

## Brief UNIX/LINUX CLI Command Reference

&	Detach from terminal. Use at the end of the command line. Frees the terminal for other use while the specified program runs.
	Pipe (or bar) – pipes output from one program through another.
grep	To search text for a string.
more	Used to get text output one page at a time. Use as a modifier of commands such as cat and ls.
cat	Displays the contents of a specified file. If you pipe the output of this through more you can see the contents 1 page at a time. Pipe it through grep to search for a string.
cd	Abbreviation of <b>change directory</b> . Enables changing of location in Unix directory structure. Fails if directory doesn't exist. May be used with .. (up one-level) and / (navigate from root) symbols. Also use / to separate sub-directory from sub-sub-directory names.
chmod	<b>Changes mode</b> of the specified files. Use to change file permissions.
chmod	Changes attributes of specified files.
chown	<b>changes ownership</b> of the specified files.
clear	Clears screen.
cp	<b>copies</b> files from one location to another, or duplicates a file
df	Returns information on how much <b>disk</b> space is <b>free</b> in the system. Lists the disks in the system as part of the output.
dir	Obtains a <b>directory</b> listing of files in the current directory. Use <b>ls</b> instead.
exit	Closes a terminal (telnet or ssh) session, or exits superuser mode
fdisk	Starts the <b>fdisk</b> utility - enables editing and manipulation of the disk partition tables in a system. Dangerous! WARNING FOR THE SUPERUSER ON YOUR OWN SYSTEM ONLY - THIS COMMAND CAN CLEAR THE CONTENTS OF ALL DISKS PERMANENTLY. WARNING.
free	Returns information on the state of the memory in the system. This shows both physical and virtual memory, how much is available, in use and free.
ftp	<b>file transfer protocol</b> - a mechanism for transferring files between computer systems. Has a series of specific commands to permit this operation, such as put and get. You will use the FileZilla program is the GUI.
gcc	The <b>gnu c</b> compiler. Compiles and links a C program producing and executable image. Errors in the C code will prevent successful compilation.
gedit	Starts the <b>gnome editor</b> . Only use under X Windows. Easier but less portable than the vi command.
javac	Invokes the java compiler. Once the java program in compiled (translated into machine code) it can then be run (executed).
kill	Kill a specified process. Use with -s to send a signal other than SIGTERM

man	Displays the <b>manual</b> page for the given command. Go forwards through the pages of the manual using the space bar, reverse using the back command.
mkdir	Command for <b>make directory</b> . Creates a new directory. Fails if directory already exists.
mv	<b>moves</b> one or more files. Can be used to rename a directory, or to move files between directories. If used on a directory the whole directory will be moved, including all sub-directories.
perl	Invoke the perl interpreter/compiler
ping	Tool to test IP (Internet Protocol) connections to other computers. Ping sends a special small packet of data to the other named computer. The other computer, upon receipt of the packet, will send it back. If this can be done it means that a valid IP connection exists. Ping 127.0.0.1 should never fail.
ps	See your running <b>processes</b> . ps -ax to see all processes on system.
rm	<b>remove</b> command used to remove files. rm * will remove all files. Use -R to remove a directory .
ssh	Secure shell connection. Normally on port 22, you'll have to use <b>-p xxxx</b> to specify port xxxx and <b>-X</b> for X11 forwarding.
su	Enters <b>superuser</b> mode. Requires the superuser password. The superuser can do anything. If the superuser issues the command rm /* -fR everything in the filesystem will be deleted!
tar	Start the GNU archive utility. Can be used to pack and unpack files.
telnet	Extremely useful tool that enables remote CLI logins to another computer. Commands issued at the local computer are acted upon on the remote computer. However this is insecure: use ssh instead. Telnet is now used for debugging instead.
top	Display Linux tasks
touch	Change the time-stamp on a file; creates the named file if it doesn't exist.
uname -ar	Displays the operating system version and other details.
uptime	Displays how long the system has been up, how many users are active and system load statistics.
vi	Opens for editing the contents of the specified file. Learn the vi commands first! The advantage of vi is that it's implemented under most if not all versions of Unix/Linux.
vncserver	Not a Unix command, rather a utility. Starts a graphical x-window server that you can connect to from and other computer, such as a PC running Microsoft Windows. Use this if you don't have an X Windows client on your PC (see the software section of the course website).
who -H -l	Displays details of <b>who</b> is logged in and from where. Use <b>w</b> as an abbreviation

NOTES: Unix uses command line parameters to modify the behaviour of the commands. To see the options available use -help as a parameter, or use the **man** command. When files and directories are referred to 'wild-cards' such as \* and ? can be used. So \*.\* refers to all files. a\* refers to all files with names beginning with the letter a. Commands are case sensitive. Therefore LS and ls are totally different.