

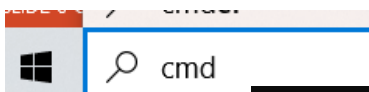
Setup Python and Git Environment

Fearghal Morgan/John Patrick Byrne, 2023 fearghal.morgan@universityofgalway.ie

- Setting up Python
- Setting up Git environment
- Add python folder to system path

Setting up Python

- Instructions assume installation on Windows 10
- Future Linux support will be provided
- Install Python (version up to V3.10.9)
<https://www.python.org/downloads/windows/>
- Search for 3.10.11
- Download Windows Installer (64-bit)
- Click .exe file to install
- Tick **Add python.exe to PATH**
If not successful, refer to slides 7-10
- Click **Install Now**. Close install window when done
- Open command / terminal window
- Check the python installation (type `python --version`)



```
C:\Users\FEARG>python --version
Python 3.10.9
```

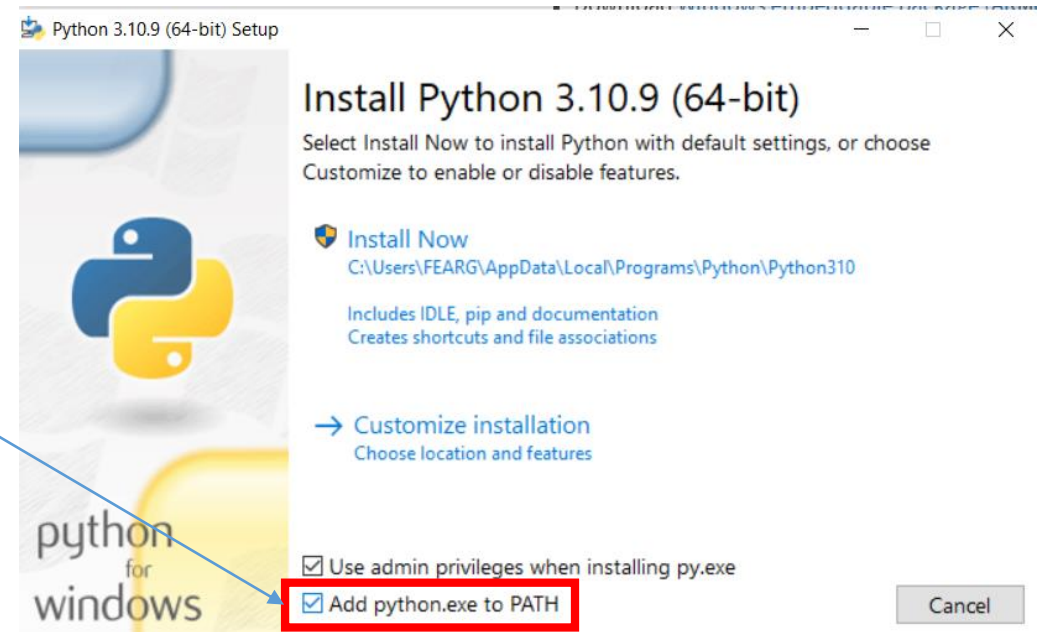
Python 3.10.11 - April 5, 2023

Note that Python **3.10.11** *cannot* be used on Windows 7 or earlier.

- Download [Windows embeddable package \(32-bit\)](#)
- Download [Windows embeddable package \(64-bit\)](#)
- Download [Windows help file](#)
- Download [Windows installer \(32-bit\)](#)
- Download [Windows installer \(64-bit\)](#)

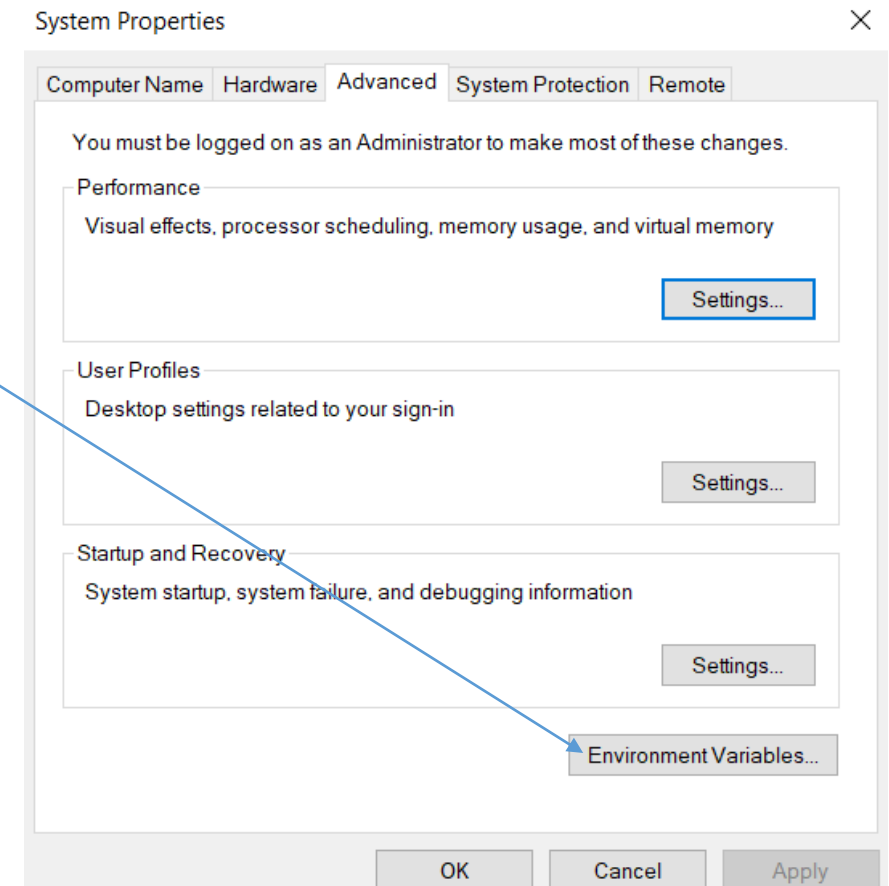
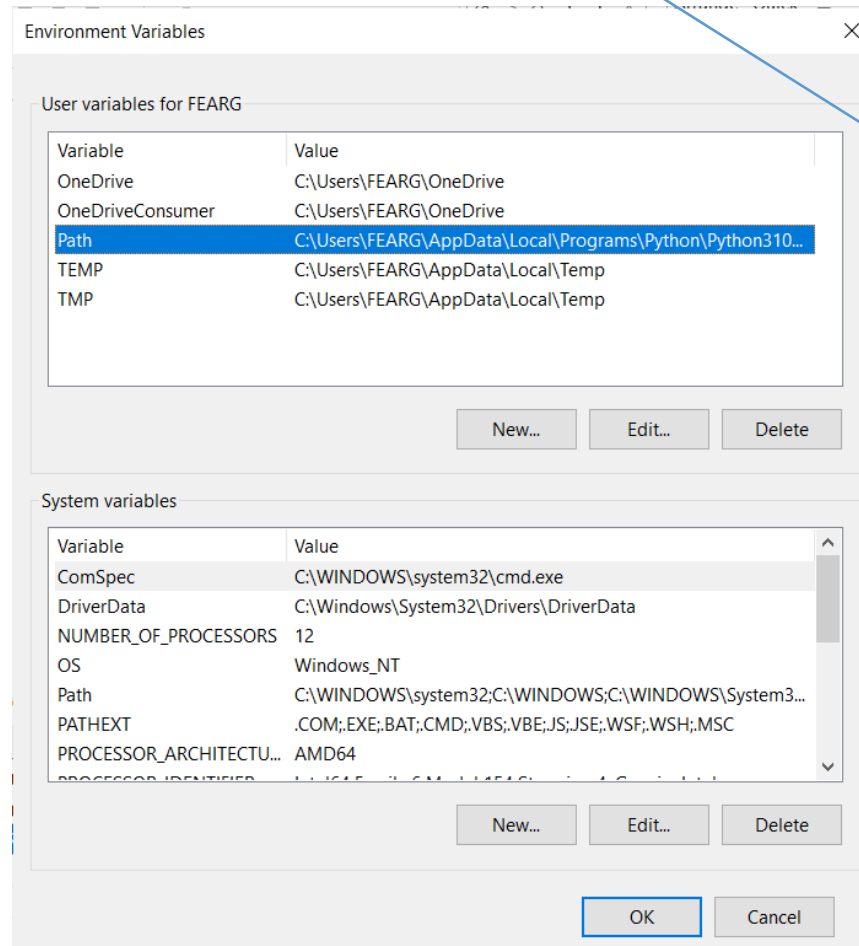
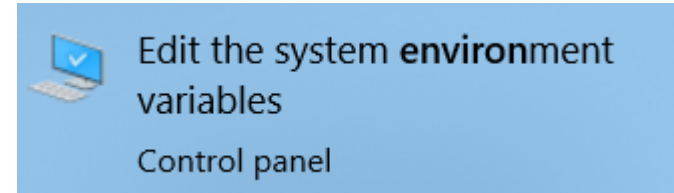
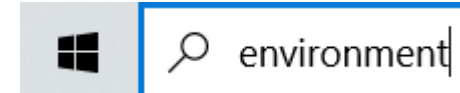


python-3.10.11-amd64.exe



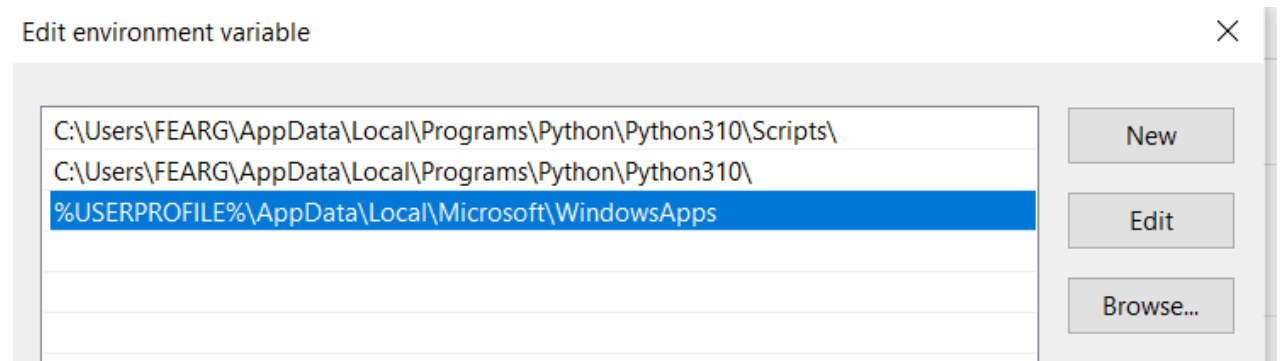
Confirm python environment variables (1 of 2)

- Enter environment in windows command window
- Click **Environment Variables**



Confirm python environment variables (2 of 2)

- User variables
- Ensure python version and python scripts folders are included



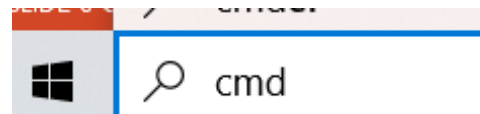
Installing git

- git is a free and open source distributed version control system <https://www.atlassian.com/git/tutorials/what-is-git>
- Install latest git for windows <https://git-scm.com/download/win>

64-bit Git for Windows Setup.

 Git-2.39.1-64-bit (2).exe

- Click .exe file to install. Accept default settings during installation
- Open command / terminal window



- Check the git installation (type git --version)

```
C:\Users\FEARG>git --version
git version 2.39.1.windows.1
```

Install pip <https://github.com/pypa/pip>

- curl <https://bootstrap.pypa.io/get-pip.py> -o get-pip.py

```
C:\2023\vicilogic\HDLGenTop\HDLGen\Application>curl https://bootstrap.pypa.io/get-pip.py -o get-pip.py
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left   Speed
100 2514k  100 2514k    0     0   588k      0  0:00:04  0:00:04 --:--:-- 431k
```

- python get-pip.py

```
C:\Users\FEARG>python get-pip.py
Collecting pip
  Using cached pip-23.0-py3-none-any.whl (2.1 MB)
Installing collected packages: pip
  Attempting uninstall: pip
    Found existing installation: pip 23.0
    Uninstalling pip-23.0:
      Successfully uninstalled pip-23.0
Successfully installed pip-23.0
```

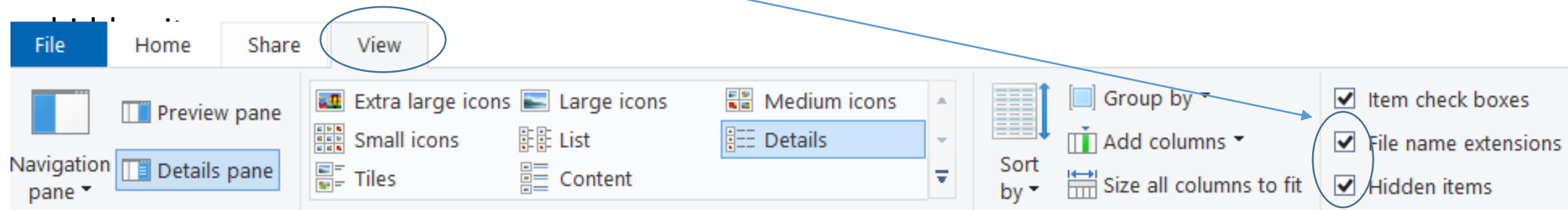
Add python folder to system path (1 of 4)

- Only follow slides 6-10 if **python.exe** was not auto-added to **PATH**
- The folder in which python has been installed is typically

C:\Users**<username>**\AppData\Local\Programs\Python**PythonVersion**

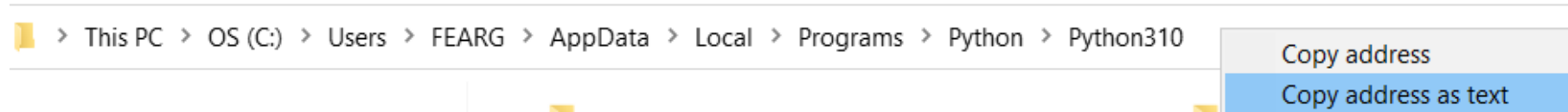
e.g, C:\Users**FEARG**\AppData\Local\Programs\Python**Python310**

- Enable view of hidden items to view the C:\Users**<username>**\AppData folder
- Use Windows explorer **view** menu to
- Enable view of
 - file name extensions



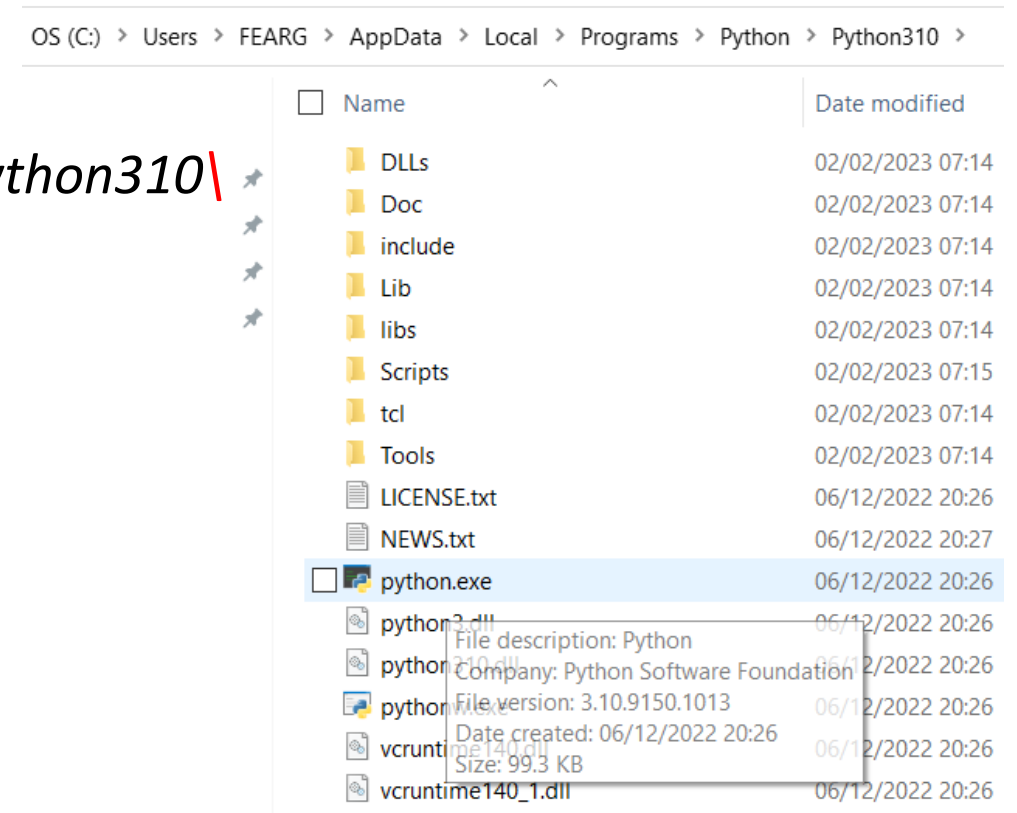
Add python folder to system path (2 of 4)

- e.g, folder name C:\Users\FEARG\AppData\Local\Programs\Python\Python310
- Right click on address **Copy address as text** to get



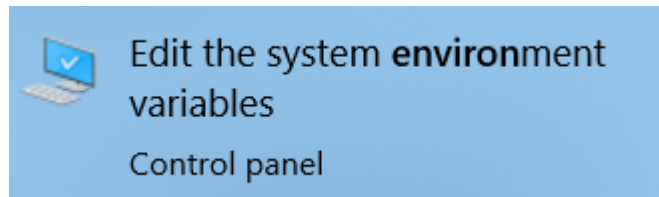
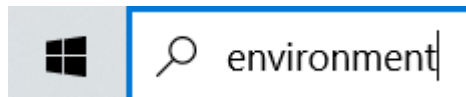
Copies

C:\Users\FEARG\AppData\Local\Programs\Python\Python310\
Include the final backslash

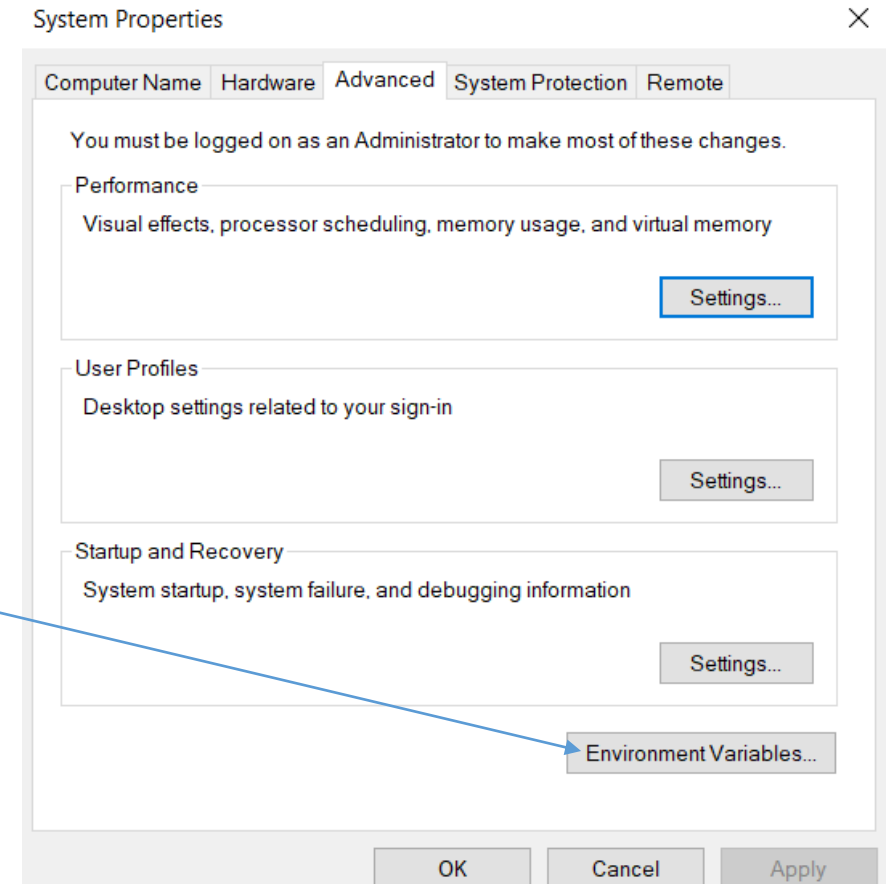


Add python folder to system path (3 of 4)

- Create environment variable to point to the python folder
- Enter environment in windows command window

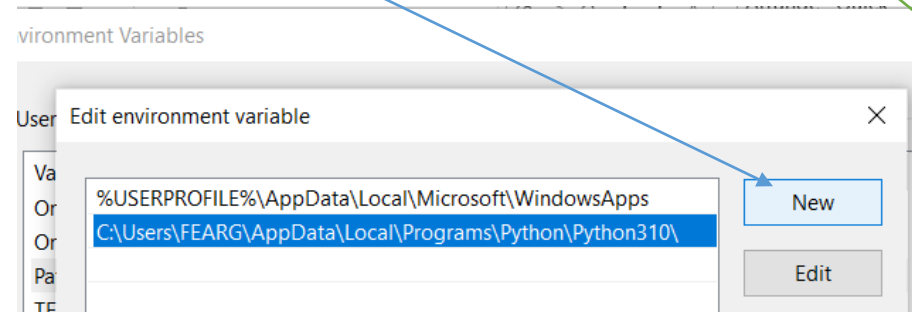


- Click **Environment Variables**



Add python folder to system path (4 of 4)

- Select Path in **both** User and System variables, in turn
- Select Edit
- Select New
- Paste the copied folder path in the box
`C:\Users\FEARG\AppData\Local\Programs\Python\Python310\`
Include the final backslash
- Click Oks



- Open command / terminal window
- Check the python installation (type `python --version`)

```
C:\Users\FEARG>python --version
Python 3.10.9
```

