

Import BiF Data From Directory **Import Bif(6)** **Import Bif3D**

Import Data From Workspace **Load WS**

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

Downbin Data

Normalize Data

Adjust Total Counts Threshold Value

Work with Uncorrected Data

Overlay Tools **3D Tools**

Color Overlay **2D Profiles**

PCA Tools **Close**

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.

Number of image layers: 1

Data Being Displayed: **Total_Counts**

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

Y

Layer number: 1

95

0

1

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

Z

column # 0 1

Z corrected image XZ

Save Corr XZ

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

Z

row # 0 1 256

Z line YZ

Z corrected image YZ

Save Corr YZ



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Data Being Displayed **Total_Counts**

Peak List

Total Counts
15.02
17.04

Z corrected image XY

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

95

0

This tutorial will cover a new capability in the 2D Profiles panel of the zcorrectorgui. This new capability allows the user to create line scans layer by layer for any peak. This allows the user to monitor changes in the relative intensity of the selected peaks through the depth profile.



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

Create XY Corr Slice Movie

Create XZ Corr Slice Movie

Create YZ Corr Slice Movie

Layer number: **1**

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

^ | Z | v

0 column # 1 256

Thresholded total counts XZ

Z line XZ

Z corrected image XZ

Save Corr XZ

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

^ | Z | v

0 row # 1 256

Thresholded total counts YZ

Z line YZ

Z corrected image YZ

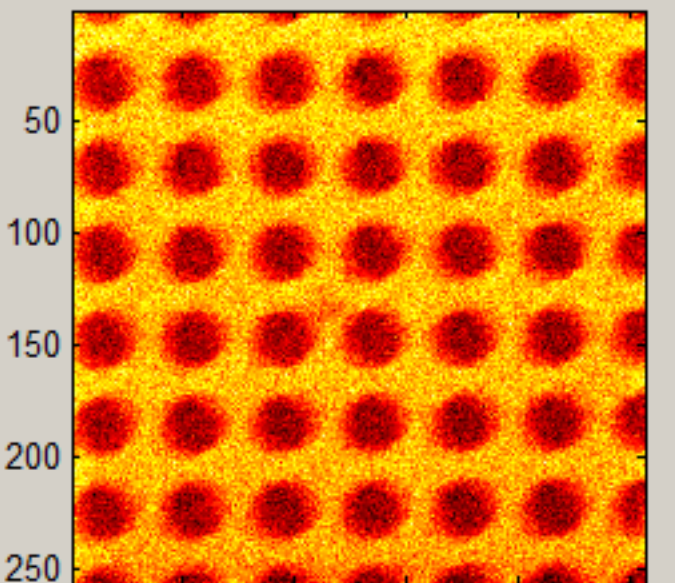
Save Corr YZ

Sputtertime/layer sec

Choose Profile Type

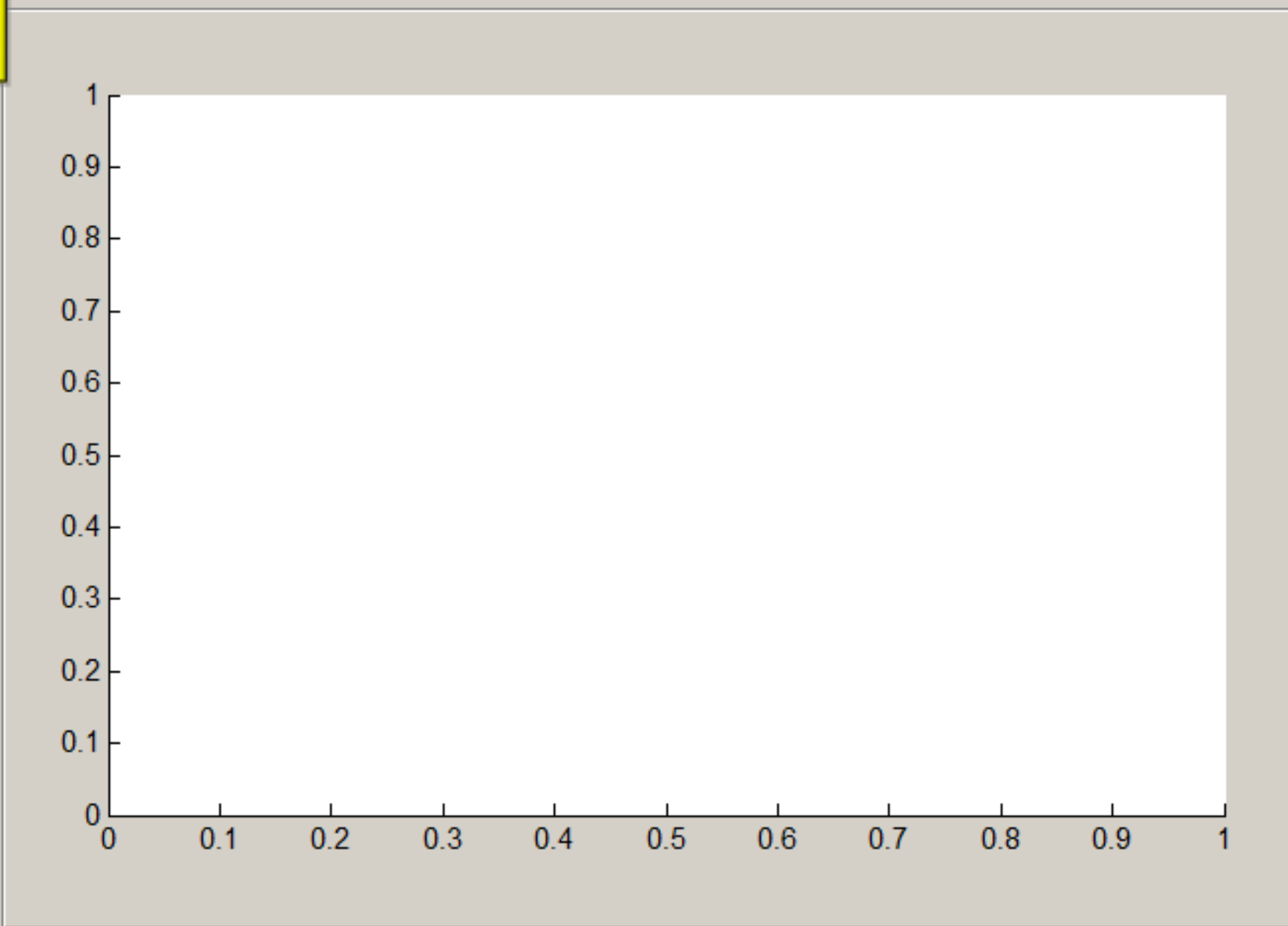
Choose One

After opening the 2D profiles panel, enter the sputter time per layer in this box.



50 100 150 200 250
min row # 1 max

Peaks	
	Total_Counts
max	15.02
	17.04
	19.02
row #	22.99
1	26.01
	27.02
	28.03
	29.00
	29.04
	30.04
	31.02
	33.03
	37.00
	38.96
	39.02
min	40.03

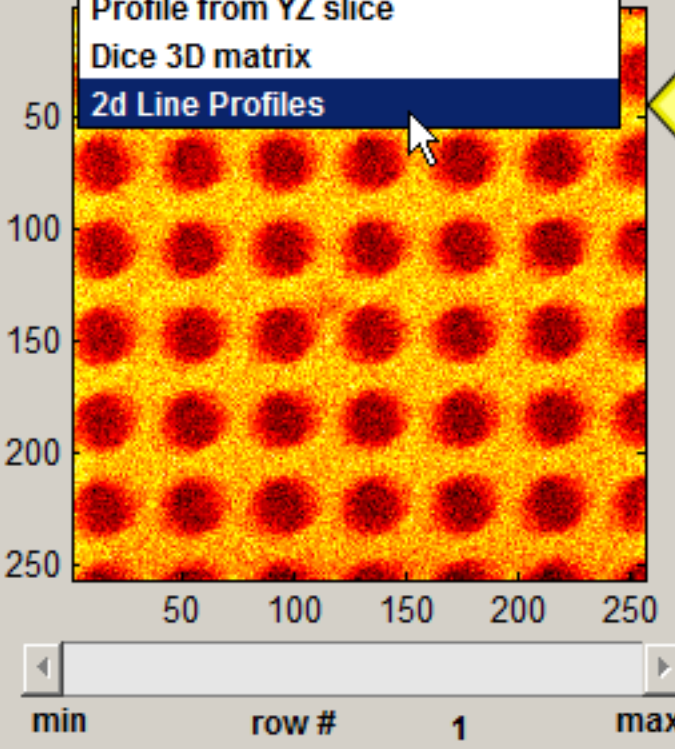


Save Plot Ext Plot Export Data Close

Sputtertime/layer sec

Choose Profile Type

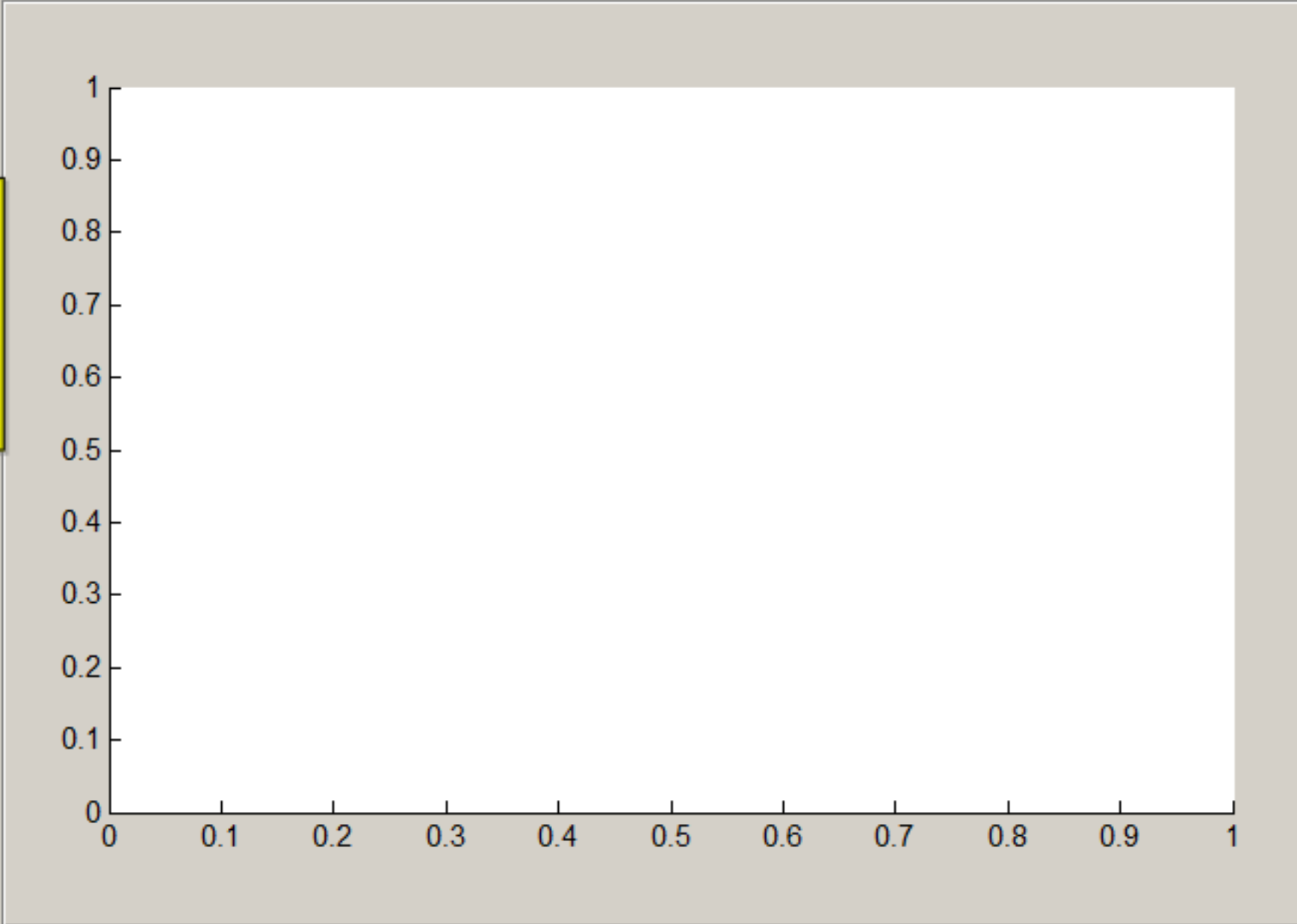
- Choose One
- Choose One
- Profile from full XY slices
- Profile from ROI
- Profile from XZ slice
- Profile from YZ slice
- Dice 3D matrix
- 2d Line Profiles**



Then select '2d Line Profiles' from the drop down menu.



- Peaks
- 29.00
 - 29.04
 - 30.04
 - 31.02
 - 33.03
 - 37.00
 - 38.96
 - 39.02
 - 40.03



Save Plot Ext Plot Export Data Close

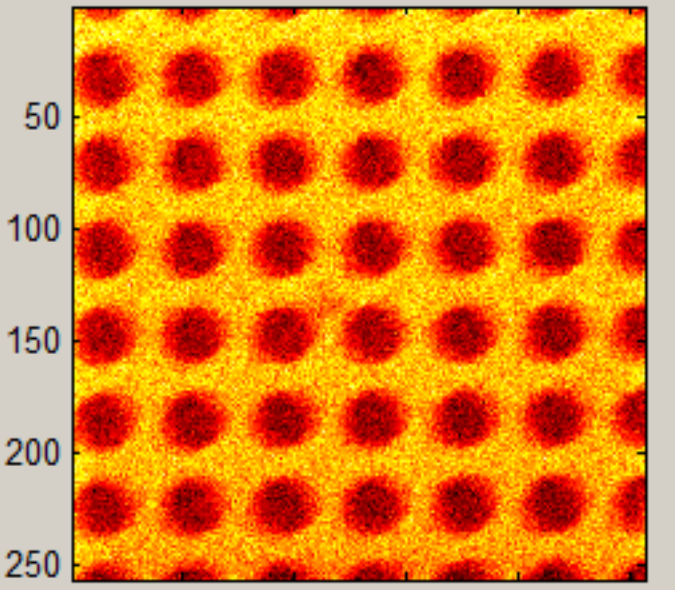
Sputtertime/layer sec

Choose Profile Type

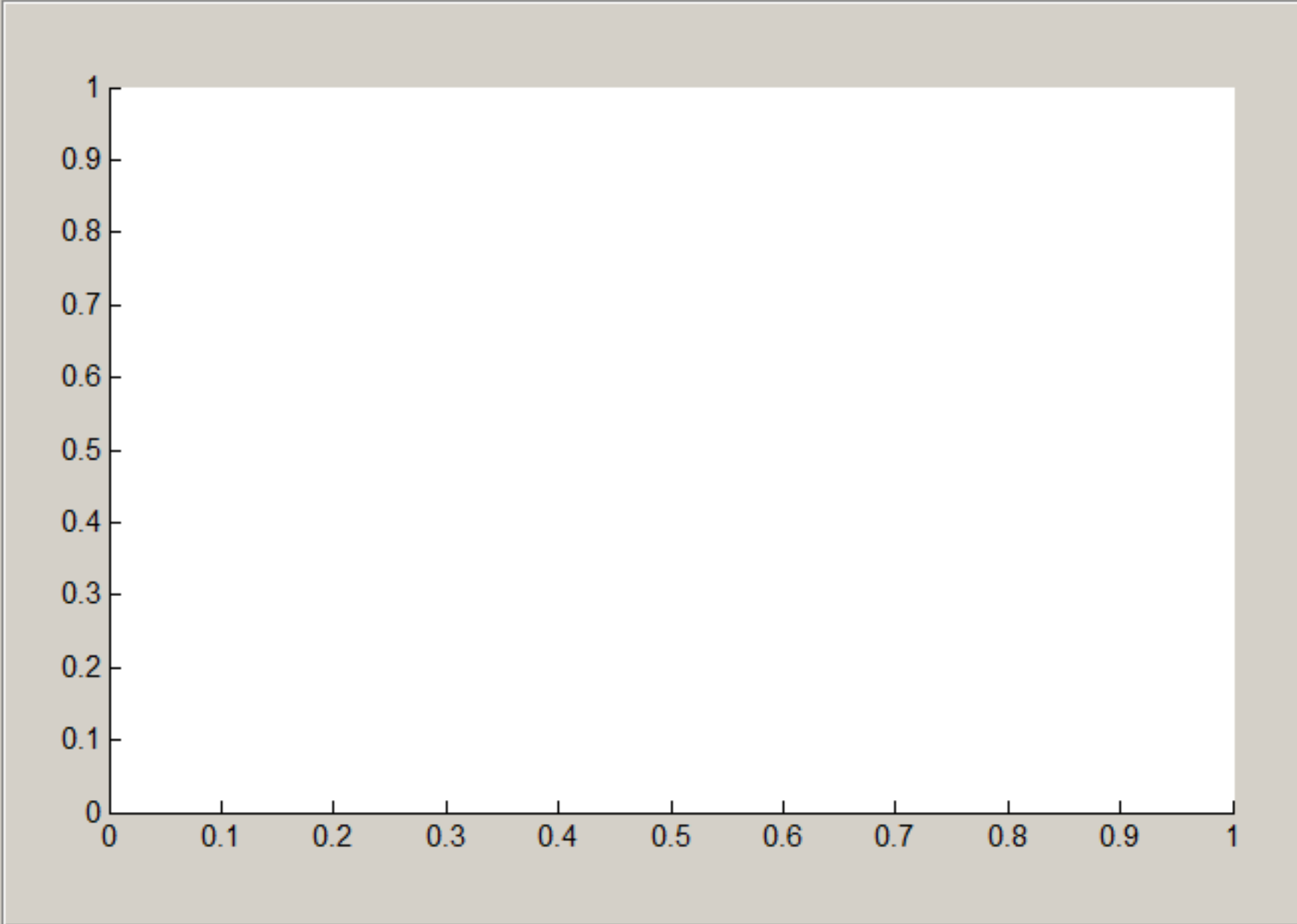
2d Line Profiles

Set Linescan Region

Press the 'Set Linescan Region' button.



row #	19.02	4
1	22.99	5
	26.01	6
	27.02	7
	28.03	8
	29.00	9
	29.04	10
	30.04	11
	31.02	12
	33.03	13
	37.00	14
	38.96	15
	39.02	16
	40.03	17



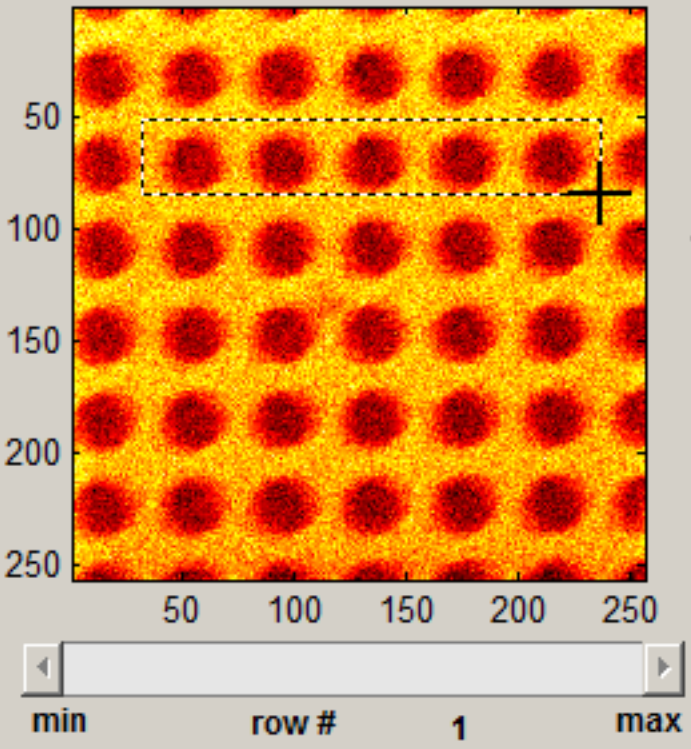
Save Plot Ext Plot Export Data Close

Sputtertime/layer sec

Choose Profile Type

Click and drag with Right mouse button

Set Linescan Region

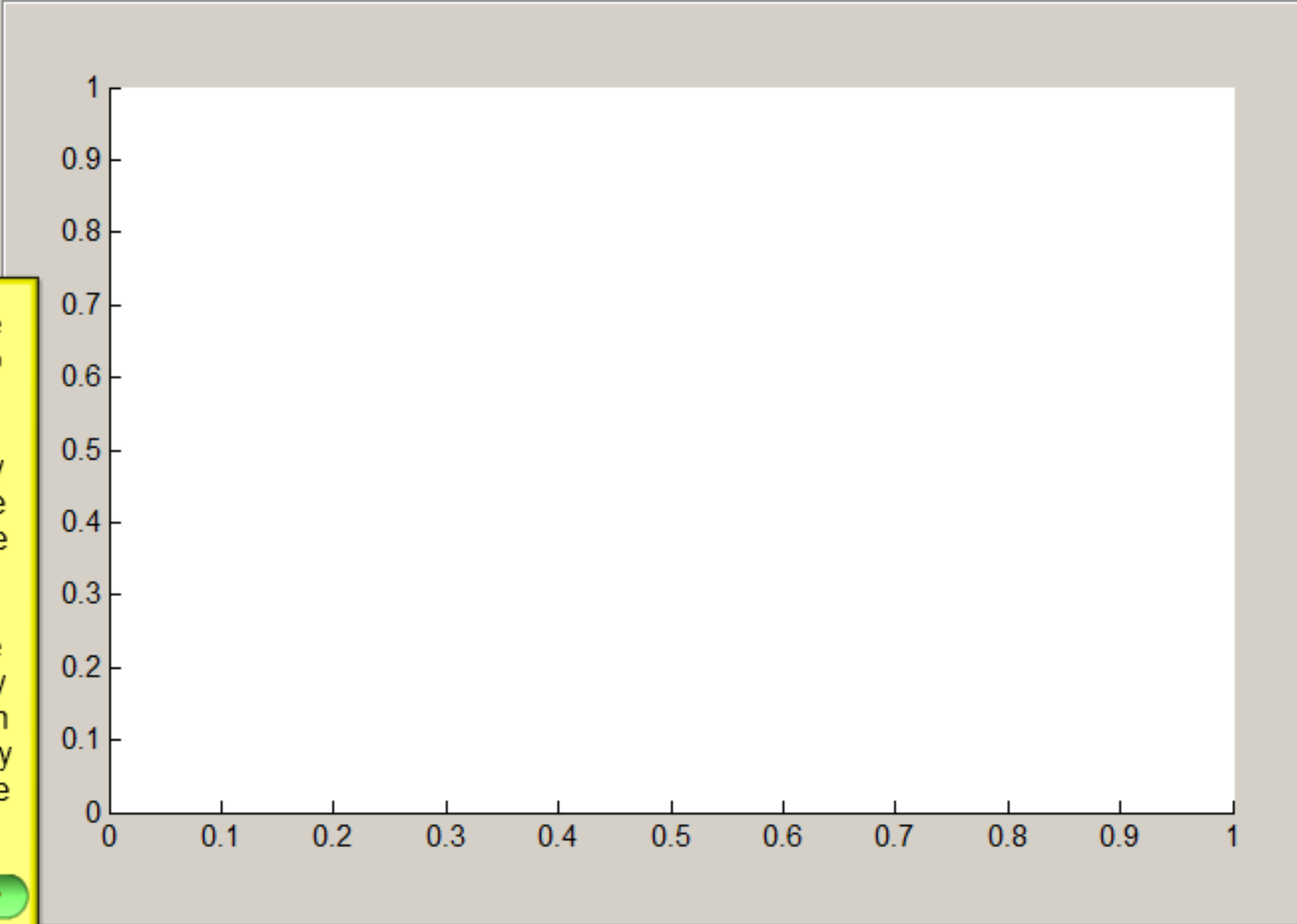


Peaks	Layer
Total Counts	1
15.02	2
17.04	3

Click and drag with the left mouse to define the region you want to perform the line scan.

The line scan will be created by summing the intensities of the pixels along the longest axis of the selected region.

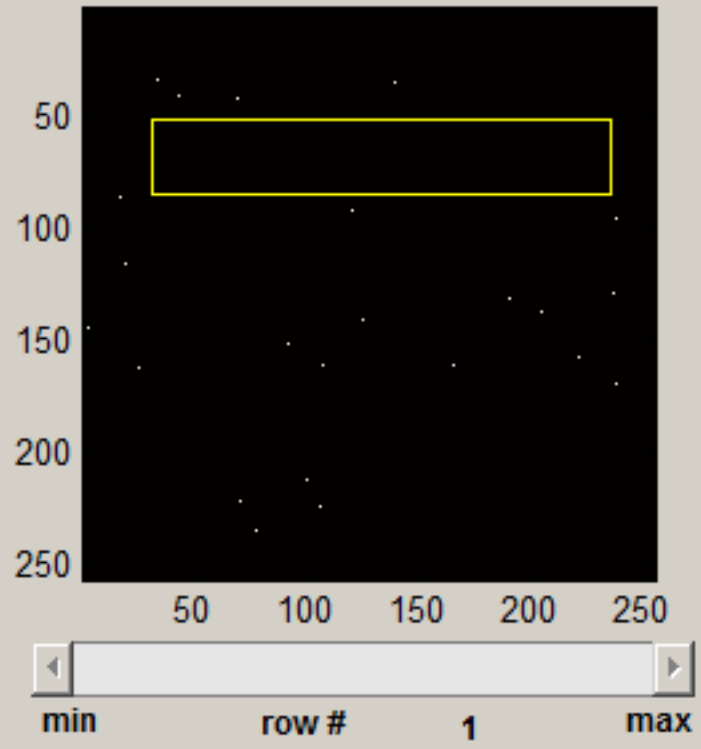
So in the example shown here the line scan will be created by summing the data in the Y direction to create a single summed intensity line along the x-axis for the selected area.



Save Plot Ext Plot Export Data Close

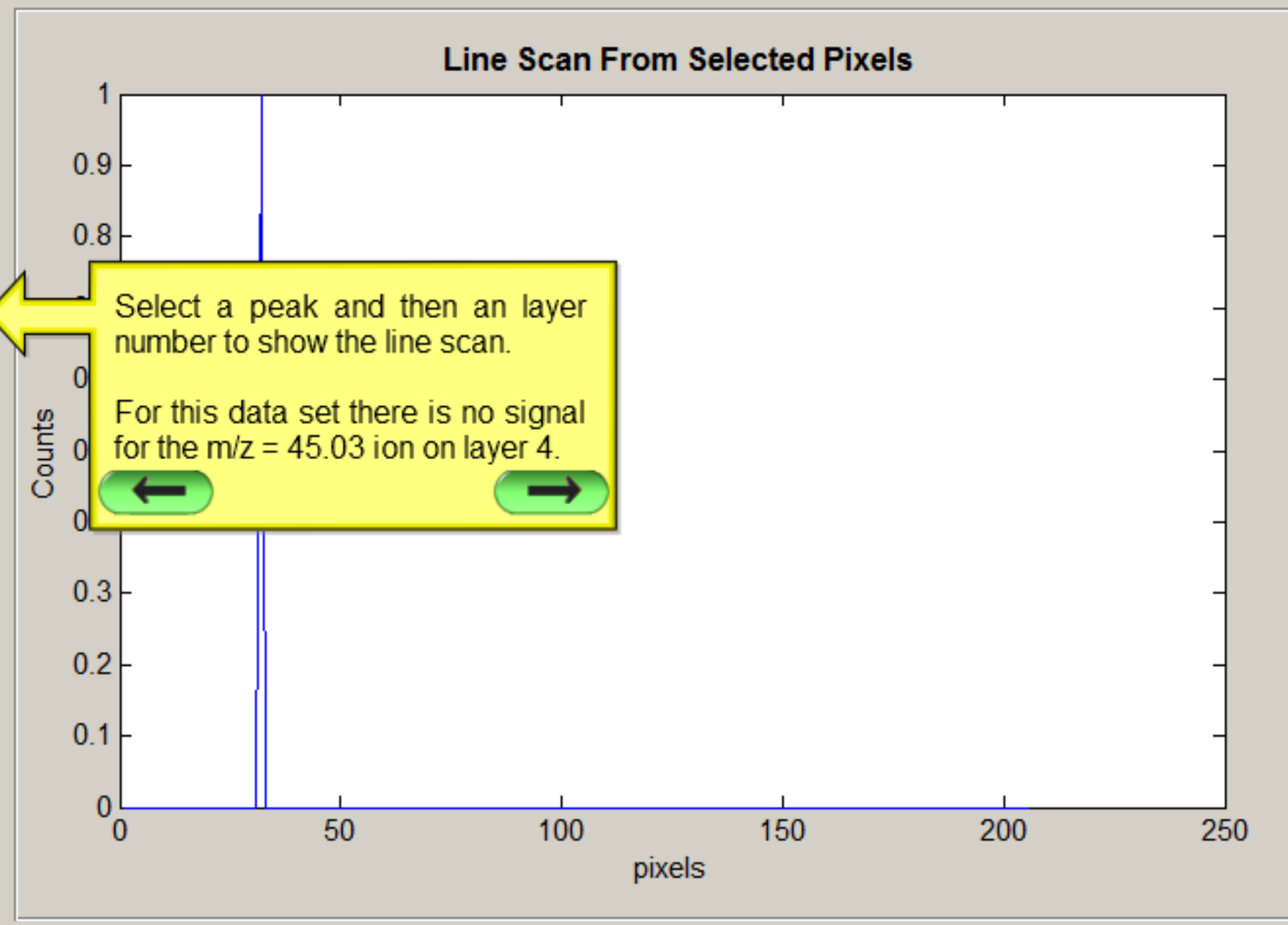
Sputtertime/layer sec

Choose Profile Type



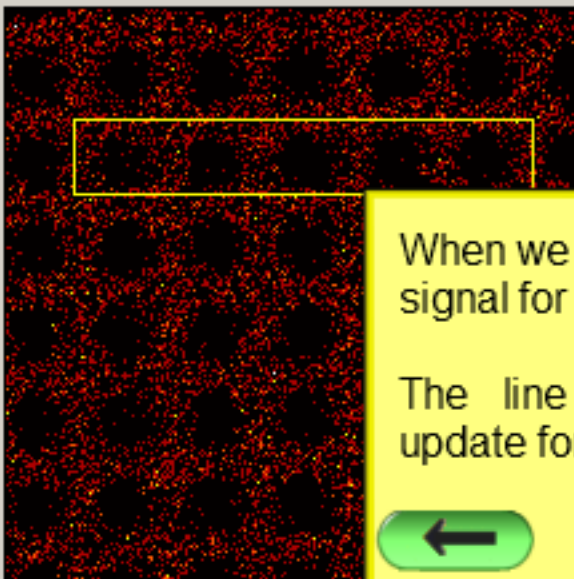
Peaks	Layer
41.04	1
42.01	2
42.04	3
43.02	4
43.05	5
44.02	6
44.06	7
45.00	8
45.03	9
46.04	10
47.01	11
47.05	12
50.01	13
51.02	14
52.03	15
53.04	16
54.01	17

Select a peak and then an layer number to show the line scan.
For this data set there is no signal for the m/z = 45.03 ion on layer 4.



Sputtertime/layer sec

Choose Profile Type



max

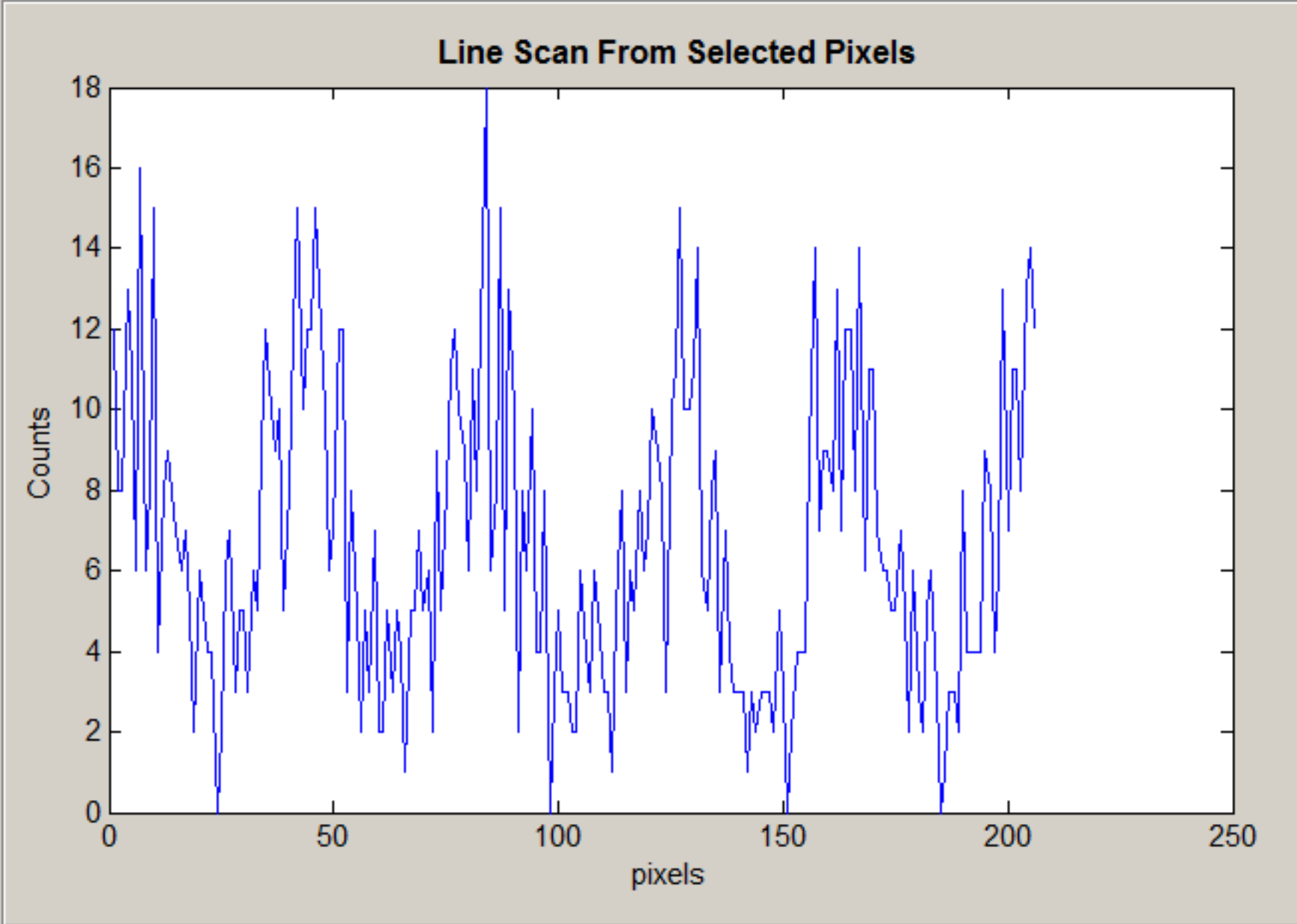
Peaks	Layer
41.04	66
42.01	67
42.04	68
	69
	70
	71
	72
	73
	74
	75
	76
	77
	78
	79
	80
	81
	82

51.02
52.03
53.04
54.01

min row # 1 max

When we switch to layer 70 we see signal for the selected mass.

The line scan and the image update for the selected layer.



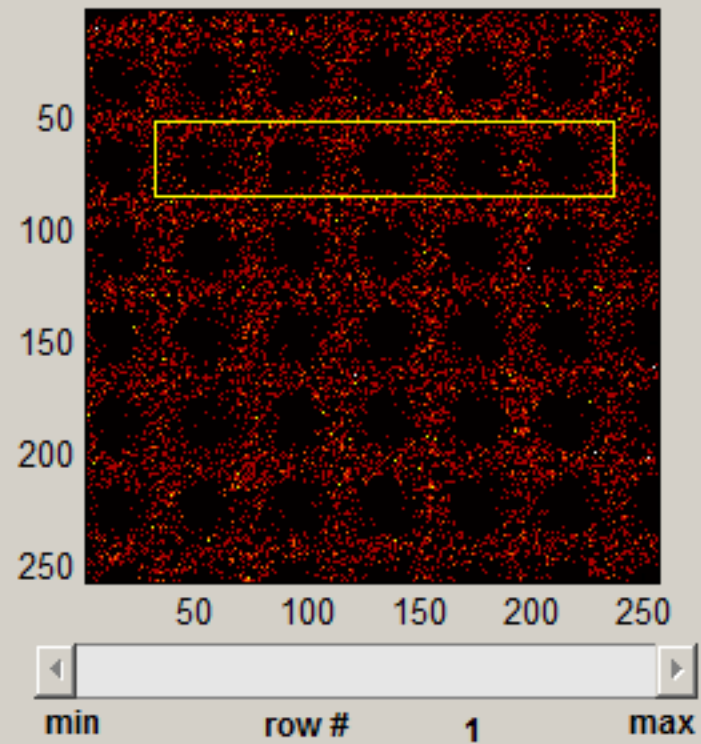
Sputtertime/layer sec

Choose Profile Type

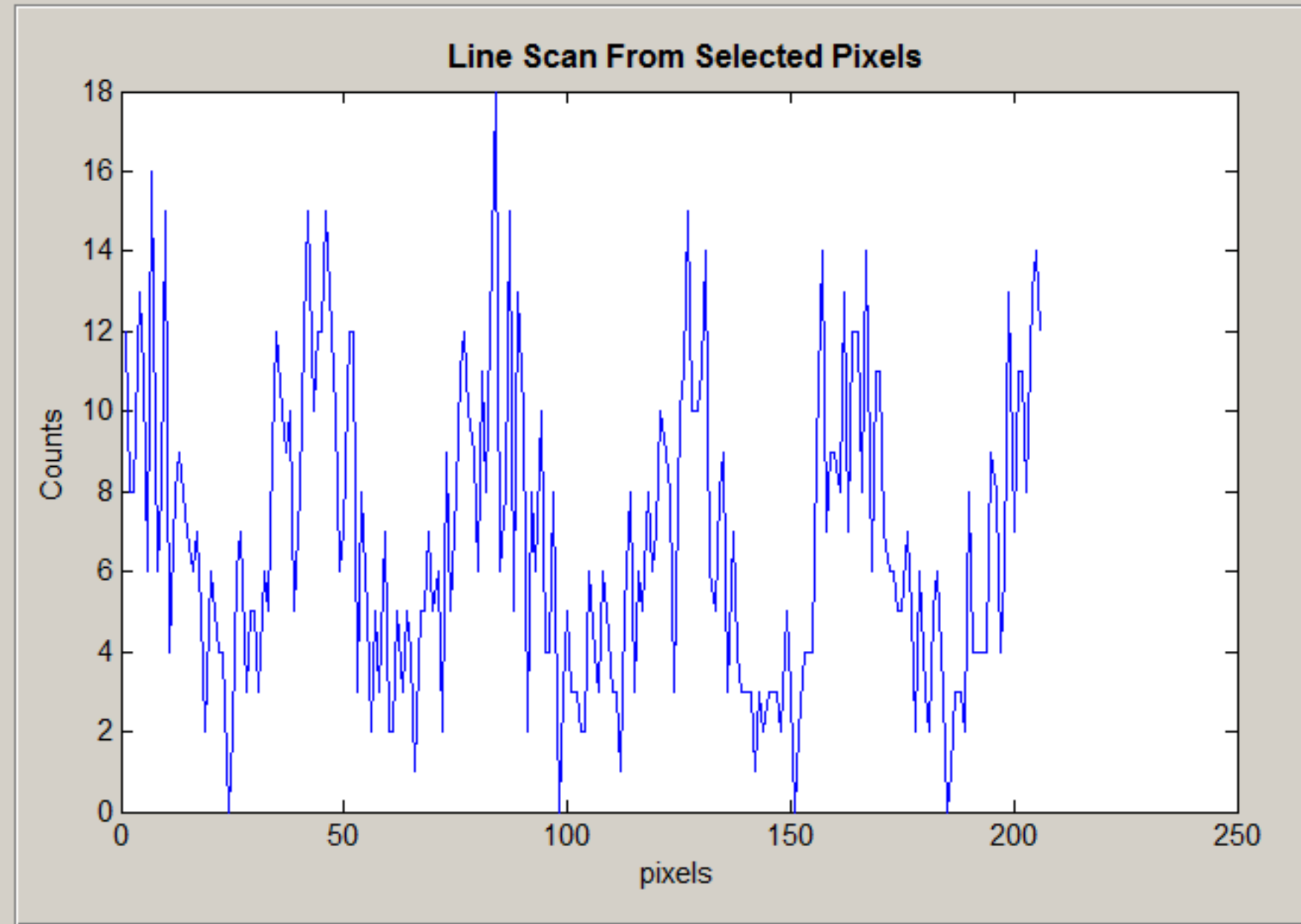
2d Line Profiles

Set Linescan Region

Export LS Data



row #	Peaks	Layer
max		
	41.04	66
	42.01	67
	42.04	68
	43.02	69
1	43.05	70
	44.02	71
	44.06	72
	45.00	73
	45.03	74
	46.04	75
	47.01	76
	47.05	77
	50.01	78
	51.02	79
	52.03	80
	53.04	81
	54.01	82
min		



The line scan image can be saved or the data can be exported to a file.

When you are done you can press 'Close'

← →

Save Plot Ext Plot Export Data Close

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Data Being Displayed **Total_Counts**

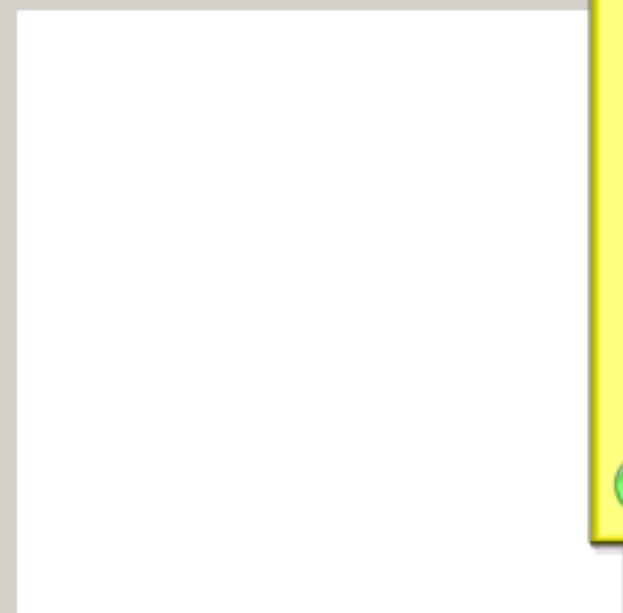
Peak List

Initialize Corrected Data

Z corrected image XY

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

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



Layer number: 1

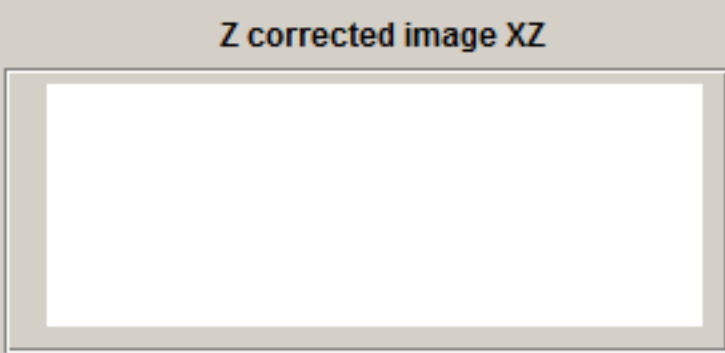
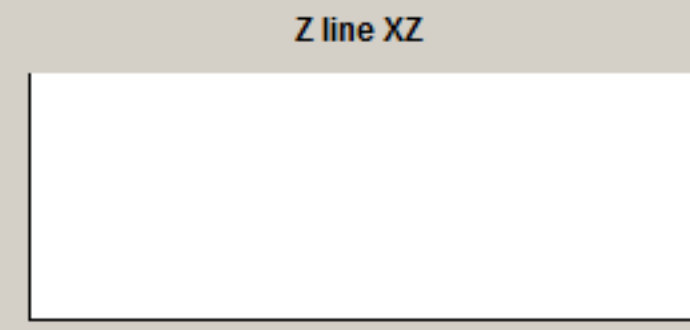
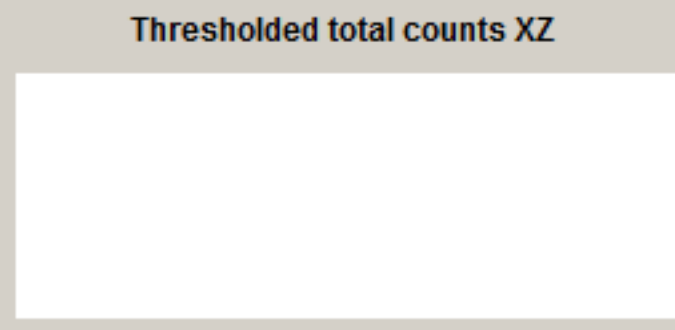
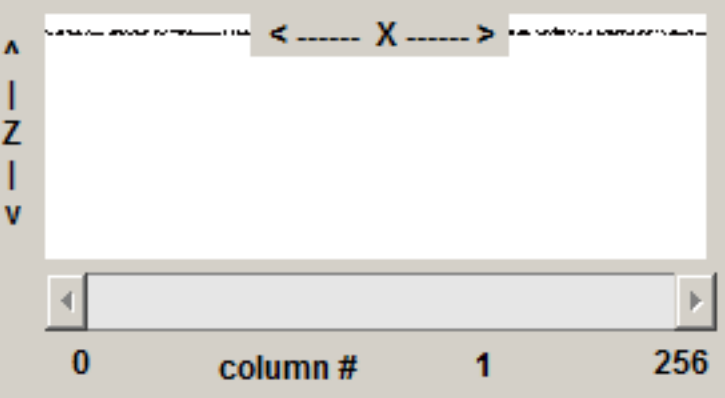
Layer number: 1

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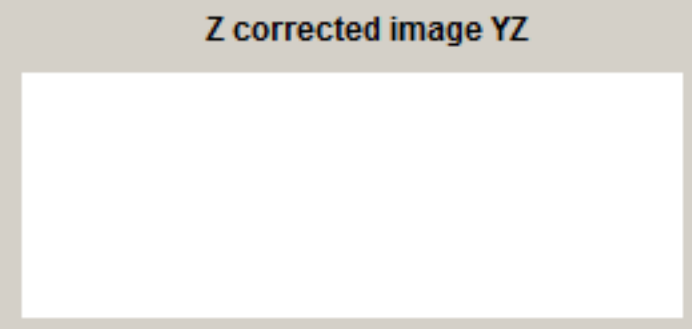
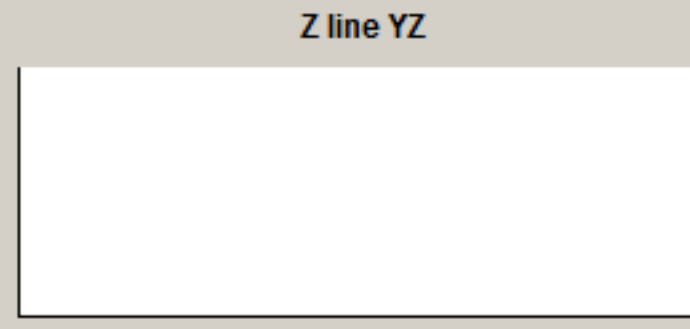
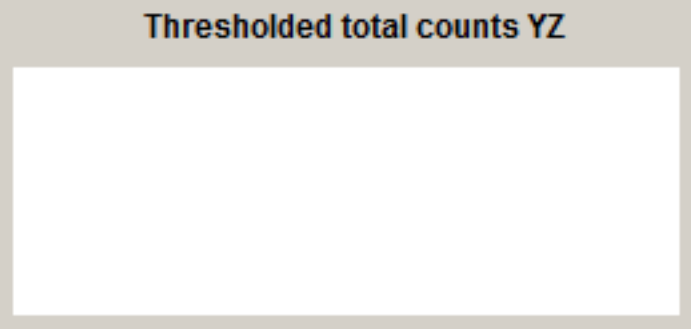
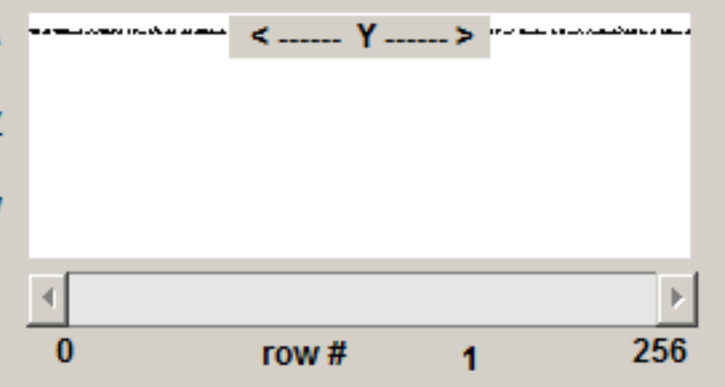
Create XY Corr Slice Movie

Create XZ Corr Slice Movie

Create YZ Corr Slice Movie



Save Corr XZ



Save Corr YZ