

Data Selection Panel

Name of Image Matrix

Select Data ...

Name of Variable Matrix

Select Variables ...

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.



Data Selection Panel

Name of Image Matrix

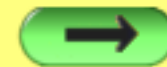
imagedata_dan01

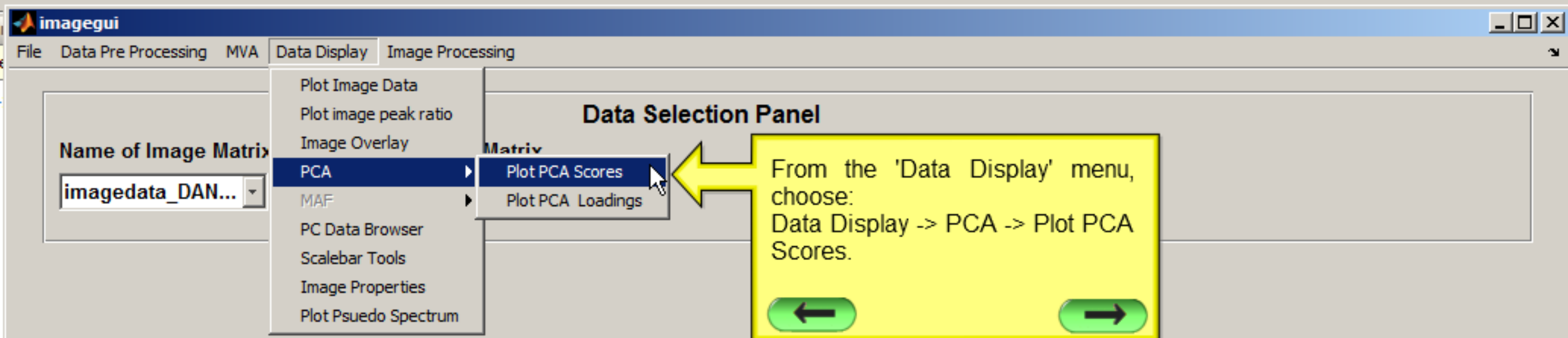
Name of Variable Matrix

exactmass_dan01

This tutorial will cover how to create custom scores plot figures that can be saved as an image file.

This tutorial will show how to plot PCA scores, but the process for this is the same whether one is plotting PCA scores or MAF factors. The only difference is that the plotting function for MAF factors is in a different sub menu.





Data Selection Panel

Name of Image Matrix

imagedata_DAN...

Name of Variable Matrix

exactmass_DAN01...

Scores

Select Scores ...

Loadings

Select Loadings ...

Variance

Select Variance ...

Load Selected Scores

Scores Matrix:

None

PC To Plot:

PC#

Plot Options:

Traditional

Plot PCA Scores

Show Scalebar Tools Panel

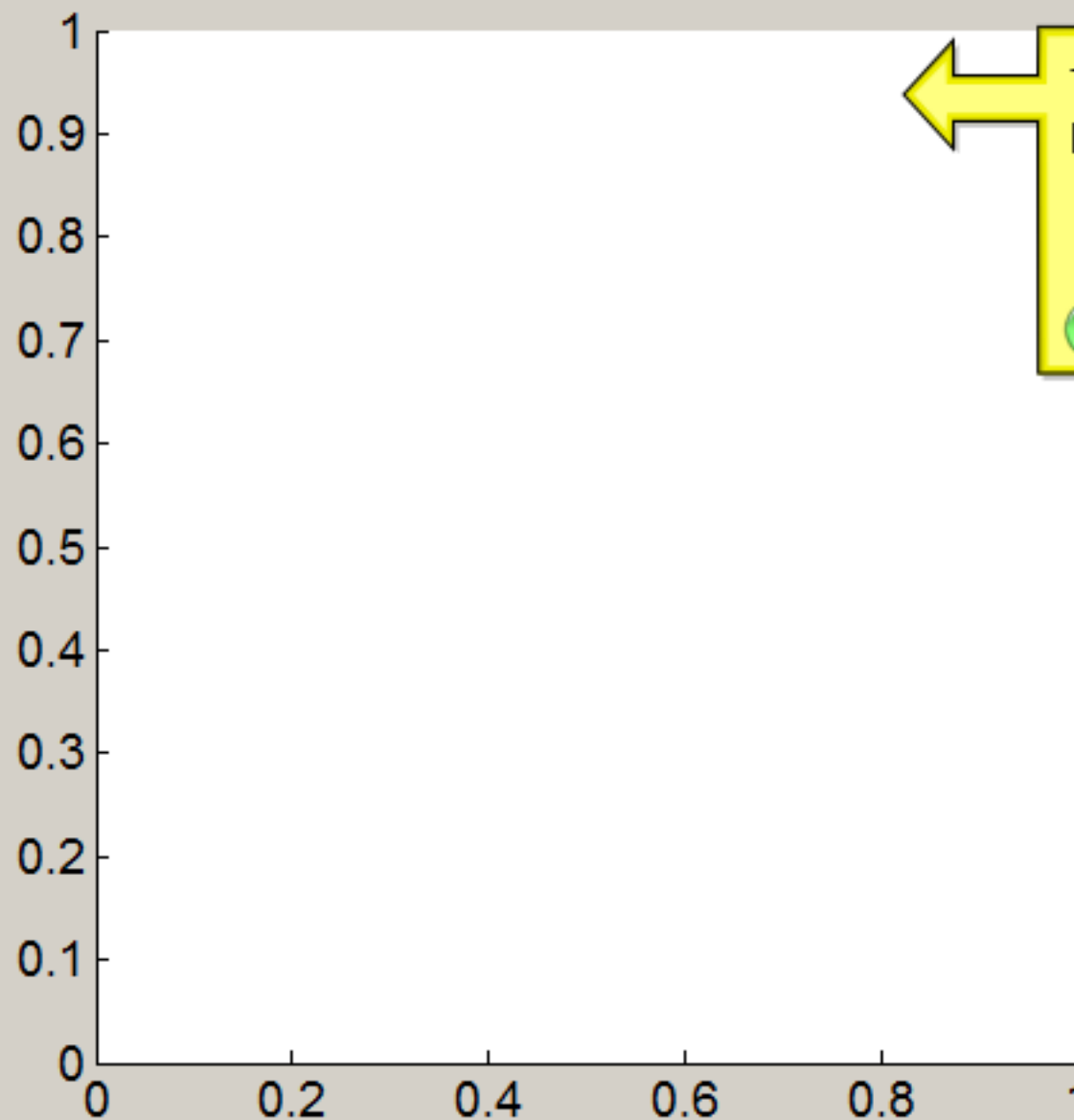
Show Image Properties Panel

Save Score Image

Make Ext Figure

Add Score Image To Overlay List

Close Panel



This brings up the PCA scores plot panel.



Data Selection Panel

Name of Image Matrix

imagedata_DAN...

Name of Variable Matrix

exactmass_DAN01...

Scores

PCA_scores ...

Loadings

PCA_loads ...

Variance

Select Variance ...

Select Variance

PCA_var

Select the appropriate data from the drop down menus above.



Load Selected Scores

Scores Matrix:

None

PC To Plot:

PC#

Plot Options:

Traditional

Plot PCA Scores

Show Scalebar Tools Panel

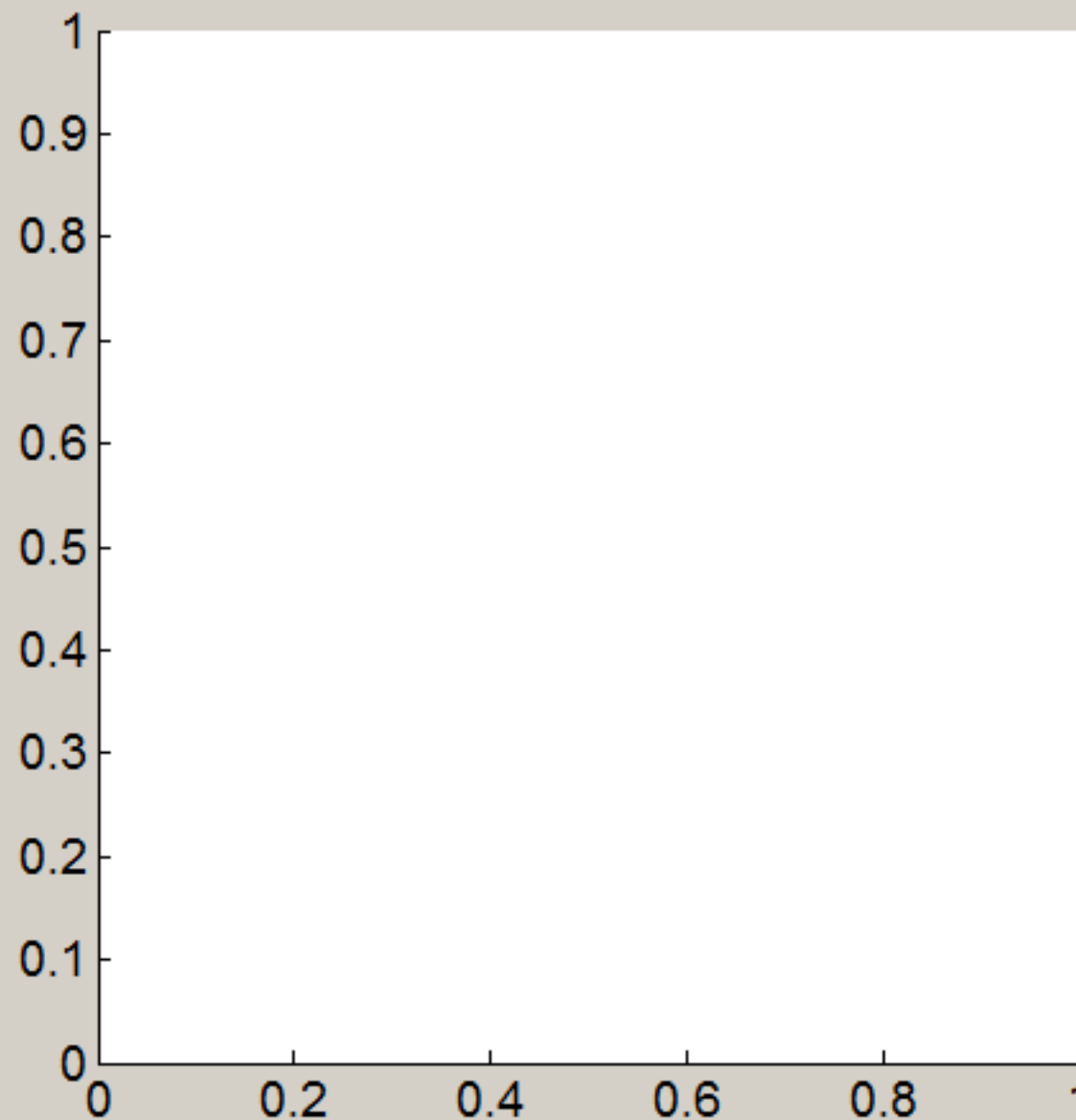
Show Image Properties Panel

Save Score Image

Make Ext Figure

Add Score Image To Overlay List

Close Panel



Data Selection Panel

Name of Image Matrix

imagedata_DAN...

Name of Variable Matrix

exactmass_DAN01...

Scores

PCA_scores ...

Loadings

PCA_loads ...

Variance

PCA_var ...

Load Selected Scores

Scores Matrix:

None

PC To Plot:

PC#

Plot Options:

Traditional

Plot PCA Scores

Show Scalebar Tools Panel

Show Image Properties Panel

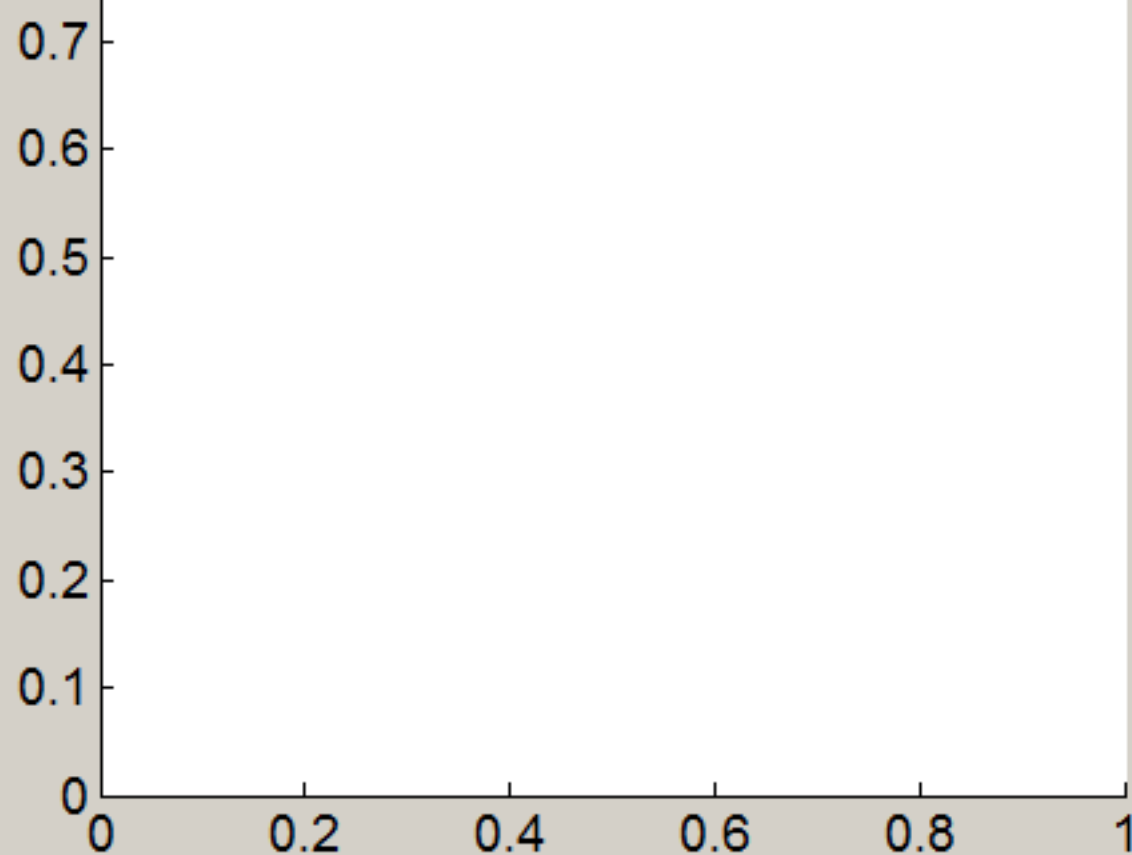
Save Score Image

Make Ext Figure

Add Score Image To Overlay List

Close Panel

Then press the 'Load Selected Scores' button



Data Selection Panel

Name of Image Matrix

imagedata_DAN...

Name of Variable Matrix

exactmass_DAN01...

Scores

PCA_scores ...

Loadings

PCA_loads ...

Variance

PCA_var ...

Load Selected Scores

Scores Matrix: **PCA_scores**

PC To Plot: PC#

Plot Options: PC#

Plot PCA

Show Scalebar Tools Panel

Show Image Properties Panel

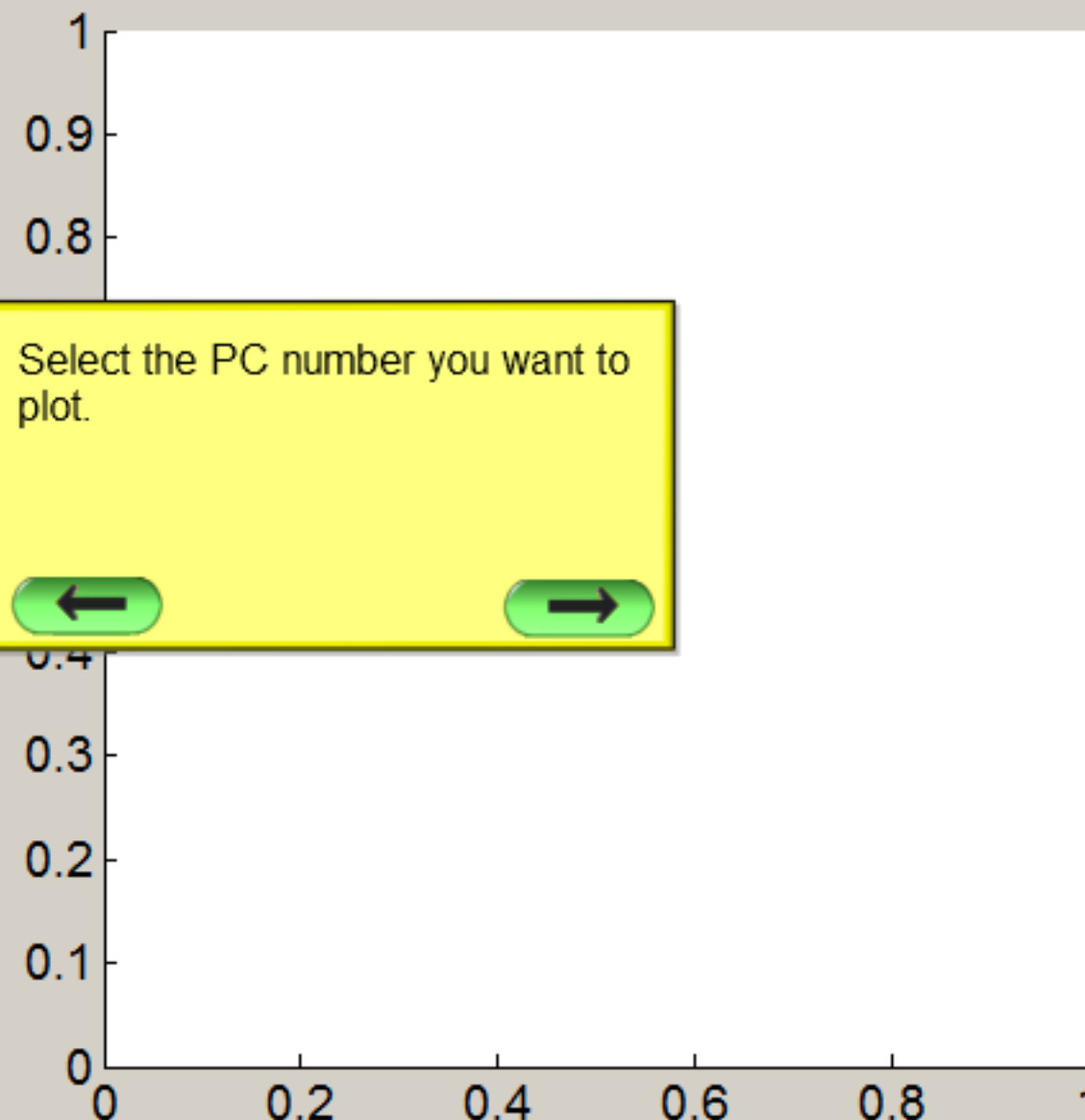
Save Score Image

Make Ext Figure

Add Score Image To Overlay List

Close Panel

Select the PC number you want to plot.



Data Selection Panel

Name of Image Matrix

imagedata_DAN...

Name of Variable Matrix

exactmass_DAN01...

Scores

PCA_scores ...

Loadings

PCA_loads ...

Variance

PCA_var ...

Load Selected Scores

Scores Matrix: PCA_scores

PC To Plot: 1

Plot Options: Traditional

Traditional

Pos Scores Only

Neg Scores Only

Show Scalebar Tools Panel

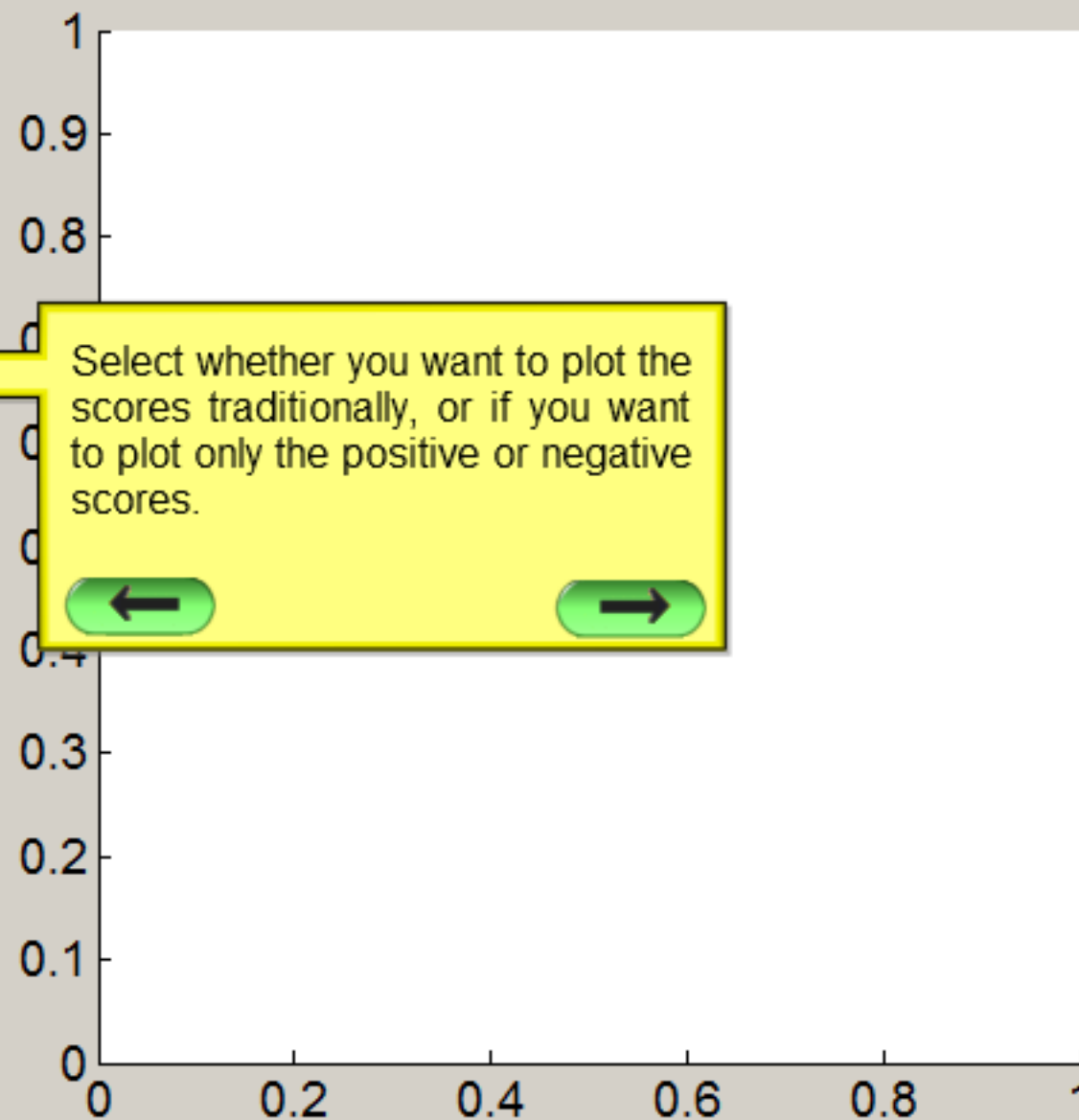
Show Image Properties Panel

Save Score Image

Make Ext Figure

Add Score Image To Overlay List

Close Panel



Data Selection Panel

Name of Image Matrix

imagedata_DAN...

Name of Variable Matrix

exactmass_DAN01...

Scores

PCA_scores ...

Loadings

PCA_loads ...

Variance

PCA_var ...

Load Selected Scores

Scores Matrix: **PCA_scores**

PC To Plot: 1

Plot Options: Traditional

Plot PCA Scores

Show Scalebar Tools Panel

Show Image Properties Panel

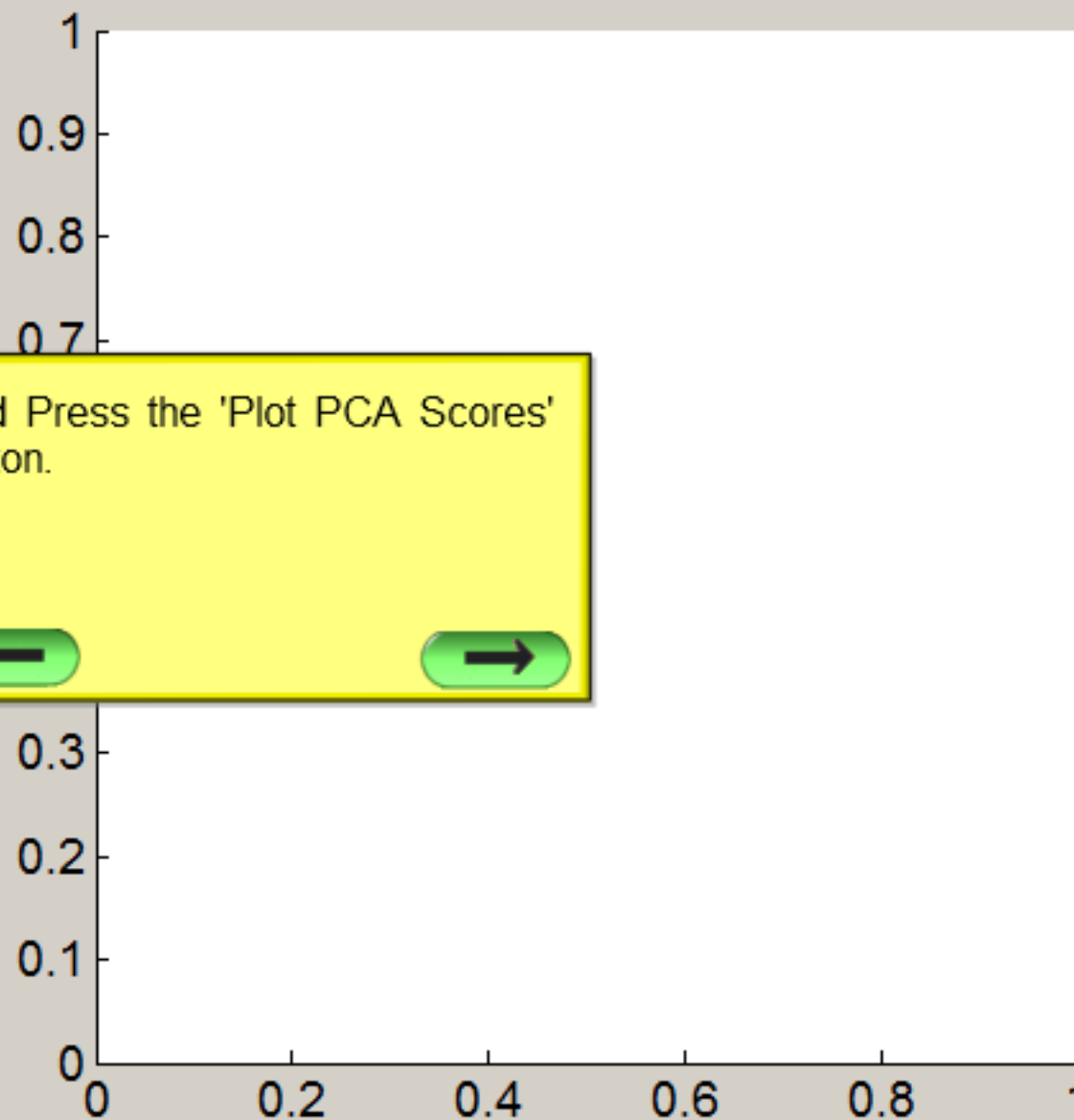
Save Score Image

Make Ext Figure

Add Score Image To Overlay List

Close Panel

And Press the 'Plot PCA Scores' button.



Data Selection Panel

Name of Image Matrix

imagedata_DAN...

Name of Variable Matrix

exactmass_DAN01...

Scores

PCA_scores ...

Loadings

PCA_loads ...

Variance

PCA_var ...

Load Selected Scores

Scores Matrix: PCA_scores

PC To Plot: 1

Plot Options: Traditional

Plot PCA Scores

Show Scalebar Tools Panel

Show Image Properties Panel

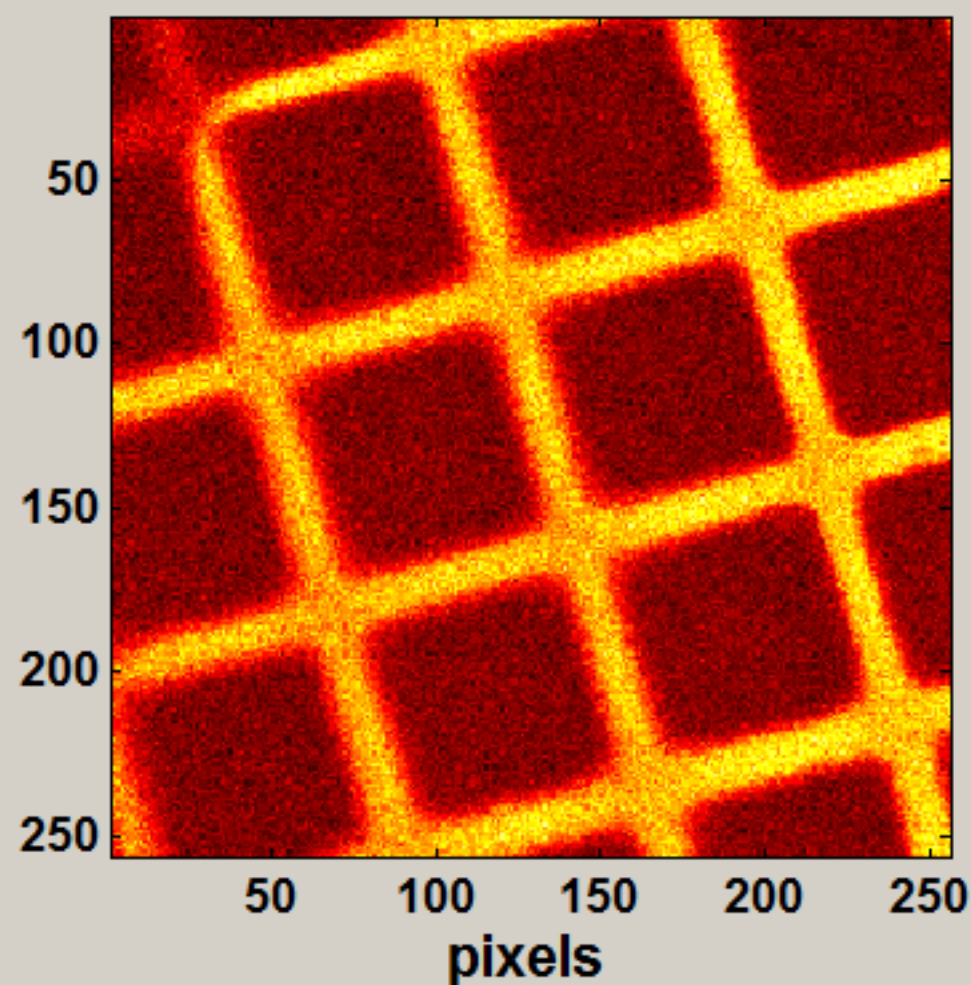
Save Score Image

Make Ext Figure

Add Score Image To Overlay List

Close Panel

PC 1 Scores



The selected PC scores are plotted here.

Data Selection Panel

Name of Image Matrix

imagedata_DAN...

Name of Variable Matrix

exactmass_DAN01...

Scores

PCA_scores ...

Loadings

PCA_loads ...

Variance

PCA_var ...

Load Selected Scores

Scores Matrix:

PCA_scores

PC To Plot:

1

Plot Options:

Traditional

Plot PCA Scores

Show Scalebar Tools Panel

Show Image Properties Panel

Save Score Image

Make Ext Figure

Add Score Image To Overlay List

Close Panel

PCA scores

50

100

250

50

100

150

200

250

pixels

2.5

2

1.5

1

0.5

0

-0.5

-1

-1.5

Pressing the 'Show Scalebar Tools Panel' button brings up a tool panel that allows the user to add a custom scale bar to the image.

←

→

Data Selection Panel

Name of Image Matrix

imagedata_DAN...

Name of Variable Matrix

exactmass_DAN01...

Scores

PCA_scores ...

Loadings

PCA_loads ...

Variance

PCA_var ...

Load Selected Scores

Scores Matrix: **PCA_scores**

PC To Plot: 1

Plot Options: Traditional

Plot PCA Scores

Show Scalebar Tools Panel

Show Image Properties Panel

Save Score Image

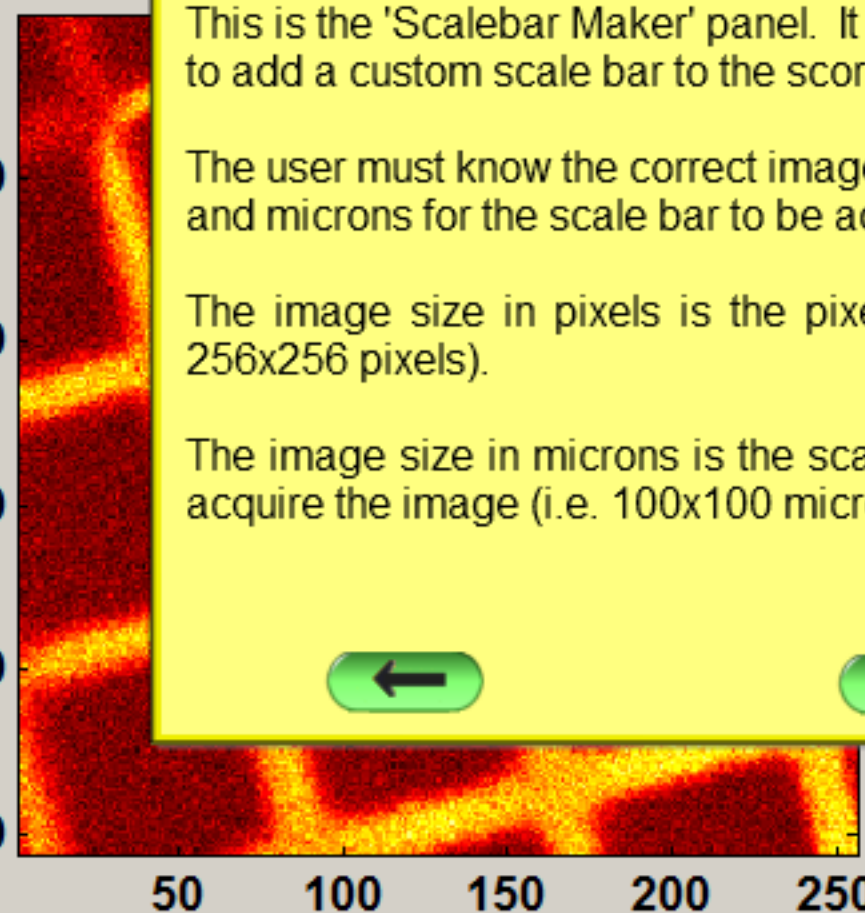
Make Ext Figure

Add Score Image To Overlay List

Close Panel

PC 1 Scores

50
100
150
200
250



This is the 'Scalebar Maker' panel. It allows the user to add a custom scale bar to the scores image.

The user must know the correct image size in pixels and microns for the scale bar to be accurate.

The image size in pixels is the pixel density (i.e. 256x256 pixels).

The image size in microns is the scan size used to acquire the image (i.e. 100x100 microns).

Scalebar Maker

Show Image Size

Image size (pixels)

X

Y

Image size (microns)

X

Y

Scalebar location

Choose an option

Scalebar color

Choose a color

Add Scale Bar

Close panel

Data Selection Panel

Name of Image Matrix

imagedata_DAN...

Name of Variable Matrix

exactmass_DAN01...

Scores

PCA_scores ...

Loadings

PCA_loads ...

Variance

PCA_var ...

Load Selected Scores

Scores Matrix: **PCA_scores**

PC To Plot: 1

Plot Options: Traditional

Plot PCA Scores

Show Scalebar Tools Panel

Show Image Properties Panel

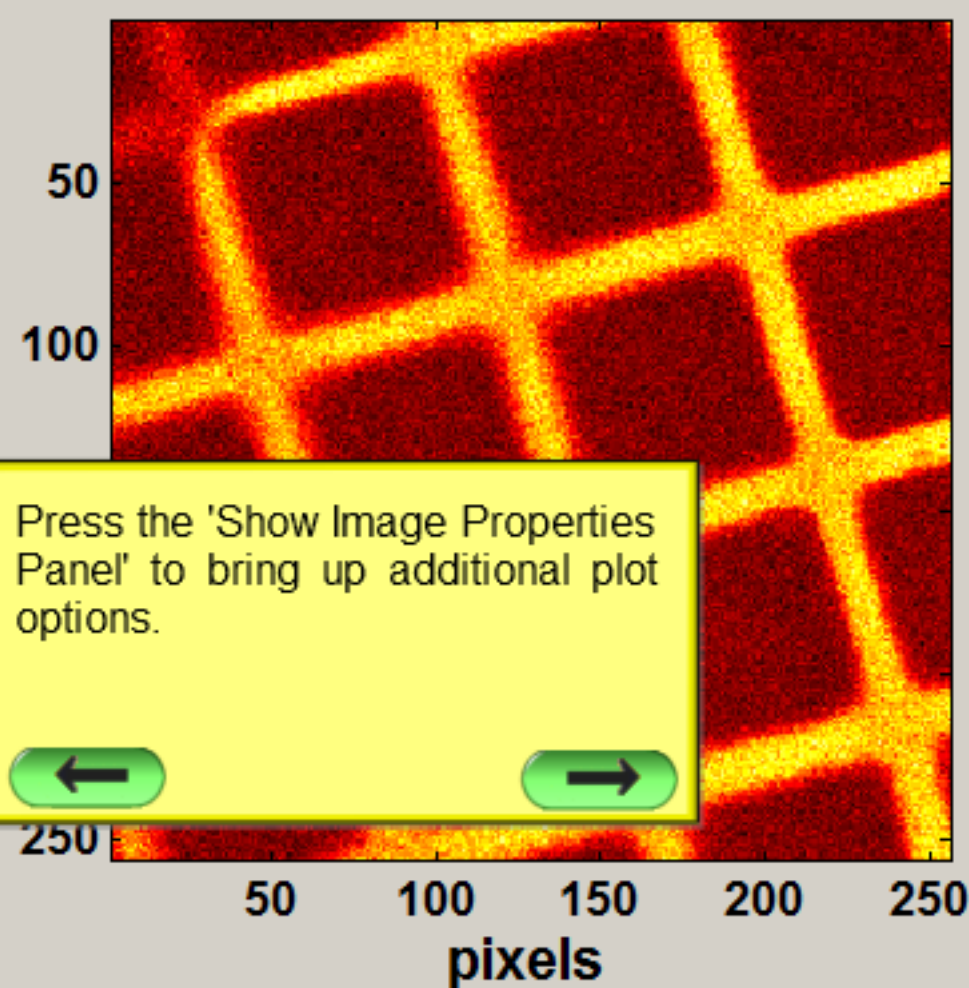
Save Score Image

Make Ext Figure

Add Score Image To Overlay List

Close Panel

PCA Scores



Press the 'Show Image Properties Panel' to bring up additional plot options.

Scalebar Maker

Show Image Size

Image size (pixels)

X

Y

Image size (microns)

X

Y

Scalebar location

Choose an option

Scalebar color

Choose a color

Add Scale Bar

Close panel

Data Selection Panel

Name of Image Matrix

imagedata_DAN...

Name of Variable Matrix

exactmass_DAN01...

Scores

PCA_scores ...

Loadings

PCA_loads ...

Variance

PCA_var ...

Figure Label Options

Figure Title

Add Title

Remove

X-Axis Label

Add X Label

Rem X

Y-Axis Label

Add Y Label

Rem Y

Image Properties

Legend Maker for RGB Plots

Use Label 1

Use Label 2

Use Label 3

Set Image
size (microns)

X (horizontal)

100

Y (vertical)

100

☐ Use micron scale

Colormap
Changer

Choose
new colormap

Choose on...

Close Panel

The Image Properties panel has many options for modifying a plot. For now, lets enter the values for the X and Y image size in microns. This will enable us to use the 'Show Image Size' button in the 'Scalebar Maker'.

Load Selected Scores

Scores Matrix: PCA_scores

PC To Plot:

1

Plot Options:

Traditional

Plot PCA Scores

Show Scalebar Tools Panel

Show Image Properties Panel

Save Score Image

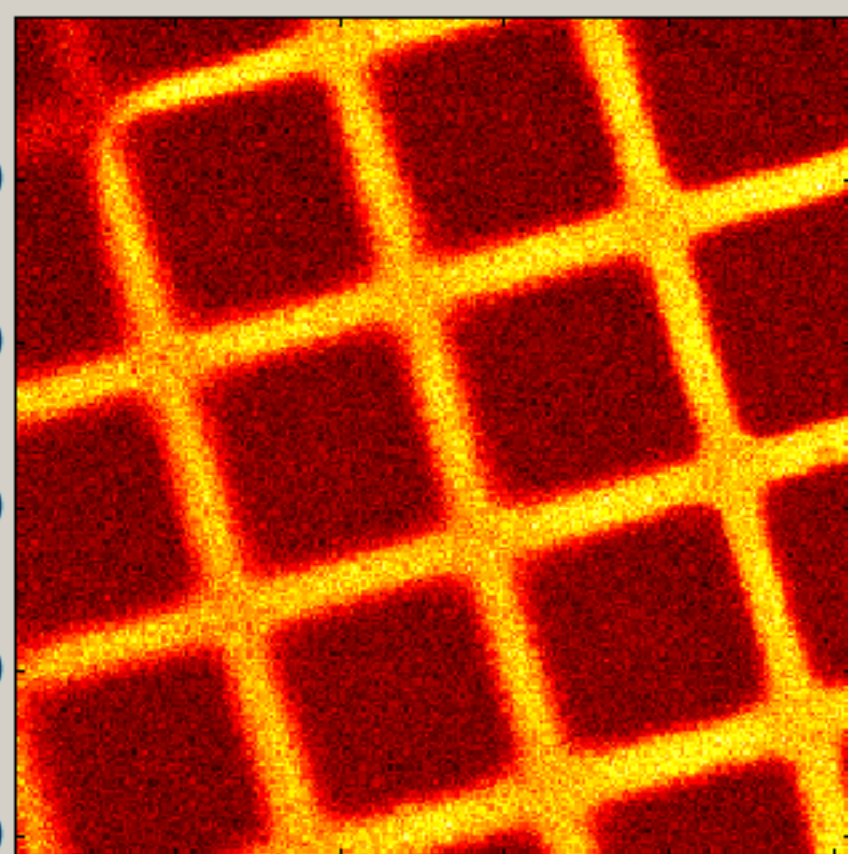
Make Ext Figure

Add Score Image To Overlay List

Close Panel

PC 1 Scores

50
100
150
200
250



50 100 150 200 250
pixels

Scalebar Maker

Show Image Size

Image size (pixels)

X

Y

Image size (microns)

X

Y

Scalebar location

Choose an option

Scalebar color

Choose a color

Add Scale Bar

Close panel

Data Selection Panel

Name of Image Matrix

imagedata_DAN...

Name of Variable Matrix

exactmass_DAN01...

Scores

PCA_scores ...

Loadings

PCA_loads ...

Variance

PCA_var ...

Figure Label Options

Figure Title

Add Title

Remove Title

X-Axis Label

Add X Label

Rem X Label

Y-Axis Label

Add Y Label

Rem Y Label

Image Properties

Legend Maker for RGB Plots

Label 1

Color 1

☐ Use Label 1

Label 2

Color 2

☐ Use Label 2

Label 3

Color 3

☐ Use Label 3

Add Legend

Set Image
size (microns)

X (horizontal)

100

Y (vertical)

100

☐ Use micron scale

Colormap
Changer

Choose
new colormap

Choose on...

Close Panel

Load Selected Scores

Scores Matrix: PCA_scores

PC To Plot:

1

Plot Options:

Traditional

Plot PCA Scores

Show Scalebar Tools Panel

Show Image Properties Panel

Save Score Image

Make Ext Figure

Add Score Image To Overlay List

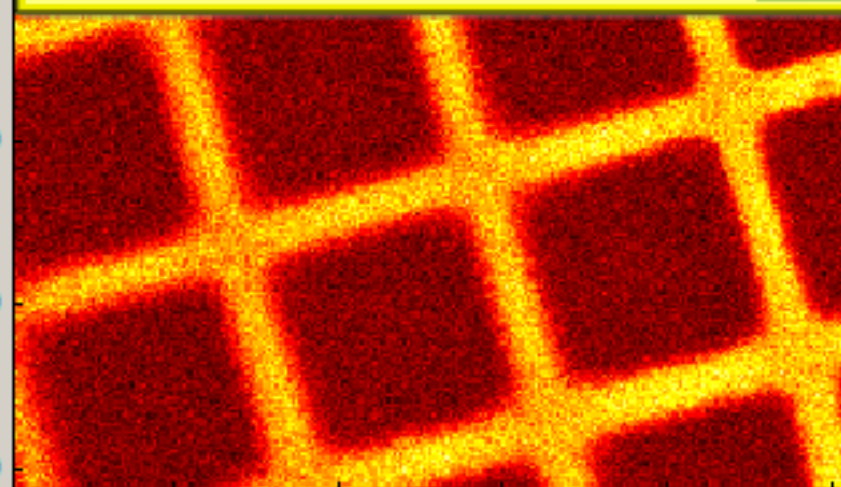
Close Panel

After entering the X and Y image size in microns we can press the 'Show Image Size' button and the program will autopopulate the 'Image size (pixels)' and 'Image size (microns)' boxes.

(You can also just enter the number manually).

PC 1 Scores

50
100
150
200
250



50 100 150 200 250

pixels

0.5
0
-0.5
-1
-1.5

Scalebar Maker

Show Image Size

Image size (pixels)

X

Y

Image size (microns)

X

Y

Scalebar location

Choose an option

Scalebar color

Choose a color

Add Scale Bar

Close panel

Data Selection Panel

Name of Image Matrix

imagedata_DAN...

Name of Variable Matrix

exactmass_DAN01...

Scores

PCA_scores ...

Loadings

PCA_loads ...

Variance

PCA_var ...

Figure Label Options

Figure Title

Add Title

Remove Title

X-Axis Label

Add X Label

Rem X Label

Y-Axis Label

Add Y Label

Rem Y Label

Image Properties

Legend Maker for RGB Plots

Label 1

Color 1

☐ Use Label 1

Label 2

Color 2

☐ Use Label 2

Label 3

Color 3

☐ Use Label 3

Add Legend

Set Image size (microns)

X (horizontal)

100

Y (vertical)

100

☐ Use micron scale

Colormap Changer

Choose new colormap

Choose on...

Close Panel

Load Selected Scores

Scores Matrix: PCA_scores

PC To Plot:

1

Plot Options:

Traditional

Plot PCA Scores

Show Scalebar Tools Panel

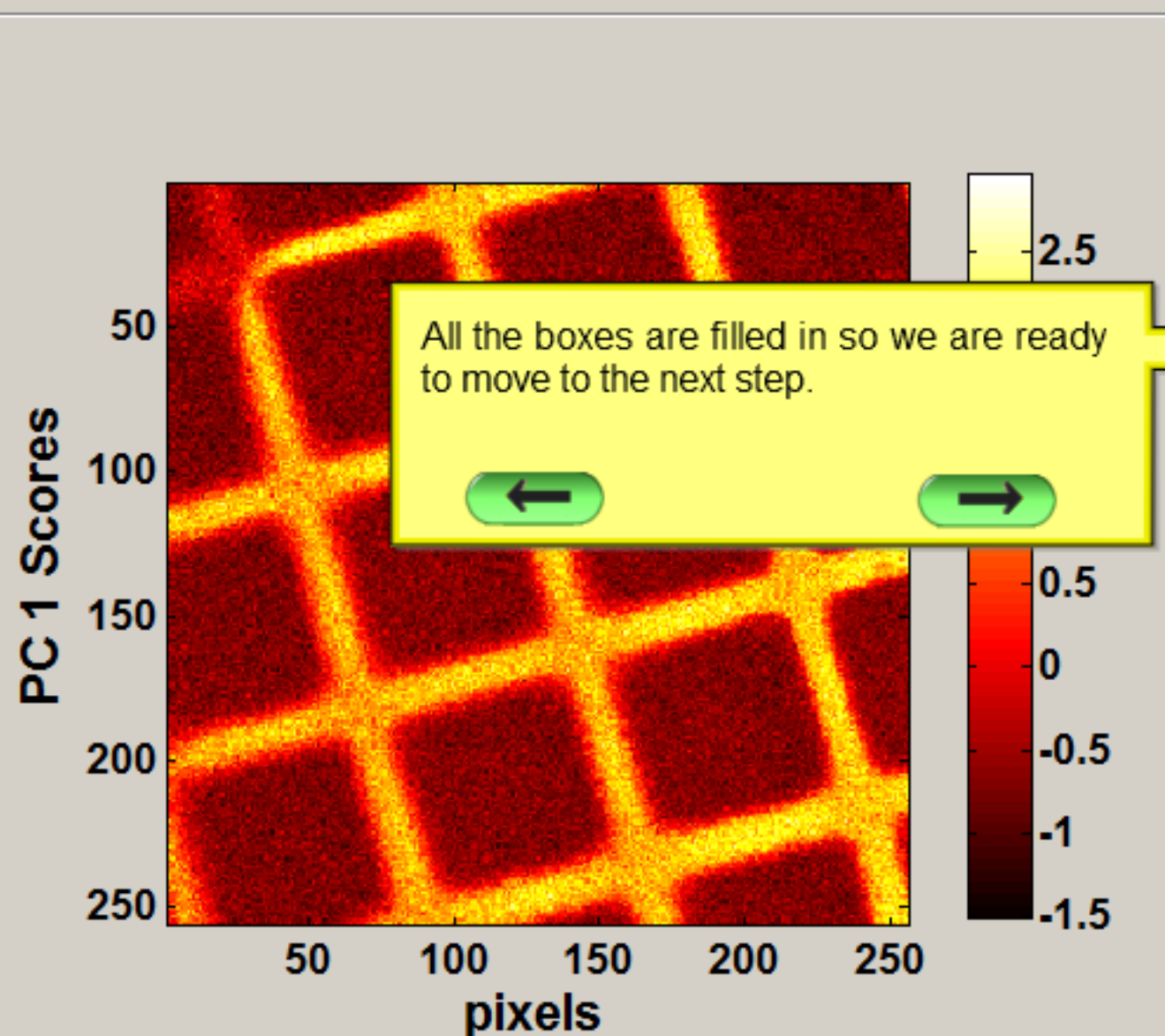
Show Image Properties Panel

Save Score Image

Make Ext Figure

Add Score Image To Overlay List

Close Panel



Scalebar Maker

Show Image Size

Image size (pixels)

X

256

Y

256

Image size (microns)

X

100

Y

100

Scalebar location

Choose an option

Scalebar color

Choose a color

Add Scale Bar

Close panel

Data Selection Panel

Name of Image Matrix

imagedata_DAN...

Name of Variable Matrix

exactmass_DAN01...

Scores

PCA_scores ...

Loadings

PCA_loads ...

Variance

PCA_var ...

Figure Label Options

Figure Title

Add Title

Remove Title

X-Axis Label

Add X Label

Rem X Label

Y-Axis Label

Add Y Label

Rem Y Label

Image Properties

Legend Maker for RGB Plots

Label 1

Color 1

☐ Use Label 1

Label 2

Color 2

☐ Use Label 2

Label 3

Color 3

☐ Use Label 3

Add Legend

Set Image size (microns)

X (horizontal)

100

Y (vertical)

100

☐ Use micron scale

Colormap Changer

Choose new colormap

Choose on...

Close Panel

Load Selected Scores

Scores Matrix: PCA_scores

PC To Plot:

1

Plot Options:

Traditional

Plot PCA Scores

Show Scalebar Tools Panel

Show Image Properties Panel

Save Score Image

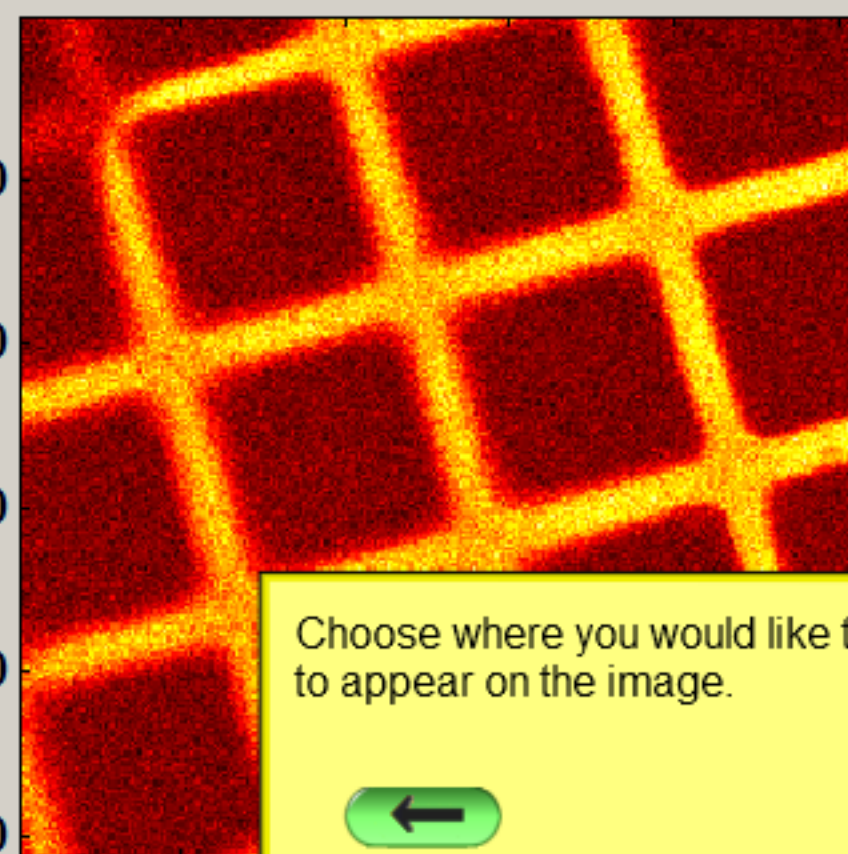
Make Ext Figure

Add Score Image To Overlay List

Close Panel

PC 1 Scores

50
100
150
200
250



Choose where you would like the scale bar to appear on the image.



Scalebar Maker

Show Image Size

Image size (pixels)

X

256

Y

256

Image size (microns)

X

100

Y

100

Scalebar location

Choose an option

Choose an option

Top Right

Top Left

Bottom Right

Bottom Left

Add Scale Bar

Close panel

Data Selection Panel

Name of Image Matrix

imagedata_DAN...

Name of Variable Matrix

exactmass_DAN01...

Scores

PCA_scores ...

Loadings

PCA_loads ...

Variance

PCA_var ...

Figure Label Options

Figure Title

Add Title

Remove Title

X-Axis Label

Add X Label

Rem X Label

Y-Axis Label

Add Y Label

Rem Y Label

Image Properties

Legend Maker for RGB Plots

Label 1

Color 1

☐ Use Label 1

Label 2

Color 2

☐ Use Label 2

Label 3

Color 3

☐ Use Label 3

Add Legend

Set Image
size (microns)

X (horizontal)

100

Y (vertical)

100

☐ Use micron scale

Colormap
Changer

Choose
new colormap

Choose on...

Close Panel

Load Selected Scores

Scores Matrix: PCA_scores

PC To Plot:

1

Plot Options:

Traditional

Plot PCA Scores

Show Scalebar Tools Panel

Show Image Properties Panel

Save Score Image

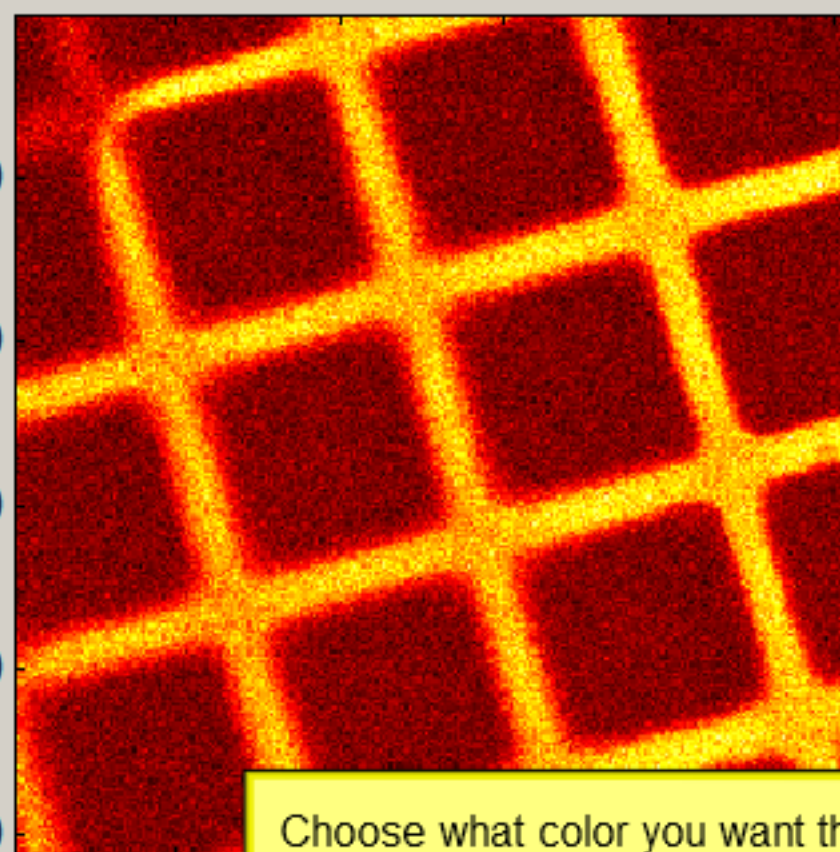
Make Ext Figure

Add Score Image To Overlay List

Close Panel

PC 1 Scores

50
100
150
200
250
50



Choose what color you want the scale bar to be.

Scalebar Maker

Show Image Size

Image size (pixels)

X

256

Y

256

Image size (microns)

X

100

Y

100

Scalebar location

Top Right

Scalebar color

Choose a color

Choose a color

Blue

Green

Red

Cyan

Magenta

Yellow

Black

Data Selection Panel

Name of Image Matrix

imagedata_DAN...

Name of Variable Matrix

exactmass_DAN01...

Scores

PCA_scores ...

Loadings

PCA_loads ...

Variance

PCA_var ...

Figure Label Options

Figure Title

Add Title

Remove Title

X-Axis Label

Add X Label

Rem X Label

Y-Axis Label

Add Y Label

Rem Y Label

Image Properties

Legend Maker for RGB Plots

Label 1

Color 1

☐ Use Label 1

Label 2

Color 2

☐ Use Label 2

Label 3

Color 3

☐ Use Label 3

Add Legend

Set Image
size (microns)

X (horizontal)

100

Y (vertical)

100

☐ Use micron scale

Colormap
Changer

Choose
new colormap

Choose on...

Close Panel

Load Selected Scores

Scores Matrix: PCA_scores

PC To Plot:

1

Plot Options:

Traditional

Plot PCA Scores

Show Scalebar Tools Panel

Show Image Properties Panel

Save Score Image

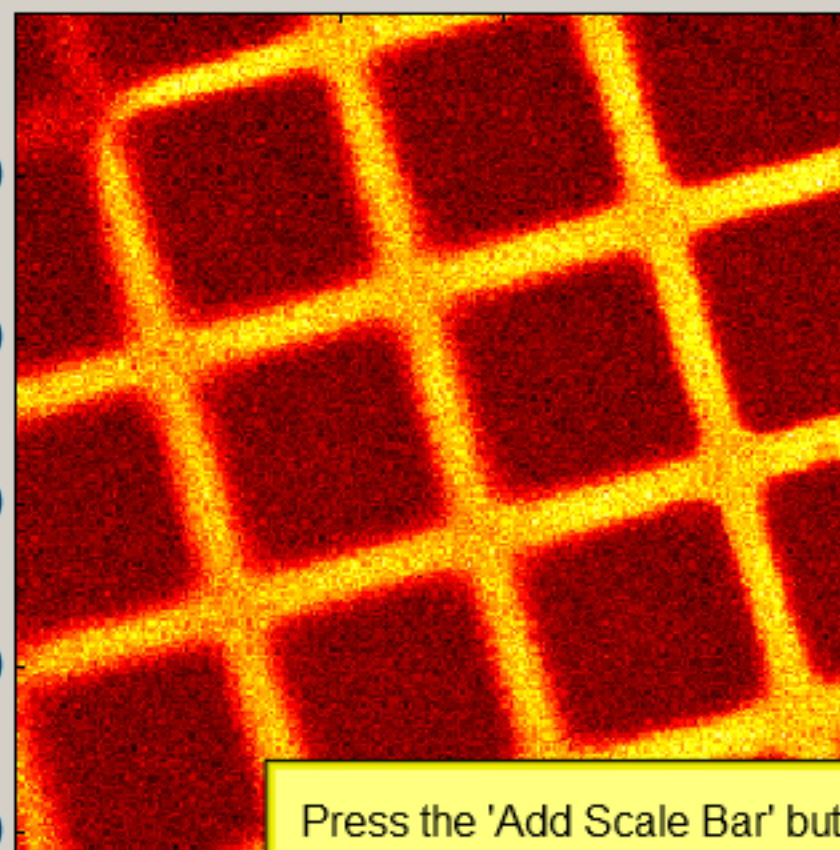
Make Ext Figure

Add Score Image To Overlay List

Close Panel

PC 1 Scores

50
100
150
200
250
50



Press the 'Add Scale Bar' button.

Scalebar Maker

Show Image Size

Image size (pixels)

X

256

Y

256

Image size (microns)

X

100

Y

100

Scalebar location

Top Right

Scalebar color

Green

Add Scale Bar

Close panel

Data Selection Panel

Name of Image Matrix

imagedata_DAN...

Name of Variable Matrix

exactmass_DAN01...

Scores

PCA_scores ...

Loadings

PCA_loads ...

Variance

PCA_var ...

Figure Label Options

Figure Title

Add Title

Remove Title

X-Axis Label

Add X Label

Rem X Label

Y-Axis Label

Add Y Label

Rem Y Label

Image Properties

Legend Maker for RGB Plots

Label 1

Color 1

☐ Use Label 1

Label 2

Color 2

☐ Use Label 2

Label 3

Color 3

☐ Use Label 3

Add Legend

Set Image
size (microns)

X (horizontal)

100

Y (vertical)

100

☐ Use micron scale

Colormap
Changer

Choose
new colormap

Choose on...

Close Panel

Load Selected Scores

Scores Matrix:

PCA_scores

PC To Plot:

1

Plot Options:

Trad

Plot PCA Scores

Show Scalebar Tools Panel

Show Image Properties Panel

Save Score Image

Make Ext Figure

Add Score Image To Overlay List

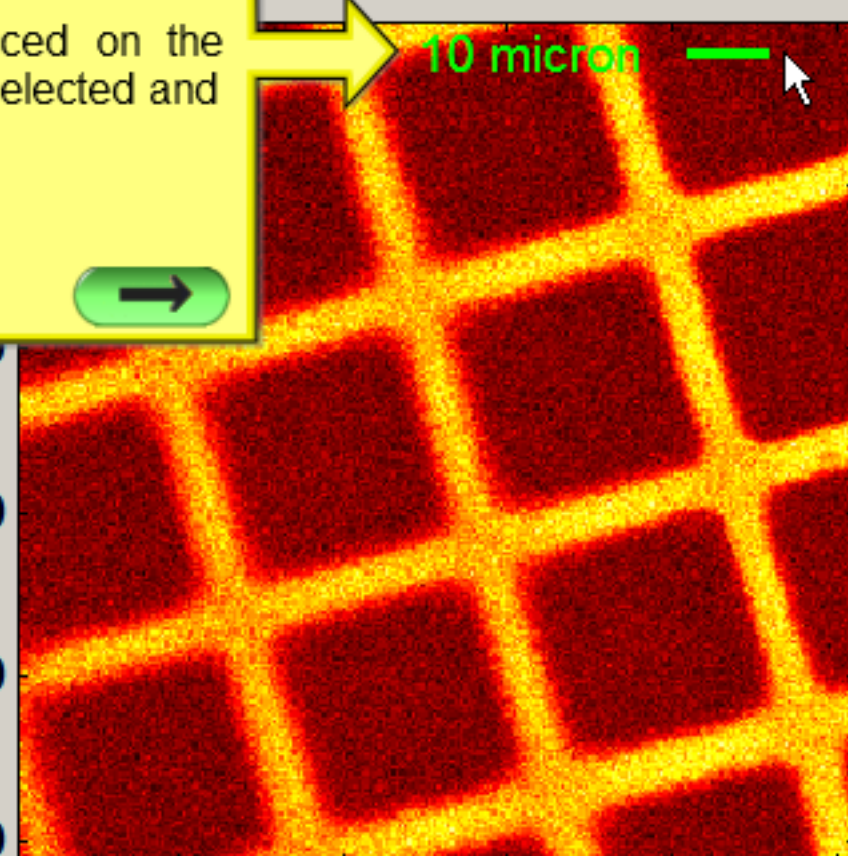
Close Panel

The scale bar is placed on the image in the location selected and in the chosen color.

10 micron

PC 1 Score

100
150
200
250



50 100 150 200 250

pixels

2.5
2
1.5
1
0.5
0
-0.5
-1
-1.5

Scalebar Maker

Show Image Size

Image size (pixels)

X

256

Y

256

Image size (microns)

X

100

Y

100

Scalebar location

Top Right

Scalebar color

Green

Add Scale Bar

Close panel

Data Selection Panel

Name of Image Matrix

imagedata_DAN...

Name of Variable Matrix

exactmass_DAN01...

Scores

PCA_scores ...

Loadings

PCA_loads ...

Variance

PCA_var ...

Figure Label Options

Figure Title

PC1

Add Title

Remove Title

X-Axis Label

Add X Label

Rem X Label

Y-Axis Label

Add Y Label

Rem Y Label

Image Properties

Legend Maker for PCP Plots

☐ Use Label 1

☐ Use Label 2

☐ Use Label 3

Add Legend

Set Image
size (microns)

X (horizontal)

100

Y (vertical)

100

☐ Use micron scale

Colormap
Changer

Choose
new colormap

Choose on...

Close Panel

Let's add a title to the figure.
Enter the title you want and press
the 'Add Title' button.



Load Selected Scores

Scores Matrix: PCA_scores

PC To Plot:

1

Plot Options:

Traditional

Plot PCA Scores

Show Scalebar Tools Panel

Show Image Properties Panel

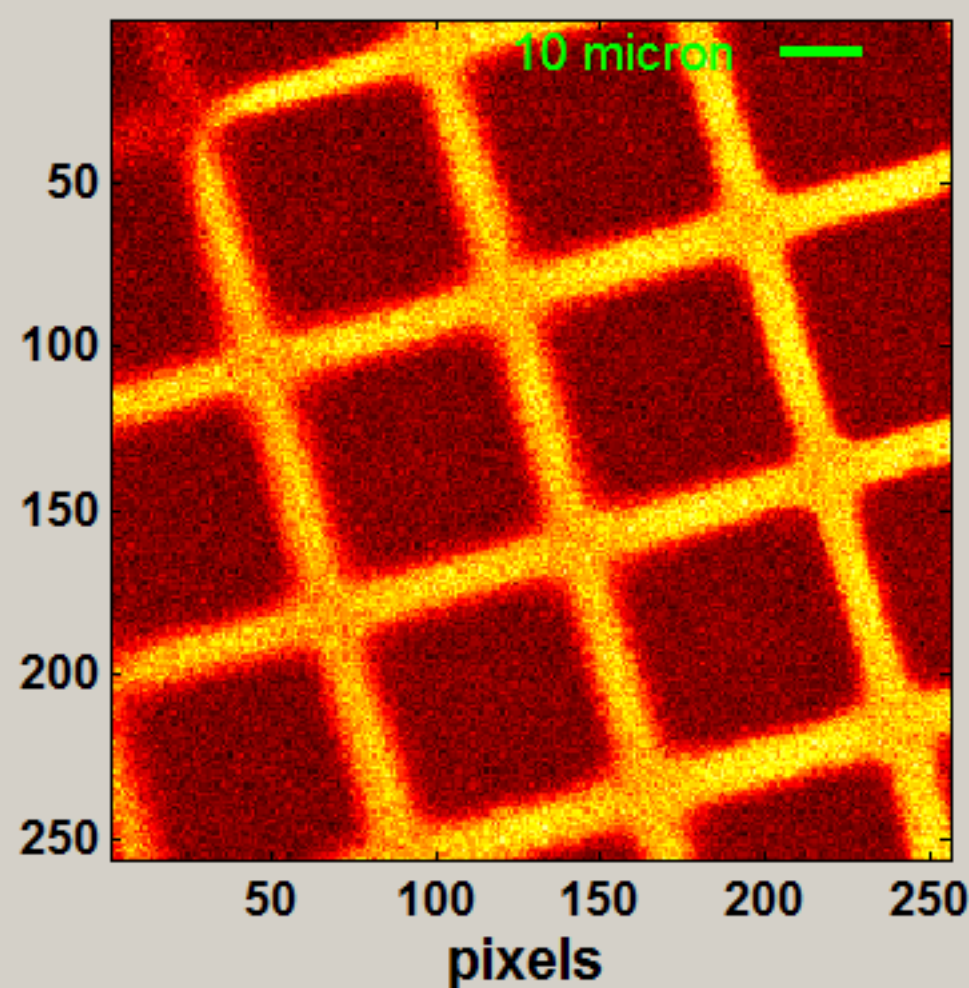
Save Score Image

Make Ext Figure

Add Score Image To Overlay List

Close Panel

PC 1 Scores



Scalebar Maker

Show Image Size

Image size (pixels)

X

256

Y

256

Image size (microns)

X

100

Y

100

Scalebar location

Top Right

Scalebar color

Green

Add Scale Bar

Close panel

Data Selection Panel

Name of Image Matrix

imagedata_DAN...

Name of Variable Matrix

exactmass_DAN01...

Scores

PCA_scores ...

Loadings

PCA_loads ...

Variance

PCA_var ...

Figure Label Options

Figure Title

PC1

Add Title

Remove Title

X-Axis Label

Add X Label

Rem X Label

Y-Axis Label

Add Y Label

Rem Y Label

Image Properties

Legend Maker for RGB Plots

Label 1

Color 1

☐ Use Label 1

Label 2

Color 2

☐ Use Label 2

Label 3

Color 3

☐ Use Label 3

Add Legend

Set Image
size (microns)

X (horizontal)

100

Y (vertical)

100

☐ Use micron scale

Colormap
Changer

Choose
new colormap

Choose on...

Close Panel

Load Selected Scores

Scores Matrix:

PCA_scores

PC To Plot:

1

Plot Options:

Traditional

Plot PCA Scores

Show Scalebar Tools Panel

Show Image Properties Panel

Save Score Image

Make Ext Figure

Add Score Image To Overlay List

Close Panel

Scalebar Maker

Image Size

size (pixels)

256

256

Image size (microns)

X

100

Y

100

Scalebar location

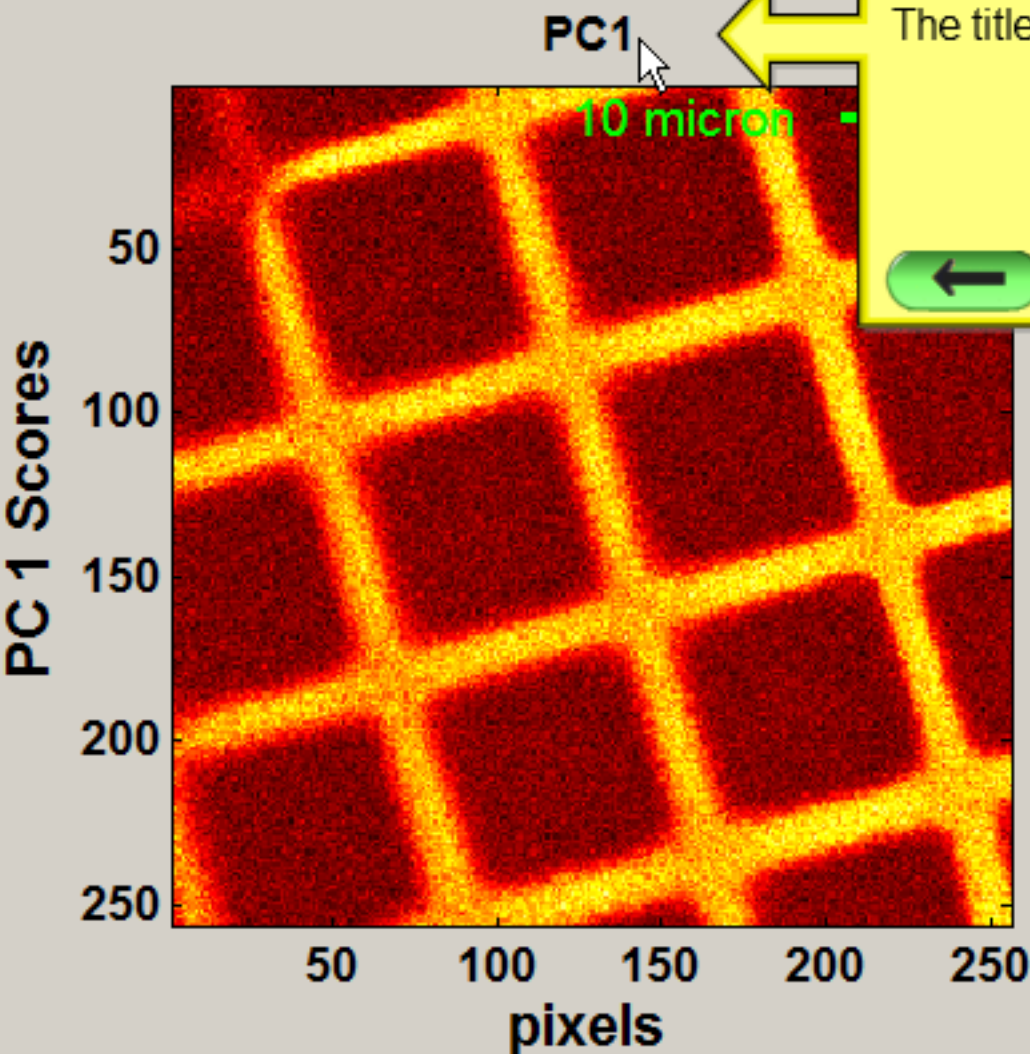
Top Right

Scalebar color

Green

Add Scale Bar

Close panel



The title is added to the figure.

Data Selection Panel

Name of Image Matrix

imagedata_DAN...

Name of Variable Matrix

exactmass_DAN01...

Scores

PCA_scores ...

Loadings

PCA_loads ...

Variance

PCA_var ...

Figure Label Options

Figure Title

PC1

Add Title

Remove Title

X-Axis Label

Pixels

Add X Label

Rem X Label

Y-Axis Label

Add Y Label

Rem Y Label

Image Properties

Legend Maker for RGB Plots

Label 1

Color 1

☐ Use Label 1

Label 2

Label 3

Set Image size (microns)

X (horizontal)

100

Y (vertical)

100

☐ Use micron scale

Colormap Changer

Choose new colormap

Choose on...

Close Panel

X and Y axis labels can be added the same way using the appropriate fields and buttons.

Let's make the X-axis label capitalized.



Load Selected Scores

Scores Matrix:

PCA_scores

PC To Plot:

1

Plot Options:

Traditional

Plot PCA Scores

Show Scalebar Tools Panel

Show Image Properties Panel

Save Score Image

Make Ext Figure

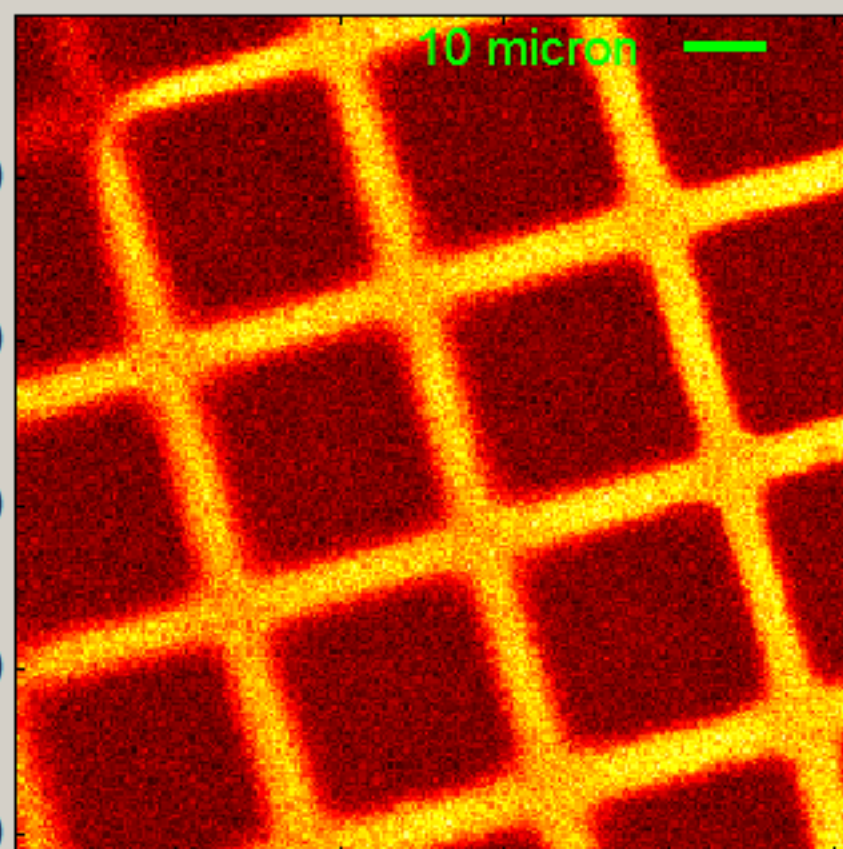
Add Score Image To Overlay List

Close Panel

PC1

PC 1 Scores

50
100
150
200
250



50 100 150 200 250
pixels

2.5
2
1.5
1
0.5
0
-0.5
-1
-1.5

Scalebar Maker

Show Image Size

Image size (pixels)

X

256

Y

256

Image size (microns)

X

100

Y

100

Scalebar location

Top Right

Scalebar color

Green

Add Scale Bar

Close panel

Data Selection Panel

Name of Image Matrix

imagedata_DAN...

Name of Variable Matrix

exactmass_DAN01...

Scores

PCA_scores

...

Loadings

PCA_loads

...

Variance

PCA_var

...

Figure Label Options

Figure Title

PC1

Add Title

Remove Title

X-Axis Label

Pixels

Add X Label

Rem X Label

Y-Axis Label

Add Y Label

Rem Y Label

Image Properties

Legend Maker for RGB Plots

Label 1

Color 1

☐ Use Label 1

Label 2

Color 2

☐ Use Label 2

Label 3

Color 3

☐ Use Label 3

Add Legend

Set Image size (microns)

X (horizontal)

100

Y (vertical)

100

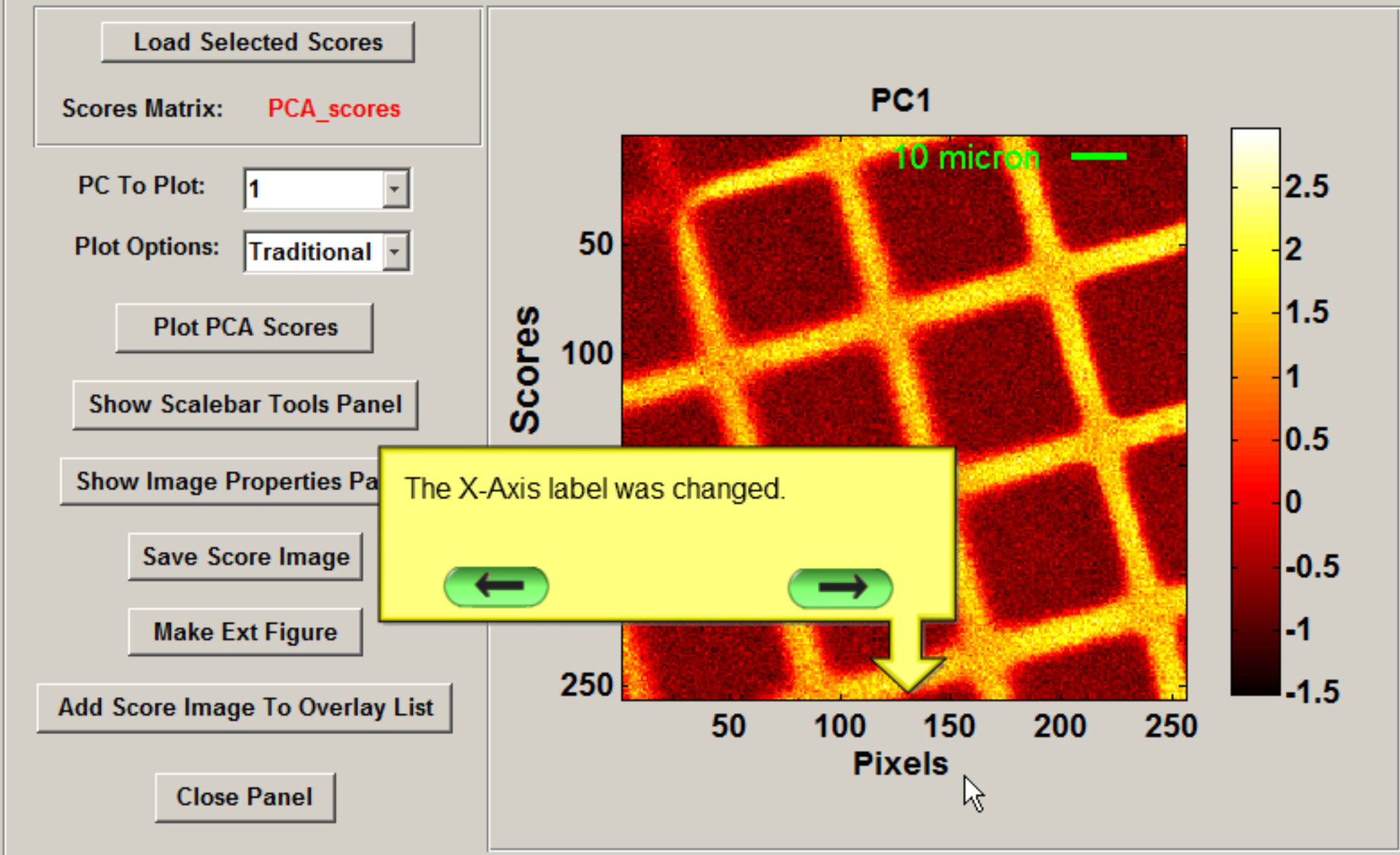
☐ Use micron scale

Colormap Changer

Choose new colormap

Choose on...

Close Panel



Scalebar Maker

Show Image Size

Image size (pixels)

X 256

Y 256

Image size (microns)

X 100

Y 100

Scalebar location

Top Right

Scalebar color

Green

Add Scale Bar

Close panel

Data Selection Panel

Name of Image Matrix:

Name of Variable Matrix:

Scores:

Loadings:

Variance:

Figure Label Options

Figure Title:

X-Axis Label:

Y-Axis Label:

Image Properties

Legend Maker for RGB Plots

Label 1: ☐ Use Label 1

Label 2: ☐ Use Label 2

Label 3: ☐ Use Label 3

Set Image size (microns)

X (horizontal):

Y (vertical):

☐ Use micron scale

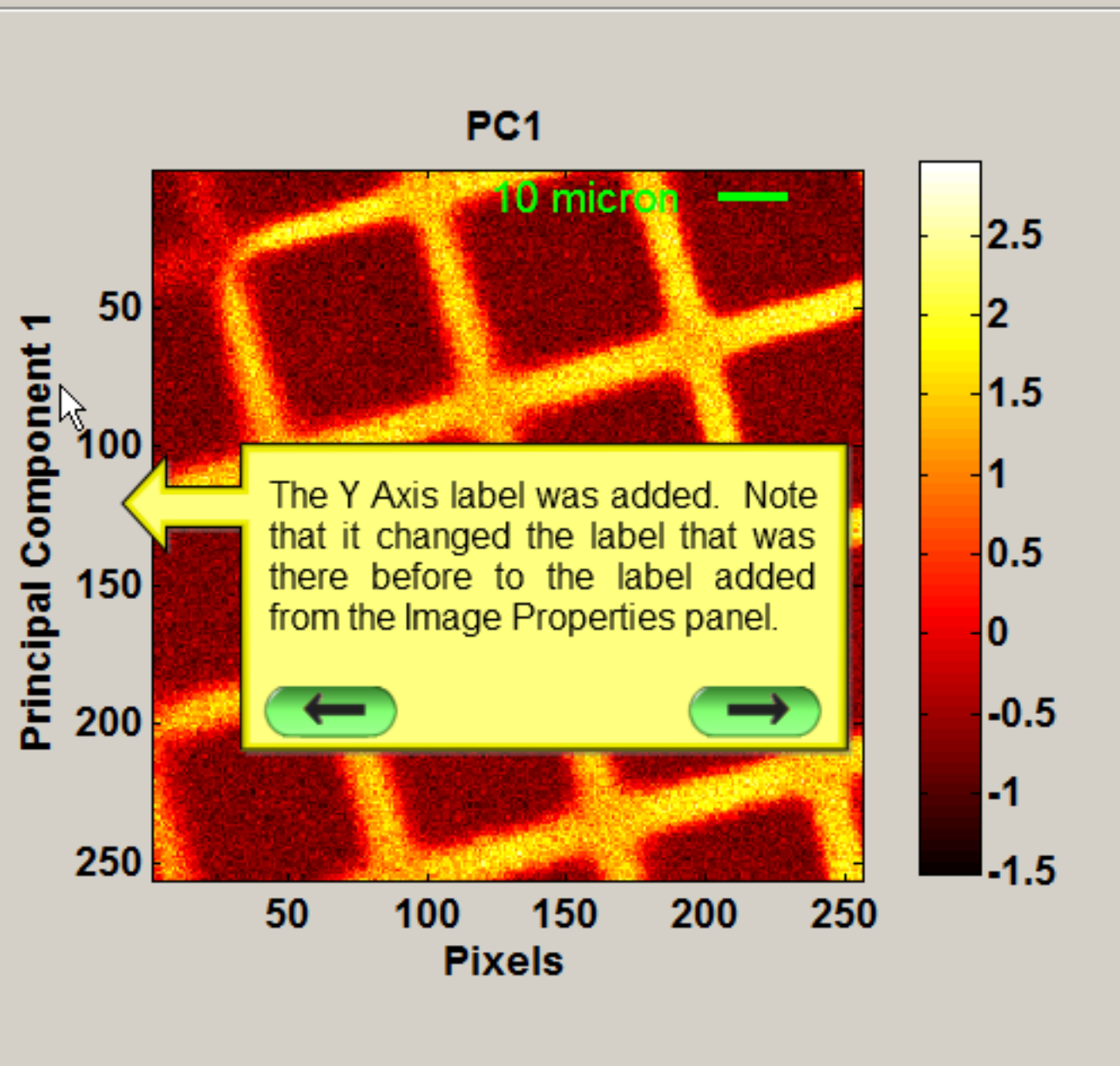
Colormap Changer

Choose new colormap

Scores Matrix: **PCA_scores**

PC To Plot:

Plot Options:



Scalebar Maker

Image size (pixels)

X:

Y:

Image size (microns)

X:

Y:

Scalebar location

Scalebar color

Data Selection Panel

Name of Image Matrix

imagedata_DAN...

Name of Variable Matrix

exactmass_DAN01...

Scores

PCA_scores ...

Loadings

PCA_loads ...

Variance

PCA_var ...

Figure Label Options

Figure Title

PC1

Add Title

Remove Title

X-Axis Label

Pixels

Add X Label

Rem X Label

Y-Axis Label

Principal Component 1

Add Y Label

Rem Y Label

Image Properties

Legend Maker for RGB Plots

Label 1

Color 1

☐ Use Label 1

Label 2

Color 2

☐ Use Label 2

Label 3

Color 3

☐ Use Label 3

Add Legend

Set Image
size (microns)

X (horizontal)

100

Y (vertical)

100

☐ Use micron scale

Colormap
Changer

Choose
new colormap

Choose on...

Close Panel

Load Selected Scores

Scores Matrix: PCA_scores

PC To Plot:

1

Plot Options:

Traditional

Plot PCA Scores

Show Scalebar Tools Panel

Show Image Properties Panel

Save Score Image

Make Ext Figure

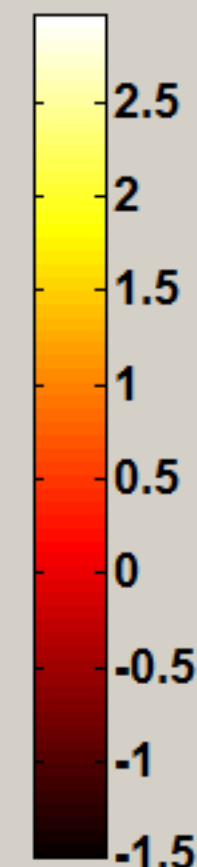
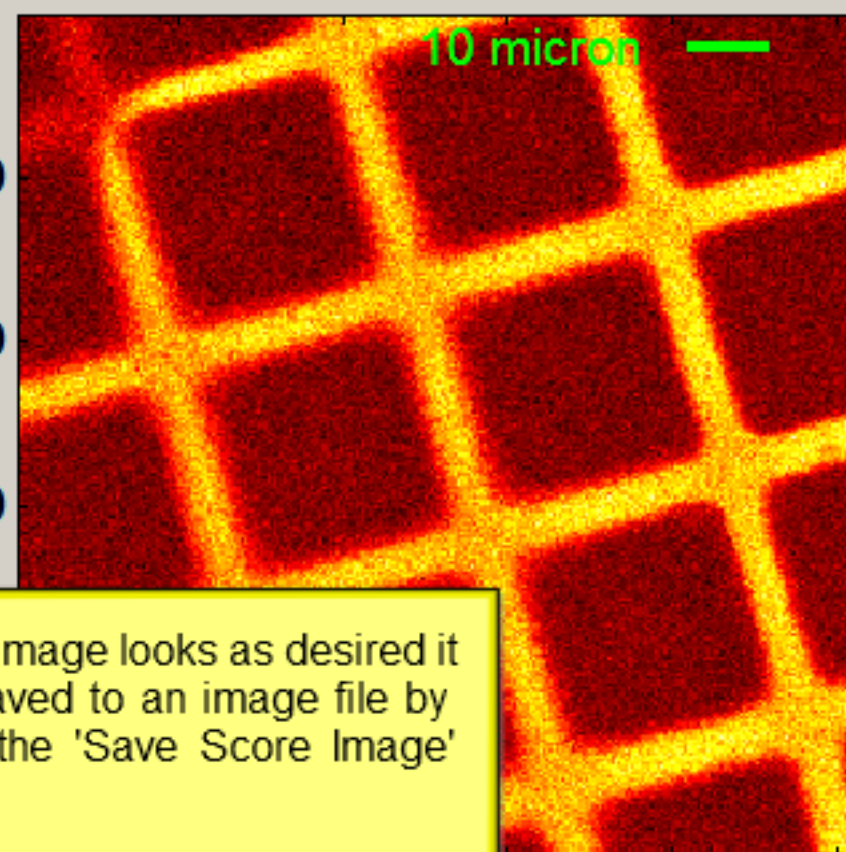
Add Score Image To Overlay List

Close Panel

Principal Component 1

50
100
150

PC1



Scalebar Maker

Show Image Size

Image size (pixels)

X

256

Y

256

Image size (microns)

X

100

Y

100

Scalebar location

Top Right

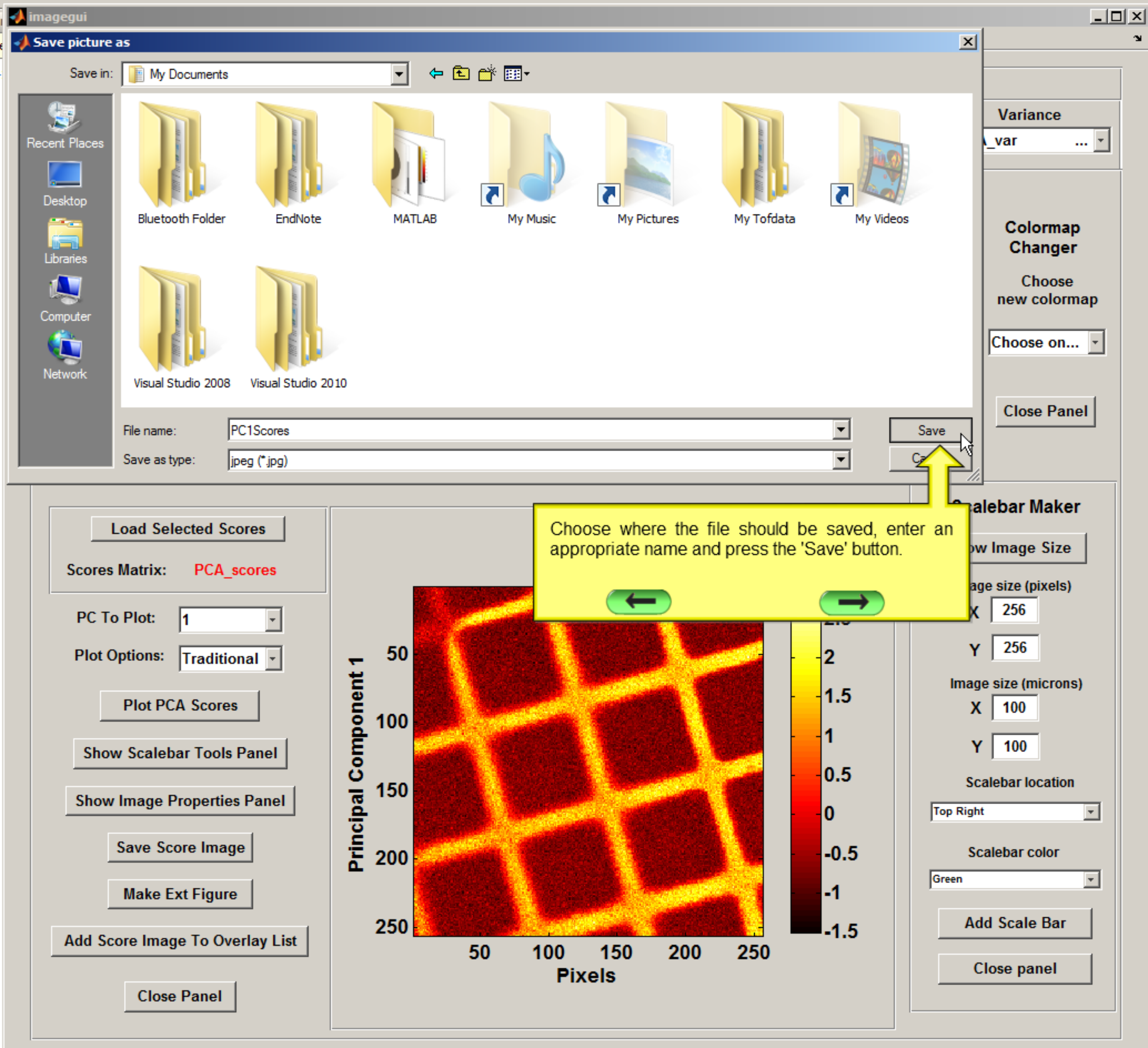
Scalebar color

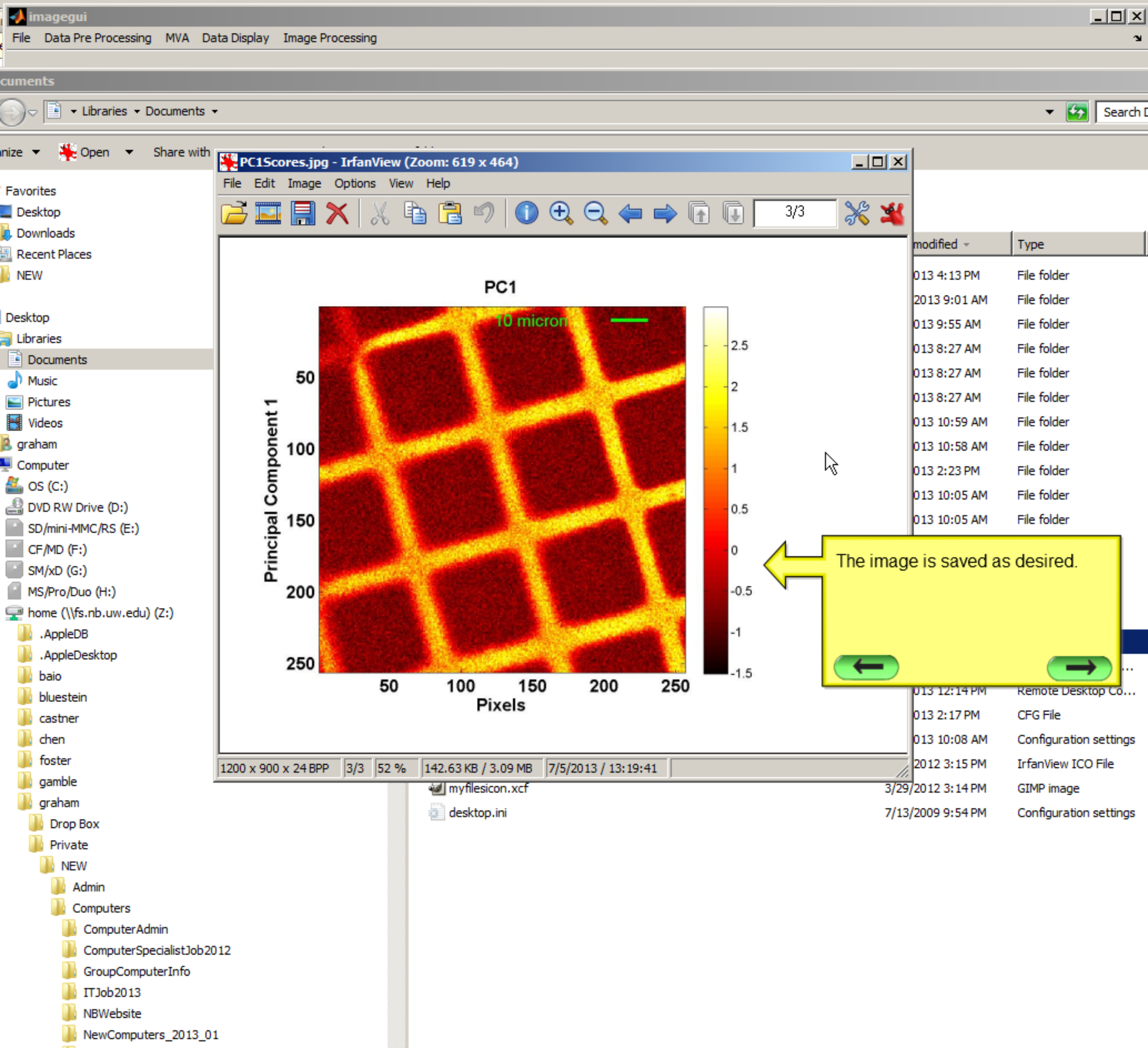
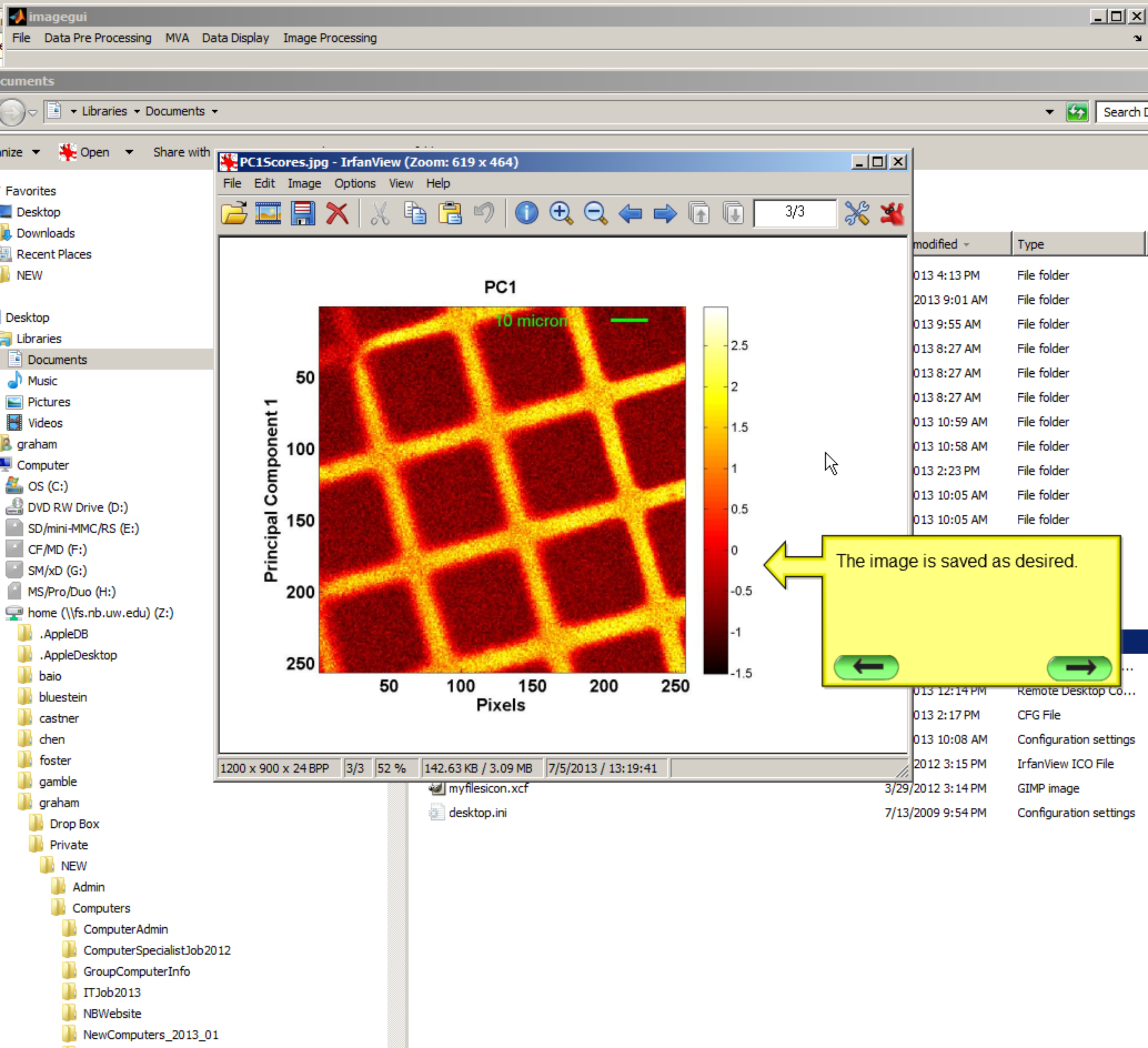
Green

Add Scale Bar

Close panel

Once the image looks as desired it can be saved to an image file by pressing the 'Save Score Image' button.





Data Selection Panel

Name of Image Matrix

imagedata_DAN...

Name of Variable Matrix

exactmass_DAN01...

Scores

PCA_scores ...

Loadings

PCA_loads ...

Variance

PCA_var ...

Figure Label Options

Figure Title

PC1

Add Title

Remove Title

X-Axis Label

Pixels

Add X Label

Rem X Label

Y-Axis Label

Principal Component 1

Add Y Label

Rem Y Label

Image Properties

Legend Maker for RGB Plots

Label 1

Color 1

☐ Use Label 1

Label 2

Color 2

☐ Use Label 2

Label 3

Color 3

☐ Use Label 3

Add Legend

Set Image
size (microns)

X (horizontal)

100

Y (vertical)

100

☐ Use micron scale

Colormap
Changer

Choose
new colormap

Choose on...

Close Panel

Load Selected Scores

Scores Matrix: PCA_scores

PC To Plot:

1

Plot Options:

Traditional

Plot PCA Scores

Show Scalebar Tools Panel

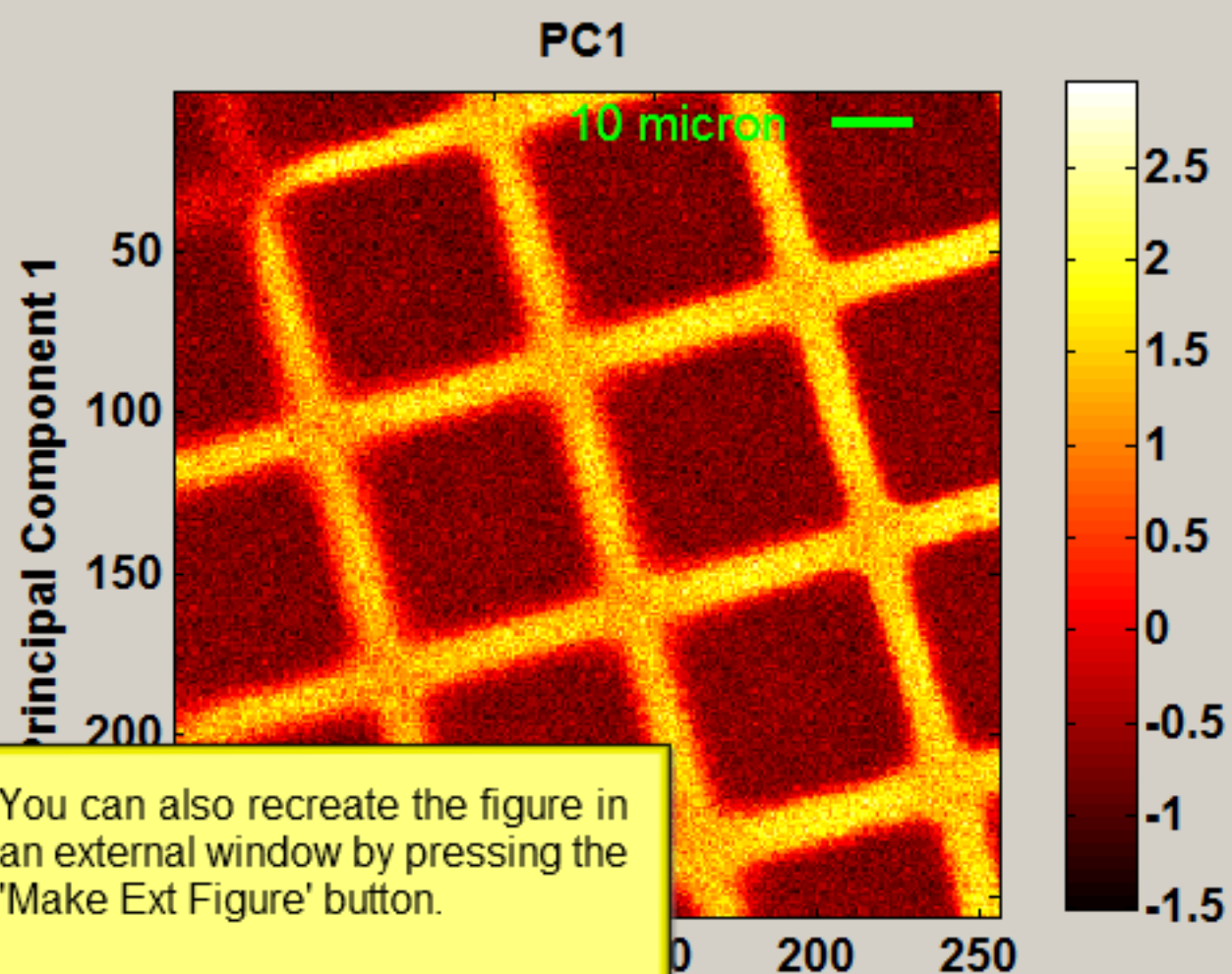
Show Image Properties Panel

Save Score Image

Make Ext Figure

Add Score Image To Overlay List

Close Panel



You can also recreate the figure in an external window by pressing the 'Make Ext Figure' button.

Scalebar Maker

Show Image Size

Image size (pixels)

X

256

Y

256

Image size (microns)

X

100

Y

100

Scalebar location

Top Right

Scalebar color

Green

Add Scale Bar

Close panel

Data Selection Panel

Name of Image Matrix

imagedata_DAN...

Figure

Figure Title

Add Title

X-Axis Label

Add X Label

Y-Axis Label

Principal Component 1

Add Y Label

Load Selected

Scores Matrix: PC1

PC To Plot: 1

Plot Options: Traditional

Plot PCA Scores

Show Scalebar To

Show Image Properties

Save Score Image

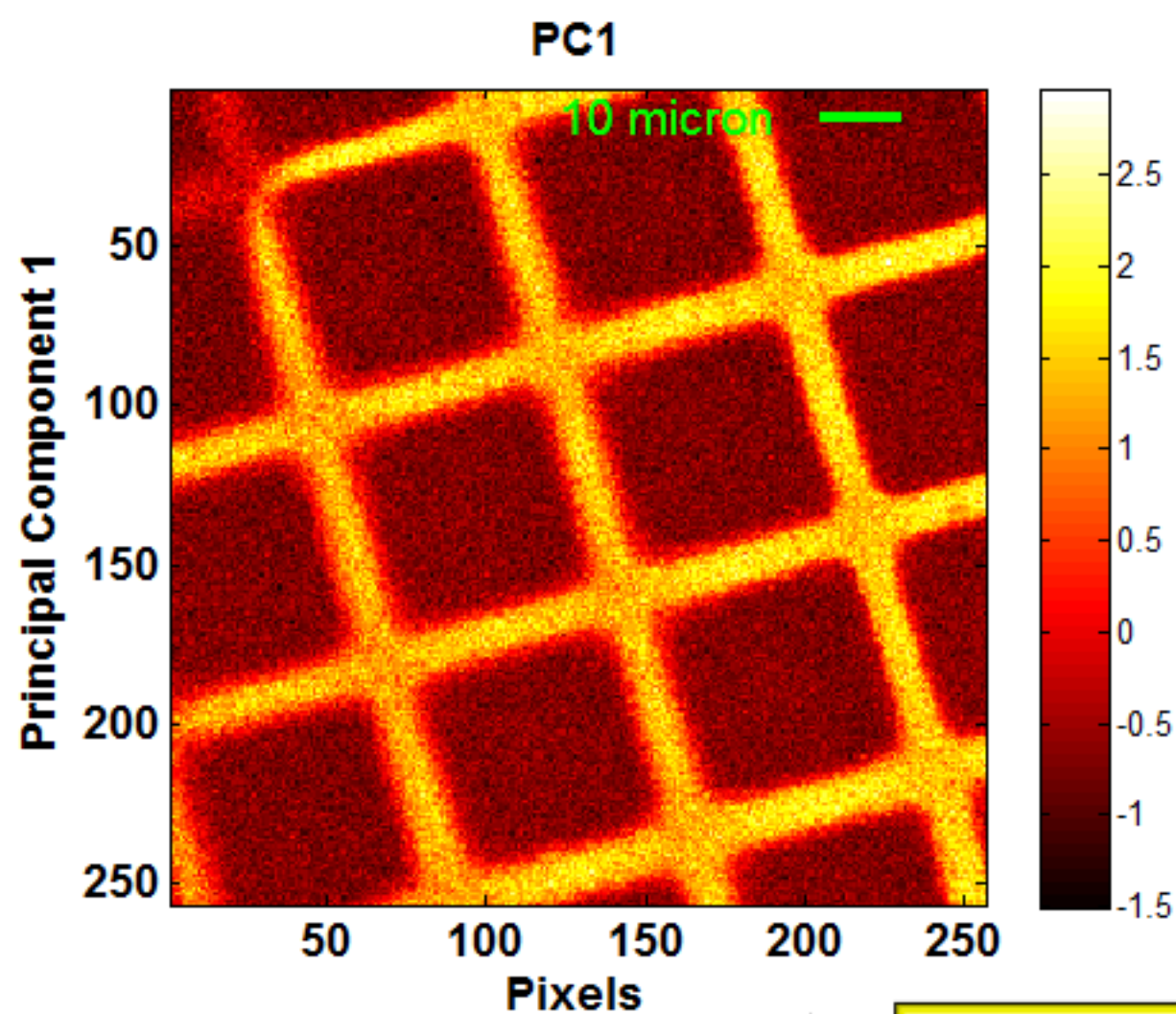
Make Ext Figure

Add Score Image To Overlay List

Close Panel

Figure 1

File Edit View Insert Tools Desktop Window Help



Variance

PCA_var

Image (microns)

Colormap Changer

Horizontal)

00

Choose new colormap

Vertical)

00

Choose on...

micron scale

Close Panel

Scalebar Maker

Show Image Size

Image size (pixels)

X 256

Y 256

Image size (microns)

X 100

Y 100

Scalebar location

Top Right

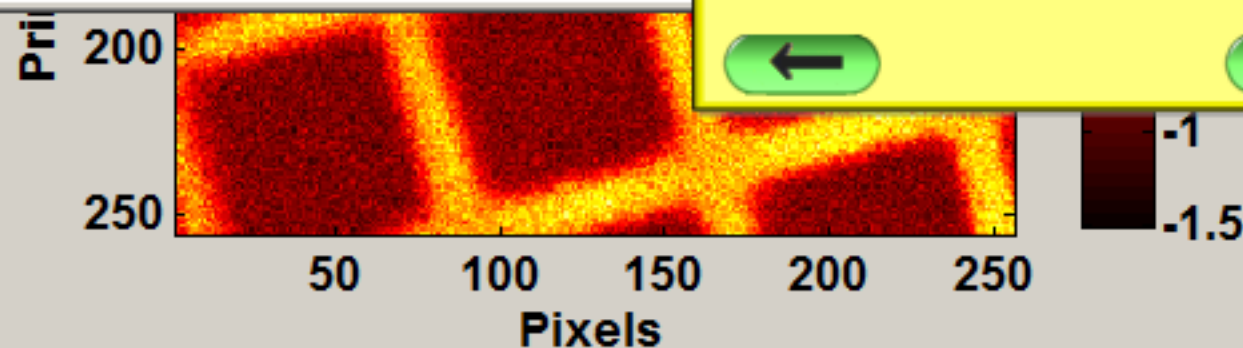
Scalebar color

Green

Add Scale Bar

Close panel

The image is recreated in a Matlab figure window. This figure can be further modified and saved as desired using the menus at the top of the figure window.



Data Selection Panel

Name of Image Matrix

imagedata_DAN...

Name of Variable Matrix

exactmass_DAN01...

Scores

PCA_scores ...

Loadings

PCA_loads ...

Variance

PCA_var ...

Figure Label Options

Figure Title

PC1

Add Title

Remove Title

X-Axis Label

Pixels

Add X Label

Rem X Label

Y-Axis Label

Principal Component 1

Add Y Label

Rem Y Label

Image Properties

Legend Maker for RGB Plots

Label 1

Color 1

☐ Use Label 1

Label 2

Color 2

☐ Use Label 2

Label 3

Color 3

☐ Use Label 3

Add Legend

Set Image size (microns)

X (horizontal)

100

Y (vertical)

100

☐ Use micron scale

Colormap Changer

Choose new colormap

Choose on...

Close Panel

Load Selected Scores

Scores Matrix:

PCA_scores

PC To Plot:

1

Plot Options:

Traditional

Plot PCA Scores

Show Scalebar Tools Panel

Show Image Properties Panel

Save Score Image

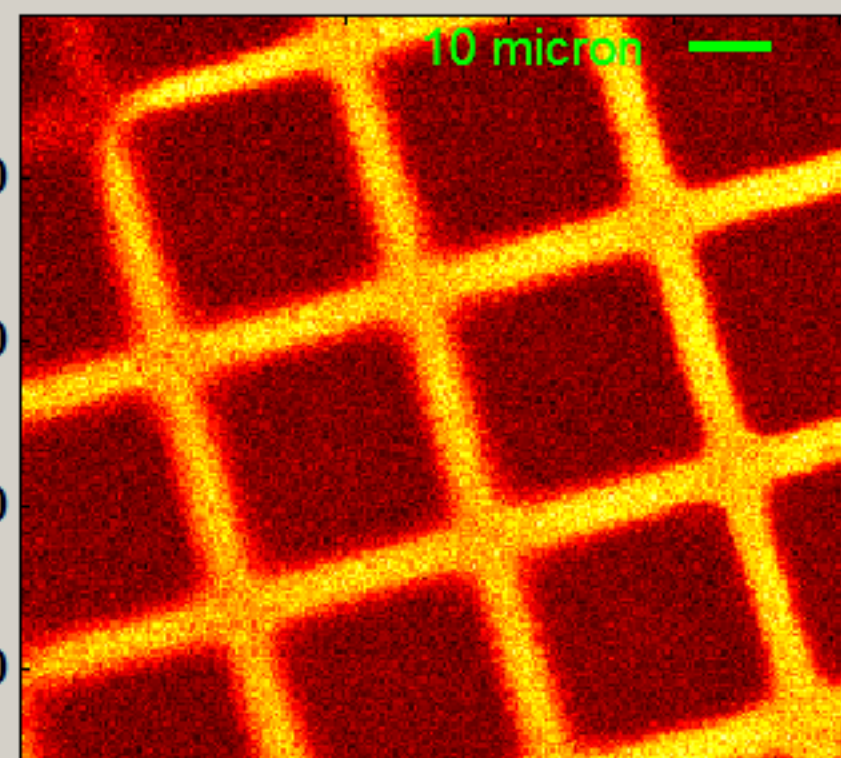
Make Ext Figure

Add Score Image To Overlay List

Close Panel

PC1

Principal Component 1



A scores image can be added to the image overlay list by pressing the 'Add Score Image To Overlay List' button. This is particularly useful to enable overlaying PCs that show opposite contrast.

Scalebar Maker

Show Image Size

Image size (pixels)

X

256

Y

256

Image size (microns)

X

100

Y

100

Scalebar location

Top Right

Scalebar color

Green

Add Scale Bar

Close panel

Data Selection Panel

Name of Image Matrix

imagedata_DAN...

Name of Variable Matrix

exactmass_DAN01...

Scores

PCA_scores ...

Loadings

PCA_loads ...

Variance

PCA_var ...

Figure Label Options

Figure Title

PC1

Add Title

Remove Title

X-Axis Label

Pixels

Add X Label

Rem X Label

Y-Axis Label

Principal Component 1

Add Y Label

Rem Y Label

Image Properties

Legend Maker for RGB Plots

Label 1

Color 1

☐ Use Label 1

Label 2

Color 2

☐ Use Label 2

Label 3

Color 3

☐ Use Label 3

Add Legend

Set Image
size (microns)

X (horizontal)

100

Y (vertical)

100

☐ Use micron scaleColormap
ChangerChoose
new colormap

Choose on...

Close Panel

Load Selected Scores

Scores Matrix: PCA_scores

PC To Plot:

1

Plot Options:

Traditional

Plot PCA Scores

Show Scalebar Tools Panel

Show Image Properties Panel

Save Score Image

Make Ext Figure

Add Score Image To Overlay List

Close Panel

Scalebar Maker

Show Image Size

Image size (pixels)

X

256

Y

256

Image size (microns)

X

100

Y

100

Scalebar location

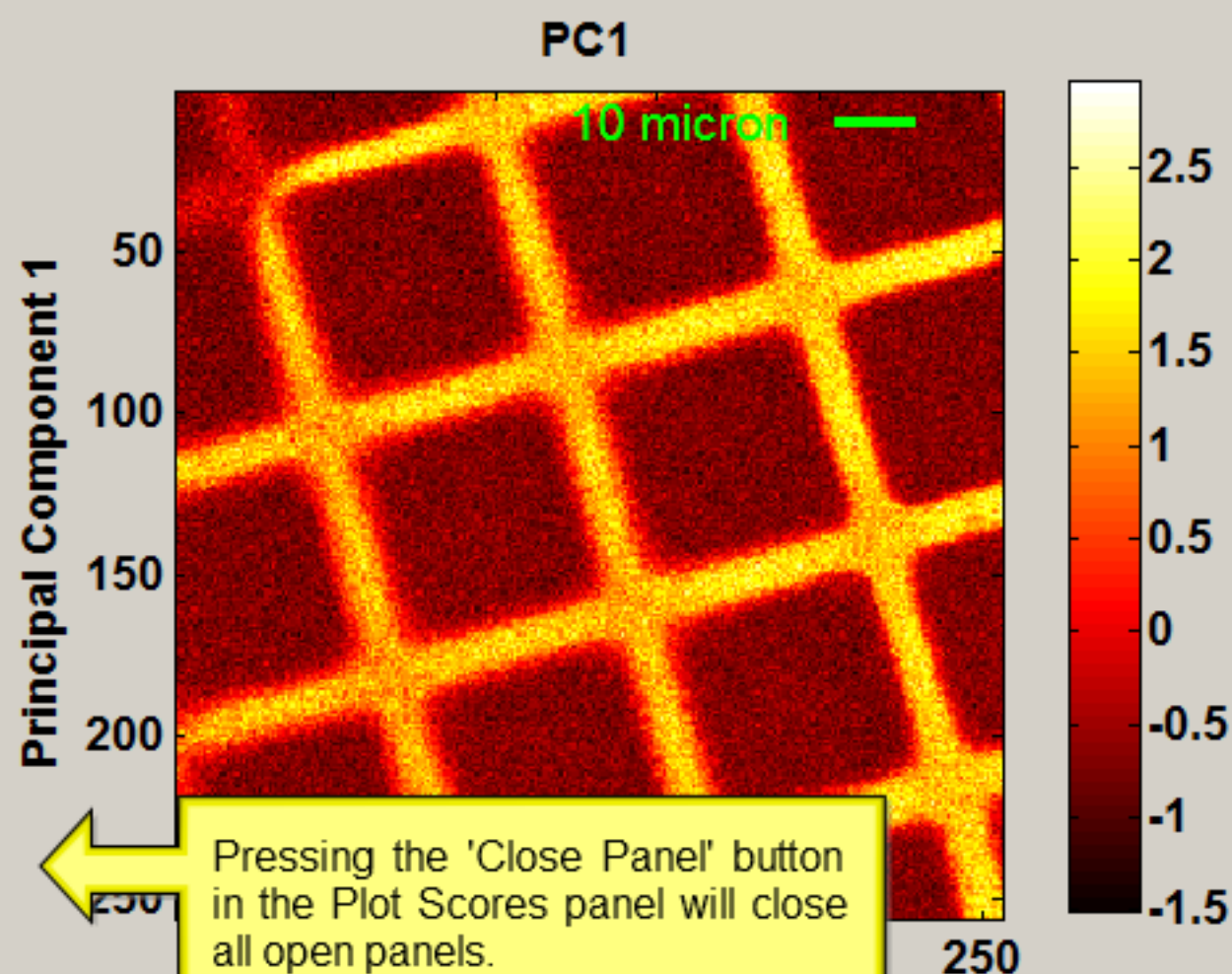
Top Right

Scalebar color

Green

Add Scale Bar

Close panel



Pressing the 'Close Panel' button in the Plot Scores panel will close all open panels.

Data Selection Panel

Name of Image Matrix

Name of Variable Matrix

imagedata_DAN...

exactmass_DAN01...

RED

GREEN

BLUE

Choose A Peak...

25.00505
26.00543
31.97319
32.97265
34.9663
42.00519
58.99923
63.95393
71.01558
79.9478
96.95888
104.9591
152.9483
196.926
228.9151
249.0989
498.8262
590.8137
622.8191
DAN01_1

Choose A Peak...

Choose A Peak...

1
0.8
0.6
0.4
0.2
0

1
0.8
0.6
0.4
0.2
0

1
0.8
0.6
0.4
0.2
0

1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0

Create R B

Create G B

Create R B

Create G B

Save Overlay

Make Ext

Close Panel

If we check in the image overlay panel we see the scores image has been added to the list of available images.



Data Selection Panel

Name of Image Matrix

imagedata_DAN...

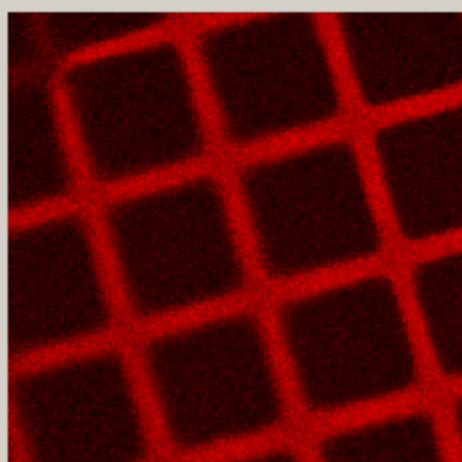
Name of Variable Matrix

exactmass_DAN01...

RED

DAN01_1

DAN01₁



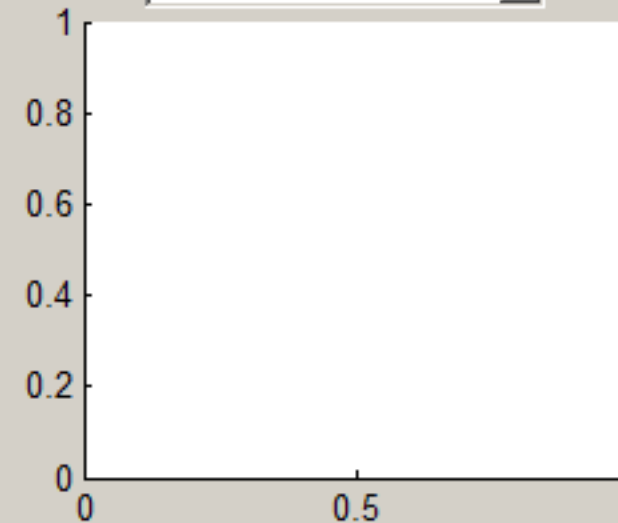
GREEN

Choose A Peak...



BLUE

Choose A Peak...



If we select it, the scores image is shown in the selected color channel.



Create R G B

Create R G

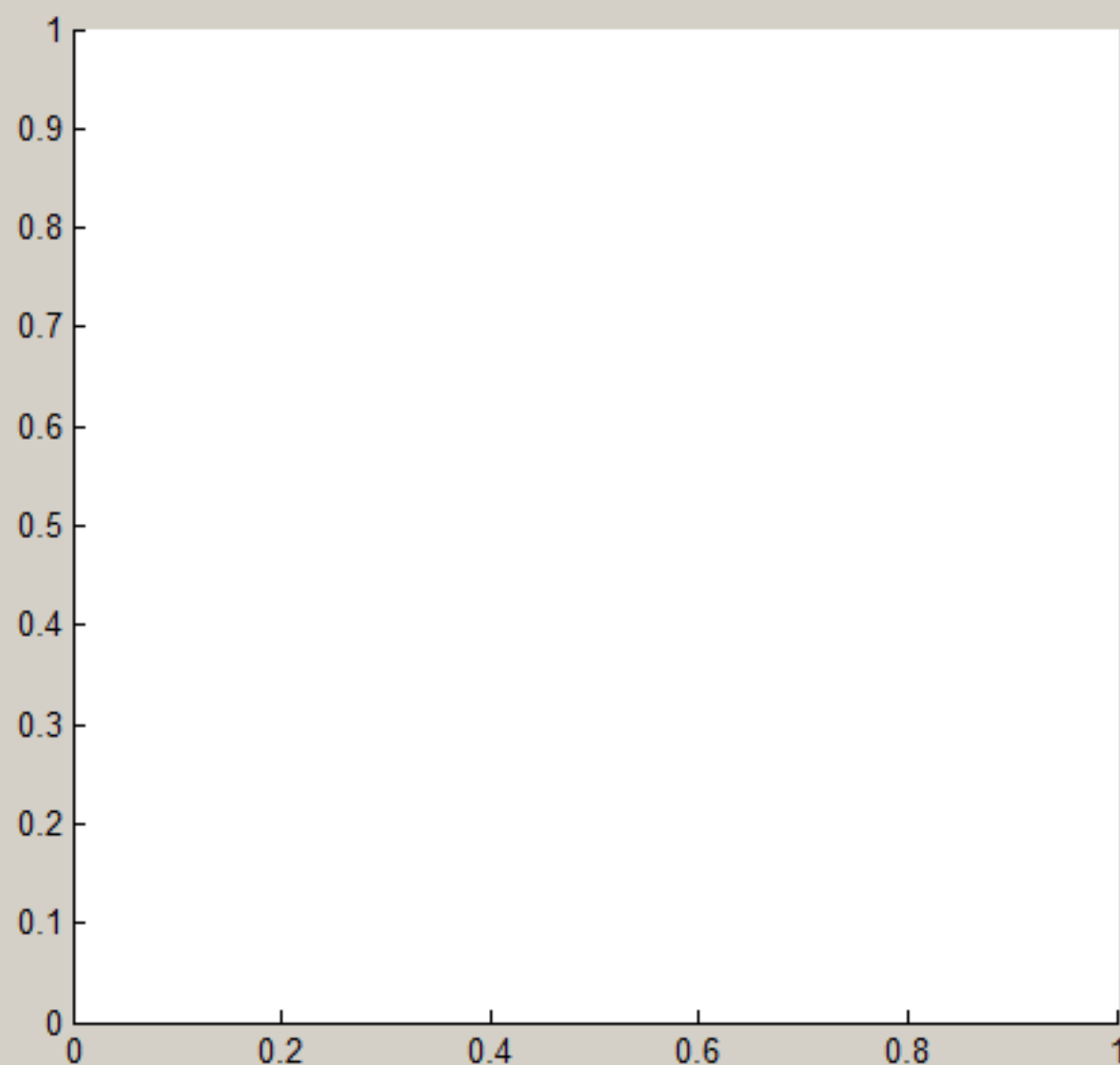
Create R B

Create G B

Save Overlay

Make Ext

Close Panel



Data Selection Panel

Name of Image Matrix

imagedata_dan01

Name of Variable Matrix

exactmass_dan01

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.

