

Workspace

Stack: Base

Name	Value	Min	Max

Current Directory Workspace

Command History

```

> clc
> clear;clc

```

Command Window

>>

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.

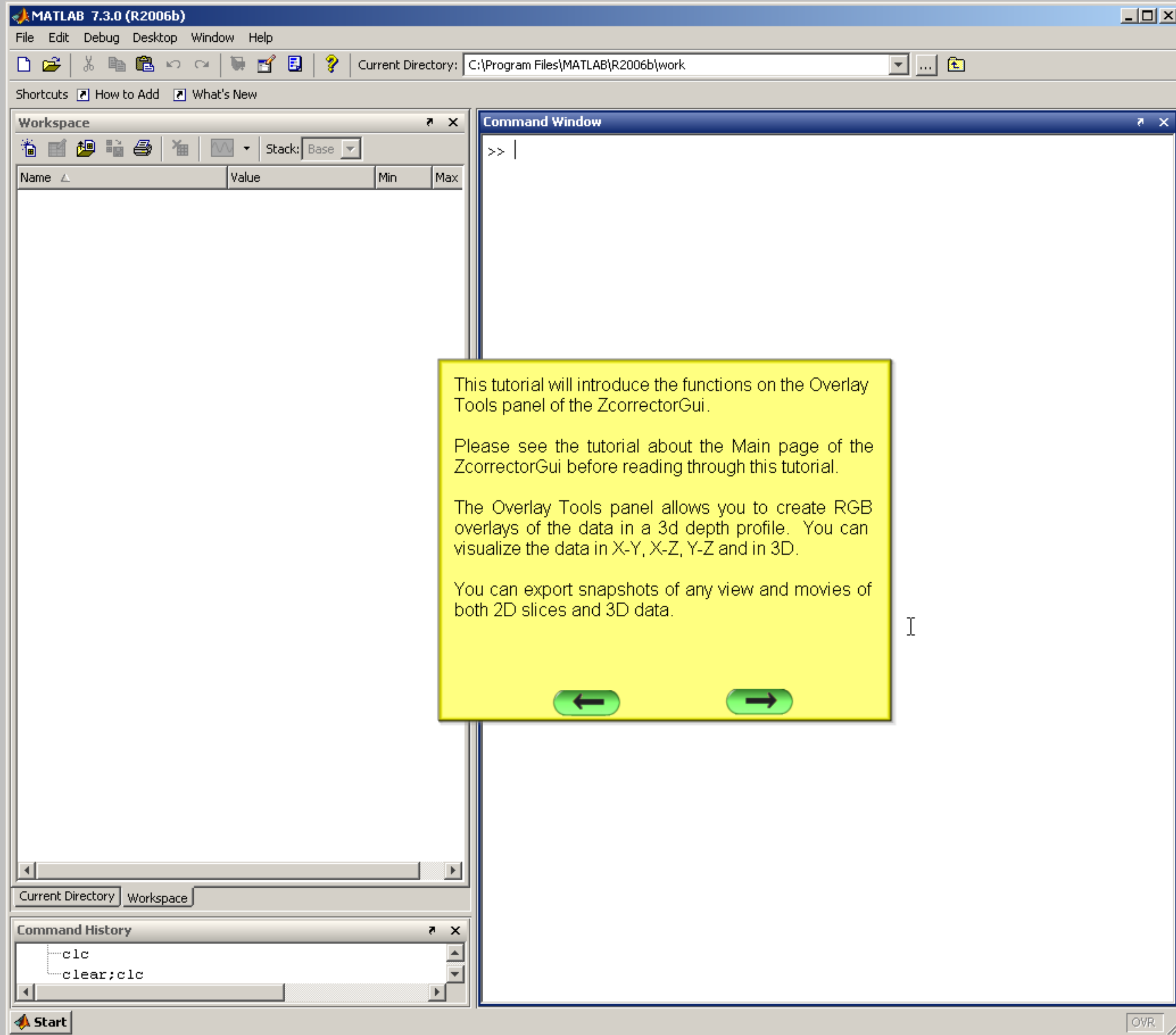


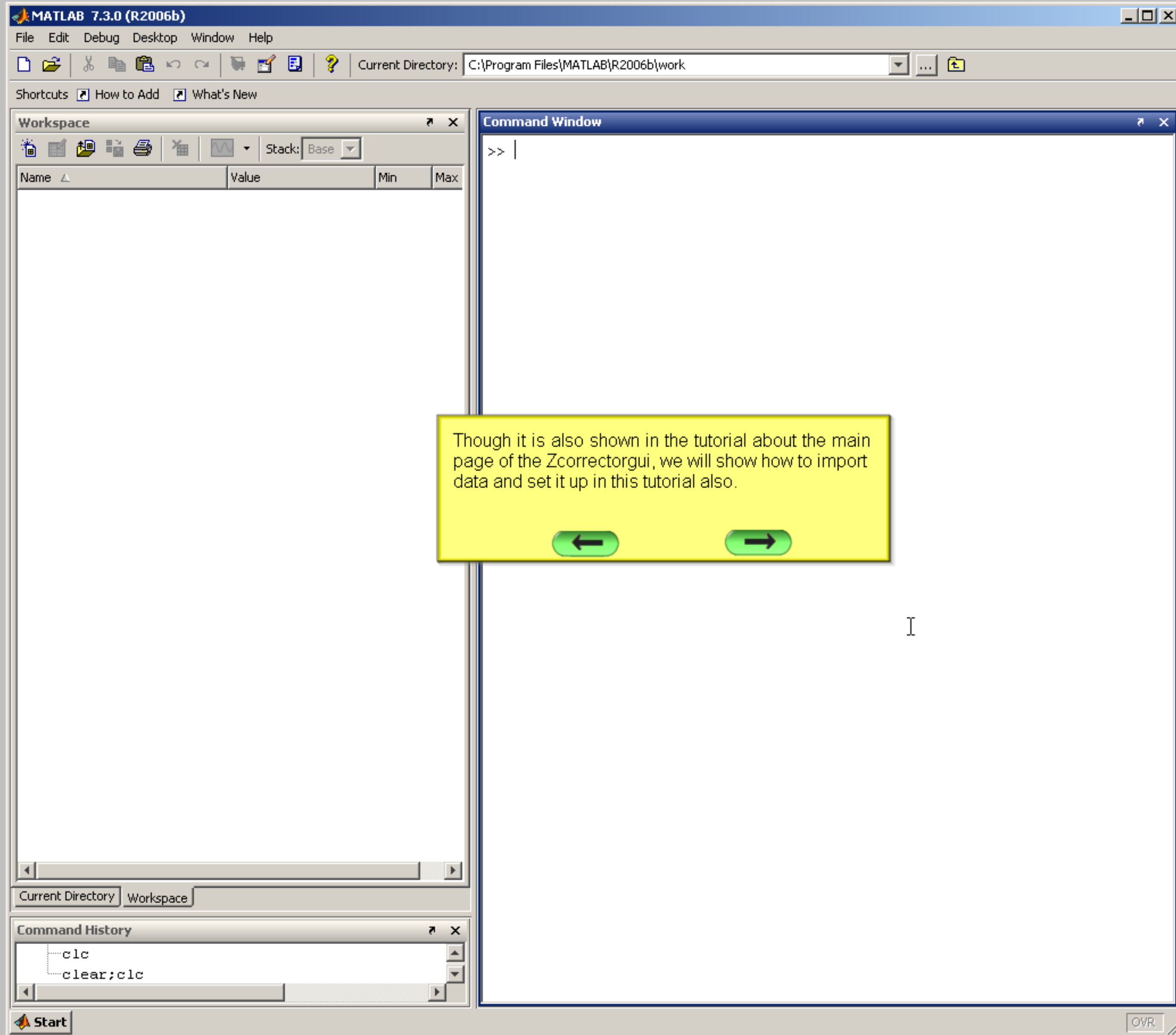
This is the 'Go to URL' button. It takes you to a website link.

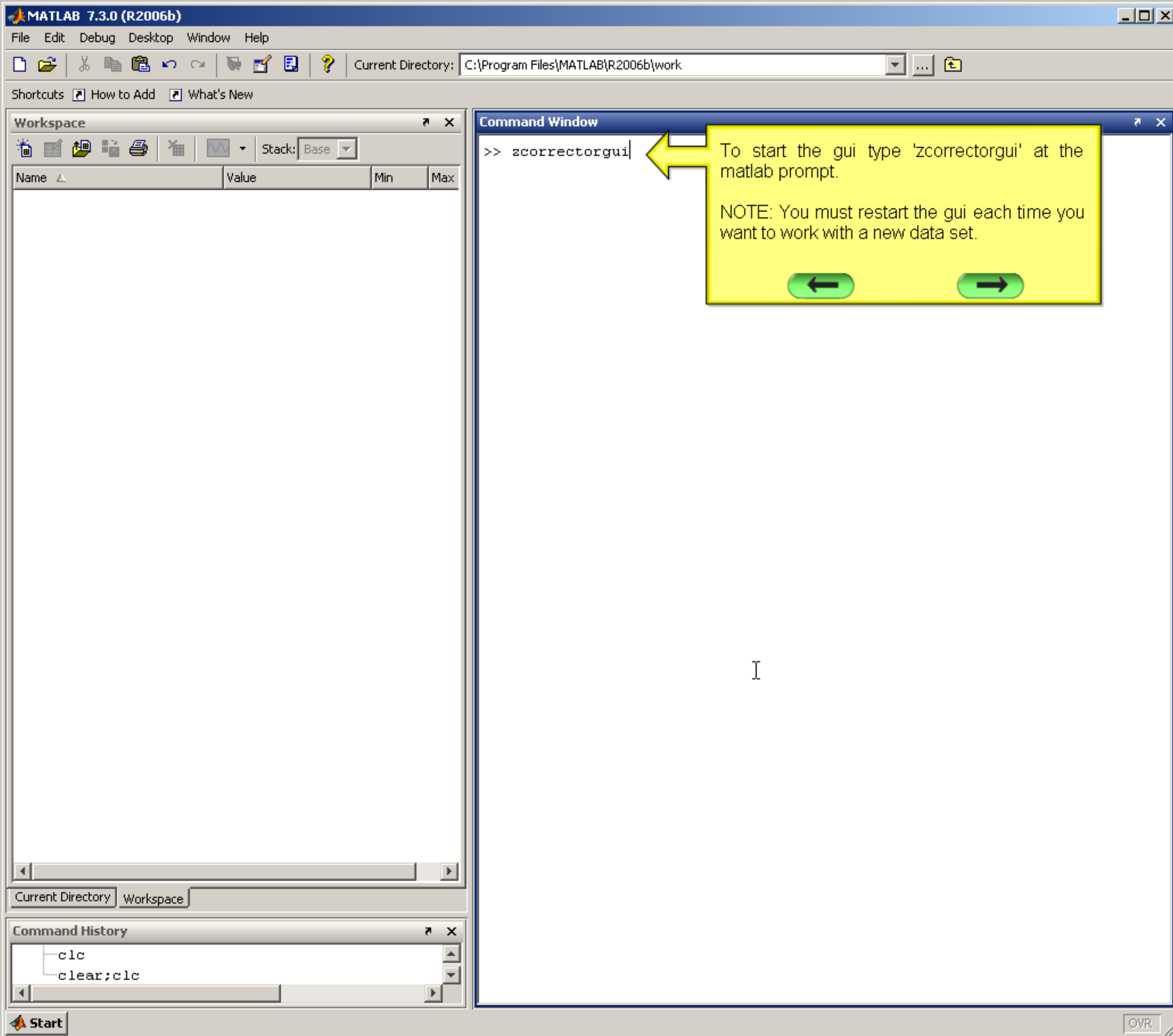


Press the 'Next' button below to start this tutorial.









Import Data From Directory

Import

Loaded Data

Number of image layers: None

Down binning the data

To load some data press the 'Import' button.

Adjust Total Counts Threshold Value

☐ Work with Uncorrected Data

Close

Overlay Tools

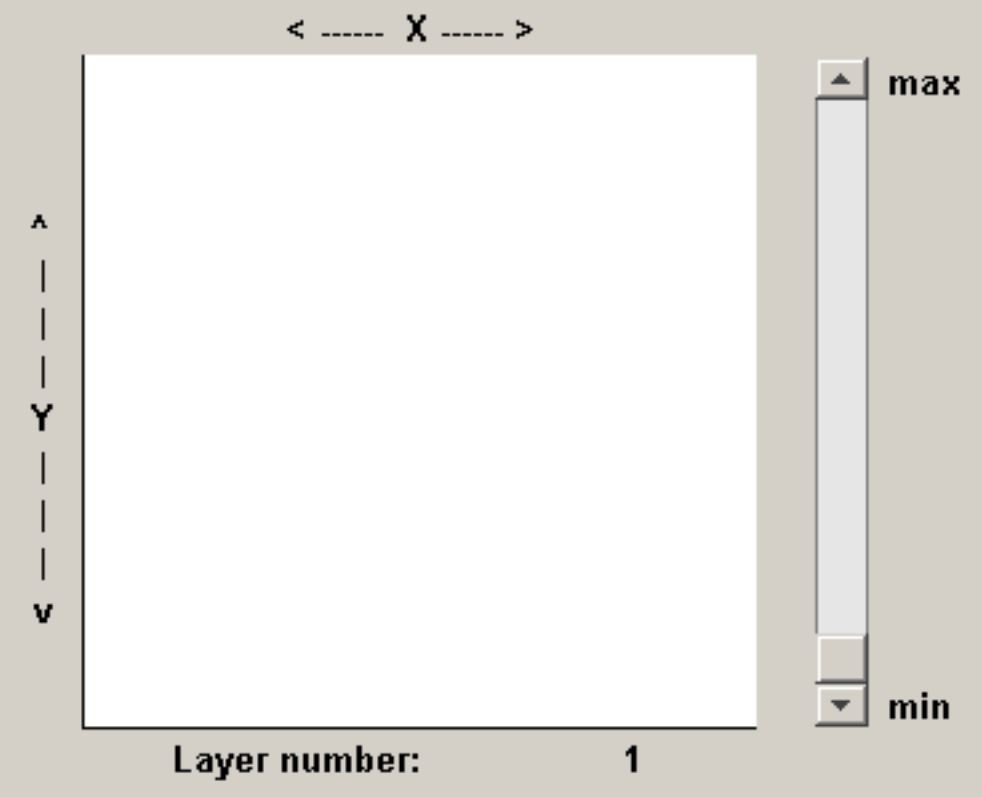
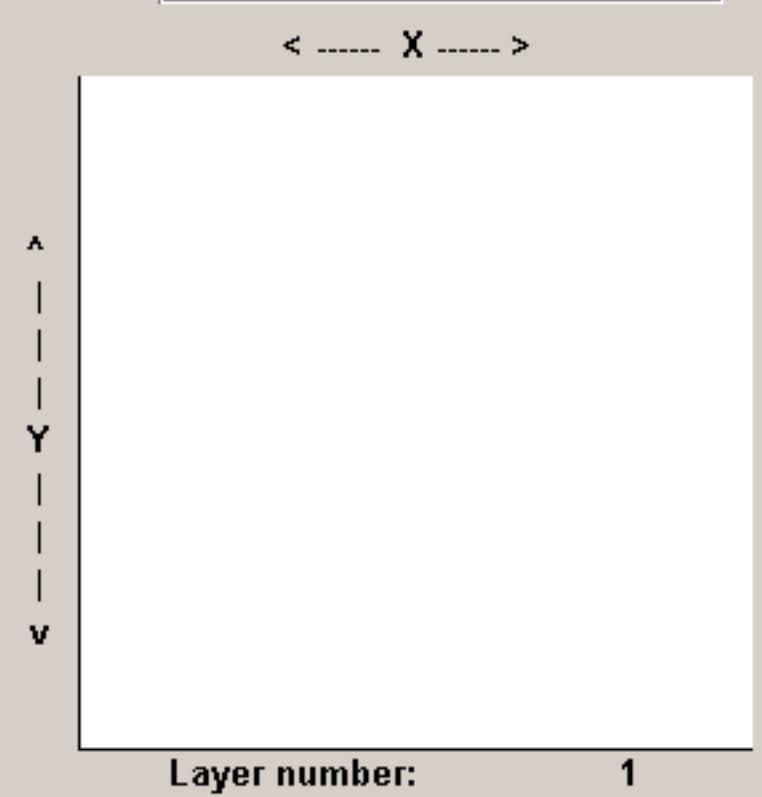
3D Tools

Data Being Displayed
None

Peak List

Initialize Corrected Data

Z corrected image XY

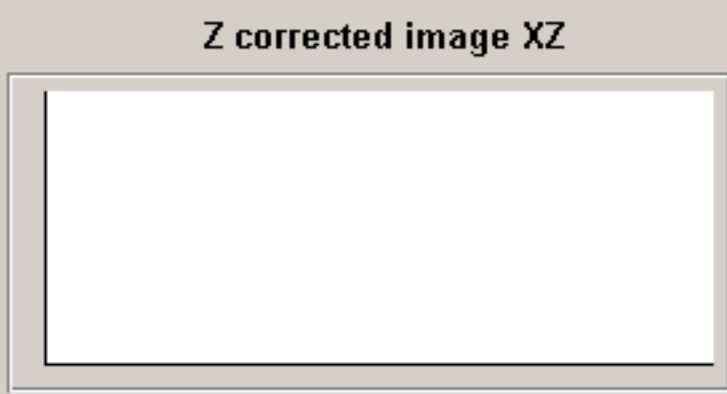
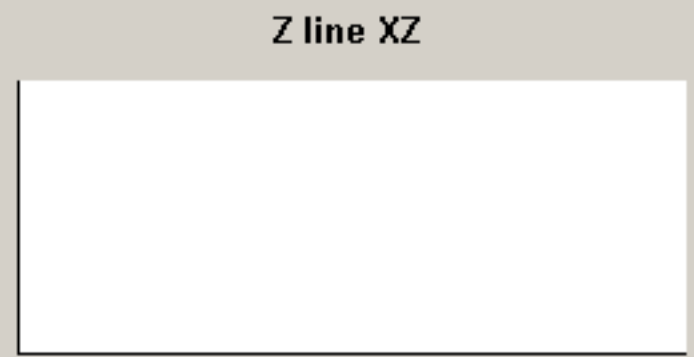
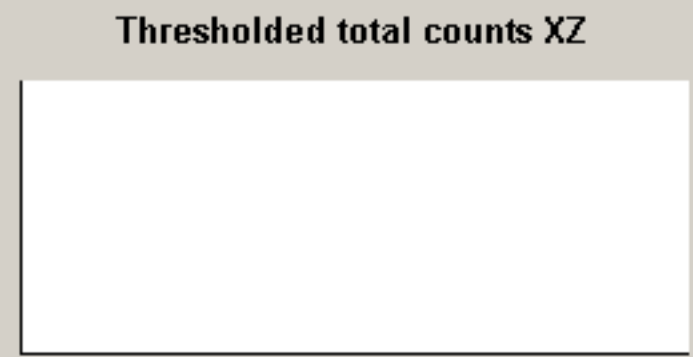
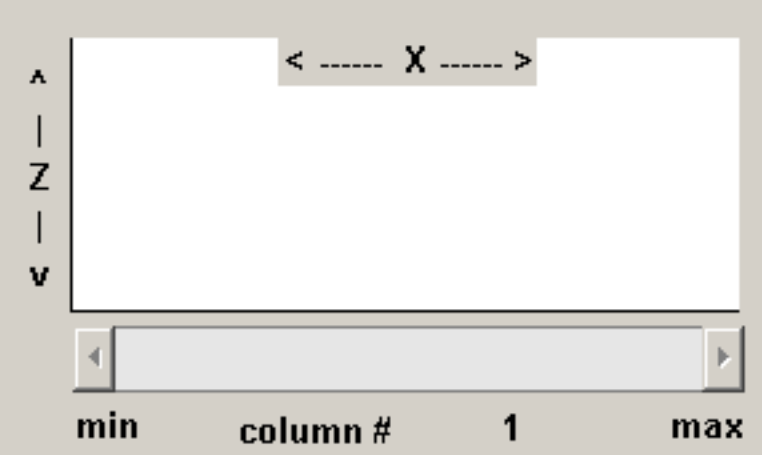


☐ If you want to save the movie frames check this box before creating the movie.

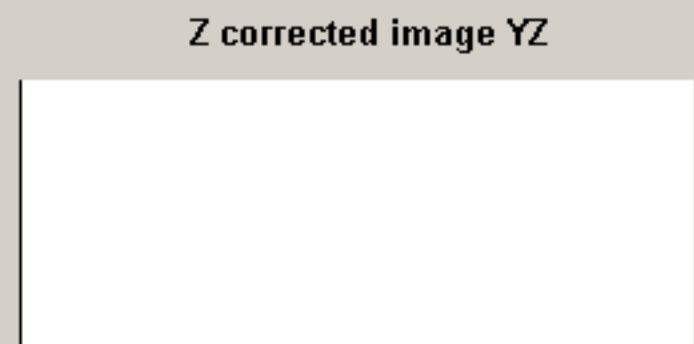
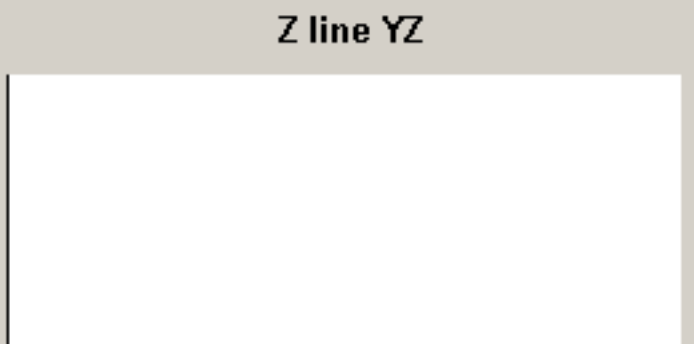
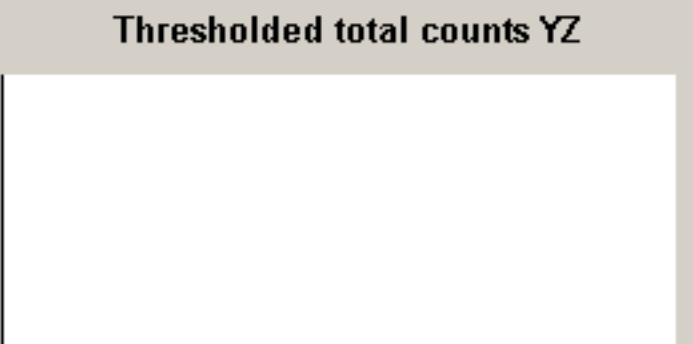
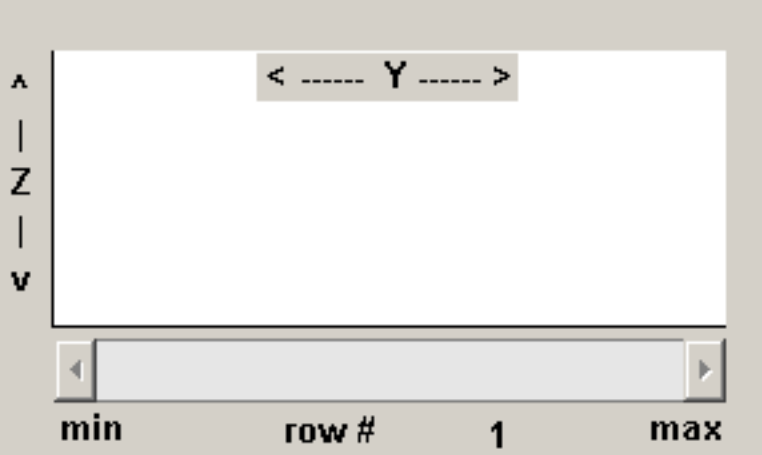
Create XY Corr Slice Movie

Create XZ Corr Slice Movie

Create YZ Corr Slice Movie



Save Corr XZ



Save Corr YZ

Import Data From Directory

Import

Loaded Data

Number of image layers: None

Down binning 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

Close

Overlay Tools

3D Tools

Data Being Displayed
None

Peak List

Initialize Corrected Data

Z corrected image XY

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

max

min

Layer number: 1

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

max

min

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

Browse For Folder

Choose a directory to load the data from

- Local Disk (C:)
- ATI
- bif
- bif2
- bif3
- bif6
- BioBlenderv0.5.1
- blender-2.49b
- blender-2.56a
- cabs
- dell
- Documents and Settings
- eaf4236bcb169392585085
- foo
- fortutorial
- frames

Make New Folder

OK

Z corrected image XZ

Save Corr XZ

Z corrected image YZ

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

min

max

column # 1

Thresholded total counts XZ

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

min

max

row # 1

Thresholded total counts YZ

Once you have selected the folder where the files are located, press the 'OK' button.

Import Data From Directory

Import

Loaded Data

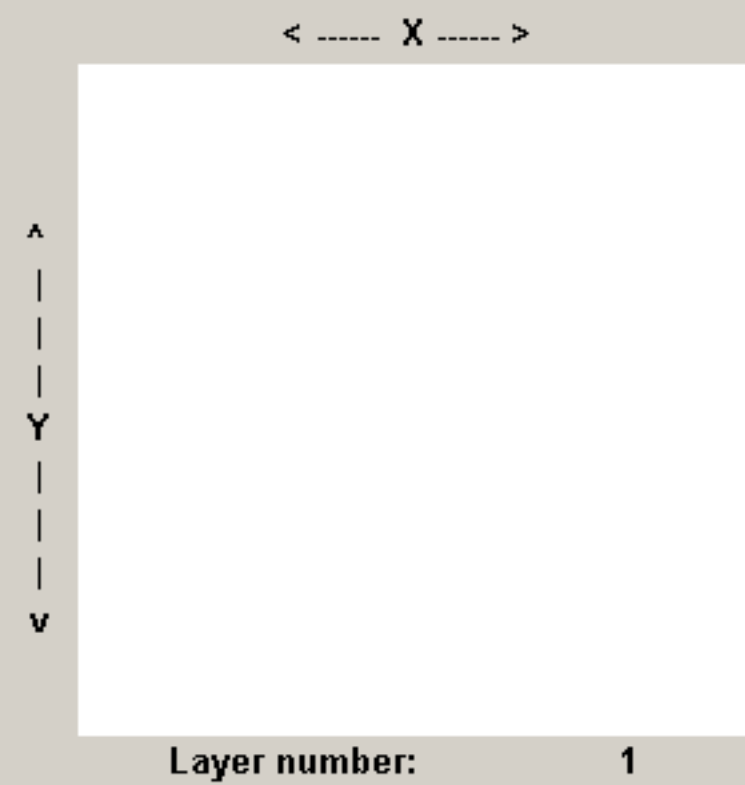
Number of image layers: 56

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

Downbin Data

Data Being Displayed

Total_Counts



Peak List

Total Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038
224.3978

Adjust Total Counts Threshold Value

Notice that the 'Overlay Tools' button is not active even after loading the data. That is because you must either choose to work with uncorrected data, or initialize the corrected data first.

← →

Close

Overlay Tools

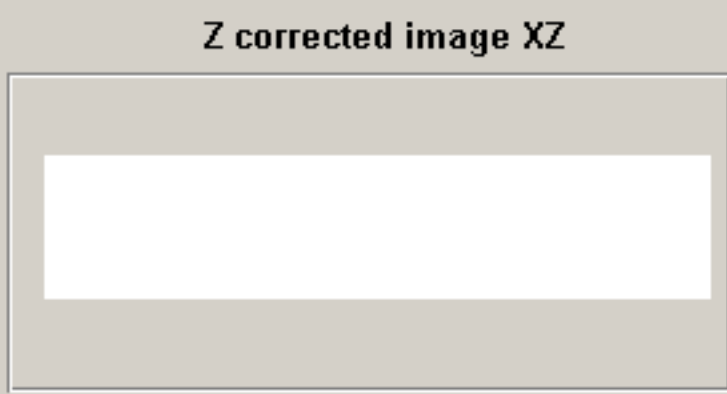
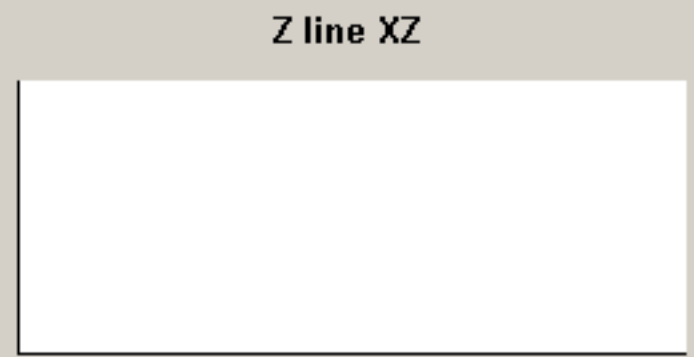
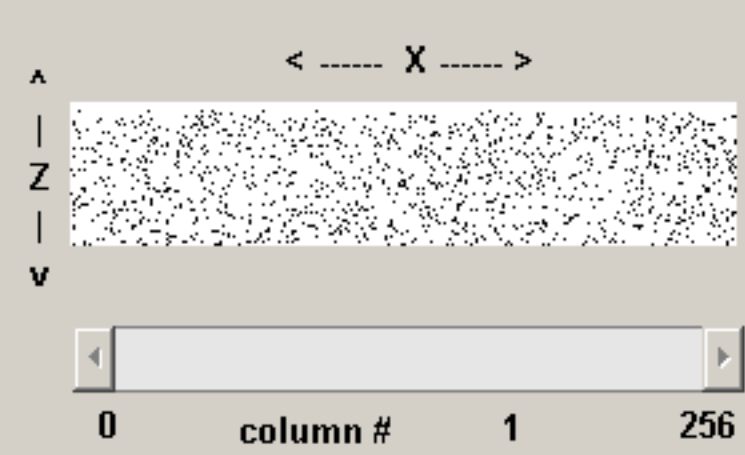
3D Tools

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

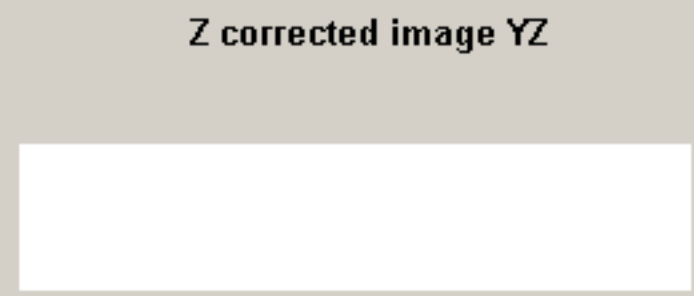
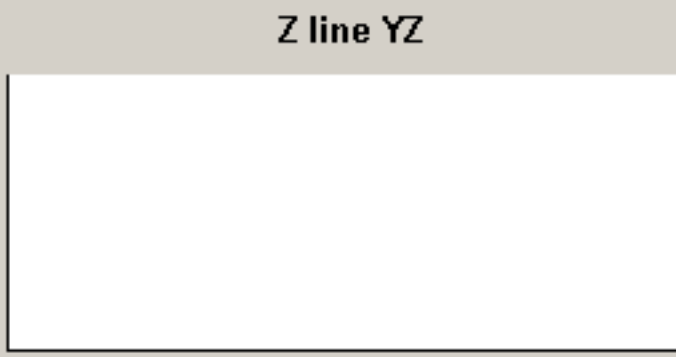
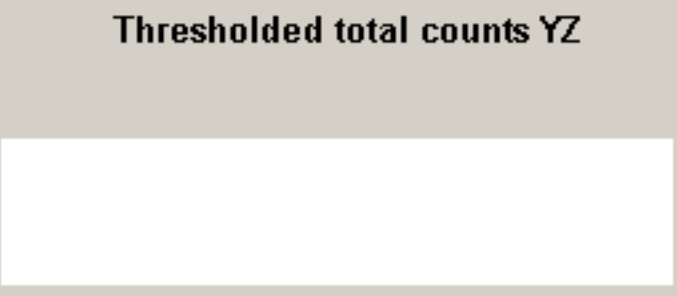
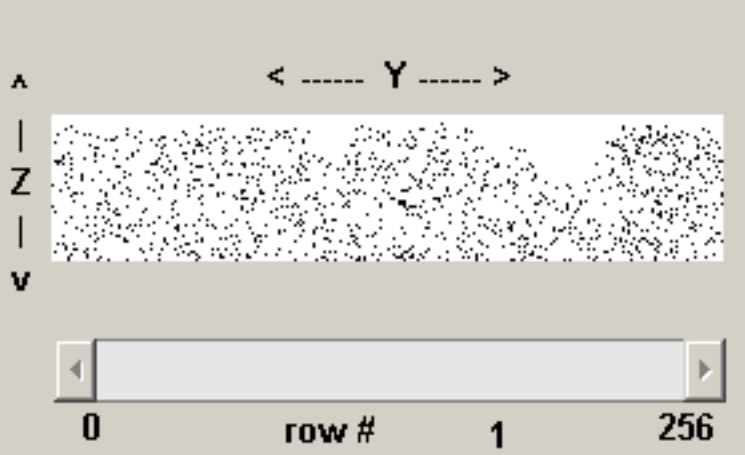
Create XY Corr Slice Movie

Create XZ Corr Slice Movie

Create YZ Corr Slice Movie



Save Corr XZ



Save Corr YZ

Import Data From Directory

Import

Loaded Data

Number of image layers: 56

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

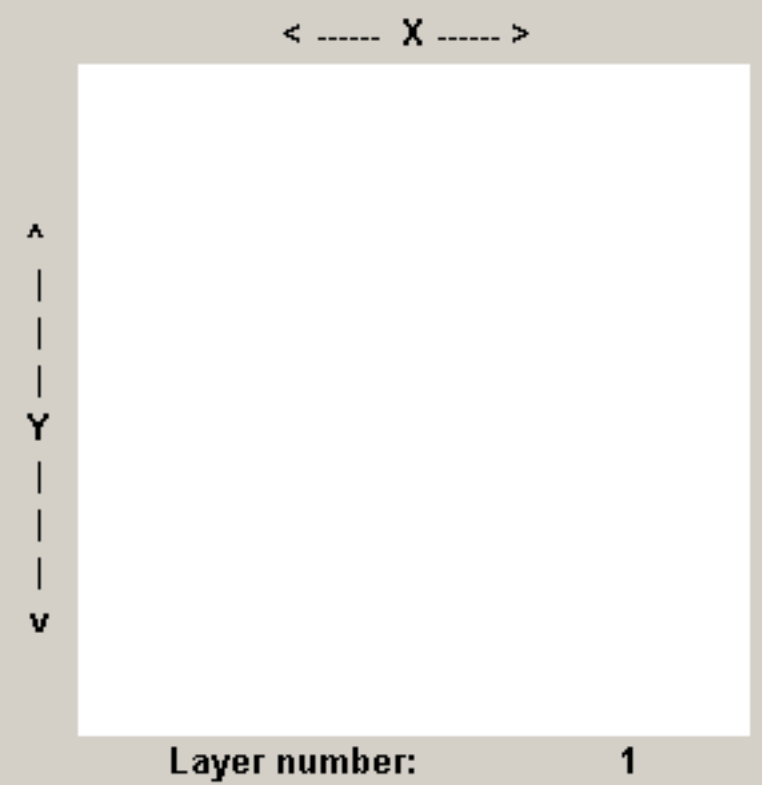
Downbin Data

Adjust Total Counts Threshold Value

Close

Data Being Displayed

Total_Counts



Peak List

Total Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038
224.3978

Initialize Corrected Data

Z corrected image XY

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

Layer number: 1

If you want to work with uncorrected data you can check this box.

Using uncorrected data is advisable when working with data sets collected from samples that have minimal topography and therefore would need minimal if any correction.

☐ Work with Uncorrected Data

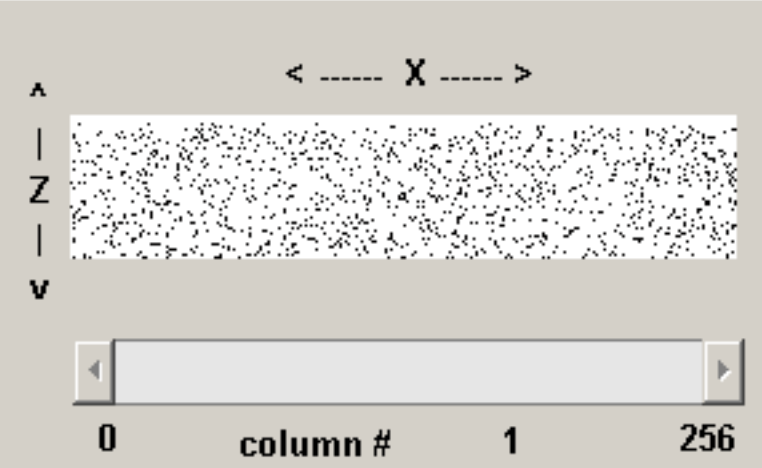


☐ If frames check this box before creating the movie.

Create XY Corr Slice Movie

Create XZ Corr Slice Movie

Create YZ Corr Slice Movie

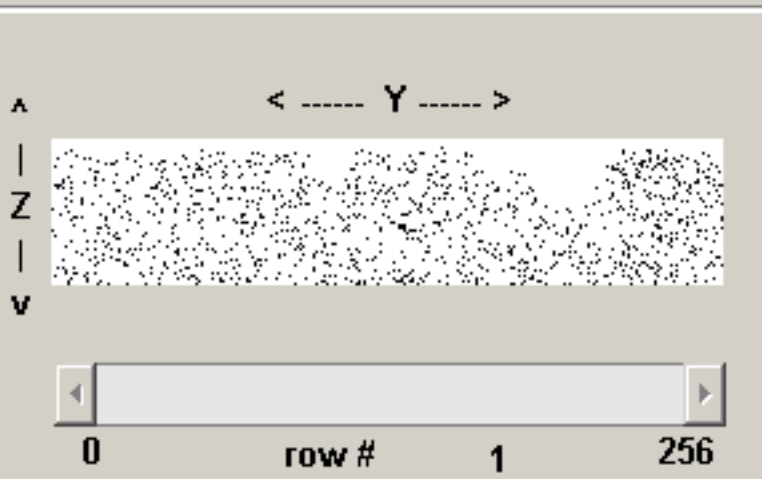


Thresholded total counts XZ

Z line XZ

Z corrected image XZ

Save Corr XZ



Thresholded total counts YZ

Z line YZ

Z corrected image YZ

Save Corr YZ

Import Data From Directory

Import

Loaded Data

Number of image layers

Down binning the data

Adjust Total Counts Threshold Value

Close

Overlay Tools

3D Tools

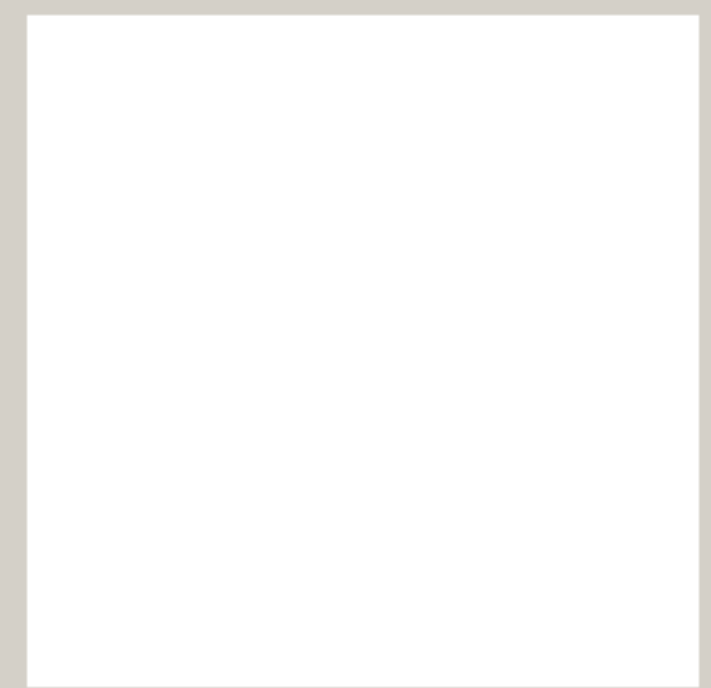
In this case we want to work with corrected data since we are using a cell depth profile.

First we will adjust the total counts threshold value as explained in the tutorial about the main ZcorrectorGui window.

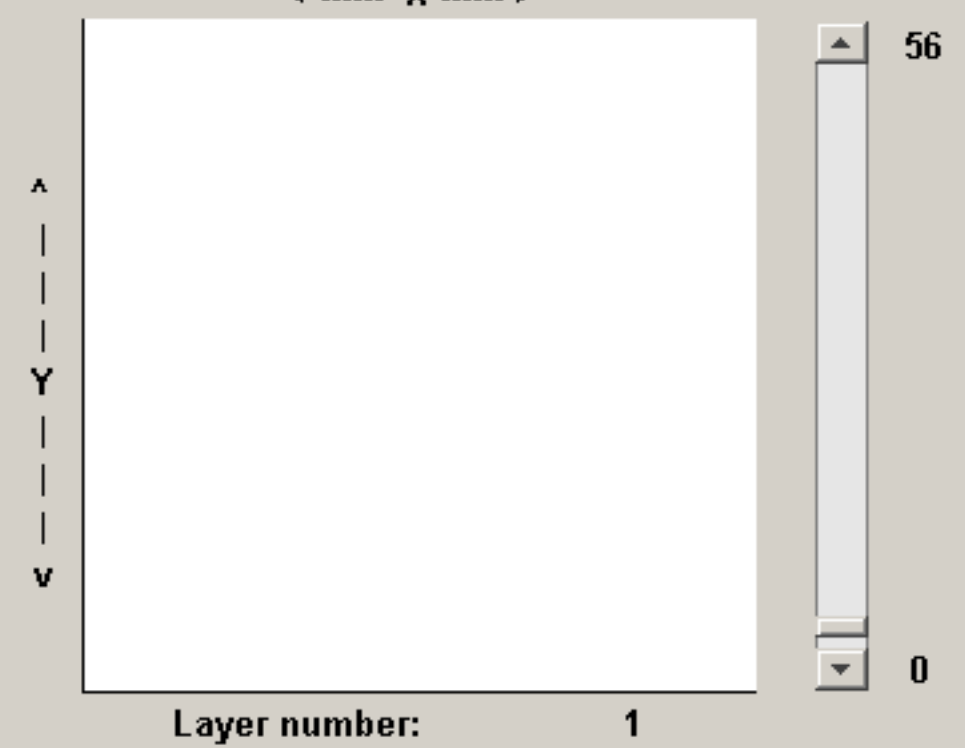
☐ Work with Uncorrected Data

Initialize Corrected Data

Z corrected image XY



Total Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038
224.3978

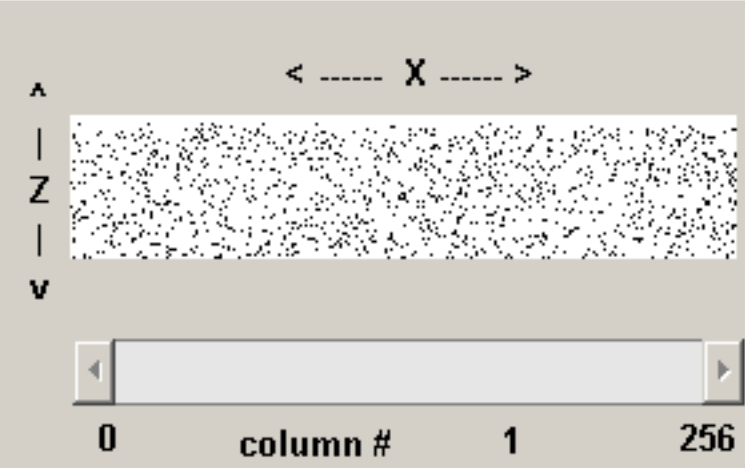


☐ If you want to save the movie frames check this box before creating the movie.

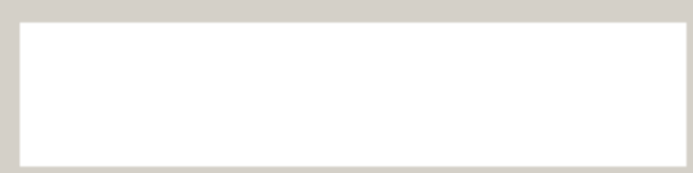
Create XY Corr Slice Movie

Create XZ Corr Slice Movie

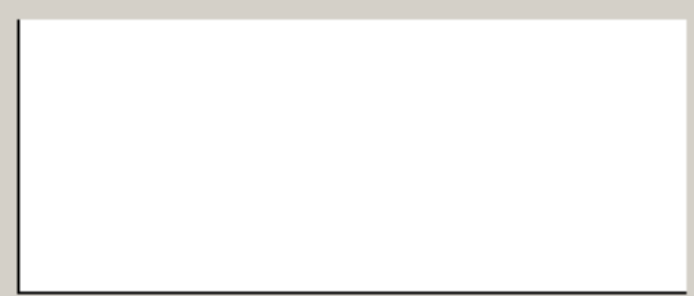
Create YZ Corr Slice Movie



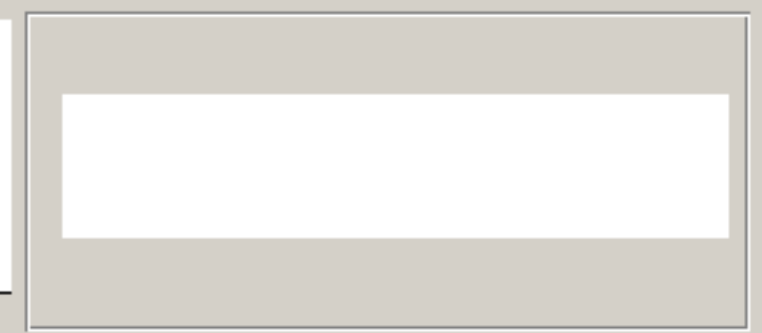
Thresholded total counts XZ



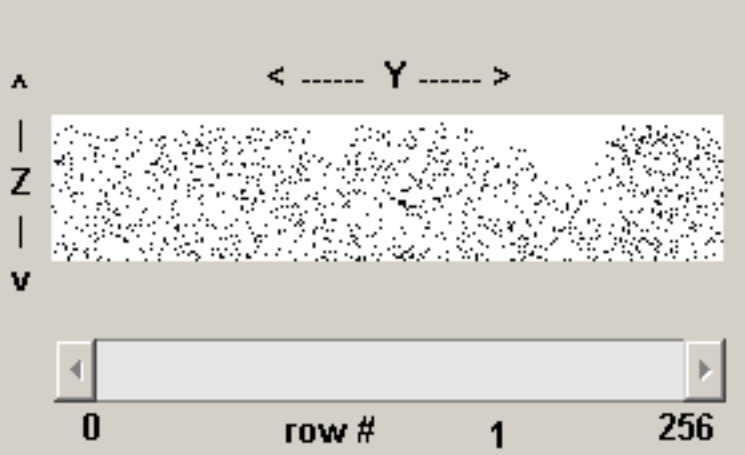
Z line XZ



Z corrected image XZ



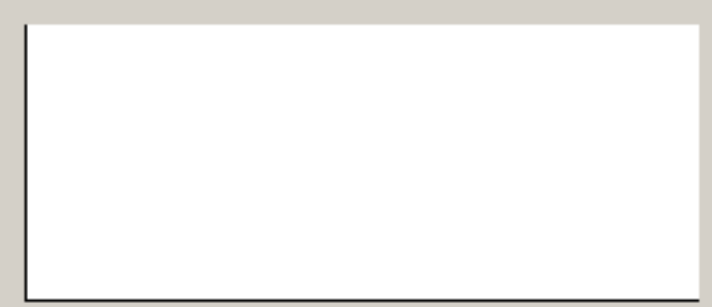
Save Corr XZ



Thresholded total counts YZ



Z line YZ



Z corrected image YZ



Save Corr YZ

Import Data From Directory

Import

Loaded Data

Number of image layers: 56

Down binning 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

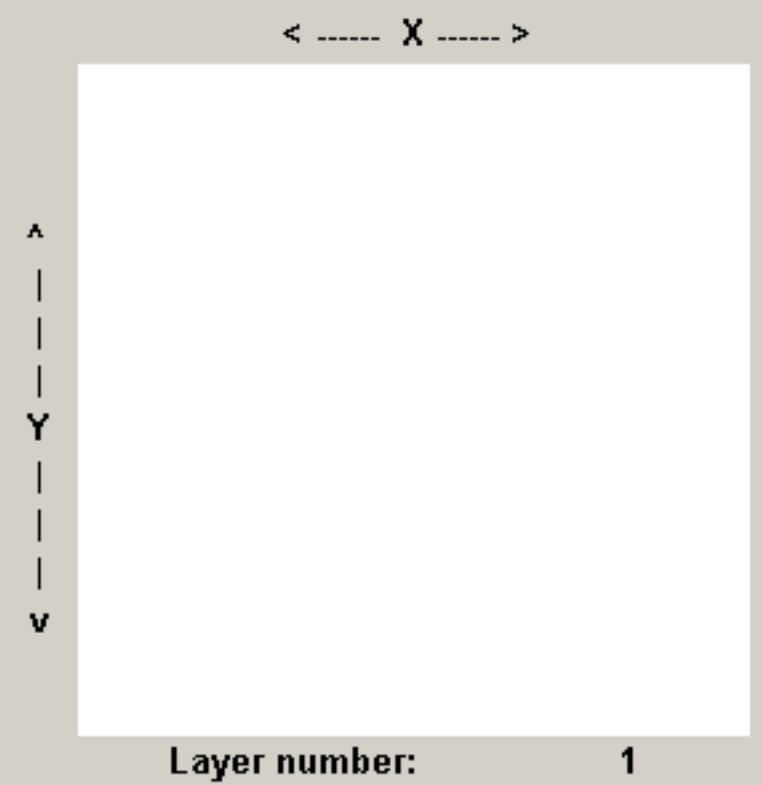
Close

Overlay Tools

3D Tools

Data Being Displayed

Total_Counts



Peak List

Total Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038
224.3978

1 Threshold value 11 255

1 slice # 118 256

Close

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

Create XY Corr Slice Movie

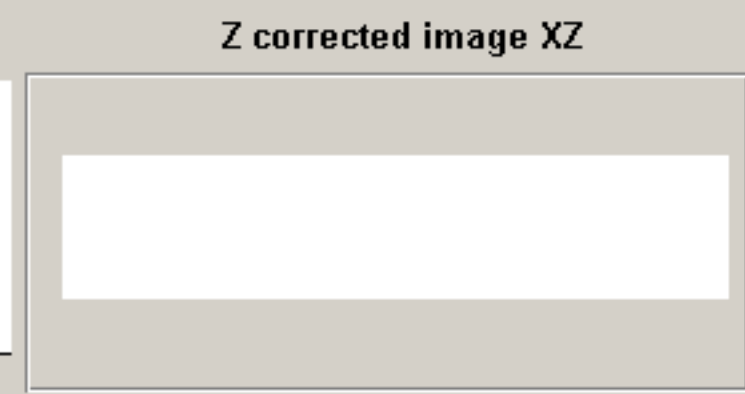
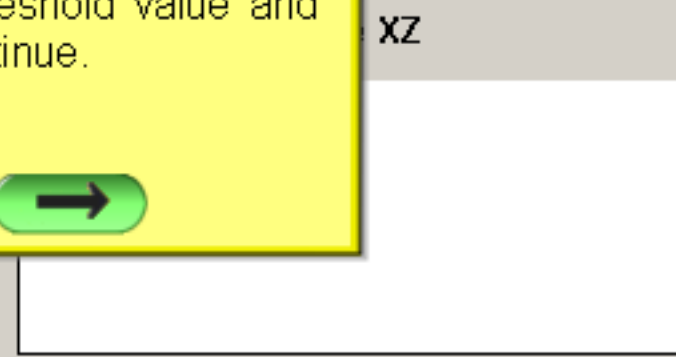
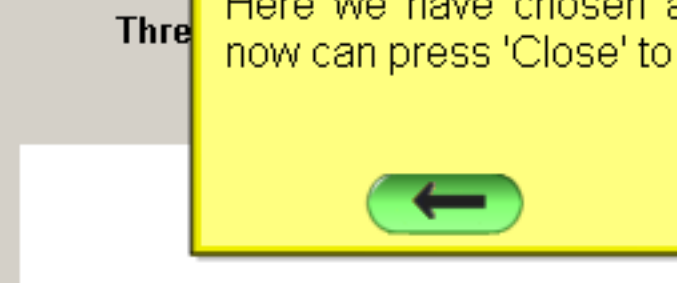
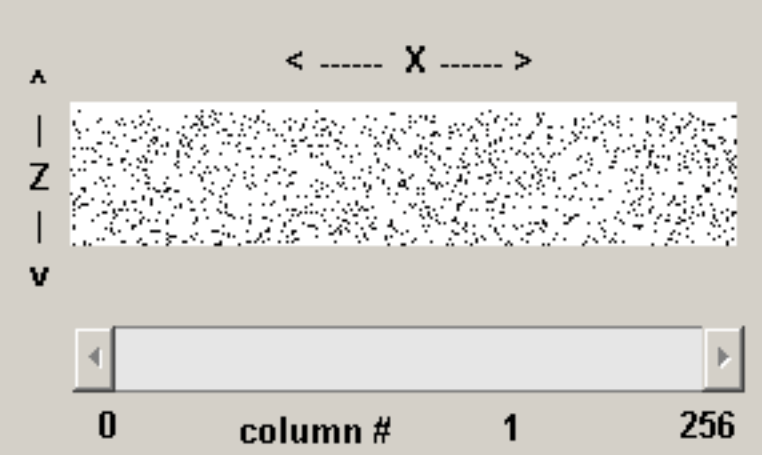
Create XZ Corr Slice Movie

Create YZ Corr Slice Movie

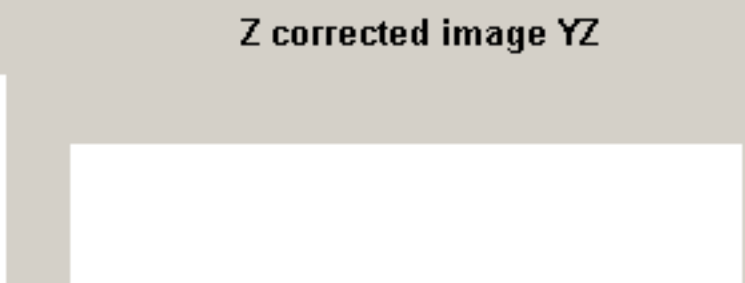
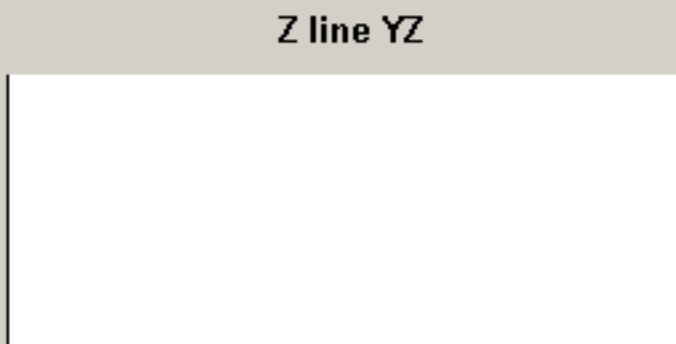
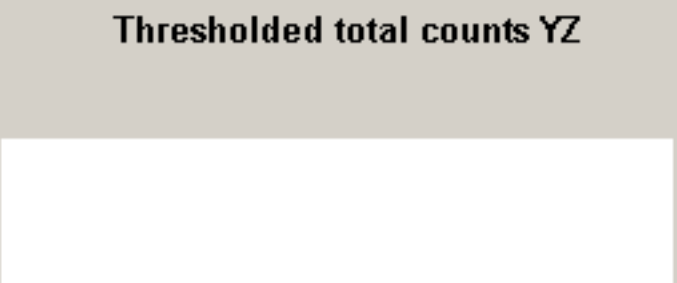
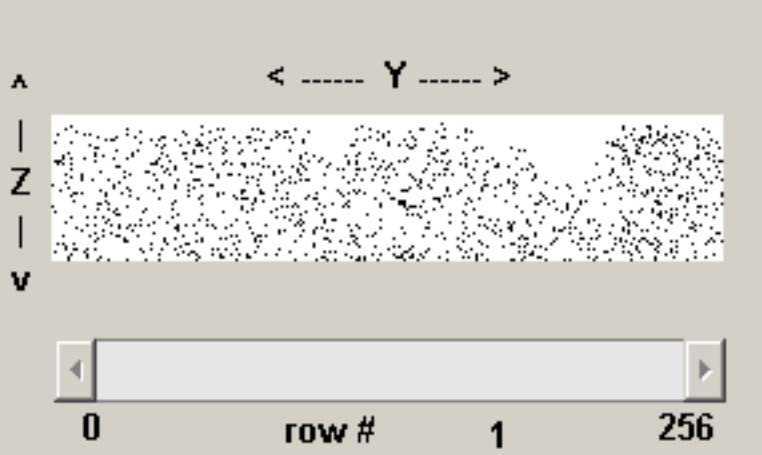
For details on how this works see the tutorial about the main ZcorrectorGui window.

Here we have chosen a threshold value and now can press 'Close' to continue.

← →



Save Corr XZ



Save Corr YZ

Import Data From Directory

Import

Loaded Data

Number of image layers: **56**

Down binning 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

☐ Work with Uncorrected Data

Close

Overlay Tools

3D Tools

Data Being Displayed

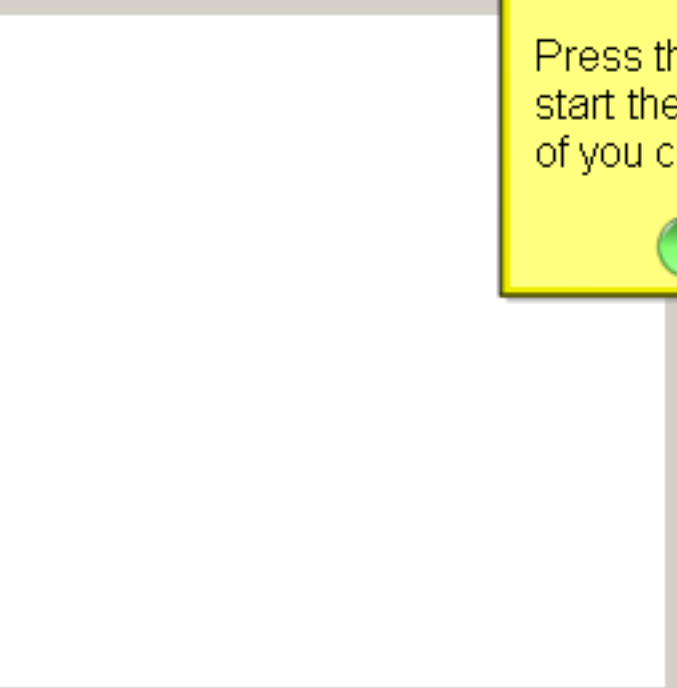
Total_Counts

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

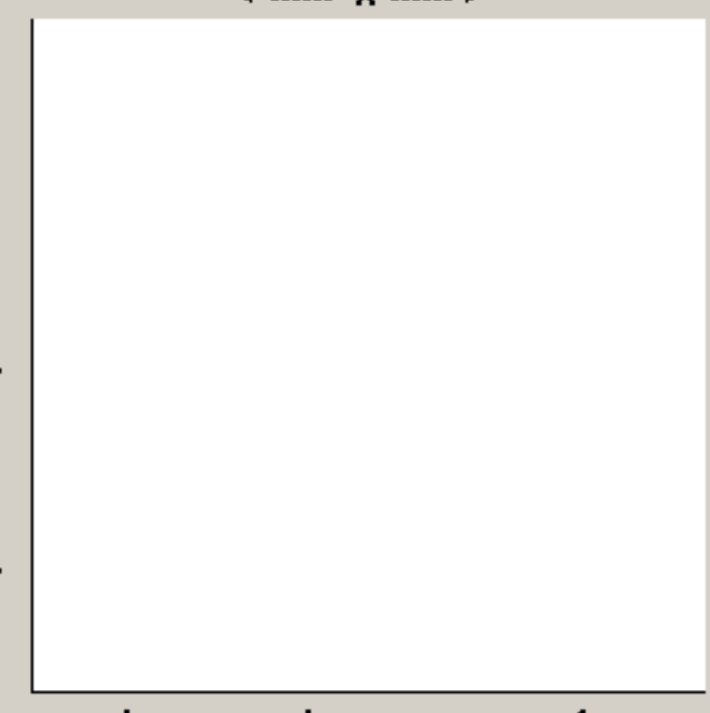
Since we want to work with corrected data, we must first initialize the corrected data matrix. This corrects the data for each peak for all data in the 3D stack.

Press the 'Initialize Corrected Data' button to start the process. Depending on the speed of your computer this may take awhile.

Initialize Corrected Data



Layer number: 1



Layer number: 1

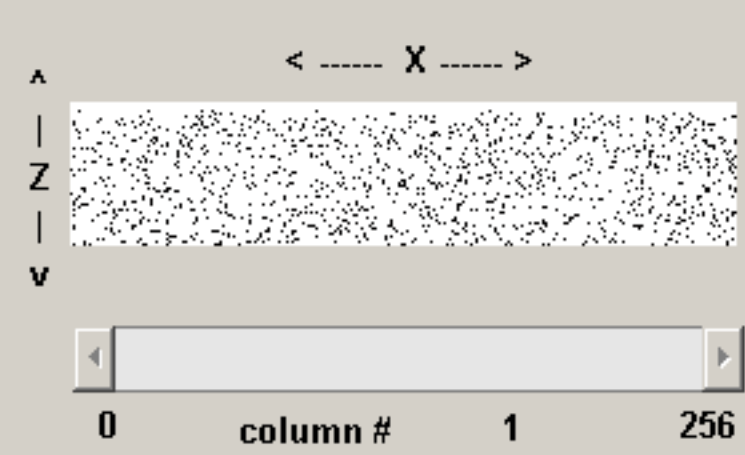


☐ If you want to save the movie frames check this box before creating the movie.

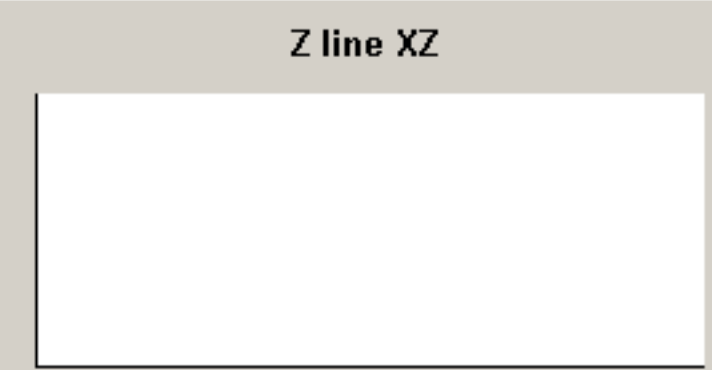
Create XY Corr Slice Movie

Create XZ Corr Slice Movie

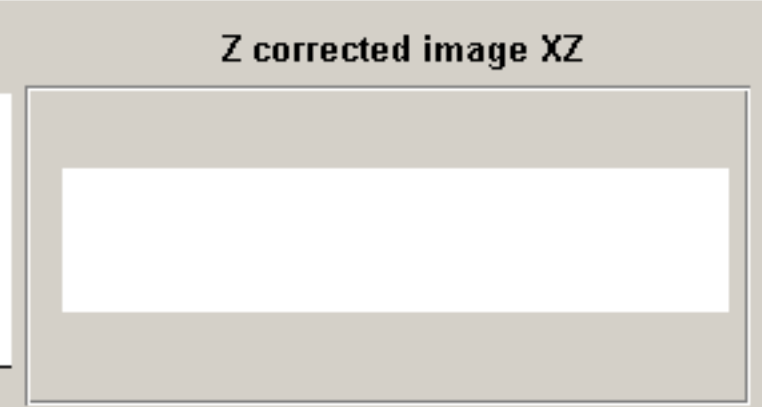
Create YZ Corr Slice Movie



Thresholded total counts XZ

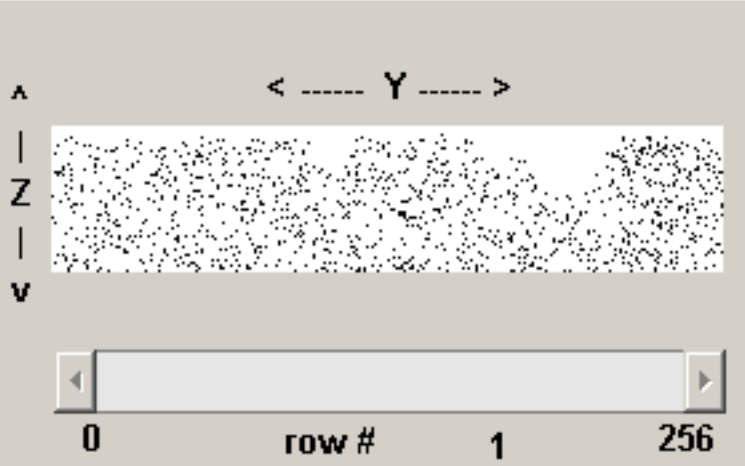


Z line XZ

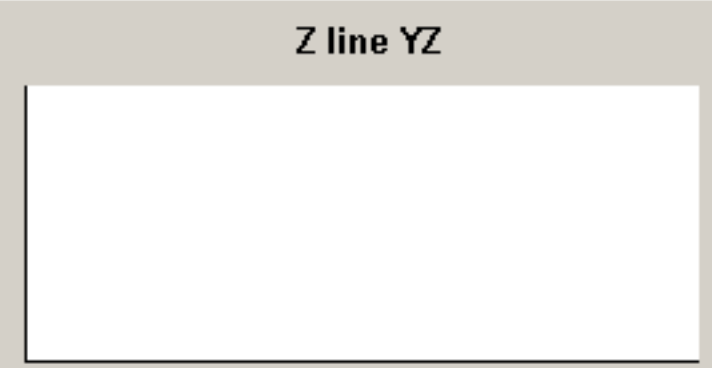


Z corrected image XZ

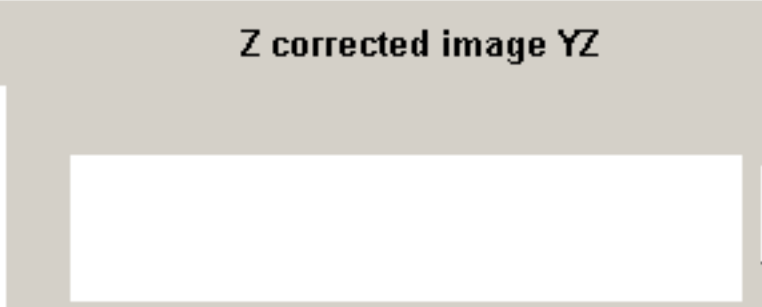
Save Corr XZ



Thresholded total counts YZ



Z line YZ



Z corrected image YZ

Save Corr YZ

Import Data From Directory

Import

Loaded Data

Number of image layers: 56

Down binning 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

Close

Data Being Displayed

Total_Counts

Peak List

Total Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038
224.3978

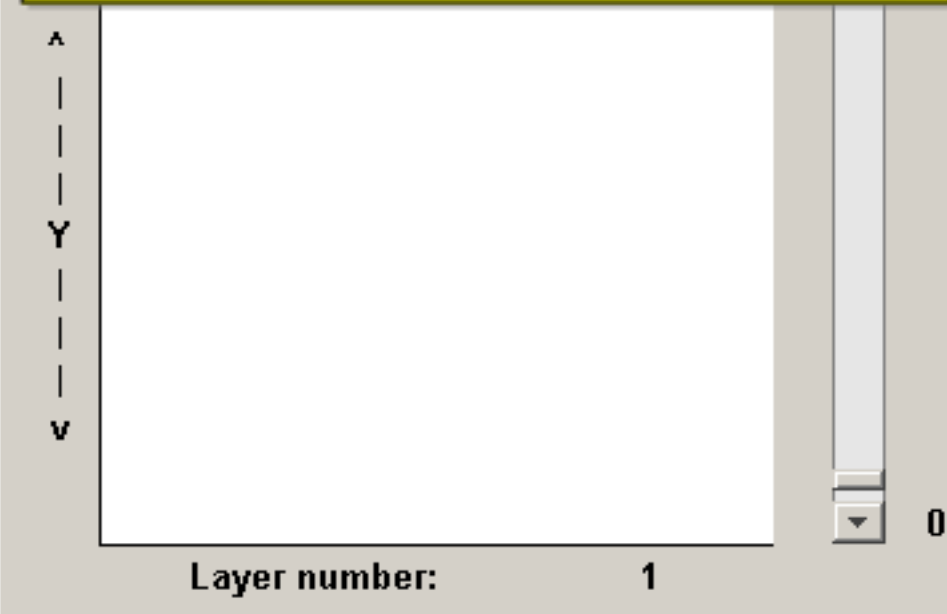
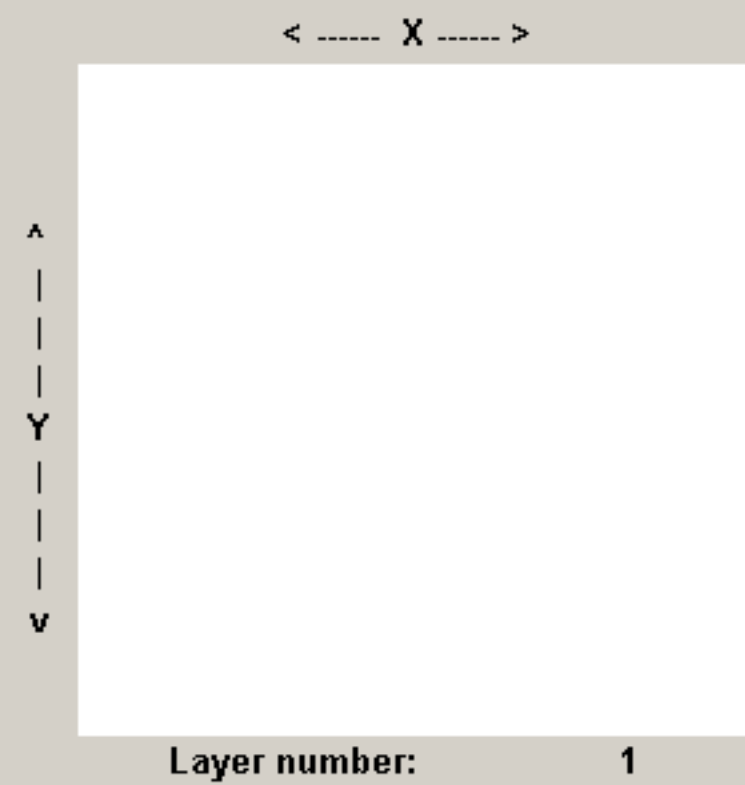
Once the data correction has been calculated these buttons become active.

Press the 'Overlay Tools' button to open the 'Overlay Tools' panel.

← →

Overlay Tools

3D Tools

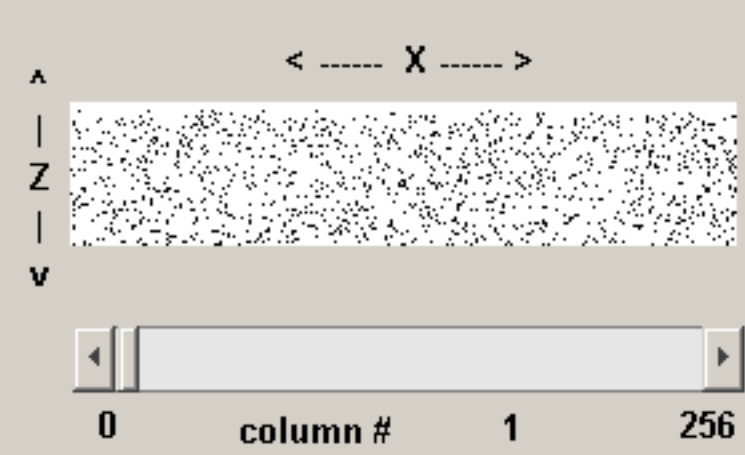


If you want to save the movie frames check this box before creating the movie.

Create XY Corr Slice Movie

Create XZ Corr Slice Movie

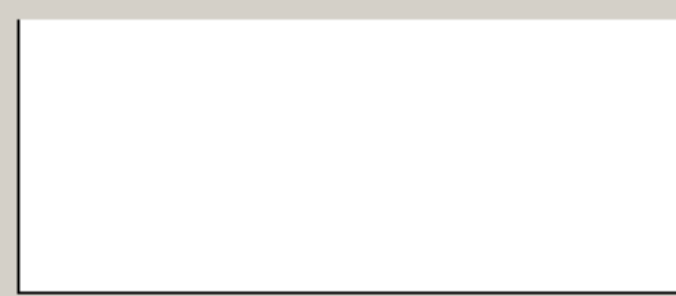
Create YZ Corr Slice Movie



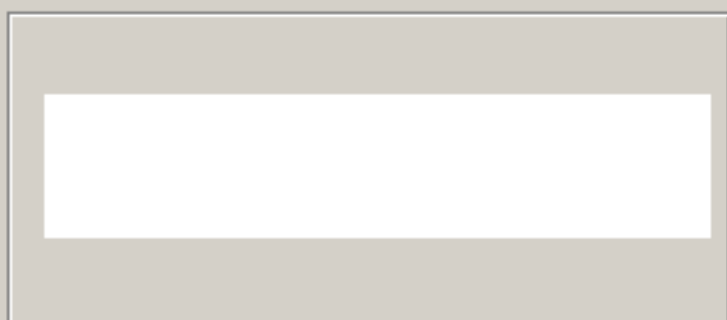
Thresholded total counts XZ



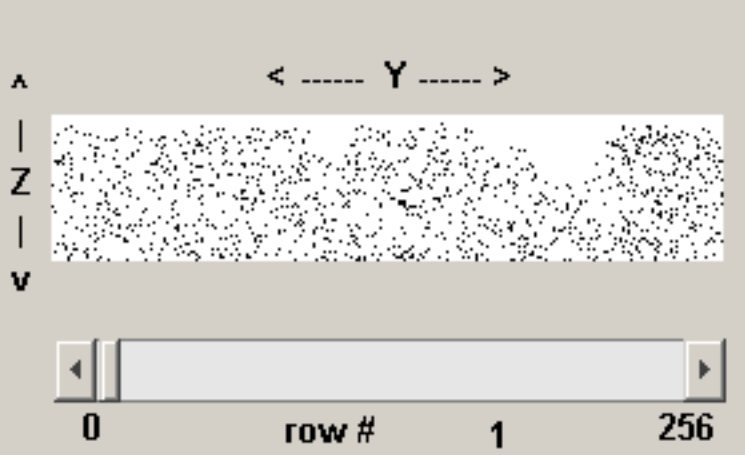
Z line XZ



Z corrected image XZ



Save Corr XZ



Thresholded total counts YZ



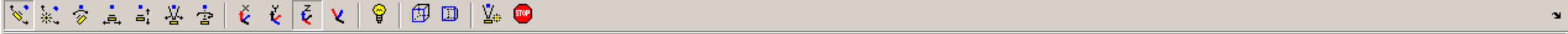
Z line YZ



Z corrected image YZ



Save Corr YZ



Red Peak(s)

None
Total_Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038

Green Peak(s)

None
Total_Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038

Blue Peak(s)

None
Total_Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038

Threshold for overlay =

Create Composite Image

This is the Overlay Tools Panel.

← →

Close Panel

Red Peak(s)

- None
- Total_Counts
- 58.10555
- 70.13471
- 86.19242
- 104.2413
- 125.1504
- 166.2641
- 184.3038

Green Peak(s)

- None
- Total_Counts
- 58.10555
- 70.13471
- 86.19242
- 104.2413
- 125.1504
- 166.2641
- 184.3038

Blue Peak(s)

- None
- Total_Counts
- 58.10555
- 70.13471
- 86.19242
- 104.2413
- 125.1504
- 166.2641
- 184.3038

Threshold for overlay =

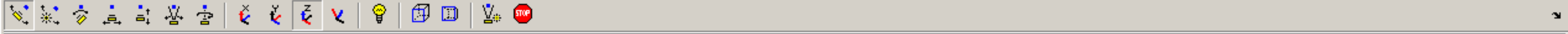
Create Composite Image

These selection boxes allow you to choose which peaks you want included in each of the data channels (Red, Green and Blue).

You can select multiple peaks from each list. You must select something from each list. If you do not want any peaks displayed in a given channel, select 'None' from the list

← →

Close Panel



Red Peak(s)

None

Total_Counts

58.10555

70.13471

86.19242

104.2413

125.1504

166.2641

184.3038

Green Peak(s)

None

Total_Counts

58.10555

70.13471

Blue Peak(s)

None

Total_Counts

58.10555

70.13471

We will select 2 peaks in the Red channel. These peaks are from the lipids in the cell.

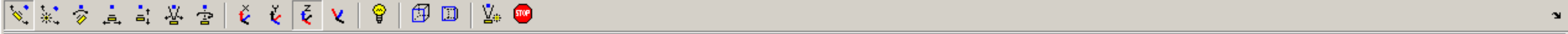
←

→

Threshold for overlay =

Create Composite Image

Close Panel



Red Peak(s)

None
Total_Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038

Green Peak(s)

None
Total_Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038

Blue Peak(s)

None
Total_Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038

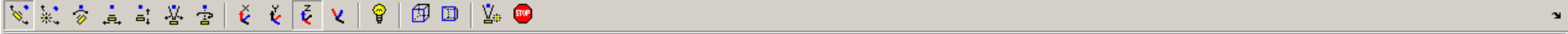
We will select 1 peak in the Green channel. This peak is from protein in the cell.

← →

Threshold for overlay = 0

Create Composite Image

Close Panel



Red Peak(s)

None
Total_Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038

Green Peak(s)

None
Total_Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038

Blue Peak(s)

None
Total_Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038

We will not select any peaks in the Blue channel, so we choose 'None'.

← →

Threshold for overlay = 0

Create Composite Image

Close Panel

Red Peak(s)

None
Total_Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038

Green Peak(s)

None
Total_Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038

Blue Peak(s)

None
Total_Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038

Threshold for overlay =

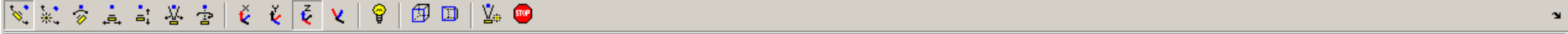
Create Composite Image

If desired you can choose a threshold value. This can be used to filter out noise in the images. Any pixels with intensity below the threshold are set to zero.

Typically the default value of 0 works well. This means the data is not modified.

← →

Close Panel



Red Peak(s)

None
Total_Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038

Green Peak(s)

None
Total_Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038

Blue Peak(s)

None
Total_Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038

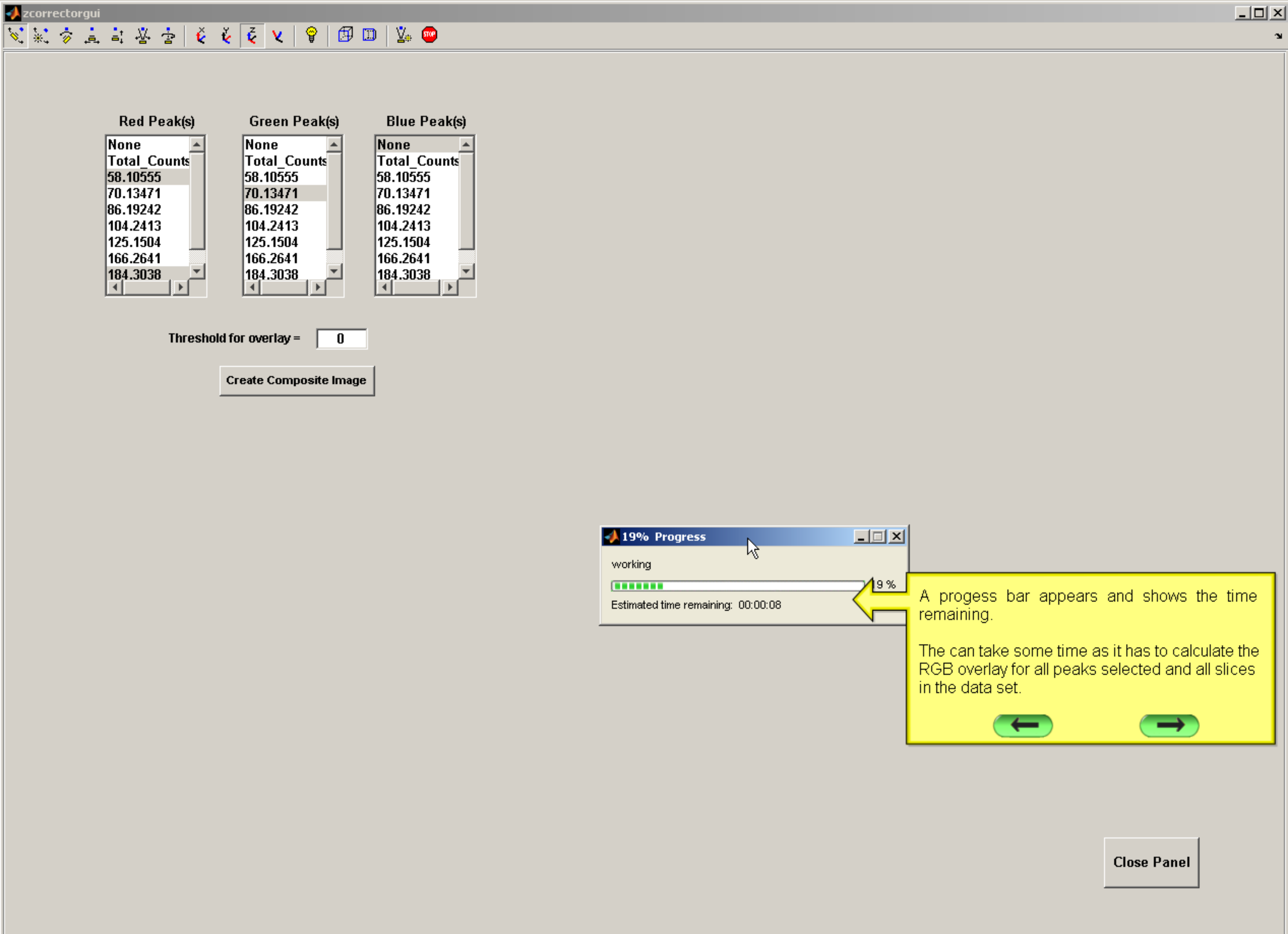
Threshold for overlay = 0

Create Composite Image

Press the 'Create Composite Image' button to create the RGB overaly.

← →

Close Panel



Red Peak(s)	Green Peak(s)	Blue Peak(s)
None	None	None
Total_Counts	Total_Counts	Total_Counts
58.10555	58.10555	58.10555
70.13471	70.13471	70.13471
86.19242	86.19242	86.19242
104.2413	104.2413	104.2413
125.1504	125.1504	125.1504
166.2641	166.2641	166.2641
184.3038	184.3038	184.3038

Threshold for overlay =

Create Composite Image

Alpha value for 3D overlay =

View in 3D

Choose Background Color

Create 3D Snap Shot

Current background color

Z scale factor = 1

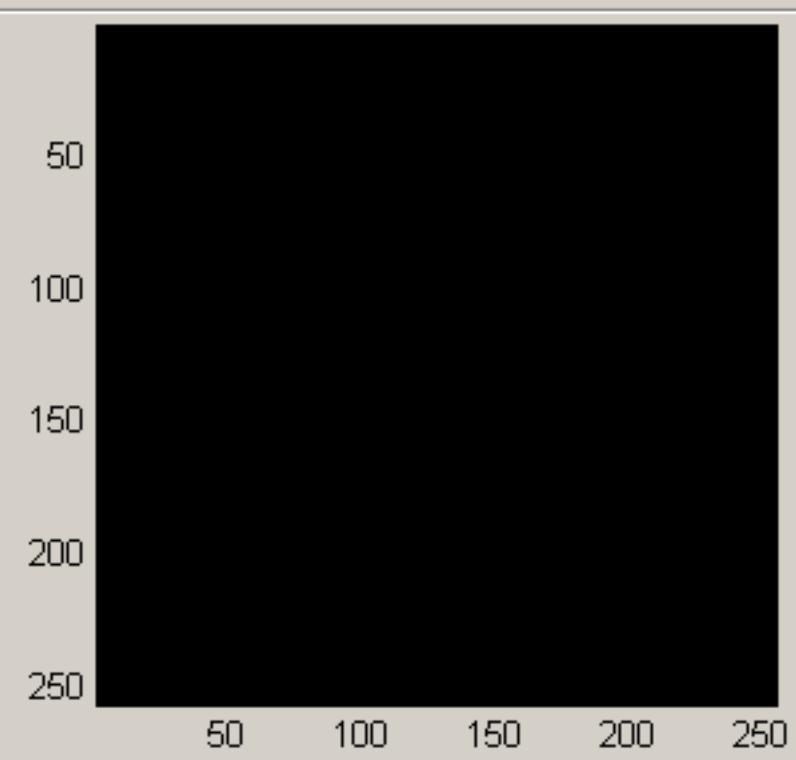
Check which axes you want to rotate around

☐ X ☐ Y ☐ Z

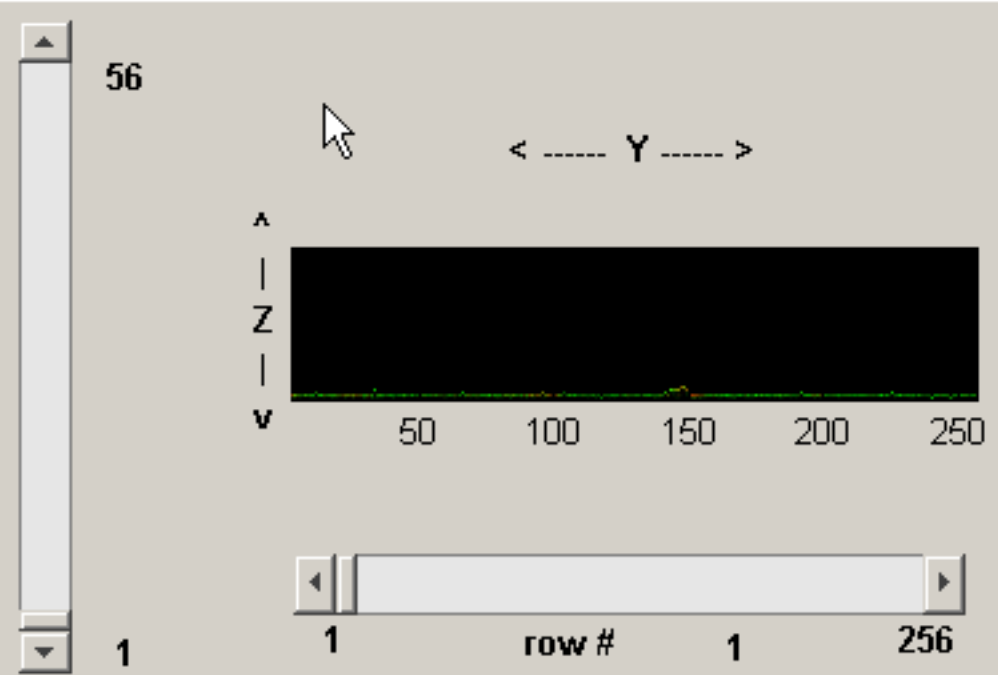
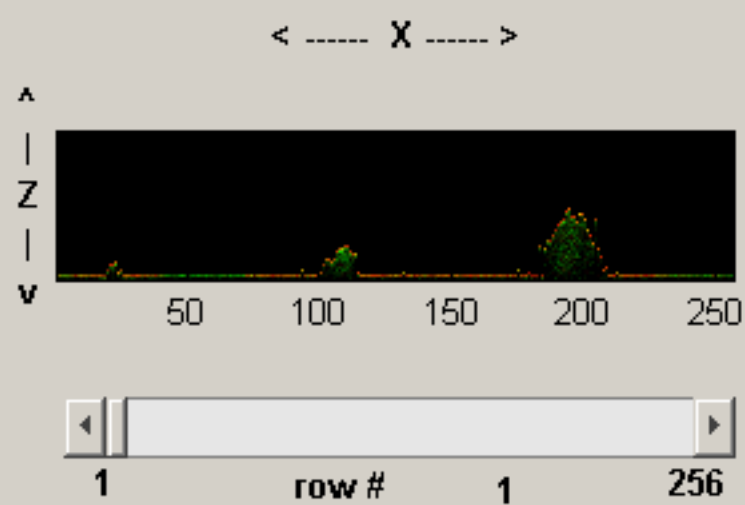
Number of degrees for rotation

Preview

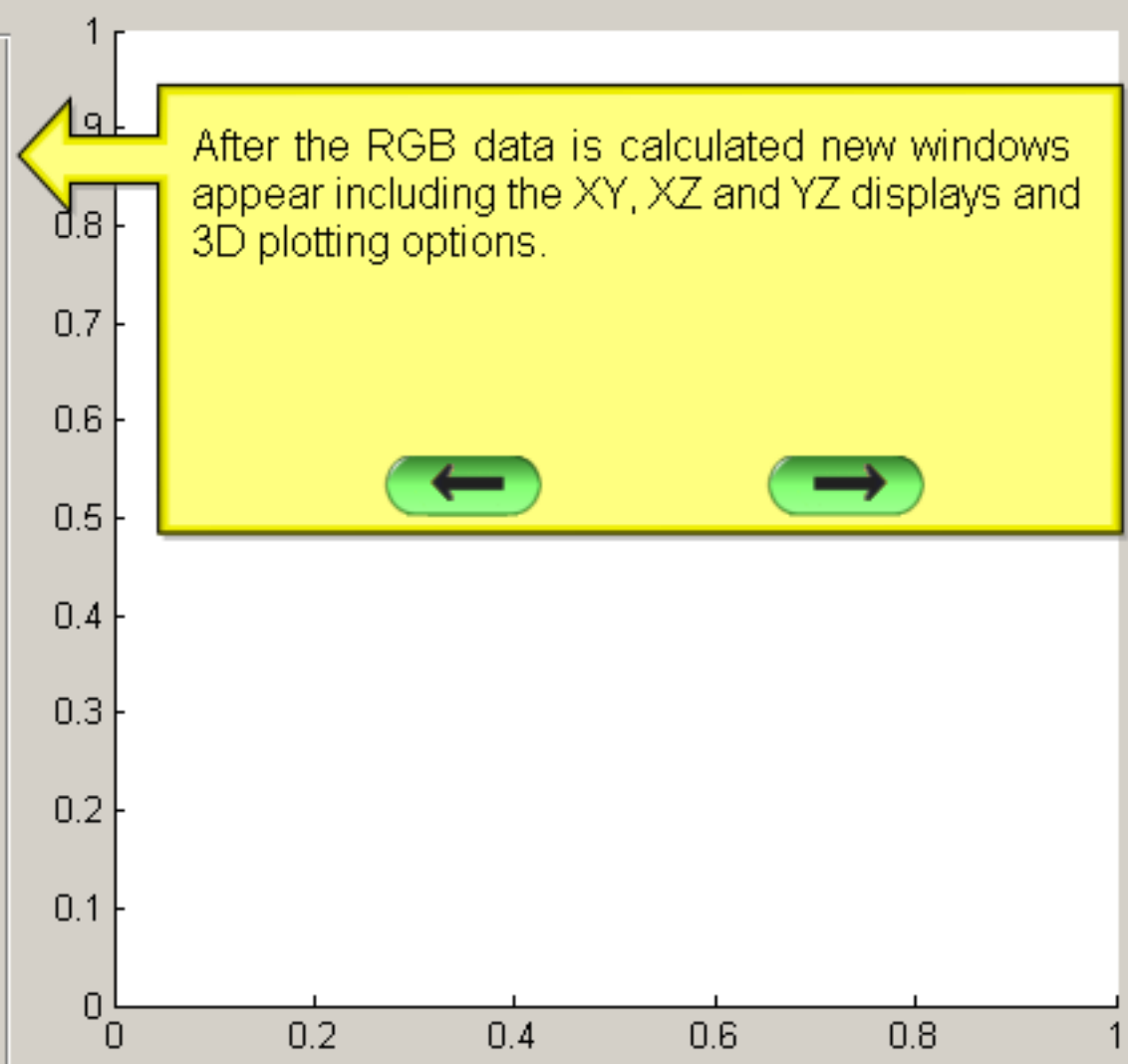
Create 3D Movie



Layer number:



Create XY Movie Create XY Snap shot
 Create XZ Movie Create XZ Snap shot
 Create YZ Movie Create YZ Snap Shot



After the RGB data is calculated new windows appear including the XY, XZ and YZ displays and 3D plotting options.



Close Panel

Red Peak(s)	Green Peak(s)	Blue Peak(s)
None	None	None
Total_Counts	Total_Counts	Total_Counts
58.10555	58.10555	58.10555
70.13471	70.13471	70.13471
86.19242	86.19242	86.19242
104.2413	104.2413	104.2413
125.1504	125.1504	125.1504
166.2641	166.2641	166.2641
184.3038	184.3038	184.3038

Threshold for overlay =

Create Composite Image

Alpha value for 3D overlay =

View in 3D

Create 3D Snap Shot

Choose Background Color

Current background color

Z scale factor = 1

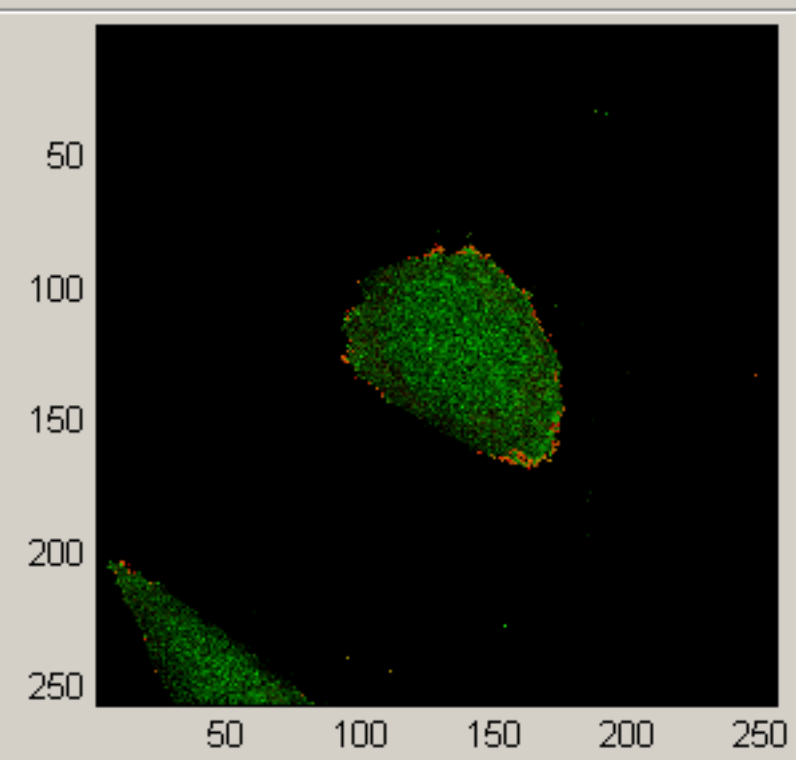
Check which axes you want to rotate around

☐ X ☐ Y ☐ Z

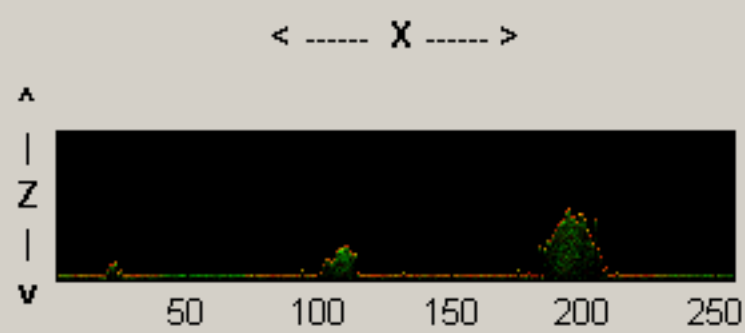
Number of degrees for rotation

Preview

Create 3D Movie



Layer number: 26



row # 1 256



Moving the sliders will update the view. Here we adjust the slider for the XY slice RGB plot.



Create XY Movie

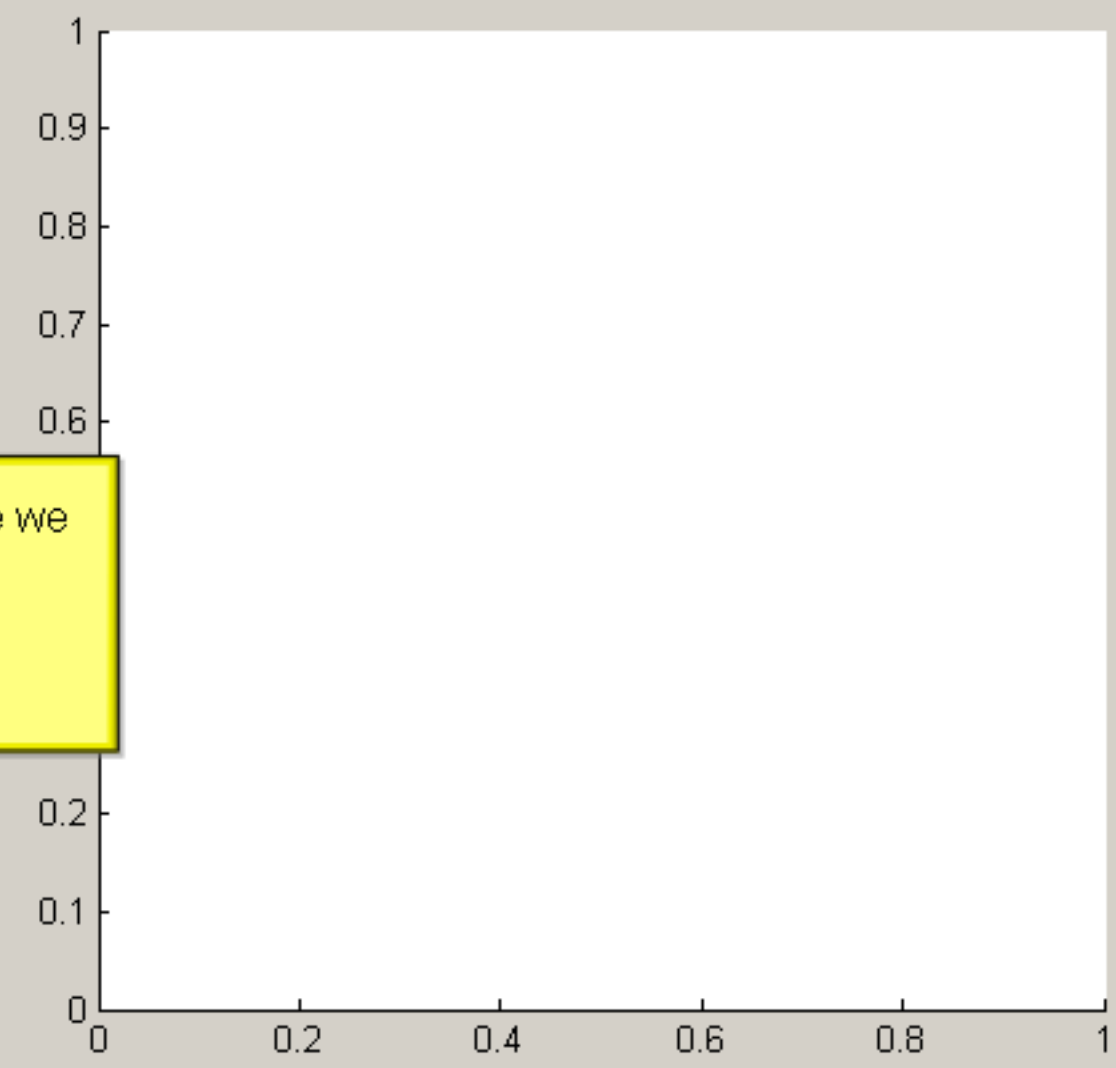
Create XY Snap shot

Create XZ Movie

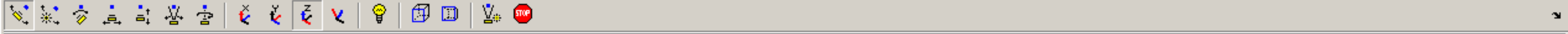
Create XZ Snap shot

Create YZ Movie

Create YZ Snap Shot



Close Panel



Red Peak(s)	Green Peak(s)	Blue Peak(s)
None	None	None
Total_Counts	Total_Counts	Total_Counts
58.10555	58.10555	58.10555
70.13471	70.13471	70.13471
86.19242	86.19242	86.19242
104.2413	104.2413	104.2413
125.1504	125.1504	125.1504
166.2641	166.2641	166.2641
184.3038	184.3038	184.3038

Threshold for overlay =

Create Composite Image

Alpha value for 3D overlay =

View in 3D

Choose Background Color

Create 3D Snap Shot

Current background color

Z scale factor =

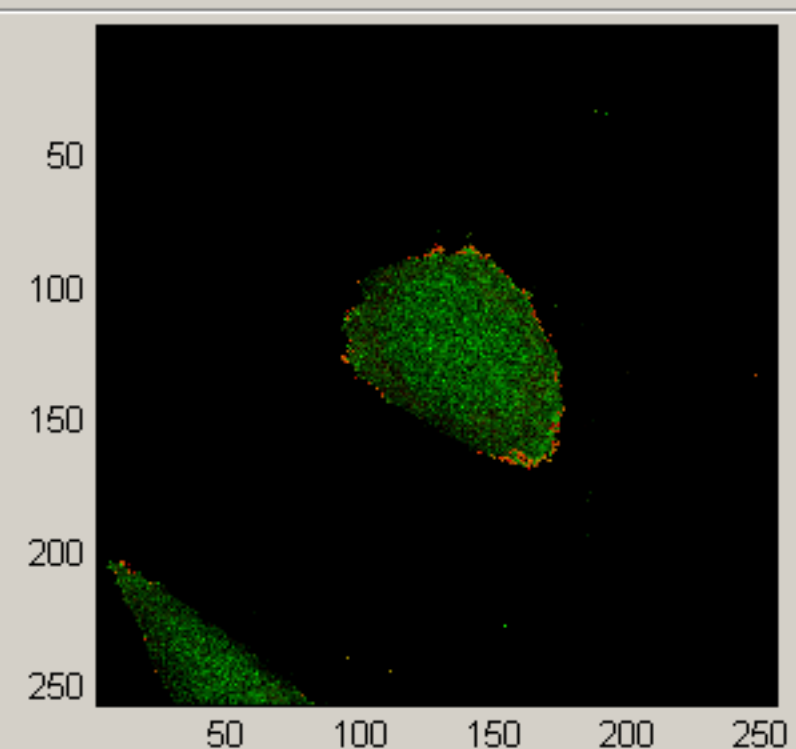
Check which axes you want to rotate around

☐ X ☐ Y ☐ Z

Number of degrees for rotation

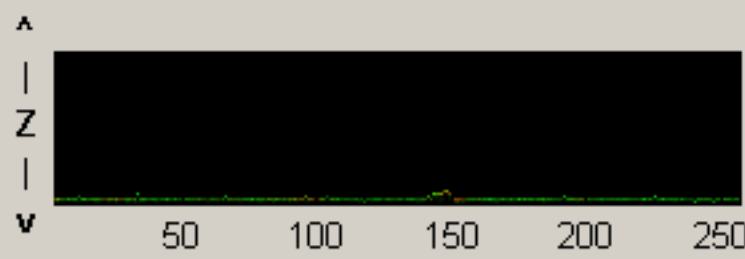
Preview

Create 3D Movie



Layer number:

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



row #

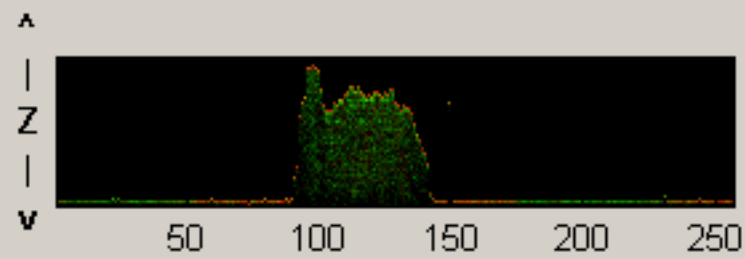
Create XY Movie

Create XY Snap shot

Create XZ Movie

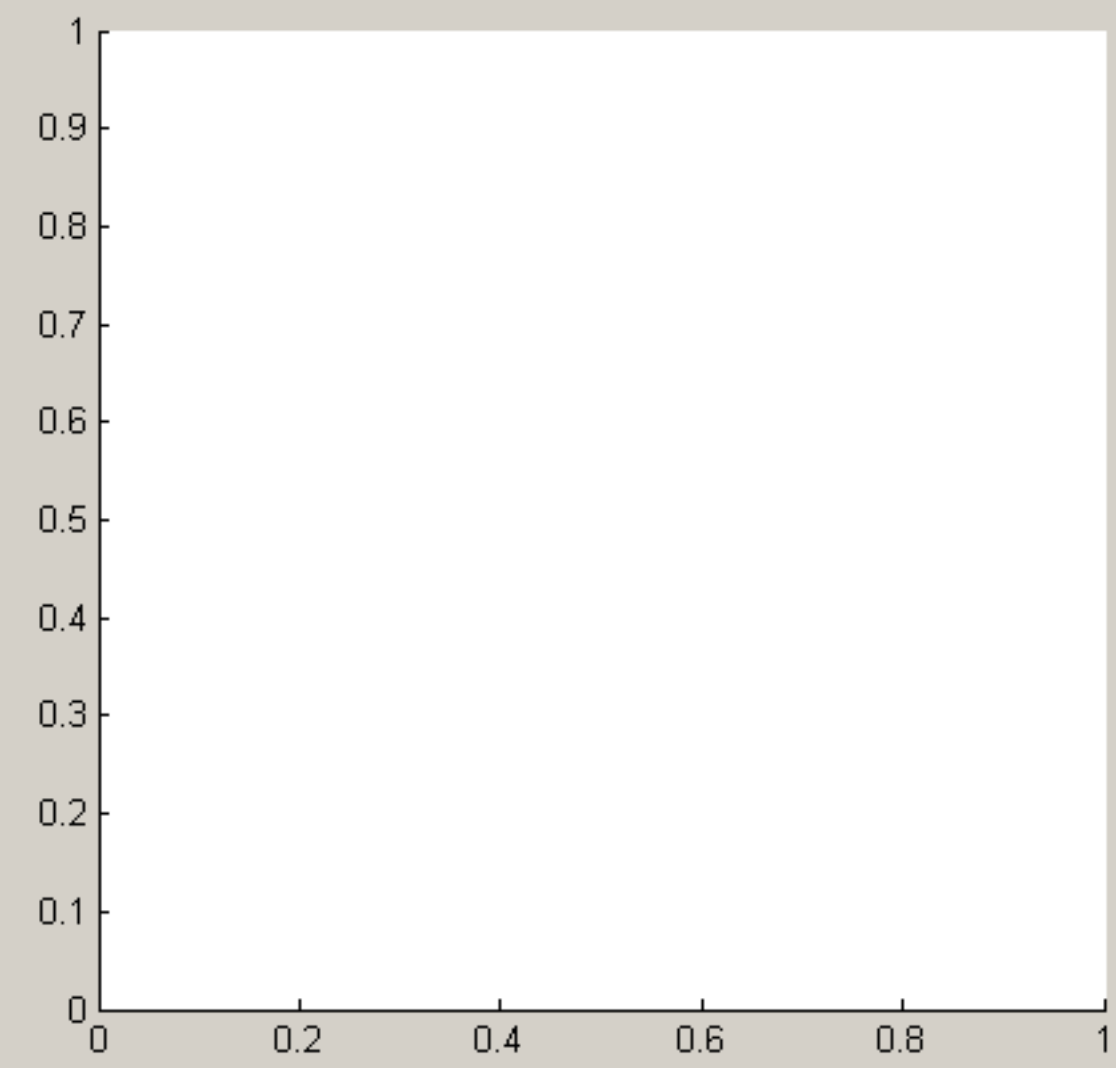
Create XZ Snap shot

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

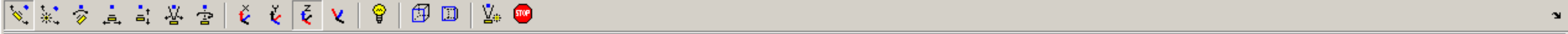


row #

The same can be done with the XZ...



Close Panel



Red Peak(s)	Green Peak(s)	Blue Peak(s)
None	None	None
Total_Counts	Total_Counts	Total_Counts
58.10555	58.10555	58.10555
70.13471	70.13471	70.13471
86.19242	86.19242	86.19242
104.2413	104.2413	104.2413
125.1504	125.1504	125.1504
166.2641	166.2641	166.2641
184.3038	184.3038	184.3038

Threshold for overlay =

Create Composite Image

Alpha value for 3D overlay =

View in 3D

Choose Background Color

Create 3D Snap Shot

Current background color

Z scale factor =

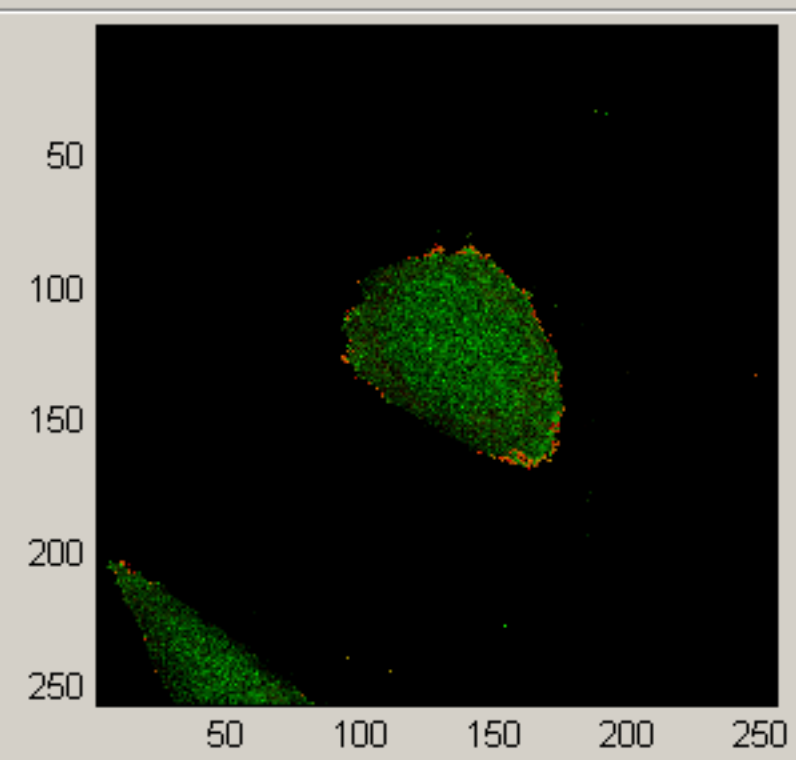
Check which axes you want to rotate around

☐ X ☐ Y ☐ Z

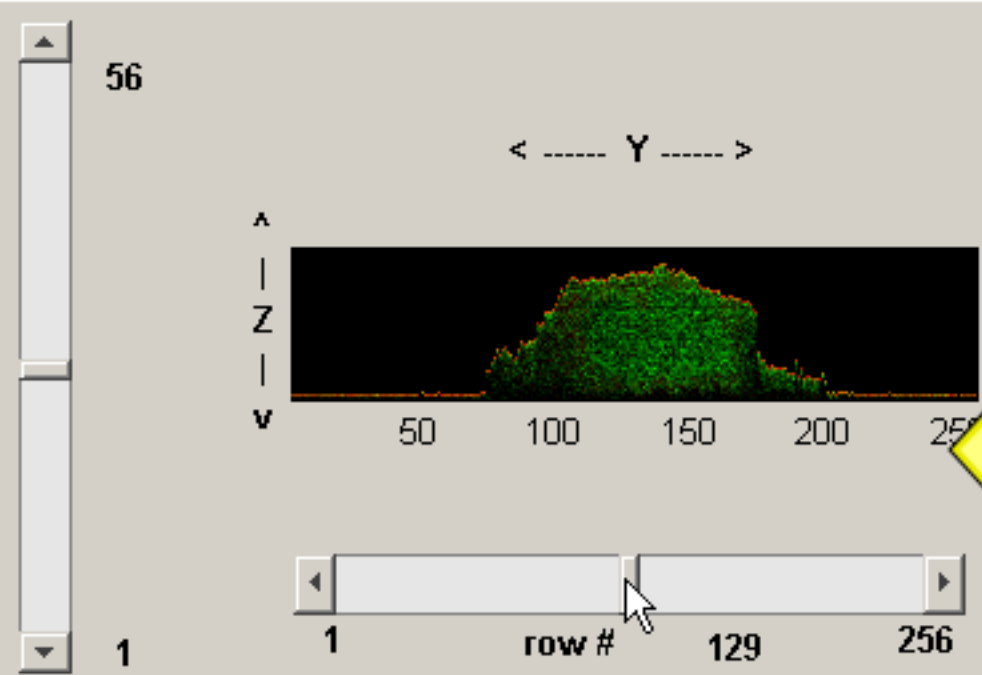
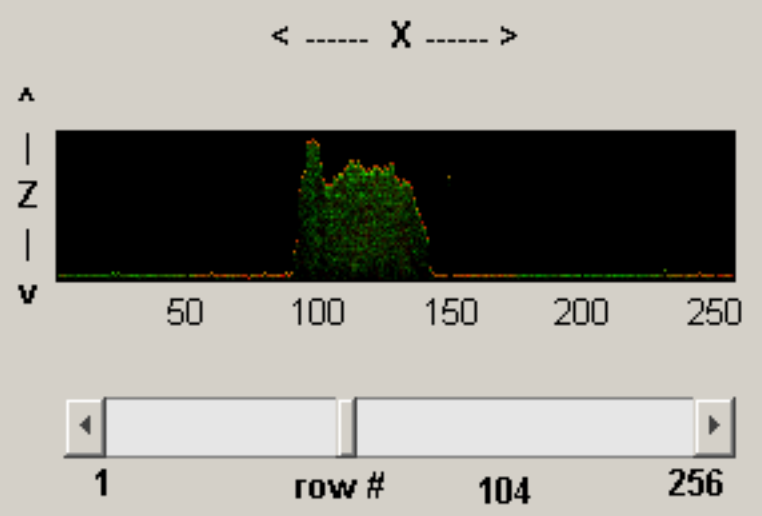
Number of degrees for rotation

Preview

Create 3D Movie



Layer number:



Create XY Movie

Create XY Snap shot

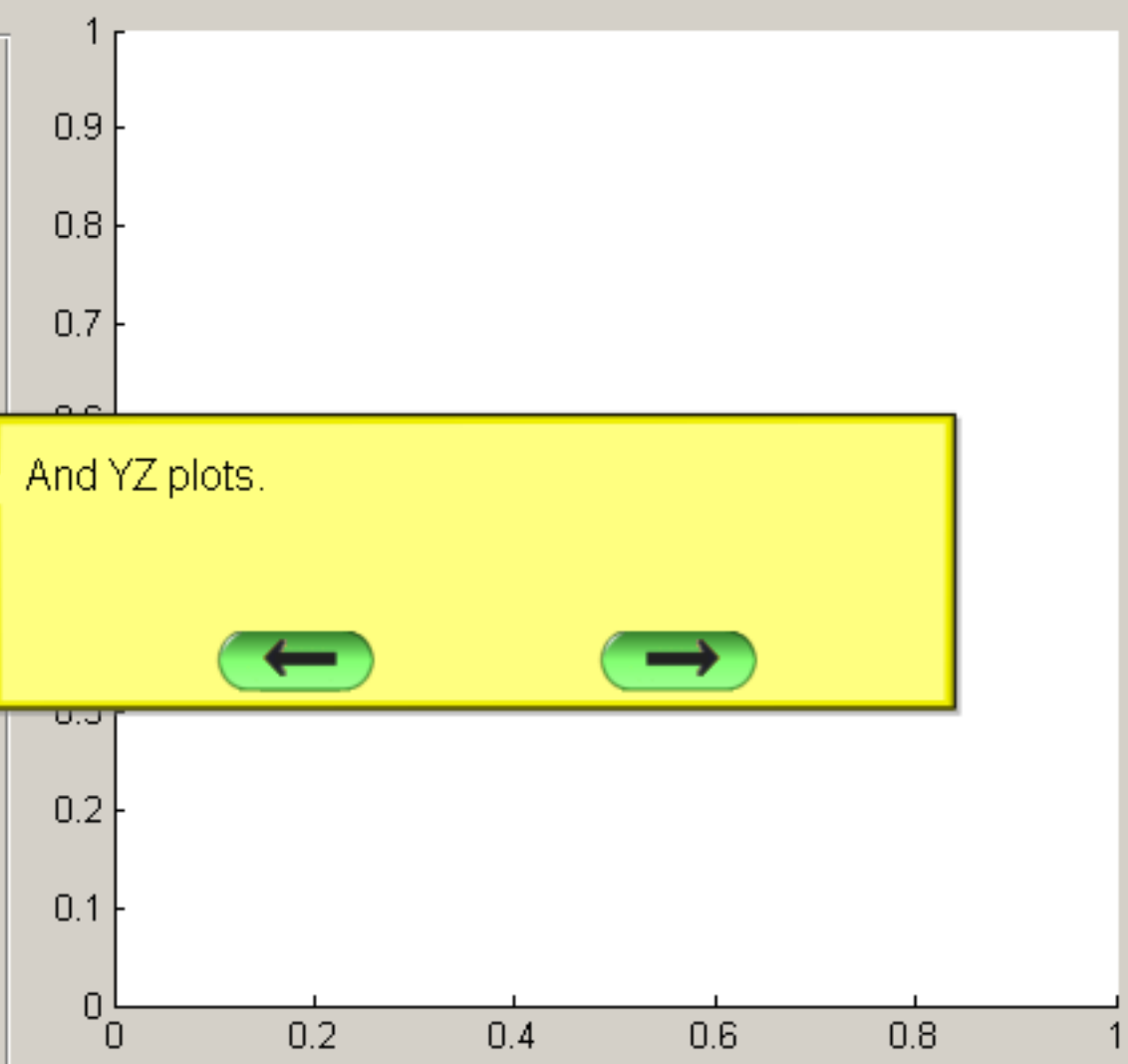
Create XZ Movie

Create XZ Snap shot

Create YZ Movie

Create YZ Snap Shot

And YZ plots.



Close Panel

Red Peak(s)	Green Peak(s)	Blue Peak(s)
None	None	None
Total_Counts	Total_Counts	Total_Counts
58.10555	58.10555	58.10555
70.13471	70.13471	70.13471
86.19242	86.19242	86.19242
104.2413	104.2413	104.2413
125.1504	125.1504	125.1504
166.2641	166.2641	166.2641
184.3038	184.3038	184.3038

Threshold for overlay =

Create Composite Image

Alpha value for 3D overlay =

View in 3D

Create 3D Snap Shot

Choose Background Color

Current background color

Z scale factor = 1

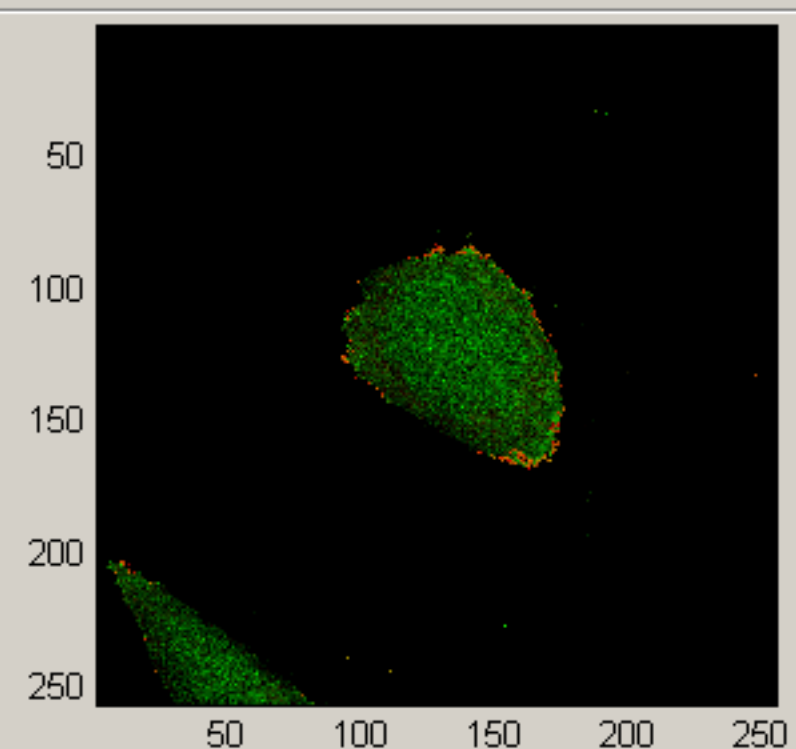
Check which axes you want to rotate around

☐ X ☐ Y ☐ Z

Number of degrees for rotation

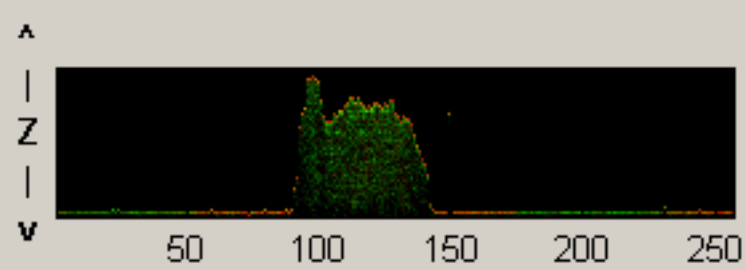
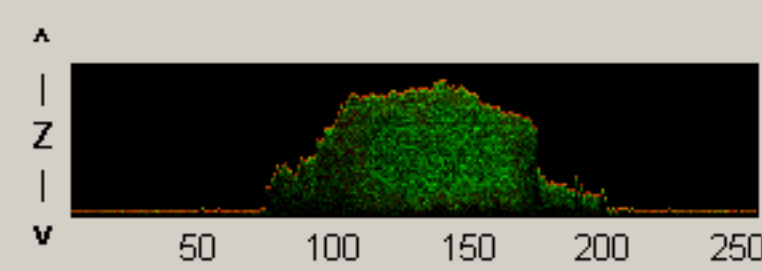
Preview

Create 3D Movie



Layer number:

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



Create XY Movie

Create XY Snap shot

Create XZ Movie

Create XZ Snap shot

Create YZ Movie

Create YZ Snap Shot

To save a snapshot of any of the three 2D views press the appropriate button. The file is automatically saved to the active Matlab directory.

Here we will save the current XY slice.

Close Panel

zcorrectorgui

work

File Edit View Favorites Tools Help

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Search

Folders

Address C:\Program Files\MATLAB\R2006b\work Go

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ION-TOF

IrfanView

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MATLAB

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demos

extern

help

ja

java

jhelp

notebook

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frames

McAfee

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Messenger

microsoft frontpage

Microsoft Office

Microsoft Silverlight

Microsoft Visual Studio

Microsoft Visual Studio 8

Microsoft Works

Microsoft.NET

MKS Toolkit

Molecular Fragment Calculator

Molecular Weight Calculator

Movie Maker

Mozilla Firefox

Mozilla Thunderbird

MSBuild

MSECache

MSN

MSN Gaming Zone

NetMeeting

Now Software

Name

Size

Type

Date Modified

frames

codeforpcaforzcorrector.asv

codefortransparencypixelfinder.asv

codeforzoffsetsfg.asv

codetofindpixelcountimagescorescrossplot.asv

CodeToResetCloseImageGuiPanels.asv

countpixels.asv

makepixellist.asv

matrixreduction.asv

OldCodeToInitializeGuiPanels.asv

testingnewxzimagemoviecode.asv

tryingtofigureout3DRGBoverlay.asv

3D_NEG.BIF

DAN01.BIF

TIMAGE.BIF

1100_02.BIF6

5100_01.BIF6

S2149_allpos.BIF6

sumimage.BIF6

test.BIF6

OverlayXYSnapshot.jpg

default.fig

fooslider.fig

H1overlay.fig

imagedicer.fig

save_image_tutorial.fig

saveimagefromguigui.fig

spectragui_old.fig

spectragui_pd.fig

test.fig

testingcrap.fig

codeforchangingcolormaprotationthing.m

codeforpcaforzcorrector.m

codefortransparencypixelfinder.m

codeforzoffsetmultpeaks.m

codeforzoffsetsfg.m

CodeToResetCloseImageGuiPanels.m

fooslider.m

matrixreduction.m

OldCodeToInitializeGuiPanels.m

scrolldemo.m

Name	Size	Type	Date Modified
frames		File Folder	6/23/2011 9:46 AM
codeforpcaforzcorrector.asv	2 KB	ASV File	4/26/2011 3:47 PM
codefortransparencypixelfinder.asv	1 KB	ASV File	3/31/2011 9:25 AM
codeforzoffsetsfg.asv	2 KB	ASV File	7/28/2010 2:24 PM
codetofindpixelcountimagescorescrossplot.asv	1 KB	ASV File	11/8/2010 3:56 PM
CodeToResetCloseImageGuiPanels.asv	12 KB	ASV File	2/2/2011 5:33 PM
countpixels.asv	2 KB	ASV File	11/16/2010 1:22 PM
makepixellist.asv	1 KB	ASV File	11/16/2010 12:57 PM
matrixreduction.asv	2 KB	ASV File	1/6/2011 6:01 PM
OldCodeToInitializeGuiPanels.asv	28 KB	ASV File	2/3/2011 11:33 AM
testingnewxzimagemoviecode.asv	2 KB	ASV File	4/22/2011 3:28 PM
tryingtofigureout3DRGBoverlay.asv	2 KB	ASV File	4/7/2011 9:38 AM
3D_NEG.BIF	2,945 KB	BIF File	6/28/2010 12:17 PM
DAN01.BIF	2,817 KB	BIF File	1/4/2010 4:48 PM
TIMAGE.BIF	8,580 KB	BIF File	4/29/2010 2:15 PM
1100_02.BIF6	38,403 KB	BIF6 File	10/4/2010 12:16 PM
5100_01.BIF6	5,889 KB	BIF6 File	10/15/2010 4:26 PM
S2149_allpos.BIF6	48,899 KB	BIF6 File	12/16/2010 12:02 PM
sumimage.BIF6	7,937 KB	BIF6 File	5/12/2011 5:02 PM
test.BIF6			
OverlayXYSnapshot.jpg			
default.fig			
fooslider.fig			
H1overlay.fig			
imagedicer.fig			
save_image_tutorial.fig			
saveimagefromguigui.fig	4 KB	MATLAB...	5/3/2010 2:35 PM
spectragui_old.fig	23 KB	MATLAB...	1/11/2010 4:57 PM
spectragui_pd.fig	44 KB	MATLAB...	1/21/2010 1:29 PM
test.fig	48 KB	MATLAB...	9/30/2010 2:22 PM
testingcrap.fig	2 KB	MATLAB...	3/12/2010 10:41 AM
codeforchangingcolormaprotationthing.m	3 KB	MATLAB...	6/22/2011 10:03 AM
codeforpcaforzcorrector.m	2 KB	MATLAB...	4/26/2011 3:52 PM
codefortransparencypixelfinder.m	1 KB	MATLAB...	3/31/2011 9:30 AM
codeforzoffsetmultpeaks.m	2 KB	MATLAB...	9/2/2010 2:33 PM
codeforzoffsetsfg.m	2 KB	MATLAB...	7/29/2010 12:31 PM
CodeToResetCloseImageGuiPanels.m	18 KB	MATLAB...	2/2/2011 5:48 PM
fooslider.m	6 KB	MATLAB...	8/9/2010 8:58 AM
matrixreduction.m	2 KB	MATLAB...	1/6/2011 6:03 PM
OldCodeToInitializeGuiPanels.m	28 KB	MATLAB...	2/3/2011 11:37 AM
scrolldemo.m	1 KB	MATLAB...	1/4/2011 4:47 PM

check which axes you want to rotate around

☐ X ☐ Y ☐ Z

number of degrees for rotation

360

Preview

Create 3D Movie

50

100

150

200

250

50

Layer

A

Z

V

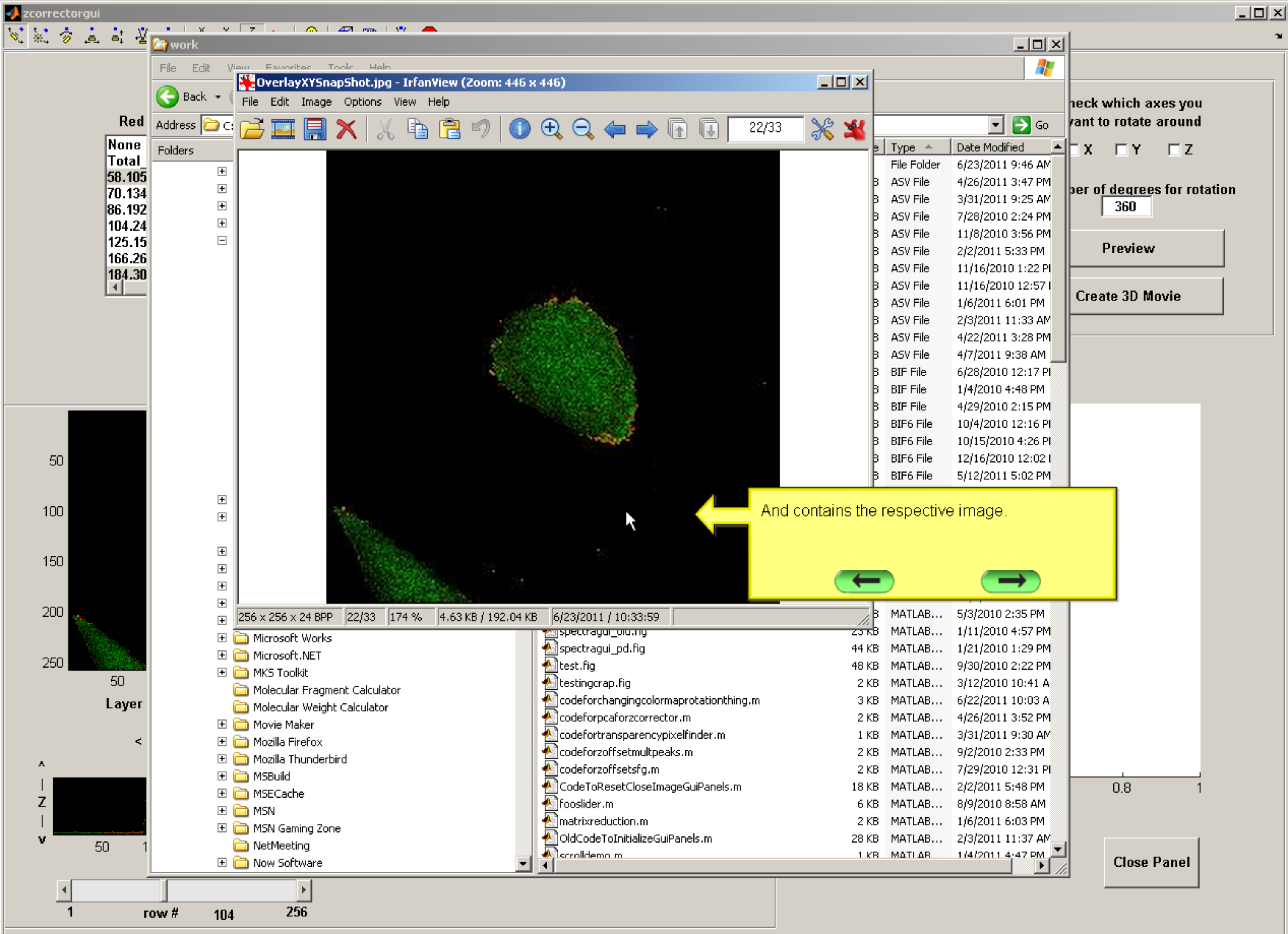
50

1

1 row # 104 256

The file is automatically named according to the image exported.

Close Panel



Red Peak(s)	Green Peak(s)	Blue Peak(s)
None	None	None
Total_Counts	Total_Counts	Total_Counts
58.10555	58.10555	58.10555
70.13471	70.13471	70.13471
86.19242	86.19242	86.19242
104.2413	104.2413	104.2413
125.1504	125.1504	125.1504
166.2641	166.2641	166.2641
184.3038	184.3038	184.3038

Threshold for overlay =

Create Composite Image

Alpha value for 3D overlay =

View in 3D

Choose Background Color

Create 3D Snap Shot

Current background color

Z scale factor =

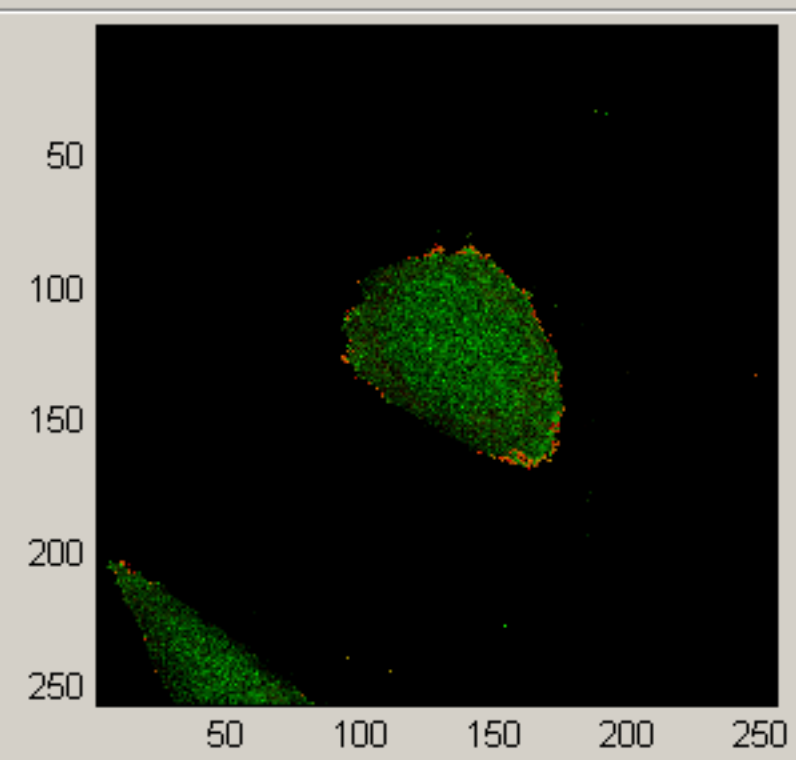
Check which axes you want to rotate around

☐ X ☐ Y ☐ Z

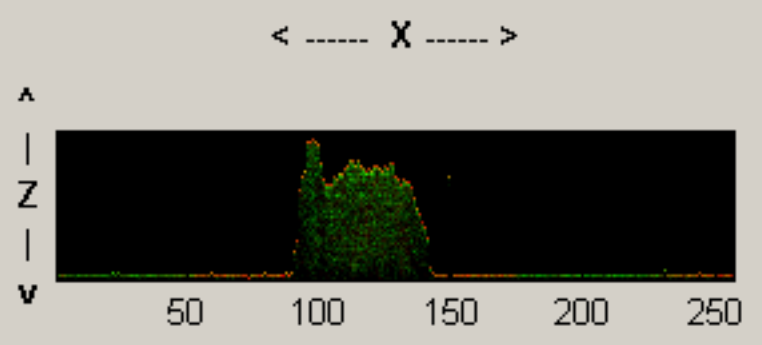
Number of degrees for rotation

Preview

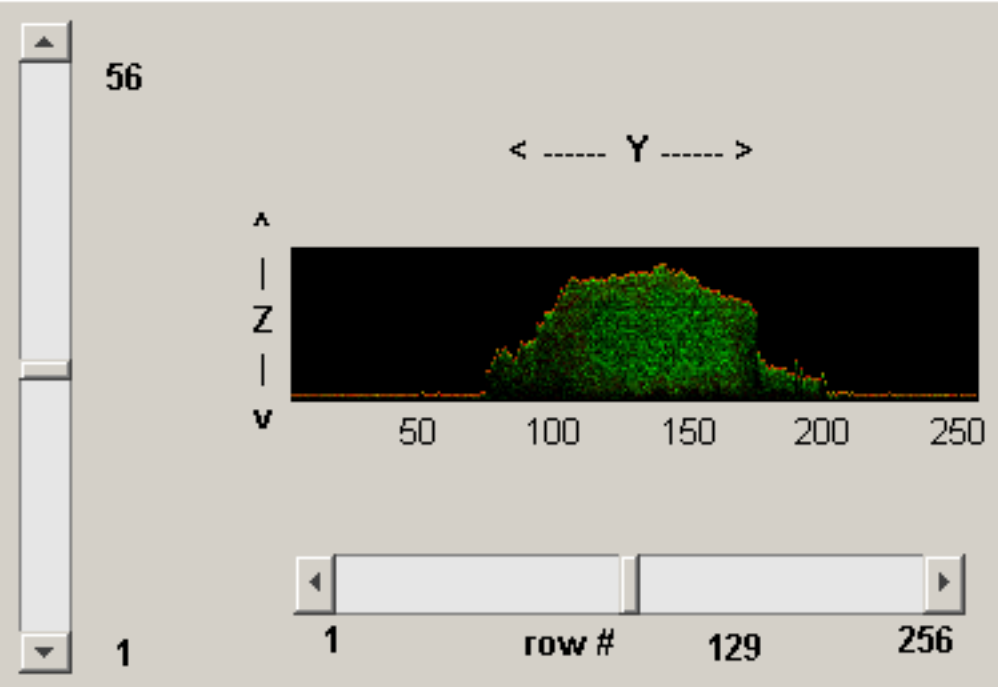
Create 3D Movie



Layer number:



row #



Create XY Movie

Create XZ Movie

Create YZ Movie

You can also save a movie showing sequential slices in XY, XZ or YZ by pressing the appropriate button.

Here we will make an XY slice movie by pressing the 'Create XY Movie' button.

Close Panel

zcorrectorgui

Red Peak(s)
None
Total_Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038

Green Peak(s)
None
Total_Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038

Blue Peak(s)
None
Total_Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038

Threshold for overlay = 0

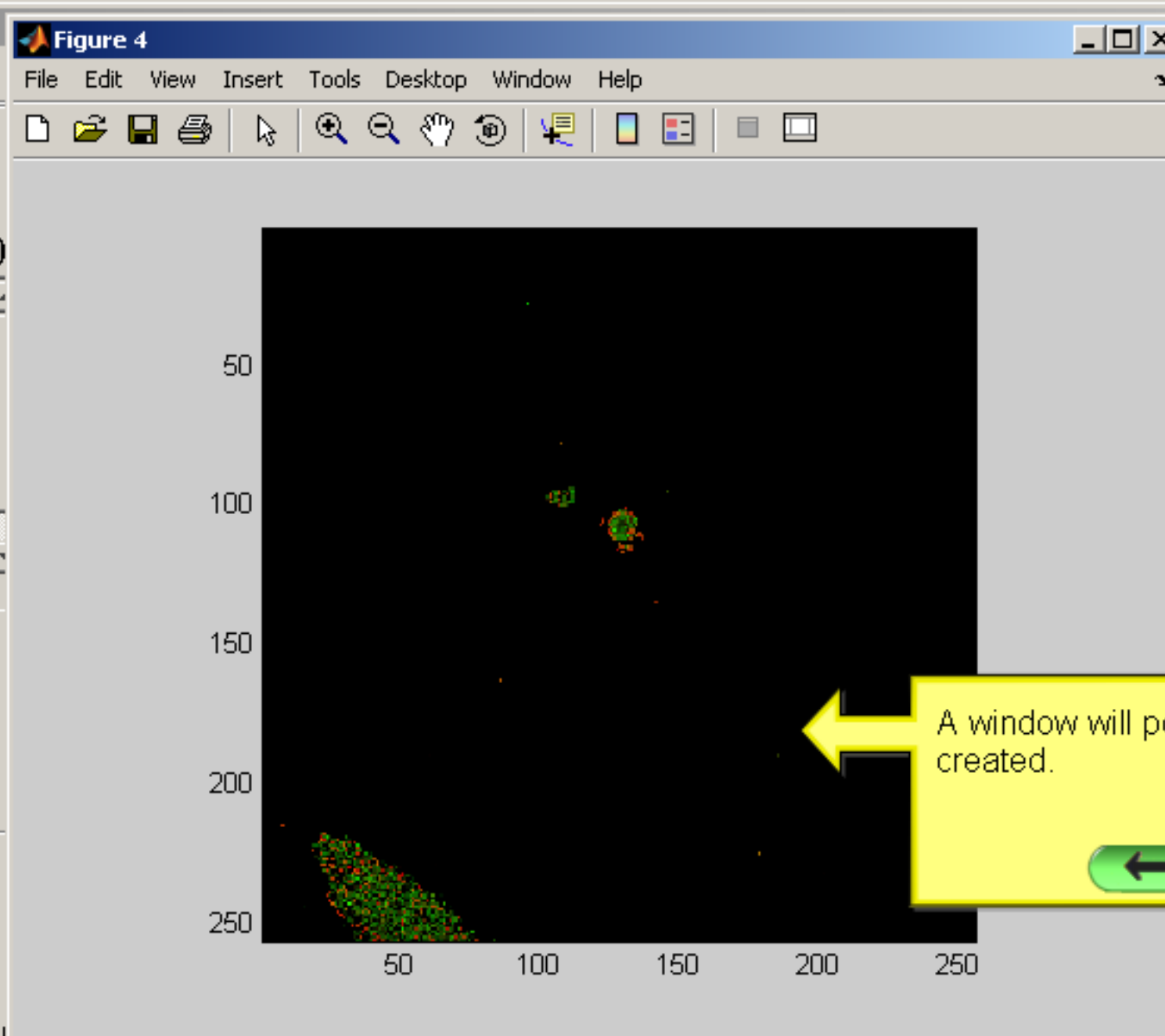
Create Composite Image

56

Layer number: 26

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

row # 104 256



Check which axes you want to rotate around

☐ X ☐ Y ☐ Z

Number of degrees for rotation

360

Preview

Create 3D Movie

A window will pop up and play the movie as it is created.

row # 1 129 256

Create XY Movie

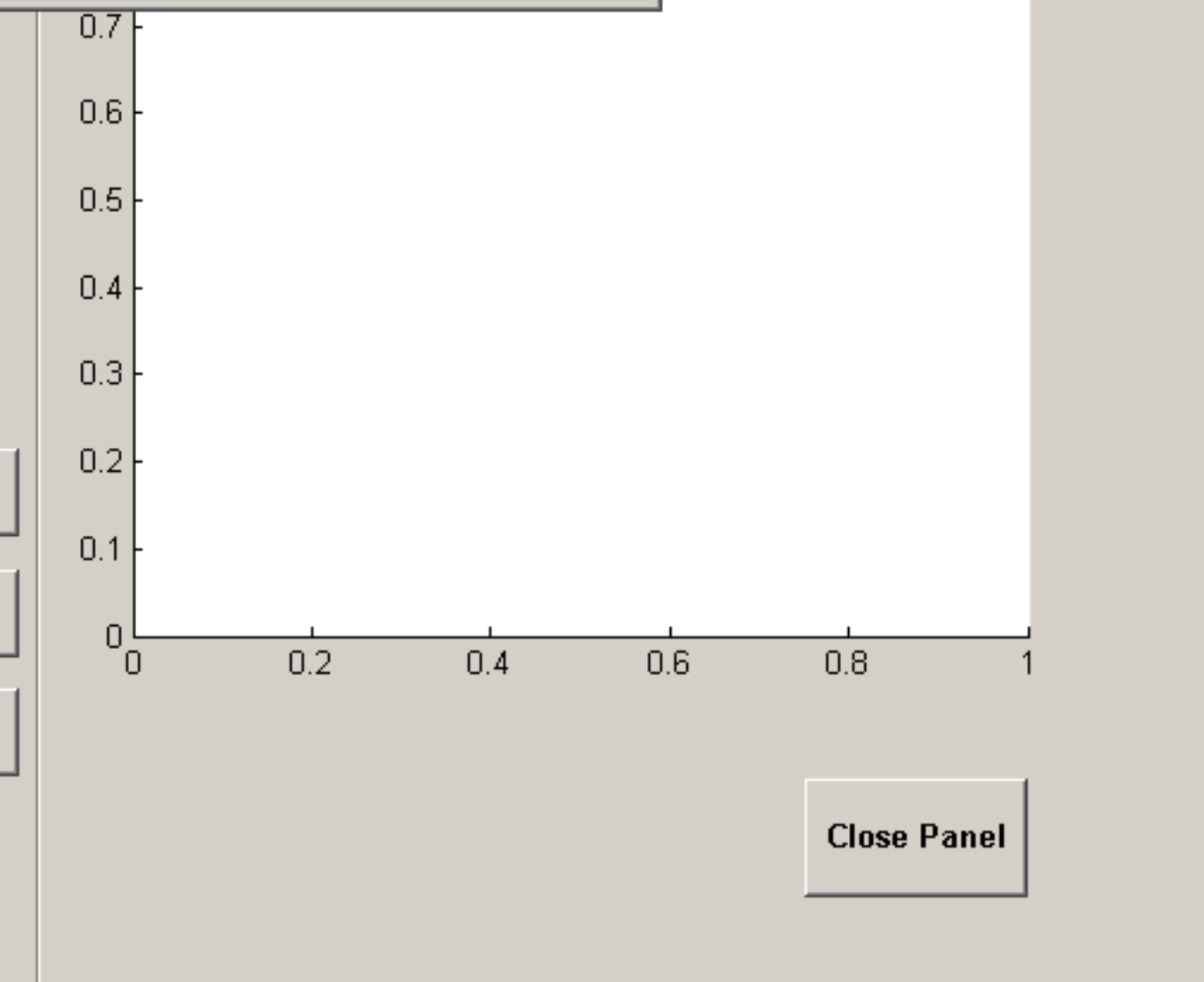
Create XY Snap shot

Create XZ Movie

Create XZ Snap shot

Create YZ Movie

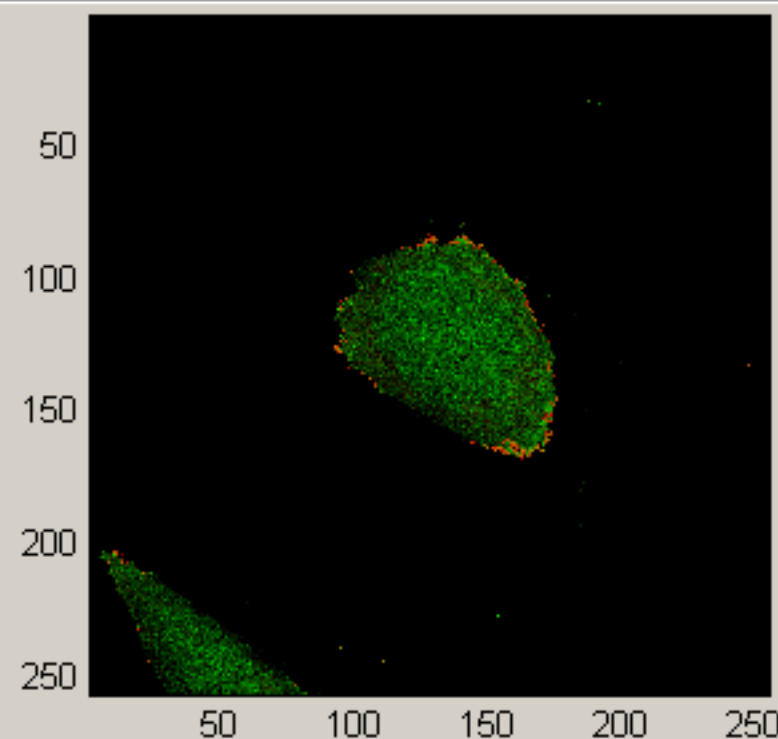
Create YZ Snap Shot



Red Peak(s)	Green Peak(s)	Blue Peak(s)
None	None	None
Total_Counts	Total_Counts	Total_Counts
58.10555	58.10555	58.10555
70.13471	70.13471	70.13471
86.19242	86.19242	86.19242
104.2413	104.2413	104.2413
125.1504	125.1504	125.1504
166.2641	166.2641	166.2641
184.3038	184.3038	184.3038

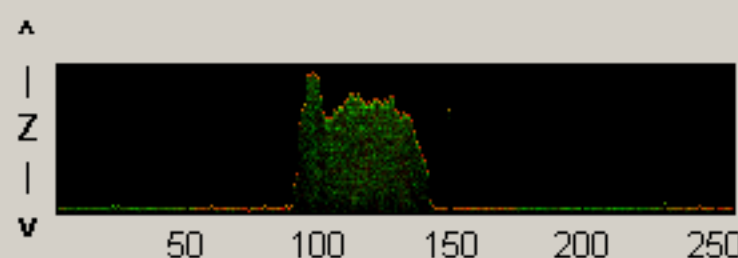
Threshold for overlay = 0

Create Composite Image

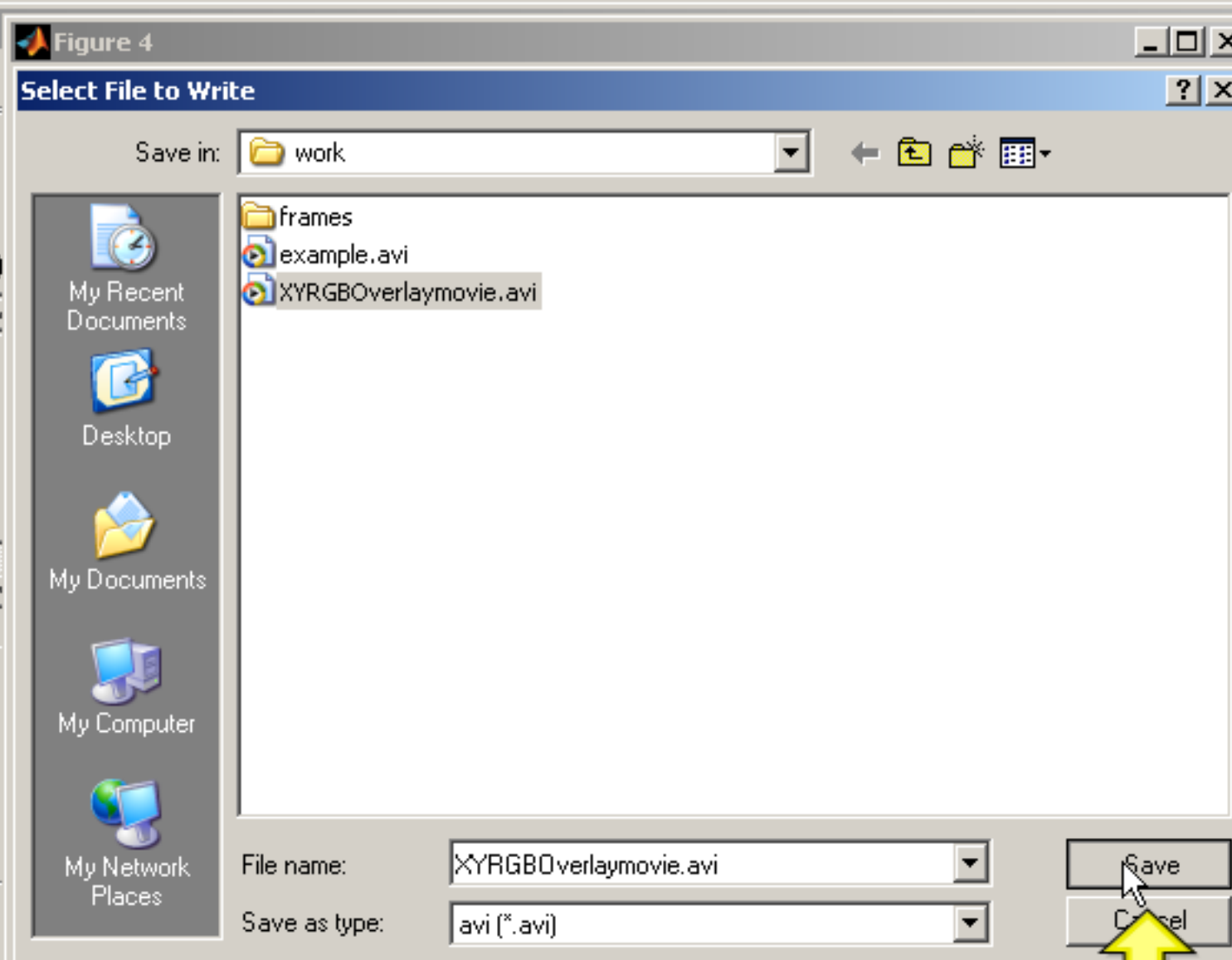


Layer number: 26

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



row # 1 104 256



After it is done a dialog will open to allow you to save the file. Choose a location, give the file a name and press the 'Save' button. Saving can take awhile because the movies are saved as uncompressed .avi files.

Check which axes you want to rotate around

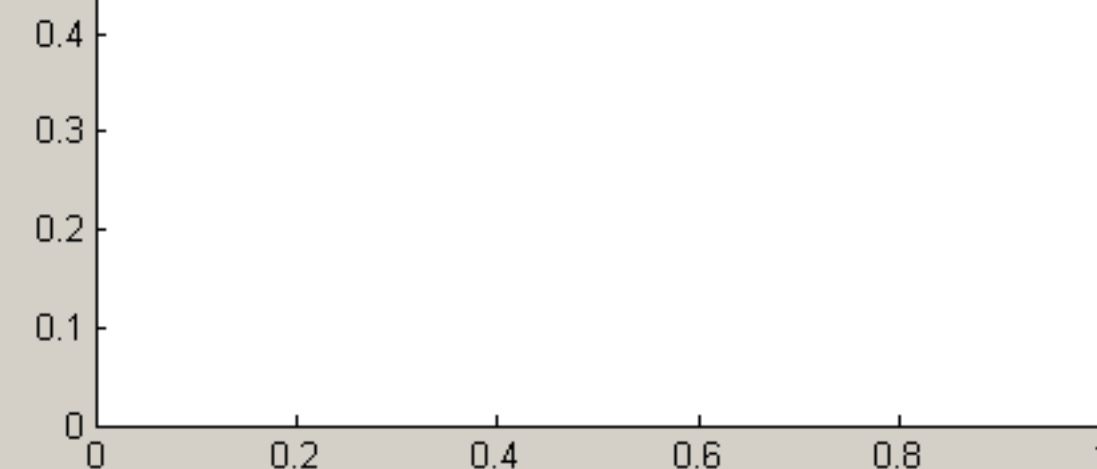
☐ X ☐ Y ☐ Z

Number of degrees for rotation

360

Preview

Create 3D Movie



Close Panel

Create XY Movie

Create XY Snap shot

Create XZ Movie

Create XZ Snap shot

Create YZ Movie

Create YZ Snap Shot

zcorrectorgui

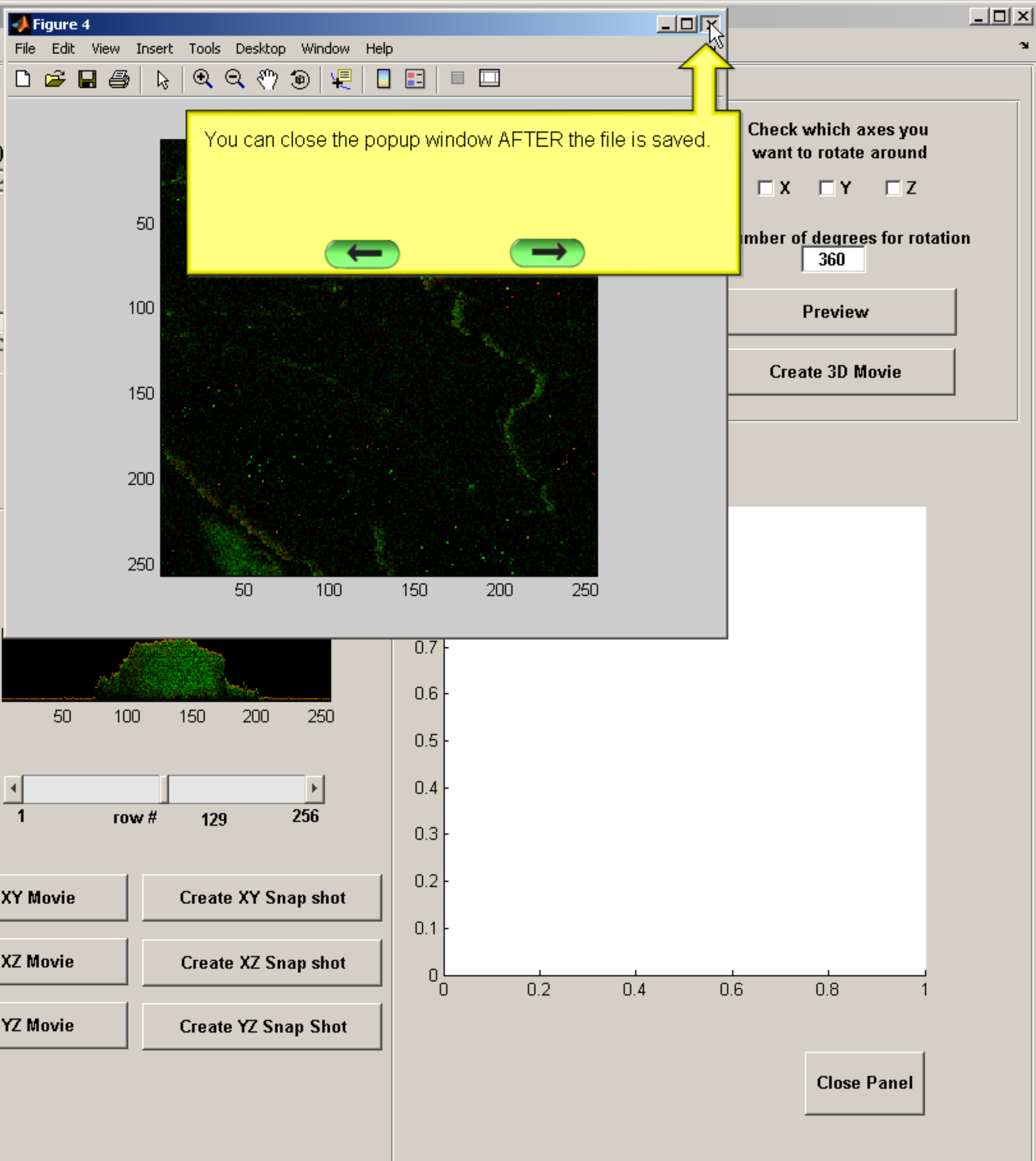
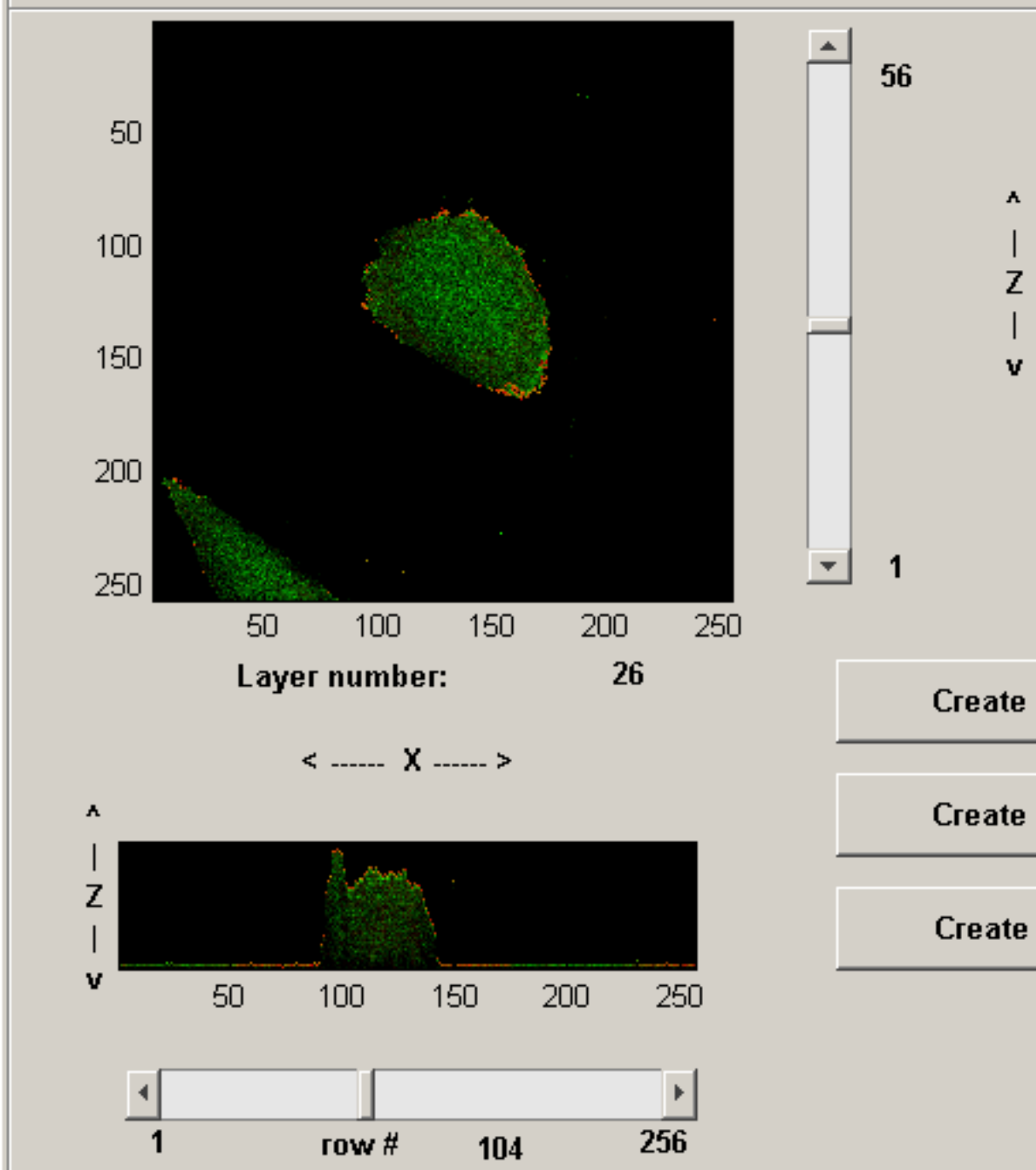
Red Peak(s)
None
Total_Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038

Green Peak(s)
None
Total_Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038

Blue Peak(s)
None
Total_Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038

Threshold for overlay = 0

Create Composite Image





Red	Green	Blue
None	None	None
Total	Total	Total
58.1055	58.1055	58.1055
70.1347	70.1347	70.1347
86.1924	86.1924	86.1924
104.2418	104.2418	104.2418
125.1504	125.1504	125.1504
166.2641	166.2641	166.2641
184.3038	184.3038	184.3038

This area contains the controls for creating a 3D RGB overlay plot.

Threshold for overlay = 0

Create Composite Image

Alpha value for 3D overlay = 1

View in 3D

Choose Background Color

Create 3D Snap Shot

Current background color

10

Z scale factor = 1

0

Check which axes you want to rotate around

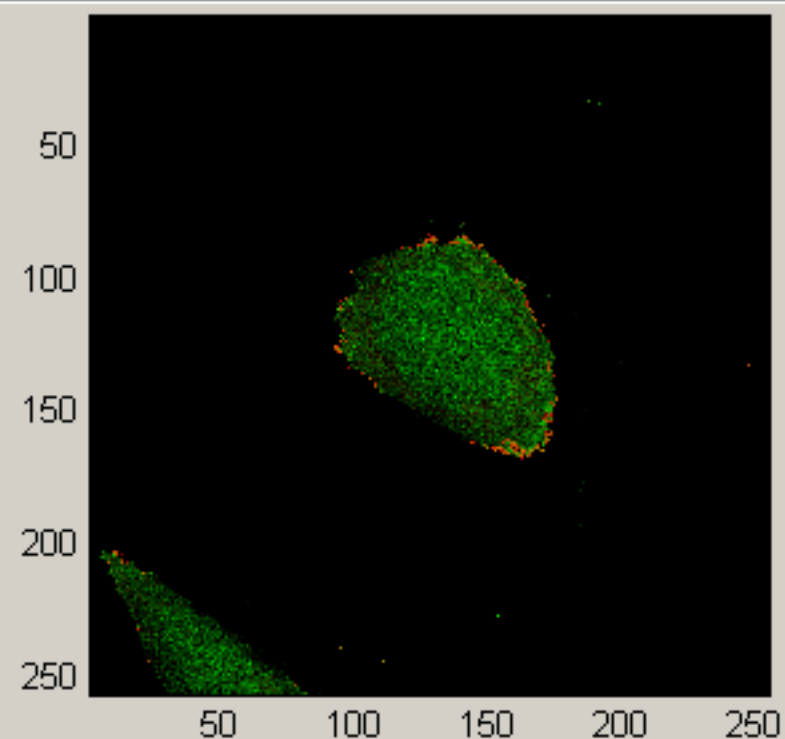
☐ X ☐ Y ☐ Z

Number of degrees for rotation

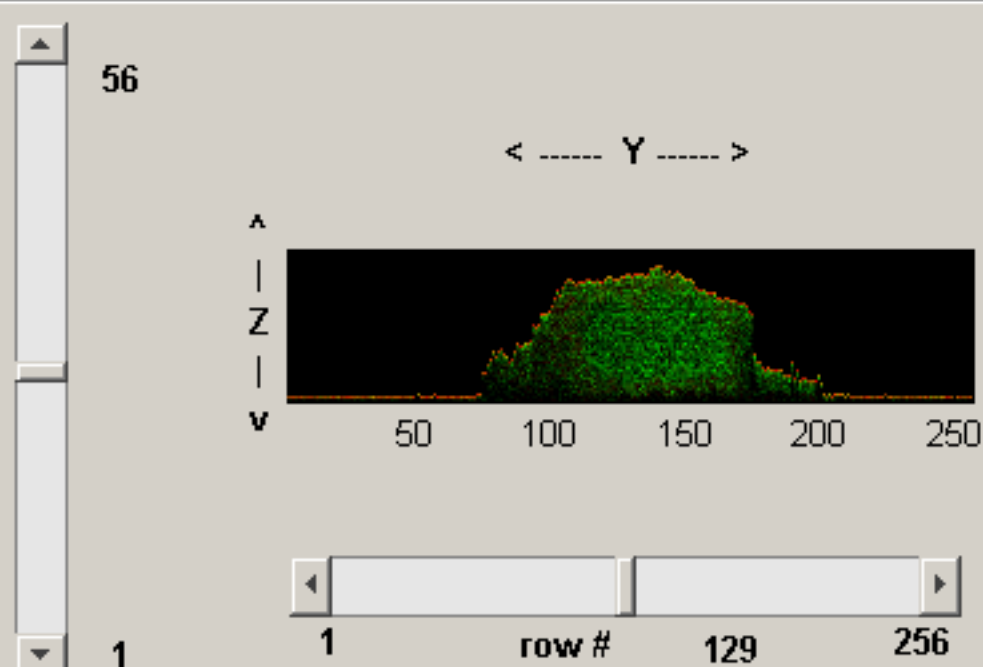
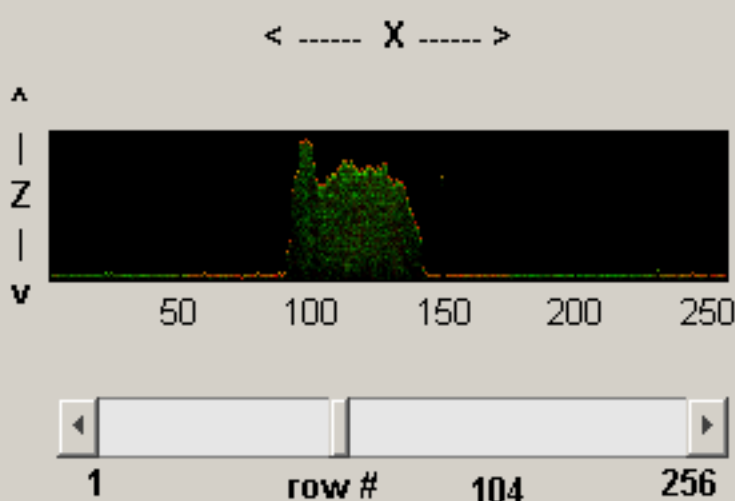
360

Preview

Create 3D Movie



Layer number: 26



Create XY Movie

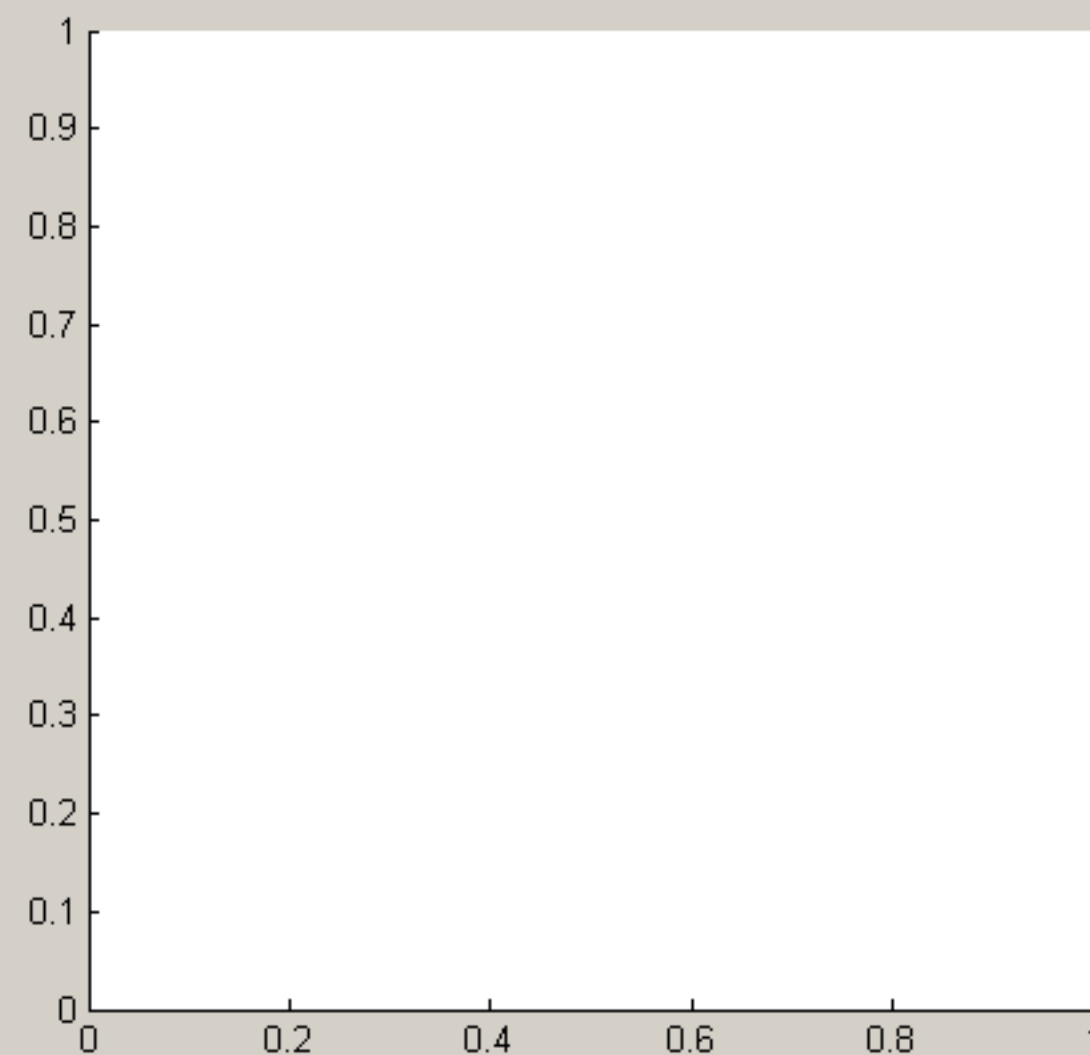
Create XY Snap shot

Create XZ Movie

Create XZ Snap shot

Create YZ Movie

Create YZ Snap Shot



Close Panel

Red Peak(s)	Green Peak(s)	Blue Peak(s)
None	None	None
Total Count		
58.10555		
70.13471		
86.19242		
104.2413		
125.1504		
166.2641		
184.3038		

Press the 'View in 3D' button to create a 3D plot.



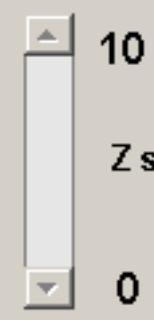
Threshold for overlay = 0

Create Composite Image

Alpha value for 3D overlay = 1

View in 3D

Create 3D Snap Shot



Z scale factor = 1

Choose Background Color

Current background color

Check which axes you want to rotate around

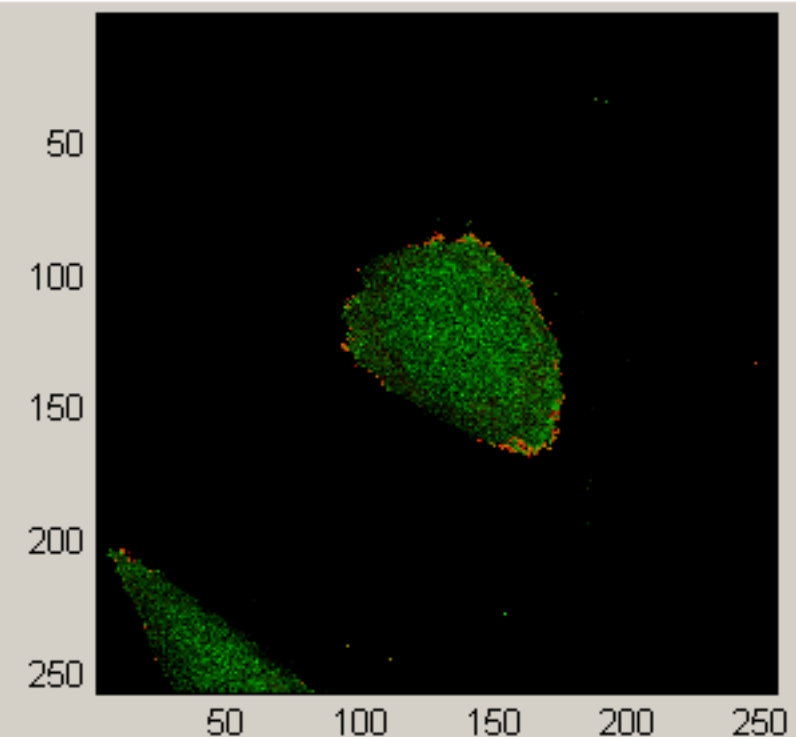
☐ X ☐ Y ☐ Z

Number of degrees for rotation

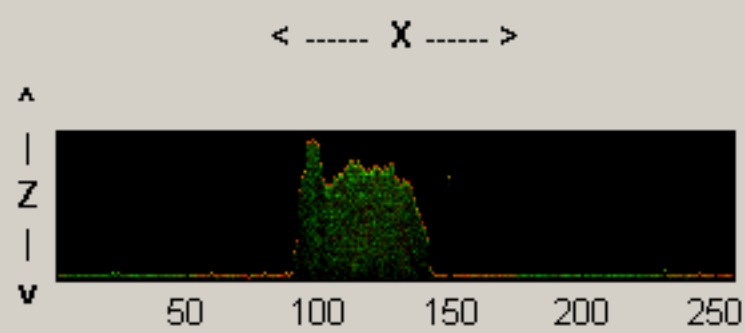
360

Preview

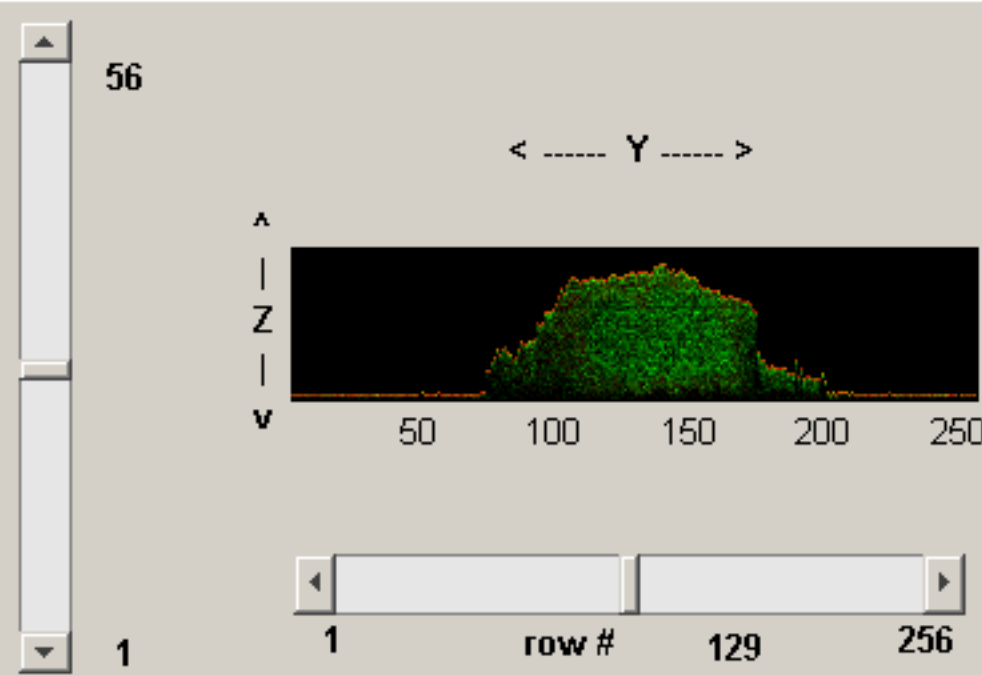
Create 3D Movie



Layer number: 26



row # 104



Create XY Movie

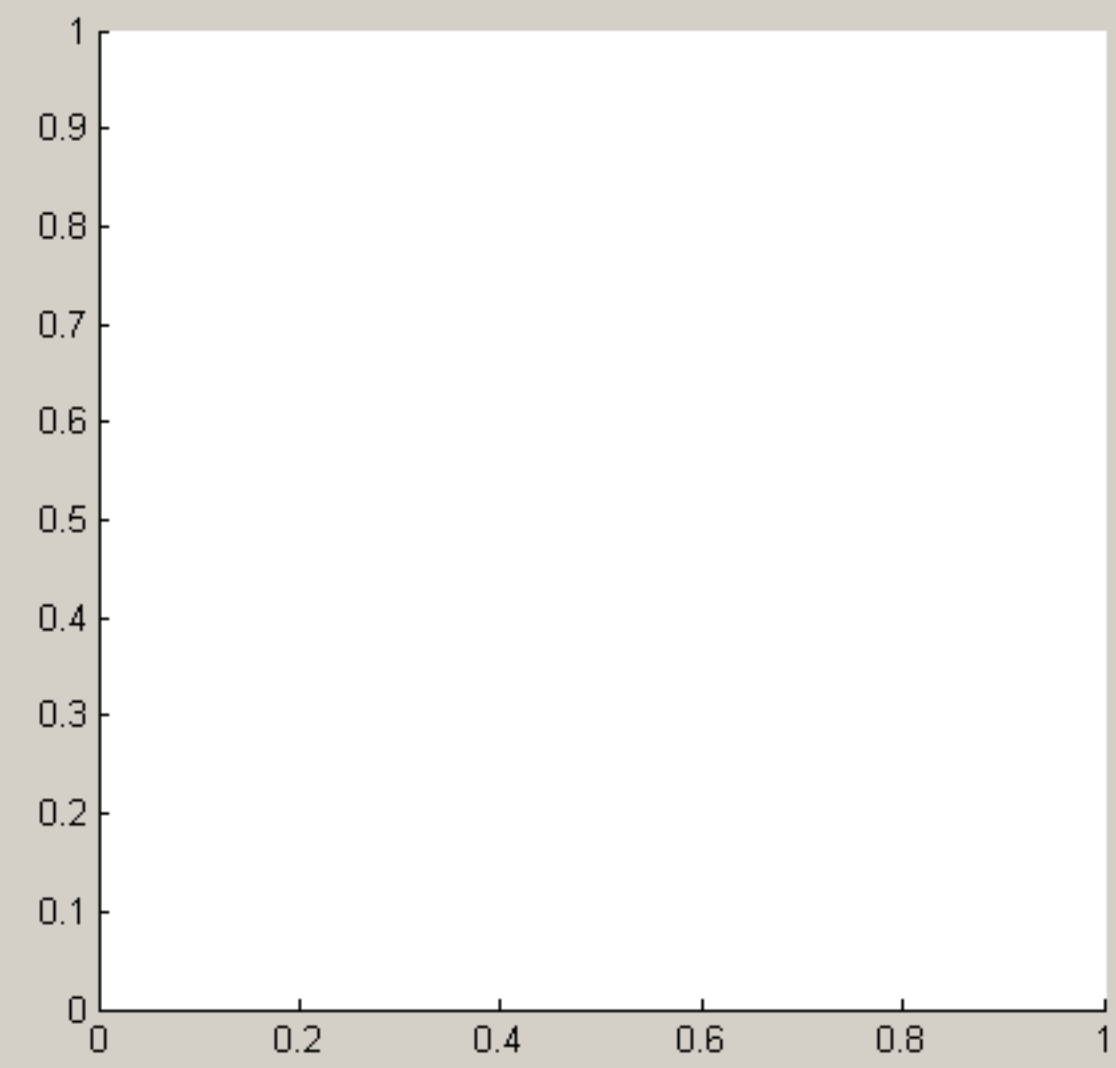
Create XY Snap shot

Create XZ Movie

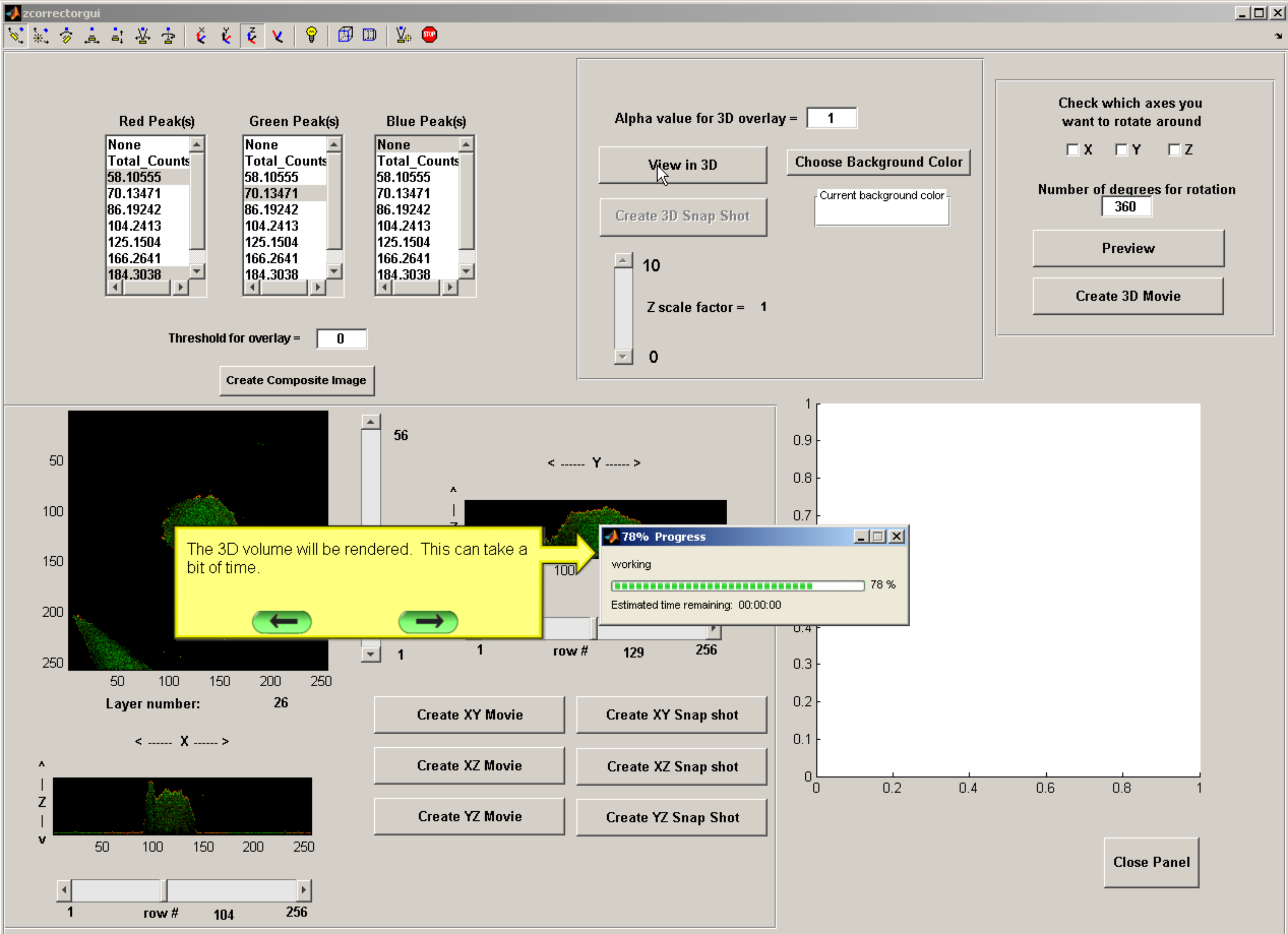
Create XZ Snap shot

Create YZ Movie

Create YZ Snap Shot



Close Panel



Red Peak(s)	Green Peak(s)	Blue Peak(s)
None	None	None
Total_Counts	Total_Counts	Total_Counts
58.10555	58.10555	58.10555
70.13471	70.13471	70.13471
86.19242	86.19242	86.19242
104.2413	104.2413	104.2413
125.1504	125.1504	125.1504
166.2641	166.2641	166.2641
184.3038	184.3038	184.3038

Threshold for overlay =

Create Composite Image

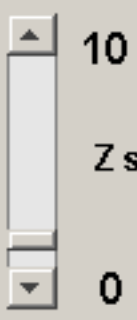
Alpha value for 3D overlay =

View in 3D

Create 3D Snap Shot

Choose Background Color

Current background color



Z scale factor =

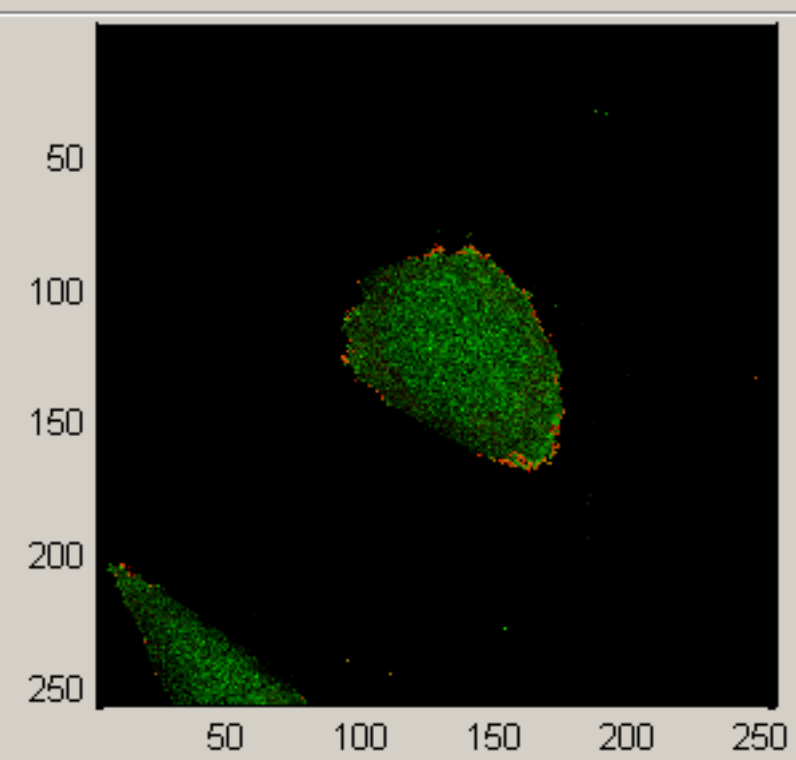
Check which axes you want to rotate around

☐ X ☐ Y ☐ Z

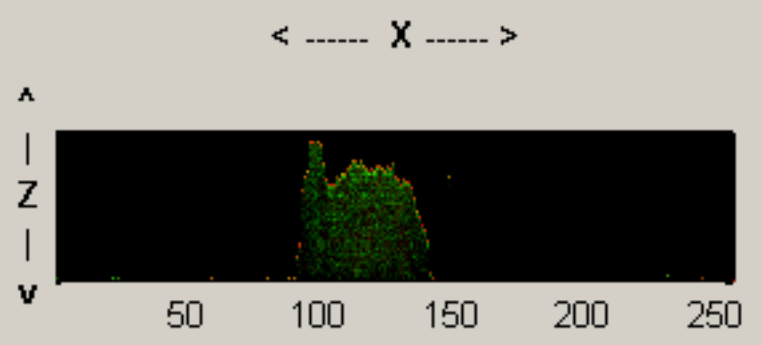
Number of degrees for rotation

Preview

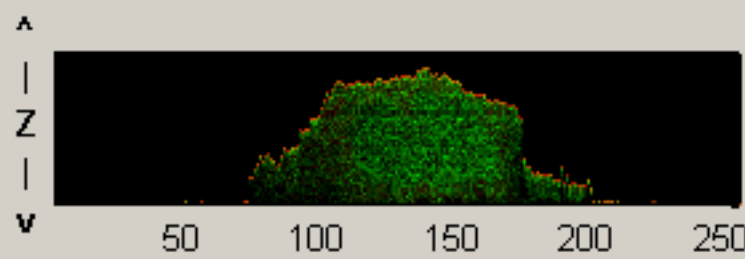
Create 3D Movie



Layer number:



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



The 3D plot is created.



Create XY Movie

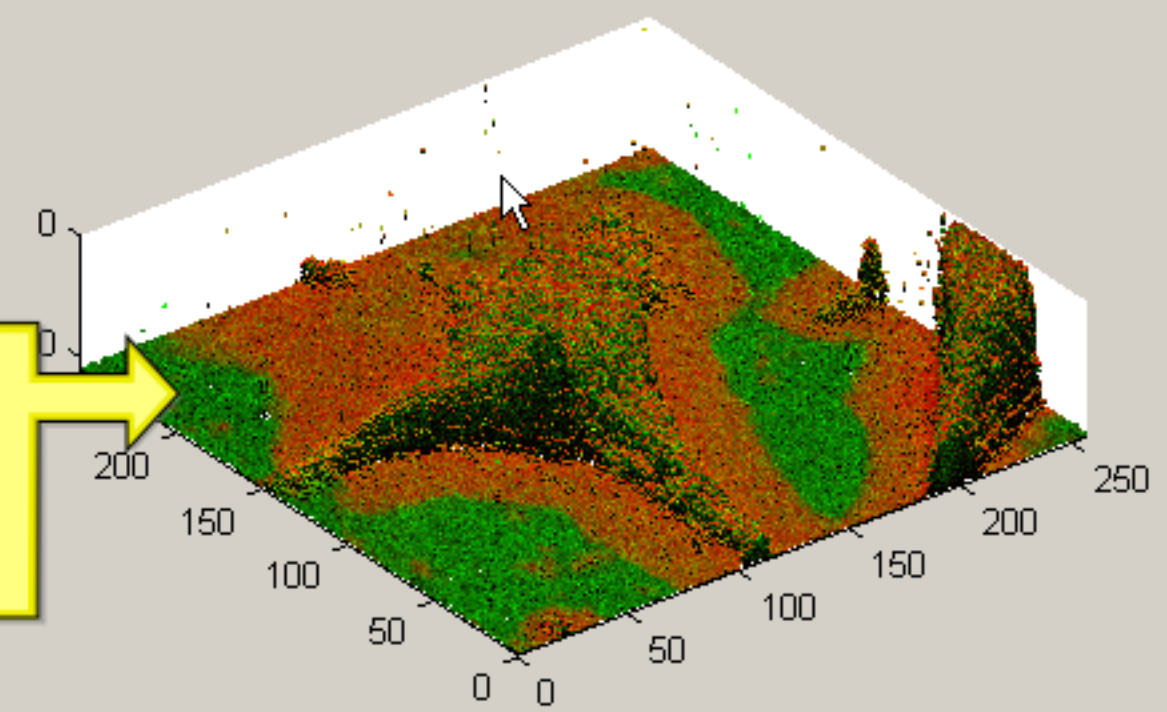
Create XY Snap shot

Create XZ Movie

Create XZ Snap shot

Create YZ Movie

Create YZ Snap Shot



Close Panel



Red Peak(s)	Green Peak(s)	Blue Peak(s)
None	None	None
Total_Counts	Total_Counts	Total_Counts
58.10555	58.10555	58.10555
70.13471	70.13471	70.13471
86.19242	86.19242	86.19242
104.2413	104.2413	104.2413
125.1504	125.1504	125.1504
166.2641	166.2641	166.2641
184.3038	184.3038	184.3038

Threshold for overlay =

Create Composite Image

Alpha value for 3D overlay =

View in 3D

Create 3D Snap Shot

Choose Background Color

Current background color

Z scale factor =

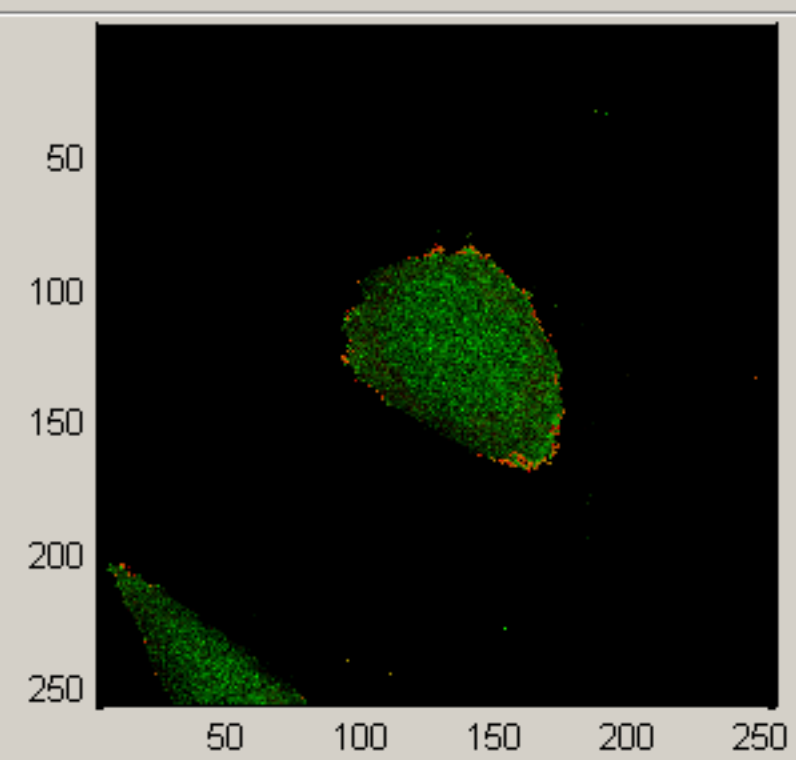
Check which axes you want to rotate around

☐ X ☐ Y ☐ Z

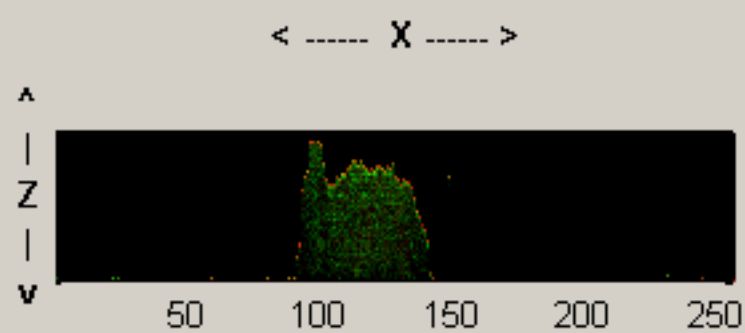
Number of degrees for rotation

Preview

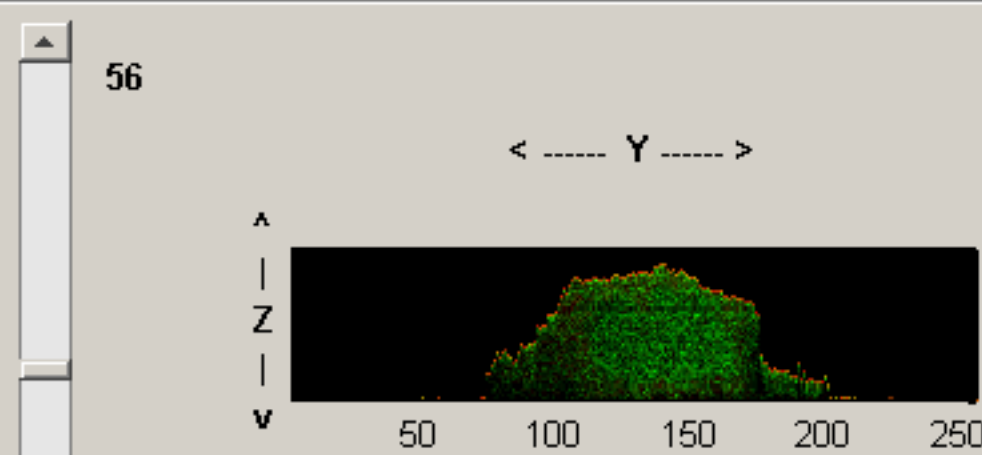
Create 3D Movie



Layer number:



row #



You can rotate the image by clicking and dragging on the plot in any direction.



Create XY Movie

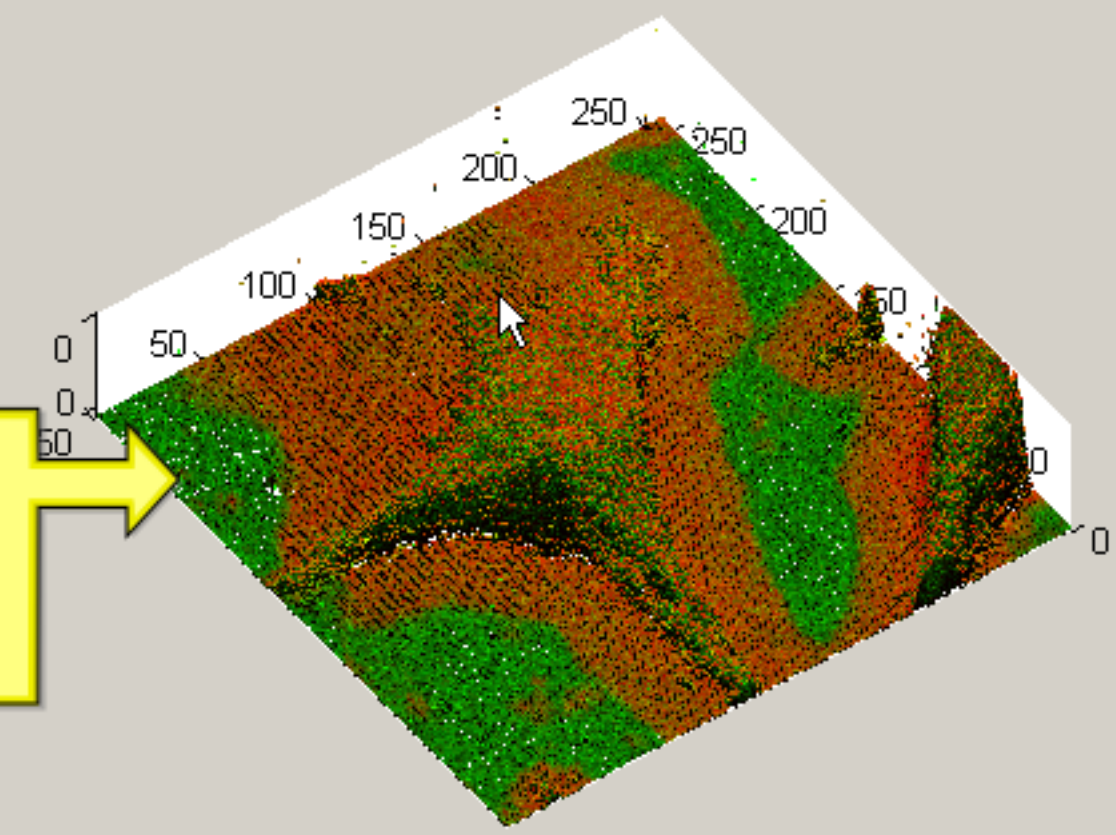
Create XY Snap shot

Create XZ Movie

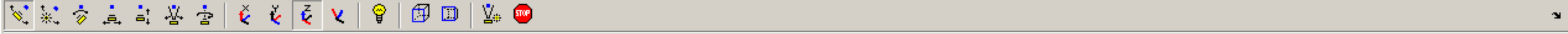
Create XZ Snap shot

Create YZ Movie

Create YZ Snap Shot



Close Panel



Red Peak(s)

None	Total_Counts
58.10555	
70.13471	
86.19242	
104.2413	
125.1504	
166.2641	
184.3038	

Green Peak(s)

None	Total_Counts
58.10555	
70.13471	
86.19242	
104.2413	
125.1504	
166.2641	
184.3038	

Blue Peak(s)

None	Total_Counts
58.10555	
70.13471	
86.19242	
104.2413	
125.1504	
166.2641	
184.3038	

Alpha value for 3D overlay =

You can change the background color by pressing the 'Choose Background Color' button.

Choose Background Color

Current background color

Threshold for overlay =

Create Composite Image

Z scale factor =

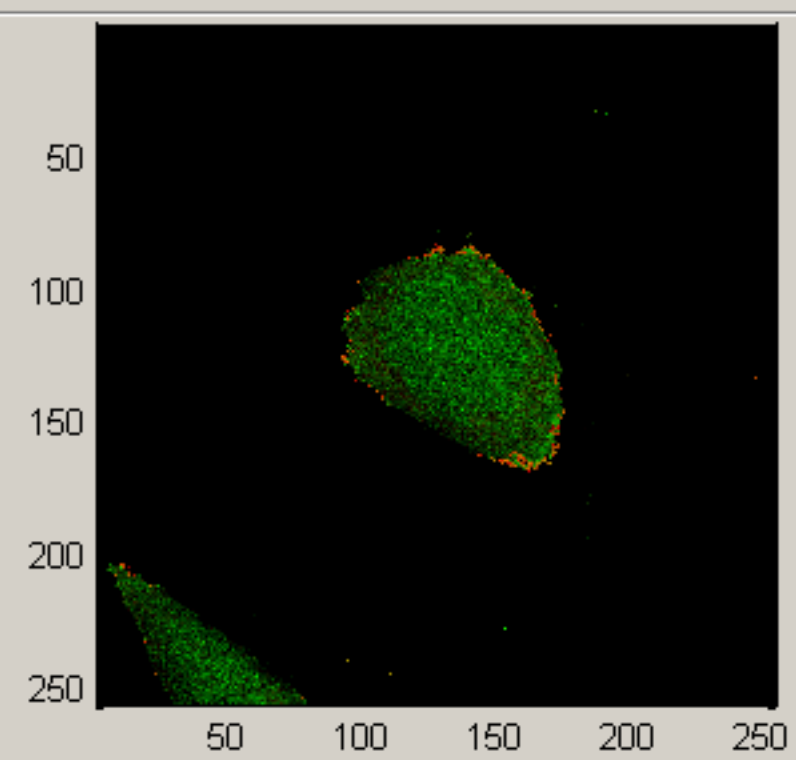
Check which axes you want to rotate around

☐ X ☐ Y ☐ Z

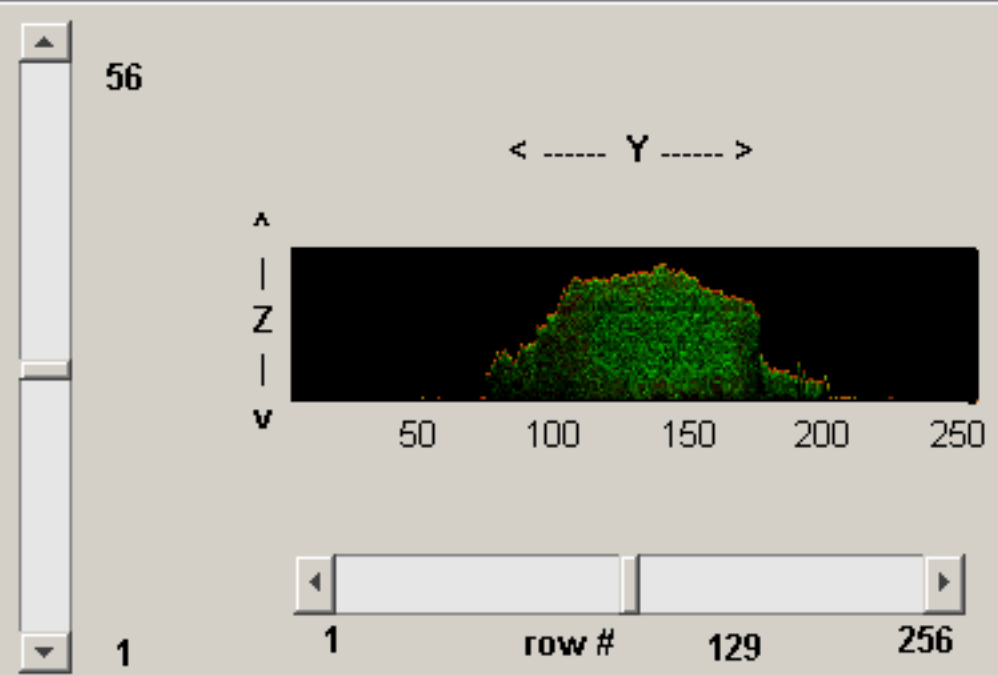
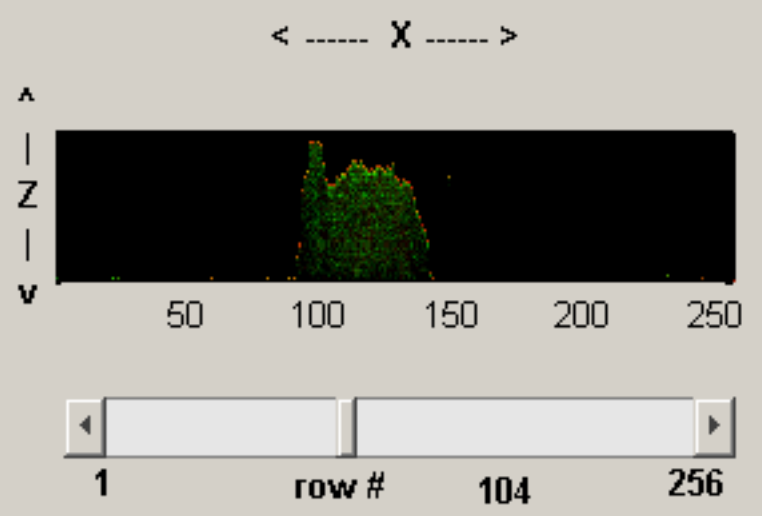
Number of degrees for rotation

Preview

Create 3D Movie



Layer number:



Create XY Movie

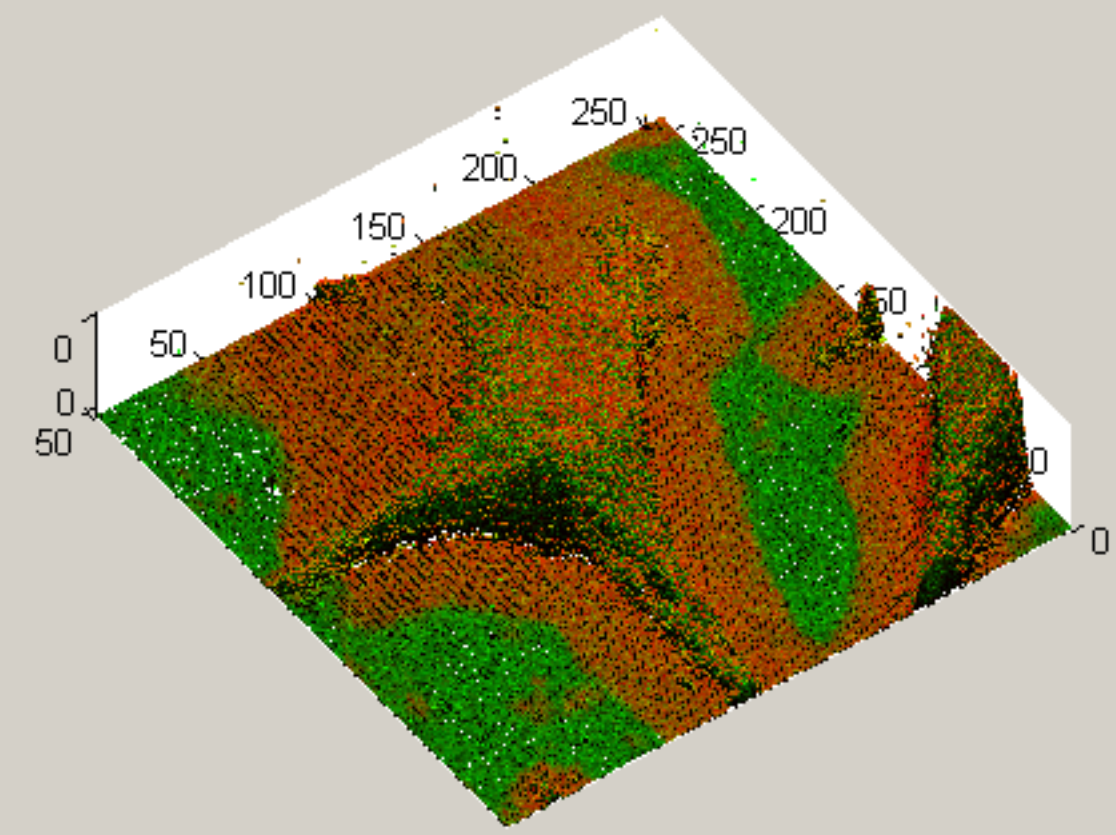
Create XY Snap shot

Create XZ Movie

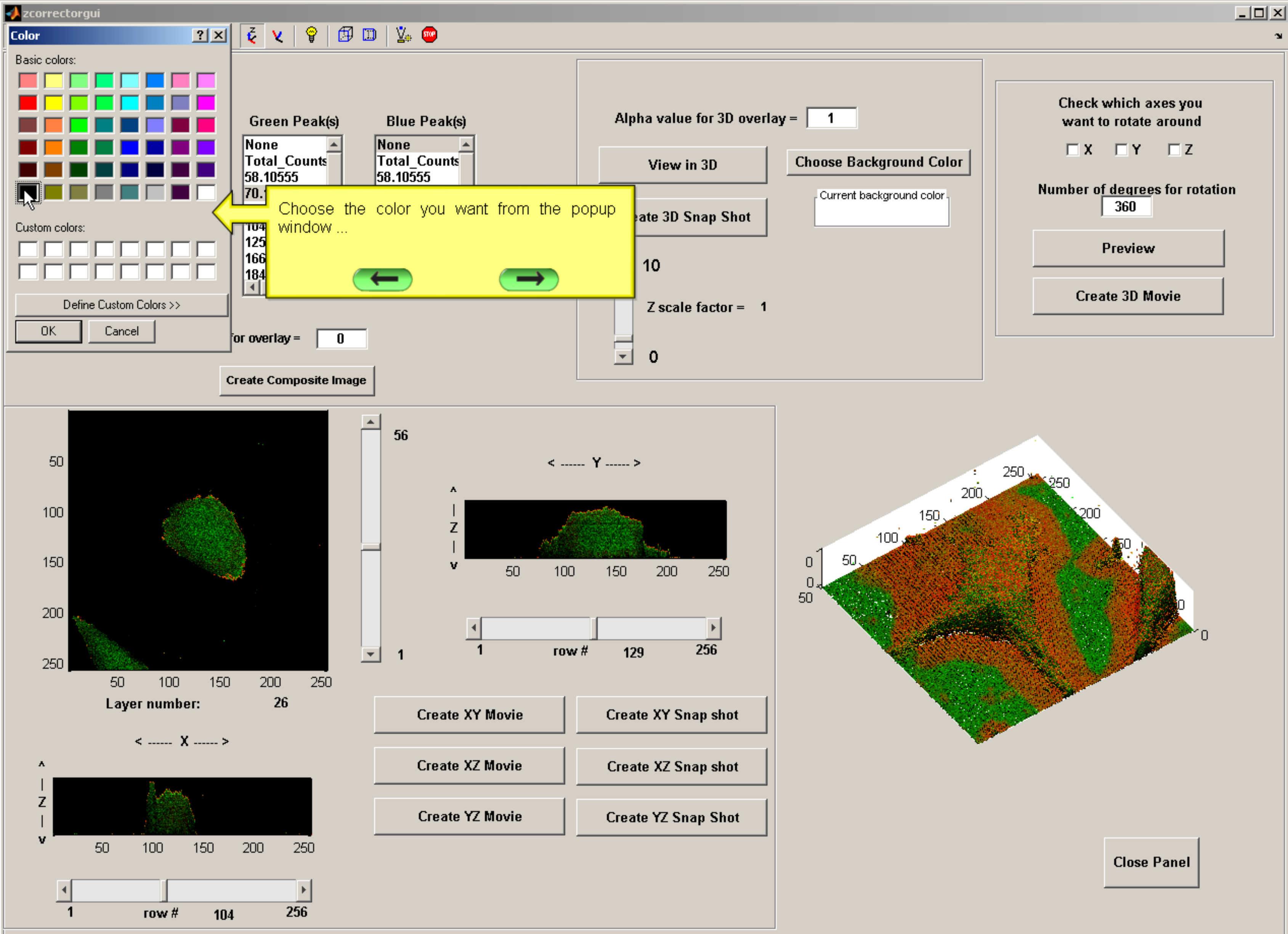
Create XZ Snap shot

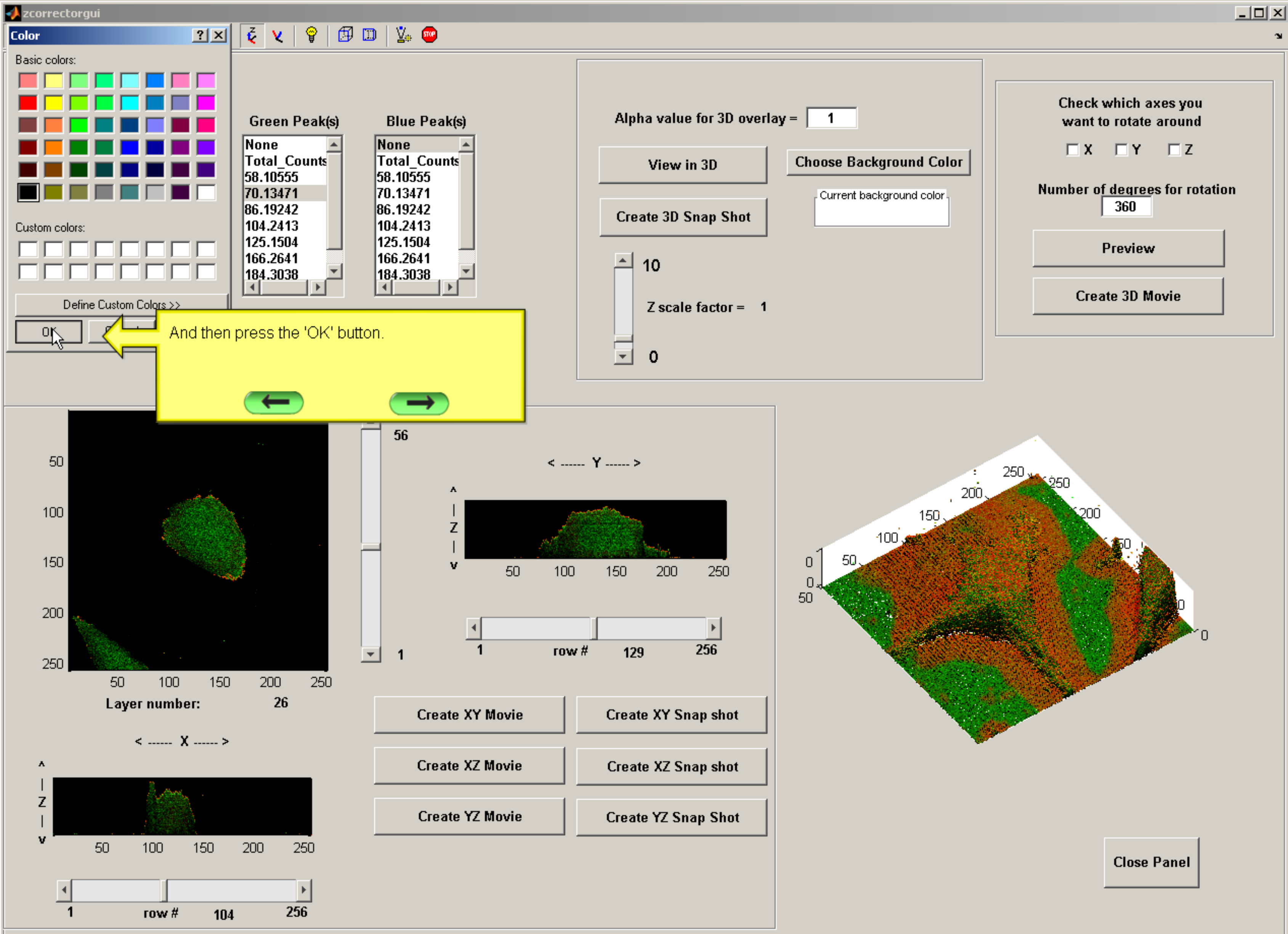
Create YZ Movie

Create YZ Snap Shot



Close Panel





Red Peak(s) Green Peak(s) Blue Peak(s)

None
Total Count
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038

You must press the 'View in 3D' button again to update the plot.



166.2641
184.3038

166.2641
184.3038

Threshold for overlay = 0

Create Composite Image

Alpha value for 3D overlay = 1

View in 3D

Create 3D Snap Shot



Z scale factor = 1

Choose Background Color

Current background color.

Check which axes you want to rotate around

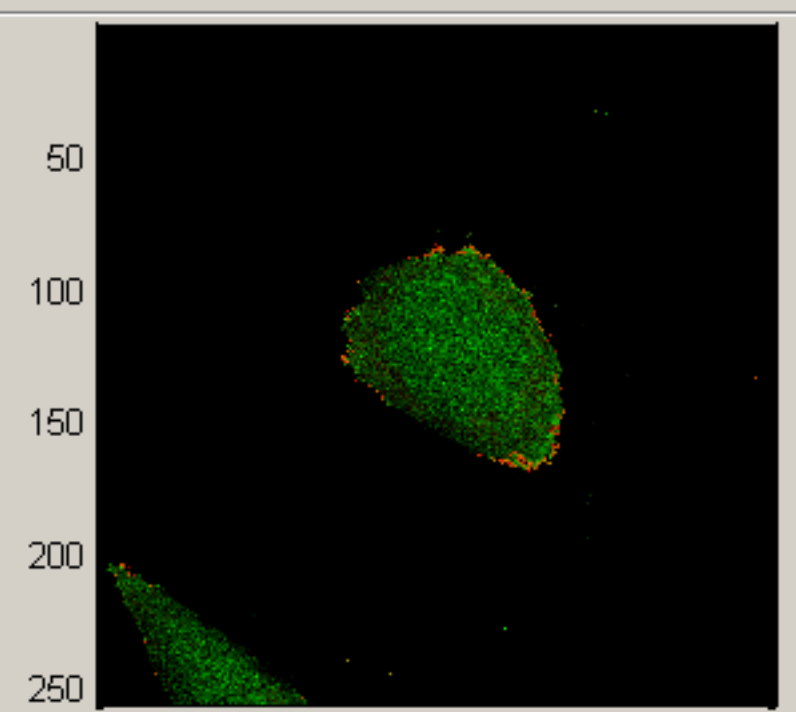
☐ X ☐ Y ☐ Z

Number of degrees for rotation

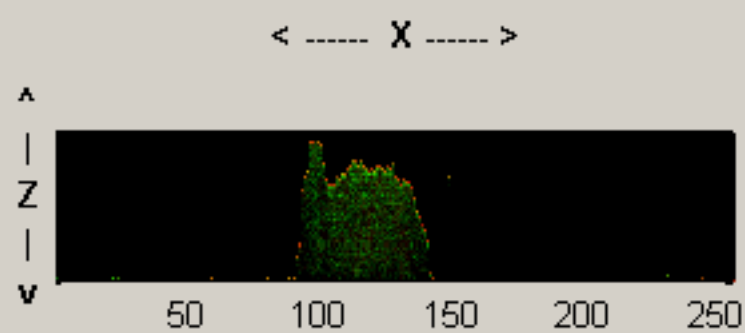
360

Preview

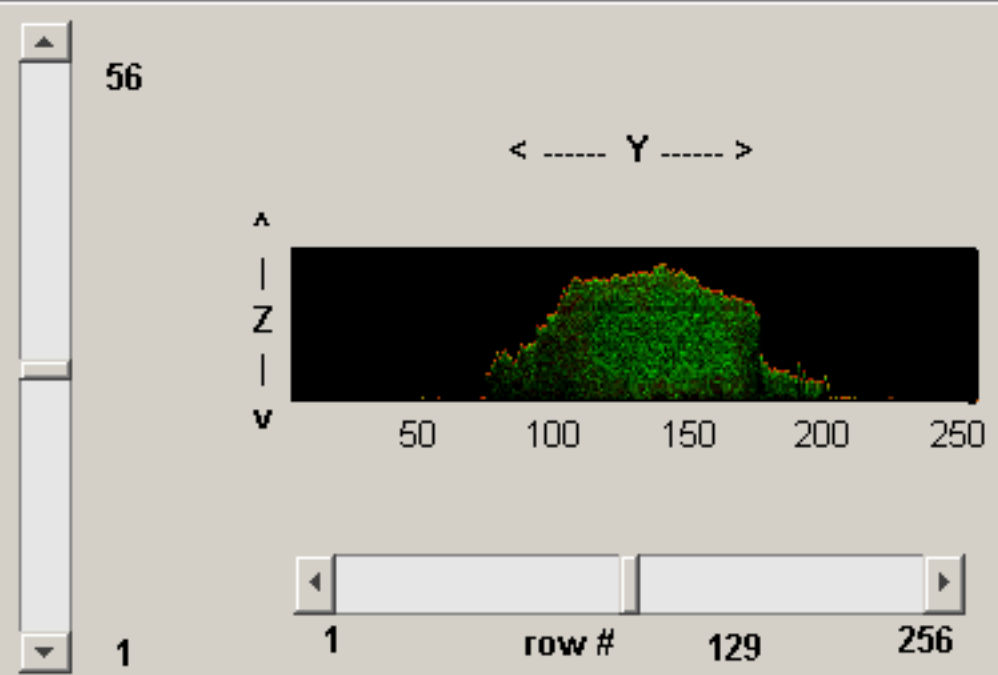
Create 3D Movie



Layer number: 26



row # 104



Create XY Movie

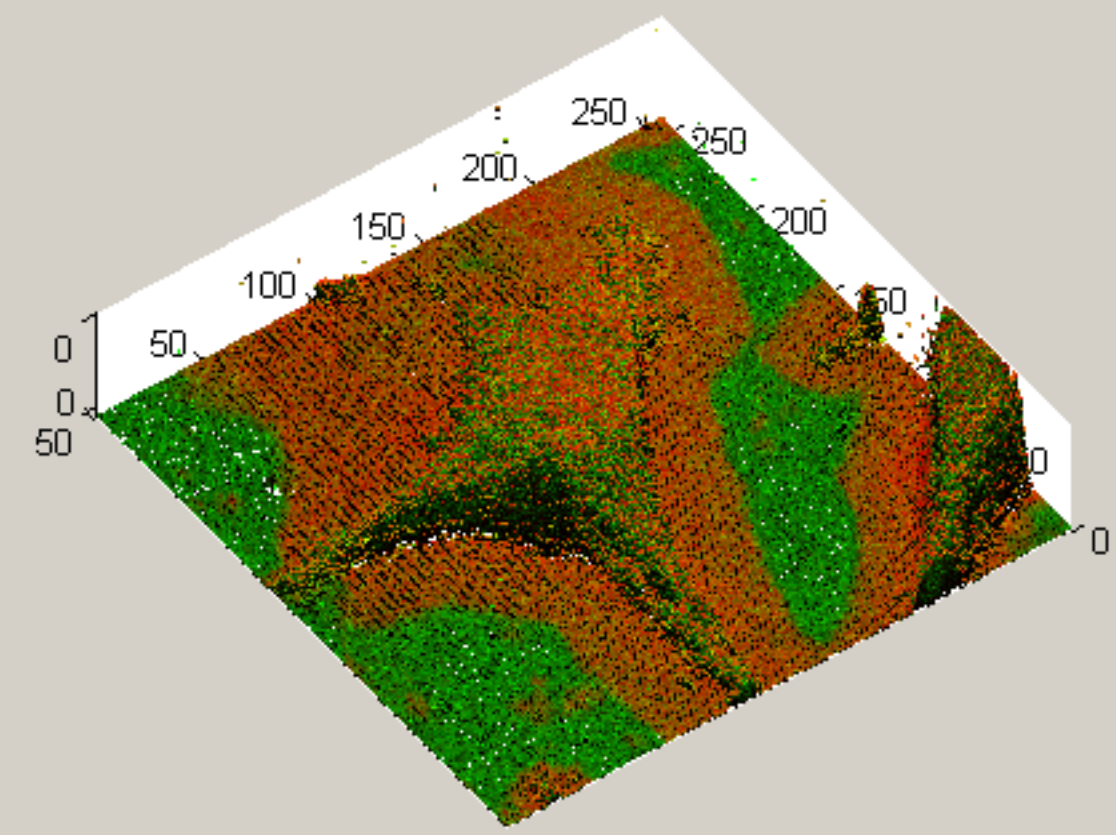
Create XY Snap shot

Create XZ Movie

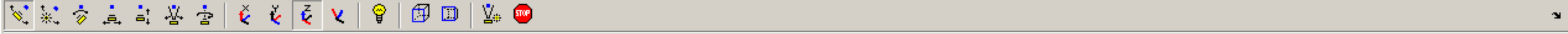
Create XZ Snap shot

Create YZ Movie

Create YZ Snap Shot



Close Panel



Red Peak(s)

None
Total_Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038

Green P

None
Total_Co
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038

You can add transparency to the image by changing the transparency value here. Lower values makes the image more transparent.

Here we will lower it to 0.1.



3D overlay = 0.1

View in 3D

3D Snap Shot

Choose Background Color

Current background color.

Check which axes you want to rotate around

☐ X ☐ Y ☐ Z

Number of degrees for rotation

360

Preview

Create 3D Movie

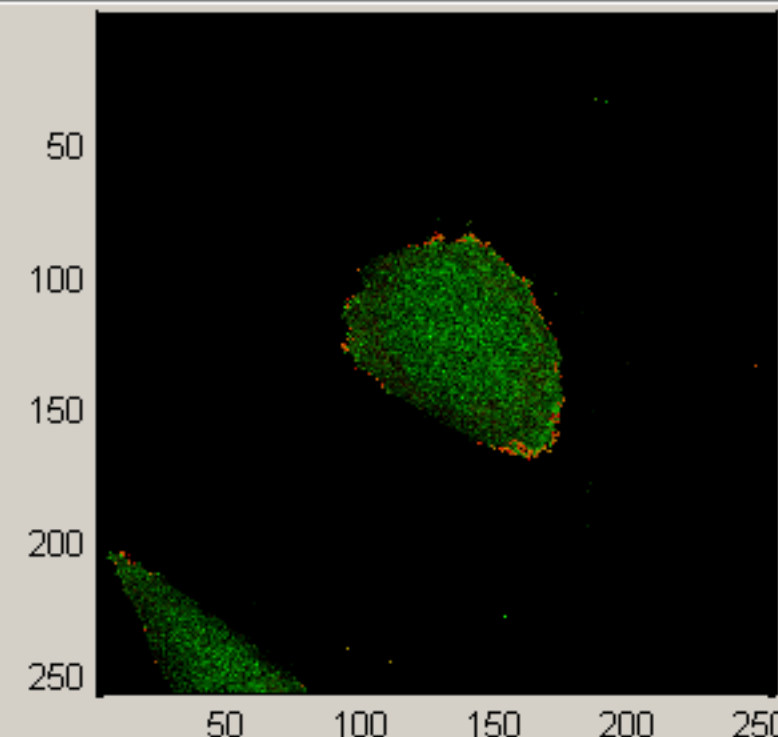
Threshold for overlay = 0

Create Composite Image

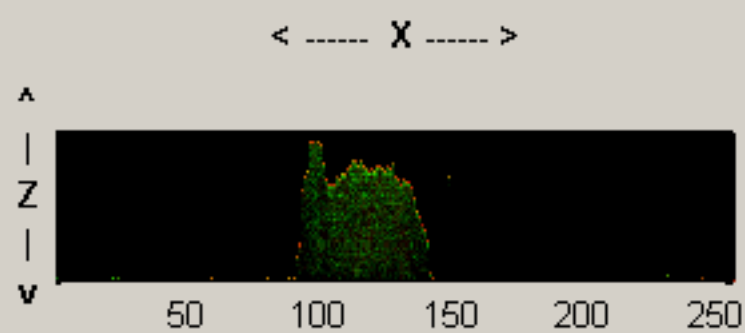
10

Z scale factor = 1

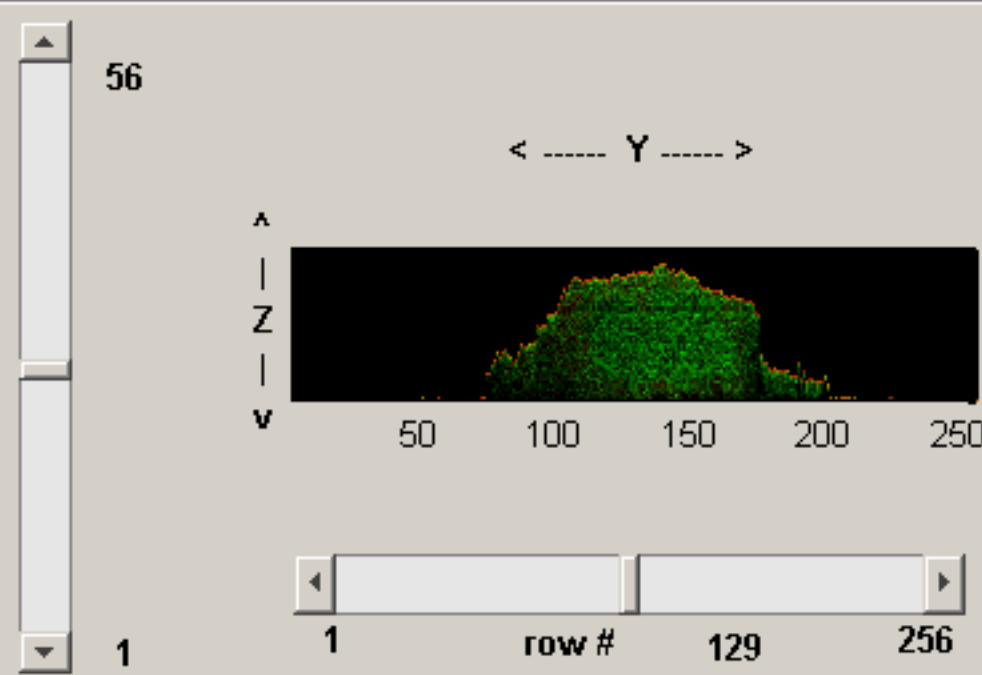
0



Layer number: 26



row # 104 256



Create XY Movie

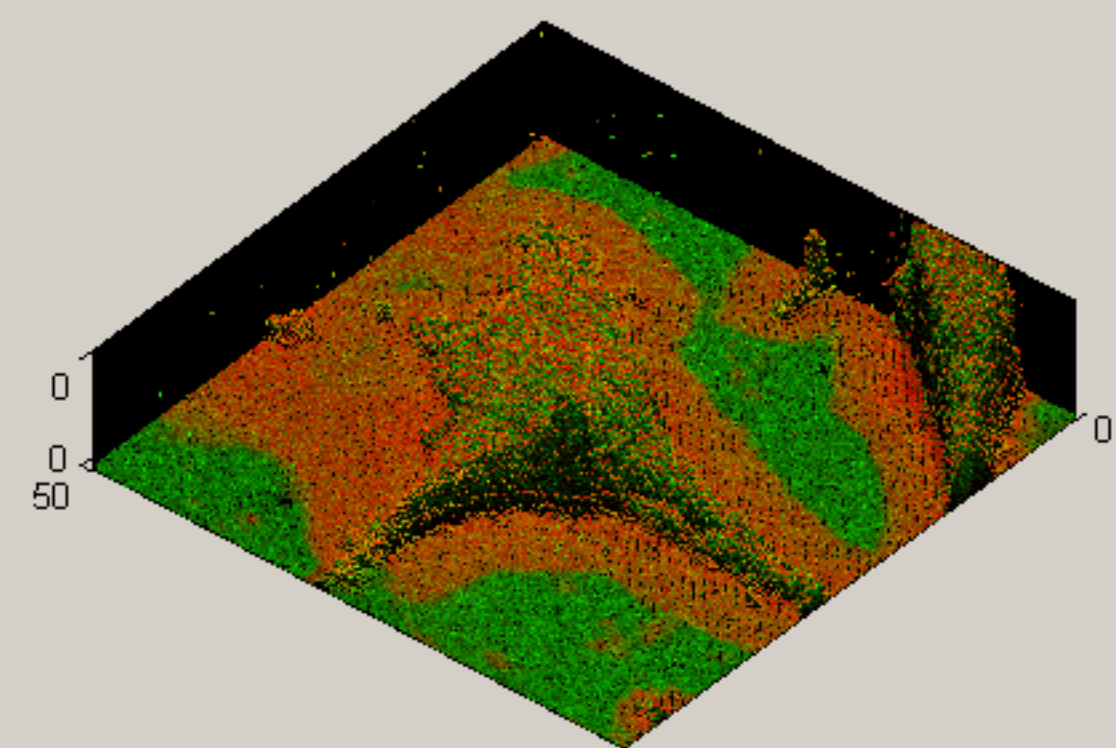
Create XY Snap shot

Create XZ Movie

Create XZ Snap shot

Create YZ Movie

Create YZ Snap Shot



Close Panel

Red Peak(s) Green Peak(s) Blue Peak(s)

None
Total Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038

Press the 'View in 3D' button to update the image.



Threshold for overlay = 0

Create Composite Image

Alpha value for 3D overlay = 0.1

View in 3D

Create 3D Snap Shot



10

Z scale factor = 1

0

Choose Background Color

Current background color.

Check which axes you want to rotate around

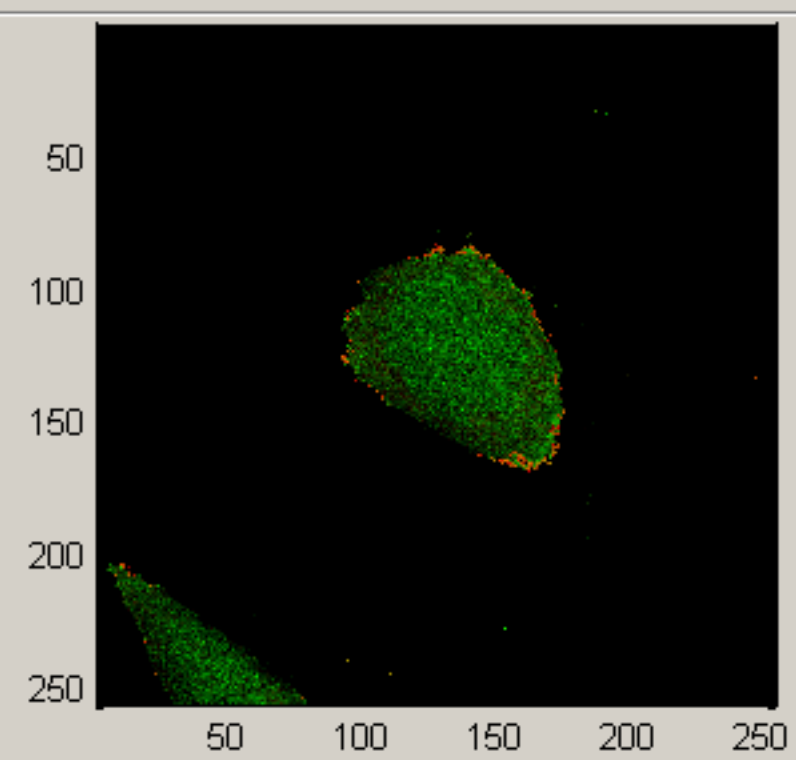
☐ X ☐ Y ☐ Z

Number of degrees for rotation

360

Preview

Create 3D Movie



Layer number: 26

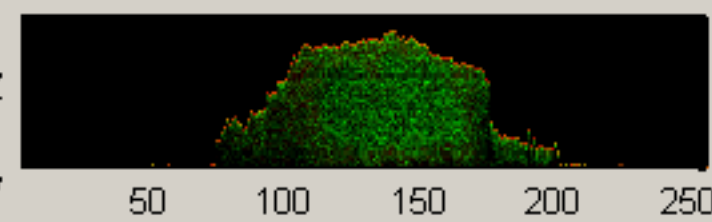


56

1

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

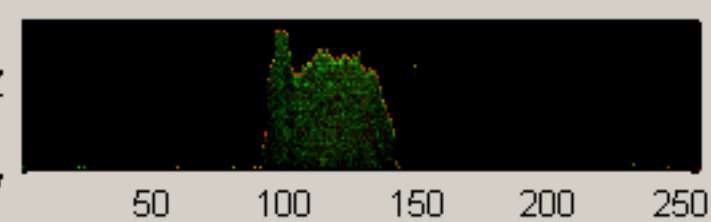
^
|
Z
|
v



row # 1 129 256

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

^
|
Z
|
v



row # 1 104 256

Create XY Movie

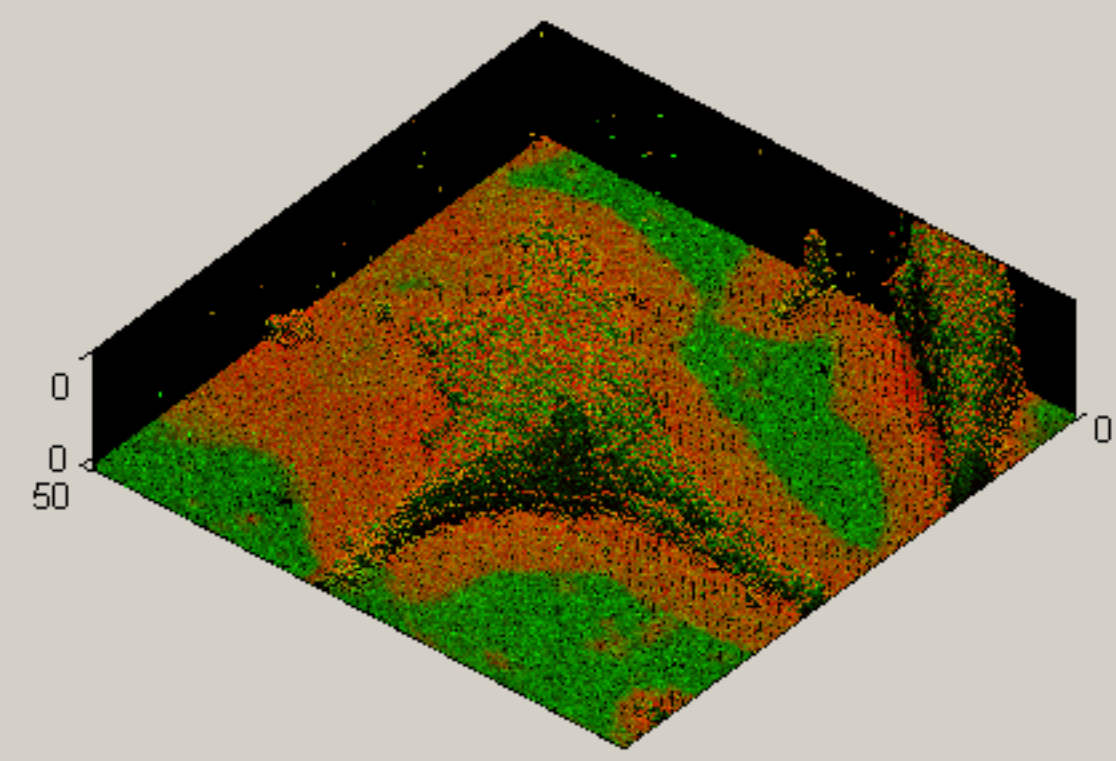
Create XY Snap shot

Create XZ Movie

Create XZ Snap shot

Create YZ Movie

Create YZ Snap Shot



Close Panel

Red Peak(s)	Green Peak(s)	Blue Peak(s)
None	None	None
Total_Counts	Total_Counts	Total_Counts
58.10555	58.10555	58.10555
70.13471	70.13471	70.13471
86.19242	86.19242	86.19242
104.2413	104.2413	104.2413
125.1504	125.1504	125.1504
166.2641	166.2641	166.2641
184.3038	184.3038	184.3038

Threshold for overlay =

Create Composite Image

Alpha value for 3D overlay =

View in 3D

Create 3D Snap Shot

Choose Background Color

Current background color.

10
Z scale factor = 1
0

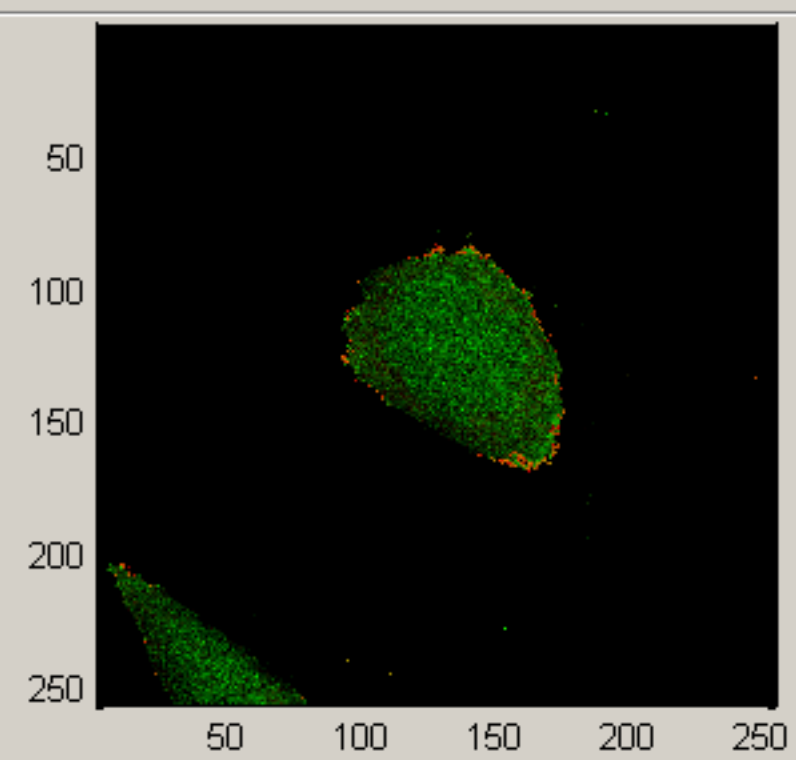
Check which axes you want to rotate around

☐ X ☐ Y ☐ Z

Number of degrees for rotation

Preview

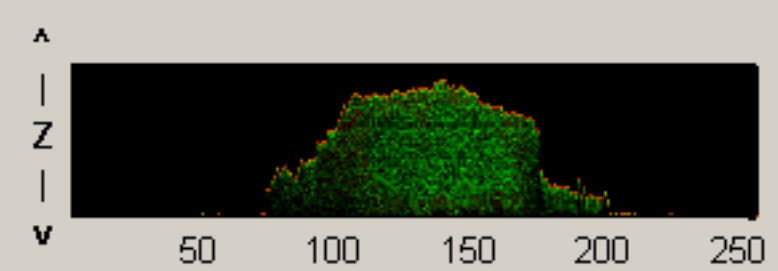
Create 3D Movie



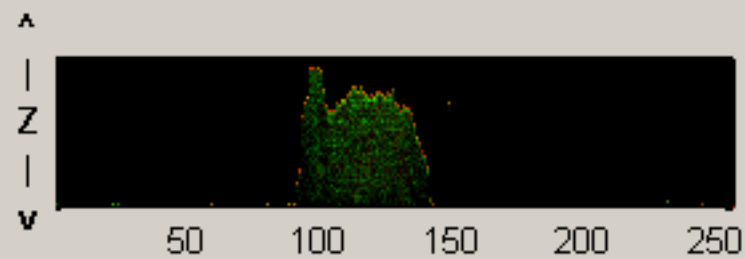
Layer number: 26

56
1

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



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



1 row # 104 256

The data is displayed with transparency.

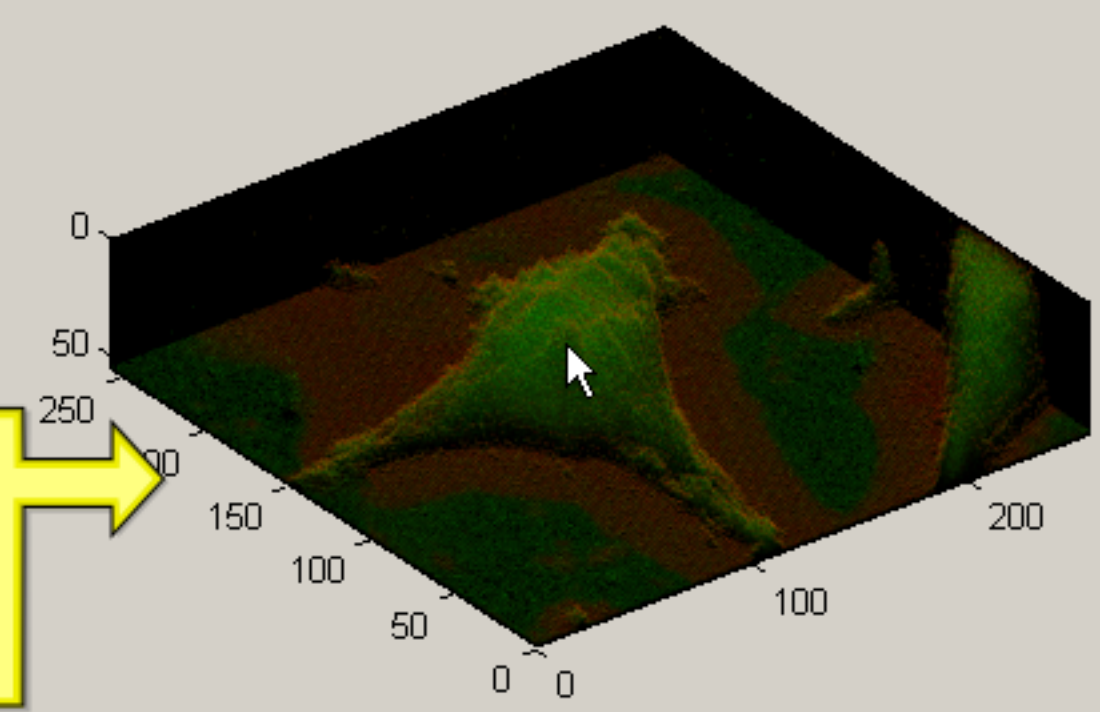


Create XZ Movie

Create XZ Snap shot

Create YZ Movie

Create YZ Snap Shot



Close Panel

Red Peak(s)

None
Total_Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038

Green Peak(s)

None
Total_Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038

Blue Peak(s)

166.2641
184.3038

Alpha value for 3D overlay = 0.1

It is a bit hard to see the transparency against a black background. So let's change it to white.

Choose Background Color

Current background color.

Threshold for overlay = 0

Create Composite Image

10

Z scale factor = 1

0

Check which axes you want to rotate around

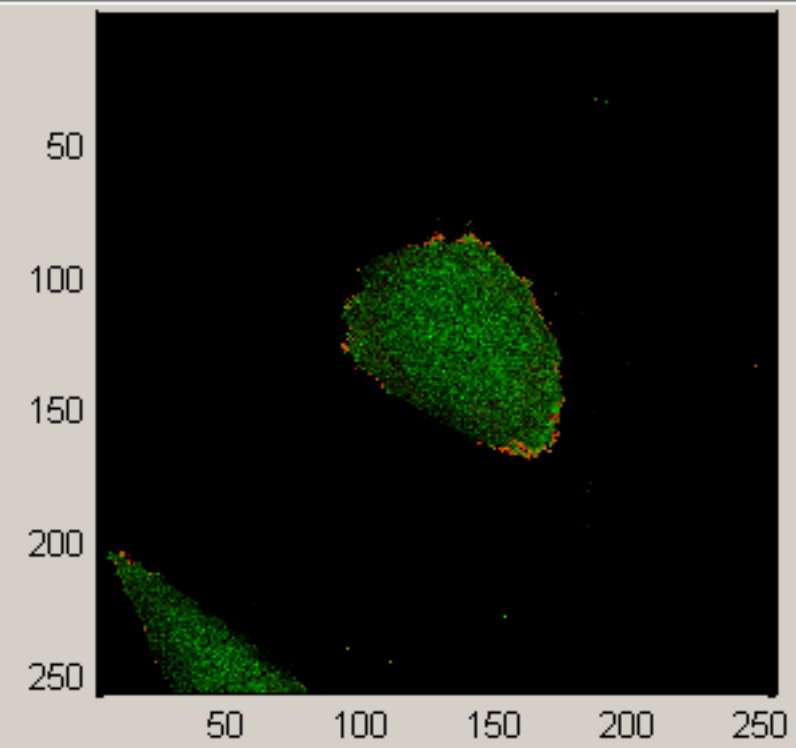
☐ X ☐ Y ☐ Z

Number of degrees for rotation

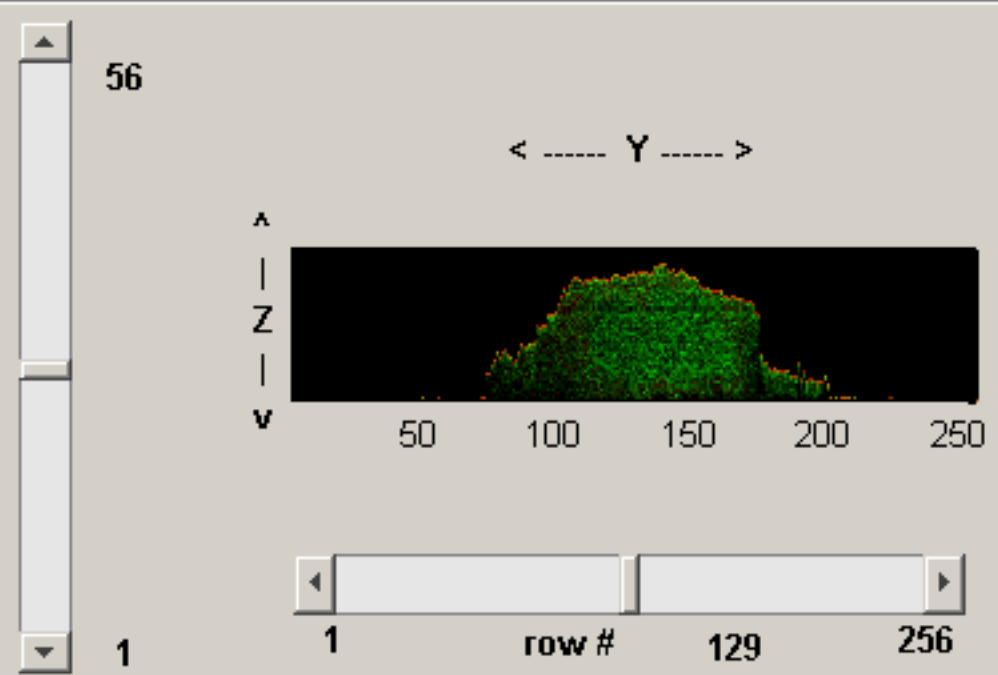
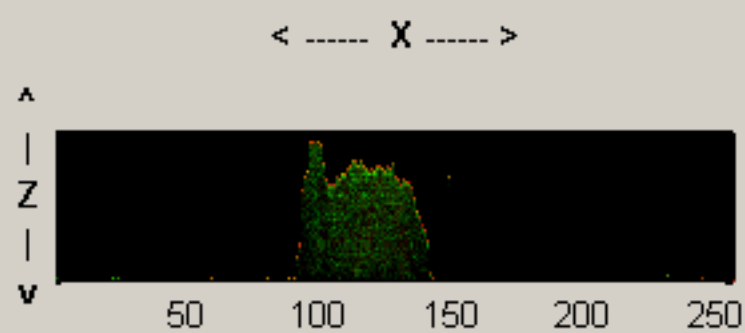
360

Preview

Create 3D Movie



Layer number: 26



Create XY Movie

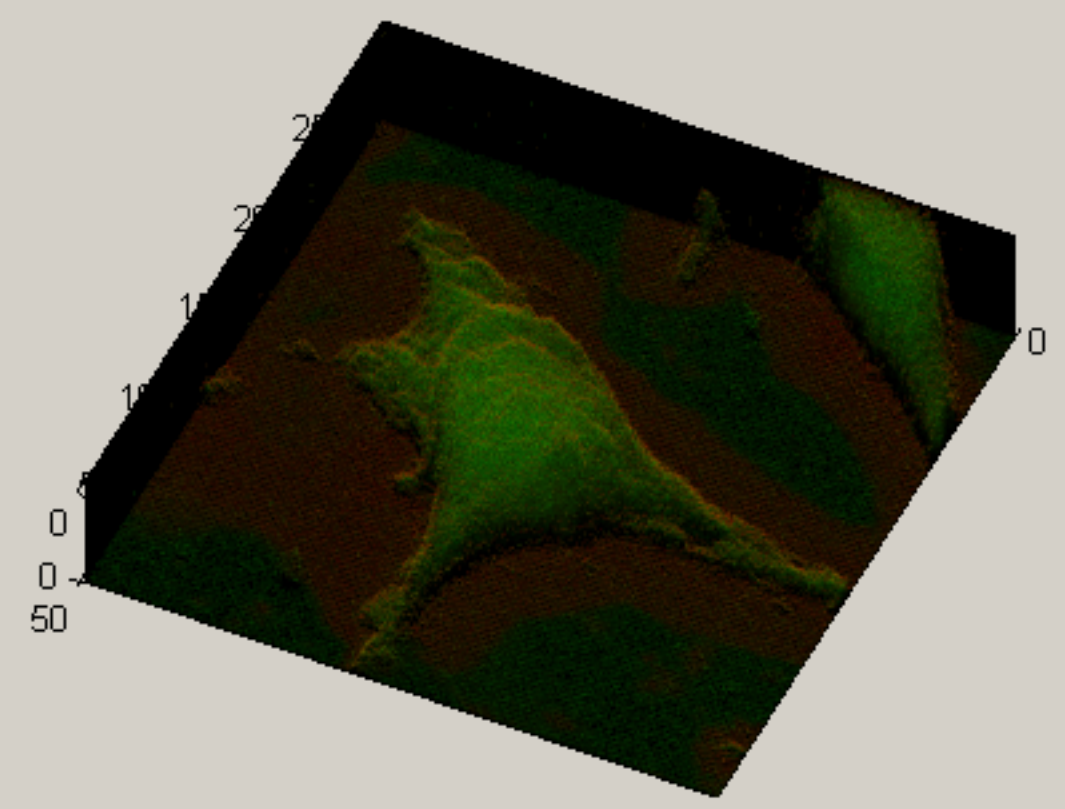
Create XY Snap shot

Create XZ Movie

Create XZ Snap shot

Create YZ Movie

Create YZ Snap Shot



Close Panel

Red Peak(s)	Green Peak(s)	Blue Peak(s)
None		
Total Counts		
58.10555		
70.13471		
86.19242		
104.2413		
125.1504		
166.2641	166.2641	166.2641
184.3038	184.3038	184.3038

And update the plot by pressing 'View in 3D'.

Alpha value for 3D overlay = 0.1

View in 3D

Choose Background Color

Current background color

Create 3D Snap Shot

10

Z scale factor = 1

0

Threshold for overlay = 0

Create Composite Image

Check which axes you want to rotate around

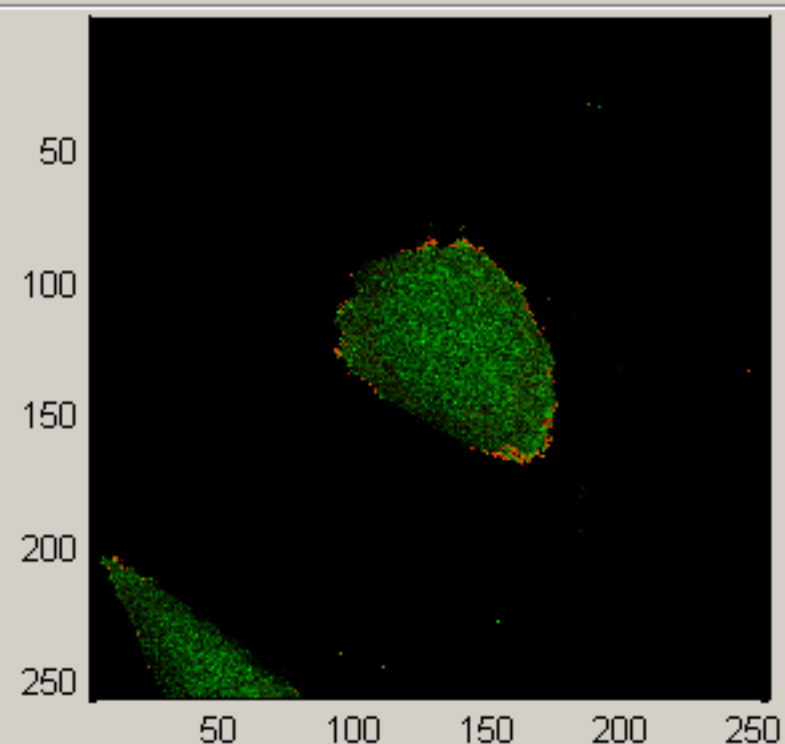
☐ X ☐ Y ☐ Z

Number of degrees for rotation

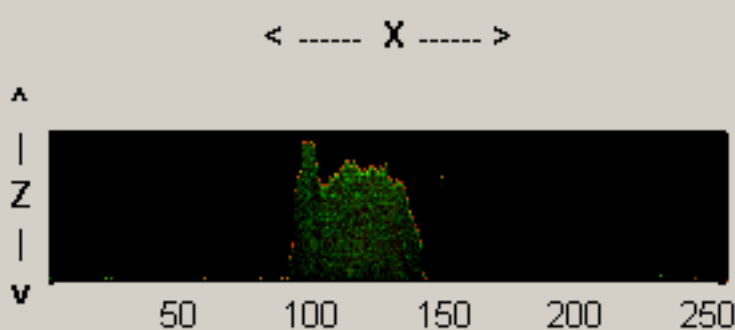
360

Preview

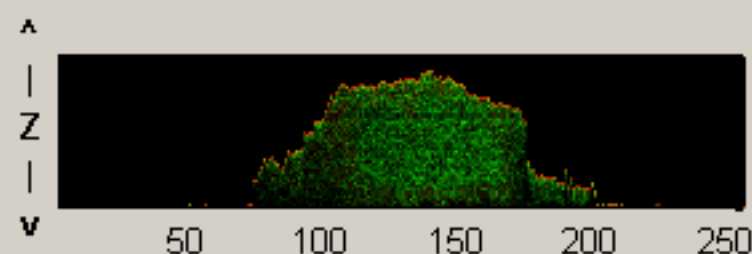
Create 3D Movie



Layer number: 26



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



1

1

row # 129

256

Create XY Movie

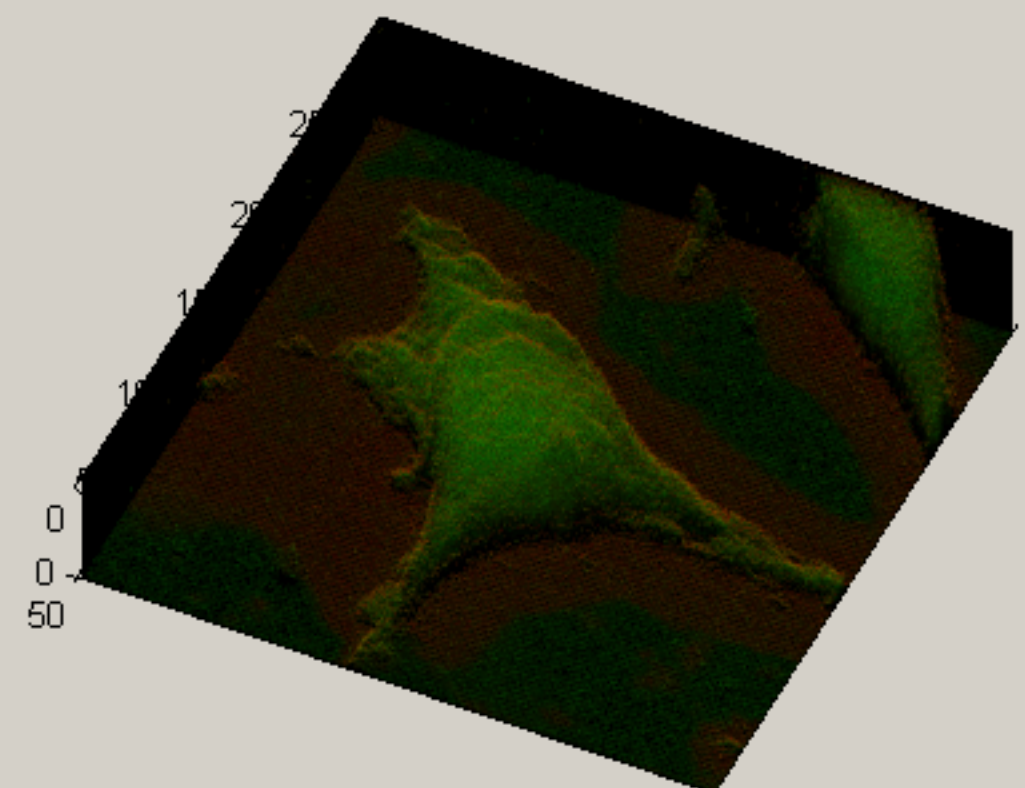
Create XY Snap shot

Create XZ Movie

Create XZ Snap shot

Create YZ Movie

Create YZ Snap Shot



Close Panel

Red Peak(s)	Green Peak(s)	Blue Peak(s)
None	None	None
Total_Counts	Total_Counts	Total_Counts
58.10555	58.10555	58.10555
70.13471	70.13471	70.13471
86.19242	86.19242	86.19242
104.2413	104.2413	104.2413
125.1504	125.1504	125.1504
166.2641	166.2641	166.2641
184.3038	184.3038	184.3038

Threshold for overlay =

Create Composite Image

Alpha value for 3D overlay =

View in 3D

Create 3D Snap Shot

Choose Background Color

Current background color

10
0

Z scale factor = 1

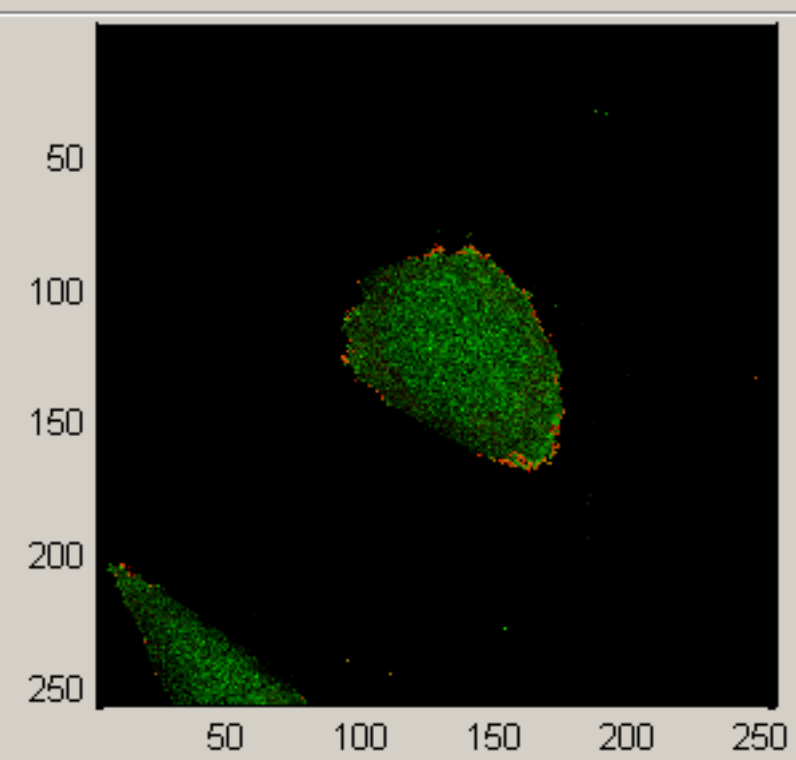
Check which axes you want to rotate around

☐ X ☐ Y ☐ Z

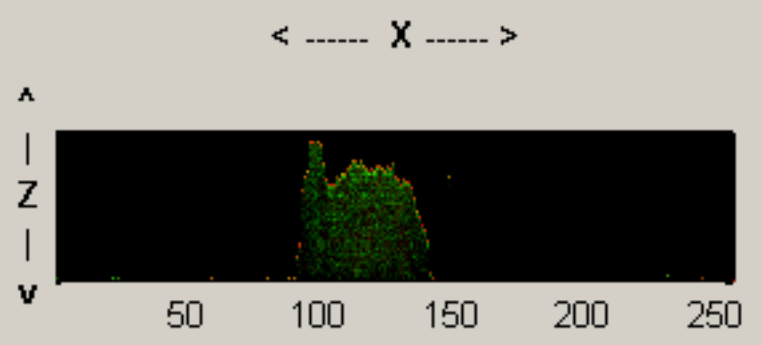
Number of degrees for rotation

Preview

Create 3D Movie



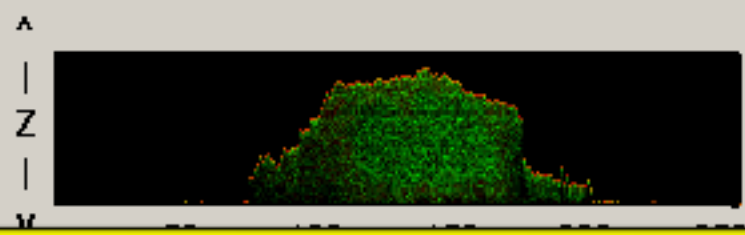
Layer number: 26



1 row # 104 256

56
1

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



That is a bit easier to see.



Create XY Movie

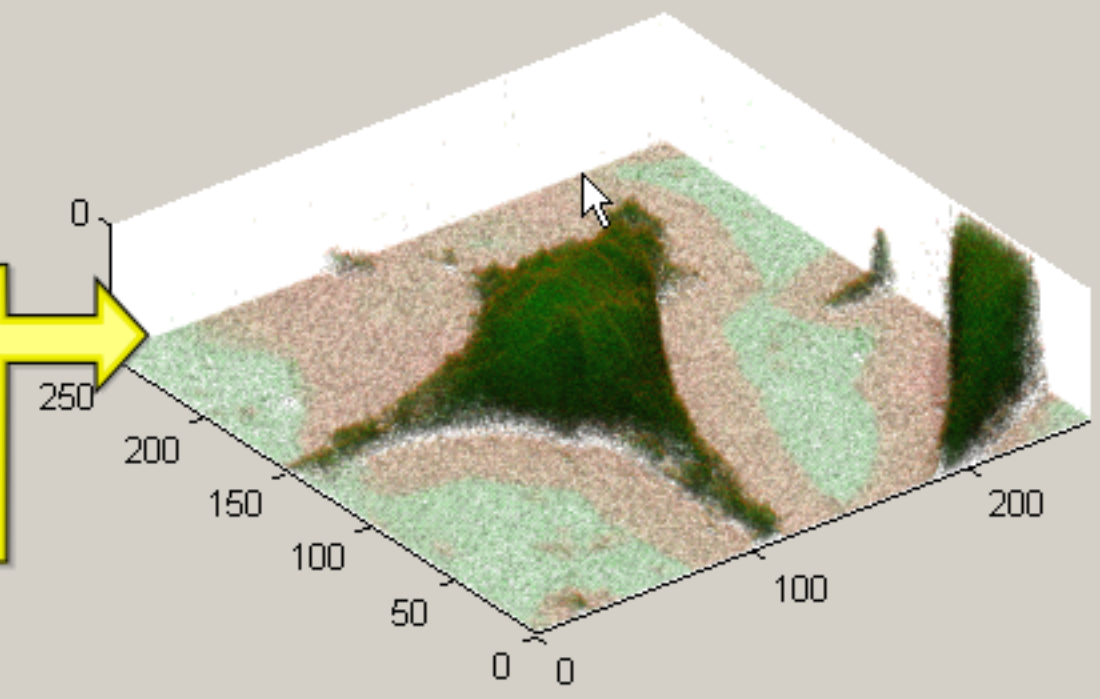
Create XY Snap shot

Create XZ Movie

Create XZ Snap shot

Create YZ Movie

Create YZ Snap Shot



Close Panel



Red Peak(s)	Green Peak(s)	Blue Peak(s)
None	None	None
Total_Counts	Total_Counts	Total_Counts
58.10555	58.10555	58.10555
70.13471	70.13471	70.13471
86.19242	86.19242	86.19242
104.2413	104.2413	104.2413
125.1504	125.1504	125.1504
166.2641	166.2641	166.2641
184.3038	184.3038	184.3038

Threshold for overlay =

Create Composite Image

Alpha value for 3D overlay =

View in 3D

Create 3D Snap Shot

Choose Background Color

Current background color

Z scale factor =

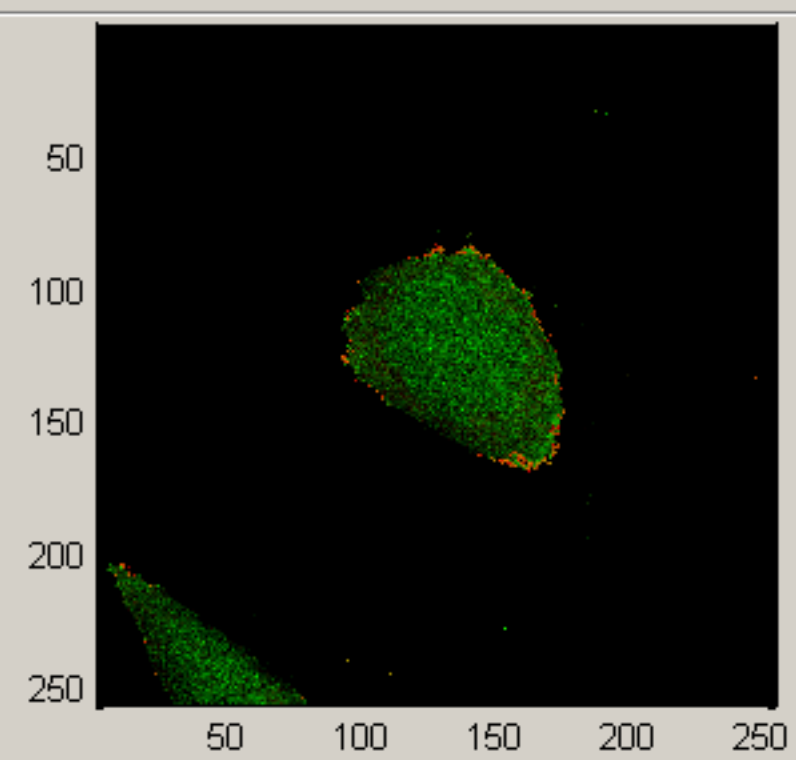
Check which axes you want to rotate around

☐ X ☐ Y ☐ Z

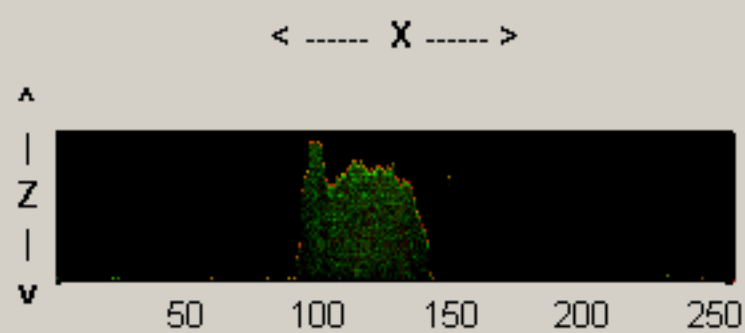
Number of degrees for rotation

Preview

Create 3D Movie

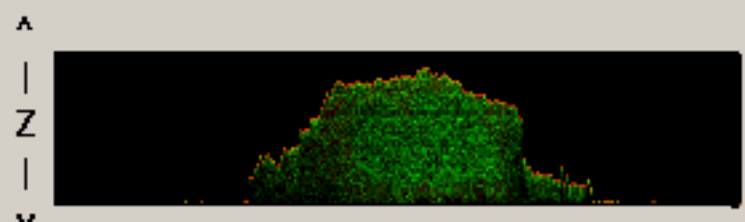


Layer number:



row #

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



Click and drag to rotate the image and the transparency becomes more apparent.



Create XY Movie

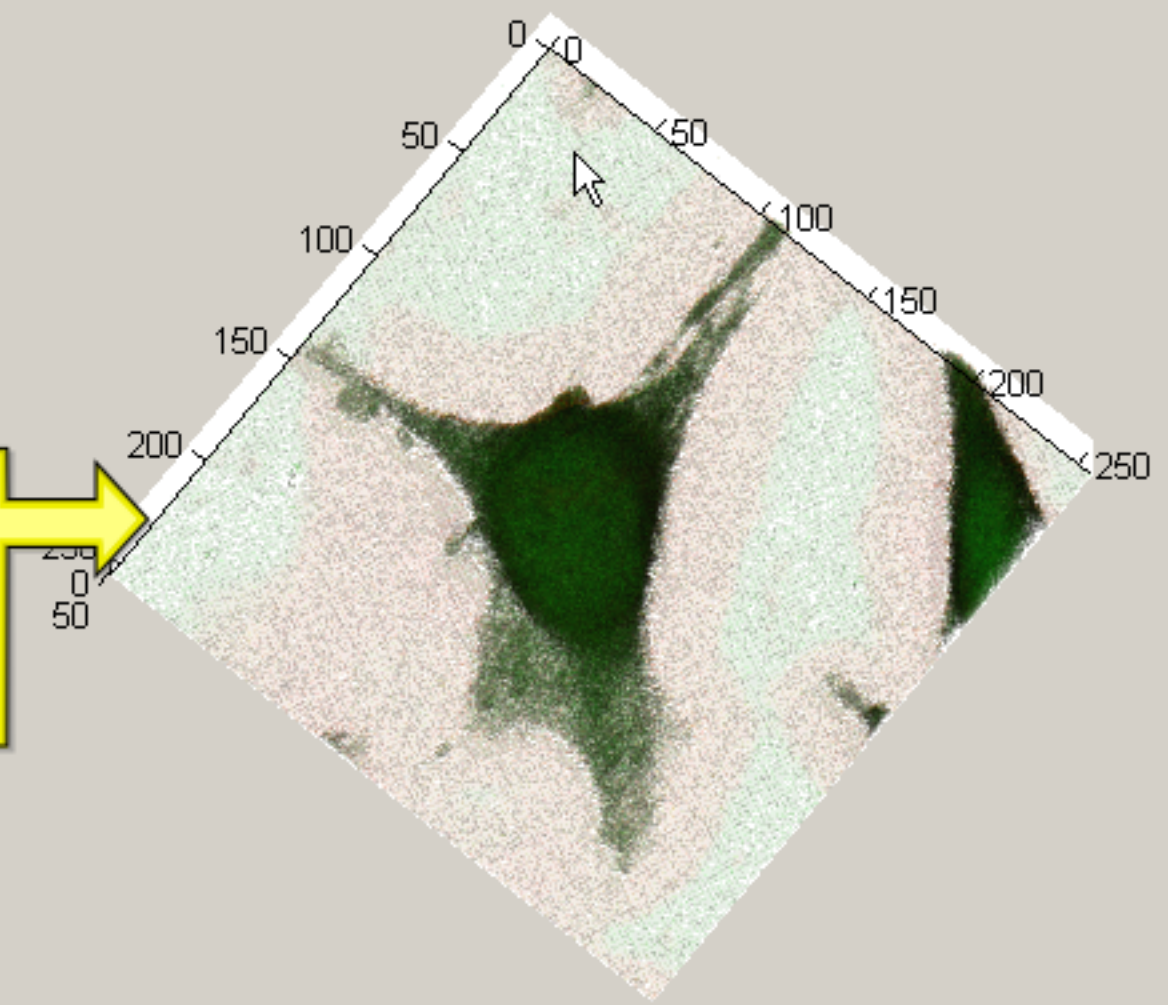
Create XY Snap shot

Create XZ Movie

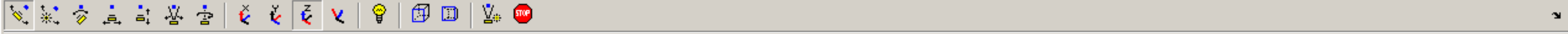
Create XZ Snap shot

Create YZ Movie

Create YZ Snap Shot



Close Panel



Red Peak(s)	Green Peak(s)	Blue Peak(s)
None	None	None
Total_Counts	Total_Counts	Total_Counts
58.10555	58.10555	58.10555
70.13471	70.13471	70.13471
86.19242	86.19242	86.19242
104.2413	104.2413	104.2413
125.1504	125.1504	125.1504
166.2641	166.2641	166.2641
184.3038	184.3038	184.3038

Threshold for overlay =

Create Composite Image

Alpha value for 3D overlay =

View in 3D

Choose Background Color

Current background color

Create 3D Snap Shot



Z scale factor =

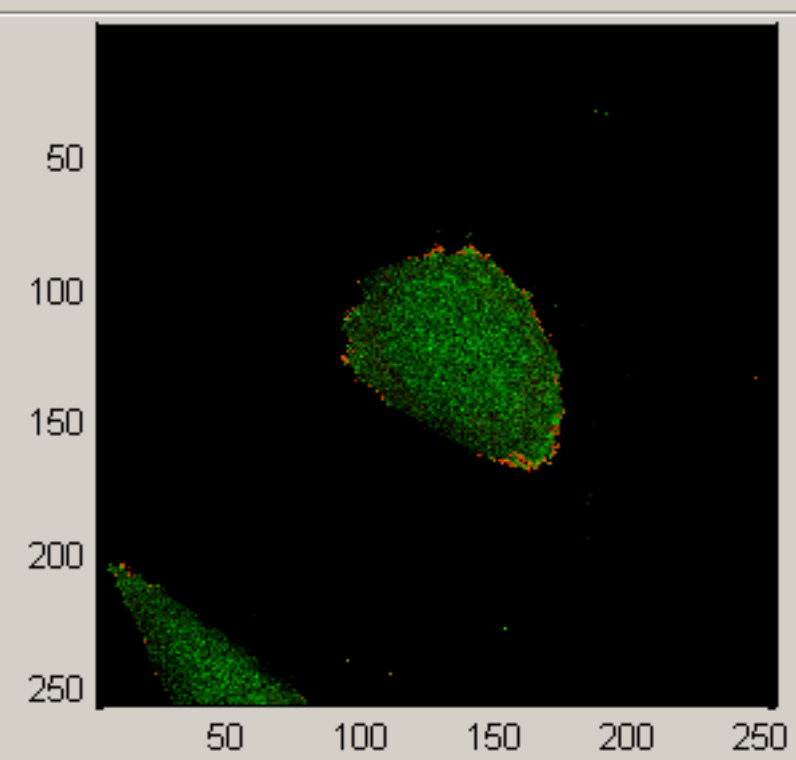
Check which axes you want to rotate around

☐ X ☐ Y ☐ Z

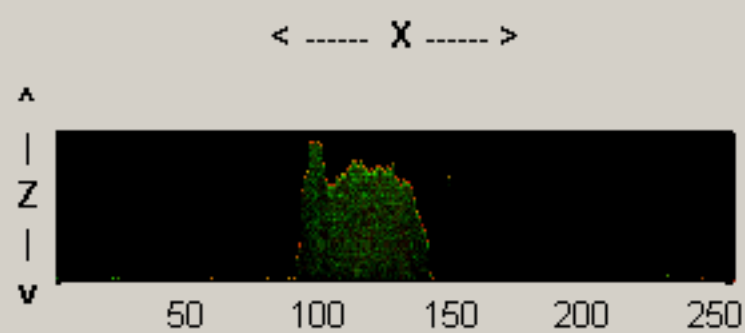
Number of degrees for rotation

Preview

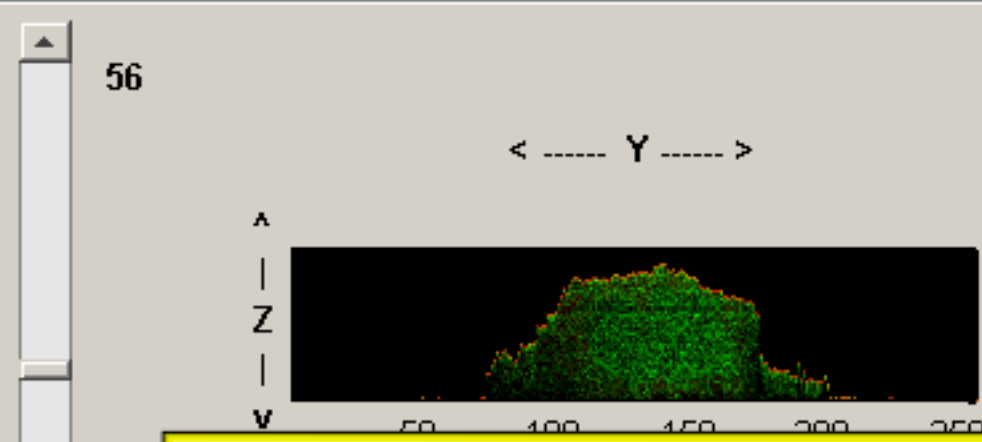
Create 3D Movie



Layer number:



row #



The z scale in the Matlab 3D plots is somewhat arbitrary. The height is determined by the number of slices in the profile and by the aspect ratio defined when the plot is made.



Create XZ Movie

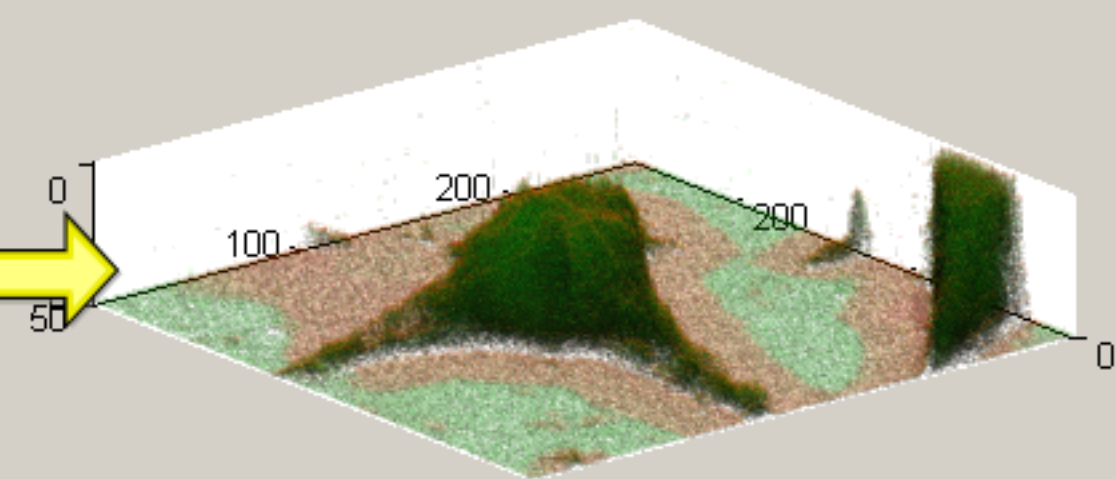
Create XZ Snap shot

Create XZ Movie

Create XZ Snap shot

Create YZ Movie

Create YZ Snap Shot



Close Panel

Red Peak(s)	Green Peak(s)	Blue Peak(s)
None	None	None
Total_Counts	Total_Counts	Total_Counts
58.10555	58.10555	58.10555
70.13471	70.13471	70.13471
86.19242	86.19242	86.19242
104.2413	104.2413	104.2413
125.1504	125.1504	125.1504
166.2641	166.2641	166.2641
184.3038	184.3038	184.3038

Alpha value for 3D overlay = 0.1

View in 3D

Choose Background Color

Create 3D Snap Shot

Current background color



Z scale factor = 3

Check which axes you want to rotate around

☐ X ☐ Y ☐ Z

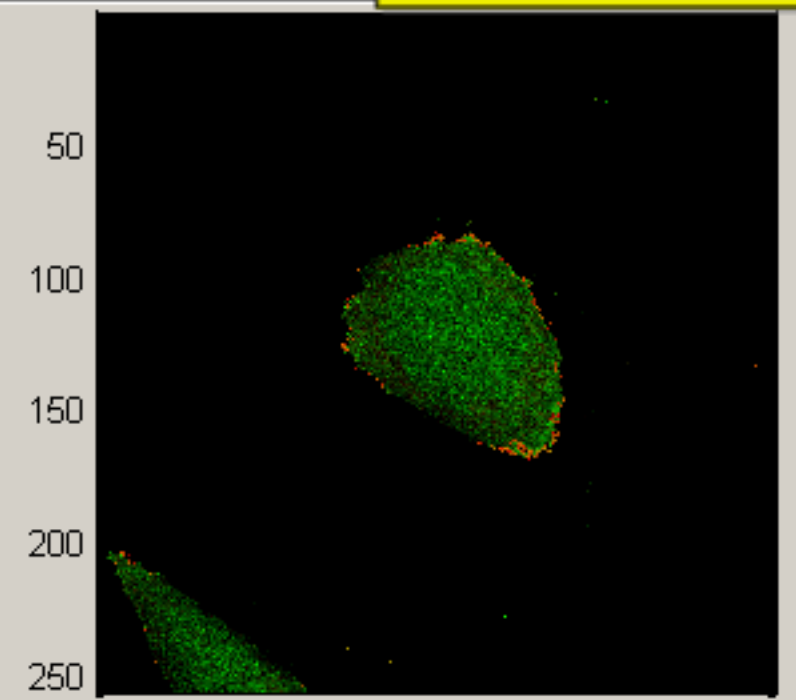
Number of degrees for rotation

360

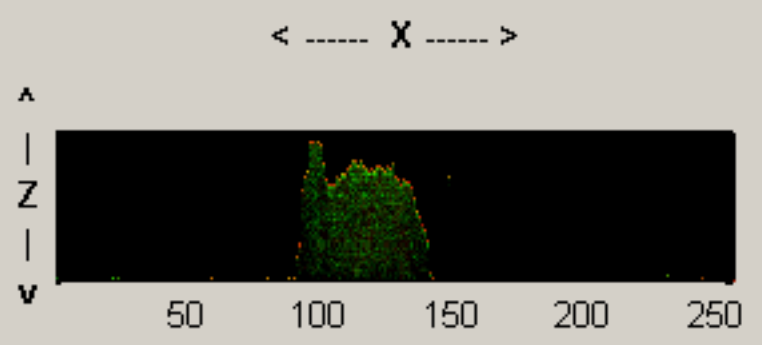
Preview

Create 3D Movie

The zscale can be adjusted using this slider. Here we change the z scale factor to 3.



Layer number: 26



You can see that the cell is flattened out. This is more 'realistic' based on the real cell shape, but this is purely for viewing purposes since the Z axis scale is arbitrary.

Create XZ Movie

Create XZ Snap shot

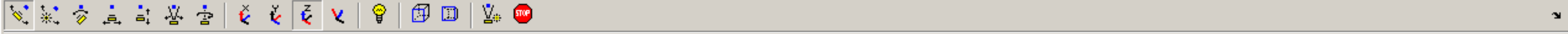
Create YZ Movie

Create YZ Snap Shot



Close Panel

row # 104



Red Peak(s)	Green Peak(s)	Blue Peak(s)
None	None	None
Total_Counts	Total_Counts	Total_Counts
58.10555	58.10555	58.10555
70.13471	70.13471	70.13471
86.19242	86.19242	86.19242
104.2413	104.2413	104.2413
125.1504	125.1504	125.1504
166.2641	166.2641	166.2641
184.3038	184.3038	184.3038

Threshold for overlay =

Create Composite Image

Alpha value for 3D overlay =

View in 3D

Create 3D Snap Shot

Choose Background Color

Current background color



Z scale factor = 3

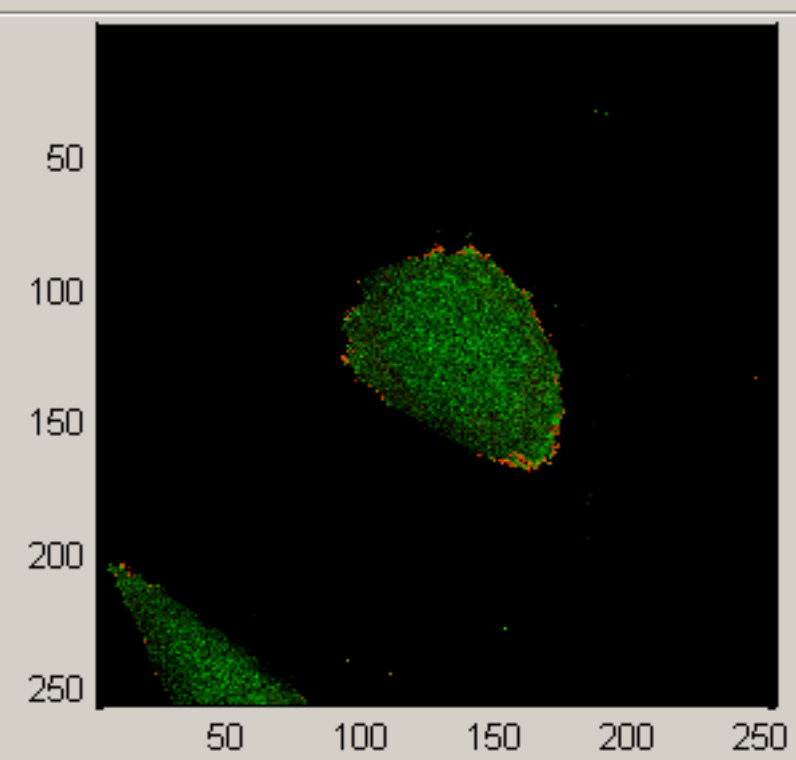
Check which axes you want to rotate around

☐ X ☐ Y ☐ Z

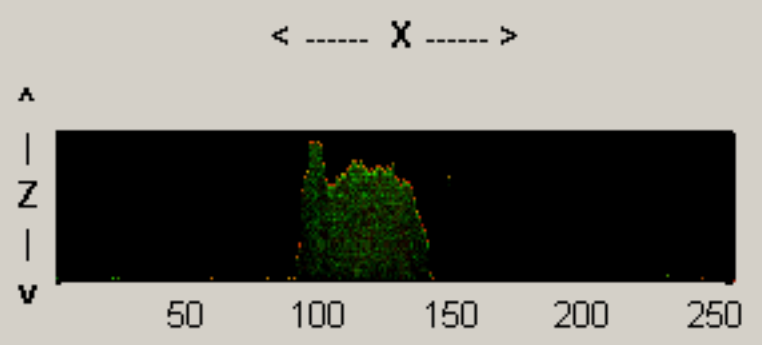
Number of degrees for rotation

Preview

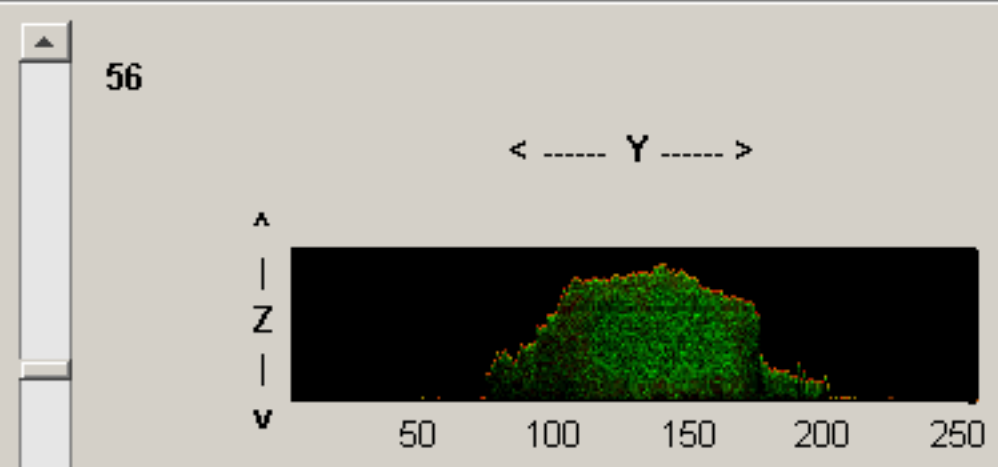
Create 3D Movie



Layer number: 26



row # 1 104 256



Click and drag on the plot to see the image from different angles.

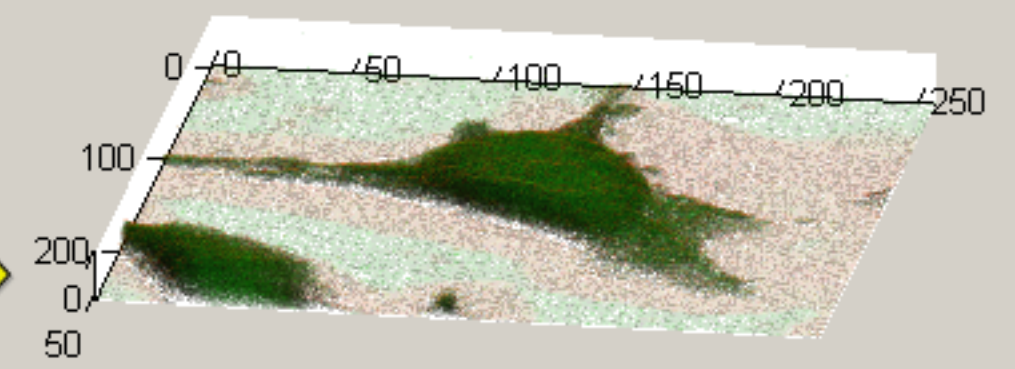


Create XZ Movie

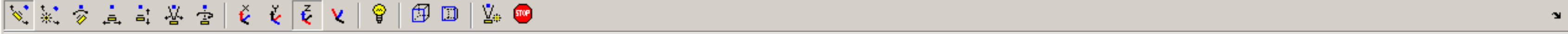
Create XZ Snap shot

Create YZ Movie

Create YZ Snap Shot



Close Panel



Red Peak(s)	Green Peak(s)	Blue Peak(s)
None	None	None
Total_Counts	Total_Counts	Total_Counts
58.10555	58.10555	58.10555
70.13471	70.13471	70.13471
86.19242	86.19242	86.19242
104.2413	104.2413	104.2413
125.1504	125.1504	125.1504
166.2641	166.2641	166.2641
184.3038	184.3038	184.3038

Threshold for overlay =

Create Composite Image

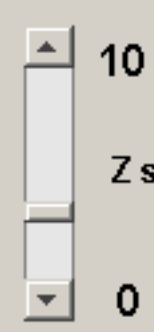
Alpha value for 3D overlay =

View in 3D

Create 3D Snap Shot

Choose Background Color

Current background color



Z scale factor = 3

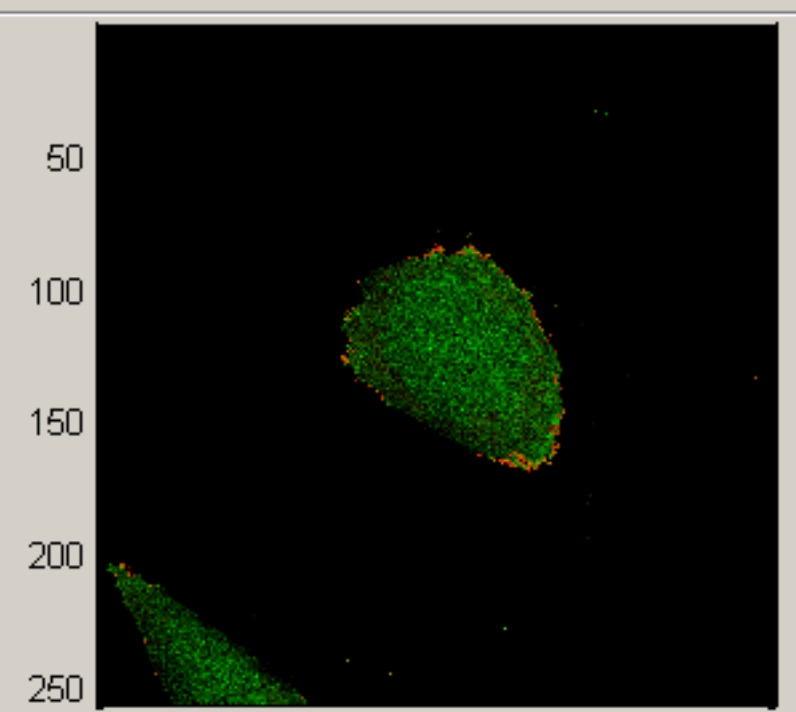
Check which axes you want to rotate around

☐ X ☐ Y ☐ Z

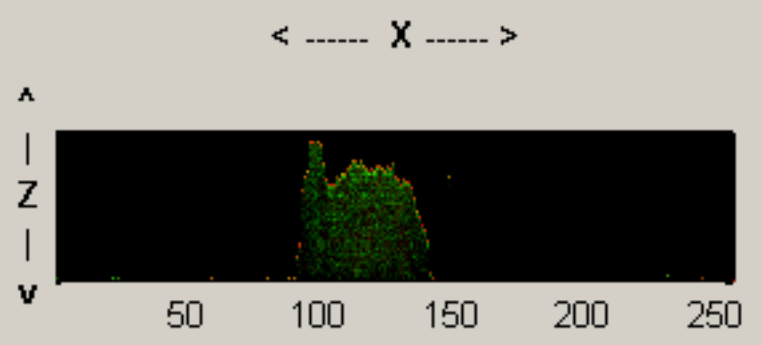
Number of degrees for rotation

Preview

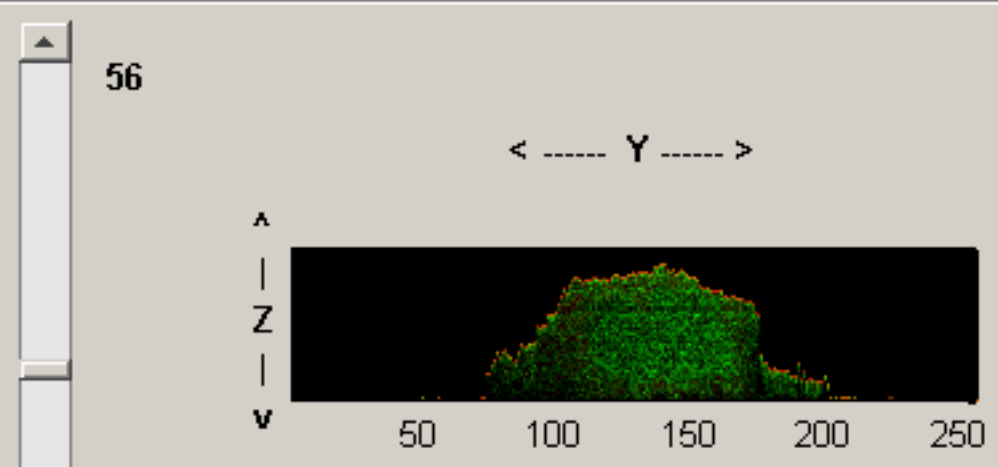
Create 3D Movie



Layer number: 26



row # 104



Click and drag on the plot to see the image from different angles.



Create XZ Movie

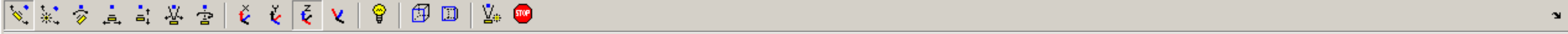
Create XZ Snap shot

Create YZ Movie

Create YZ Snap Shot



Close Panel



Red Peak(s)	Green Peak(s)	Blue Peak(s)
None	None	None
Total_Counts	Total_Counts	Total_Counts
58.10555	58.10555	58.10555
70.13471	70.13471	70.13471
86.19242	86.19242	86.19242
104.2413	104.2413	104.2413
125.1504	125.1504	125.1504
166.2641	166.2641	166.2641
184.3038	184.3038	184.3038

Threshold for overlay =

Create Composite Image

Alpha value for 3D overlay =

View in 3D

Create 3D Snap Shot

Choose Background Color

Current background color



Z scale factor = 3

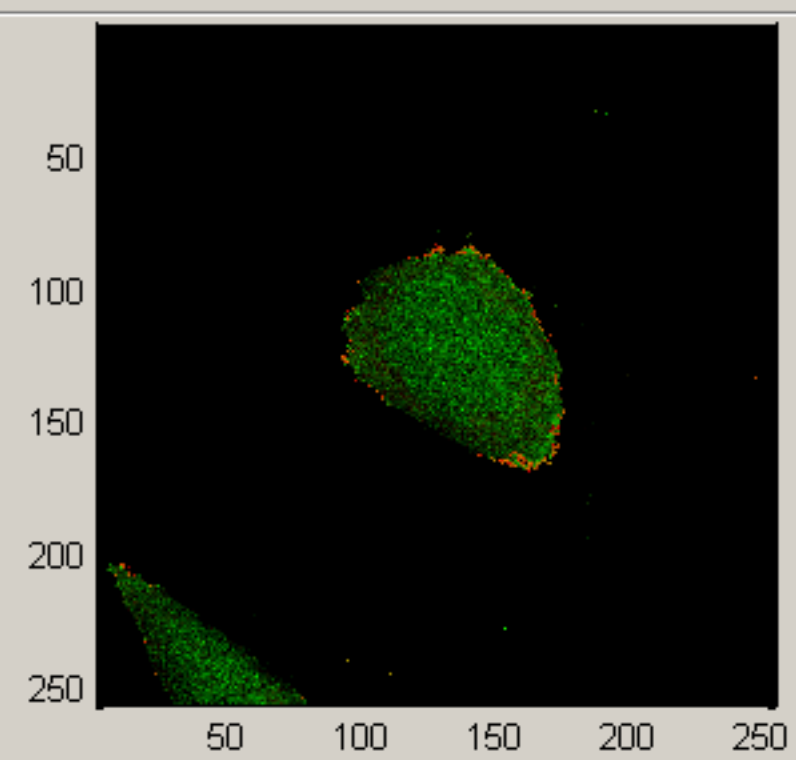
Check which axes you want to rotate around

☐ X ☐ Y ☐ Z

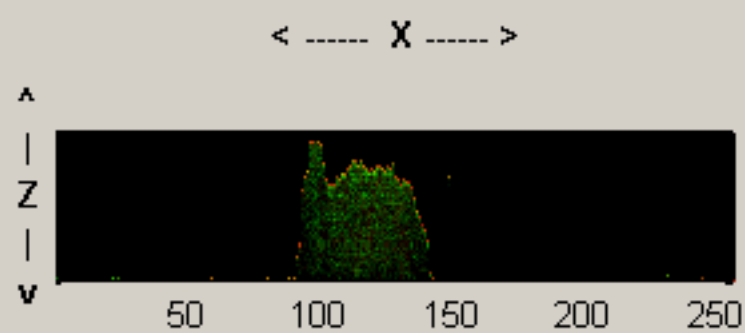
Number of degrees for rotation

Preview

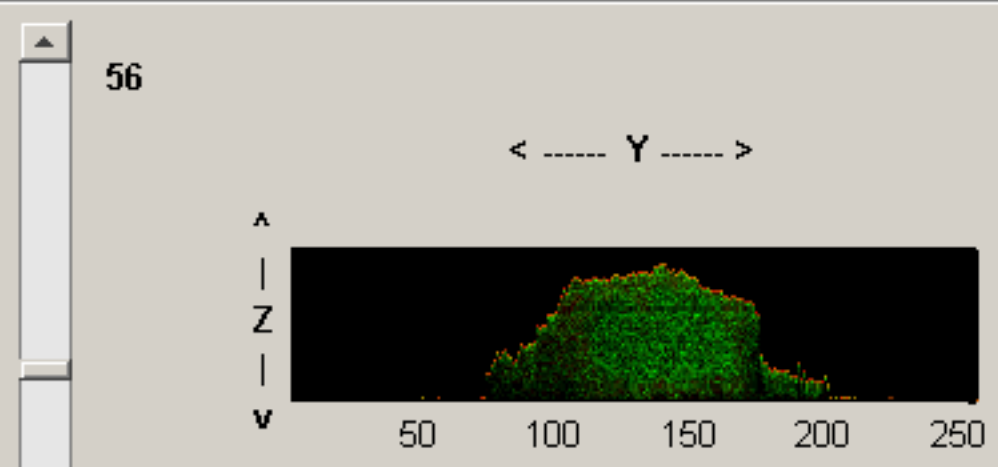
Create 3D Movie



Layer number: 26



row # 104



Click and drag on the plot to see the image from different angles.

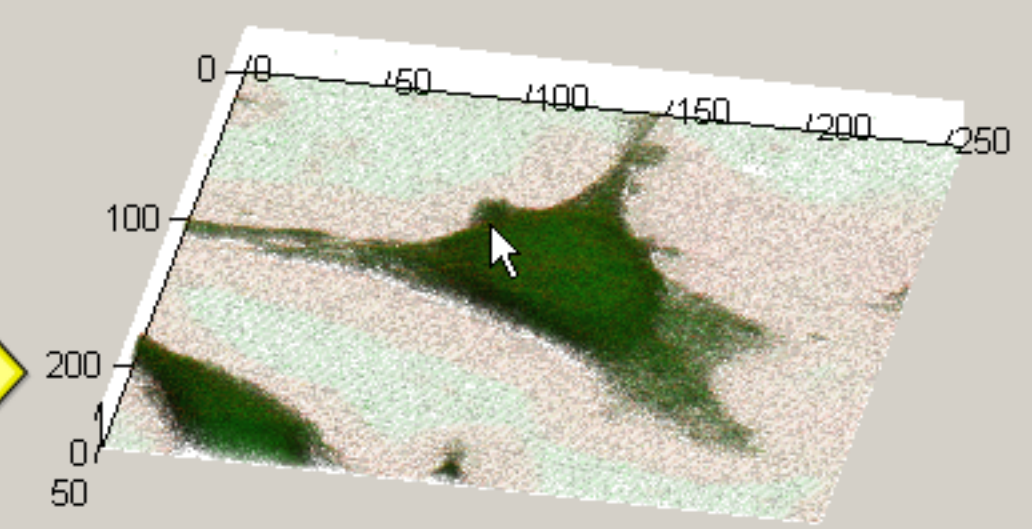


Create XZ Movie

Create XZ Snap shot

Create YZ Movie

Create YZ Snap Shot



Close Panel

Red Peak(s)	Green Peak(s)	Blue Peak(s)
None	None	None
Total_Counts	Total_Counts	Total_Counts
58.10555	58.10555	58.10555
70.13471	70.13471	70.13471
86.19242	86.19242	86.19242
104.2413	104.2413	104.2413
125.1504	125.1504	125.1504
166.2641	166.2641	166.2641
184.3038	184.3038	184.3038

Threshold for overlay = 0

Create Composite Image

Alpha value for 3D overlay = 0.1

With these controls you can create a 3D movie rotating the image in any combination of axes you want.

Check the box for the axes you want to rotate the image around.



Z scale factor = 3

0

Check which axes you want to rotate around

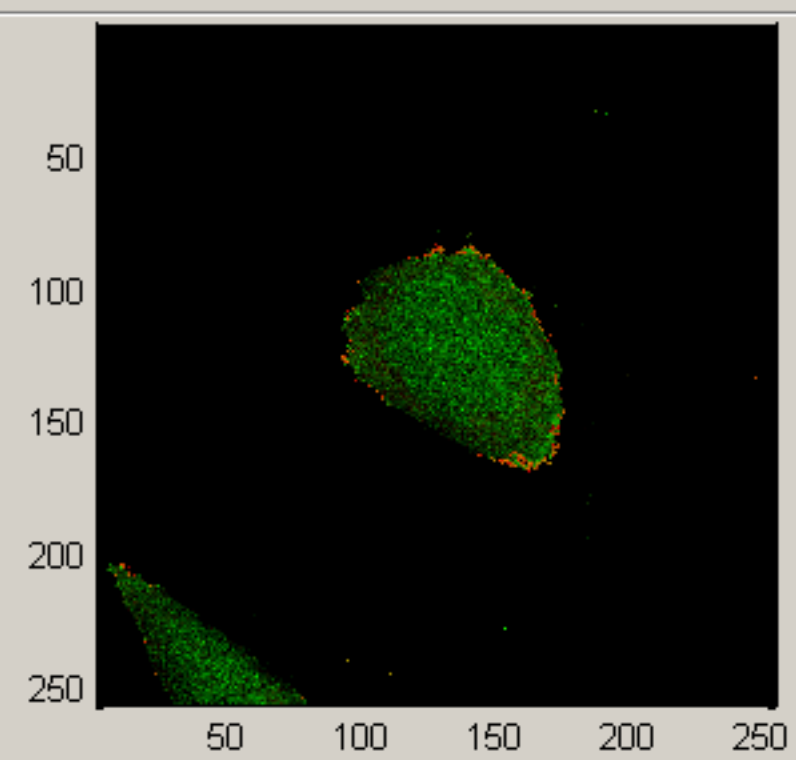
☒ X ☐ Y ☐ Z

Number of degrees for rotation

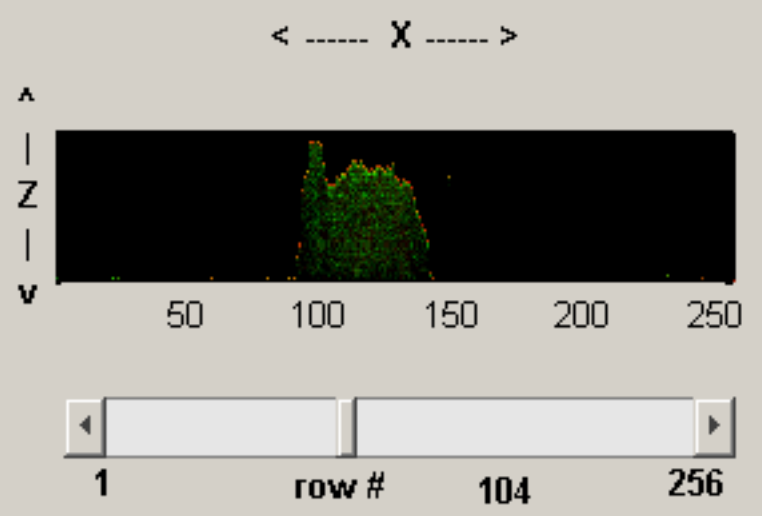
360

Preview

Create 3D Movie

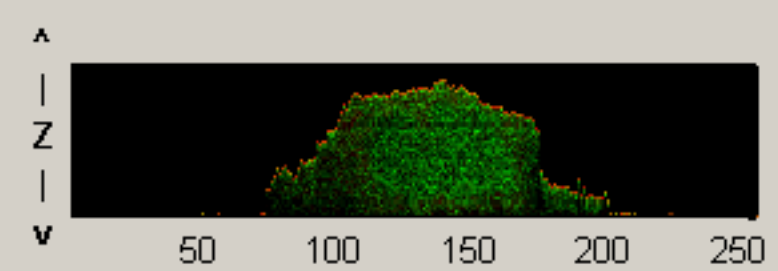


Layer number: 26



56

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



row # 129

Create XY Movie

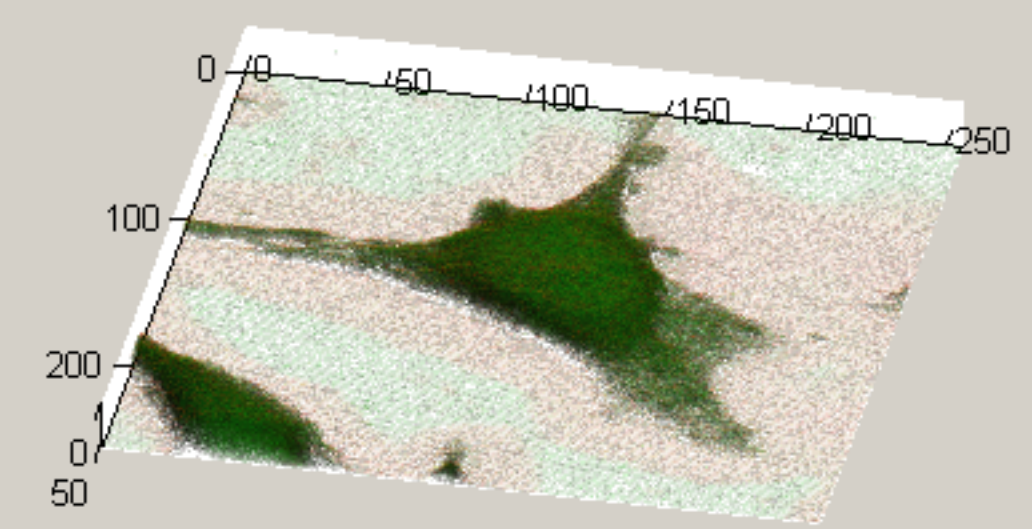
Create XY Snap shot

Create XZ Movie

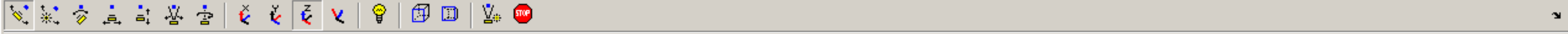
Create XZ Snap shot

Create YZ Movie

Create YZ Snap Shot



Close Panel



Red Peak(s)	Green Peak(s)	Blue Peak(s)
None	None	None
Total_Counts	Total_Counts	Total_Counts
58.10555	58.10555	58.10555
70.13471	70.13471	70.13471
86.19242	86.19242	86.19242
104.2413	104.2413	104.2413
125.1504	125.1504	125.1504
166.2641	166.2641	166.2641
184.3038	184.3038	184.3038

Threshold for overlay = 0

Create Composite Image

Alpha value for 3D overlay = 0.1

Here we will use the X and Y axes.

10
Z scale factor = 3
0

Check which axes you want to rotate around

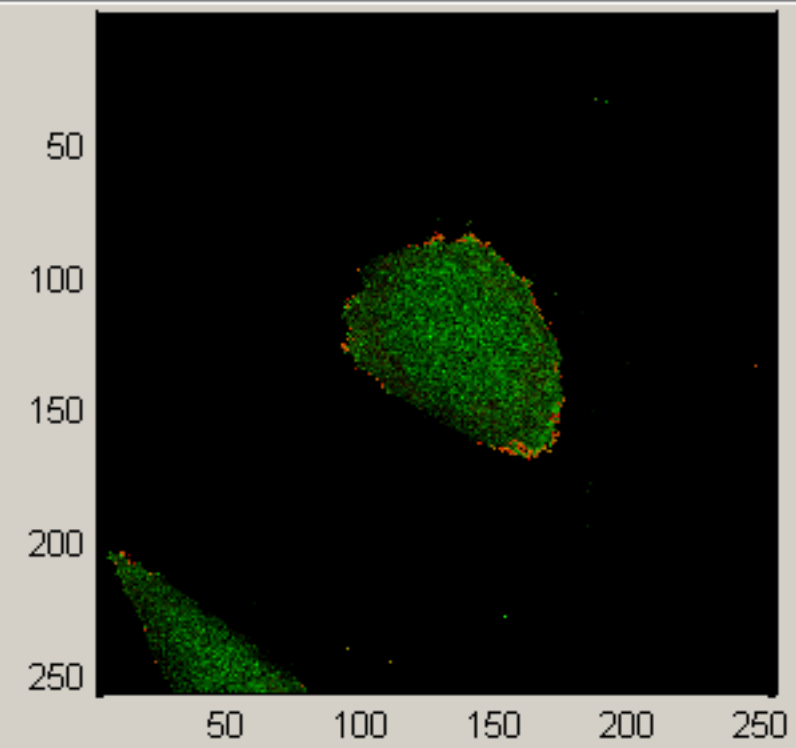
☒ X ☒ Y ☐ Z

Number of degrees for rotation

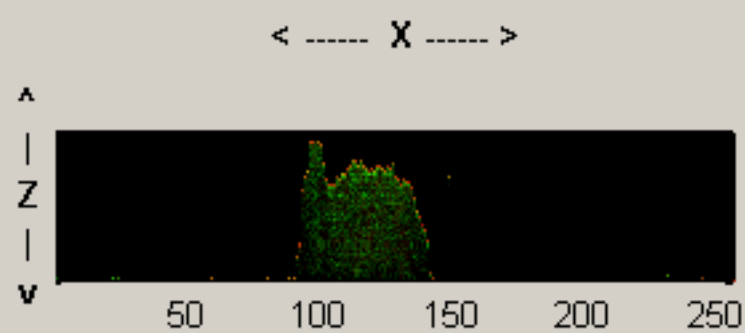
360

Preview

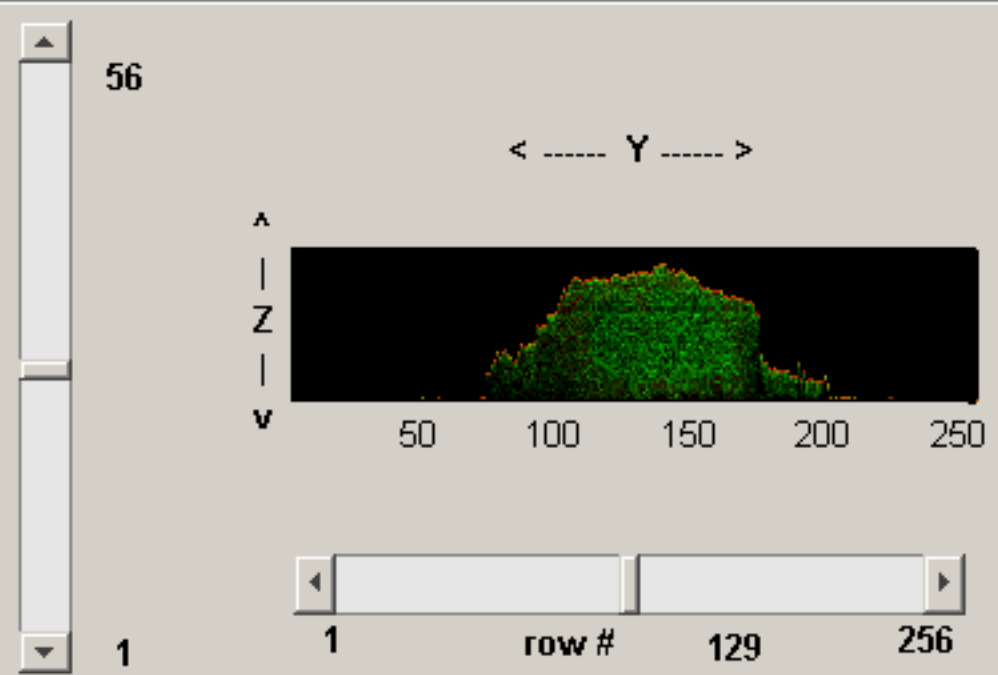
Create 3D Movie



Layer number: 26



row # 104



Create XY Movie

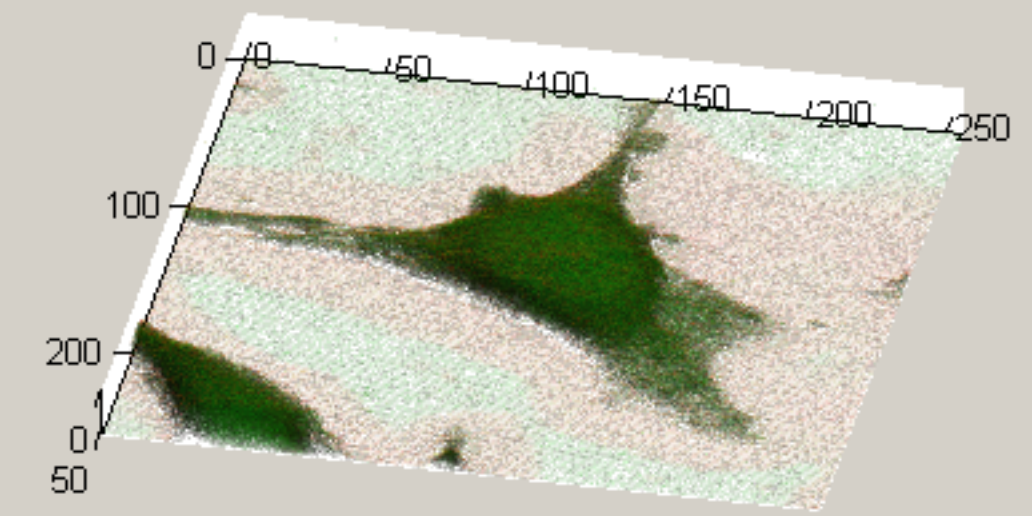
Create XY Snap shot

Create XZ Movie

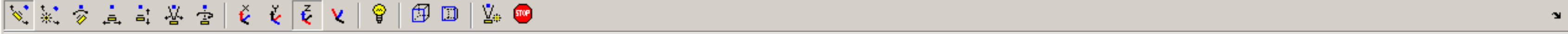
Create XZ Snap shot

Create YZ Movie

Create YZ Snap Shot



Close Panel



Red Peak(s)	Green Peak(s)	Blue Peak(s)
None	None	None
Total_Counts	Total_Counts	Total_Counts
58.10555	58.10555	58.10555
70.13471	70.13471	70.13471
86.19242	86.19242	86.19242
104.2413	104.2413	104.2413
125.1504	125.1504	125.1504
166.2641	166.2641	166.2641
184.3038	184.3038	184.3038

Threshold for overlay =

Create Composite Image

Alpha value for 3D overlay =

View in 3D

Choose Background Color

You can enter the number of degrees you want the volume rotated during the movie. The default is 360.

Z scale factor =

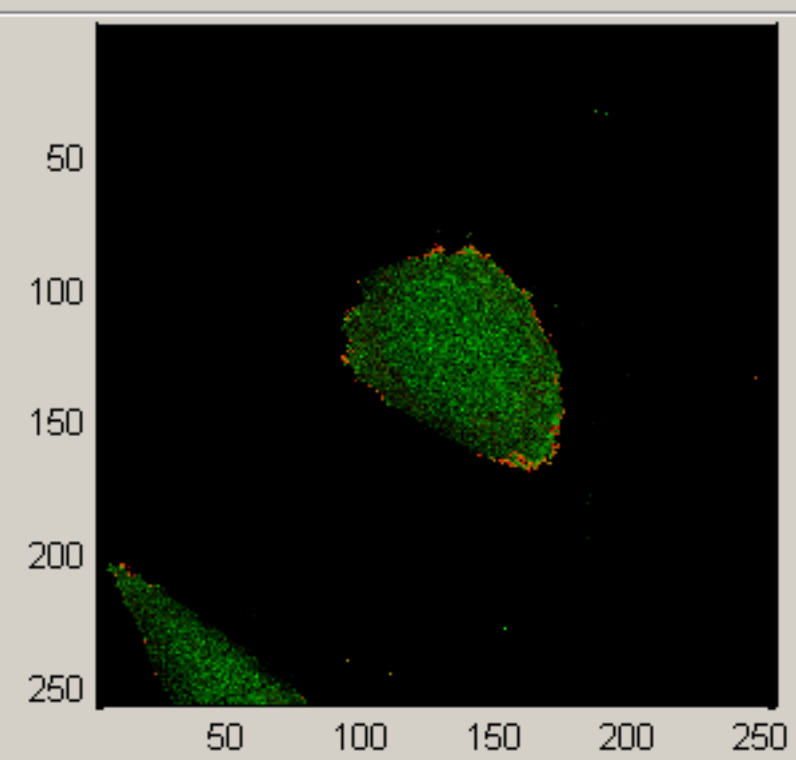
Check which axes you want to rotate around

☒ X ☒ Y ☐ Z

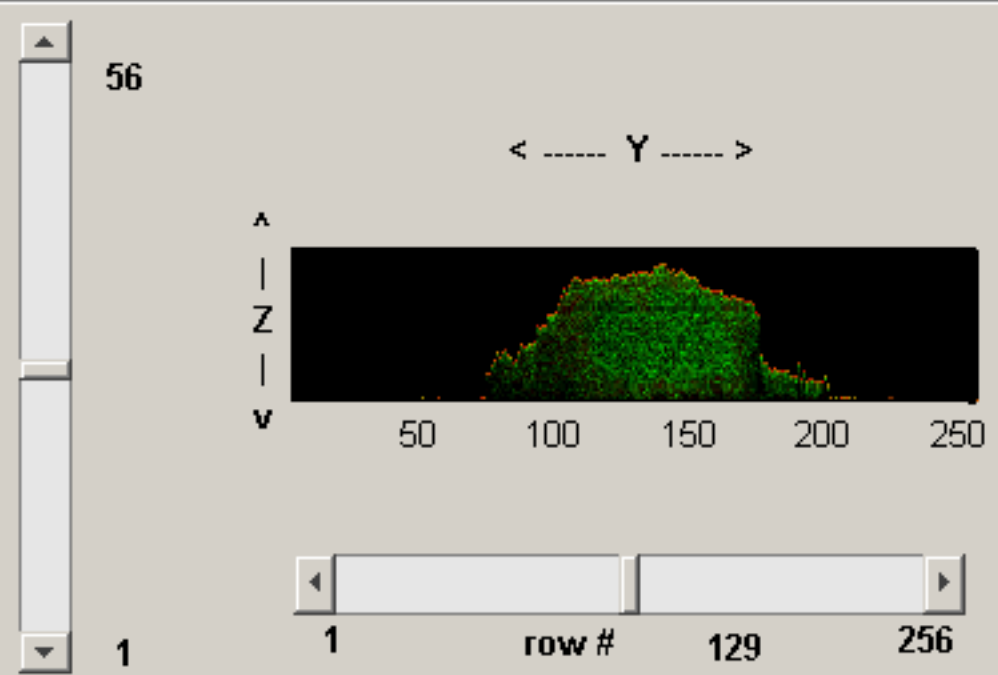
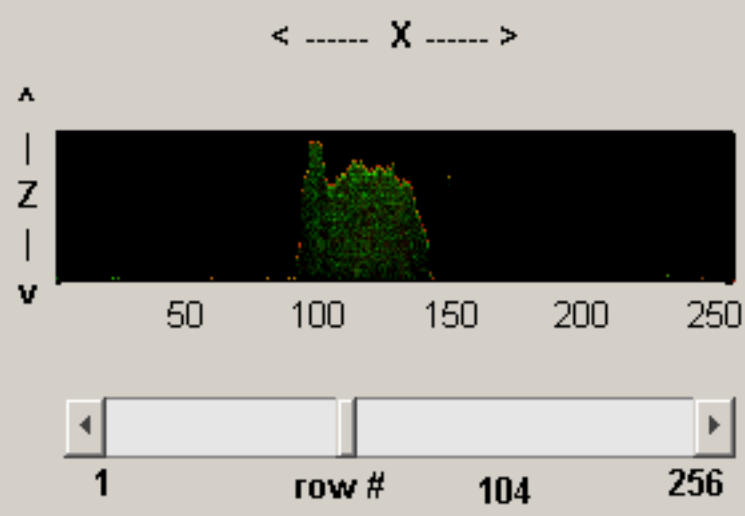
Number of degrees for rotation

Preview

Create 3D Movie



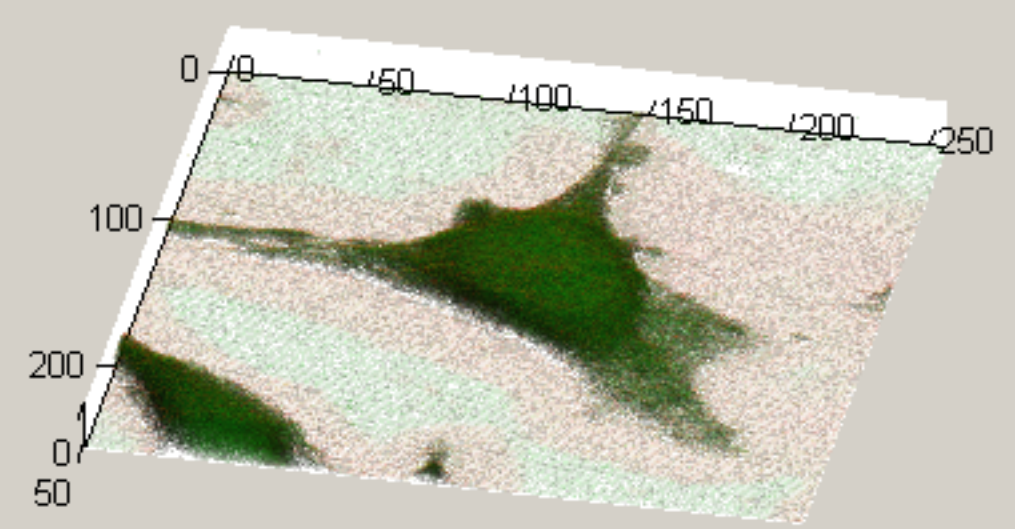
Layer number:



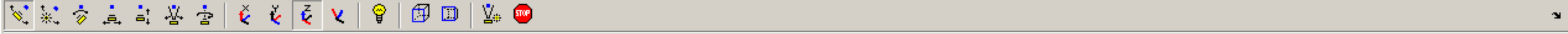
Create XY Movie Create XY Snap shot

Create XZ Movie Create XZ Snap shot

Create YZ Movie Create YZ Snap Shot



Close Panel



Red Peak(s)	Green Peak(s)	Blue Peak(s)
None	None	None
Total_Counts	Total_Counts	Total_Counts
58.10555	58.10555	58.10555
70.13471	70.13471	70.13471
86.19242	86.19242	86.19242
104.2413	104.2413	104.2413
125.1504	125.1504	125.1504
166.2641	166.2641	166.2641
184.3038	184.3038	184.3038

Threshold for overlay = 0

Create Composite Image

Alpha value for 3D overlay = 0.1

View in 3D

Choose Background Color

Create 3D Snap Shot

Current background color

To preview what the movie will look like, press the 'Preview' button.



0

Check which axes you want to rotate around

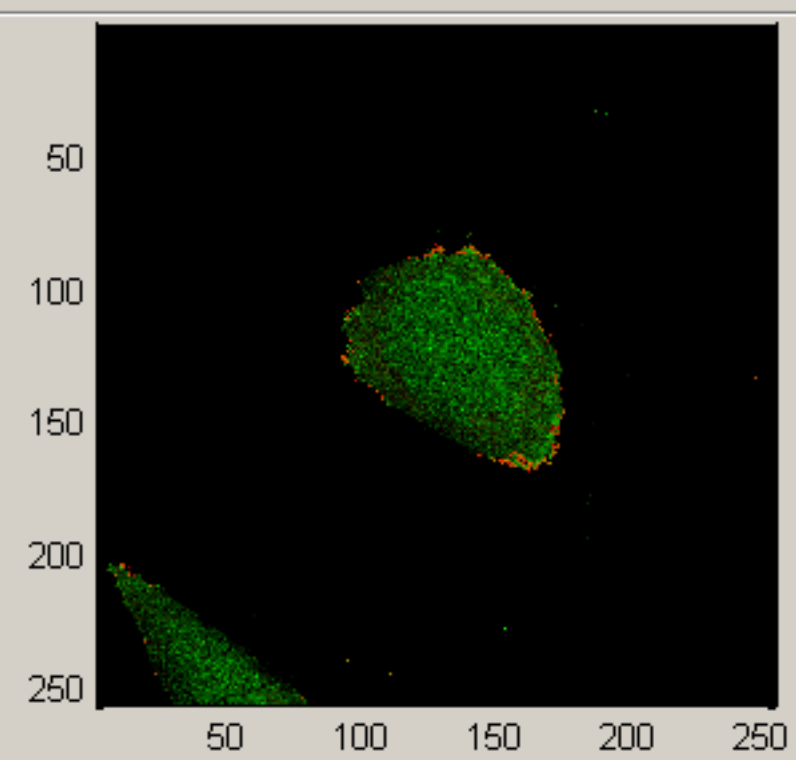
☒ X ☒ Y ☐ Z

Number of degrees for rotation

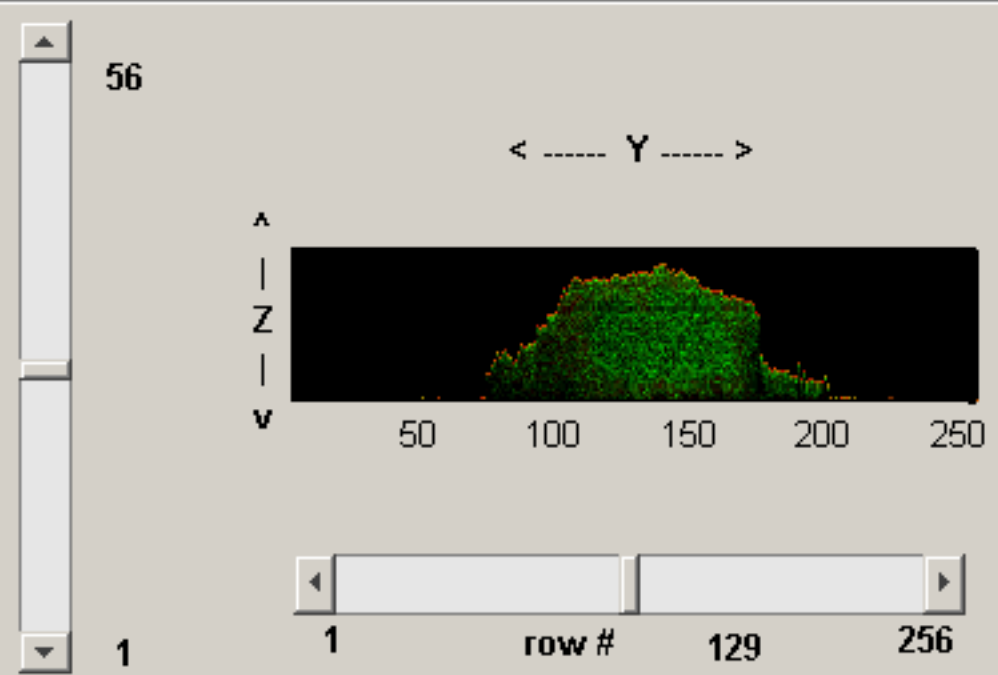
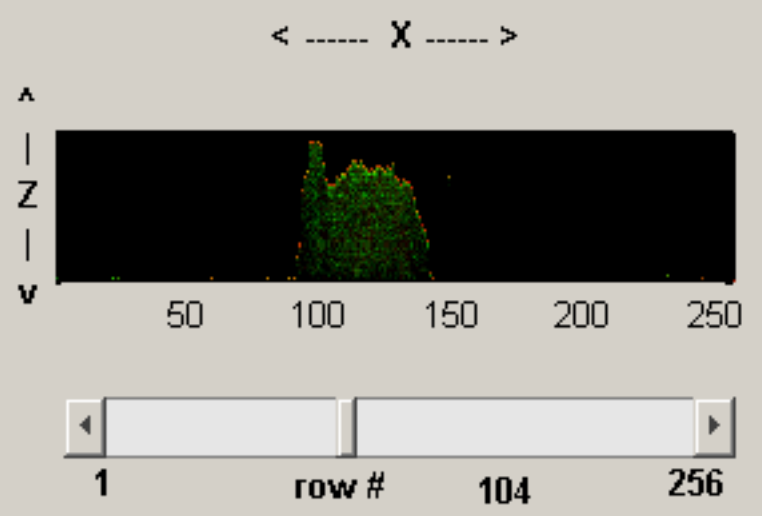
360

Preview

Create 3D Movie



Layer number: 26



Create XY Movie

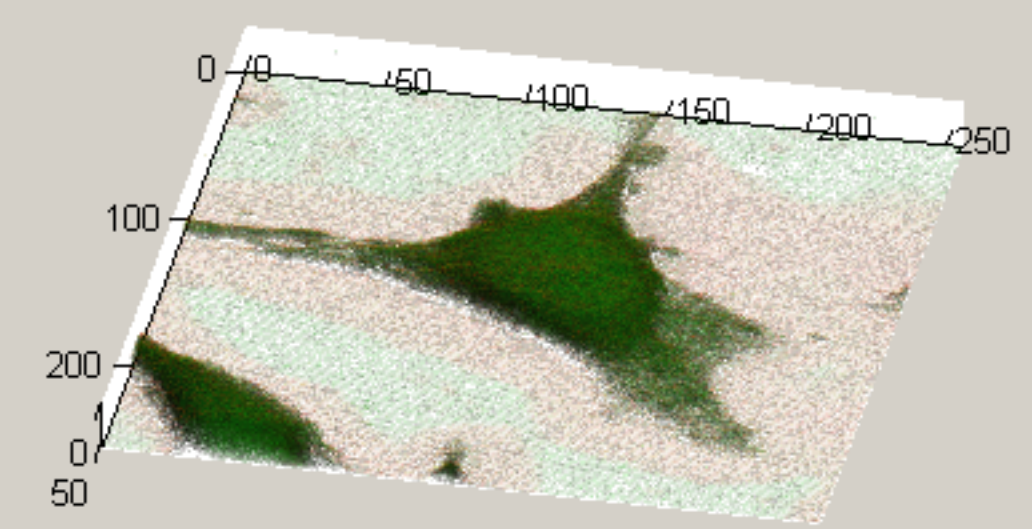
Create XY Snap shot

Create XZ Movie

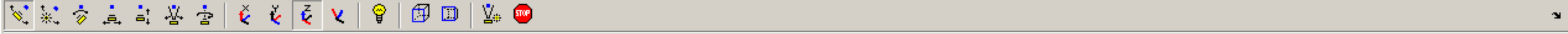
Create XZ Snap shot

Create YZ Movie

Create YZ Snap Shot



Close Panel



Red Peak(s)	Green Peak(s)	Blue Peak(s)
None	None	None
Total_Counts	Total_Counts	Total_Counts
58.10555	58.10555	58.10555
70.13471	70.13471	70.13471
86.19242	86.19242	86.19242
104.2413	104.2413	104.2413
125.1504	125.1504	125.1504
166.2641	166.2641	166.2641
184.3038	184.3038	184.3038

Threshold for overlay =

Create Composite Image

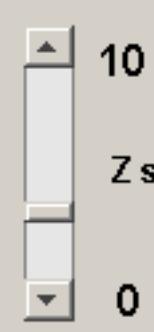
Alpha value for 3D overlay =

View in 3D

Create 3D Snap Shot

Choose Background Color

Current background color



Z scale factor =

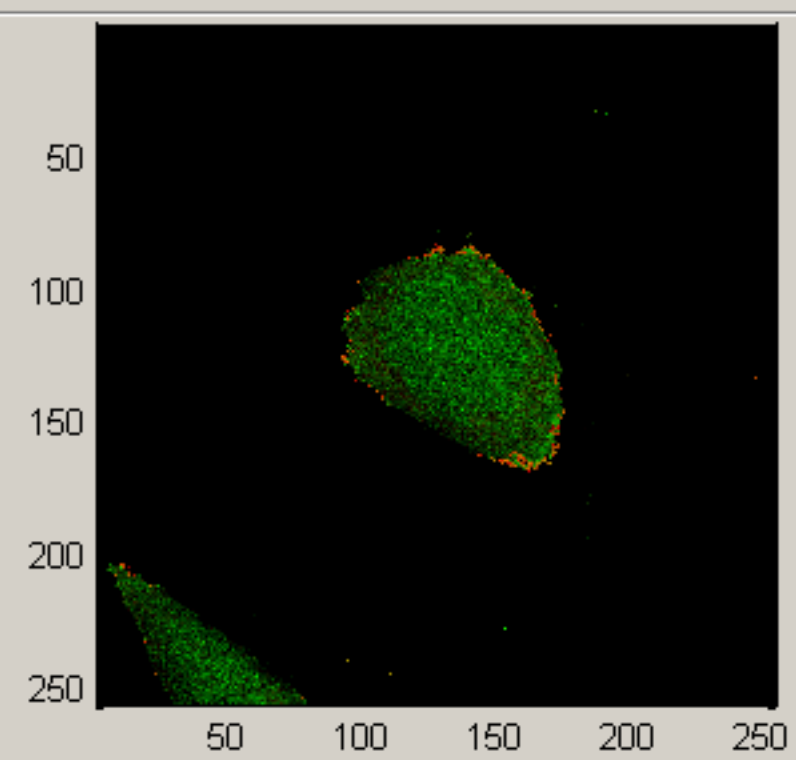
Check which axes you want to rotate around

☒ X ☒ Y ☐ Z

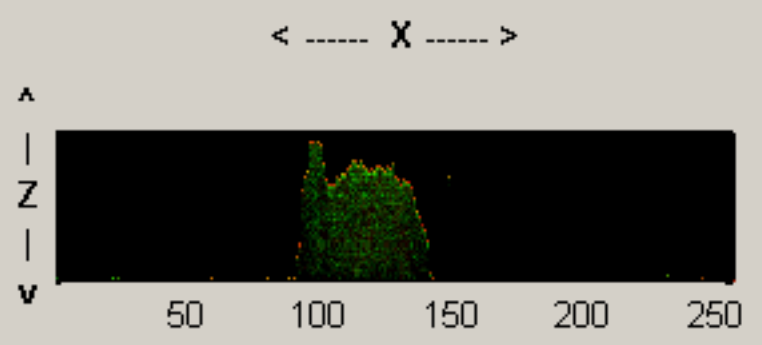
Number of degrees for rotation

Preview

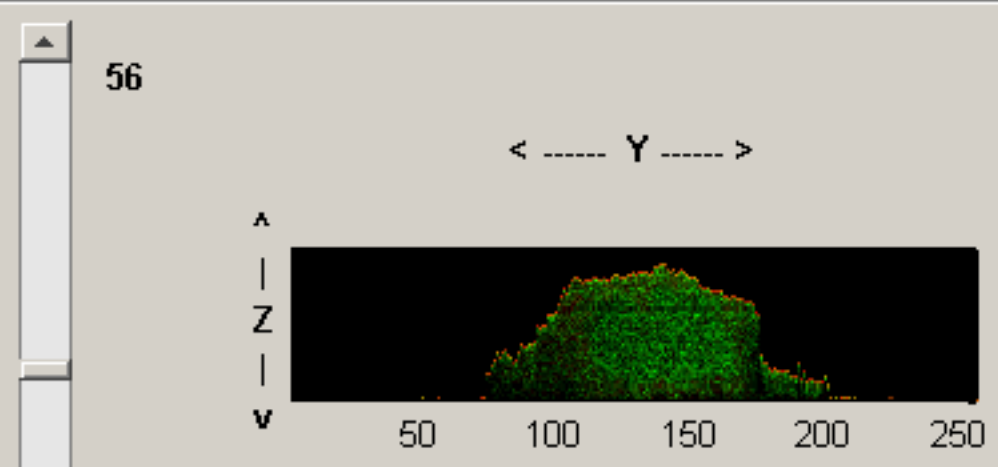
Create 3D Movie



Layer number:



row #



The preview will happen in the 3D viewing area.

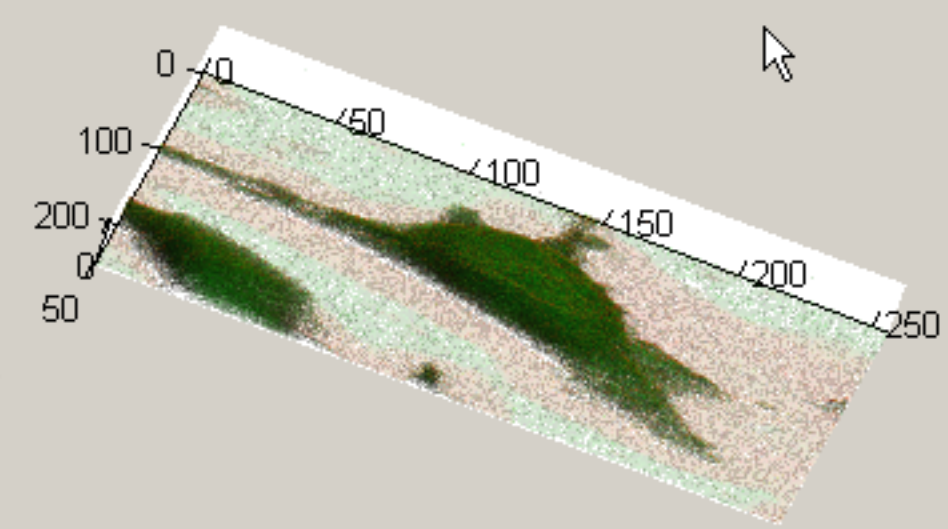


Create XZ Movie

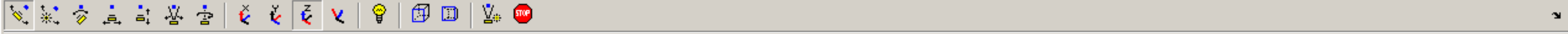
Create XZ Snap shot

Create YZ Movie

Create YZ Snap Shot



Close Panel



Red Peak(s)	Green Peak(s)	Blue Peak(s)
None	None	None
Total_Counts	Total_Counts	Total_Counts
58.10555	58.10555	58.10555
70.13471	70.13471	70.13471
86.19242	86.19242	86.19242
104.2413	104.2413	104.2413
125.1504	125.1504	125.1504
166.2641	166.2641	166.2641
184.3038	184.3038	184.3038

Threshold for overlay =

Create Composite Image

Alpha value for 3D overlay =

View in 3D

Create 3D Snap Shot

Choose Background Color

Current background color

Z scale factor = 3

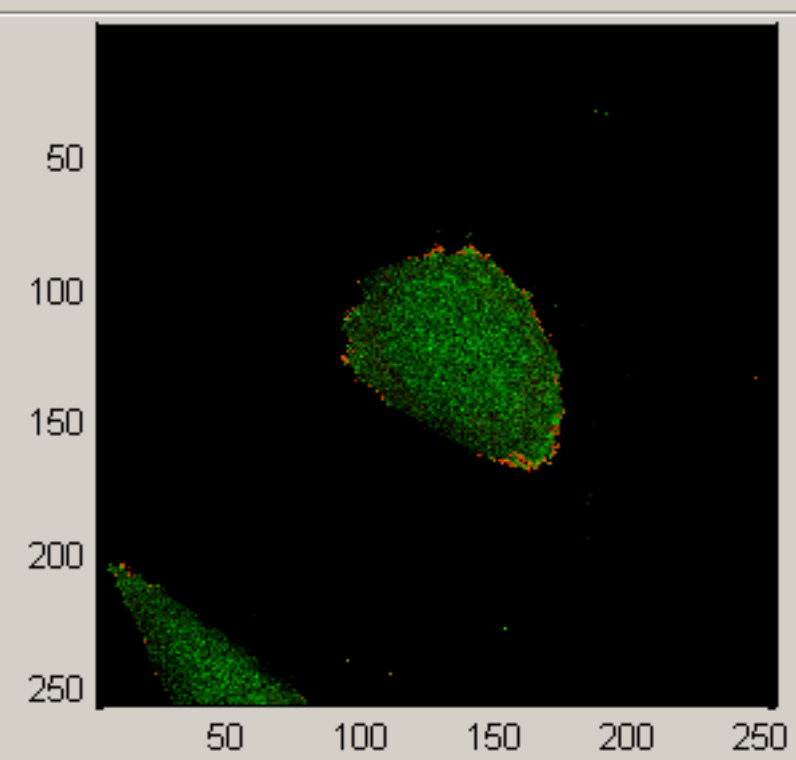
Check which axes you want to rotate around

☒ X ☒ Y ☐ Z

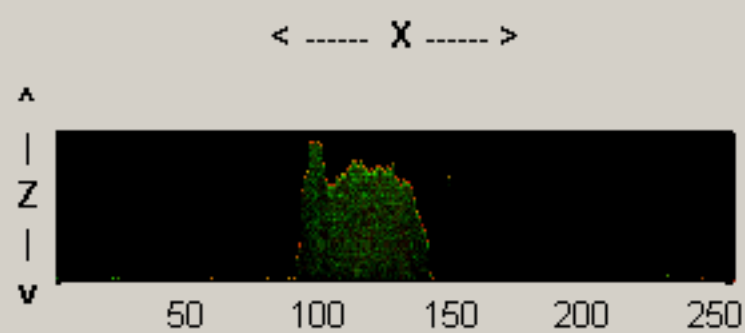
Number of degrees for rotation

Preview

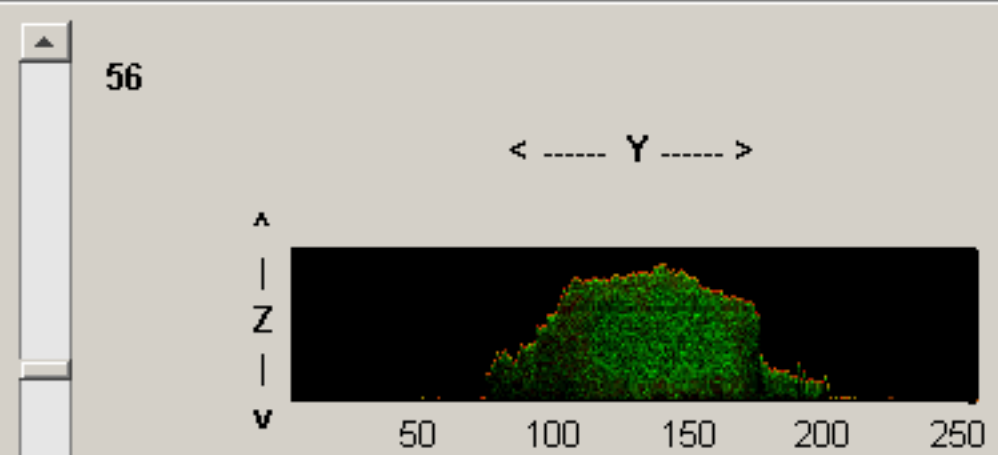
Create 3D Movie



Layer number: 26



row # 1 104 256



The preview will happen in the 3D viewing area.

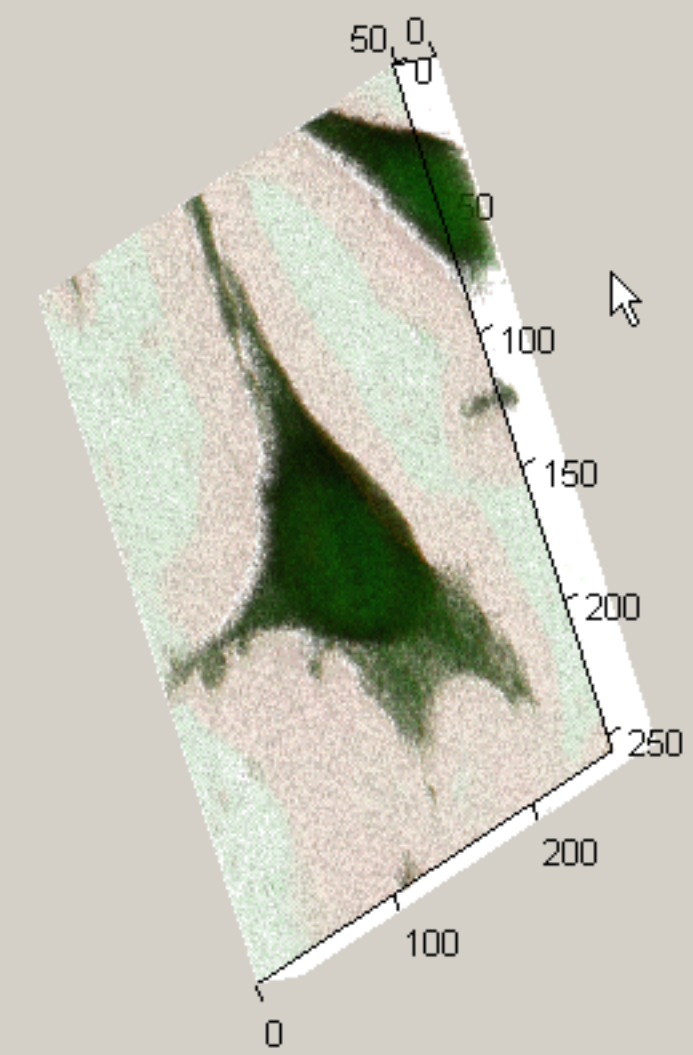


Create XZ Movie

Create XZ Snap shot

Create YZ Movie

Create YZ Snap Shot



Close Panel

Red Peak(s)

None
Total_Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038

Green Peak(s)

None
Total_Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038

Blue Peak(s)

None
Total_Counts
58.10555
70.13471
86.19242
104.2413
125.1504
166.2641
184.3038

Threshold for overlay =

Create Composite Image

Alpha value for 3D overlay =

View in 3D

Choose Background Color

Create 3D Snap Shot

Current background color

Once you are happy with the way it looks, press the 'Create 3D Movie' button.



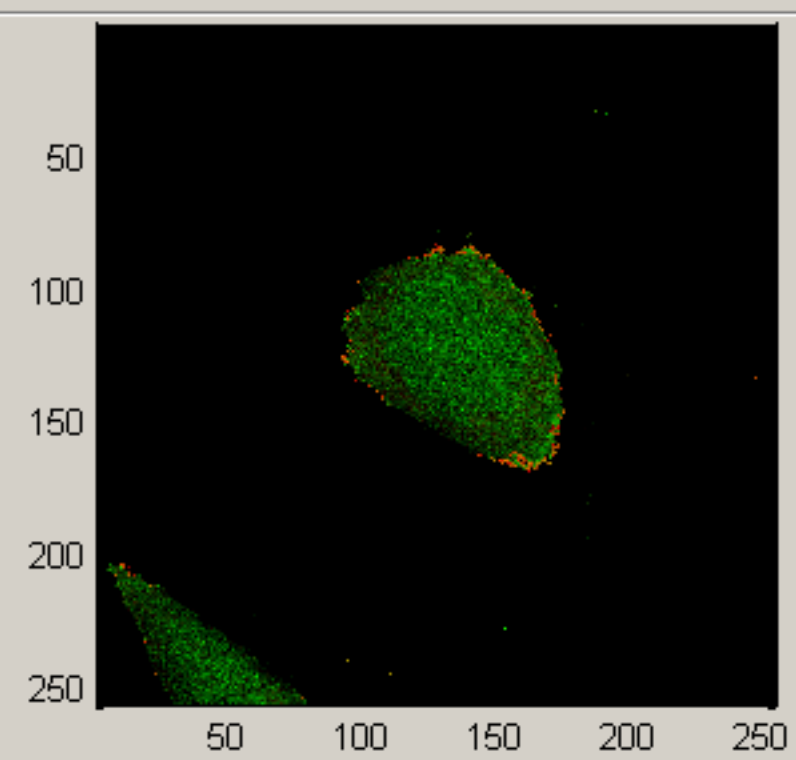
Check which axes you want to rotate around

☒ X
 ☒ Y
 ☐ Z

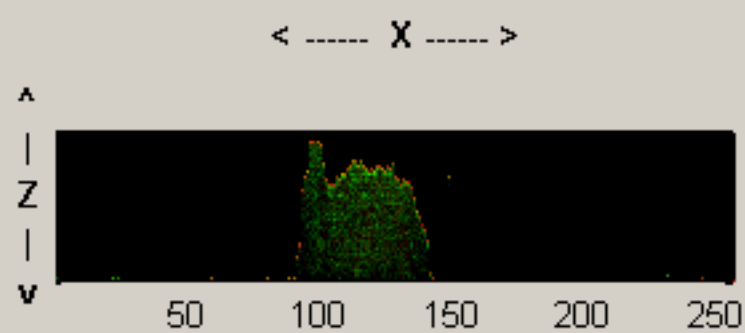
Number of degrees for rotation

Preview

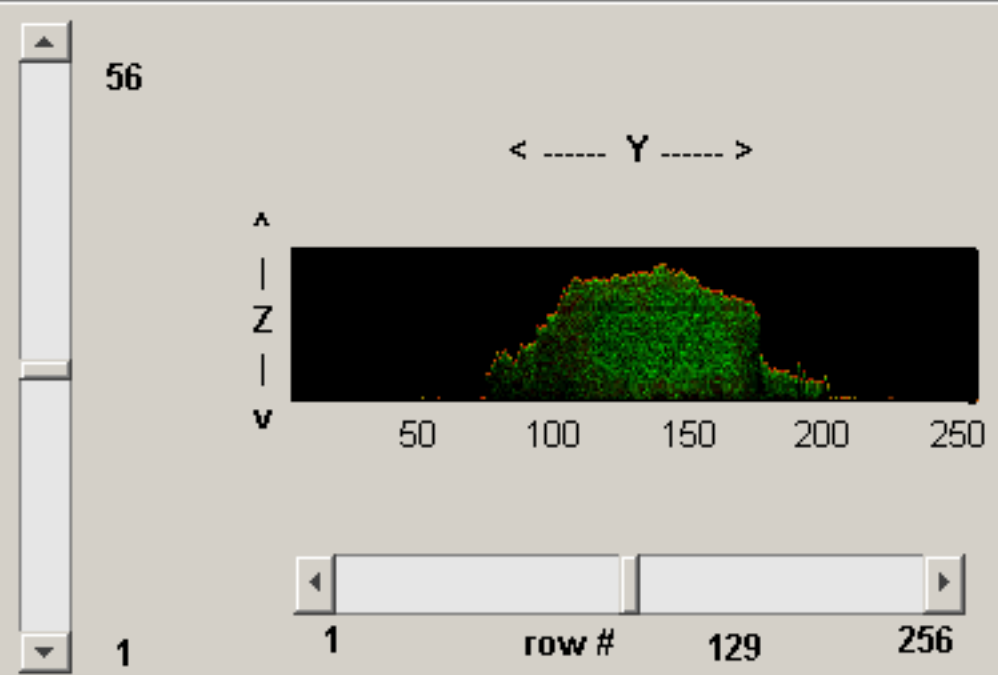
Create 3D Movie



Layer number: 26



row #



Create XY Movie

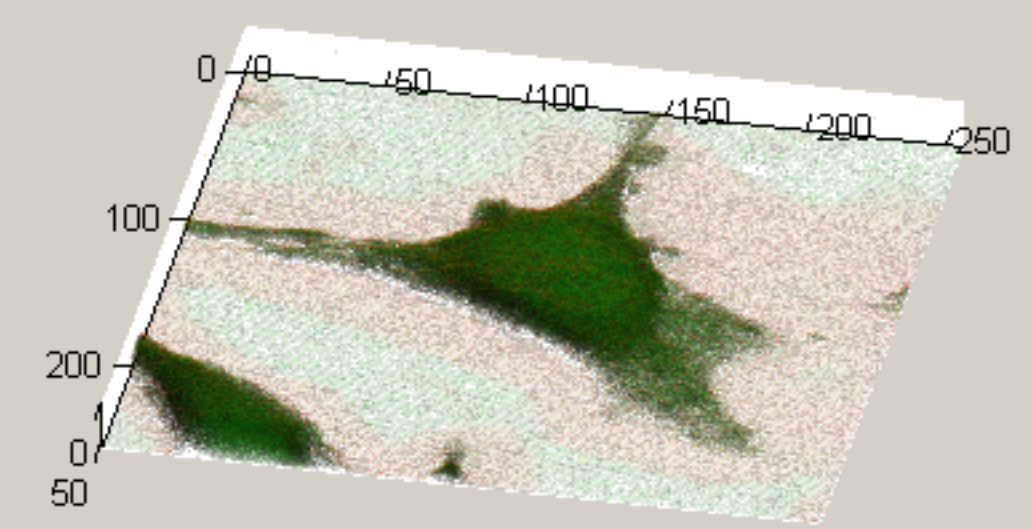
Create XY Snap shot

Create XZ Movie

Create XZ Snap shot

Create YZ Movie

Create YZ Snap Shot



Close Panel

Red Peak(s)	Green Peak(s)	Blue Peak(s)
None	None	None
Total_Counts	Total_Counts	Total_Counts
58.10555	58.10555	58.10555
70.13471	70.13471	70.13471
86.19242	86.19242	86.19242
104.2413	104.2413	104.2413
125.1504	125.1504	125.1504
166.2641	166.2641	166.2641
184.3038		

Alpha value for 3D overlay =

View in 3D

Choose Background Color

Create 3D Snap Shot

Current background color

Check which axes you want to rotate around

☒ X
 ☒ Y
 ☐ Z

Number of degrees for rotation

Preview

Create 3D Movie

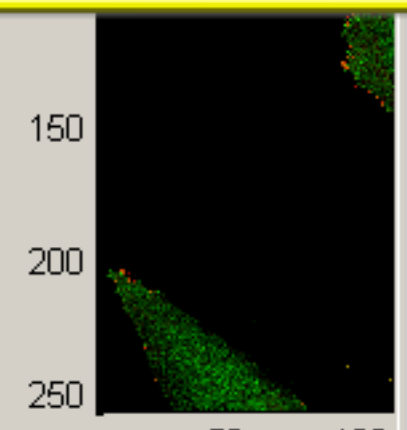
Figure 4

File Edit View Insert Tools Desktop Window Help

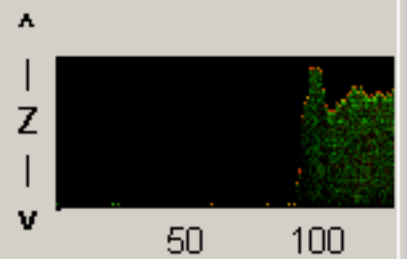
The movie will be rendered in a pop up window.

Do not close the window until the movie is done and you have saved it.

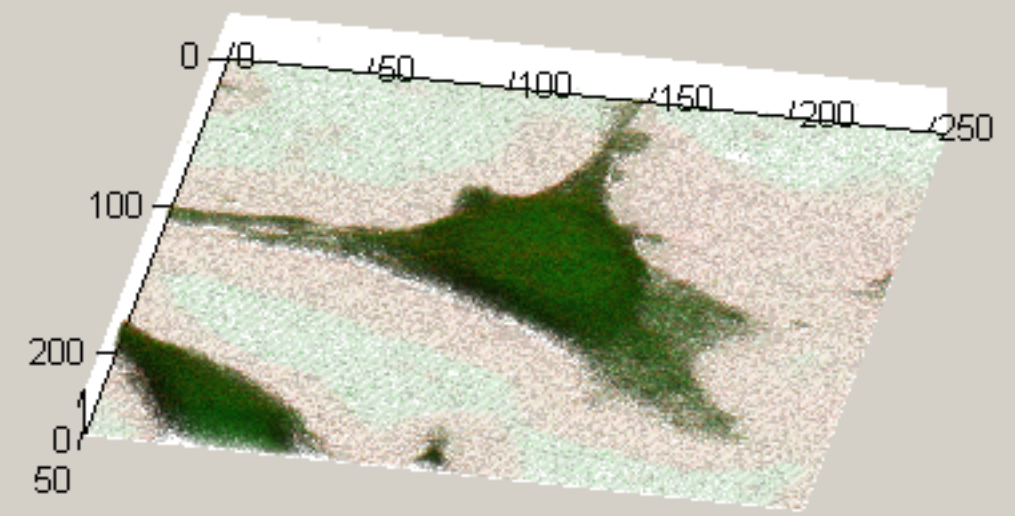
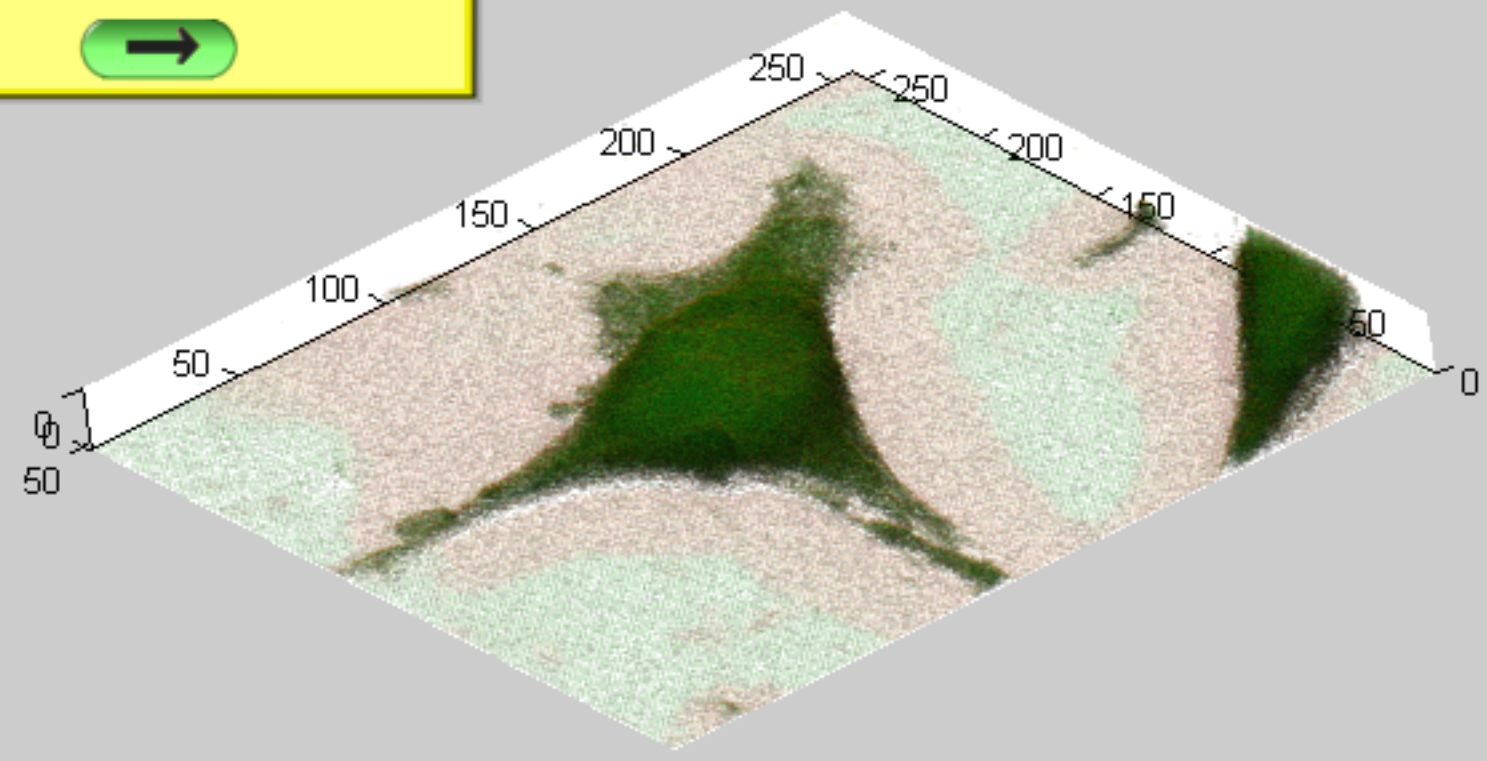
← →



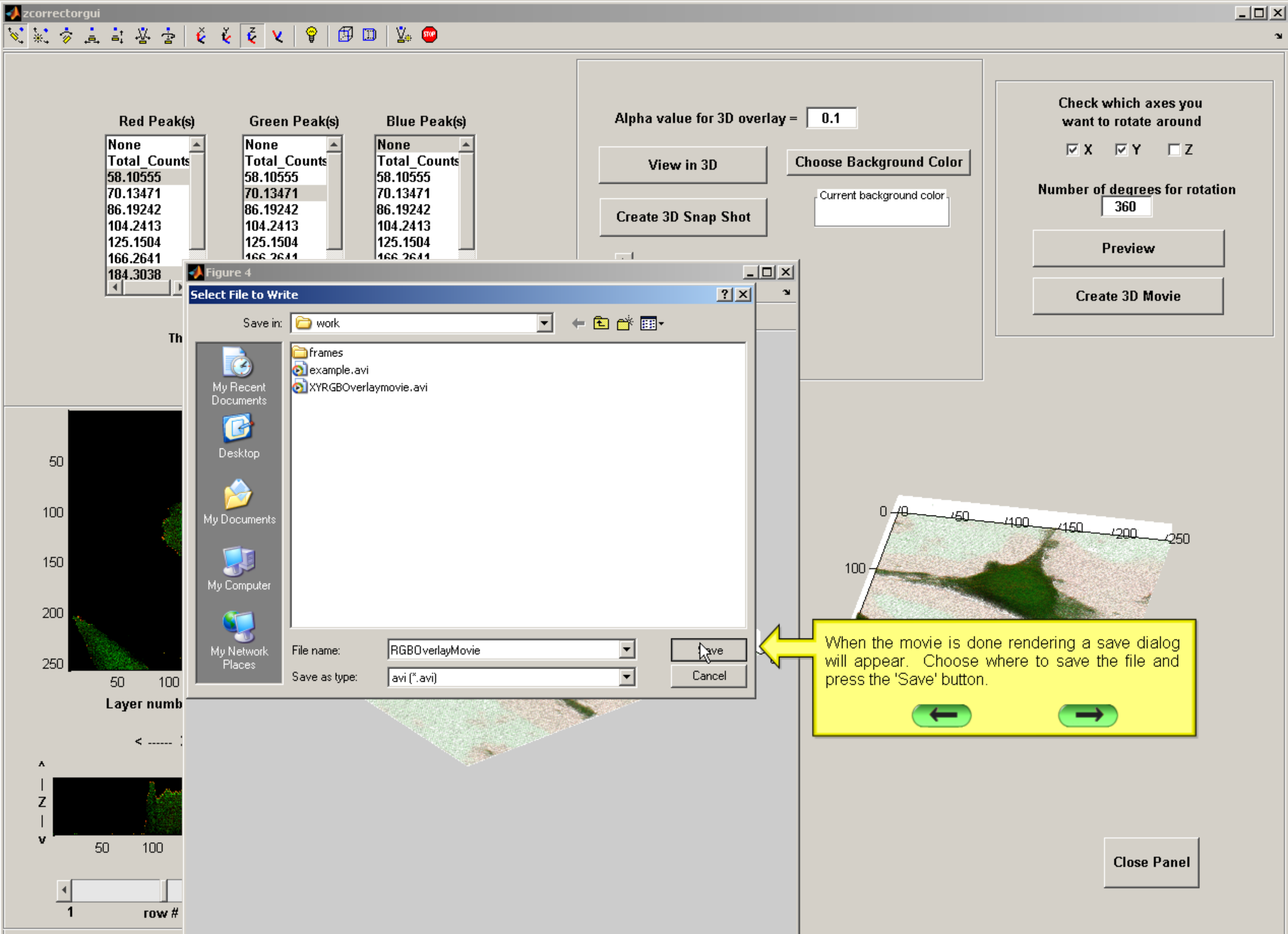
Layer numb

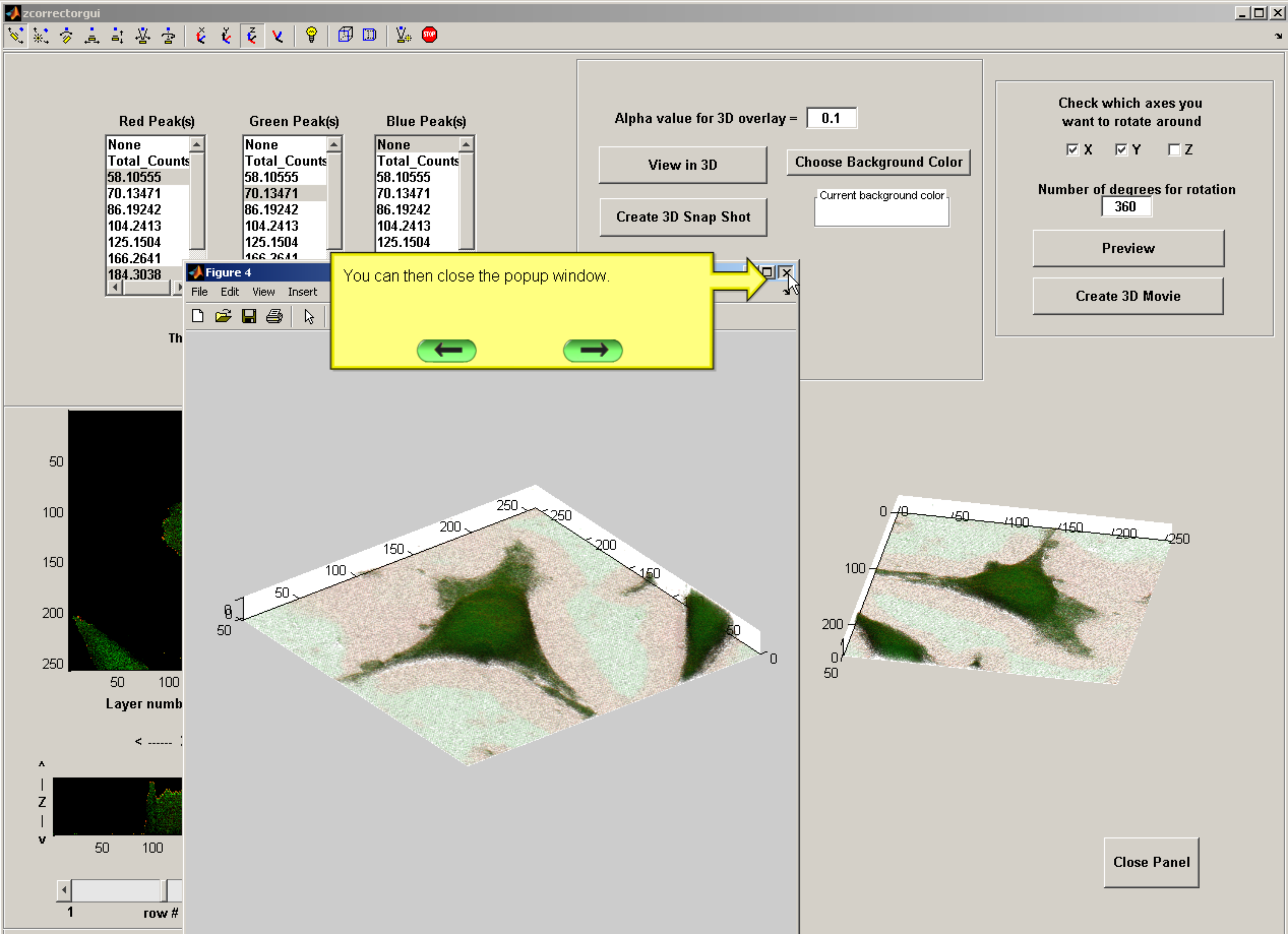


1 row #



Close Panel





Red Peak(s)	Green Peak(s)	Blue Peak(s)
None	None	None
Total_Counts	Total_Counts	Total_Counts
58.10555	58.10555	58.10555
70.13471	70.13471	70.13471
86.19242	86.19242	86.19242
104.2413	104.2413	104.2413
125.1504	125.1504	125.1504
166.2641	166.2641	166.2641
184.3038	184.3038	184.3038

Threshold for overlay =

Create Composite Image

Alpha value for 3D overlay =

View in 3D

Create 3D Snap Shot

Choose Background Color

Current background color

10
Z scale factor = 3
0

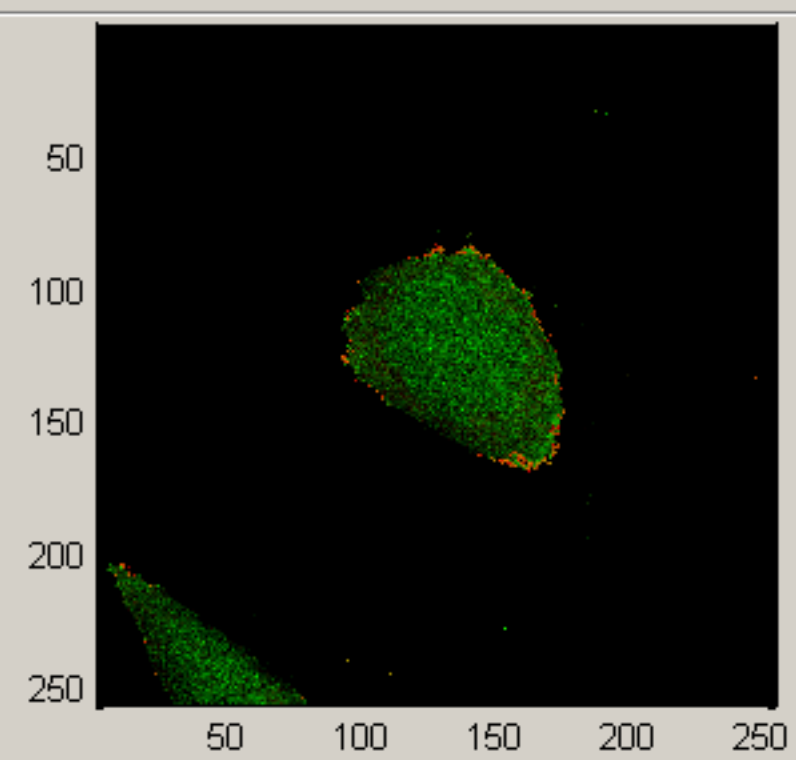
Check which axes you want to rotate around

☒ X ☒ Y ☐ Z

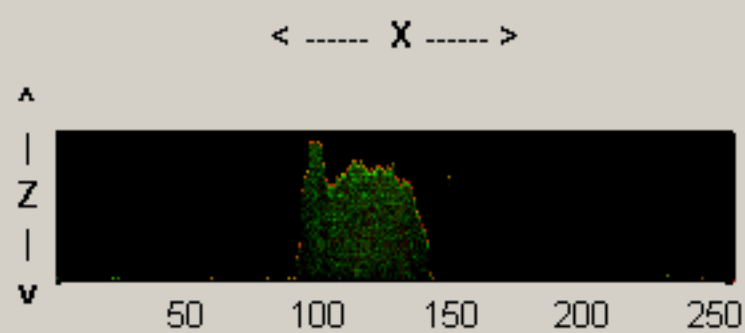
Number of degrees for rotation

Preview

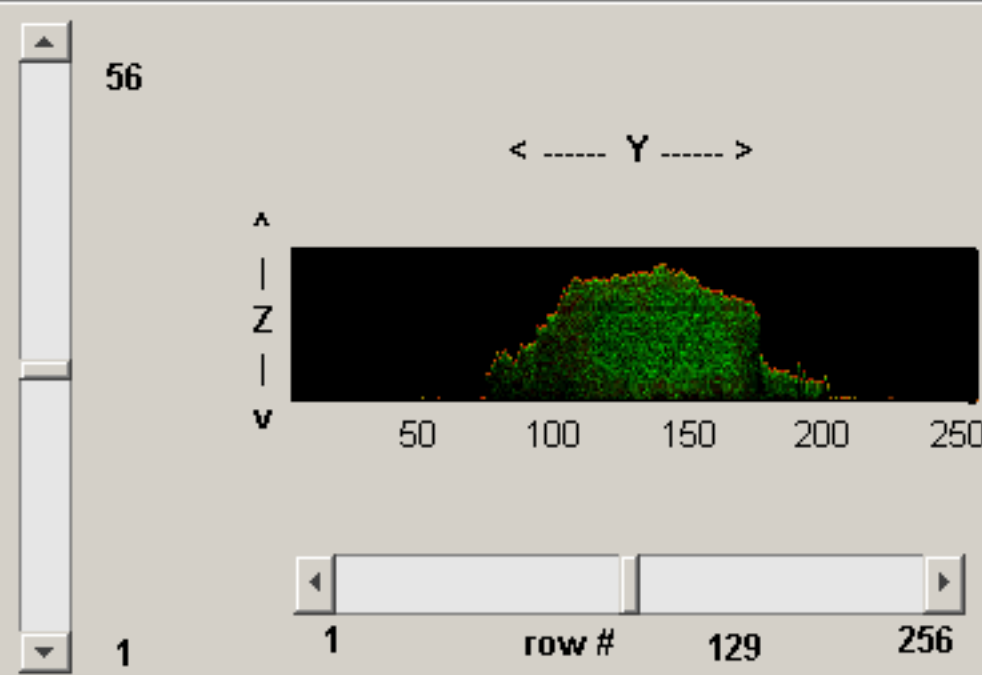
Create 3D Movie



Layer number: 26



row # 104 256



Create XY Movie

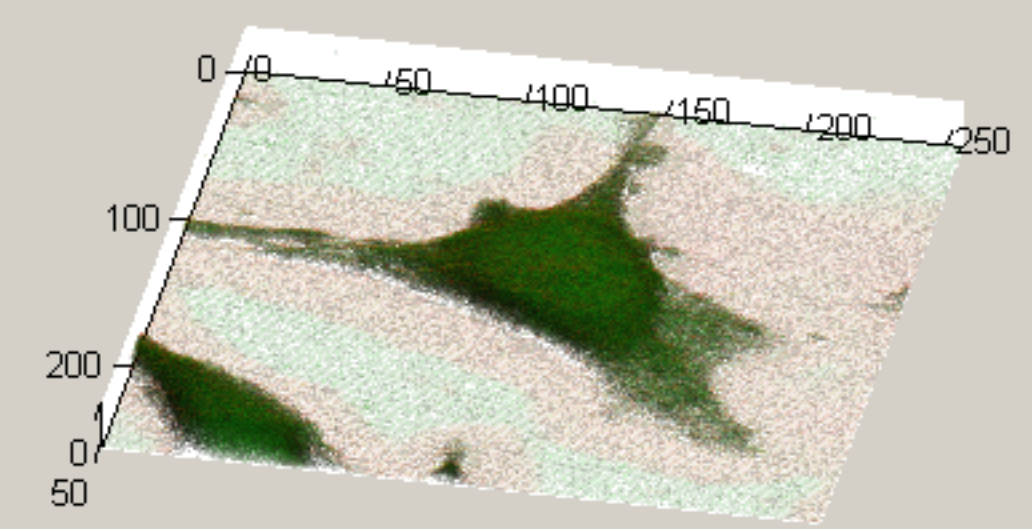
Create XY Snap shot

Create XZ Movie

Create XZ Snap shot

Create YZ Movie

Create YZ Snap shot



To close the Overlay Tools window and get back to the main window, press the 'Close Panel' button.

Close Panel

Import Data From Directory

Import

Loaded Data

Number of image layers: 56

Down binning 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

Close

Data Being Displayed

Total_Counts

Peak List

Total Counts
58.10555
70.13471
86.19242
104.2413

Initialize Corrected Data

Z corrected image XY

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

Overlay Tools

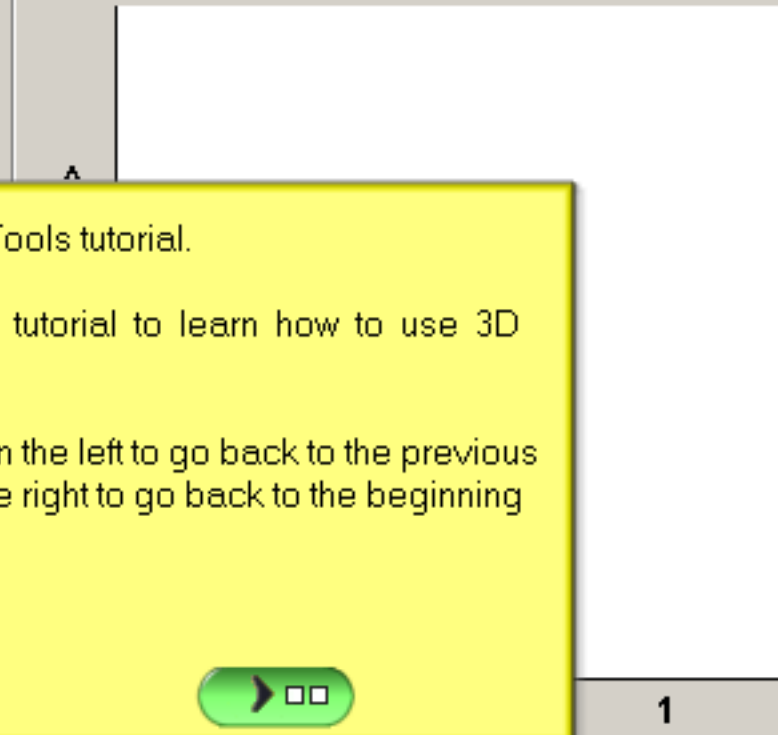
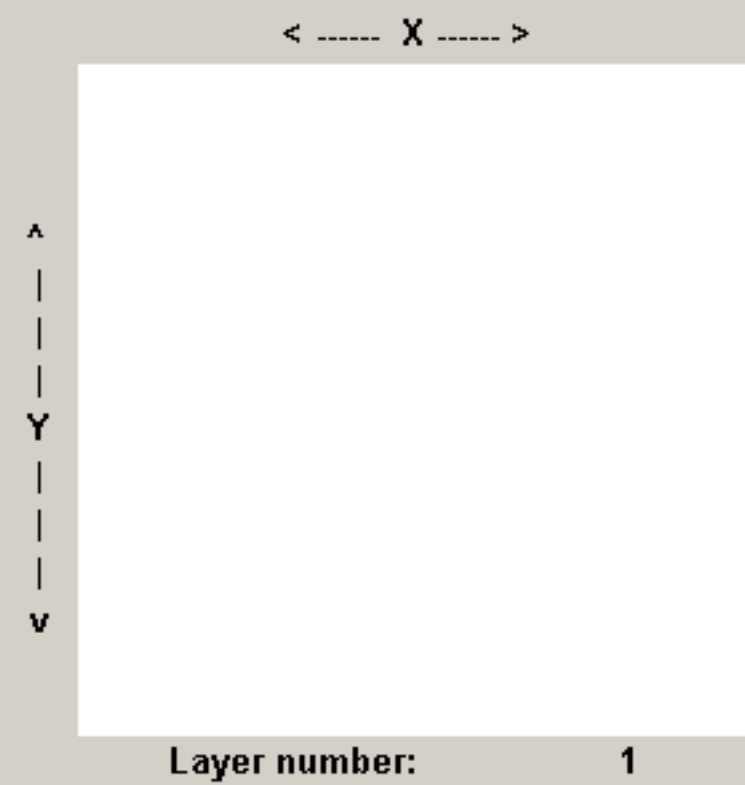
3D Tools

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

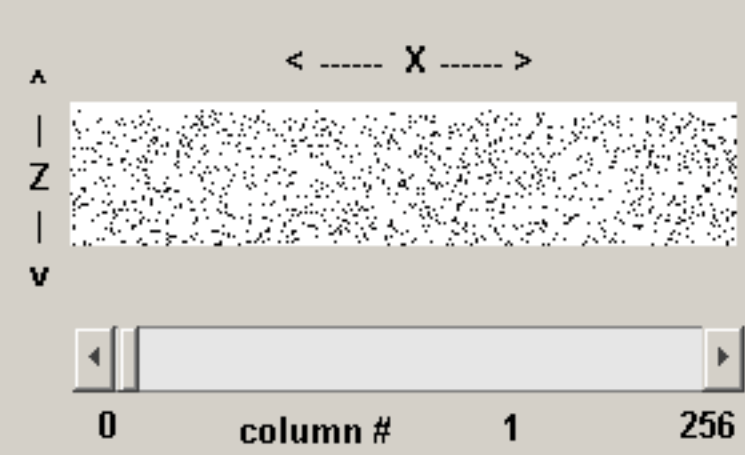


That's it for the Overlay Tools tutorial.

Continue on to the third tutorial to learn how to use 3D Tools.

Press the green button on the left to go back to the previous step. Press the button the right to go back to the beginning of the tutorial.

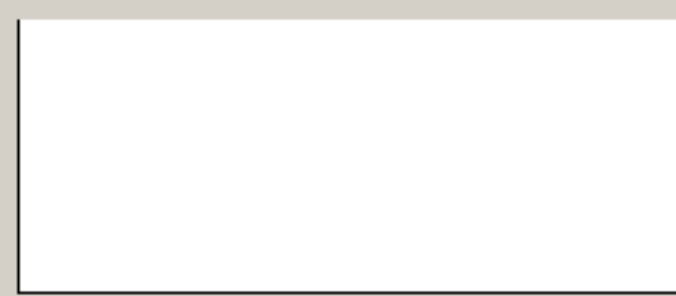
← →



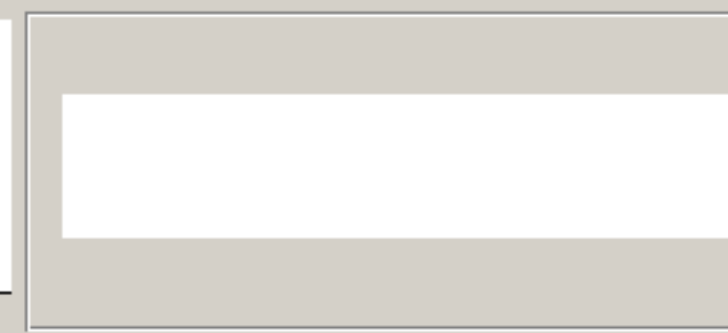
Thresholded total counts XZ



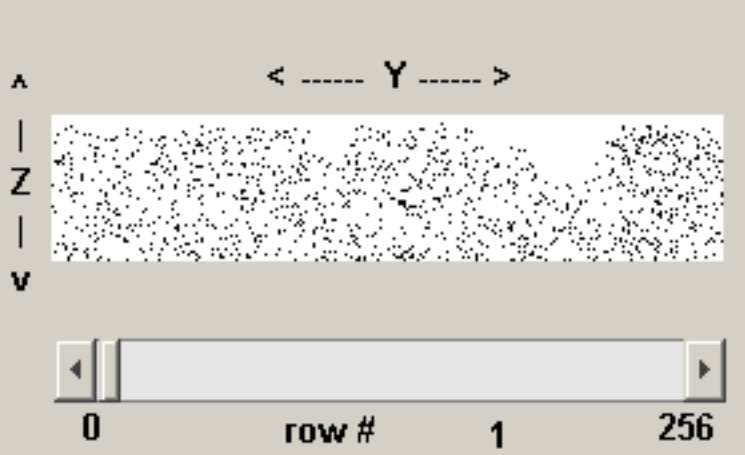
Z line XZ



Z corrected image XZ



Save Corr XZ



Thresholded total counts YZ



Z line YZ



Z corrected image YZ



Save Corr YZ