
matplotlibX Documentation

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`matplotlibX` offers extensions to the standard `matplotlib`, including additional plot styles (e.g. area plots), creation of interactive figures, and easy figure beautification tools.

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FIGURE STYLES

1.1 Bar plots

Easily create stacked and grouped vertical bar plots.

`matplotlibX.Bars.multibar` (*left, heights, style='stacked', **kwargs*)

Make a stacked/grouped bar plot. Row of heights represent samples and cols variables/categories. In stacked style, each row will be represented by 1 bar, with the first col being on the bottom. In grouped style, each row will be represented by $m = \text{\#cols}$ bars, with the first col being on the left. Supports only vertical (rather than horizontal) bars, and positive values!

1.2 Clustered Heatmap

Sorted heatmaps of 2D arrays with row and column dendrograms.

`matplotlibX.heatmaps.heatmap_clustered` (*data, dist_mat=False, **kwargs*)

Take data matrix and do hierarchical clustering of rows and cols. Plot sorted heatmap.

1.3 Stacked Plots

Sometimes also called area plots.

`matplotlibX.stacked_plot.stacked_plot` (*x, y, **kwargs*)

Make a stacked line (area) plot, e.g. for plotting multiple time series. x is a single sequence. y is at least 2 sequences, each of $\text{len}(x)$. Lines will be plotted with $y[0]$ at the bottom, with filling between consecutive entries in y . Supports only positive values!

INTERACTIVE FIGURES

2.1 Point Clicker

Base class of catching user mouse clicks on a figure. Created on Jul 12, 2011

@author: jonathanfriedman

```
class matplotlibX.interactive.PlotClicker.PlotClicker(xdata, ydata, annotes,
                                                    axis=None, xtol=None,
                                                    ytol=None, **kwargs)
```

Base class for interacting with plots. On mouse click event, get the closest data point to the click, and, if within tolerance, perform the action prescribed in the `_act` method. Be sure to indicate what proper format of 'annotates' should be when inheriting.

2.2 Annotators

Classes for annotating diferent figure styles in response to user mouse click. Created on Jul 14, 2011

@author: jonathanfriedman

```
class matplotlibX.interactive.annotators.Annotator(xdata, ydata, annotes, axis=None,
                                                    xtol=None, ytol=None, write=True,
                                                    draw=False, title=True)
```

Toggle draw of coordinates and annotation with click.

```
class matplotlibX.interactive.annotators.MultibarAnnotator(xdata, ydata, annotes,
                                                            axis=None, xtol=None,
                                                            ytol=None, write=True,
                                                            draw=False, title=True,
                                                            style='stacked')
```

Object for annotating multibar plots.

```
make_annotate(clickX, clickY)
```

Find the annotations for click coordinates

BEAUTIFICATION TOOLS

Created on Jul 8, 2011

@author: jonathanfriedman Methods for making figures look that much lovelier.

`matplotlibX.Beautification.half_frame(ax)`

Remove the top and right parts of a figure frame.

`matplotlibX.Beautification.polish_legend(ax, fontsize=16, linewidth=1.5)`

Remove frame from legend and make font bigger

INDICES AND TABLES

- *genindex*
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4.1 Contact

Please post comments or questions at <https://bitbucket.org/yonatanf/matplotlib/issues>.

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