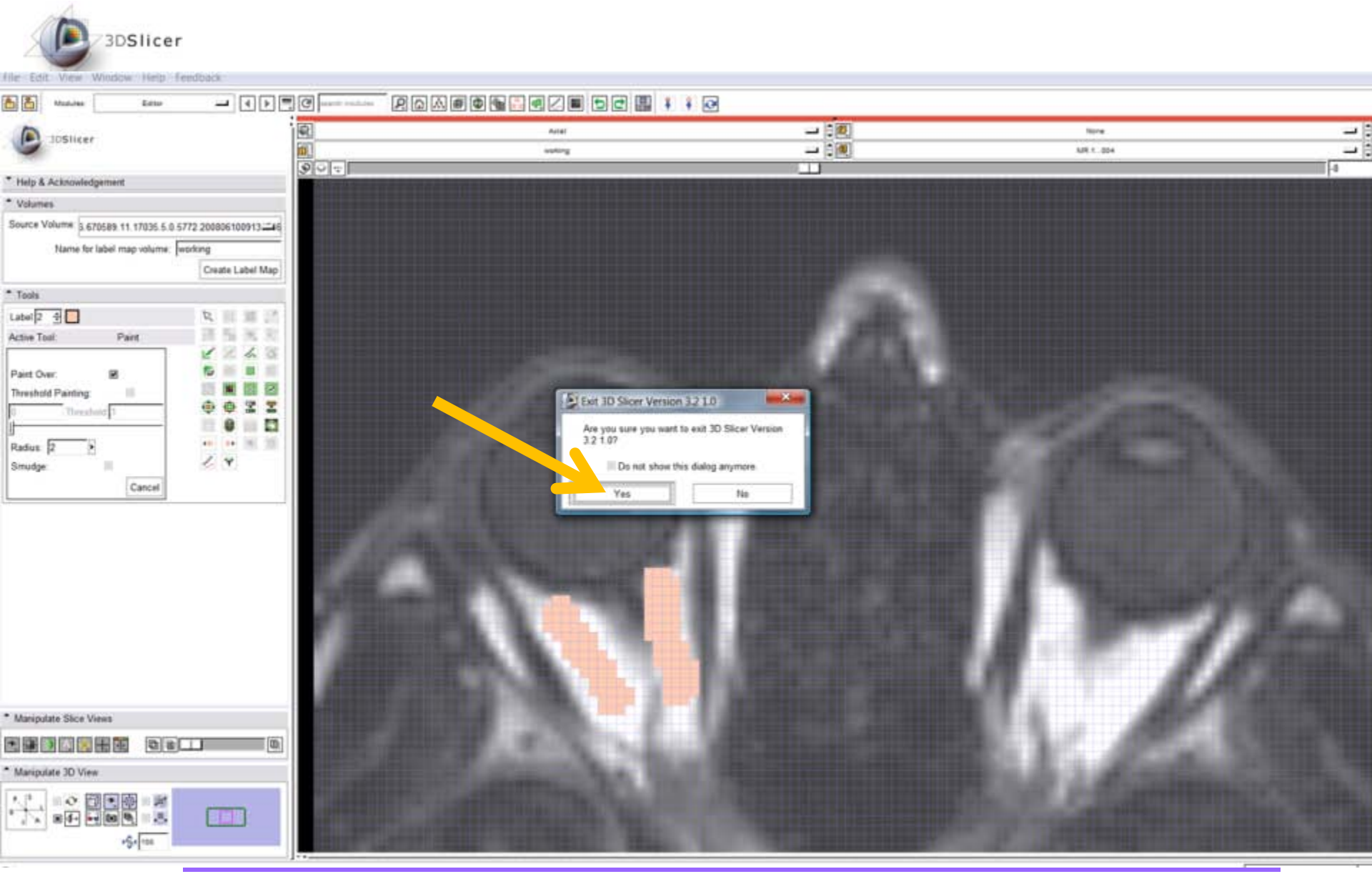

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume:
Name for label map volume: working
Create Label Map
Tools
Label: 2
Active Tool: Paint
Paint Over:
Threshold Painting:
Radius: 2
Smudge:
Cancel
Manipulate Slice Views
Manipulate 3D View
Save Scene and Unsaved Data
Save Scene
Scene File: C:/Patient SPL/Patient userguide/Seguserguide.mrml
Save Scene
Save Data
Data Directory: C:/Program Files/Slicer3 3.2.2008-06-02/
Save All
Save None
Node Name | Status | Save | Type | File
MR.1.3.46.67... | NotModified | Volume | C:/Lescroneur oeil droit 1ere fois/MR.1.3.46.670589.11.17035.5.0.5772.2008...
workbis | Modified | Volume | C:/Program Files/Slicer3 3.2.2008-06-02/workbis.nrrd
working | Modified | Volume | C:/Program Files/Slicer3 3.2.2008-06-02/working.nrrd
Save
Cancel
Bg I: 79
Bg J: 135
Bg K: 21
Lb: 0 Black
Fg: None
Bg: 1078.96
R: -40.5
A: 51.3
S: -9.1


3DSlicer
Save Scene and Unsaved Data
Save Scene
Scene File: C:/Patient SPL/Patient userguide/Seguserguide.mrml
Save Scene
Save Data
Data Directory: C:/Program Files/Slicer3 3.2.2008-06-02/
Save All
Save None
Node Name
Status
Save
Type
File
MR.1.3.46.67...
NotModified
Volume
C:/Lescrenier oeil droit 1ere tois/MR.1.3.46.670589.11.17035.5.0.5772.2008...
workbis
Modified
Volume
C:/Program Files/Slicer3 3.2.2008-06-02/workbis.nrrd
working
Modified
Volume
C:/Program Files/Slicer3 3.2.2008-06-02/working.nrrd
Save
Cancel
Select Directory
Go up one dir
lib
share
Slicer3 3.2.2008-06-23
Slicer3 3.2.2008-07-06
Slicer3 3.2.2008-08-08
Slicer3 3.3.2008-07-06
Slicer3 3.3.2008-07-07
Slicer3 3.3.2008-07-19
Slicer3 3.3.2008-11-13
Sun
Synaptics
ThinkPad
ThinkVantage
ThinkVantage Fingerprint Software
UltimateZip 2007
Uninstall Information
Windows Calendar
OK
Cancel
Help & Acknowledgement
Volumes
Source Volume:
Name for label map volume:
working
Create Label Map
Tools
Active Tool
Paint
Paint Over
Threshold Painting
Radius:
Smudge
Cancel
Manipulate Slice Views
Manipulate 3D View

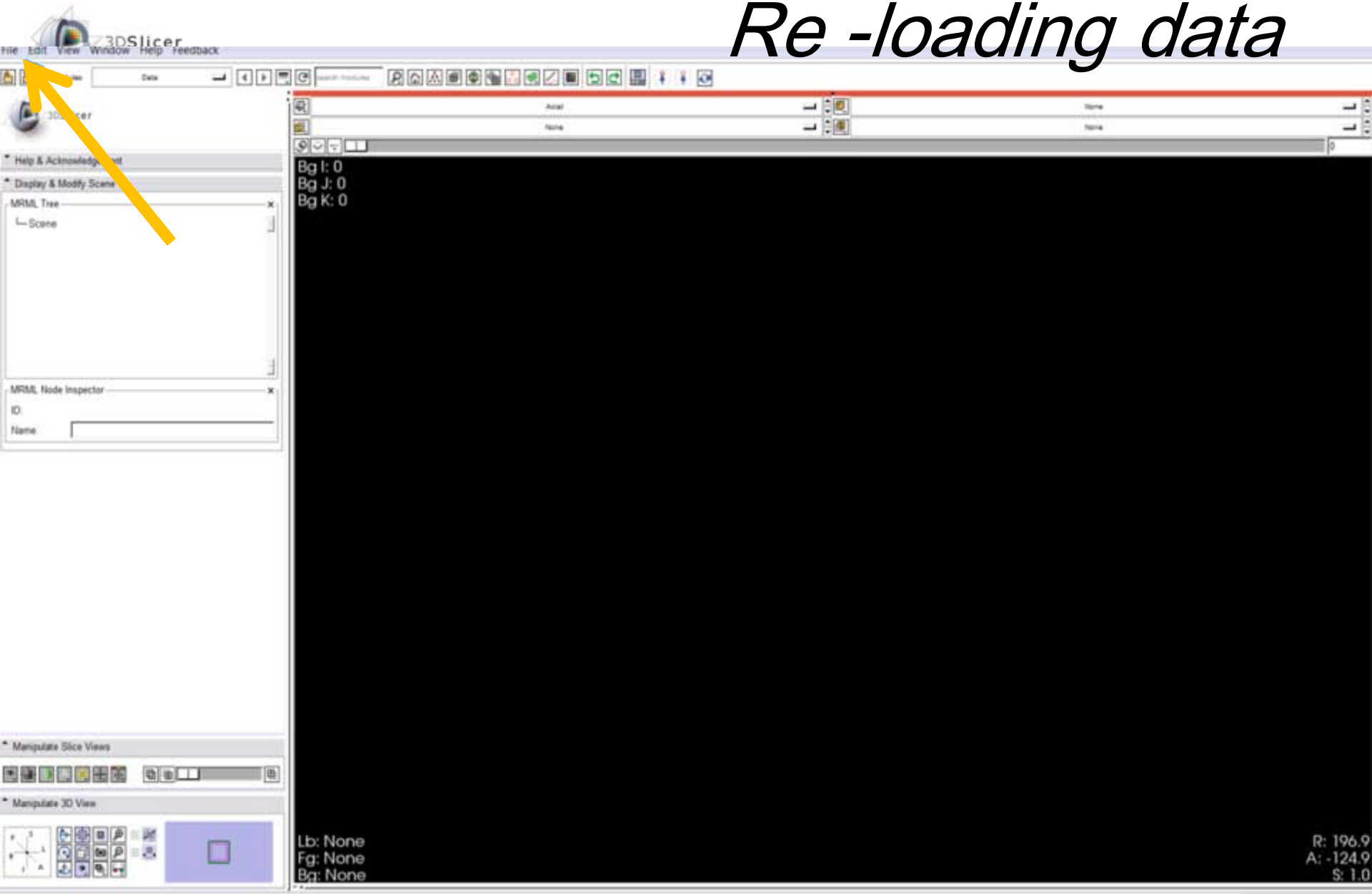

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume:
Name for label map volume:
working
Create Label Map
Tools
Active Tool:
Paint
Paint Over
Threshold Painting
Radius
Smudge
Cancel
Manipulate Slice Views
Manipulate 3D View
Save Scene and Unsaved Data
Save Scene
Scene File:
C:/Patient SPL/Patient userguide/Seguserguide.mrml
Save Scene
Save Data
Data Directory:
C:/Program Files/Slicer3 3.2.2008-06-02/
Save All
Save None
Node Name
Status
Save
Type
File
MR.1.3.46.67...
NotModified
Volume
C:/Lescrenier oeil droit 1ere fois/MR.1.3.46.670589.11.17035.5.0.5772.2008...
workbis
Modified
Volume
C:/Program Files/Slicer3 3.2.2008-06-02/workbis.mrd
working
Modified
Volume
C:/Program Files/Slicer3 3.2.2008-06-02/working.mrd
Save
Cancel
Select Directory
Ordinateur
Patient SPL
Patient userguide
Program Files
Activation Assistant for the 2007 Microsoft Office suites
OK
Cancel

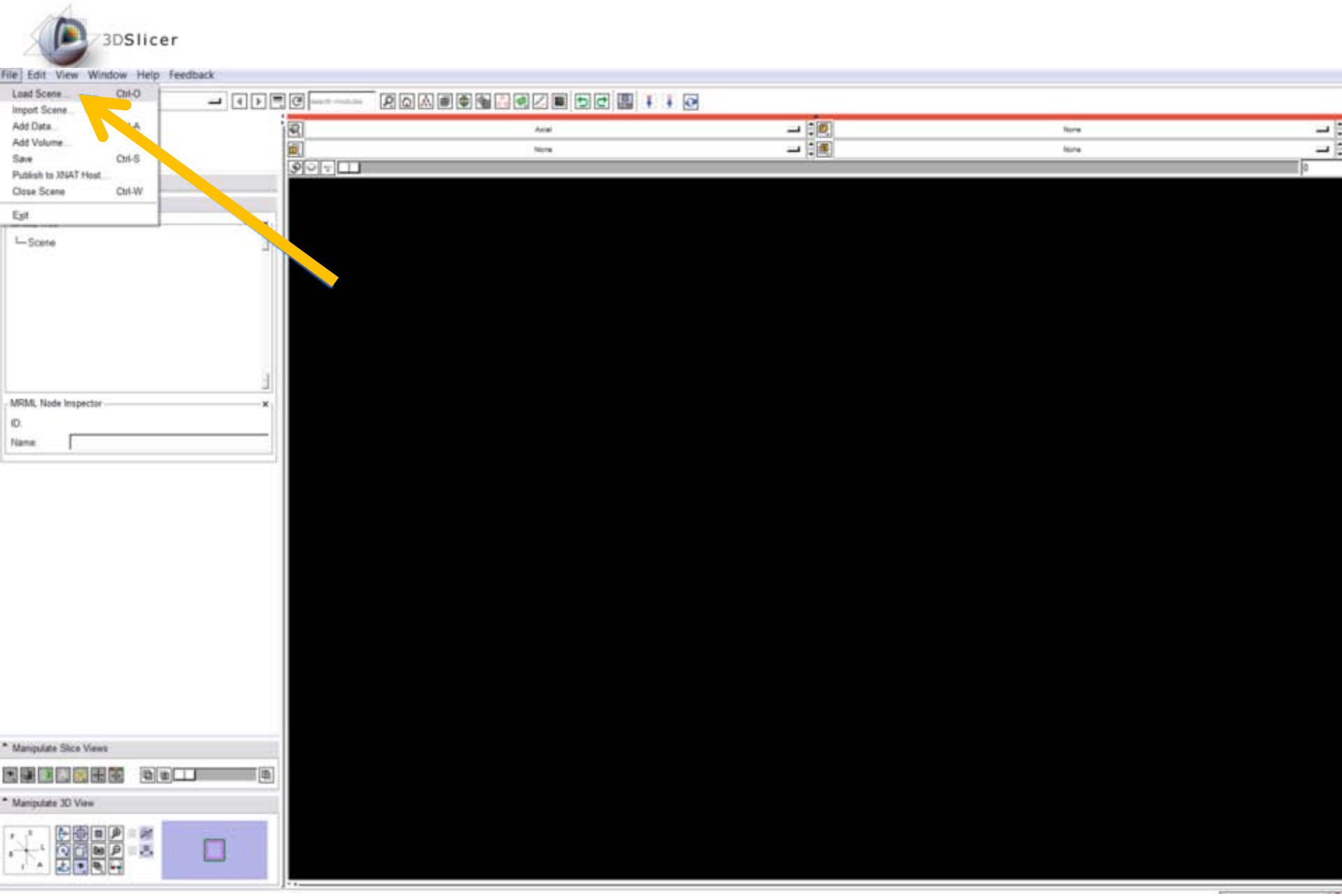

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume:
Name for label map volume: working
Create Label Map
Tools
Label: 2
Active Tool: Paint
Paint Over:
Threshold Painting:
Radius: 2
Smudge:
Cancel
Manipulate Slice Views
Manipulate 3D View
Save Scene and Unsaved Data
Save Scene
Scene File: C:/Patient SPL/Patient userguide/Seguserguide.mrml
Save Scene
Save Data
Data Directory: C:/Patient SPL/Patient userguide/
Save All
Save None
Node Name
Status
Save
Type
File
MR.1.3.46.67...
NotModified
Volume
C:/Lescrenier oeil droit1ere fois/MR.1.3.46.670589.11.17035.5.0.5772.2008...
workbis
Modified
Volume
C:/Program Files/Slicer3 3.2.2009-06-02/workbis.mrml
working
Modified
Volume
C:/Patient SPL/Patient userguide/working.mrml
Save
Cancel

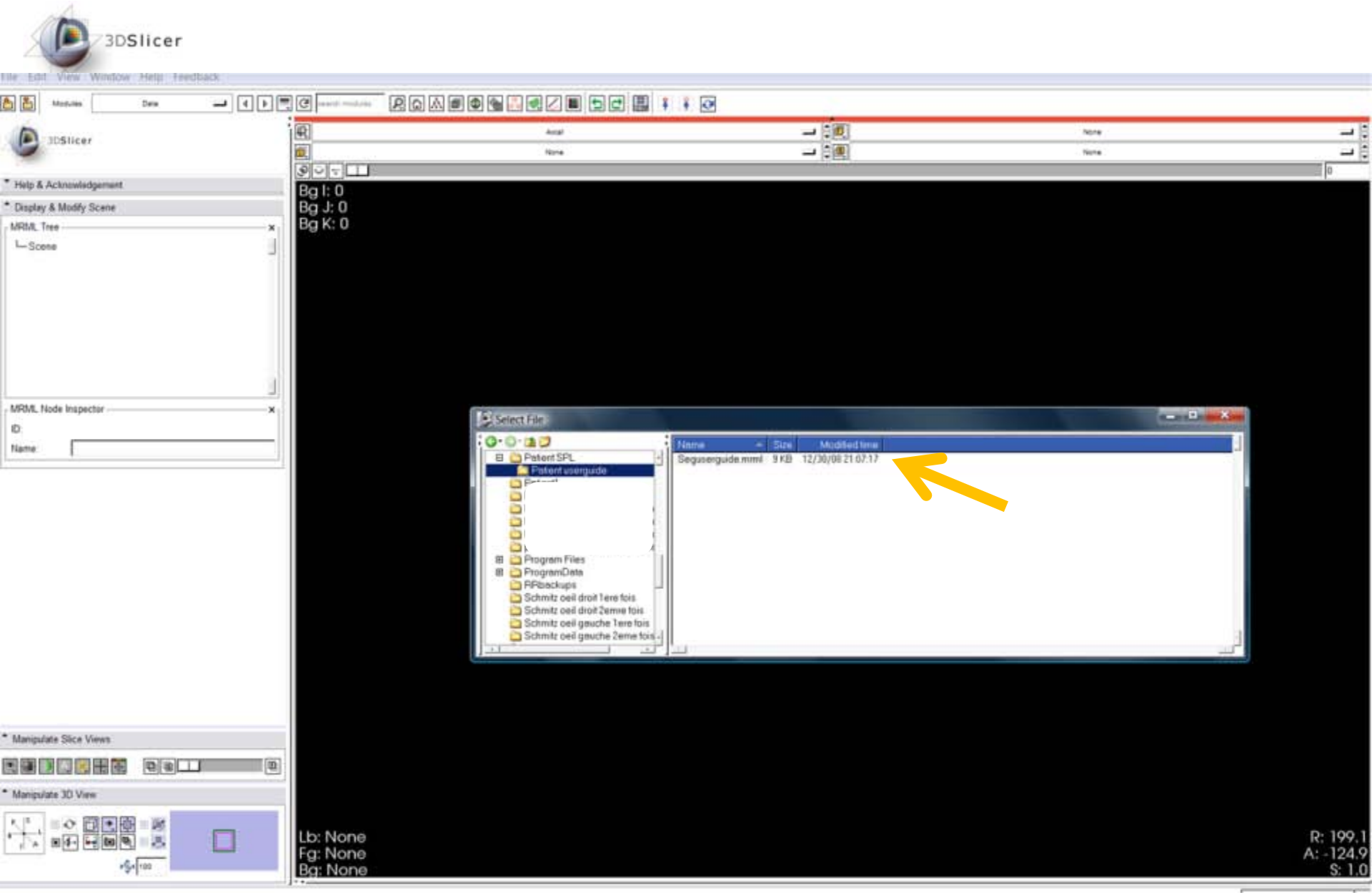

3DSlicer
File Edit View Window Help Feedback
Load Scene... Ctrl-O
Import Scene...
Add Data... Ctrl-A
Add Volume...
Save Ctrl-S
Publish to XNAT Host...
Close Scene Ctrl-W
Exit
Tools
Label
Active Tool: Paint
Paint Over
Threshold Painting
Radius
Smudge
Cancel
Manipulate Slice Views
Manipulate 3D View

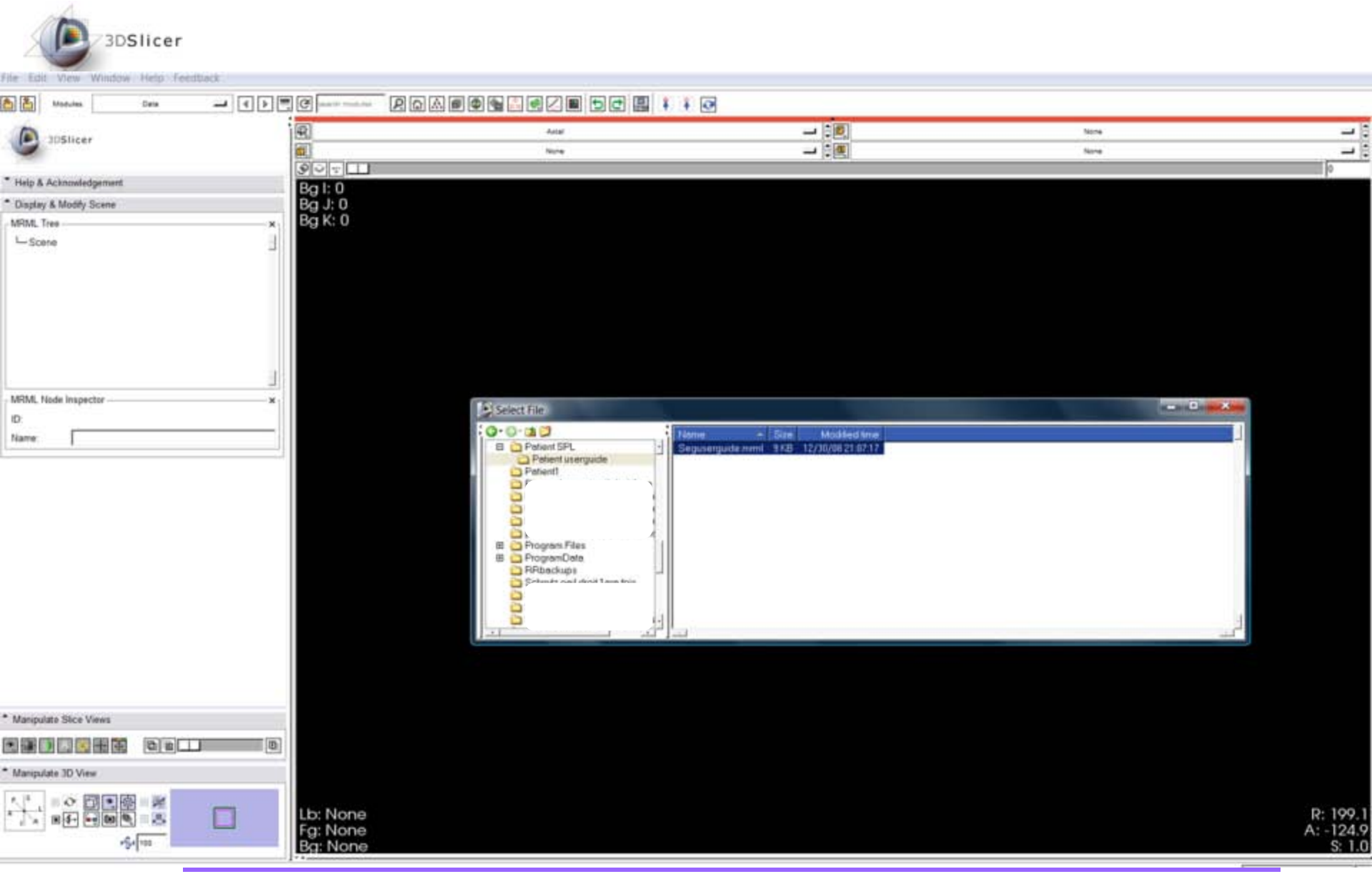

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume
Name for label map volume: working
Create Label Map
Tools
Label
Active Tool: Paint
Paint Over
Threshold Painting
Radius
Smudge
Cancel
Manipulate Slice Views
Manipulate 3D View
Exit 3D Slicer Version 3.2.1.0
Are you sure you want to exit 3D Slicer Version 3.2.1.0?
Do not show this dialog anymore
Yes
No

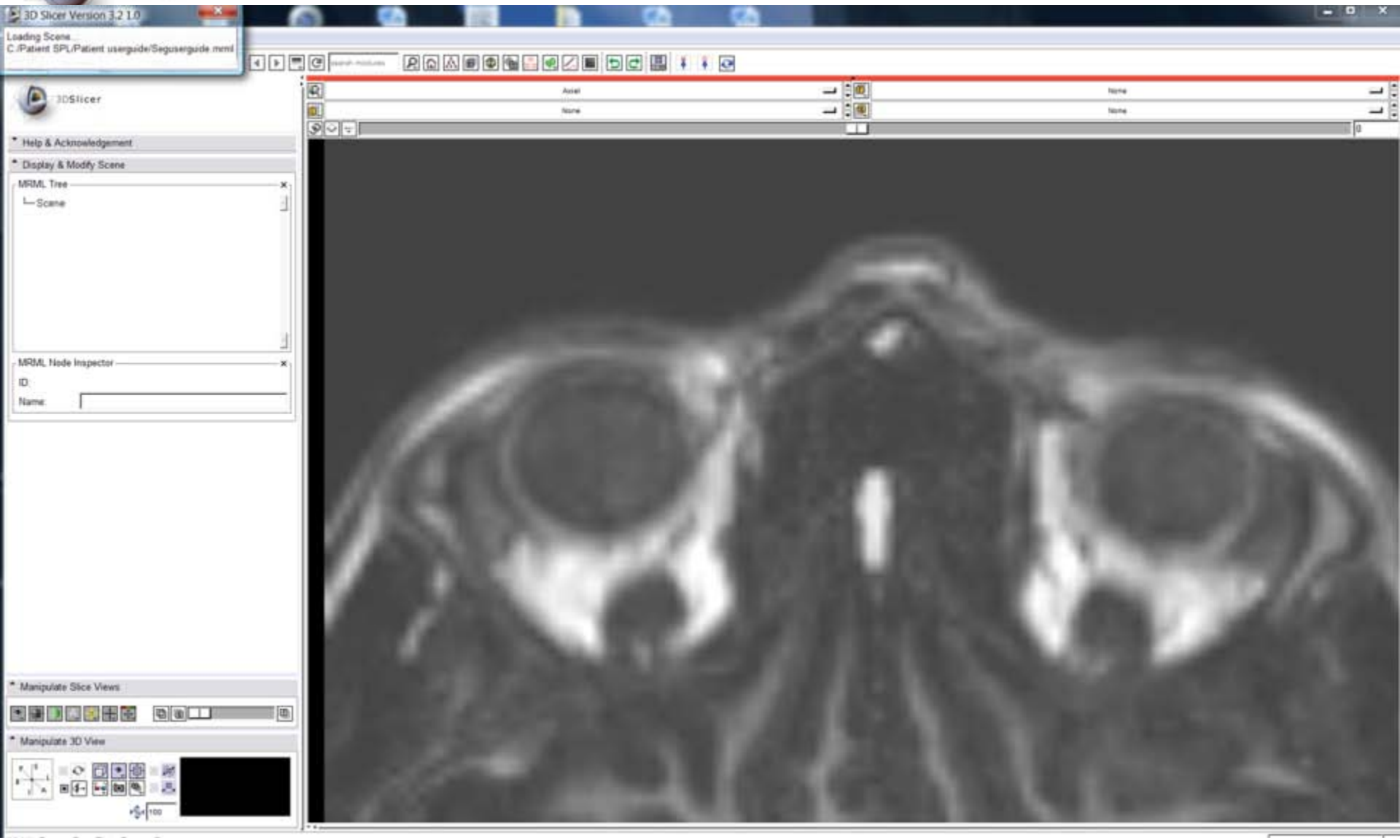
Re -loading data

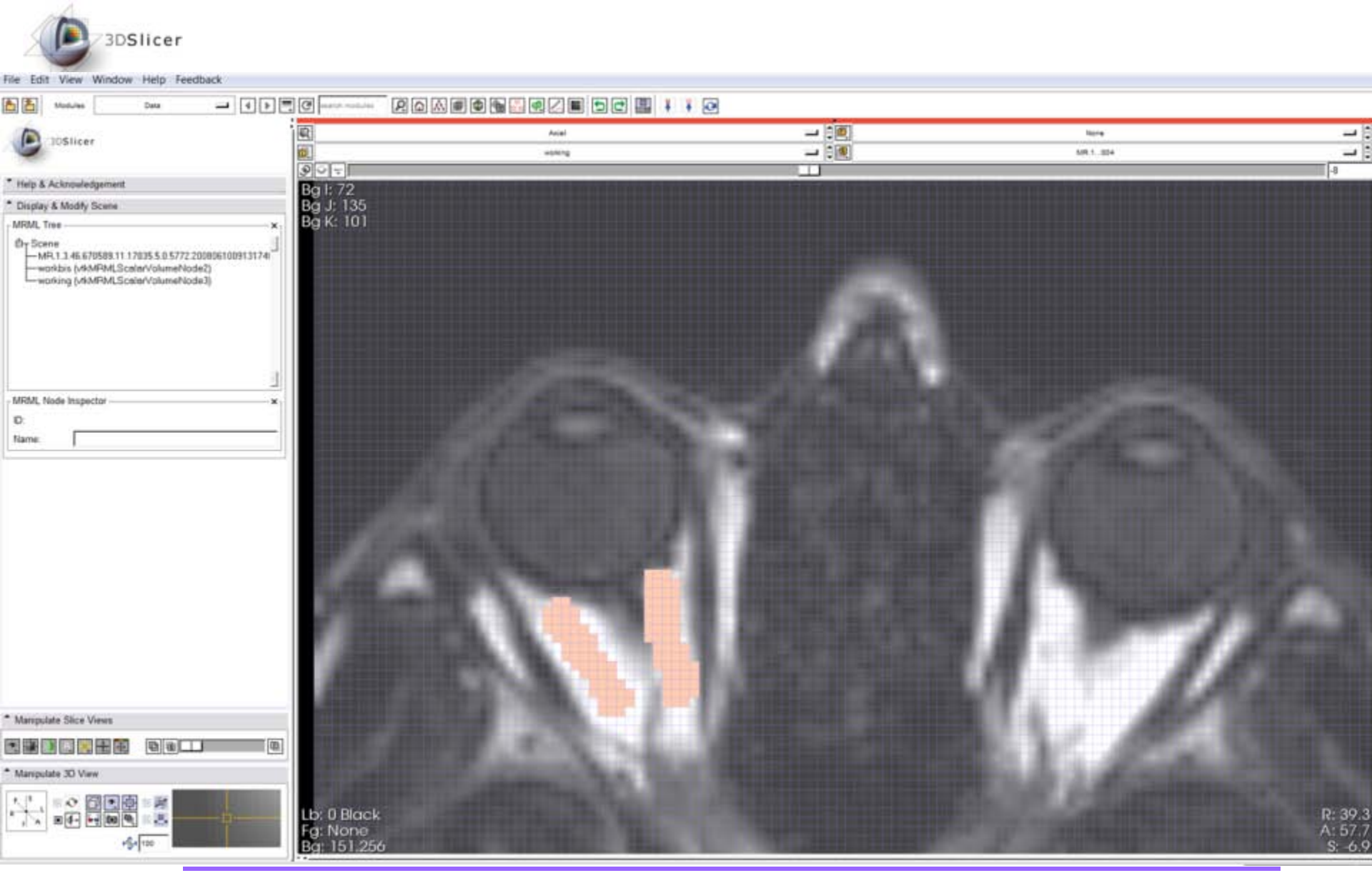



3DSlicer
File Edit View Window Help Feedback
Load Scene... Ctrl-O
Import Scene...
Add Data...
Add Volume...
Save Ctrl-S
Publish to XNAT Host...
Close Scene Ctrl-W
Exit
Scene
MRML Node Inspector
ID:
Name:
Manipulate Slice Views
Manipulate 3D View


3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Display & Modify Scene
MRML Tree
Scene
MRML Node Inspector
ID
Name
Manipulate Slice Views
Manipulate 3D View
Bg I: 0
Bg J: 0
Bg K: 0
Select File
Name
Size
Modified time
Patient SPL
Patient userguide
Seguserguide.mrml 9 KB 12/30/08 21:07:17
Program Files
ProgramData
RPbackups
Schmitz oeil droit 1ere fois
Schmitz oeil droit 2eme fois
Schmitz oeil gauche 1ere fois
Schmitz oeil gauche 2eme fois
Lb: None
Fg: None
Bg: None
R: 199.1
A: -124.9
S: 1.0

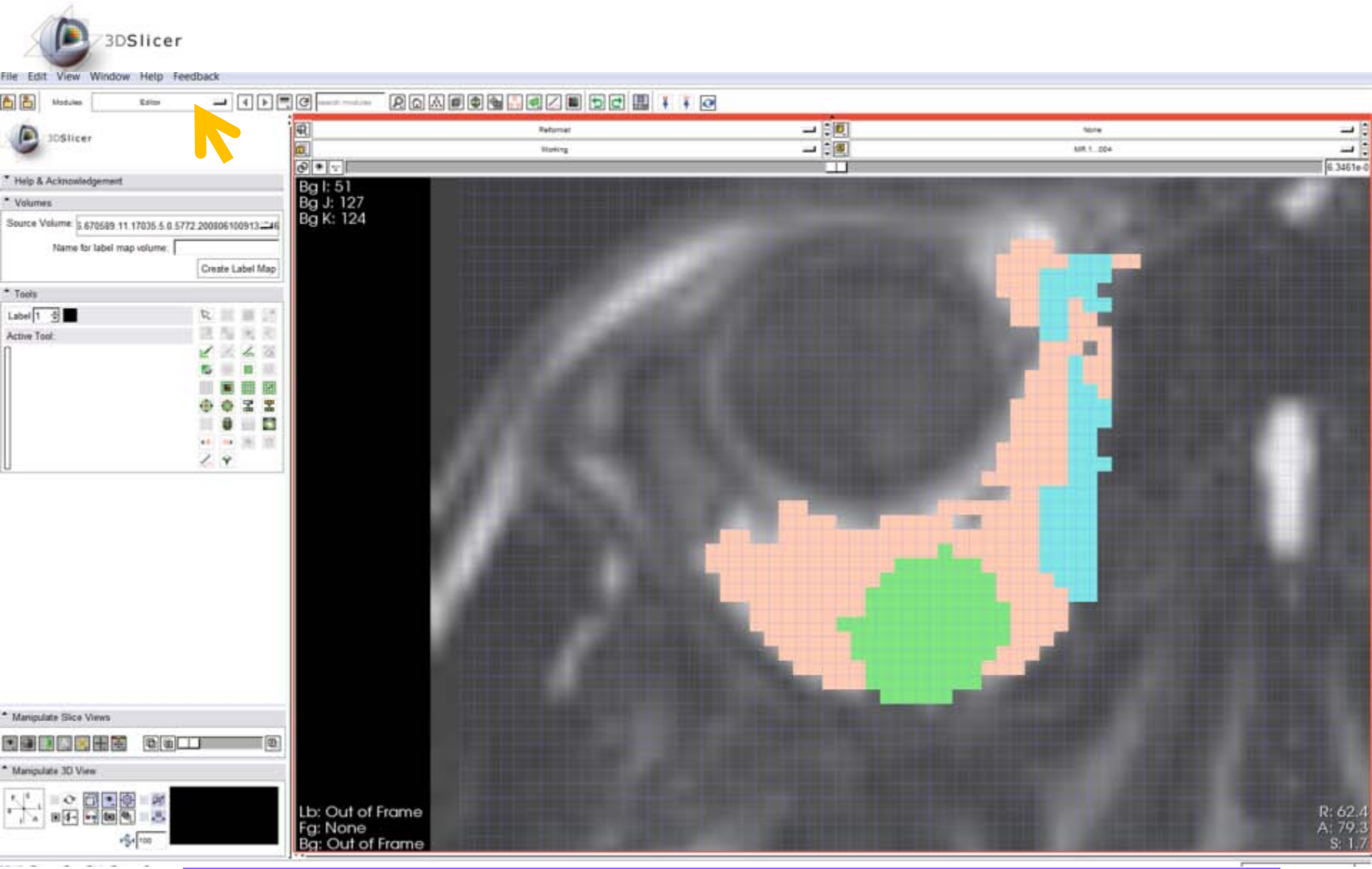

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Display & Modify Scene
MRML Tree
Scene
MRML Node Inspector
ID:
Name:
Manipulate Slice Views
Manipulate 3D View
Bg I: 0
Bg J: 0
Bg K: 0
Select File
Patient SPL
Patient userguide
Patient1
Program Files
ProgramData
RRbackups
Lb: None
Fg: None
Bg: None
R: 199.1
A: -124.9
S: 1.0


3D Slicer Version 3.2.1.0
Loading Scene...
C:/Patient SPL/Patient userguide/Seguserguide.mrml
3DSlicer
Help & Acknowledgement
Display & Modify Scene
MRML Tree
Scene
MRML Node Inspector
ID
Name
Manipulate Slice Views
Manipulate 3D View
Axial
None
None
None

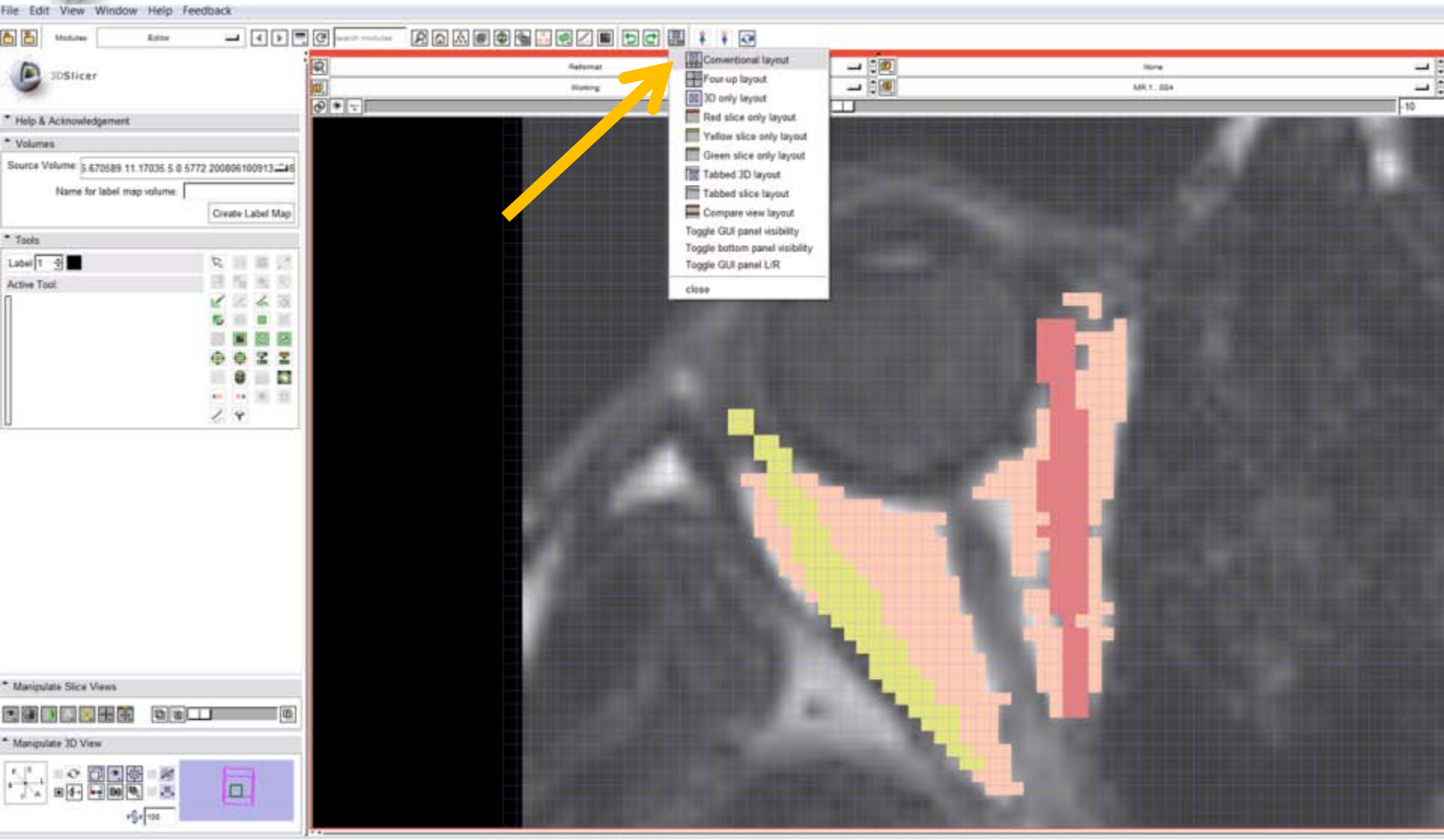

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Display & Modify Scene
MRML Tree
Scene
MR.1.3.46.670589.11.17035.5.0.5772.20080610091317 4
workbis (vtkMRMLScalarVolumeNode2)
working (vtkMRMLScalarVolumeNode3)
MRML Node Inspector
ID:
Name:
Manipulate Slice Views
Manipulate 3D View
Bg I: 72
Bg J: 135
Bg K: 101
Lb: 0 Black
Fg: None
Bg: 151.256
R: 39.3
A: 57.7
S: -6.9

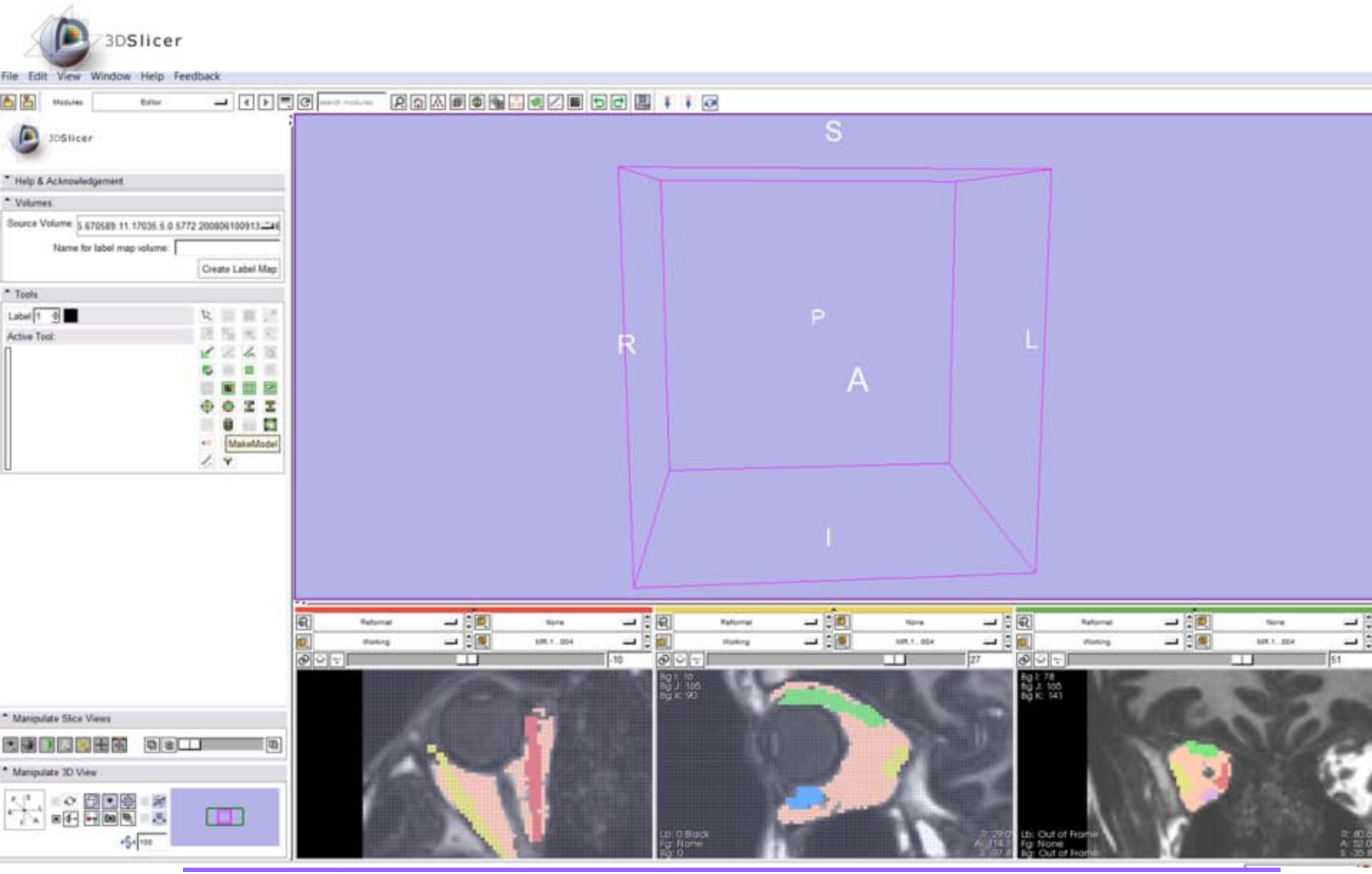
Example: Choice of colors

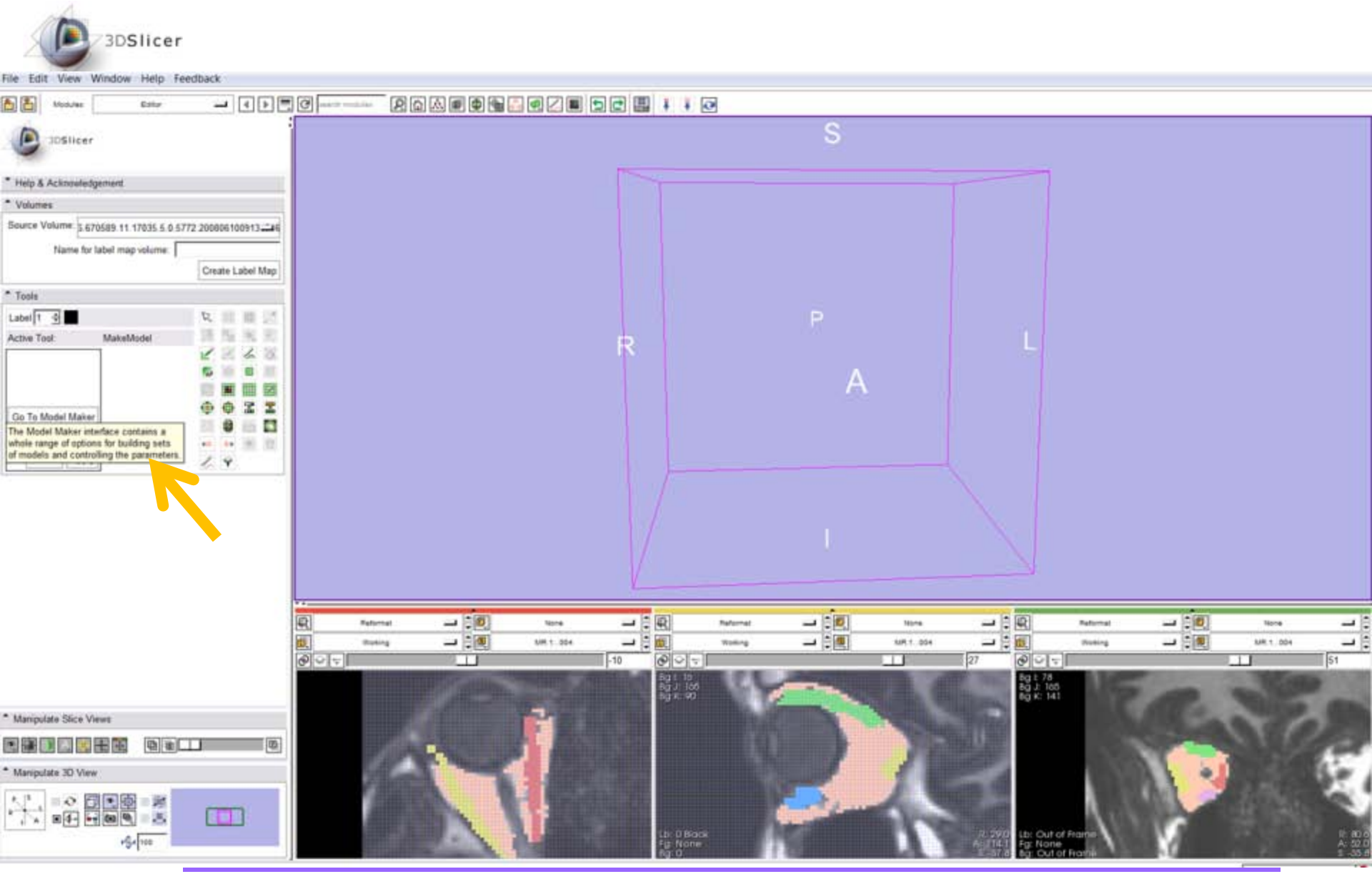
- 1 (dark blue) : not used
- 2 (pink) : fat tissue
- 3 (white) : not used
- 4(blue) : inferior extraocular muscle
- 5(red) : medial extraocular muscle
- 6 (green) : superior extraocular muscle
- 7 (azure blue) : superior oblique extraocular muscle
- 8 (olive green) : lateral extraocular muscle
- 9 (violet) : inferior extraocular muscle
- 10 (olive green) : non used

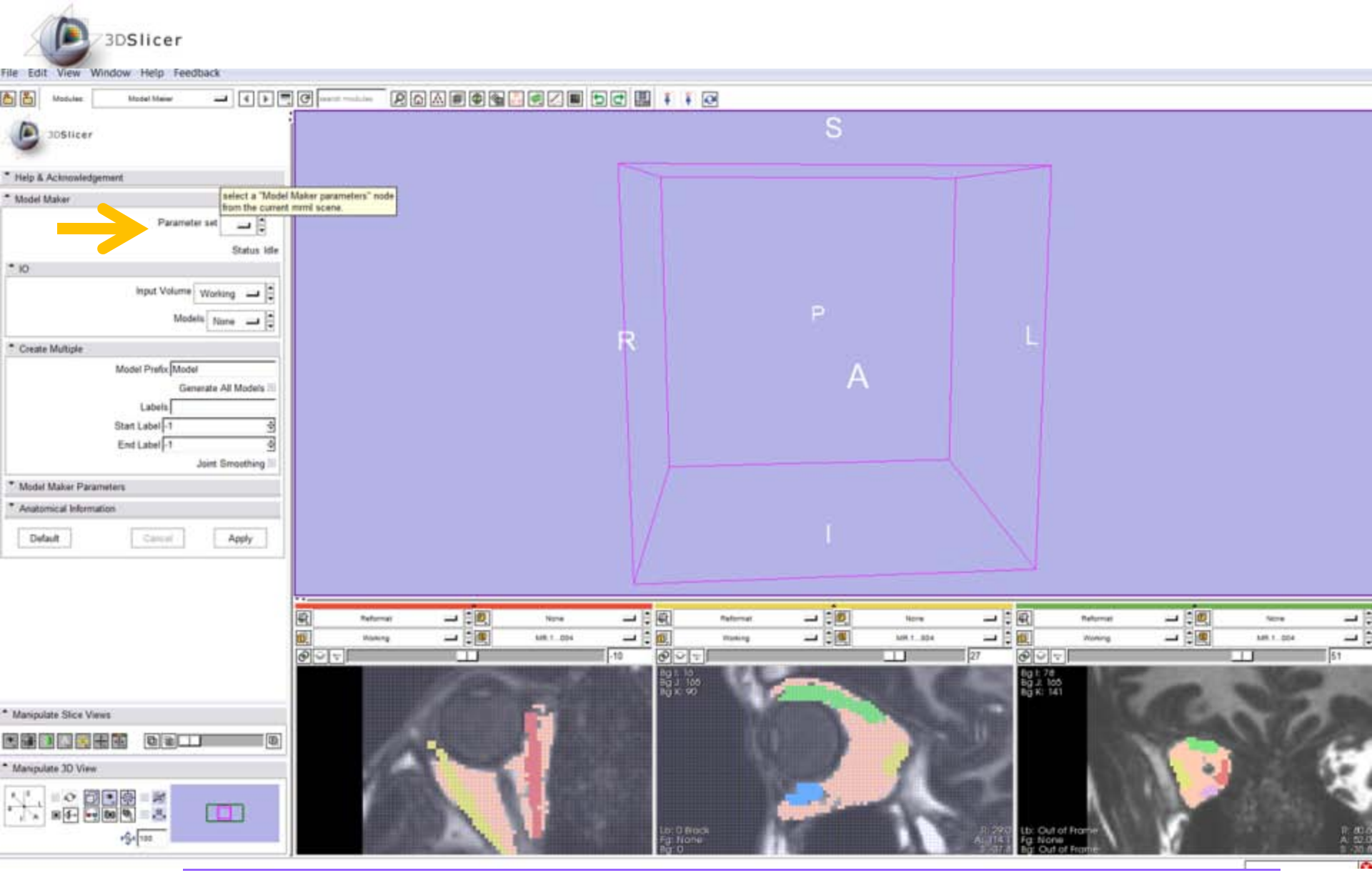

3DSlicer
File Edit View Window Help Feedback
Modules
Editor
Help & Acknowledgement
Volumes
Source Volume:
Name for label map volume:
Create Label Map
Tools
Label
Active Tool:
Manipulate Slice Views
Manipulate 3D View
Bg I: 51
Bg J: 127
Bg K: 124
Lb: Out of Frame
Fg: None
Bg: Out of Frame
R: 62.4
A: 79.3
S: 1.7

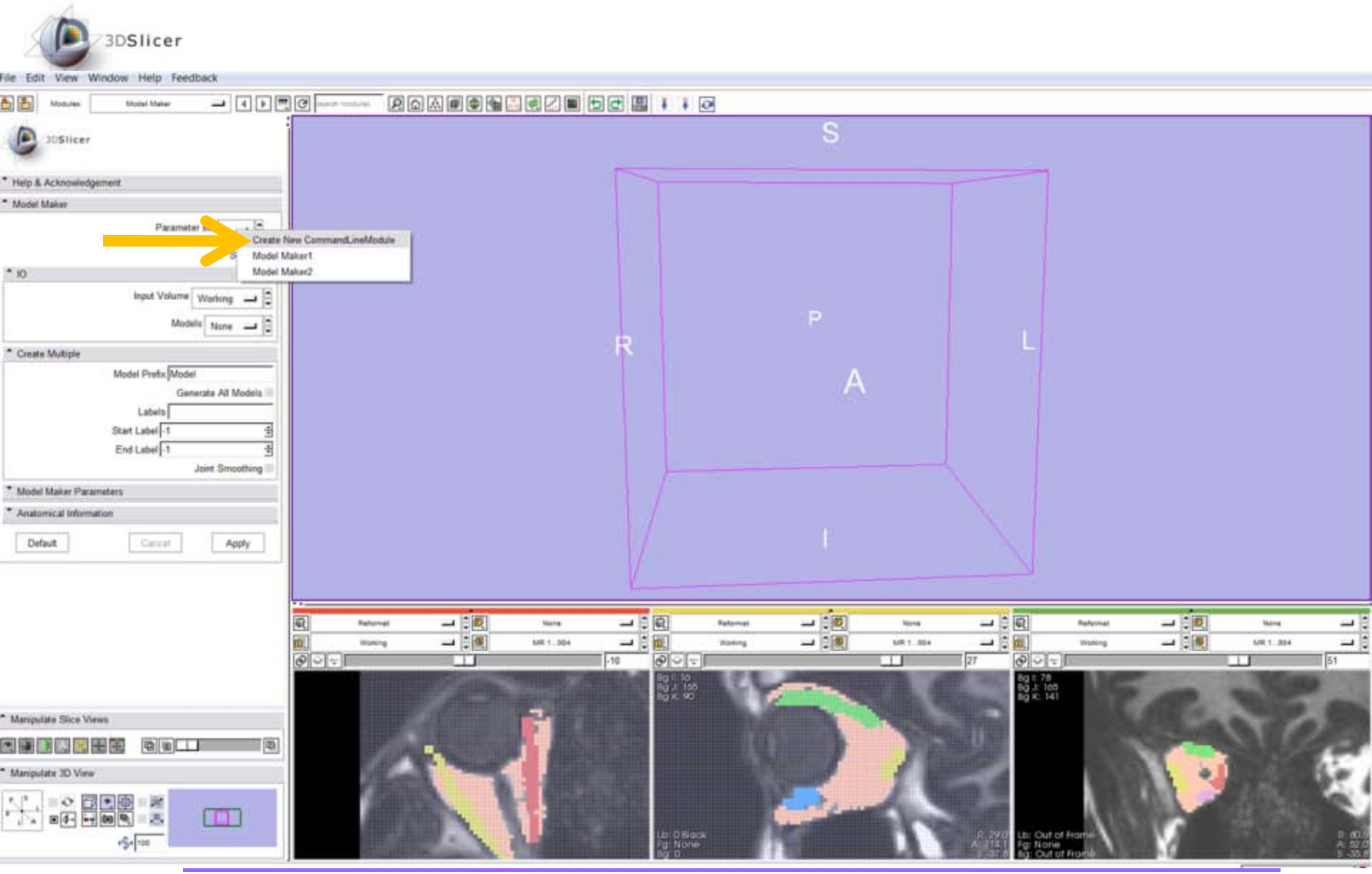
3D reconstruction

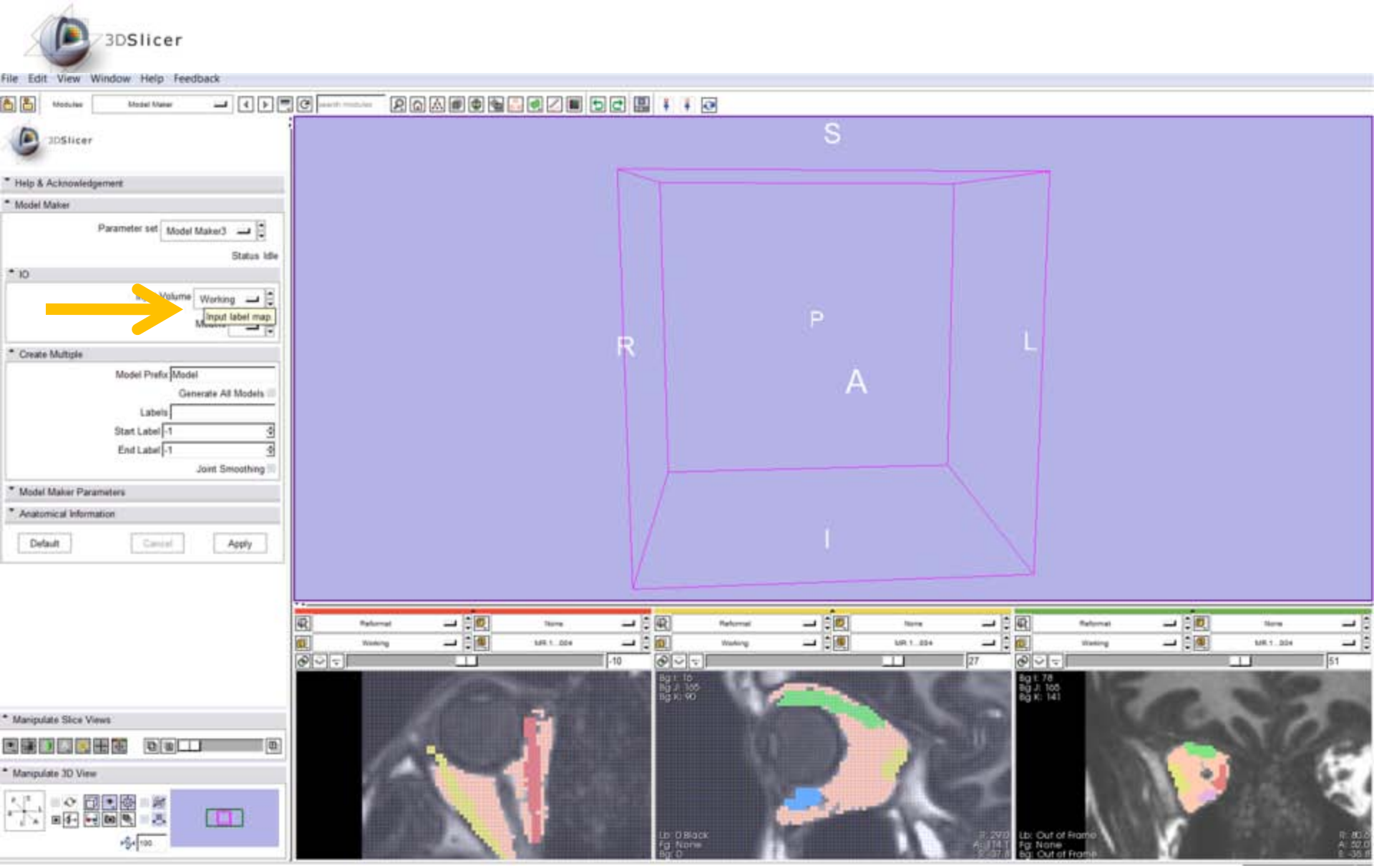


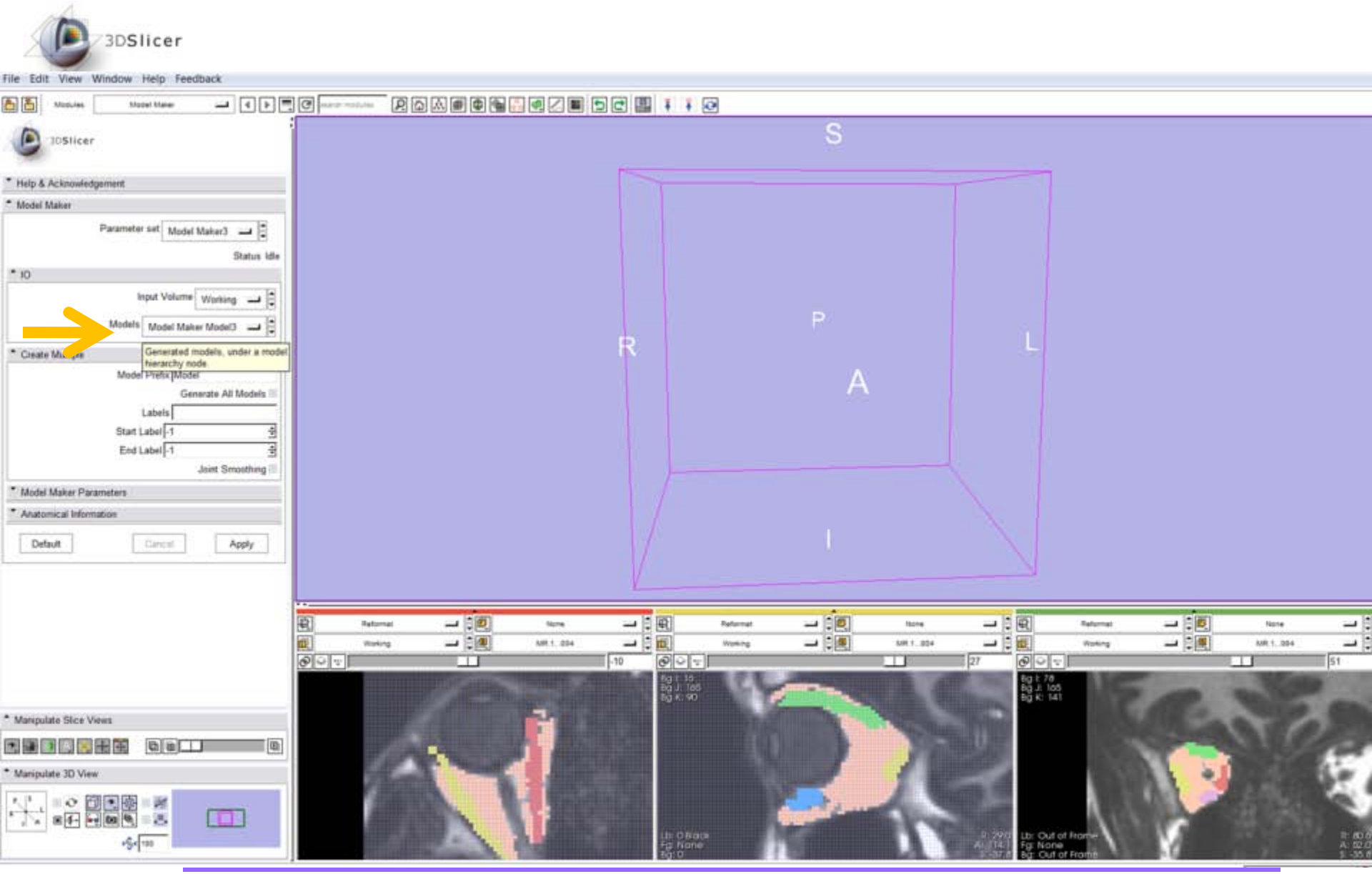

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume:
Name for label map volume:
Create Label Map
Tools
Label
Active Tool:
MakeModel
Manipulate Slice Views
Manipulate 3D View
S
P
R
L
A
I

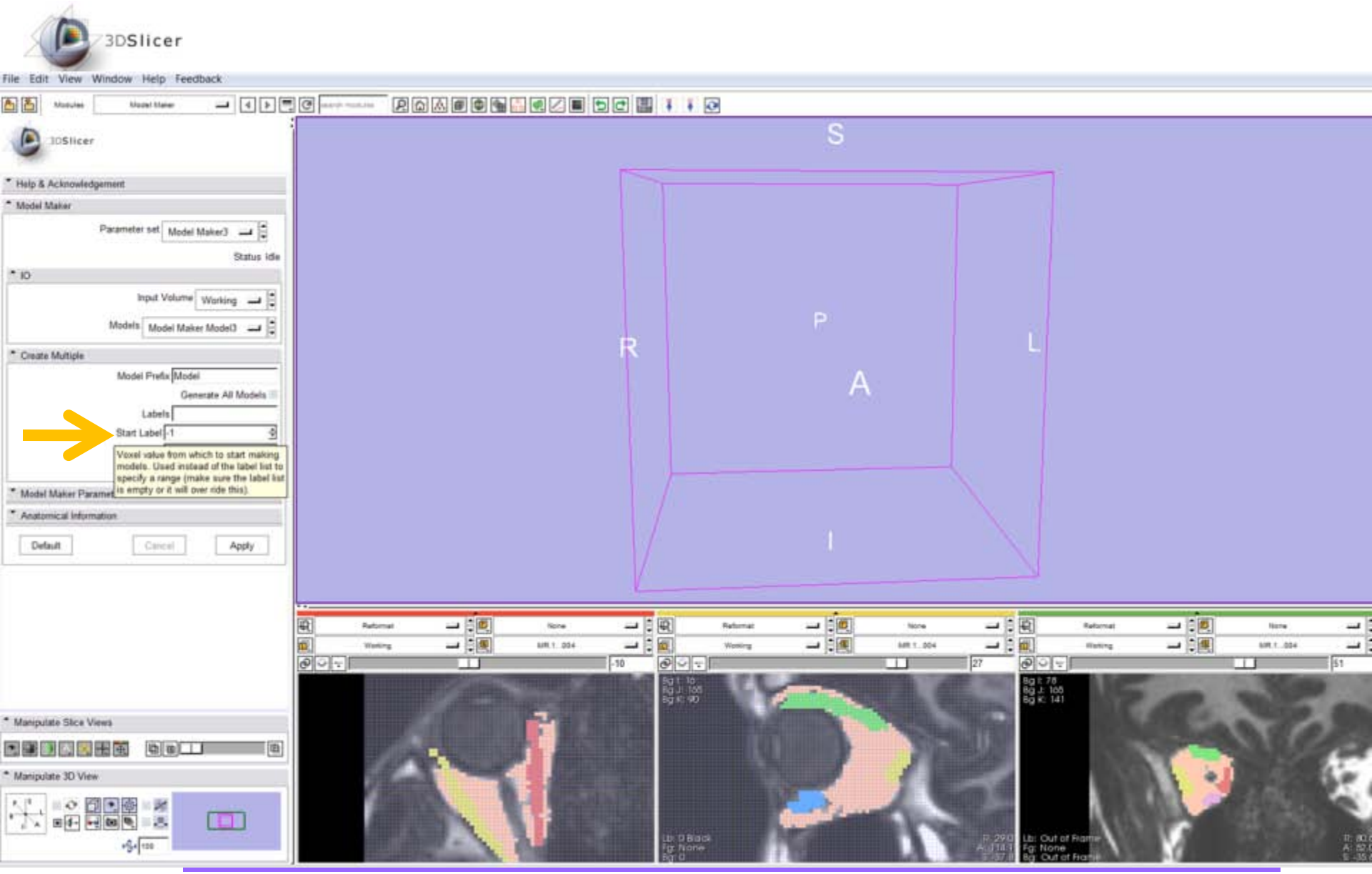

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Volumes
Source Volume:
Name for label map volume:
Create Label Map
Tools
Label 1
Active Tool: MakeModel
Go To Model Maker
The Model Maker interface contains a whole range of options for building sets of models and controlling the parameters.
Manipulate Slice Views
Manipulate 3D View
S
P
R
L
A
I

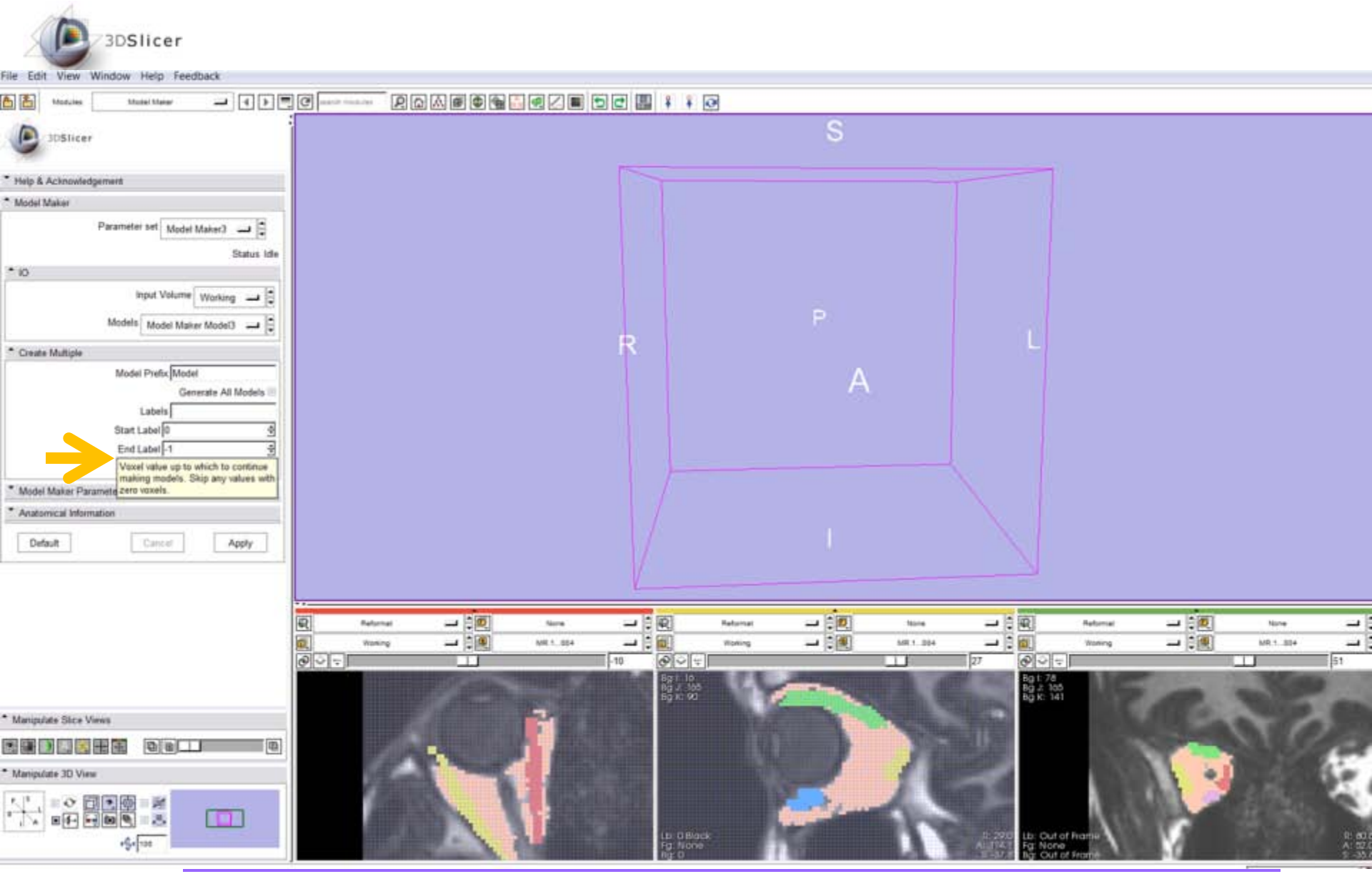

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Model Maker
select a "Model Maker parameters" node from the current mrml scene.
Parameter set
Status Idle
IO
Input Volume
Working
Models
None
Create Multiple
Model Prefix
Model
Generate All Models
Labels
Start Label
-1
End Label
-1
Joint Smoothing
Model Maker Parameters
Anatomical Information
Default
Cancel
Apply
Manipulate Slice Views
Manipulate 3D View
S
P
R
L
A
I

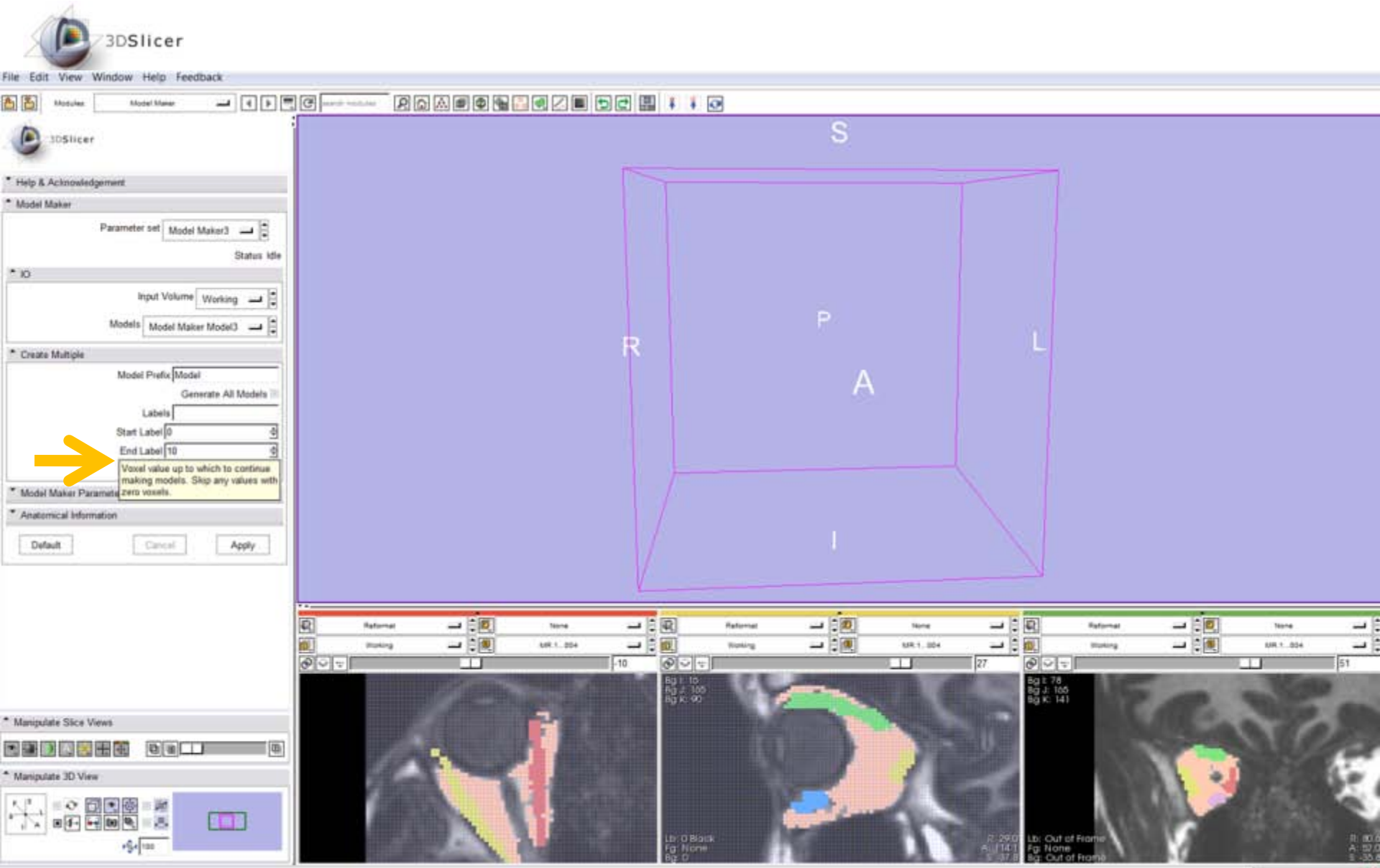

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Model Maker
Create New CommandLineModule
Model Maker1
Model Maker2
IO
Input Volume
Working
Models
None
Create Multiple
Model Prefix
Model
Generate All Models
Labels
Start Label
-1
End Label
-1
Joint Smoothing
Model Maker Parameters
Anatomical Information
Default
Cancel
Apply
Manipulate Slice Views
Manipulate 3D View
S
P
R
L
A
I

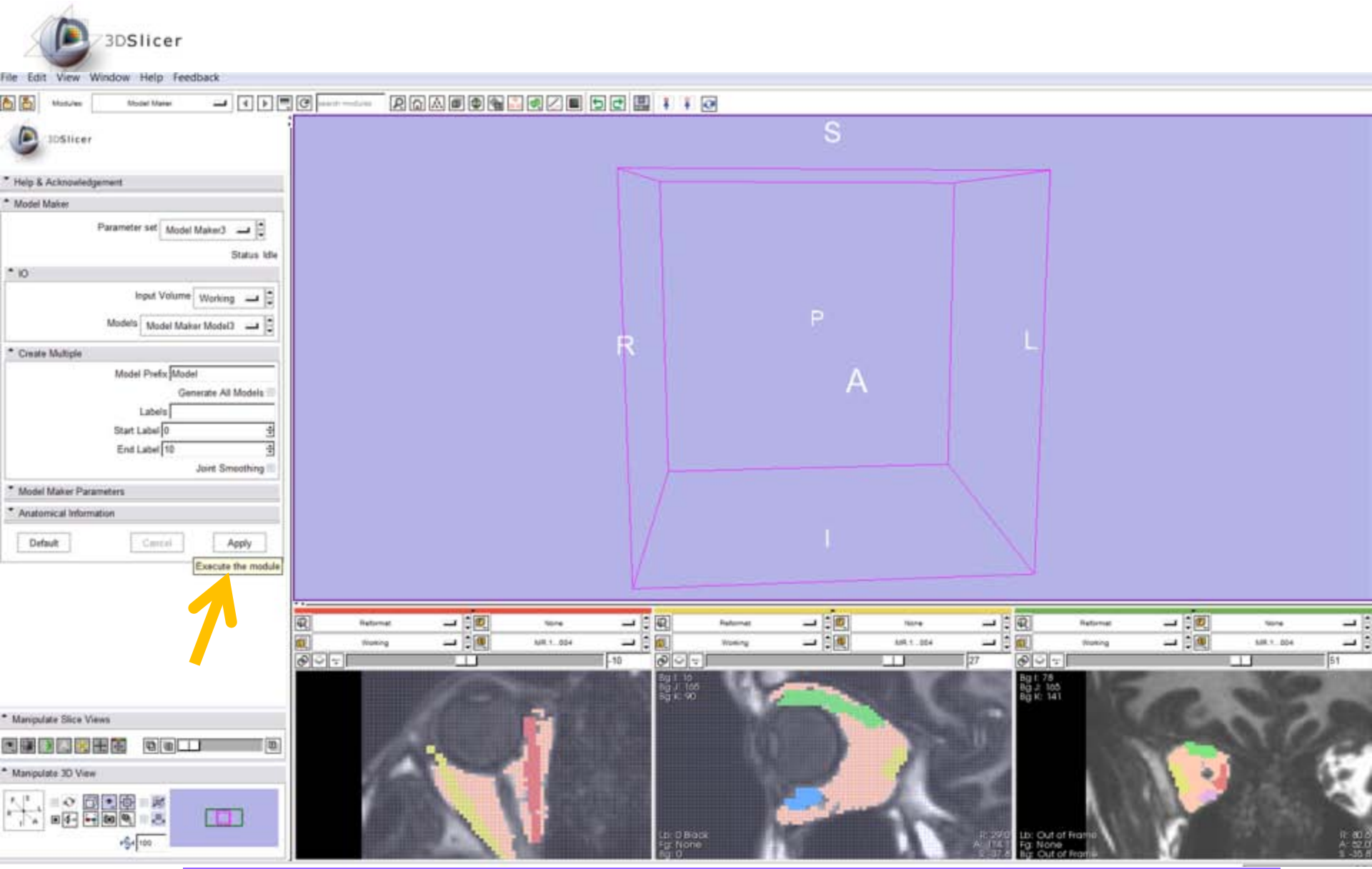

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Model Maker
Parameter set
Model Maker3
Status Idle
IO
Volume
Working
Input label map
Create Multiple
Model Prefix
Model
Generate All Models
Labels
Start Label
-1
End Label
-1
Joint Smoothing
Model Maker Parameters
Anatomical Information
Default
Cancel
Apply
Manipulate Slice Views
Manipulate 3D View
S
P
R
L
A
I

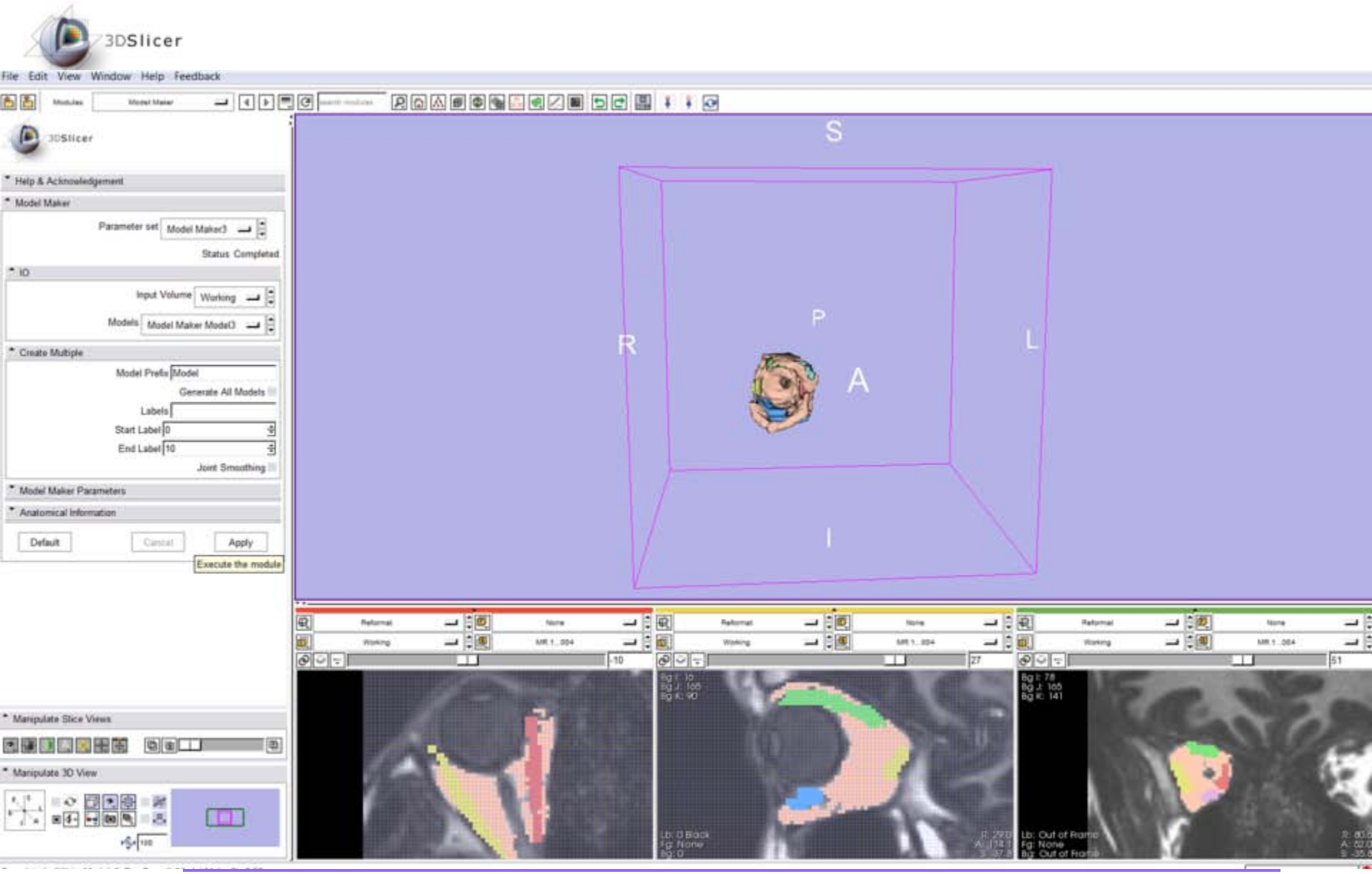

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Model Maker
Parameter set
Model Maker3
Status Idle
IO
Input Volume
Working
Models
Model Maker Model3
Generated models, under a model hierarchy node
Model Prefix
Model
Generate All Models
Labels
Start Label
-1
End Label
-1
Joint Smoothing
Model Maker Parameters
Anatomical Information
Default
Cancel
Apply
Manipulate Slice Views
Manipulate 3D View
S
R
P
A
L
I

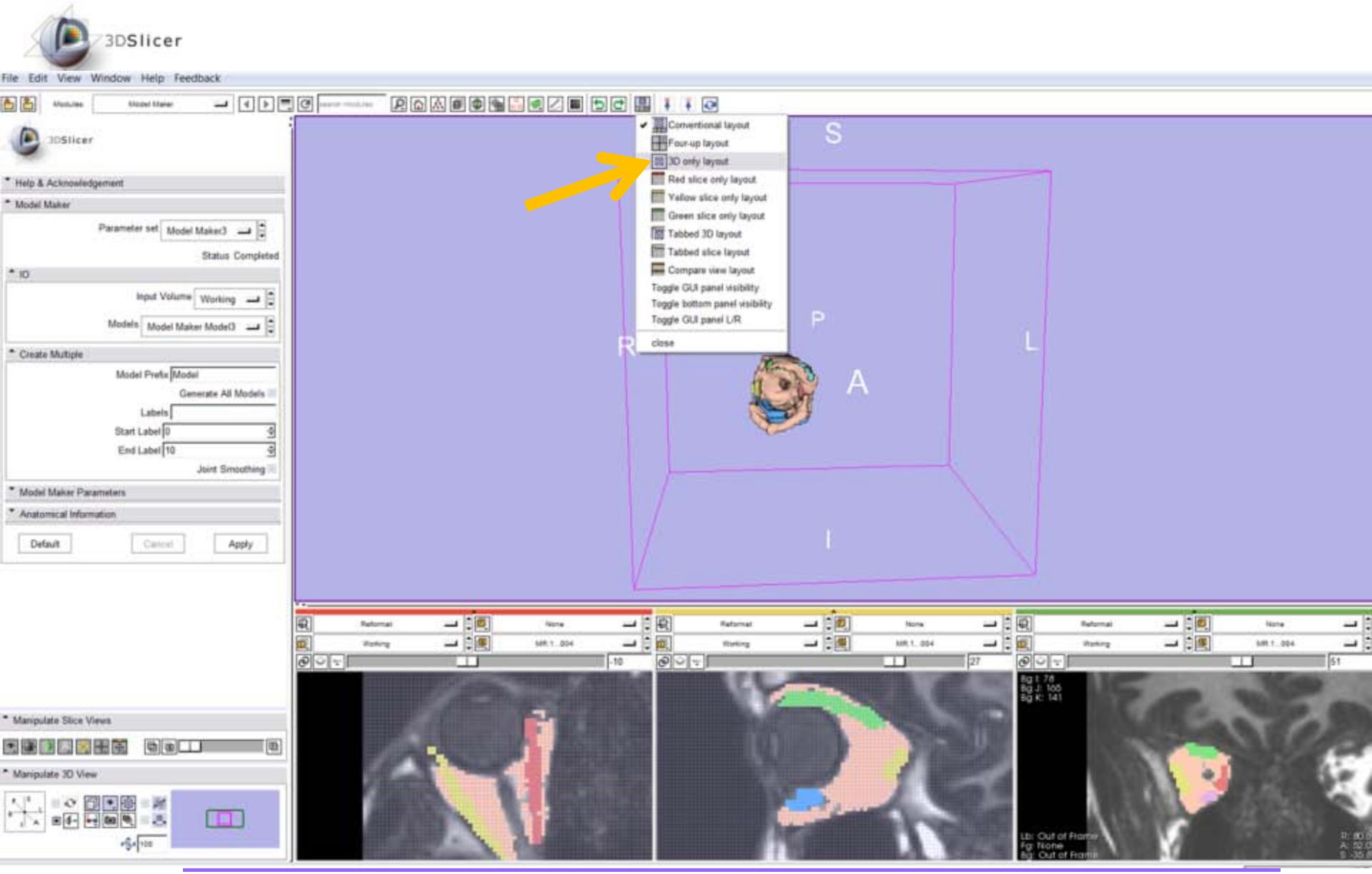

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Model Maker
Parameter set
Model Maker3
Status Idle
IO
Input Volume
Working
Models
Model Maker Model3
Create Multiple
Model Prefix
Model
Generate All Models
Labels
Start Label
-1
Voxel value from which to start making models. Used instead of the label list to specify a range (make sure the label list is empty or it will over ride this).
Model Maker Parameters
Anatomical Information
Default
Cancel
Apply
Manipulate Slice Views
Manipulate 3D View
S
P
R
L
A
I

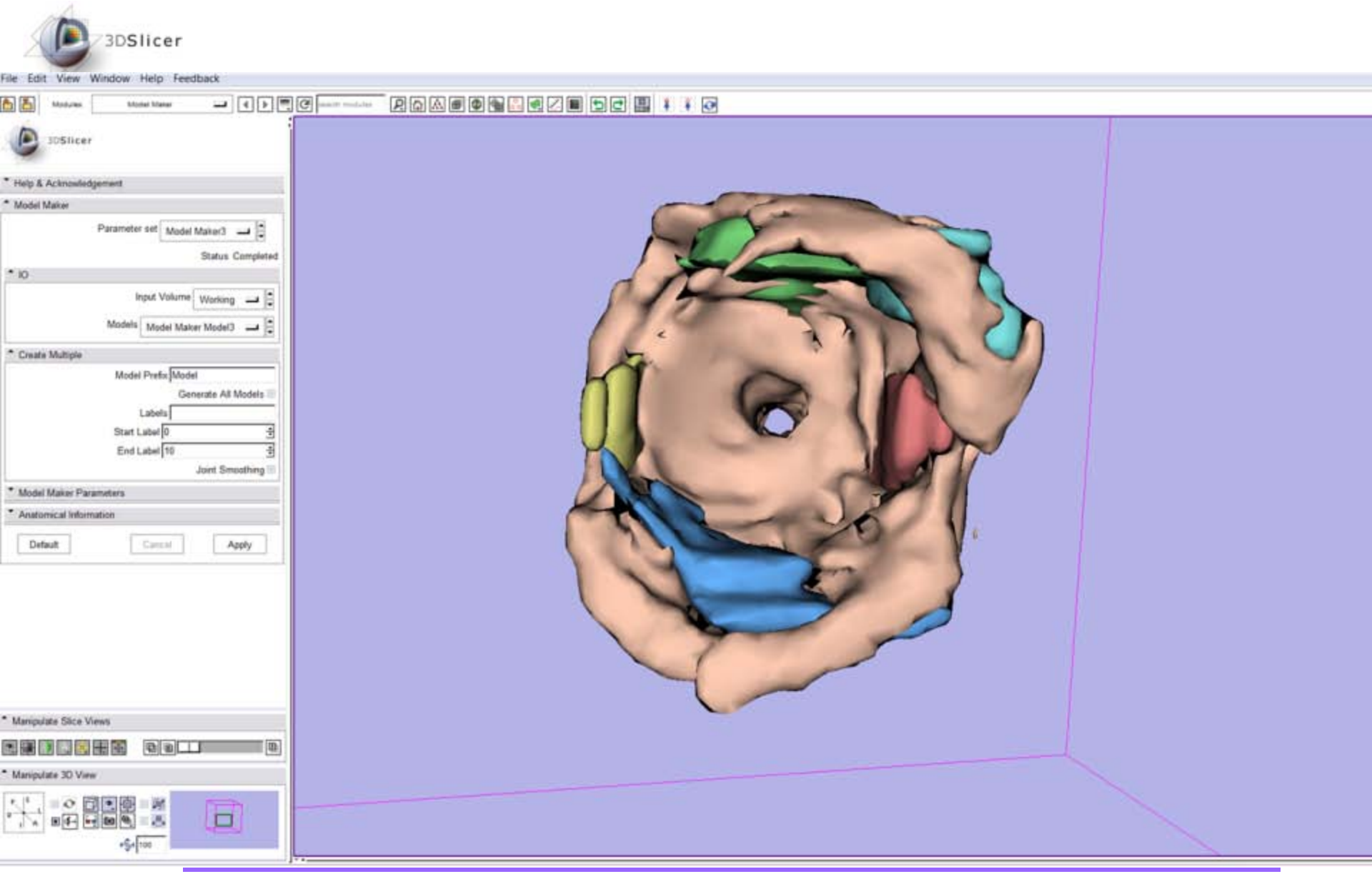

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Model Maker
Parameter set
Model Maker3
Status Idle
IO
Input Volume
Working
Models
Model Maker Model3
Create Multiple
Model Prefix
Model
Generate All Models
Labels
Start Label
End Label
Voxel value up to which to continue making models. Skip any values with zero voxels.
Model Maker Parameters
Anatomical Information
Default
Cancel
Apply
Manipulate Slice Views
Manipulate 3D View
S
R
P
A
L
I

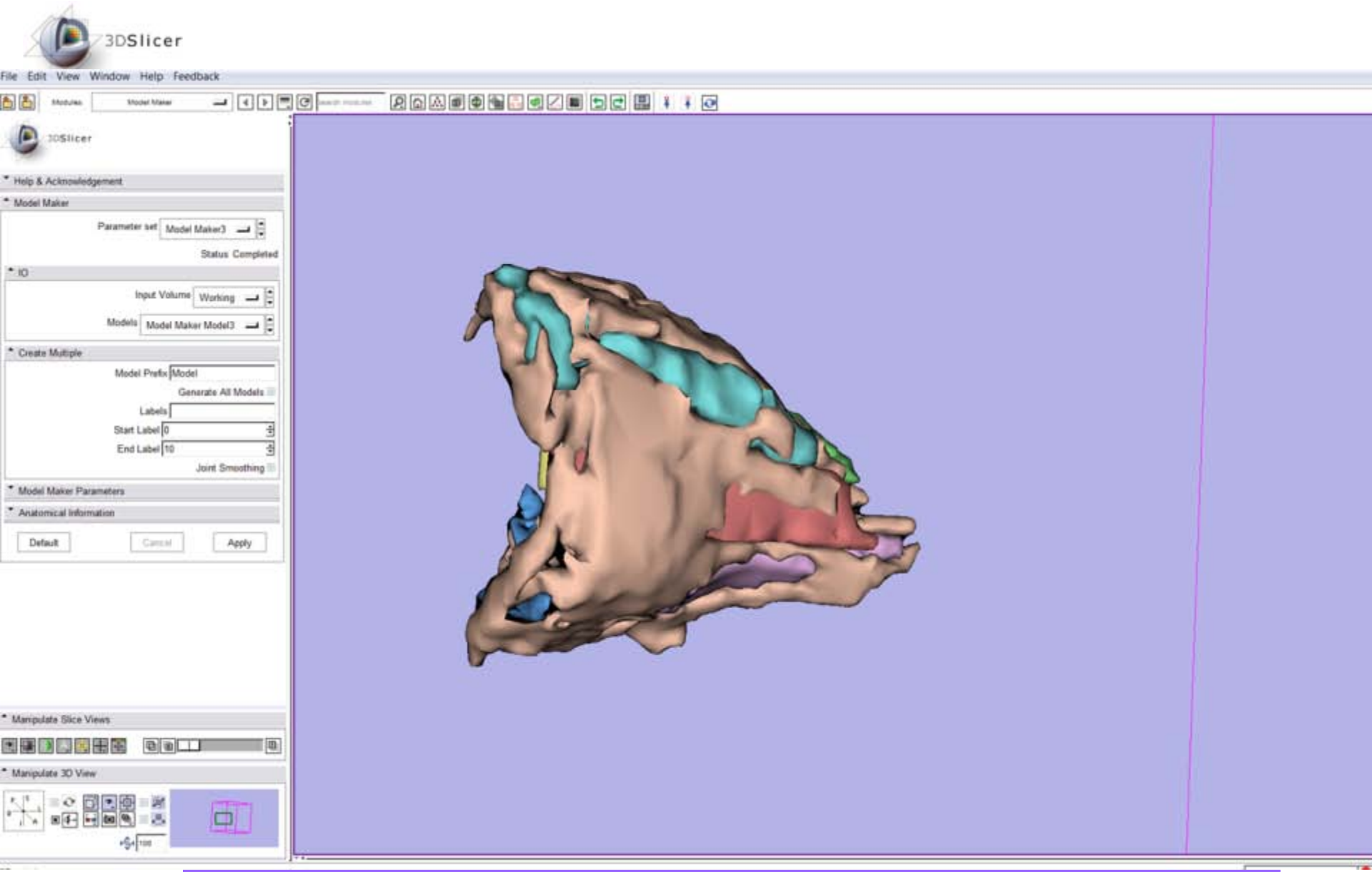

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Model Maker
Parameter set
Model Maker3
Status Idle
IO
Input Volume
Working
Models
Model Maker Model3
Create Multiple
Model Prefix
Model
Generate All Models
Labels
Start Label
0
End Label
10
Voxel value up to which to continue making models. Skip any values with zero voxels.
Model Maker Parameters
Anatomical Information
Default
Cancel
Apply
Manipulate Slice Views
Manipulate 3D View
S
P
R
L
A
I

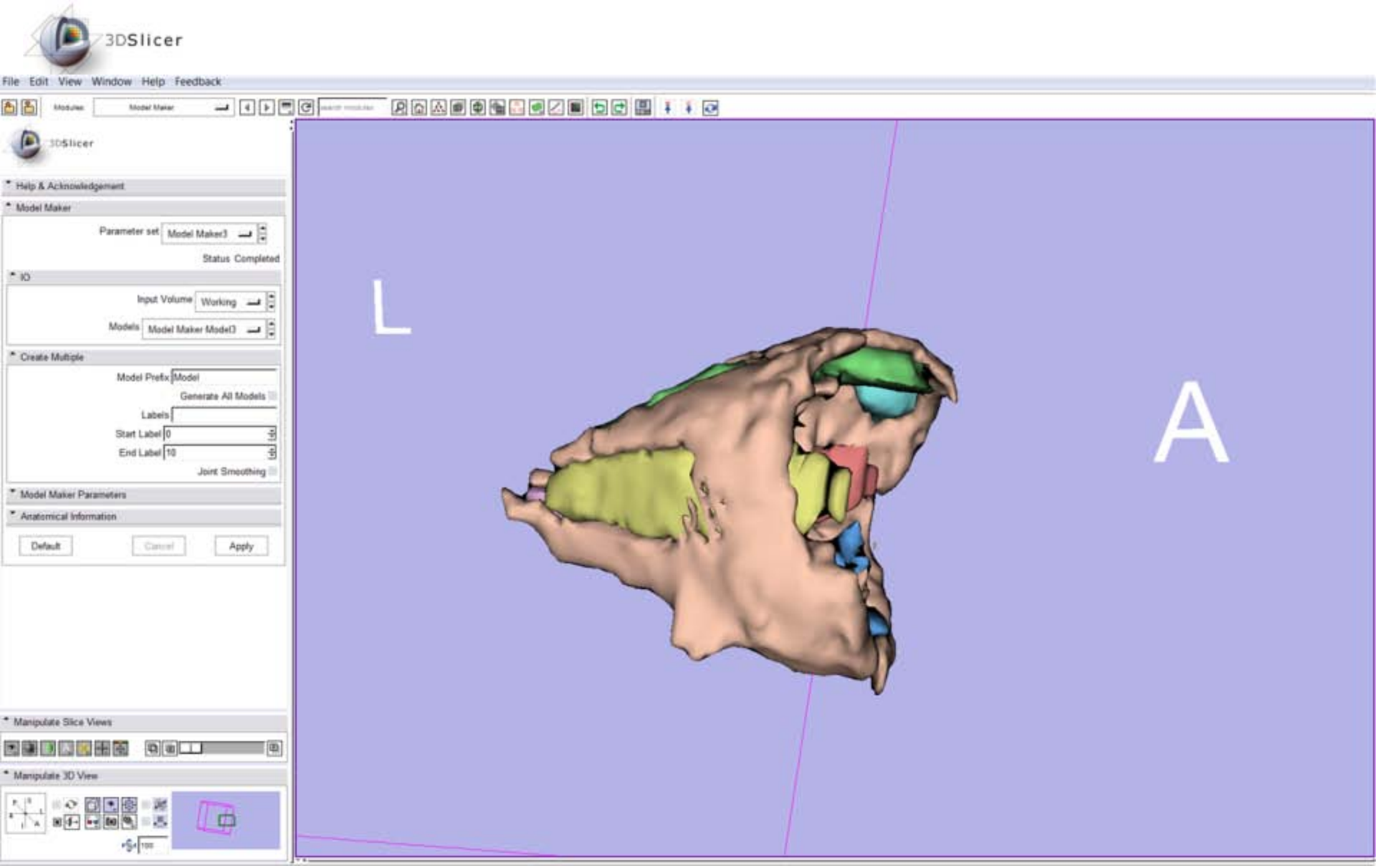

3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Model Maker
Parameter set
Model Maker3
Status Idle
IO
Input Volume
Working
Models
Model Maker Model3
Create Multiple
Model Prefix
Model
Generate All Models
Labels
Start Label
0
End Label
10
Joint Smoothing
Model Maker Parameters
Anatomical Information
Default
Cancel
Apply
Execute the module
Manipulate Slice Views
Manipulate 3D View
S
P
R
L
A
I


3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Model Maker
Parameter set
Model Maker3
Status Completed
IO
Input Volume
Working
Models
Model Maker Model3
Create Multiple
Model Prefix
Model
Generate All Models
Labels
Start Label
0
End Label
10
Joint Smoothing
Model Maker Parameters
Anatomical Information
Default
Cancel
Apply
Execute the module
Manipulate Slice Views
Manipulate 3D View
S
R
P
A
L
I


3DSlicer
File Edit View Window Help Feedback
Conventional layout
Four-up layout
3D only layout
Red slice only layout
Yellow slice only layout
Green slice only layout
Tabbed 3D layout
Tabbed slice layout
Compare view layout
Toggle GUI panel visibility
Toggle bottom panel visibility
Toggle GUI panel L/R
close
S
P
R
L
A
I
Help & Acknowledgement
Model Maker
Parameter set
Model Maker3
Status Completed
IO
Input Volume
Working
Models
Model Maker Model3
Create Multiple
Model Prefix
Model
Generate All Models
Labels
Start Label
End Label
Joint Smoothing
Model Maker Parameters
Anatomical Information
Default
Cancel
Apply
Manipulate Slice Views
Manipulate 3D View


3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Model Maker
Parameter set
Model Maker3
Status Completed
IO
Input Volume
Working
Models
Model Maker Model3
Create Multiple
Model Prefix
Model
Generate All Models
Labels
Start Label
0
End Label
10
Joint Smoothing
Model Maker Parameters
Anatomical Information
Default
Cancel
Apply
Manipulate Slice Views
Manipulate 3D View


3DSlicer
File Edit View Window Help Feedback
Help & Acknowledgement
Model Maker
Parameter set
Model Maker3
Status Completed
IO
Input Volume
Working
Models
Model Maker Model3
Create Multiple
Model Prefix
Model
Generate All Models
Labels
Start Label
0
End Label
10
Joint Smoothing
Model Maker Parameters
Anatomical Information
Default
Cancel
Apply
Manipulate Slice Views
Manipulate 3D View


3DSlicer
File Edit View Window Help Feedback
Modules: Model Maker
3DSlicer
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Start Label 0
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Apply
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Manipulate 3D View
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Conclusion

- Anatomical knowledge
- Intuitive graphical user interface to interact with the data
- Open-source environment

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