Windows subsystem for linux
(Getting a Linux kernel on your windows computer)

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1 Introduction

WSL is the replacement for the old "Bash on Windows" feature (bash commands on Powershell, ick). However, when you install Ubuntu on your Windows computer this time, you’ll be running a full copy of Ubuntu. This means full functionality (though a graphical interface is only accessible through an X11 server), including remote ssh into your Linux distribution. WSL isn’t (yet) a full Linux kernel on your machine, but it does run two different filesystems. The details are, for the most part, unimportant; you can access your Windows folders from within WSL and vice-versa, allowing for a nice workflow.

Note: You’ll need a 64-bit version of Windows to get it working. If you have a 32-bit version of Windows, you should probably get a new one (or visit section 2.3 of this guide to use anaconda bash instead).

2 How to get it working

Getting WSL installed and working on your computer is relatively simple.

Enable WSL

Windows key → settings (gear icon) → Search “turn windows features on or off”

Once this menu loads, scroll down to “Windows Subsystem for Linux” and click it. Windows will download and install the necessary software and restart your computer.

Install Ubuntu

This is as easy as opening the Microsoft Store app, searching “Ubuntu” and installing the app. Once this is done, you can launch terminal from the command line by typing “Ubuntu” or “wsl”. You can also launch it from the windows menu using the Ubuntu app icon.

What’s next?

If you just bumped into this guide looking to try WSL, you’re done (other than setting up a display server, if you wanted that.) You might want to look into installing git, anaconda (or miniconda), python3, etc.

If you’re here as because you’re installing Finesse/Pykat, follow the instructions on section 2.5 of this guide.

2.1 X11 display server

- Install an Xserver on your Windows OS (MobaXterm, Xming, PuTTY)
- Open your .bashrc script
  
  `nano ~/.bashrc`

  and add the line

  `export DISPLAY=:0.0`

  As long as your X11 server is listening to port 0.0, any call to a graphical interface program will pull up a window as it would with any Windows app. To test this install xeyes or Sublime (or any other program you want using `sudo apt install`).

“I always thought something was fundamentally wrong with the universe” D. Adams