



Windows Subsystem for Linux

(known as WSL)



What is the WSL and how it works ?



What is the WSL ?

- Compatibility layer for running Linux binaries
- Linux compatible kernel interface
- Can interact directly with Windows
- Think for developers



**WSL is not a
virtual machine !**





It's not as simple...

- It uses virtualization technologies but not works in a **partitioned environment**
- WSL can interact directly with your file systems
- Storages with assigned letter --> /mnt/X
- Different material resources management

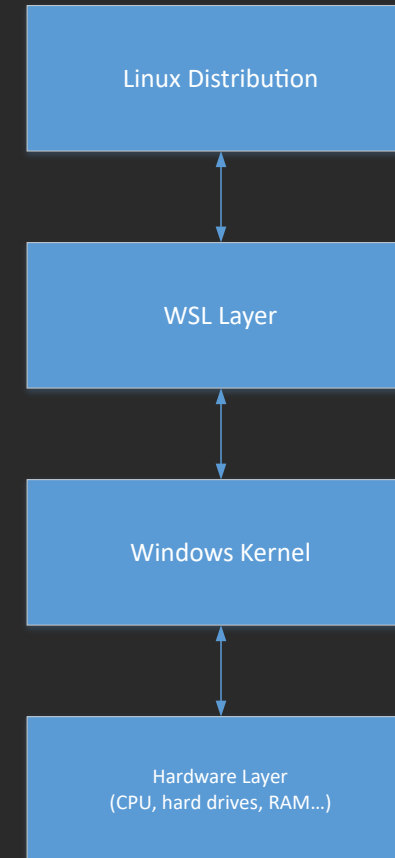


WSL 1 vs WSL 2

What's the difference ?

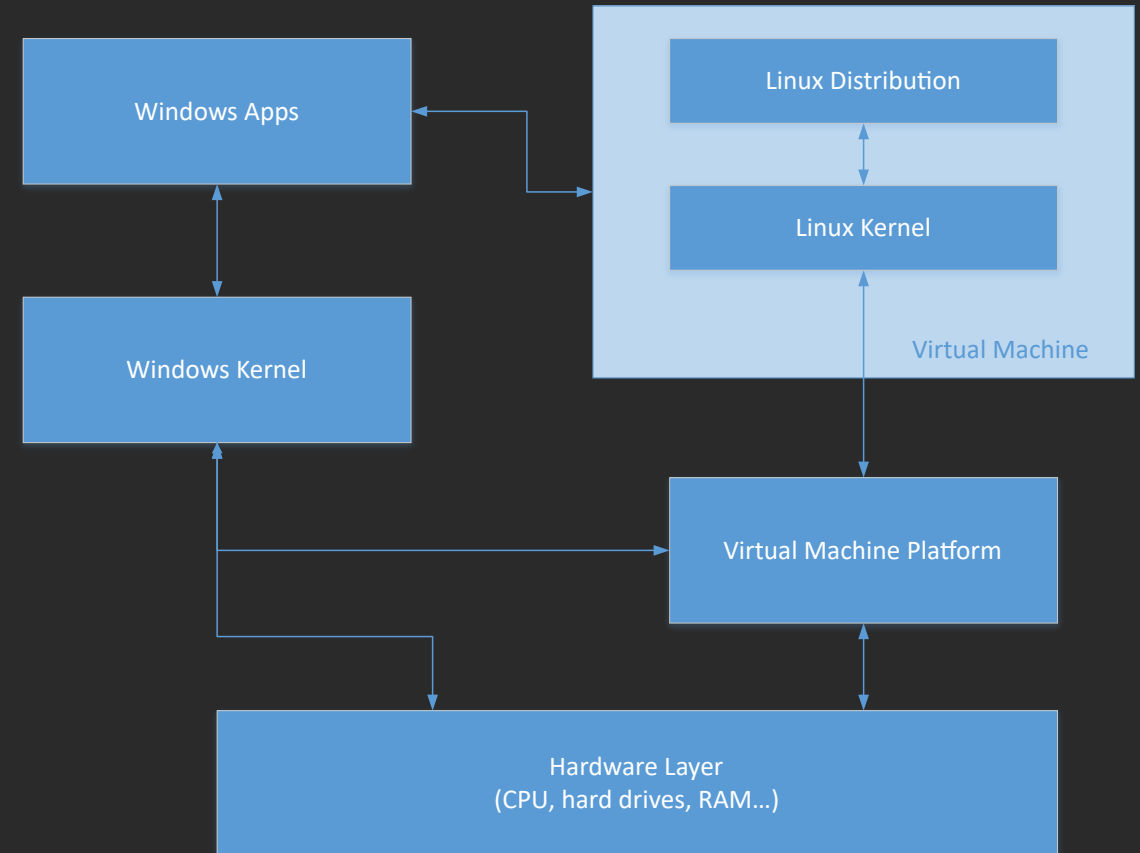


WSL 1 architecture





WSL 2 architecture





The limits of the WSL



Several limits

- Hardware acceleration not supported
- Audio not natively supported
- Network performances less efficient than a classic virtual machine



Will WSLg the solution ?

To be continued...

<https://github.com/microsoft/wslg>



How to install WSL



Prerequisites

- Running Windows 10 64bits version 2004 or higher, or Windows 11 64bits
- Virtual Machine Platform feature

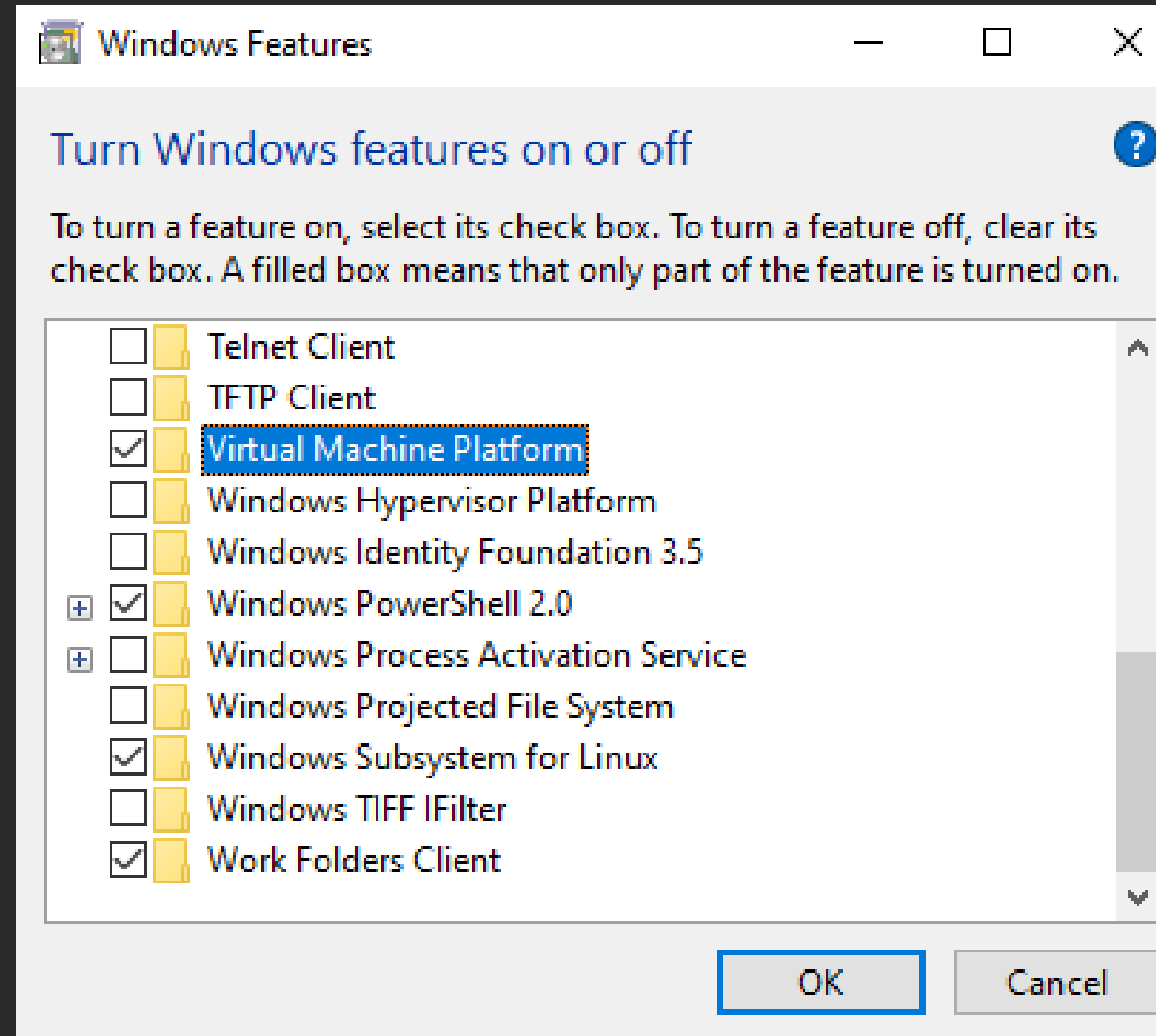


Install WSL

or with Powershell

```
wsl --install
```

--> Reboot Windows





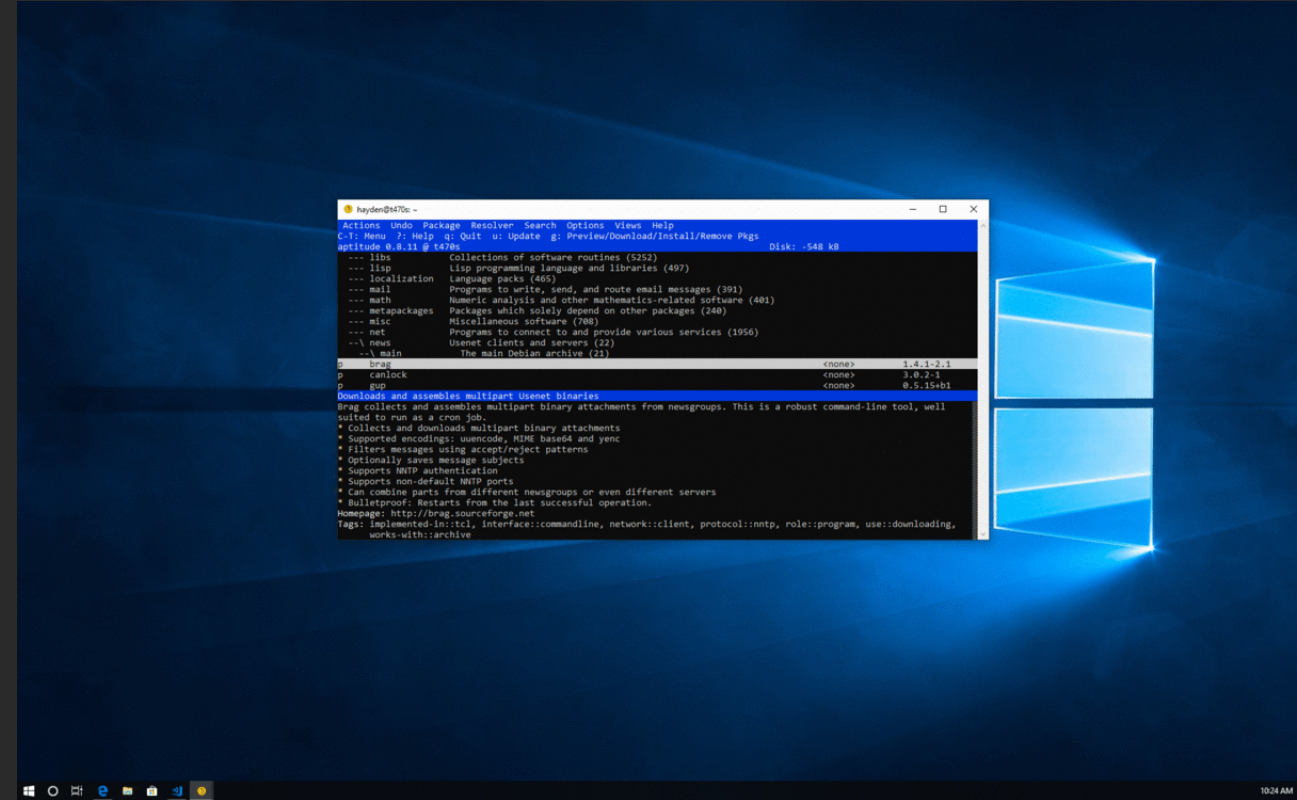
WSL distributions available at this time

- Ubuntu
- Debian
- Kali Linux
- openSUSE
- Alpine Linux
- Fedora Remix
- Pengwin



Penguin Linux

<https://github.com/WhitewaterFoundry/Penguin>





Any questions ?





Demo time !

