

`_tkinter.TclError`: no display name and no `$DISPLAY` environment variable

If you face `_tkinter.TclError` when you run your python application based on Matplotlib on CentOS 7, it might be caused by Matplotlib choose Xwindows backend by default.

The error message will be like below:

```
$ python matplotlib_test.py
Traceback (most recent call last):
  File "matplotlib_test.py", line 3, in <module>
    plt.plot(["Seoul", "Paris", "Seattle"], [30, 25, 55])
  File "/usr/lib64/python2.7/site-packages/matplotlib/pyplot.py", line 3352, in plot
    ax = gca()
  File "/usr/lib64/python2.7/site-packages/matplotlib/pyplot.py", line 969, in gca
    return gcf().gca(**kwargs)
  File "/usr/lib64/python2.7/site-packages/matplotlib/pyplot.py", line 586, in gcf
    return figure()
  File "/usr/lib64/python2.7/site-packages/matplotlib/pyplot.py", line 533, in figure
    **kwargs)
  File "/usr/lib64/python2.7/site-packages/matplotlib/backend_bases.py", line 161, in new_figure_manager
    return cls.new_figure_manager_given_figure(num, fig)
  File "/usr/lib64/python2.7/site-packages/matplotlib/backends/_backend_tk.py", line 1046, in
new_figure_manager_given_figure
    window = Tk.Tk(className="matplotlib")
  File "/usr/lib64/python2.7/lib-tk/Tkinter.py", line 1745, in __init__
    self.tk = _tkinter.create(screenName, baseName, className, interactive, wantobjects, useTk, sync, use)
_tkinter.TclError: no display name and no $DISPLAY environment variable
```

In order to solve this problem, you need to set Matplotlib by following codes on top of your codes.

```
import matplotlib
matplotlib.use('Agg')

...
<your original code>
```