

The background of the slide is the iconic Windows XP desktop wallpaper, featuring a vibrant green rolling hill under a bright blue sky with scattered white clouds. The text is overlaid on this image.

Windows Subsystem for Linux

Matt Jolly

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About me

- HPC admin by day
- Gentoo developer by night
- General sysadmin and nerd
- Has pretty dogs



Why WSL

- I want Gentoo to be easy for users to try
- I'm sometimes forced to use Windows

What is WSL?

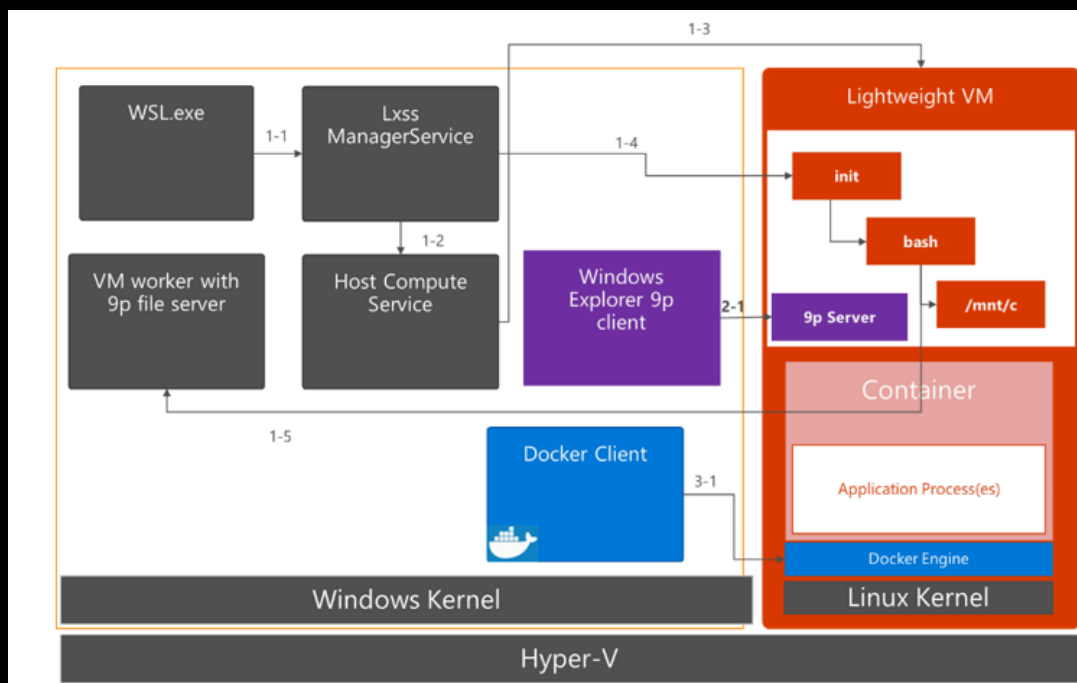
- WSL is Windows Subsystem for Linux
- There are two versions, **WSL** and **WSL2**
- We just call WSL2 'WSL' now anyway
- We're mostly talking about WSL2 today

WSL1

- Translation layer for Linux system calls to Windows
- Near-native I/O
- Not fully compatible with Linux software
- Nobody really uses it anymore

WSL2

- Full Linux kernel running in a lightweight Hyper-V VM
- Full system call compatibility
- Lower I/O, especially when crossing boundary



Why use WSL

- Run Linux software on Windows
- Work wants you to use Windows but you don't
- Development environment(s)
- Experiment with Linux without a full VM or dual boot
- Can run multiple distros on a given machine

What is a WSL distro?

- Linux distro that's been packaged to run under WSL
- Can be made from any Linux filesystem
- Each guest distro has its own internal filesystem
- Just a tarball of a Linux roots
- Can be compressed (often renamed to .wsl)

What goes into WSL distro?

A valid Linux FS plus WSL specific configurations:

- `/etc/wsl.conf`
- `/etc/wsl-distribution.conf`
- Out-of-box-experience (OOBE) script
- Windows Terminal profile (optional)
- Icon (optional)

Let's take a look!

How can I make my own?

- The easiest method is using the distro's tooling
- most distros are basically unpacking a tarball anyway
- try it, it's a good way to learn release tooling
- and it's Fun™

Like this!

Demo Time

URLs

- <https://github.com/kangie/gentoo-wsl-config>
- <https://github.com/Kangie/releng/tree/wsl>

Questions?