



# STREAMLINING THE ANALYSIS OF DIFFUSION TENSOR IMAGING FILES THROUGH THE CREATION OF A MASS IMAGE EDITOR

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# MIPAV



MEDICAL IMAGE PROCESSING AND VISUALIZATION

MIPAV: v7.0.1 Jacobian4 63/127 M:1.0

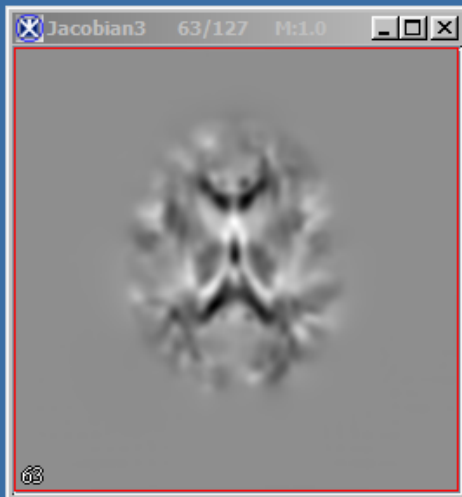
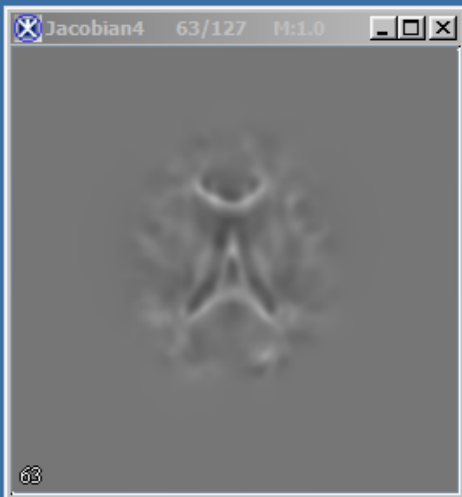
File VOI LUT Algorithms Utilities Systems analysis Plugins Scripts Image Toolbars Help

Image slice index [total number slices=128]

0 63 127

Multi-core(4 cores): GPU: Memory: 48M / 1777M

The screenshot shows the MIPAV software interface. At the top is a title bar with the text "MIPAV: v7.0.1 Jacobian4 63/127 M:1.0". Below the title bar is a menu bar with options: File, VOI, LUT, Algorithms, Utilities, Systems analysis, Plugins, Scripts, Image, Toolbars, and Help. Underneath the menu bar is a toolbar containing numerous icons for various functions such as zooming, panning, and image processing. Below the toolbar is a slider control labeled "Image slice index [total number slices=128]". The slider has a range from 0 to 127, with a current value of 63. At the bottom of the window, there is a status bar showing system information: "Multi-core(4 cores): GPU: Memory: 48M / 1777M".



Level and Window

Level & Window    Min & Max

Level	Window
1.1434301	3.7117567
-0.7124483	0.0
<input type="text" value="0.1379692"/>	<input type="text" value="3.7117567"/>

Save    Load    Close

Level and Window

Level & Window    Min & Max

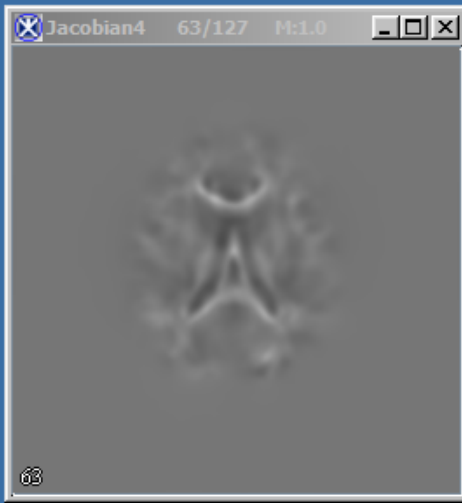
Level	Window
0.6628277	3.0049374
-0.83964103	0.0
<input type="text" value="-0.07375026"/>	<input type="text" value="1.2285753"/>

Save    Load    Close

Error

Window and level preference values are not valid with this dataset

OK



Level and Window

Level & Window Min & Max

Level	Window
1.1434301	3.7117567
-0.7124483	0.0
0.1379692	3.7117567

Save Load Close

Level and Window

Level & Window Min & Max

Level	Window
0.6628277	3.7117567
-0.83964103	0.0
0.13745219	3.7112741

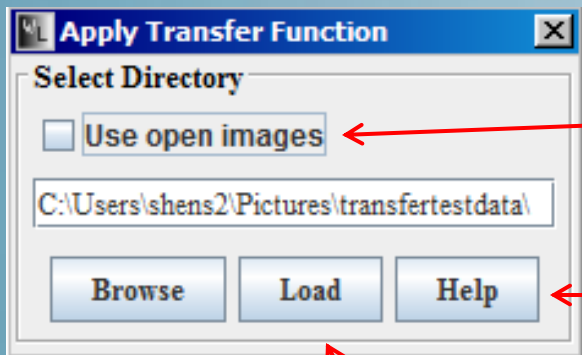
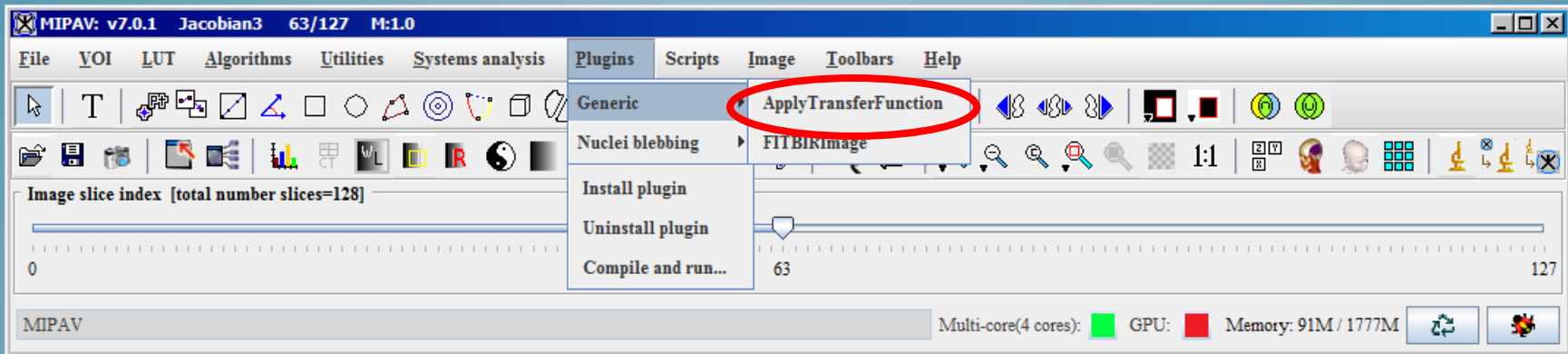
Save Load Close

The preference values you are attempting to load are outside your image bounds. Would you like to change the bounds?

WARNING: Selecting yes will permanently change your image

Do not show this message again

Yes No



Changes the plugin input mode

Opens the MIPAV wiki article on contrast sliders

Creates contrast sliders that edit all inputted images

Opens a directory browser

MIPAV: v7.0.1 Jacobian4 63/127 M:1.0

File VOI LUT Algorithms Utilities Systems analysis Plugins Scripts Image Toolbars Help

Image slice index [total number slices=128]

0 63 127

MIPAV Multi-core(4 cores): GPU: Memory: 181M / 1777M

Jacobian1 63/127 M:1.0 Jacobian2 63/127 M:1.0 Jacobian3 63/127 M:1.0 Jacobian4 63/127 M:1.0

Apply Transfer Function

Select Directory

Use open images

C:\Users\shen2\Pictures\transfertestdata\

Browse OK Help

Level & Window Min & Max

Level	Window
1.1434301	4.2604394

-0.9867896 0.0

-0.20141095 0.75854784

MIPAV: v7.0.1 Jacobian3 63/127 M:1.0

File VOI LUT Algorithms Utilities Systems analysis Plugins Scripts Image Toolbars Help

Image slice index [total number slices=128]

0 63 127

Multi-core(4 cores): GPU: Memory: 197M / 1777M

WinSCP

Comput

QuickTime Player

Jacobian1 63/127 M:1.0

Jacobian2 63/127 M:1.0

Jacobian3 63/127 M:1.0

63 63 63 63

**Apply Transfer Function**

Select Directory

Use open images

C:\Users\shens2\Pictures\transfertestdata\

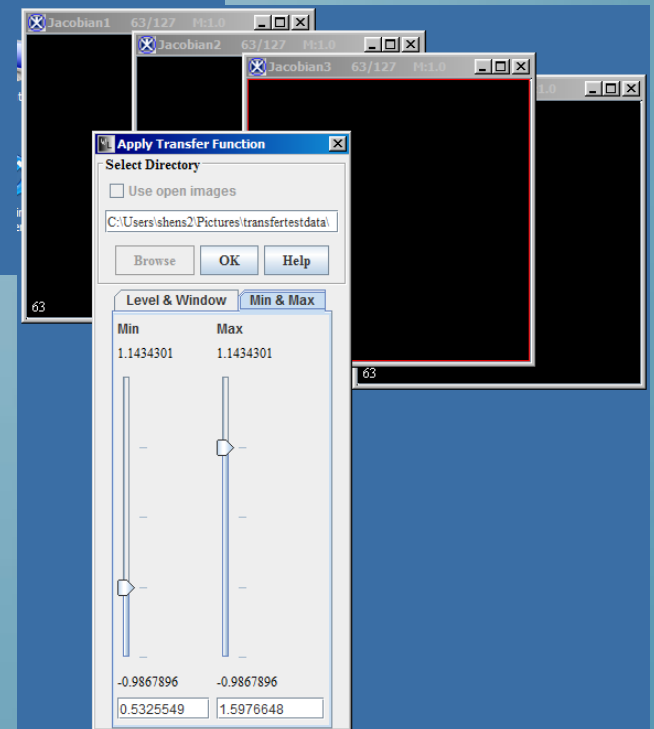
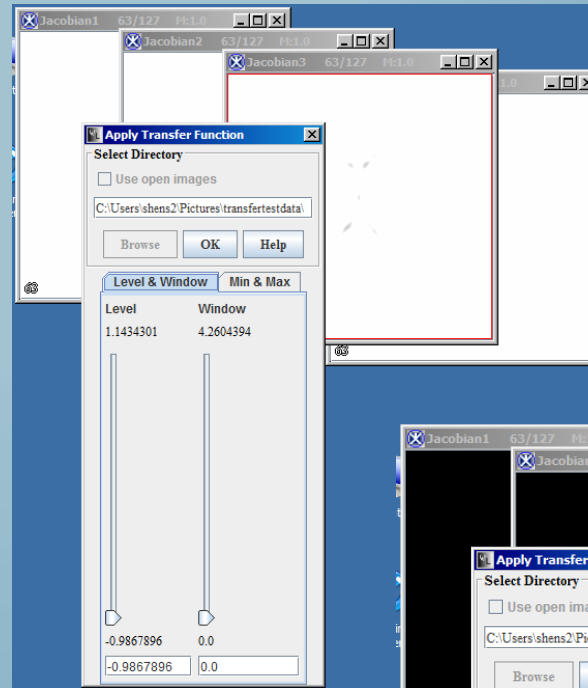
Browse OK Help

Level & Window Min & Max

Min	Max
1.1434301	1.1434301
-0.9867896	-0.9867896
-0.54418397	0.73626494

# CURRENT LIMITATIONS

- *NIFTI files*
- *Directory loading*
- *Default slider values*





# FUTURE IMPROVEMENTS

- *Ability to load transfer functions*
- *Tiling images*
- *Histogram compatibility*
- *Compatibility with other image file types*

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