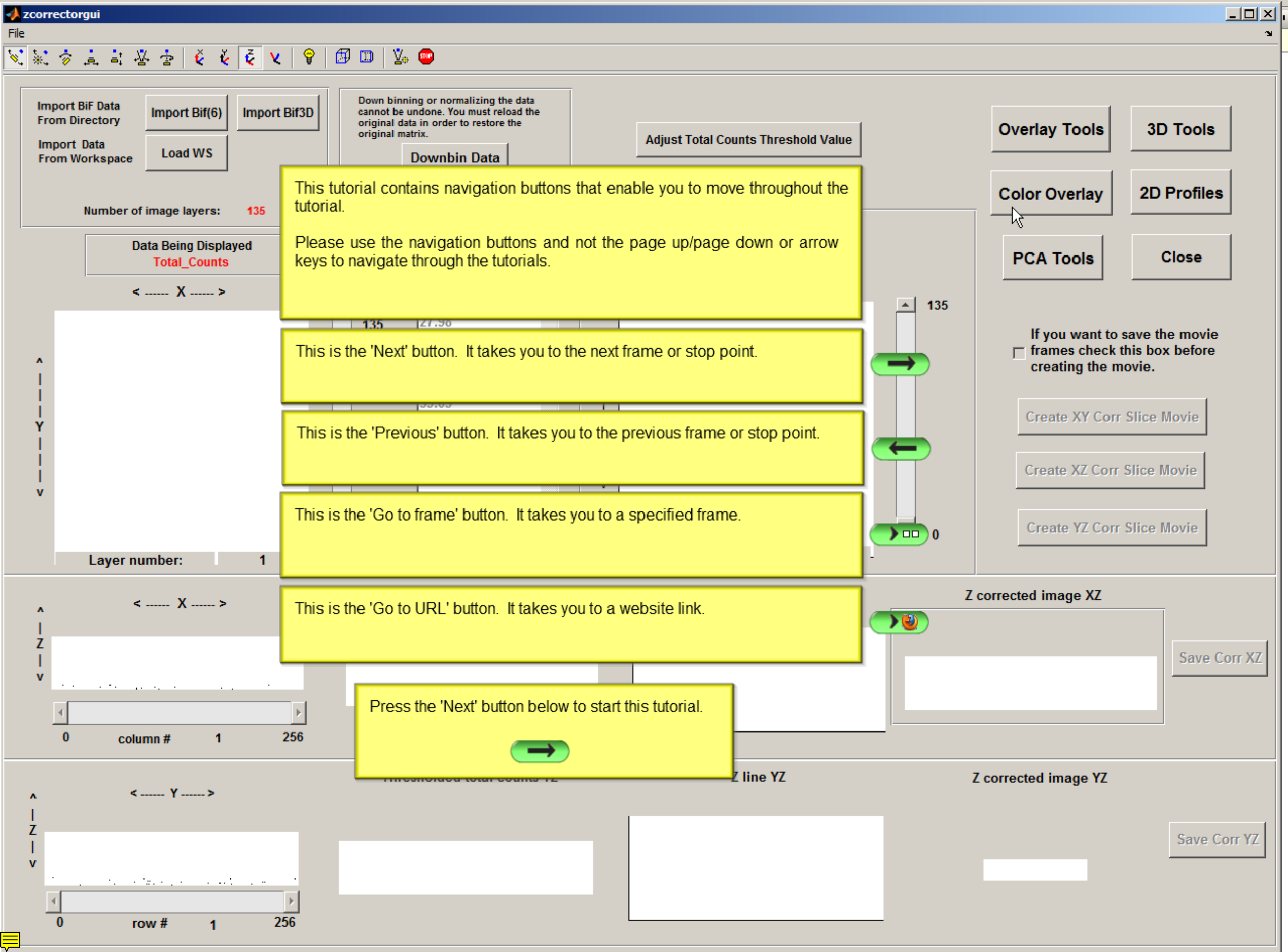

zcorrectorgui
File
Import BiF Data From Directory
Import Bif(6)
Import Bif3D
Import Data From Workspace
Load WS
Number of image layers: 135
Down binning or normalizing the data cannot be undone. You must reload the original data in order to restore the original matrix.
Downbin Data
Adjust Total Counts Threshold Value
Overlay Tools
3D Tools
Color Overlay
2D Profiles
PCA Tools
Close
Data Being Displayed
Total_Counts
< ------ X ------ >
135
If you want to save the movie frames check this box before creating the movie.
Create XY Corr Slice Movie
Create XZ Corr Slice Movie
Create YZ Corr Slice Movie
Layer number: 1
0
< ------ X ------ >
Z corrected image XZ
Save Corr XZ
column # 1 256
< ------ Y ------ >
Z line YZ
Z corrected image YZ
Save Corr YZ
row # 1 256
This tutorial contains navigation buttons that enable you to move throughout the tutorial.
Please use the navigation buttons and not the page up/page down or arrow keys to navigate through the tutorials.
This is the 'Next' button. It takes you to the next frame or stop point.
This is the 'Previous' button. It takes you to the previous frame or stop point.
This is the 'Go to frame' button. It takes you to a specified frame.
This is the 'Go to URL' button. It takes you to a website link.
Press the 'Next' button below to start this tutorial.

zcorrectorgui

File

Import BiF Data From Directory

Import(6)

Import Bif3D

Import Data From Workspace

Load WS

Number of image layers: 135

Down binning or normalizing the data cannot be undone. You must reload the original data in order to restore the original matrix.

Downbin Data

Normalize Data

Adjust Total Counts Threshold Value

Overlay Tools

3D Tools

Color Overlay

2D Profiles

PCA Tools

Close

Press the 'Color Overlay' button to access the color overlay panel.

Data Being Displayed
Total_Counts

< ------ X ------ >

^ | | | | | Y | | | | v

135

0

Layer number: 1

Peak List

Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

^ | | | | | Y | | | | v

135

0

Layer number: 1

If you want to save the movie frames check this box before creating the movie.

Create XY Corr Slice Movie

Create XZ Corr Slice Movie

Create YZ Corr Slice Movie

< ------ X ------ >

^ | Z | v

0 column # 1 256

Thresholded total counts XZ

Z line XZ

Z corrected image XZ

Save Corr XZ

< ------ Y ------ >

^ | Z | v

0 row # 1 256

Thresholded total counts YZ

Z line YZ

Z corrected image YZ

Save Corr YZ

zcorrectorgui

File

Color 1 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Color 1

Alpha 1= 0.5

0 1

View in 3D

Save Snapshot

Close

100

Z scale factor = 1

0

This is the color overlay panel.

Isolate...
1
2
3
1+2
1+3
2+3
1+2+3

Color 2 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Color 2

Alpha 1= 0.5

0 1

Color 3 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Color 3

Alpha 1= 0.5

0 1

1 0.9 0.8 0.7 0.6 0.5 0.4 0.3 0.2 0.1 0

0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1

zcorrectorgui

File

Color 1 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

View in 3D

Save Snapshot

Close

Color 1

Alpha 1= 0.5

0 1

100

Z scale factor = 1

0

Select the peak(s) you want in each color channel from the lists on the left. You can also change the colors used for each channel if desired by pressing the colored buttons and choosing the desired colors.

You can select 'None', one or several peaks from each list, but you must select something. If you do not want to use a given color channel, select 'None'.

Color 2 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Alpha 1=

0

Color 3 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Color 3

Alpha 1= 0.5

0 1

1 0.9 0.8 0.7 0.6 0.5 0.4 0.3 0.2 0.1 0

0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1

zcorrectorgui

File

Color 1 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Color 1

Alpha 1= 0.5

0 1

View in 3D

Save Snapshot

After selecting peaks, press the 'View in 3D' button.

Close

100

Z scale factor = 1

0

Isolate...
1
2
3
1+2
1+3
2+3
1+2+3

Color 2 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Color 2

Alpha 1= 0.5

0 1

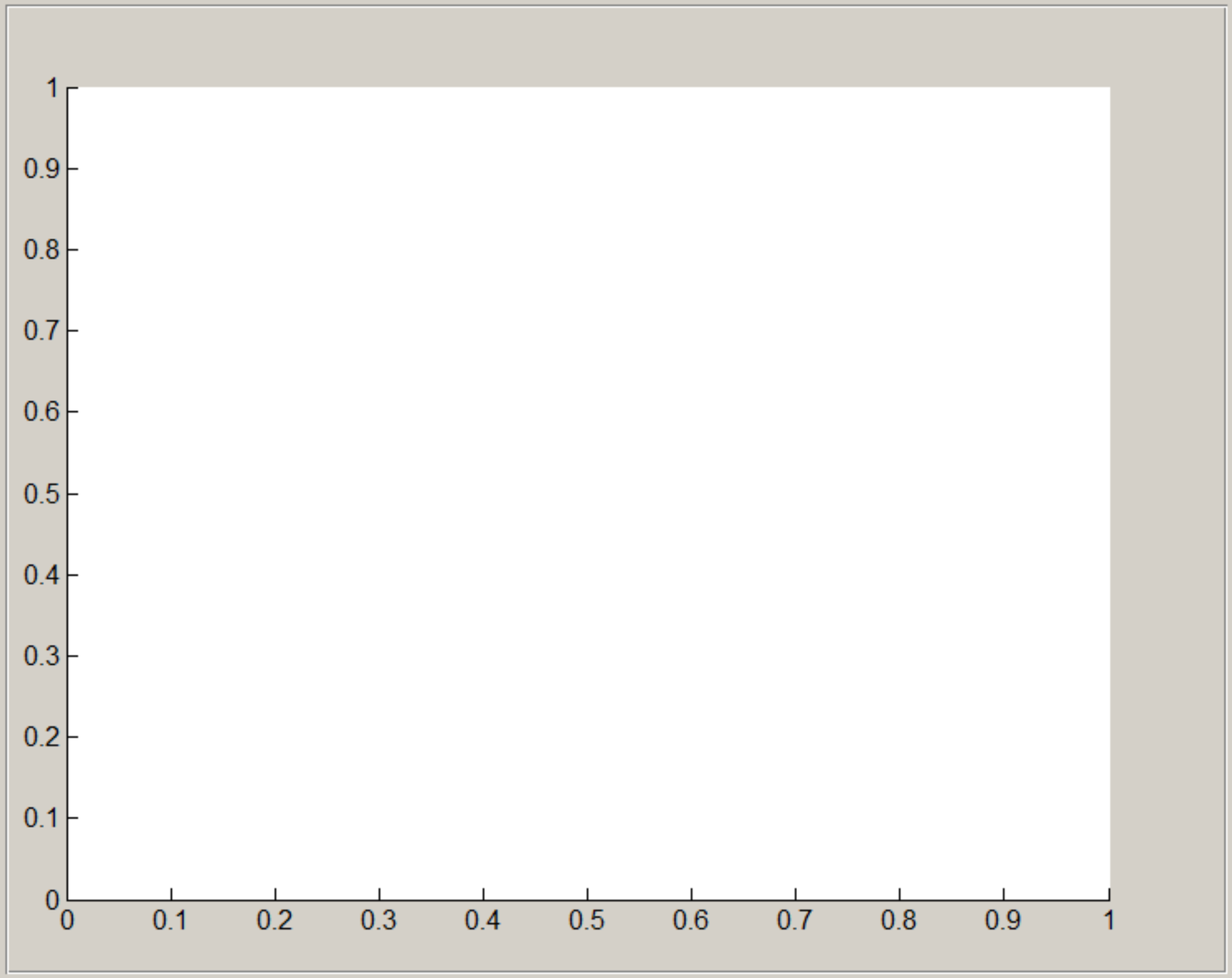
Color 3 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Color 3

Alpha 1= 0.5

0 1



zcorrectorgui

File

Color 1 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Color 1

Alpha 1= 0.5

0 1

View in 3D

Save Snapshot

Check which axes you want to rotate around

X Y Z

Number of degrees for rotation

Preview

Create 3D Movie

Close

100

Z scale factor = 1

0

Isolate...
1
2
3
1+2
1+3
2+3

Color 2 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Alph

0

The 3D data is displayed here.

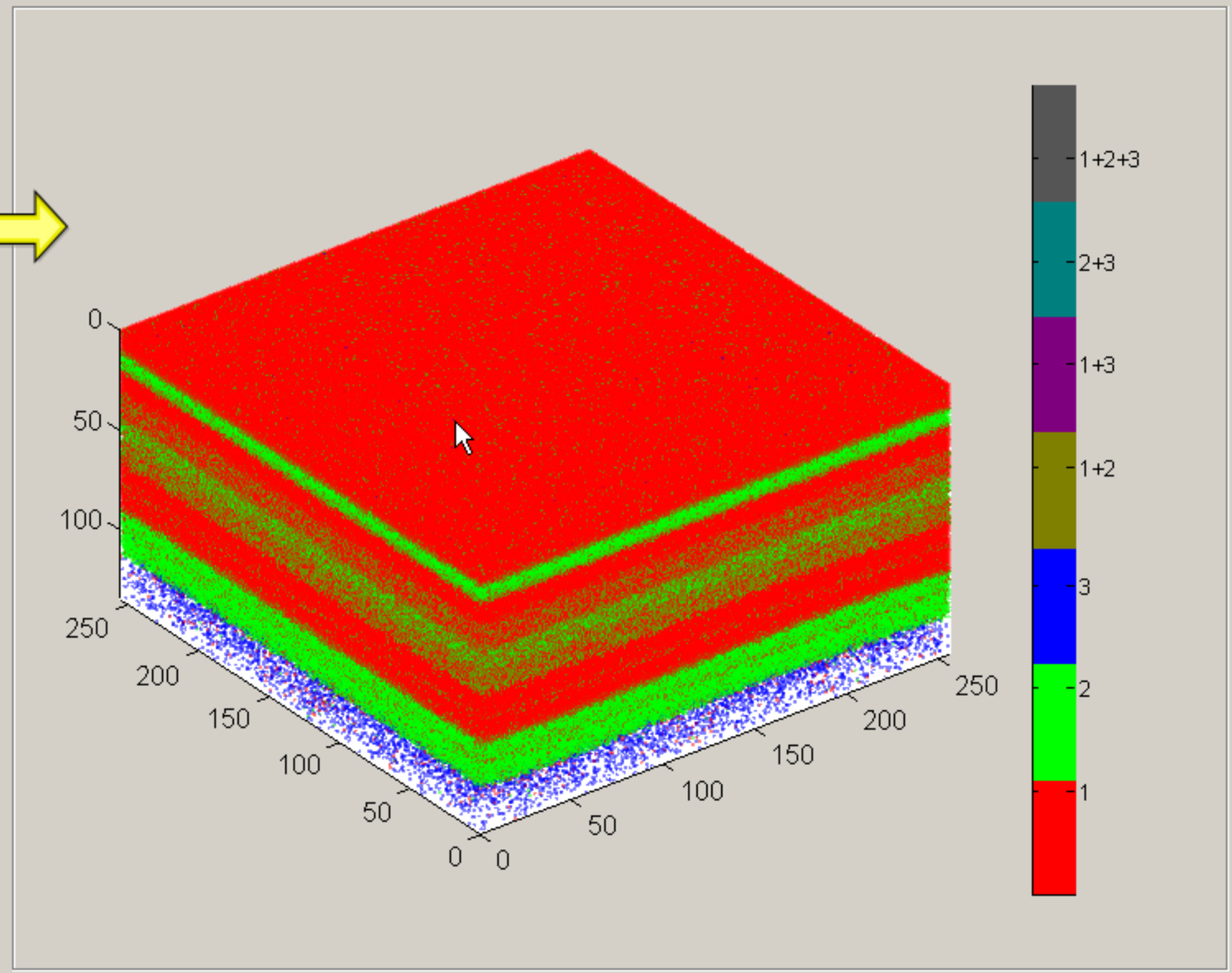
Color 3 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Color 3

Alpha 1= 0.5

0 1



zcorrectorgui

File

Color 1 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Color 1

Alpha 1= 0.5

0 1

Color 2 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Color 2

Alpha 1= 0.5

0 1

Color 3 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Color 3

Alpha 1= 0.5

0 1

View in 3D

Save Snapshot

Check which axes you want to rotate around

X Y Z

Number of degrees for rotation

Preview

Create 3D Movie

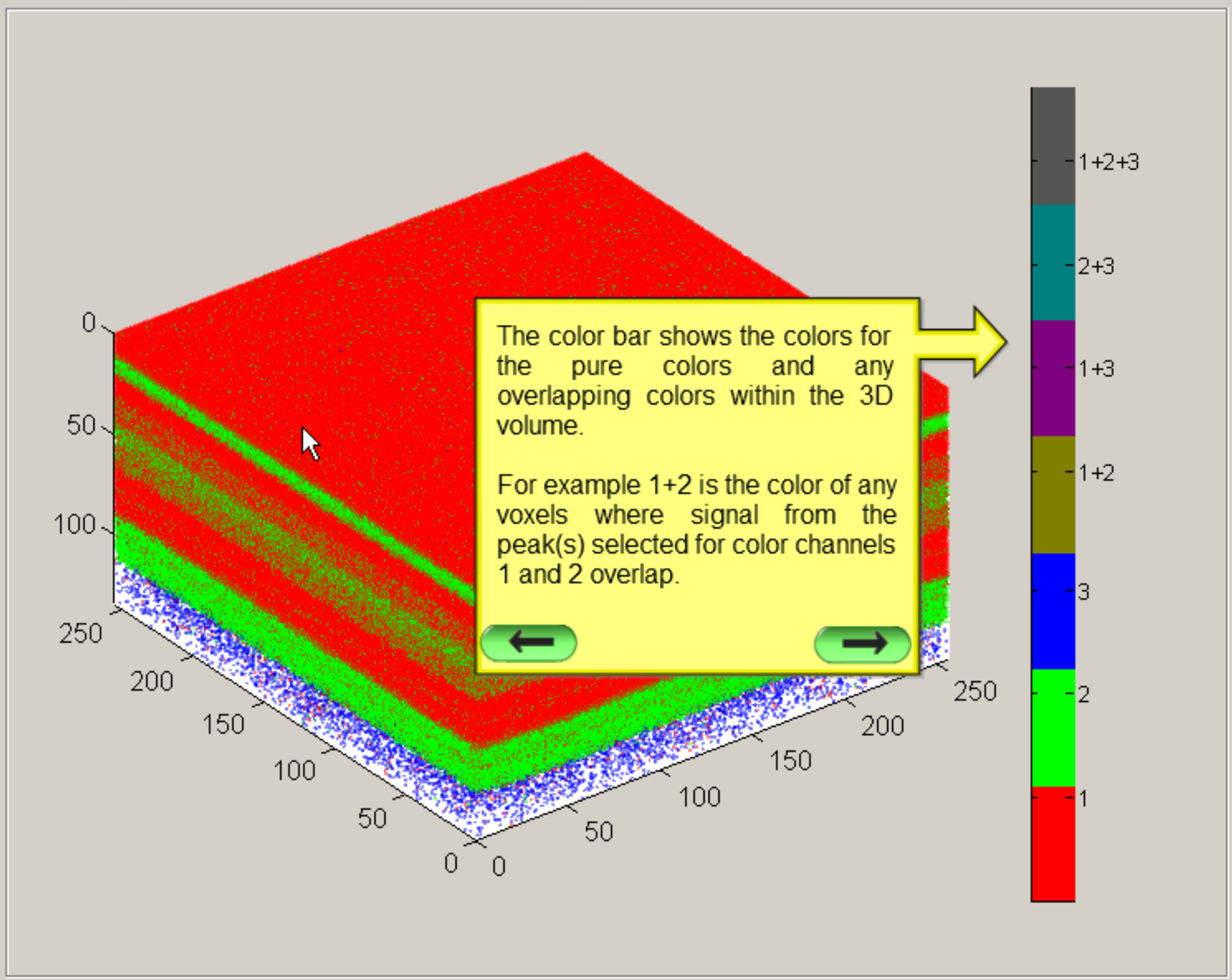
Close

100

Z scale factor = 1

0

Isolate...
1
2
3
1+2
1+3
2+3
1+2+3



zcorrectorgui

File

Color 1 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Color 1

Alpha 1= 0.5

0 1

View in 3D

Save Snapshot

Check which axes you want to rotate around

X Y Z

Number of degrees for rotation

Preview

Create 3D Movie

Close

100

Z scale factor = 1

0

Color 2 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Color 2

Alpha 1= 0.5

0 1

Color 3 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

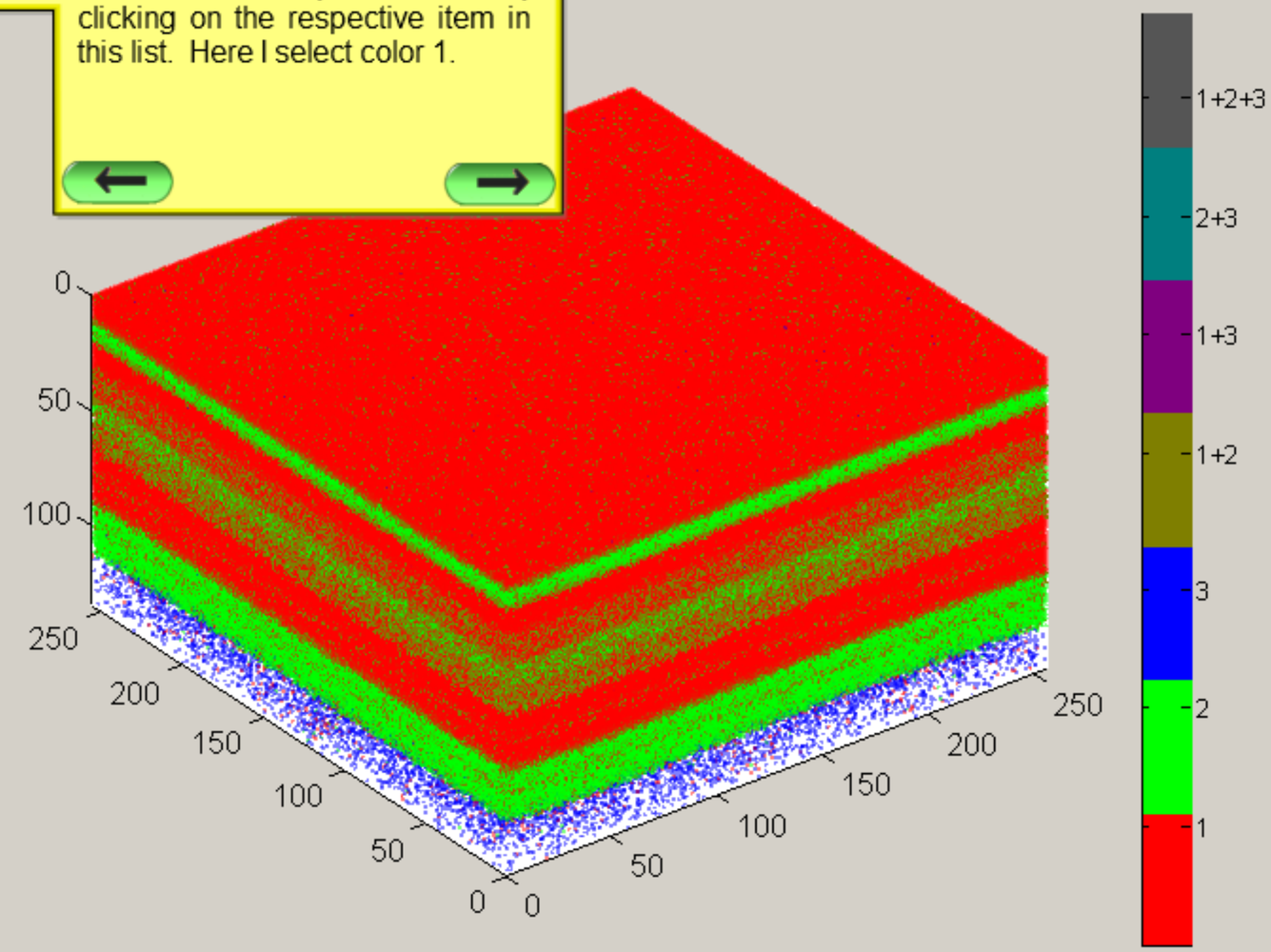
Color 3

Alpha 1= 0.5

0 1

Isolate...
1
2
3
1+2
1+3
2+3
1+2+3

You can isolate any of the colors by clicking on the respective item in this list. Here I select color 1.



zcorrectorgui

File

Color 1 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Color 1

Alpha 1= 0.5

0 1

View in 3D

Save Snapshot

Check which axes you want to rotate around

X Y Z

Number of degrees for rotation

Preview

Create 3D Movie

Close

100

Z scale factor = 1

0

Color 2 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Isolate...
1
2
3
1+2
1+3
2+3
1+2+3

Color 2

Alpha 1= 0.5

0

Now voxels that only contain signal from color 1 peak(s) are displayed.

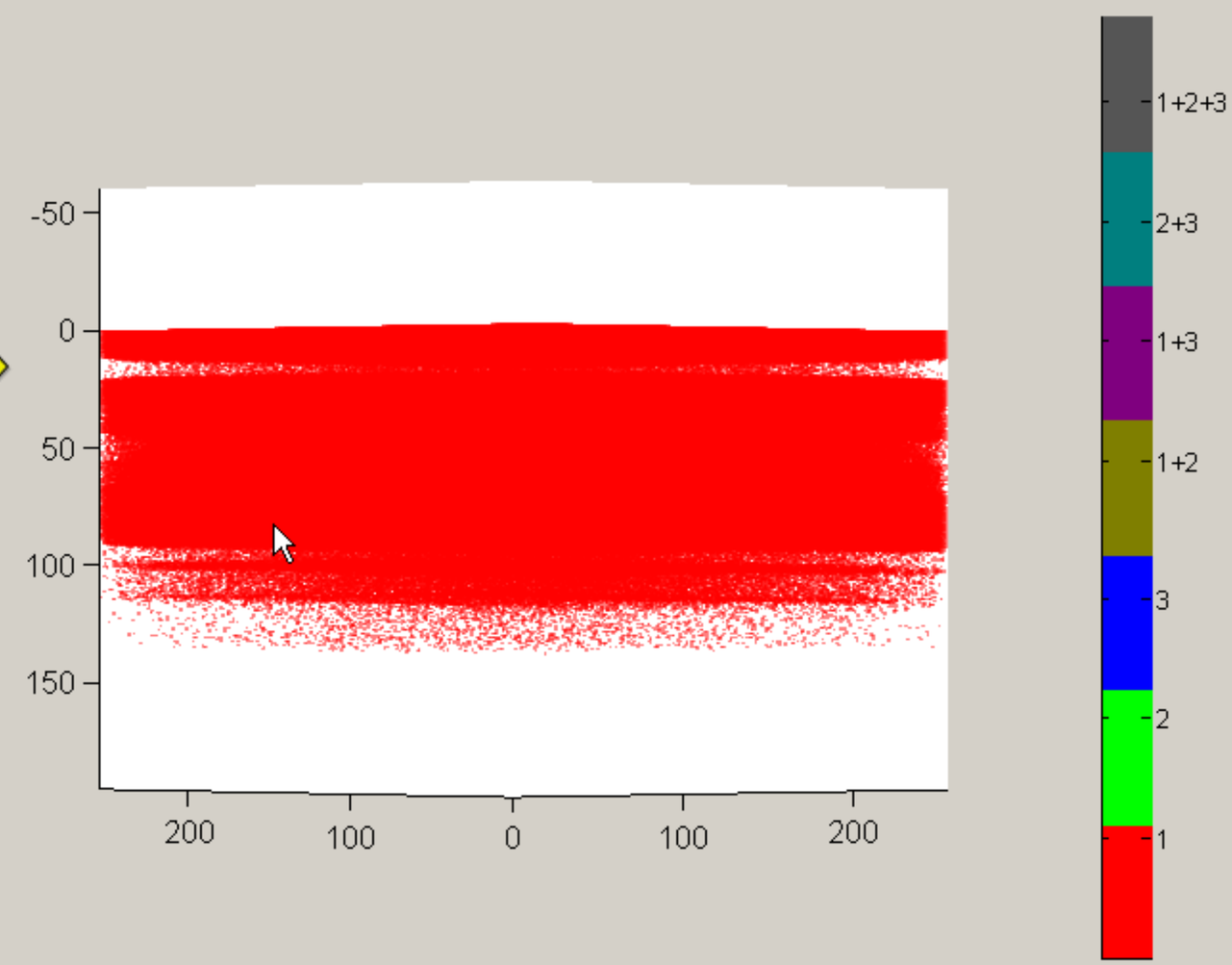
Color 3 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Color 3

Alpha 1= 0.5

0 1



zcorrectorgui

File

Color 1 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Color 1

Alpha 1= 0.5

0 1

View in 3D

Save Snapshot

Check which axes you want to rotate around

X Y Z

Number of degrees for rotation

Preview

Create 3D Movie

Close

100

Z scale factor = 1

0

Isolate...
1
2
3
1+2
1+3
2+3
1+2+3

Color 2 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Color 2

Alpha 1= 0.5

0 1

Here I selected color 2, so voxels that contain only peak 2 are shown.

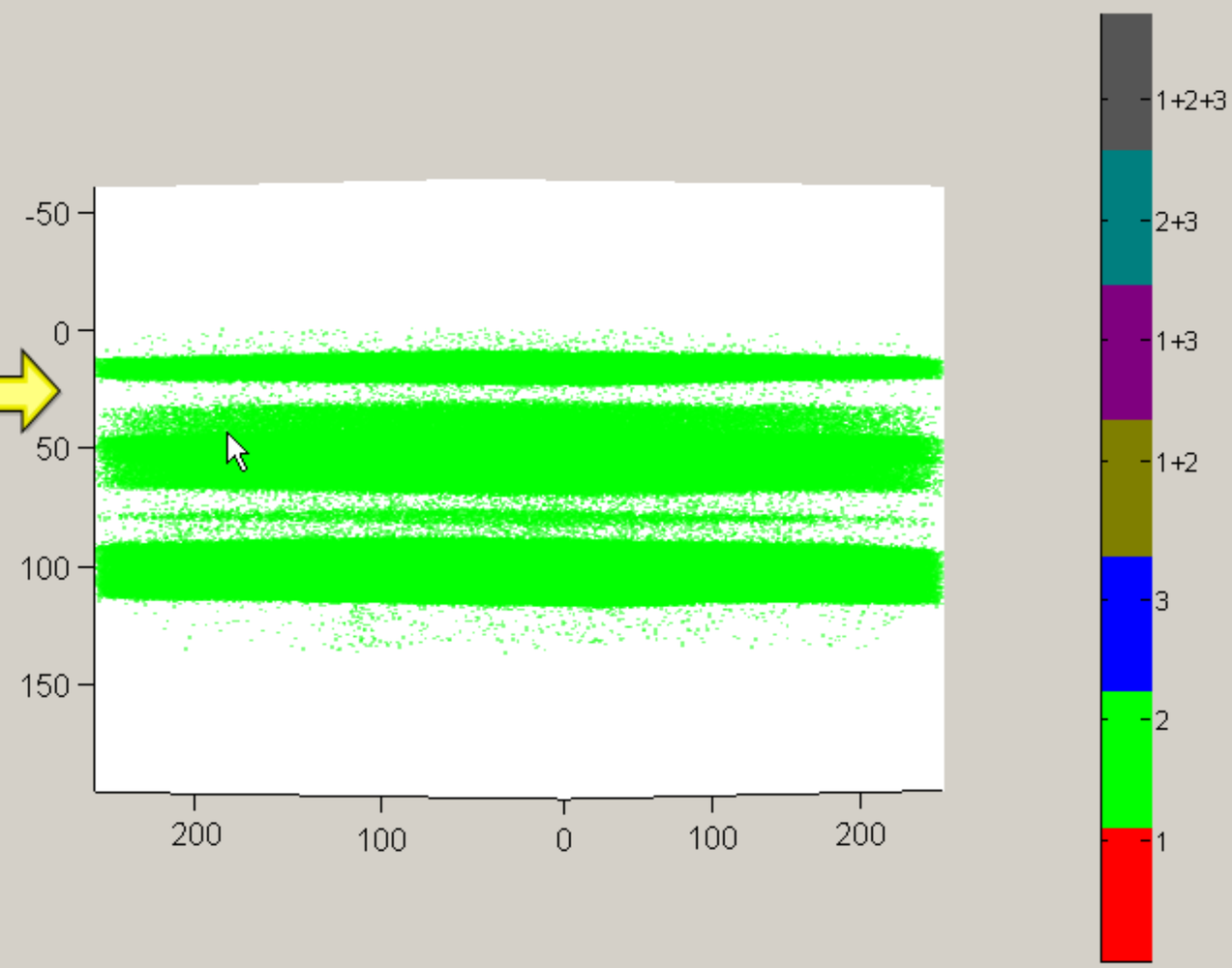
Color 3 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Color 3

Alpha 1= 0.5

0 1



zcorrectorgui

File

Color 1 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Color 1

Alpha 1= 0.5

0 1

View in 3D

Save Snapshot

Check which axes you want to rotate around

X Y Z

Number of degrees for rotation

Preview

Create 3D Movie

Close

100

Z scale factor = 1

0

Color 2 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Color 2

Alpha 1= 0.5

0 1

Isolate...
1
2
3
1+2
1+3
2+3
1+2+3

Color 3 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

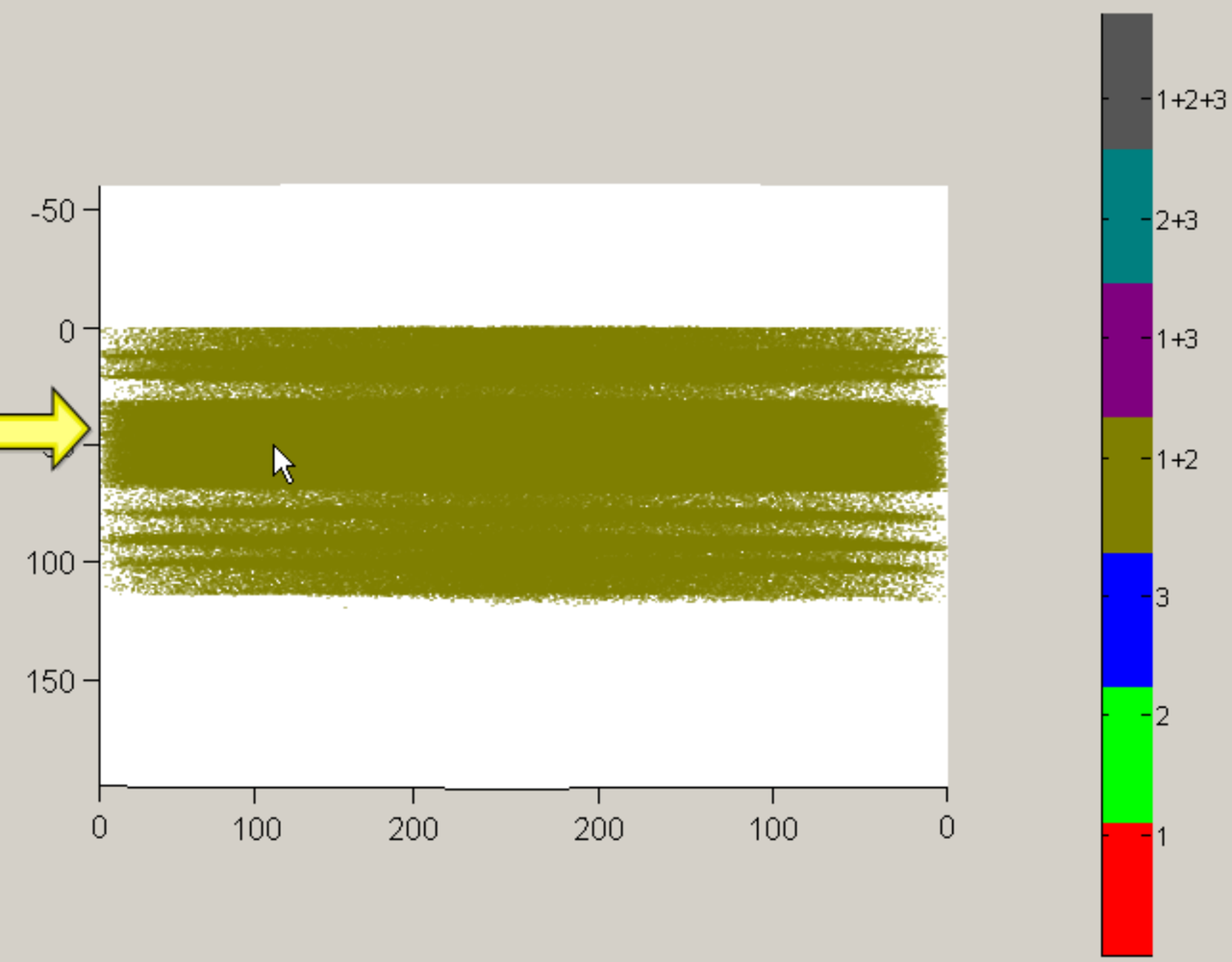
Alpha

0

Here I selected color 1+2, so voxels that contain signal from peak(s) 1 and 2 are shown.

In this case we see voxels in the middle region where there is significant overlap between the two types of signals, and thin regions where layers of the two selected components intersect. The middle region is known to be a mixture of two compounds.

Being able to isolate regions of overlap between components could be useful when studying interfaces.



zcorrectorgui

File

Color 1 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Color 1

Alpha 1= 0.06

0

View in 3D

Save Snapshot

Check which axes you want to rotate around

X Y Z

Number of degrees for rotation

Preview

Create 3D Movie

Close

100

Z scale factor = 1

0

You can adjust the transparency of any color by changing the 'Alpha' value. Here I have lowered the alpha value making the red color more transparent.

Color 2 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Color 2

Alpha 1= 0.5

0 1

3
1+2
1+3
2+3
1+2+3

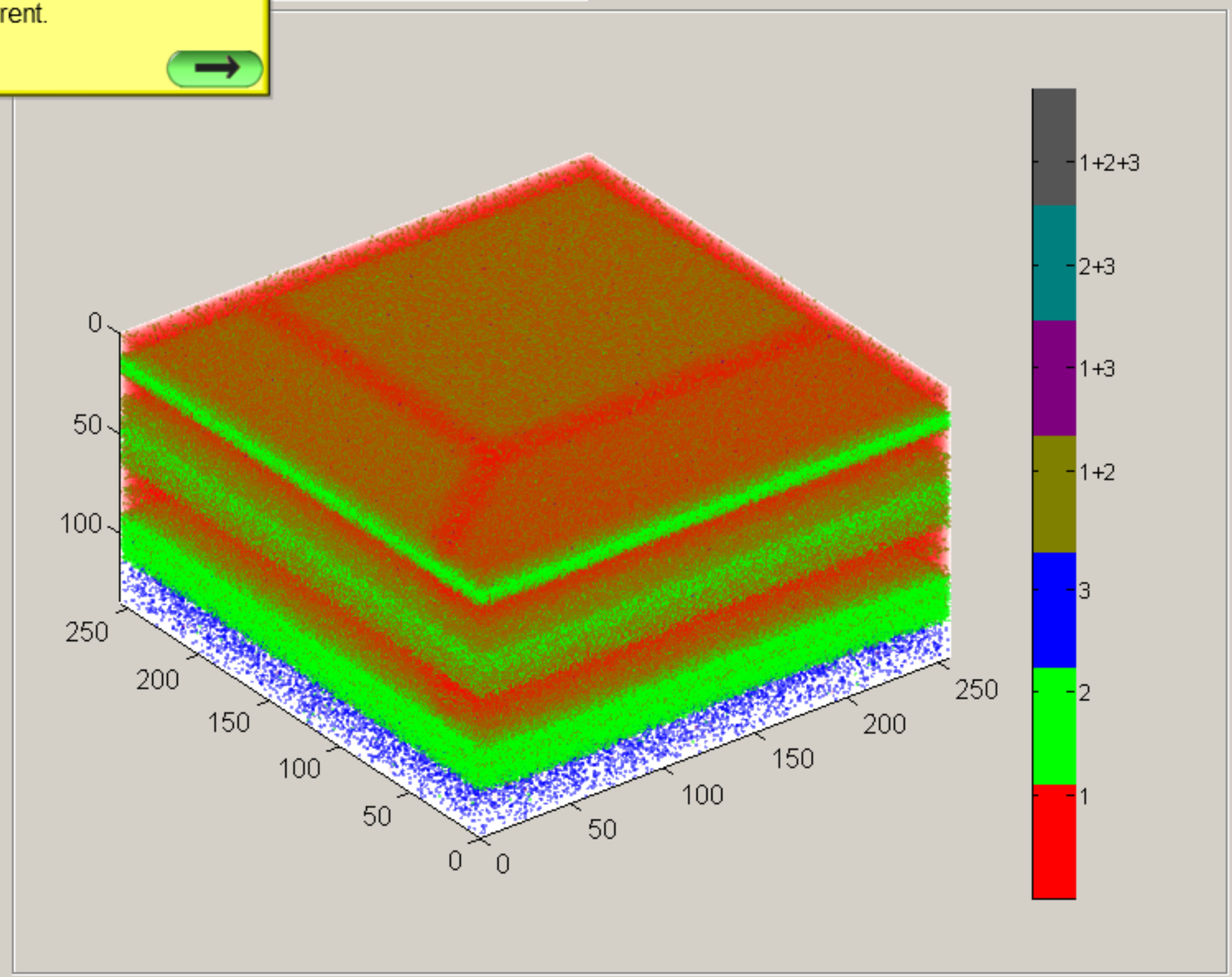
Color 3 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Color 3

Alpha 1= 0.5

0 1



zcorrectorgui

File

Color 1 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

View in 3D

Color 1

Alpha 1= 0.06

0

These controls can be used to make a 3D movie of the volume rotating around various axes.

Check which axes you want to rotate around

☑ X ☐ Y ☐ Z

Number of degrees for rotation

180

Preview

Create 3D Movie

Close

100

Z scale factor = 1

0

Color 2 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Isolate...
1
2
3
1+2
1+3
2+3
1+2+3

Color 2

Alpha 1= 0.5

0 1

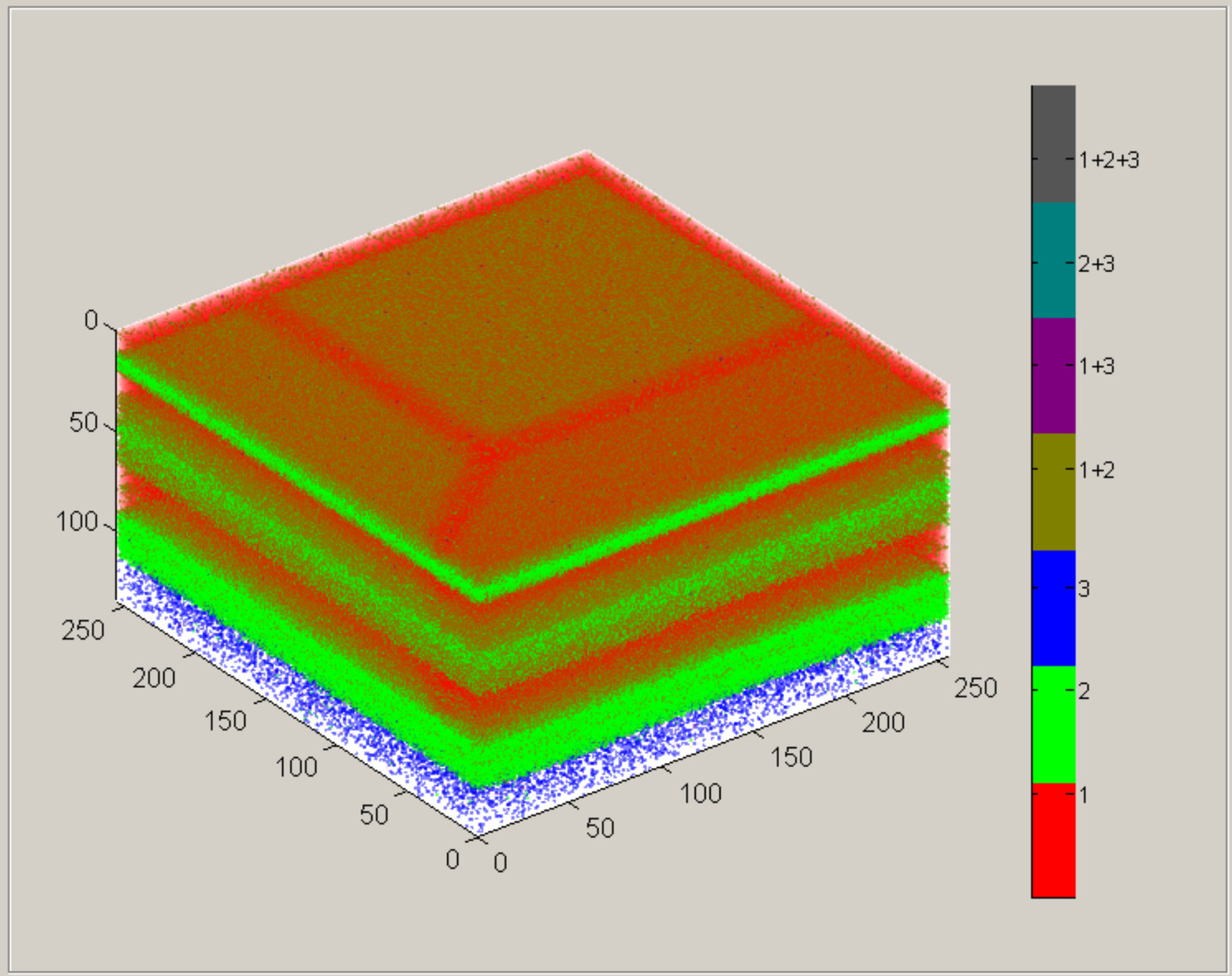
Color 3 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Color 3

Alpha 1= 0.5

0 1



zcorrectorgui

File

Color 1 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Color 1

Alpha 1= 0.42

0 1

View in 3D

Save Snapshot

Check which axes you want to rotate around

X Y Z

Number of degrees for rotation

180

Close

100

Z scale factor = 1.8

0

This control can be used to scale the z-axis of the 3D volume. Here I have increased the scale factor to make the volume thinner.

Color 2 Peaks

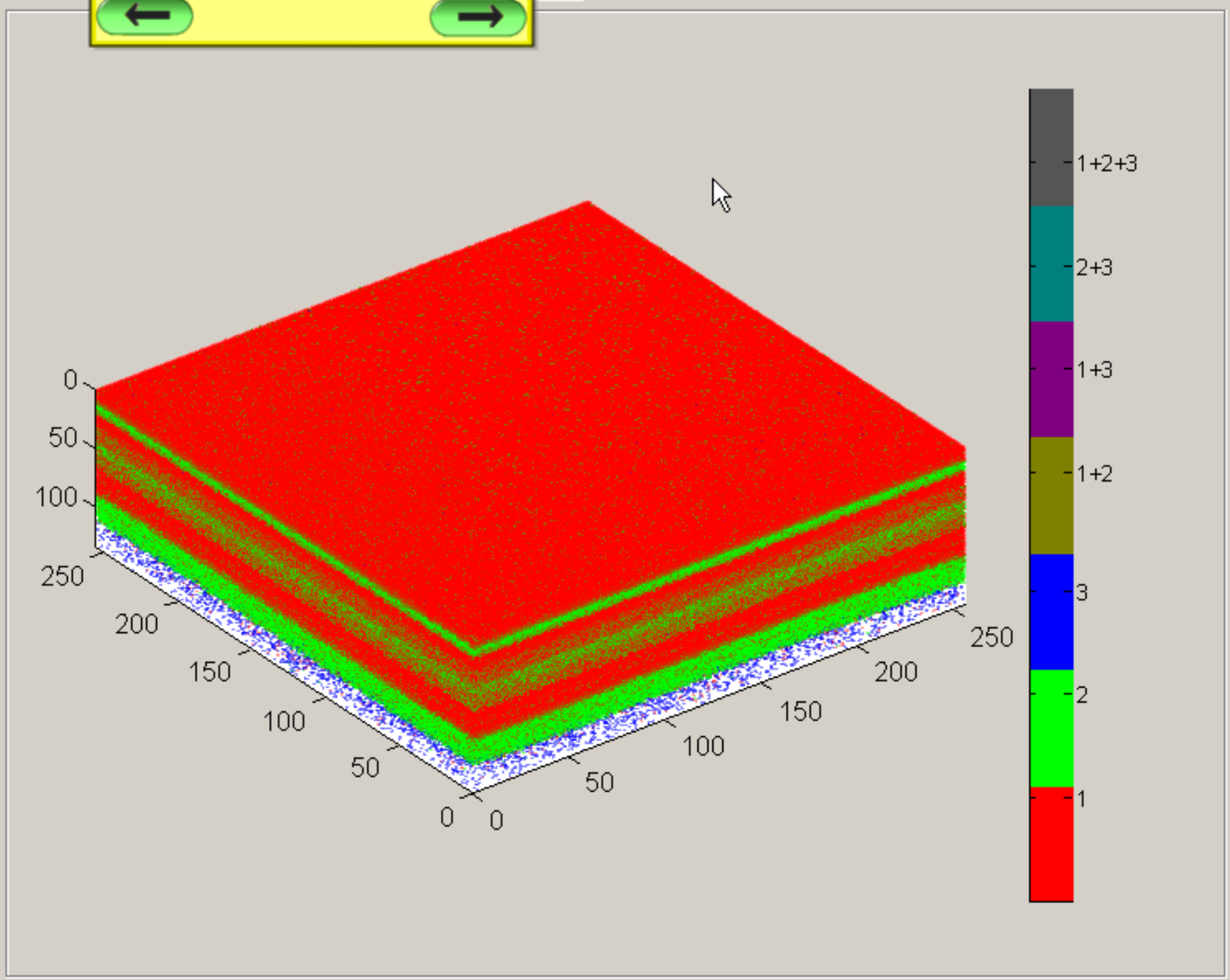
None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Color 2

Alpha 1= 0.5

0 1

Isolate...
1
2
3
1+2
1+3
2+3
1+2+3



Color 3 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Color 3

Alpha 1= 0.5

0 1

zcorrectorgui

File

Color 1 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Color 1

Alpha 1= 0.42

0 1

View in 3D

Save Snapshot

Check which axes you want to rotate around

X Y Z

Number of degrees for rotation

180

Close

100

Z scale factor = 1.8

0

That ends this tutorial. Press the button on the left to go back to the previous step. Press the button on the right to start the tutorial over.

Please see the other zcorrectorgui tutorials for detailed information on how to use each function in the imagegui.

Color 2 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

1+2+3

Color 2

Alpha 1= 0.5

0 1

Color 3 Peaks

None
Total_Counts
26.01
27.98
42.00
42.00
42.04
59.02
59.03
59.05
277.19
635.47
1175.80

Color 3

Alpha 1= 0.5

0 1