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109





34

43

Just for curiosity I would like to know how to do this in the code below. I have been searching for an answer but is useless.

```
import numpy as np
import matplotlib.pyplot as plt
data=np.random.exponential(scale=180, size=10000)
print ('el valor medio de la distribucion exponencial es: ')
print np.average(data)
plt.hist(data,bins=len(data)**0.5,normed=True, cumulative=True, faceco
plt.legend()
plt.xlabel('algo')
plt.ylabel('algo')
plt.ylabel('algo')
plt.grid()
plt.show()
```

python matplotlib

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edited Aug 27 '15 at 1:00



Salvador Dali

**188k** • 132 • 652 • 717

asked Sep 15 '12 at 17:31

Santiago Lovera
1,093 • 2 • 8 • 4

By clicking "Accept all cookies" spouled the Kingk Graches and disclose information in manager().window.state('zoomed') then accordance with our Cookie Policy ... - Basj Sep 26 '18 at 12:18 /

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p 14 '20 at 9:40

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# 22 Answers





180



1

I am on a Windows (WIN7), running Python 2.7.5 & Matplotlib 1.3.1.

I was able to maximize Figure windows for TkAgg, QT4Agg, and wxAgg using the following lines:

```
from matplotlib import pyplot as plt
### for 'TkAgg' backend
plt.figure(1)
plt.switch_backend('TkAgg') #TkAgg (instead Qt4Agg)
print '#1 Backend:',plt.get_backend()
plt.plot([1,2,6,4])
mng = plt.get_current_fig_manager()
### works on Ubuntu??? >> did NOT working on windows
# mng.resize(*mng.window.maxsize())
mng.window.state('zoomed') #works fine on Windows!
plt.show() #close the figure to run the next section
### for 'wxAgg' backend
plt.figure(2)
plt.switch_backend('wxAgg')
print '#2 Backend:',plt.get_backend()
plt.plot([1,2,6,4])
mng = plt.get_current_fig_manager()
mng.frame.Maximize(True)
plt.show() #close the figure to run the next section
### for 'Qt4Agg' backend
plt.figure(3)
```

```
plt.switch_backend('QT4Agg') #default on my system
print '#3 Backend:',plt.get_backend()
plt.plot([1,2,6,4])
figManager = plt.get_current_fig_manager()
figManager.window.showMaximized()
plt.show()
```

if you want to maximize multiple figures you can use

```
for fig in figs:
   mng = fig.canvas.manager
# ...
```

Hope this summary of the previous answers (and some additions) combined in a working example (at least for windows) helps. Cheers

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- 7 ### works on Ubuntu??? >> did NOT working on windows mng.resize(\*mng.window.maxsize()) #works perfect on linux for me Daniele Jun 7 '15 at 16:47 /
- 0 @Daniele, your solution works for me on TkAgg on Ubuntu. Thanks! But it took me a while to parse ;) Maybe get rid of everything before "mng.resize...". − BenB Oct 4 '15 at 7:09 ✓
- 1 Is there an easy way to check what backend you are using? kinda used trial end error now. − Rutger Hofste Jun 8 '16 at 21:00 ✓
- Unfortunately, I tried your code with Qt5Agg, when I type in figManager.window.showMaximized(), the maximized fullscreen window just poped up. The next line: plt.show() just show another window which plots the data in a normal size window. StayFoolish Apr 27 '17 at 3:43
- The Tk based solution does not work for me: \_tkinter.TclError: bad argument "zoomed": must be normal, iconic, or withdrawn (Ubuntu 16.04). bluenote10 Jul 3 '18 at 12:22

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With Qt backend (FigureManagerQT) proper command is:

```
figManager = plt.get_current_fig_manager()
figManager.window.showMaximized()
```

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answered Sep 16 '13 at 9:39



- This still requires plt.show() afterwards. Great answer though, works on windows! lucidbrot Sep 24 '18 at 7:39 /
  - '\_tkinter.tkapp' object has bi attribute 'showMaximized'. Always more convinced that Python is a joke more than a language HAL9000 Sep 11 '19 at 15:46 /
- @HAL9000 First, this is for Qt4, not Tk. Second, you're blaming a language for what is an external package design issue. You can have this kind of issue in any language. Jeff Learman Nov 25 '19 at 14:46
- I get AttributeError: '\_tkinter.tkapp' object has no attribute 'showMaximized' on Windows. – Basj Nov 9 '20 at 11:48

Works with the PyQt5 backend for me. - Stefan Jan 21 at 17:34

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52





This makes the window take up the full screen for me, under Ubuntu 12.04 with the TkAgg backend:

```
mng = plt.get_current_fig_manager()
mng.resize(*mng.window.maxsize())
```

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answered Jan 26 '13 at 13:10

Dan Christensen

1.129 • 9 • 12

- 9 Note that this has weird effects on a multiple monitors setup. The window will use up all monitors, instead of being maximized. user1202136 Apr 17 '13 at 14:08
- 4 This will not create a maximized window (which should snap to the edges of

the screen), but create a non-maximized window with the size of a maximized one. – HelloGoodbye Feb 6 '17 at 11:45

This successfully maximizes the window in Ubuntu 14.04 too, keeping the top bar with the buttons we all know. − Irene Jun 12 '17 at 13:25 ✓

Works on Ubuntu 16.04 and linux mint. python2.7 tested – user1941407 Aug 11 '18 at 22:04 /

@user1202136 Worked fine for me in a 3-monitor setup. – Michael Litvin Jan 17 '20 at 12:19

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44





For me nothing of the above worked. I use the Tk backend on Ubuntu 14.04 which contains matplotlib 1.3.1.

The following code creates a fullscreen plot window which is not the same as maximizing but it serves my purpose nicely:

```
from matplotlib import pyplot as plt
mng = plt.get_current_fig_manager()
mng.full_screen_toggle()
plt.show()
```

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answered May 20 '14 at 8:59



peschü **1,227 ●** 12 **●** 20

- This was also the solution that worked for me (although it goes to full screen, not maximised window). Running on Redhat Enterprise Linux 6, python 2.7.10, matplotlib 1.4.3. CrossEntropy Sep 9 '15 at 8:25
- Worked for me within Visual Studio 2015 on Windows 10 x64, python 3.5 except that I could not access the window border to close the figure, as it was above the top screen pixels. lightw8 Aug 20 '16 at 0:26
- For me, this doesn't create a maximized window either, but a fullscreen one. I didn't get any minimize, maximize/restore down and close buttons as normal windows have and I had to right-click on the window on the taskbar to be able to close it. HelloGoodbye Feb 6 '17 at 11:51
- This goes full screen without showing the buttons that every window has. Tried on Ubuntu 14.04. Irene Jun 12 '17 at 13:28
- 1 Working like a charm on Raspbian (jessie) anatol Jul 9 '17 at 22:54

### Show 1 more comment



43





This should work (at *least* with TkAgg):

```
wm = plt.get_current_fig_manager()
wm.window.state('zoomed')
```

(adopted from the above and <u>Using Tkinter</u>, is there a way to get the usable screen size without visibly zooming a window?)

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edited May 23 '17 at 12:26



answered Nov 6 '13 at 22:08



**dinvlad 876** • 9 • 16

- 2 Yay! This worked for me; it creates a maximized window that snaps to the edges of the screen and has the minimize, maximize/restore down and close buttons as it should. HelloGoodbye Feb 6 '17 at 11:53
- However, you mean that this works with TkAgg, not TkApp, right?

   HelloGoodbye Feb 8 '17 at 15:42

Good catch (probably a typo)! TkAgg is a backend for Tk. – dinvlad Feb 16 '17 at 21:51

Just tested this for matplotlib 2 / python 3 . Works under windows!
- not\_a\_bot\_no\_really\_82353 Mar 29 '20 at 16:43 /\*

Alas, does not work on Debian linux, which doesn't have the 'zoomed' state.

David Roundy Apr 9 at 16:44

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43







## I usually use

```
mng = plt.get_current_fig_manager()
mng.frame.Maximize(True)
```

before the call to plt.show(), and I get a maximized window. This works for the 'wx' backend only.

### EDIT:

for Qt4Agg backend, see kwerenda's answer.

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edited May 23 '17 at 11:47

Community 

1 • 1

answered Sep 26 '12 at 9:53



- Using this, I get mng.frame.Maximize(True) AttributeError:
  FigureManagerTkAgg instance has no attribute 'frame' in Matplotlib
  1.2.0 Junuxx Dec 7 '12 at 14:01
- 2 It works with backend wx, I've updated the post accordingly. Likely the Tk backend you are using doesn't support this feature. Do you have the option to change matplotlib backend to 'wx'? gg349 Dec 10 '12 at 7:45
- error on mac: mng.frame.Maximize(True) AttributeError: 'FigureManagerMac' object has no attribute 'frame' user391339 Jun 14 '16 at 15:53
- 10 Is there a known solution to do this on the MacOSX backend? The FigureManagerMac seems to have neither the attribute window nor frame.

   McLawrence Feb 18 '18 at 18:23 ▶
- 4 I have the same issue on Windows RollRoll Nov 24 '18 at 20:46

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12





My best effort so far, supporting different backends:

```
from platform import system
def plt_maximize():
   # See discussion: https://stackoverflow.com/questions/12439588/hou
   backend = plt.get_backend()
   cfm = plt.get_current_fig_manager()
   if backend == "wxAgg":
       cfm.frame.Maximize(True)
   elif backend == "TkAgg":
       if system() == "Windows":
            cfm.window.state("zoomed") # This is windows only
       else:
           cfm.resize(*cfm.window.maxsize())
   elif backend == "QT4Agg":
       cfm.window.showMaximized()
   elif callable(getattr(cfm, "full_screen_toggle", None)):
       if not getattr(cfm, "flag_is_max", None):
            cfm.full_screen_toggle()
           cfm.flag_is_max = True
   else:
       raise RuntimeError("plt_maximize() is not implemented for cur
```

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answered Feb 15 '19 at 11:46



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10





I get mng.frame.Maximize(True) AttributeError: FigureManagerTkAgg instance has no attribute 'frame' as well.

Then I looked through the attributes mng has, and I found this:

```
mng.window.showMaximized()
```

That worked for me.

So for people who have the same trouble, you may try this.

By the way, my Matplotlib version is 1.3.1.



Thanks! This solution worked well for me. Running on Redhat Enterprise Linux 6, python 2.7.10, matplotlib 1.4.3. – CrossEntropy Sep 9 '15 at 8:31

I know this will pop up a fullscreen window, but my plots will come up in a separate window when I type plt.show(). Not on this fullscreen window, any suggestion? – StayFoolish Apr 27 '17 at 3:45

It also works on python 3.6 on Debian and with Qt backend. – pbalaga Jan 5 '19 at 19:44

this does not run on windows 10 64bit with python 3.7 – George Sp Jan 26 '19 at 15:04

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Ð

This is kind of hacky and probably not portable, only use it if you're looking for quick and dirty. If I just set the figure much bigger than the screen, it takes exactly the whole screen.

```
fig = figure(figsize=(80, 60))
```

In fact, in Ubuntu 16.04 with Qt4Agg, it maximizes the window (not full-screen) if it's bigger than the screen. (If you have two monitors, it just maximizes it on one of them).

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answered Dec 2 '16 at 10:37



Works for me! As I'm trying to get the size of the screen. – StayFoolish Apr 27 '17 at 3:47

In case you use dual monitor, this spreads over both screens which is not practical. – Danijel Jun 15 at 13:10







I found this for full screen mode on Ubuntu

```
#Show full screen
mng = plt.get_current_fig_manager()
mng.full_screen_toggle()
```

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edited May 14 '19 at 14:00

answered Mar 9 '19 at 19:25



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6



Ð

The one solution that worked on Win 10 flawlessly.

```
import matplotlib.pyplot as plt

plt.plot(x_data, y_data)

mng = plt.get_current_fig_manager()
mng.window.state("zoomed")
plt.show()
```

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answered Nov 23 '18 at 15:21











Pressing the f key (or ctrl+f in 1.2rc1) when focussed on a plot will fullscreen a plot window. Not quite maximising, but perhaps better.

Other than that, to actually maximize, you will need to use GUI Toolkit specific commands (if they exist for your specific backend).

HTH

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answered Sep 16 '12 at 7:14



This explains which key I kept accidentally hitting that fullscreened my windows! (And how to undo it.) – cxrodgers Jul 6 '15 at 18:28

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2





In my versions (Python 3.6, Eclipse, Windows 7), snippets given above didn't work, but with hints given by Eclipse/pydev (after typing: mng.), I found:

```
mng.full_screen_toggle()
```

It seems that using mng-commands is ok only for local development...

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answered Apr 18 '18 at 6:35



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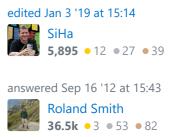


Try using 'Figure.set\_size\_inches' method, with the extra keyword argument forward=True . According to the <u>documentation</u>, this *should* resize the figure

window.

Whether that *actually* happens will depend on the operating system you are using.

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Here is a function based on @Pythonio's answer. I encapsulate it into a function that automatically detects which backend is it using and do the corresponding actions.

```
def plt_set_fullscreen():
    backend = str(plt.get_backend())
    mgr = plt.get_current_fig_manager()
    if backend == 'TkAgg':
        if os.name == 'nt':
            mgr.window.state('zoomed')
        else:
            mgr.resize(*mgr.window.maxsize())
    elif backend == 'wxAgg':
        mgr.frame.Maximize(True)
    elif backend == 'Qt4Agg':
        mgr.window.showMaximized()
```

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answered Sep 26 '19 at 0:44

ch271828n
6,638 • 3 • 27 • 51





Try plt.figure(figsize=(6\*3.13,4\*3.13)) to make the plot larger.

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answered Sep 15 '12 at 17:37

Navin

2,963 • 2 • 24 • 46

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Ok so this is what worked for me. I did the whole showMaximize() option and it does resize your window in proportion to the size of the figure, but it does not expand and 'fit' the canvas. I solved this by:

```
mng = plt.get_current_fig_manager()
mng.window.showMaximized()
plt.tight_layout()
plt.savefig('Images/SAVES_PIC_AS_PDF.pdf')
plt.show()
```

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edited Nov 5 '16 at 10:55

answered Nov 5 '16 at 10:42





```
import matplotlib.pyplot as plt
def maximize():
    plot_backend = plt.get_backend()
    mng = plt.get_current_fig_manager()
    if plot_backend == 'TkAgg':
        mng.resize(*mng.window.maxsize())
```

```
elif plot_backend == 'wxAgg':
    mng.frame.Maximize(True)
elif plot_backend == 'Qt4Agg':
    mng.window.showMaximized()
```

Then call function maximize() before plt.show()

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Adhun Thalekkara
634 • 6 • 20

Doesn't work with 2 monitors. It simply changes the window site to the screen size (not monitor size), and also doesn't put it on the top-left pixel of the

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screen. @ch271828n solution worked fine - Alex May 29 '20 at 11:39

1





For backend **GTK3Agg**, use maximize() -- notably with a lower case *m*:

```
manager = plt.get_current_fig_manager()
manager.window.maximize()
```

Tested in Ubuntu 20.04 with Python 3.8.

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answered Sep 11 '20 at 19:00



shredEngineer
171 • 6

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-





For Tk-based backend (TkAgg), these two options maximize & fullscreen the window:

```
plt.get_current_fig_manager().window.state('zoomed')
plt.get_current_fig_manager().window.attributes('-fullscreen', True)
```

When plotting into multiple windows, you need to write this for each window:

```
data = rasterio.open(filepath)

blue, green, red, nir = data.read()
plt.figure(1)
plt.subplot(121); plt.imshow(blue);
plt.subplot(122); plt.imshow(red);
plt.get_current_fig_manager().window.state('zoomed')

rgb = np.dstack((red, green, blue))
nrg = np.dstack((nir, red, green))
plt.figure(2)
plt.subplot(121); plt.imshow(rgb);
plt.subplot(122); plt.imshow(nrg);
plt.get_current_fig_manager().window.state('zoomed')

plt.show()
```

Here, both 'figures' are plotted in separate windows. Using a variable such as

```
figure_manager = plt.get_current_fig_manager()
```

might not maximize the second window, since the variable still refers to the first window.

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This doesn't necessarily maximize your window, but it does resize your window in proportion to the size of the figure:

```
from matplotlib import pyplot as plt
F = gcf()
```

```
Size = F.get_size_inches()
F.set_size_inches(Size[0]*2, Size[1]*2, forward=True)#Set forward to
plt.show() #or plt.imshow(z_array) if using an animation, where z_array
```

This might also help: <a href="http://matplotlib.1069221.n5.nabble.com/Resizing-figure-windows-td11424.html">http://matplotlib.1069221.n5.nabble.com/Resizing-figure-windows-td11424.html</a>

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answered May 28 '14 at 5:43

Blairg23

9.022 • 5 • 62 • 63

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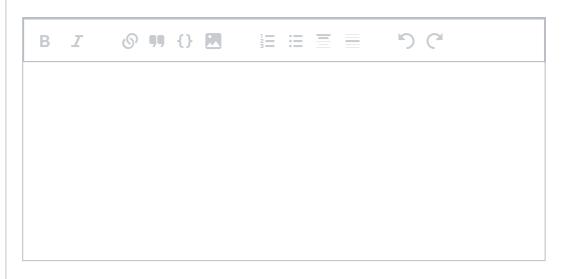


The following may work with all the backends, but I tested it only on QT:

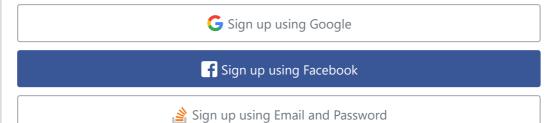
```
import numpy as np
import matplotlib.pyplot as plt
import time
plt.switch_backend('QT4Agg') #default on my system
print('Backend: {}'.format(plt.get_backend()))
fig = plt.figure()
ax = fig.add_axes([0,0, 1,1])
ax.axis([0,10, 0,10])
ax.plot(5, 5, 'ro')
mng = plt._pylab_helpers.Gcf.figs.get(fig.number, None)
mng.window.showMaximized() #maximize the figure
time.sleep(3)
mng.window.showMinimized() #minimize the figure
time.sleep(3)
mng.window.showNormal() #normal figure
time.sleep(3)
mng.window.hide() #hide the figure
time.sleep(3)
fig.show() #show the previously hidden figure
ax.plot(6,6, 'bo') #just to check that everything is ok
plt.show()
```



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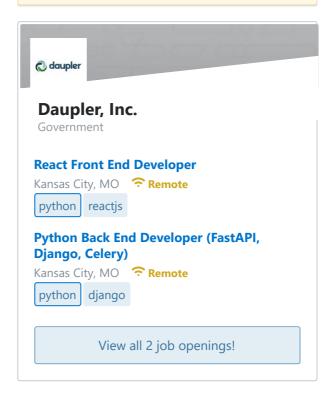
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