PyGetWindow Documentation

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Contents

A simple, cross-platform module for obtaining GUI information on applications' windows.

CHAPTER 1

Installation

PyGetWindow can be installed from PyPI using *pip*:

```
pip install pygetwindow
```

On macOS and Linux, installing PyGetWindow for Python 3 is done with *pip3*:

```
pip3 install pygetwindow
```

If you run into permissions errors, try installing with the *–user* option:

```
pip install --user pygetwindow
```

Quickstart

For this example, I'm using Windows and opened the Notepad application, which has a title of "Untitled - Notepad". Most of the effects of these functions can't be seen in text.

PyGetWindow has functions for obtaining `Window` objects from a place on the screen, from the window title, or just getting all windows. (`hWnd` is specific to the Windows platform.)

```
>>> import pygetwindow as gw

>>> gw.getAllTitles()
('', 'C:\\WINDOWS\\system32\\cmd.exe - pipenv  shell - python',
→'C:\\github\\PyGetWindow\\README.md • - Sublime Text', "asweigart/PyGetWindow: A␣
→simple, cross-platform module for obtaining GUI information on application's␣
→windows. - Google Chrome", 'Untitled - Notepad', 'C:\\Users\\Al\\Desktop\\xlibkey.
→py • - Sublime Text', 'https://tronche.com/gui/x/xlib/ - Google Chrome', 'Xlib␣
→Programming Manual: XGetWindowAttributes - Google Chrome', 'Generic Ubuntu Box␣
→[Running] - Oracle VM VirtualBox', 'Oracle VM VirtualBox Manager', 'Microsoft Edge',
→ 'Microsoft Edge', 'Microsoft Edge', '', 'Microsoft Edge', 'Settings', 'Settings',
→'Microsoft Store', 'Microsoft Store', '', '', 'Backup and Sync', 'Google Hangouts -␣
→asweigart@gmail.com', 'Downloads', '', '', 'Program Manager')

>>> gw.getAllWindows()
(Win32Window(hWnd=131318), Win32Window(hWnd=1050492), Win32Window(hWnd=67206),␣
→Win32Window(hWnd=66754), Win32Window(hWnd=264354), Win32Window(hWnd=329210),␣
→Win32Window(hWnd=1114374), Win32Window(hWnd=852550), Win32Window(hWnd=328358),␣
→Win32Window(hWnd=66998), Win32Window(hWnd=132508), Win32Window(hWnd=66964),␣
→Win32Window(hWnd=66882), Win32Window(hWnd=197282), Win32Window(hWnd=393880),␣
→Win32Window(hWnd=66810), Win32Window(hWnd=328466), Win32Window(hWnd=132332),␣
→Win32Window(hWnd=262904), Win32Window(hWnd=65962), Win32Window(hWnd=65956),␣
→Win32Window(hWnd=197522), Win32Window(hWnd=131944), Win32Window(hWnd=329334),␣
→Win32Window(hWnd=395034), Win32Window(hWnd=132928), Win32Window(hWnd=65882))

>>> gw.getWindowsWithTitle('Untitled')
(Win32Window(hWnd=264354),)
```

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```
>>> gw.getFocusedWindow()
Win32Window(hWnd=1050492)

>>> gw.getFocusedWindow().title
'C:\\WINDOWS\\system32\\cmd.exe - pipenv  shell - python'

>>> gw.getWindowsAt(10, 10)
(Win32Window(hWnd=67206), Win32Window(hWnd=66754), Win32Window(hWnd=329210),␣
→Win32Window(hWnd=1114374), Win32Window(hWnd=852550), Win32Window(hWnd=132508),␣
→Win32Window(hWnd=66964), Win32Window(hWnd=66882), Win32Window(hWnd=197282),␣
→Win32Window(hWnd=393880), Win32Window(hWnd=66810), Win32Window(hWnd=328466),␣
→Win32Window(hWnd=395034), Win32Window(hWnd=132928), Win32Window(hWnd=65882))
```

`Window` objects can be minimized/maximized/restored/focused/resized/moved/closed and also have attributes for their current position, size, and state.

```
>>> notepadWindow = gw.getWindowsWithTitle('Untitled')[0]

>>> notepadWindow.isMaximized
False
>>> notepadWindow.maximize()
>>> notepadWindow.isMaximized
True

>>> notepadWindow.restore()
>>> notepadWindow.minimize()
>>> notepadWindow.restore()
>>> notepadWindow.focus()

>>> notepadWindow.resize(10, 10) # increase by 10, 10
>>> notepadWindow.resizeTo(100, 100) # set size to 100x100

>>> notepadWindow.move(10, 10) # move 10 pixels right and 10 down
>>> notepadWindow.moveTo(10, 10) # move window to 10, 10

>>> notepadWindow.size
(132, 100)
>>> notepadWindow.width
132
>>> notepadWindow.height
100

>>> notepadWindow.topleft
(10, 10)
>>> notepadWindow.top
10
>>> notepadWindow.left
10
>>> notepadWindow.bottomright
(142, 110)

>>> notepadWindow.close()
>>>
```