

Command Line – Key Navigation Commands

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	Windows Command Prompt	Mac Terminal	Linux Shell
Show the current path / dir	cd	pwd (print working directory)	pwd (print working directory)
Navigate down the tree to a new folder / directory	cd <filepath> (change directory)	cd <filepath> (change directory)	cd <filepath> (change directory)
Navigate up the tree to a new folder / directory	cd \ (to get to root) cd .. (to move up one folder)	cd / (to get to root) cd .. (to move up one folder)	cd / (to get to root) cd .. (to move up one folder)
List files in current folder / dir	dir (directory)	ls (list)	ls (list)
Add a folder	mkdir <folder name> (make directory)	mkdir <folder name> (make directory)	mkdir <folder name> (make directory)
Copy file / folder	copy <from> <to>	cp <from location/name> <to>	cp <from location/name> <to>
Move file / folder	move <name> <location\name> (move from to)	mv <from location/name> <to>	mv <from location/name> <to>
Delete file / folder (be very careful, there is no undo)	del <name> (delete) rmdir <name> (remove dir)	rm -i <file name> (remove) rmdir <folder name>	rm -i <name> (remove) rmdir <folder name>
Clear the window	cls (clear screen)	clear	clear

Note:

The 'Up' arrow key will recall the last command used, and 'Up' and 'Down' keys can be used to scroll through the history of commands

The 'Tab' key can be used to autocomplete

Mac Only: Hit 'Esc' twice to list all commands. Right click on command to open man page. 'Delete' or backspace key to escape.

Some other basic Linux commands

- `man <command>` : lists the manual for that command (you can also Google)
- `touch <filename>` : creates a file named filename (or updates date if file exists)
- `cat <filename>` : displays file on screen
- `chmod <permissions> <filename>` : changes the access permissions of a file.
 - Permissions can be specified as a number (755), or a series of characters (rwxr-xr-x)
 - In order: file Owner/Group/All Others
 - Where r == read, w == write, x == execute, - == no permission

	r	w	x	
binary	2 ²	2 ¹	2 ⁰	
decimal	4	2	1	
Some examples	1	1	1	= 7
	1	0	1	= 5
	0	0	0	= 0

- `nano <filename> [-l]` : opens/creates file for editing, opens in Nano editor. (optional: -l will show line numbers, although this might not work on Vulcan)
 - CTRL+X: exit
 - In menu bar at the bottom: ^ means CTRL, M means Meta key, usually Alt
 - Copy: M 6
 - Paste (from inside Nano): ^ U
 - Paste from clipboard: try right-click, or CTRL-SHIFT-V, or SHIFT-INSERT, or SHIFT-right-click
 - Ref: <https://www.nano-editor.org/dist/v1.3/nano.html>

How to access Vulcan (outside of VSCode)

- Open Terminal
 - Linux: any shell
 - Mac: Terminal (in Applications / Utilities folder)
 - Windows: Powershell, Windows Terminal, or Windows Subsystem for Linux
 - Command Prompt won't work
- Open VPN, if not on UABSecure network
- `ssh <blazerid>@moat.cis.uab.edu`
 - Enter BlazerID password at the prompt

How to copy files to/from Vulcan

Using Secure Copy (SCP) method

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- Secure Copy (SCP) syntax is:
 - `scp <from> <to>`
 - Where from/to are the path/filename desired
- These commands can't be issued from Vulcan
 - If you're ssh'd into Vulcan, you'll need to `exit`, or open a new Terminal
- To copy from your laptop to Vulcan
 - Navigate to the folder where your file is stored
 - `scp <filename> <blazerid>@moat.cis.uab.edu:~/<path on Vulcan>`
- To copy from Vulcan to your laptop
 - Navigate to the folder where you want the file to be stored
 - `scp <blazerid>@moat.cis.uab.edu:~/<path>/<filename> .`
 - Note: the last symbol is a period, it indicates we want to copy the file to the current directory