

The popular R data analysis language has a great gallery of graphics, most of which are "publication quality" in that they tell a story...

The screenshot shows a web browser window displaying the R Graph Gallery website. The browser's address bar shows the URL `http://addictedtor.free.fr/graphiques/thumbs.php`. The website header includes navigation links like Home, Browse, Related, Source code, Graphics List, and Thumbnails. A search bar is visible with the text "search : RGG".

The main content area is a grid of various data visualizations, including bar charts, scatter plots, histograms, and contour plots. One prominent plot is titled "Backward selection in arima models". This plot shows a heatmap of coefficients for an ARMA(7,3) model, with a color scale ranging from -1.0 to 1.5. The plot also includes a line graph showing the step of selection of coefficients and a p-value scale from 0 to 1.

The "Backward selection in arima models" plot displays a heatmap of coefficients for an ARMA(7,3) model. The x-axis represents the coefficients α_1 through α_7 and β_1 through β_3 . The y-axis represents the same coefficients. The color scale ranges from -1.0 (dark blue) to 1.5 (dark red). The plot shows the step of selection of coefficients in an ARMA(7,3) model. Each row of the center [...] indicates the step of selection.

	α_1	α_2	α_3	α_4	α_5	α_6	α_7	β_1	β_2	β_3	
α_1	-0.25	-0.31	0.56	0.70	0.12	0.04	-0.52	0.70	1.14	0.44	
α_2	-0.23	-0.29	0.50	0.76	0.1		-0.54	0.73	1.13	0.42	
α_3	-0.16	-0.27	0.59	0.75			-0.57	0.66	1.12	0.37	
α_4			-0.33	0.67	0.66			-0.53	0.5	1.06	0.18
α_5				-0.24	0.71	0.57			-0.53	0.44	0.83

The matplotlib gallery shows off beautiful graphics, but it has become a hodgepodge of "graphical element" examples mixed in with publication-quality ones...

The image shows a screenshot of a web browser displaying the Matplotlib gallery. The browser's address bar shows the URL `http://matplotlib.sourceforge.net/gallery.html`. The page features a navigation menu with links for `home`, `search`, `examples`, `gallery`, `docs`, `modules`, and `index`. The main content area is titled "Click on any image to see full size image and source code" and contains a grid of various plots, including bar charts, line graphs, scatter plots, and heatmaps. A search bar on the right side of the page is labeled "Quick search" and includes a "Go" button. Below the search bar, there is a prompt: "Enter search terms or a module, class or function name." The page also includes a sidebar with "Bookmarks" and "Other bookmarks" sections.

Thumbnail gallery — Matplo... x

← → ↻ ⌂ ☆ `http://matplotlib.sourceforge.net/gallery.html` ▶ ⌵ ⌵ ⌵

Bookmarks Other bookmarks

$\vec{r} \cdot \nabla \vec{v} = -\nabla p + \mu \nabla^2 \vec{v} + \rho \vec{g}$
 $\delta_1 \rho_1 \sigma_2 = U \delta b_1 + 8\pi^2 / \alpha \alpha_2$
 U_0^0
 $m_1 m$
 U_0^0
 U_0^0

home | search | examples | gallery | docs » modules | index

Click on any image to see full size image and source code

Scores by group and gender
LineCollection using offsets
Changed default color cycle to rgb
This axes bary. cycle is cmh

A compound path
Mercator: Projection of the Opressor

Two scales: Fahrenheit and Celsius

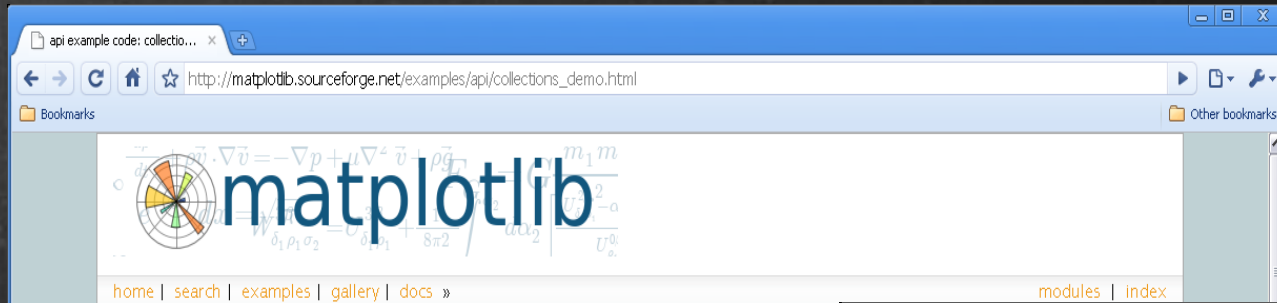
Minimum Message Length

some other
IQ: $\sigma_i = 15$

Quick search

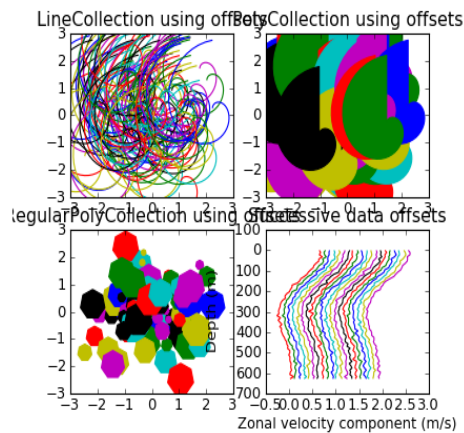
Enter search terms or a module, class or function name.

Graphics like these show off matplotlib functionality but are supposed to be "quick hits", not full-featured examples...



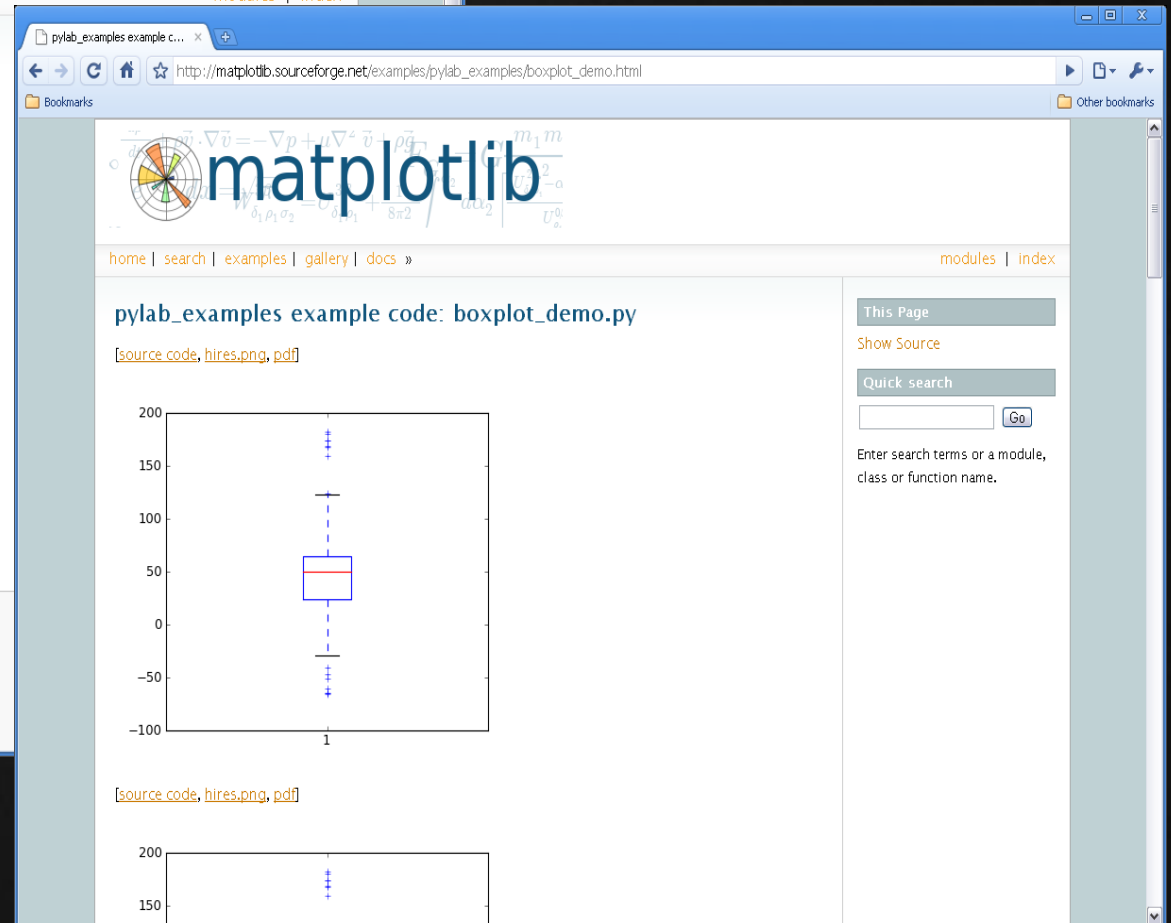
api example code: collections_demo.py

[\[source code\]](#), [\[hires.png\]](#), [\[pdf\]](#)



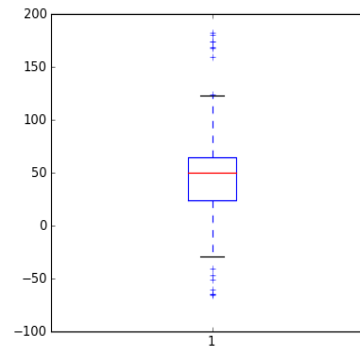
```
#!/usr/bin/env python
'''Demonstration of LineCollection, PolyCollection, and
RegularPolyCollection with autoscaling.
```

For the first two subplots, we will use spirals. Their size will be set in plot units, not data units. Their positions will be set in data units by using the "offsets" and "transOffset" kwargs of the LineCollection and PolyCollection.



pylab_examples example code: boxplot_demo.py

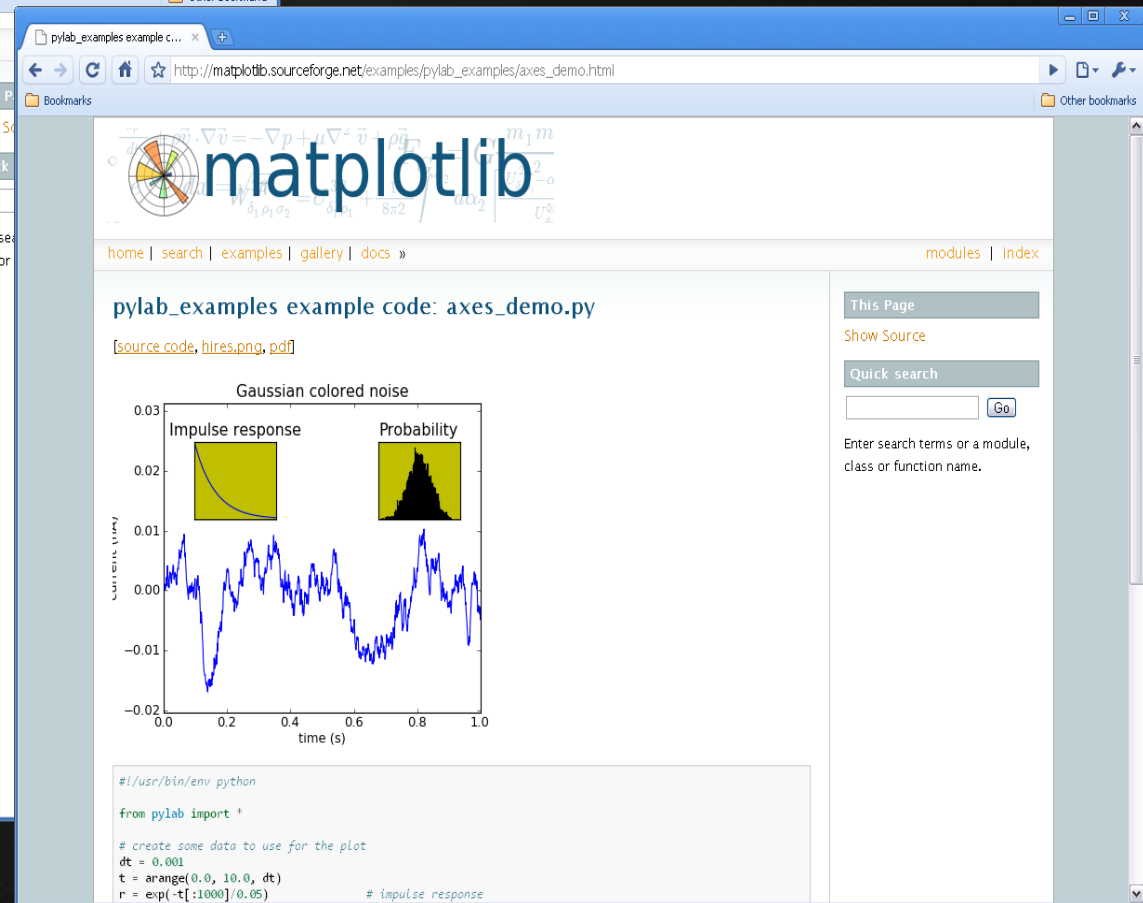
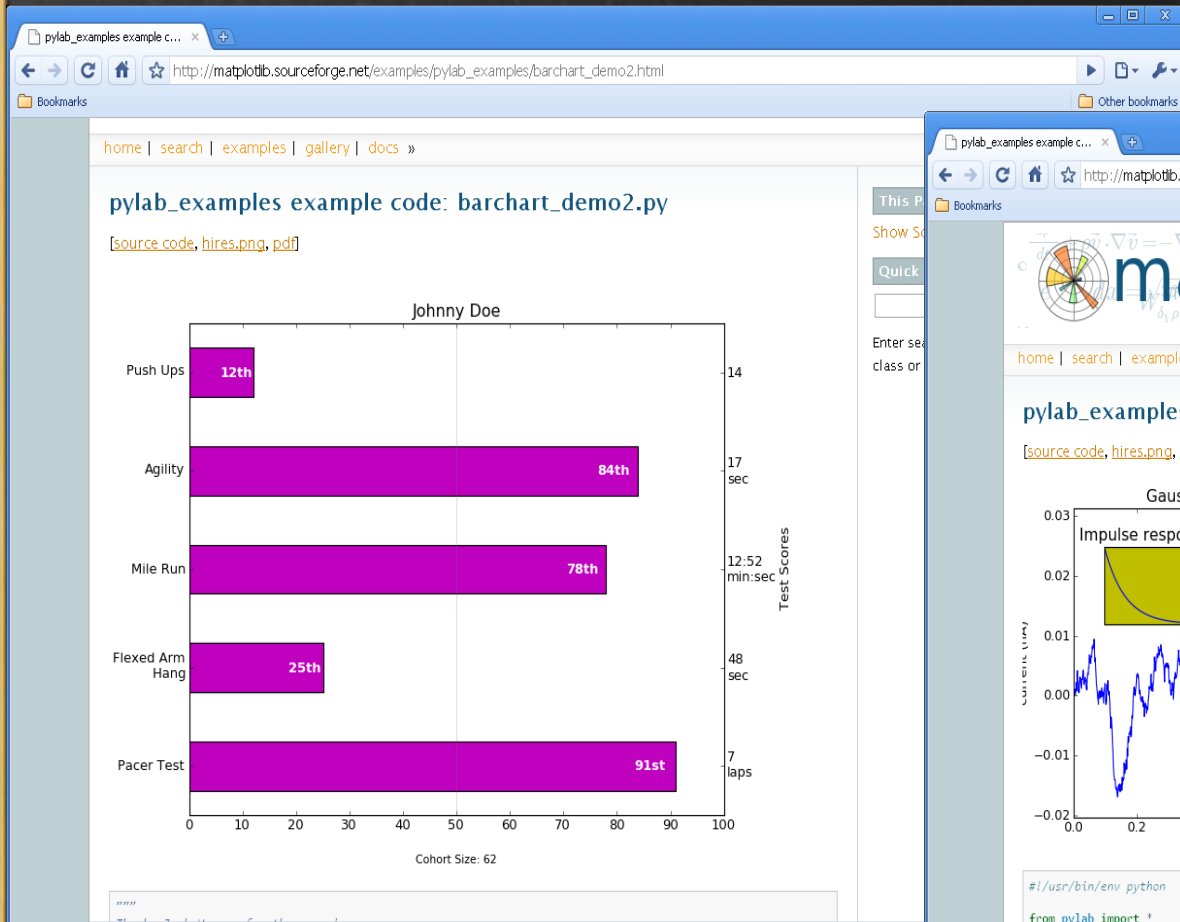
[\[source code\]](#), [\[hires.png\]](#), [\[pdf\]](#)



[\[source code\]](#), [\[hires.png\]](#), [\[pdf\]](#)

Examples like these are "publication-quality" in that they

- Are visually dense with information
- Tell a story (axes labels, titles/subtitles, sensible tick labels, legends, etc)
- Give someone new to matplotlib a complete example to work from



Both basic and complete examples are needed, but we should separate them out for easier navigation and education for new users...

**Goal: Create second matplotlib
gallery**

- Separate out the basic, "graphical element" examples in the current gallery and make that into a "building-blocks" gallery
- Gather current full-featured examples for a second, "publication quality" gallery
 - Highlight the cool stuff you can do in Python and how beautiful it looks in matplotlib
 - Provide more one-stop examples for new users to quickly see how to create the graphics they need
- Call to Action: Get more publication quality graphics from the community (you)
 1. Find one great graphic you've made
 2. Make it a stand-alone example
 - Mock up or hard code data
 - Add comments
 3. Contact me, I'll try and figure out how to organize josh.hemann@roguewave.com