

# Running Linux

Status: 2023/01

This short guide will show some pathways to run Linux on your computer.

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## Windows: have Linux locally installed

### WSL (Windows Subsystem for Linux)

The Windows Subsystem for Linux (WSL) enables to run a Linux environment (including most command-line tools and applications) directly on Windows, without the overhead of a virtual machine.

You can:

- Install a Linux distributions from the Windows Store.
- Run shell scripts and Linux command-line applications including:
  - Languages: Python, C/C++, etc.
  - Editors: vim, emacs.
  - Etc.

Find out more on [Microsoft's Documentation page](#).

### Set up a WSL development environment

There are two installation steps necessary to use WSL:

1. Install WSL (requires Administrative access), check the Microsoft Website: <https://learn.microsoft.com/en-us/windows/wsl/install#install-the-windows-subsystem-for-linux> and <https://learn.microsoft.com/en-us/windows/wsl/setup/environment?source=recommendations>
2. Install the Linux Distribution of your choice.

Tip: Take a look at [Microsoft's WSL FAQ page](#).

### X (running graphical programs on WSL)

Source:

- <https://virtualizationreview.com/articles/2017/02/08/graphical-programs-on-windowssubsystem-on-linux.aspx>
- <http://www.alvinsim.com/my-experience-with-wsl/>

Microsoft doesn't support graphical programs on WSL, it is intended for running *command-line* programs that developers might need, but it's possible to run graphical Linux desktop programs.

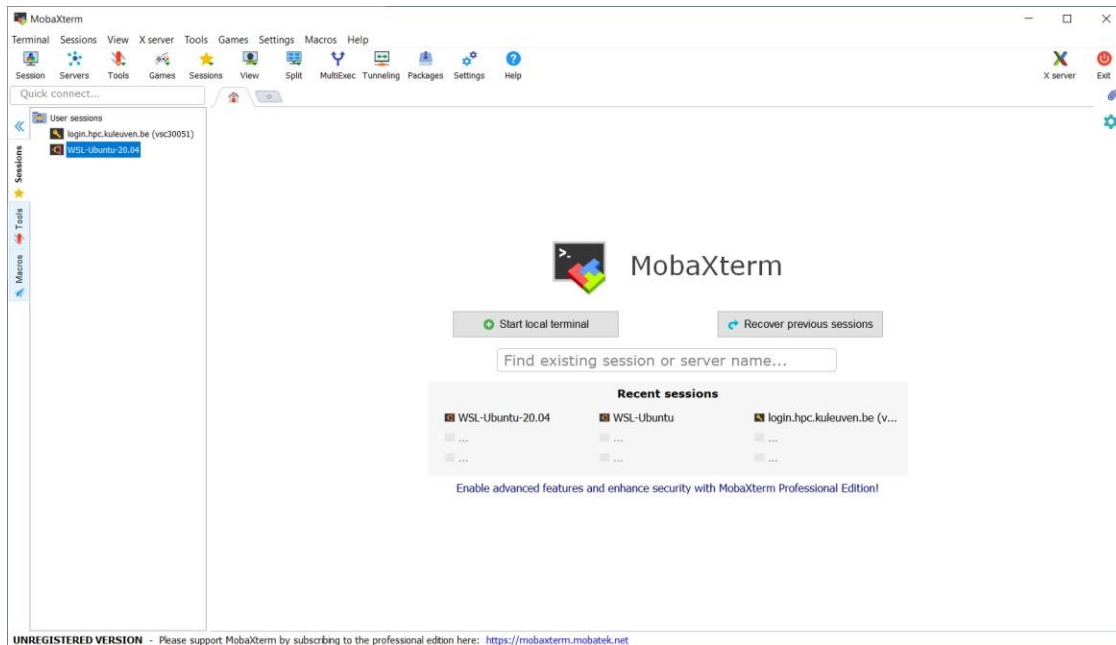
To use WSL with graphical programs, an X server will need to be installed and running on the Windows side.

### MobaXterm

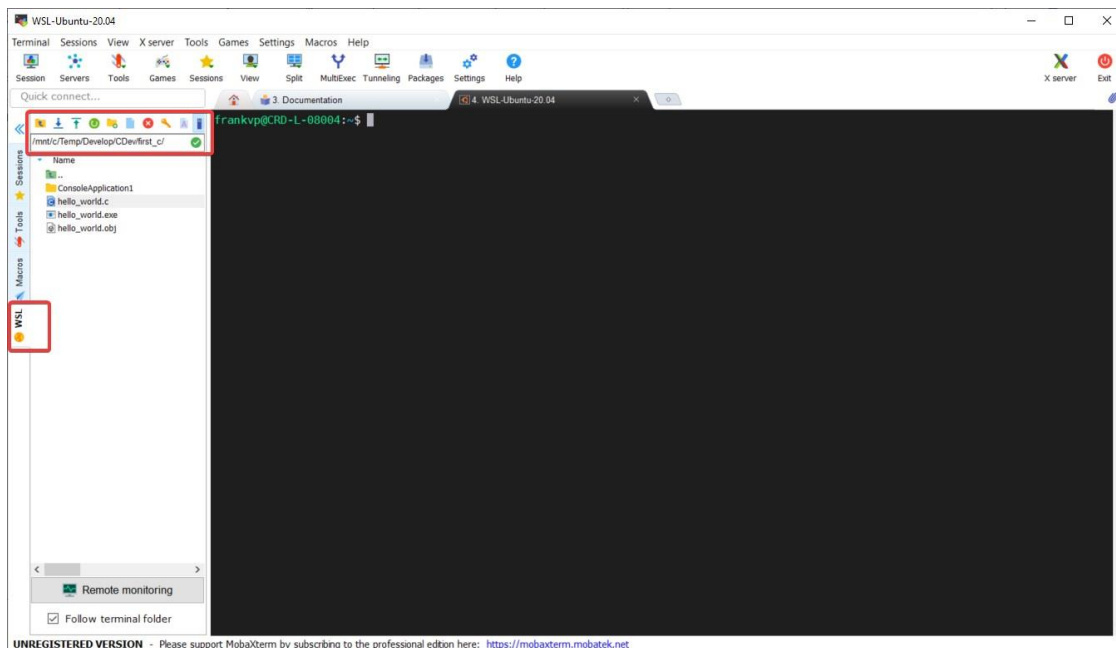
MobaXterm (<https://mobaxterm.mobatek.net/>) has support for WSL2 which makes it easy to launch Linux GUI applications from Linux on Windows.

After the installation of a Linux distribution on WSL2, you will find new sessions with the prefix WSL in MobaXterm. Simply click the session label and a new terminal will be automatically configured to talk to the local XServer.

A portable version can be downloaded and when you start the software, you can select for opening a WSL session, no hassle.



In the recent versions of MobaXterm, a WSL tab is available in the desktop, enabling you to walk through the files in the WSL system, double clicking the file starts the MobaXterm editor, making life easy.



Check:

- <https://www.youtube.com/watch?v=KRpgYS-eHj8>

### Xming

Xming is another option that you can use to run graphical Linux code in WSL. My user experience is however in favor of MobaXterm.

### See Also:

These links provided me with very useful information!

- <https://walkingrandomly.com/?p=6011>
- <https://www.cs.odu.edu/~zeil/FAQs/Public/win10Bash/>
- <https://nccastaff.bournemouth.ac.uk/jmacey/post/wsl/wsl/>
- <https://nickjanetakis.com/blog/using-wsl-and-mobaxterm-to-create-a-linux-dev-environment-on-windows>

### Books:

- [Pro Windows Subsystem for Linux \(WSL\)](#)
- [Learn Windows Subsystem for Linux](#)

### Youtube:

- <https://www.youtube.com/watch?v=J4Giu5iWigQ>

## Running a virtual machine

Another option is to install Virtual Machine (VM) software. You can choose either:

- Virtualbox (<https://www.virtualbox.org/>)
- VMware: VMware Workstation Player (<https://www.vmware.com/products/workstation-player/workstation-player-evaluation.html>)

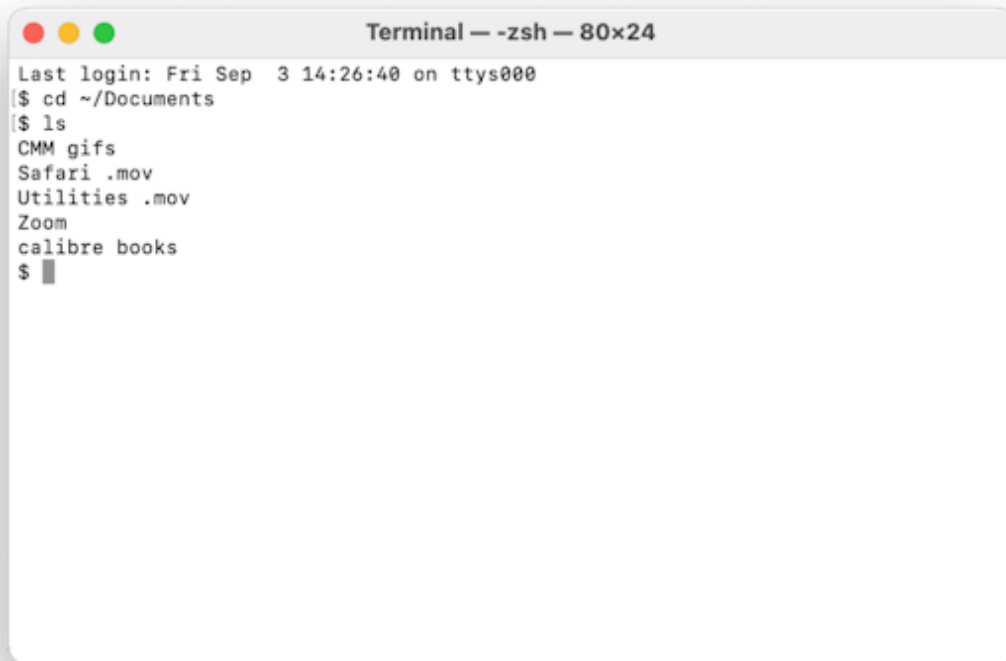
Once the virtual machine software is installed, a Linux distribution of your choice can be installed.

Ubuntu might be a good choice.

<https://www.makeuseof.com/linux-virtual-machine-or-wsl/>

## macOS: run Linux commands

macOS is a flavor of UNIX, similar to Linux. On macOS, you can use the Terminal app (/Applications/Utilities/Terminal) to obtain a command line terminal.



```
Terminal — zsh — 80x24
Last login: Fri Sep  3 14:26:40 on ttys000
[$ cd ~/Documents
[$ ls
CMM gifs
Safari .mov
Utilities .mov
Zoom
calibre books
$
```

Source: <https://macpaw.com/how-to/use-terminal-on-mac>

## Online Linux terminal

There are couple of online Linux terminals active where you can practice Linux commands or test your shell scripts.

This can be helpful when running a Windows operating system and you want to run a quick test.

Some websites may require you to register and log in to save your sessions.

A few sites:

- <https://webminal.org/>
- [https://www.tutorialspoint.com/linux\\_terminal\\_online.php](https://www.tutorialspoint.com/linux_terminal_online.php)
- <https://cocalc.com/features/terminal>

check: <https://itsfoss.com/online-linux-terminals/>