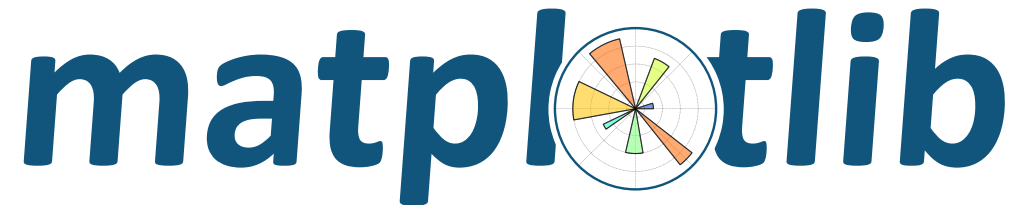# We're updating the default styles for Matplotlib 2.0

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matplotlib

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color example code: named_colors.py

(Source code, png, hires.png, pdf)

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```
"""
Visualization of named colors.

Simple plot example with the named colors and its visual representation.
"""

from __future__ import (absolute_import, division, print_function,
                         unicode_literals)

import six

import numpy as np
import matplotlib.pyplot as plt
from matplotlib import colors


colors_ = list(six.iteritems(colors.cnames))

# Add the single letter colors.
```

```python
for name, rgb in six.iteritems(colors.ColorConverter.colors):
    hex_ = colors.rgb2hex(rgb)
    colors_.append((name, hex_))

# Transform to hex color values.
hex_ = [color[1] for color in colors_]
# Get the rgb equivalent.
rgb = [colors.hex2color(color) for color in hex_]
# Get the hsv equivalent.
hsv = [colors.rgb_to_hsv(color) for color in rgb]

# Split the hsv values to sort.
hue = [color[0] for color in hsv]
sat = [color[1] for color in hsv]
val = [color[2] for color in hsv]

# Sort by hue, saturation and value.
ind = np.lexsort((val, sat, hue))
sorted_colors = [colors_[i] for i in ind]

n = len(sorted_colors)
ncols = 4
nrows = int(np.ceil(1. * n / ncols))

fig, ax = plt.subplots()

X, Y = fig.get_dpi() * fig.get_size_inches()

# row height
h = Y / (nrows + 1)
# col width
w = X / ncols

for i, (name, color) in enumerate(sorted_colors):
    col = i % ncols
    row = int(i / ncols)
    y = Y - (row * h) - h

    xi_line = w * (col + 0.05)
    xf_line = w * (col + 0.25)
    xi_text = w * (col + 0.3)
```

```python
        ax.text(xi_text, y, name, fontsize=(h * 0.8),
                horizontalalignment='left',
                verticalalignment='center')

        # Add extra black line a little bit thicker to make
        # clear colors more visible.
        ax.hlines(y, xi_line, xf_line, color='black', linewidth=(h * 0.7))
        ax.hlines(y + h * 0.1, xi_line, xf_line, color=color, linewidth=(h * 0.6))

    ax.set_xlim(0, X)
    ax.set_ylim(0, Y)
    ax.set_axis_off()

    fig.subplots_adjust(left=0, right=1,
                        top=1, bottom=0,
                        hspace=0, wspace=0)
    plt.show()
```

Keywords: python, matplotlib, pylab, example, codex (see Search examples)