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

These are the main input data that will be used in further analysis unless you specify otherwise. Use the drop down menus to select the data and information you want to use in your analysis.

<table>
<thead>
<tr>
<th>Name of Data Matrix</th>
<th>Name of Variable Matrix</th>
<th>Name of Filename Matrix</th>
<th>Name of TotalCounts Matrix</th>
<th>Name of SampleNames Matrix</th>
</tr>
</thead>
<tbody>
<tr>
<td>data</td>
<td>exactmass</td>
<td>filenames</td>
<td>totalcounts</td>
<td>samplenames</td>
</tr>
</tbody>
</table>

This tutorial will show you how to create scatter or bar charts of the active data set.

For this we will use the ‘Plot Peak Area Data’ function. This refers to peak intensity data imported to the spectragui and not to a RAW data file from an instrument manufacturer.
From the 'Data Display' menu choose -> 'Plot Raw Data'.

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Data Selection Panel

These are the main input data that will be used in further analysis unless you specify otherwise. Use the drop down menus to select the data and information you want to use in your analysis.

Name of Data Matrix: data
Name of Variable Matrix: exactmass
Name of Filename Matrix: filenames
Name of Totalcounts Matrix: totalcounts
Name of Samplenames Matrix: samplenames

Raw Data Browser

Make sure the data you want to plot is selected from the 'Data Selection Panel'.

Variable List

Select Plot Type

Choose Plot Style

Plot Data
Save Plot to File

Close Panel

Command History:
load datafortut
exactmass
clear
clear
edit samcard.r
clc
exactmass
filenames
clear
save datafortut
clear
what
clear
save
Data Selection Panel

These are the main input data that will be used in further analysis unless you specify otherwise. Use the drop down menus to select the data and information you want to use in your analysis.

- Name of Data Matrix: data
- Name of Variable Matrix: exactmass
- Name of Filename Matrix: filenames
- Name of Totalcounts Matrix: totalcounts
- Name of Samplenames Matrix: samplenames

Raw Data Browser

Then press the 'Load Selected Data' button.

Loaded Data: None
Loaded Samplenames: None
Loaded Variables: None

Select Plot Type

Choose Plot Style

Plot Data
Save Plot to File

Close Panel
Data Selection Panel

These are the main input data that will be used in further analysis unless you specify otherwise. Use the drop down menus to select the data and information you want to use in your analysis.

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</tr>
</tbody>
</table>

Load Selected Data

Loaded Data: data
Loaded Samplenames: samplenames
Loaded Variables: exactmass

Select Plot Type

Choose Plot Style

Plot Data
Save Plot to File

Select the type of plot you would like to create from the 'Select Plot Type' drop down menu.
Data Selection Panel

These are the main input data that will be used in further analysis unless you specify otherwise. Use the drop down menus to select the data and information you want to use in your analysis.

Name of Data Matrix
- Name of Variable Matrix
- Name of Filename Matrix
- Name of Totalcounts Matrix
- Name of Samplenames Matrix

Load Selected Data

Loaded Data: data
Loaded Samplenames: samplenames
Loaded Variables: exactmass

Select Plot Type

Choose Plot Style
- Scatter
- Bar
- Average + Stdev
- Average + Stdev Colored

There are 4 plot types.

Scatter - X,Y scatter plot of the intensity for the selected peak for all spectra in the data set.

Bar - bar plot of the intensity for the selected peak for all spectra in the data set.

Average + Stdev - a bar plot of the average intensity and standard deviation for the selected peak for all sample groups in the data set.

Average + Stdev Colored - same as above, but each bar in the plot has a different color.

Let's see how each one looks.
Data Selection Panel

These are the main input data that will be used in further analysis unless you specify otherwise. Use the drop down menus to select the data and information you want to use in your analysis.

Name of Data Matrix: data
Name of Variable Matrix: exactmass
Name of Filename Matrix: filenames
Name of Totalcounts Matrix: totalcounts
Name of Samplenames Matrix: samplenames

Load Selected Data

Loaded Data: data
Loaded Samplenames: samplenames
Loaded Variables: exactmass

Select Plot Type

Choose Plot Style
Choose Plot Style: Scatter
Bar
Average + Stdev
Average + Stdev Colored

Variable List

Select a Variable to Plot

First we'll select the 'Scatter' plot.
Data Selection Panel

These are the main input data that will be used in further analysis unless you specify otherwise. Use the drop down menus to select the data and information you want to use in your analysis.

Name of Data Matrix: data
Name of Variable Matrix: exactmass
Name of Filename Matrix: filenames
Name of Totalcounts Matrix: totalcounts
Name of Sample names Matrix: samplenames

Raw Data Browser

Variable List

Select a Variable to Plot

Then click on the peak you want to plot the data for.
Now let's look at a bar plot.
Data Selection Panel

These are the main input data that will be used in further analysis unless you specify otherwise. Use the drop down menus to select the data and information you want to use in your analysis.

- Name of Data Matrix: data
- Name of Variable Matrix: exactmass
- Name of Filename Matrix: filenames
- Name of Totalcounts Matrix: totalcounts
- Name of Samplenames Matrix: samplenames

Click on the peak again to refresh the plot.

Loaded Data:
- Loaded Samplenames: samplenames
- Loaded Variables: exactmass

Select Plot Type:
- Bar

Plot Data, Save Plot to File, Close Panel
Data Selection Panel

These are the main input data that will be used in further analysis unless you specify otherwise. Use the drop down menus to select the data and information you want to use in your analysis.

Load Selected Data

Loaded Data: data
Loaded Samplenames: samplenames
Loaded Variables: samplenames

Select Plot Type
Bar

Variable List
Select a Variable to Plot

This is a basic bar plot.
Now let's look at a bar plot showing the average and standard deviation for this peak.
Now the data is displayed showing the average and standard deviation.

Now let's create this plot with colored bars.
These are the main input data that will be used in further analysis unless you specify otherwise. Use the drop-down menus to select the data and information you want to use in your analysis.

**Data Selection Panel**

**Raw Data Browser**

**Variable List**

Select a Variable to Plot

If you would like to save any plot, press the 'Save Plot to File' button.
Then press 'Save' to save the file.
The file is save where you placed it.
And looks like this.
These are the main input data that will be used in further analysis unless you specify otherwise. Use the drop down menus to select the data and information you want to use in your analysis.

For any plot type you can browse through the peak list by press the up or down arrow keys. The plot will automatically update.
Data Selection Panel

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Load Selected Data

Loaded Data: data
Loaded Samplenames: samplenames
Loaded Variables: exactmass

Select Plot Type
Average + Sidev Colored

Plot Data Save Plot to File

Variable List
Select a Variable to Plot

Raw Data Browser

m/z = 16.9963

Variable counts

Plot for sample numbers 1 to 7.
Data Selection Panel
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Raw Data Browser
Loaded Data: data
Loaded Samplenames: samplenames
Loaded Variables: exactmass

Variable List
Select a Variable to Plot

Select Plot Type
Average + Sidev Colored

Plot Data
Save Plot to File

Close Panel
Data Selection Panel

These are the main input data that will be used in further analysis unless you specify otherwise. Use the drop down menus to select the data and information you want to use in your analysis.

Name of Data Matrix: n.datat
Name of Variable Matrix: exactmass
Name of Filename Matrix: filenames
Name of Totalcounts Matrix: totalcounts
Name of Samplenames Matrix: samplenames

Load Selected Data

Loaded Data: n.datat
Loaded Samplenames: samplenames
Loaded Variables: exactmass

Select Plot Type
Average + Stdev Colored

Plot Data
Save Plot to File

You can create an external Matlab figure by pressing the 'EXT Plot' button.
Data Selection Panel

These are the main input data that will be used in further analysis unless you specify otherwise. Use the drop-down menus to select the data and information you want to use in your analysis.

Name of Data Matrix: ndatat

Name of Sample Names Matrix: samplenames

The figure appears in a separate Matlab figure window and can be edited and saved as desired.
Data Selection Panel

Those are the main input data that will be used in further analysis unless you specify otherwise. Use the drop down menus to select the data and information you want to use in your analysis.

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Peak Area Data Browser

Loaded Data: ndatdat
Loaded Samplenames: samplenames
Loaded Variables: exactmass

Select Plot Type
Average + Stdev Colored

You can export the data for the plot by pressing the 'Export Plot Data' button.
The data is saved to a tab delimited text file and can be opened and plotted using any software you would like to use.

The first column contains the filenames, the second column contains the sample names, and the third column contains the data for each file.
Data Selection Panel

These are the main input data that will be used in further analysis unless you specify otherwise. Use the drop-down menus to select the data and information you want to use in your analysis.

That's it for this tutorial.

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