



Write Excel Add-Ins in Python

PyXLL is the best way to use Python with Microsoft Excel. Whatever you're looking to do with Python and Excel, PyXLL makes it possible.

For the latest and complete documentation, please visit our [online documentation](#).

Inside the downloaded PyXLL zip file you will find the following files:

- pyxll.cfg
- pyxll.xll
- examples.xlsx

pyxll.cfg

This is the PyXLL config file. You will need to edit this in order to use PyXLL.

Open it with a text editor and have a look at the available settings. To begin with change the “executable” setting in the “PYTHON” section to the path of your python.exe executable.

```
[PYTHON]
executable = C:\Path\To\Your\python.exe
```

Note: Comments in the pyxll.cfg file start with a semi-colon “;”. Make sure you remove this when editing the config!

If you're not sure where your Python executable is then open a Python command prompt and type “where python” to find it.

pyxll.xll

This is the Excel add-in file that will run your Python code inside Excel.

To install it open Excel and go to **Options** → **Add-Ins** → **Manage Excel Addins**. Press the “Go” button and browse to the pyxll.xll file.

If Excel asks you if you want to copy the add-in to your add-ins folder, select “No”.

If you get an error telling you that the add-in file is the wrong file format you have downloaded the wrong version of PyXLL for your version of Excel. Check if you have the 32 bit or 64 bit version of Excel and download the corresponding version of PyXLL.

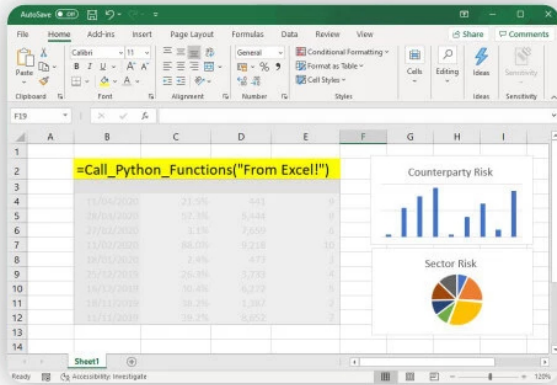
examples.xlsx

Once you've got the PyXLL add-in installed a good place to start is with this examples workbook. You can find examples of how to use virtually all of PyXLL features in this workbook. All of the code for this workbook is in the examples folder.

If you need any help at all getting started, or if you have any questions please [contact us](#) and we'll be happy to help!



Write Excel Add-Ins in Python



To start with, try writing an Excel worksheet function.

Write a Python module (".py" file) with a Python function and add the @xl_func decorator. Update "pythonpath" and "modules" in your "pyxll.cfg" file with your new module and try calling your function from Excel!

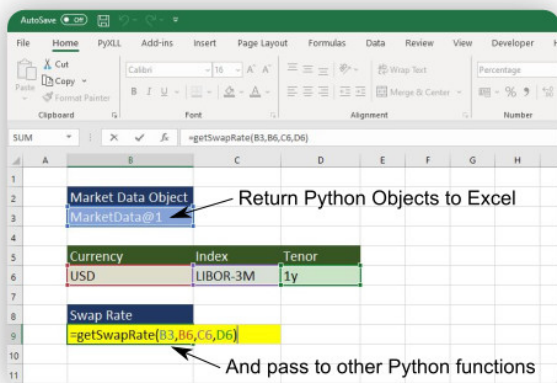
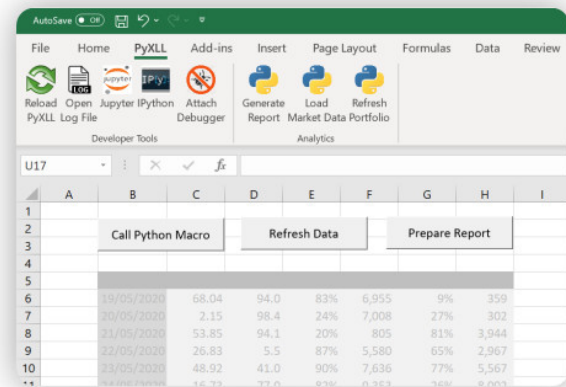
```
from pyxll import xl_func

@xl_func
def xl_function(a, b):
    return a + b
```

You can add your own ribbon tool bar, menus and macro functions.

Configure the "ribbon.xml" file set in your pyxll.cfg with your own buttons and controls to call your Python functions directly from Excel.

Use the @xl_macro decorator to write Excel macros in Python without the need for any VBA.



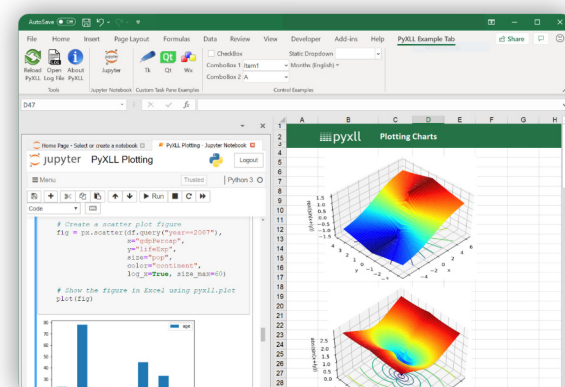
Work with Pandas DataFrames and other complex array types. Return whole arrays back to Excel, or take arrays as function arguments.

Try returning any Python object from your functions, not just simple types! Passing objects between functions rather than arrays is a great way to simplify your workbook.

In the included "examples.xlsx" workbook you'll find examples of plotting charts in Excel from Python functions, custom task pane user interfaces, real time data and much more.

Be sure to have a look at the example ribbon toolbar and the corresponding "ribbon.xml" file too.

If you have any questions or need anything at all, please contact us and we'll be happy to help!





Write Excel Add-Ins in Python

OPEN SOURCE NOTICES

The following open source components are included in the PyXLL Excel add-in:

<https://github.com/Excel-DNA/RegistrationInfoGuid>

The MIT License (MIT)

Copyright (c) 2016 Govert van Drimmelen (govert@icon.co.za)

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

<https://www.packetizer.com/security/sha1>

Copyright (C) 1998, 2009

Paul E. Jones <paulej@packetizer.com>

Freeware Public License (FPL)

This software is licensed as "freeware." Permission to distribute this software in source and binary forms, including incorporation into other products, is hereby granted without a fee.

THIS SOFTWARE IS PROVIDED 'AS IS' AND WITHOUT ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE AUTHOR SHALL NOT BE HELD LIABLE FOR ANY DAMAGES RESULTING FROM THE USE OF THIS SOFTWARE, EITHER DIRECTLY OR INDIRECTLY, INCLUDING, BUT NOT LIMITED TO, LOSS OF DATA OR DATA BEING RENDERED INACCURATE.

<https://curl.haxx.se/libcurl>

Copyright (c) 1996 - 2020, Daniel Stenberg, daniel@haxx.se, and many contributors, see the THANKS file.

All rights reserved.

Permission to use, copy, modify, and distribute this software for any purpose with or without fee is hereby granted, provided that the above copyright notice and this permission notice appear in all copies.



Write Excel Add-Ins in Python

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OF THIRD PARTY RIGHTS. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Except as contained in this notice, the name of a copyright holder shall not be used in advertising or otherwise to promote the sale, use or other dealings in this Software without prior written authorization of the copyright holder.

<https://github.com/TsudaKageyu/minhook>

MinHook - The Minimalistic API Hooking Library for x64/x86

Copyright (C) 2009-2017 Tsuda Kageyu.

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Portions of this software are Copyright (c) 2008-2009, Vyacheslav Patkov.

Hacker Disassembler Engine 32 C

Copyright (c) 2008-2009, Vyacheslav Patkov.

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.



Write Excel Add-Ins in Python

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE REGENTS OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Hacker Disassembler Engine 64 C

Copyright (c) 2008-2009, Vyacheslav Patkov.

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE REGENTS OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.