



Run Linux GUI apps on the Windows Subsystem for Linux

Windows Subsystem for Linux (WSL) now supports running Linux GUI applications (X11 and Wayland) on Windows in a fully integrated desktop experience.

WSL 2 enables Linux GUI applications to feel native and natural to use on Windows.

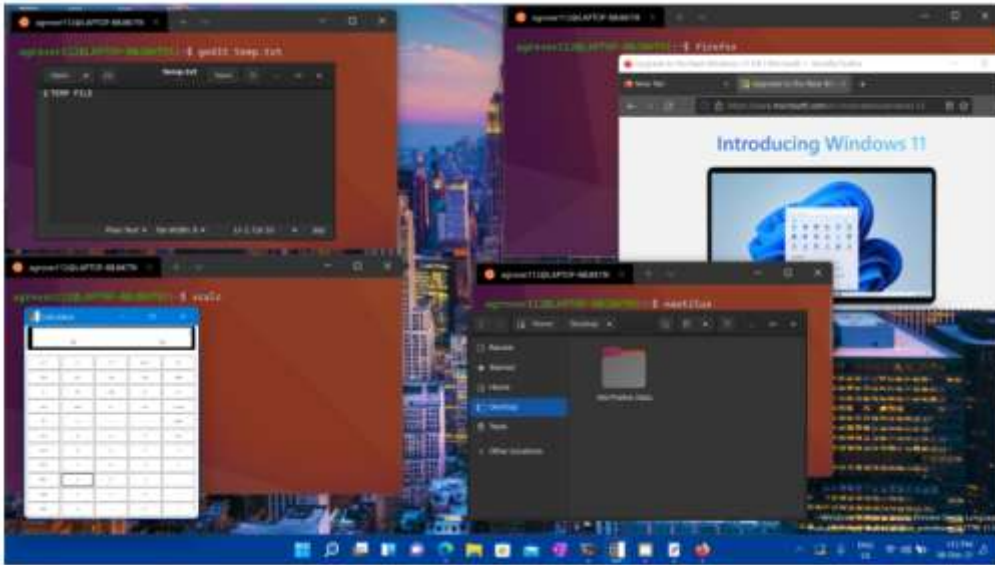
Launch Linux apps from the Windows Start menu

Pin Linux apps to the Windows task bar

Use alt-tab to switch between Linux and Windows apps

Cut + Paste across Windows and Linux apps

You can now integrate both Windows and Linux applications into your workflow for a seamless desktop experience.



Install Windows Subsystem for Linux (WSL)

The Windows Subsystem for Linux (WSL) lets developers run a GNU/Linux environment on Windows, without the overhead of a traditional virtual machine or dual boot setup. This incorporates Linux-like functionality on Windows OS without the overhead of running another OS in parallel, therefore, reducing resource consumption. This makes WSL a go-to choice for people wanting to switch between the two Operating Systems or ones who want to get Linux-like functionality in their Windows OS. WSL2 is a new version of the architecture that allows you to use Linux on top of Windows 10 natively and replaces WSL. In this article, you will learn how to install WSL2 on Windows 10.

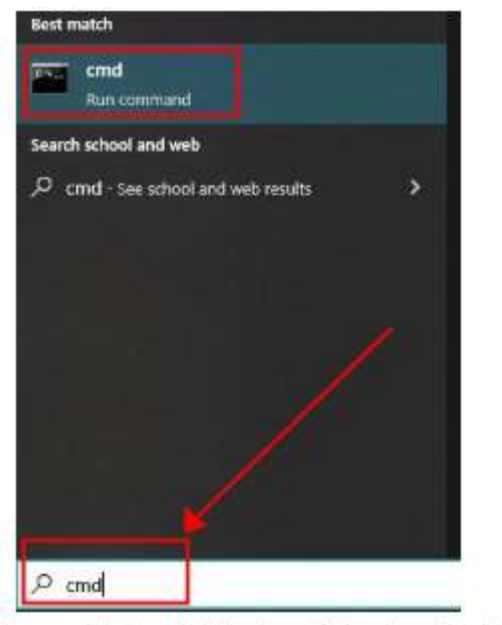
Setup of Windows Subsystem for Linux:

Here are some steps to install Windows Subsystem for Linux. We are installing WSL on Windows 10.

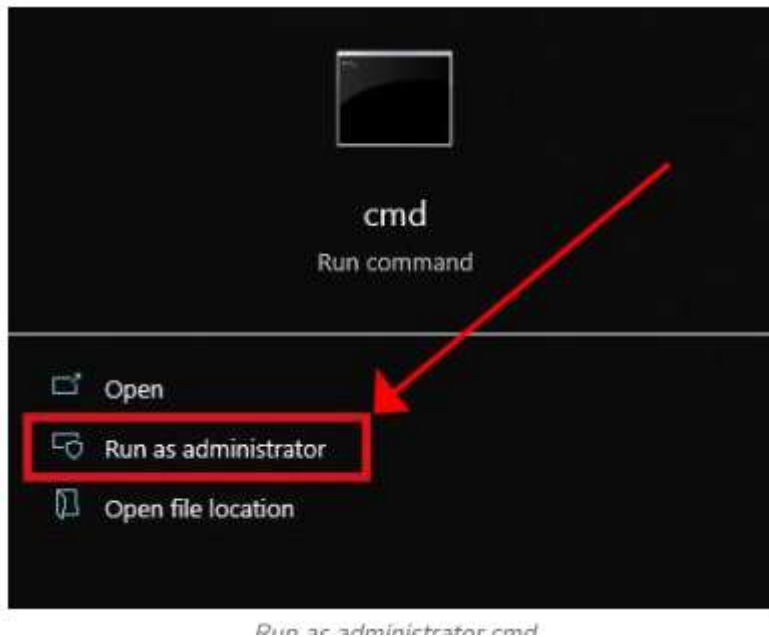
Step 1: Open the start menu in Windows by pressing the [Win] key or clicking the bottom right icon of the Windows desktop.



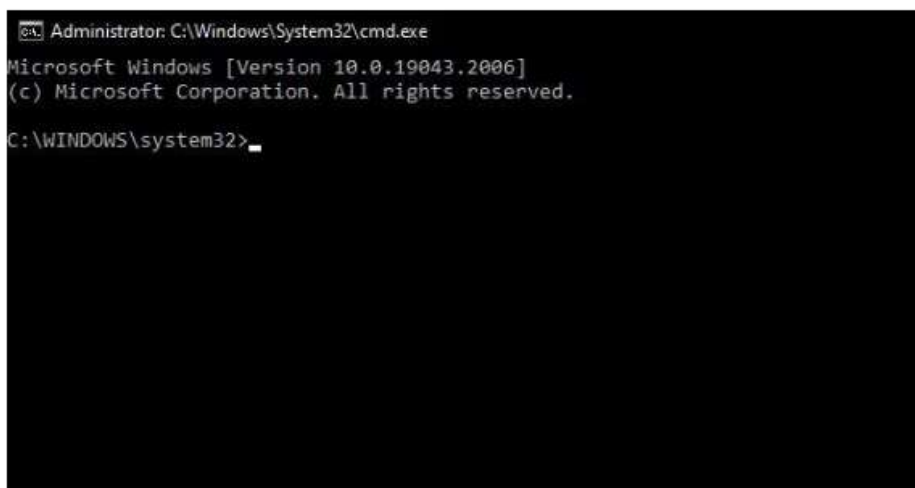
Step 2: Type cmd. A result similar to this would appear.



Step 3: Click on the Run as administrator option on the right side of the taskbar



Step 4: A new window would have appeared similar to this



Step 5: Type the following command and press Enter to install Windows Subsystem for Linux.

Run command at cmd ***wsl --install***

```
Administrator: C:\Windows\System32\cmd.exe - wsl --install
Microsoft Windows [Version 10.0.19043.2006]
(c) Microsoft Corporation. All rights reserved.

C:\WINDOWS\system32>wsl --install
Installing: Virtual Machine Platform
Virtual Machine Platform has been installed.
Installing: Windows Subsystem for Linux
Windows Subsystem for Linux has been installed.
Downloading: WSL Kernel
[=====] 27.2%
```

Step 6: The WSL2 installation process has begun. It will install the Linux Kernel during this process. After the process has been completed the user gets acknowledged that Windows Subsystem for Linux (WSL) has been installed.

```
Microsoft Windows [Version 10.0.19043.2006]
(c) Microsoft Corporation. All rights reserved.

C:\WINDOWS\system32>wsl --install
Installing: Virtual Machine Platform
Virtual Machine Platform has been installed.
Installing: Windows Subsystem for Linux
Windows Subsystem for Linux has been installed.
Downloading: WSL Kernel
Installing: WSL Kernel
WSL Kernel has been installed.
Downloading: Ubuntu
The requested operation is successful. Changes will not be effective until the system is restarted.

C:\WINDOWS\system32>
```

Step 7: Now WSL has been successfully installed onto the Windows 10 Operating System. Now restart your Operating System. Upon restarting you could use Windows Subsystem for Linux (WSL2).

Note: By default, the Ubuntu distribution gets installed in Windows Subsystem for Linux (WSL2). If you want any specific distribution, you could get so by replacing the command.

wsl --install

wsl --install -d DIST

Where DIST is the name of the distribution you are wanting to install.

Enabling Virtual Machine:

As mentioned earlier, WSL2 is a small virtual machine, so Windows has to accommodate it. If this is already enabled, skip the process and restart your PC to make sure it's ready for installation. The easiest way to do this is with PowerShell. As an administrator, he opens PowerShell and enters the following command:

*dism.exe /online /enable-feature
/featurename:VirtualMachinePlatform /all /norestart*

Installing Linux Packages:

You can also install Linux packages here. Popular apt and apt-get commands are available. For example, let's install the htop package on this version of Linux and see what happens. First, open the Linux

terminal and run the following command to update the APT package repository cache.

Step 1: Type the following command: at WSL

sudo apt update

```
(ritik@ritik)-[~]
$ sudo apt update
[sudo] password for ritik:
Get:1 https://dl.google.com/linux/chrome/deb stable InRelease [1,811 B]
Get:2 https://dl.google.com/linux/chrome/deb stable/main amd64 Packages [1,125 B]
Ign:3 http://ppa.launchpad.net/gns3/ppa/ubuntu lunar InRelease
Err:6 http://ppa.launchpad.net/gns3/ppa/ubuntu lunar Release
404 Not Found [IP: 185.125.198.52 80]
Get:4 http://kali.download/kali kali-rolling InRelease [30.6 kB]
Get:7 http://kali.download/kali kali-rolling/main amd64 Packages [18.9 MB]
Hit:5 https://packagecloud.io/slacktechnologies/slack/debian jessie InRelease
Get:8 http://kali.download/kali kali-rolling/main amd64 Contents (deb) [43.4 MB]
Get:9 http://kali.download/kali kali-rolling/contrib amd64 Packages [111 kB]
Get:10 http://kali.download/kali kali-rolling/contrib amd64 Contents (deb) [161 kB]
Get:11 http://kali.download/kali kali-rolling/non-free amd64 Packages [227 kB]
Reading package lists... Done
1,172 kB/s 0s
```

Step 2: Now install the htop package using the following command.

\$ sudo apt install htop

```
(ritik@ritik)~$ sudo apt install htop
[sudo] password for ritik:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following packages were automatically installed and are no longer required:
  libpython3.9-dev libtbb2 python3-livemite python3.9-dev
Use 'sudo apt autoremove' to remove them.
Suggested packages:
  lm-sensors strace
The following NEW packages will be installed:
  htop
0 upgraded, 1 newly installed, 0 to remove and 1654 not upgraded.
Need to get 154 kB of archives.
After this operation, 387 kB of additional disk space will be used.
Get:1 http://kali.download/kali kali-rolling/main amd64 htop amd64 3.2.1-1 [154 kB]
Fetched 154 kB in 1s (133 kB/s)
Selecting previously unselected package htop.
(Reading database ... 300005 files and directories currently installed.)
Preparing to unpack .../htop_3.2.1-1_amd64.deb ...
Unpacking htop (3.2.1-1) ...
Setting up htop (3.2.1-1) ...
Processing triggers for mailcap (3.70+nmu1) ...
Processing triggers for kali-menu (2021.4.2) ...
Processing triggers for desktop-file-utils (0.26-1) ...
Processing triggers for hicolor-icon-theme (0.17-2) ...
Processing triggers for man-db (2.9.4-4) ...
```

MANDATORY POST COMMANDS AFTER INSTALLATION

Step-3 Run following Commands at WSL after installation

sudo apt-get update -y && sudo apt-get upgrade -y

sudo apt install gnome-text-editor -y

gnome-text-editor ~/.bashrc

sudo apt install gimp -y

sudo apt install nautilus -y

sudo apt install vlc -y


```
sudo apt install x11-apps -y
```

```
cd /tmp
```

```
wget https://dl.google.com/linux/direct/google-chrome-stable\_current\_amd64.deb
```

```
sudo apt install --fix-missing ./google-chrome-stable_current_amd64.deb
```

THANKS

HAPPY LEARNING
