WSL Linux on Windows

CONCEPTS

Commands are shown for PowerShell or CMD. From inside Linux, call the same tool as wsl.exe.

Windows host wsl.exe, .wslconfig
WSL 2 utility VM one Linux kernel
Distribution own rootfs, /etc/wsl.conf
Linux processes bash, apt, systemd

WSL 2: all distros share one lightweight VM

INSTALL AND UPDATE

`wsl --install`
Install WSL and Ubuntu

`wsl --list --online`
Distros available to install

`wsl --install -d <distro>`
Install a specific distro

`wsl --update`
Update WSL to the latest release

DISTRIBUTIONS

`wsl --list --verbose`
List distros with state and version

`wsl --set-default <distro>`
Make a distro the default

`wsl --terminate <distro>`
Stop one distro

`wsl --shutdown`
Stop all distros and the VM

`wsl --unregister <distro>`
Remove a distro and ALL its data

RUN LINUX FROM WINDOWS

`wsl`
Shell in the default distro

`wsl ~`
Shell in your Linux home

RUN LINUX FROM WINDOWS (cont.)

`wsl -d <distro>`
Shell in a specific distro

`wsl -u root`
Shell as root

`wsl <command>`
Run one Linux command

RUN WINDOWS FROM LINUX

`explorer.exe .`
Open this folder in Explorer

FILES AND PATHS

`/mnt/c`
C: drive seen from Linux

`\\wsl.localhost\<distro>`
Distro's files seen from Windows

`wslpath -w <path>`
Linux path to Windows path

`wslpath -u '<C:\path>'`
Windows path to Linux path

Speed
Keep projects in the Linux filesystem (~/project) when you work from Linux: /mnt/c is much slower under WSL 2.

BACKUP AND DISKS

`wsl --export <distro> <file.tar>`
Back up a distro to a tar file

CONFIGURATION

`[boot] systemd=true`
Run systemd in a distro (wsl.conf)

NETWORKING

`localhost:<port>`
Reach a Linux server from Windows