

# Linux Essentials

## Command Line Cheat Sheet

**&&** – and

**||** – or

**apropos** – returns all documentation containing the defined command

**bzip/bunzip** – bzip; compresses files

**cat** – outputs the contents of a file

**cd** – change directory

**chmod** – change file mode

**chown** – change ownership

**clear** – clears the screen

**cp** – copy

- f** Force; will overwrite any existing files with the same name
- i** Interactive; will ask to overwrite
- p** Preserves file ownership
- r** Recursive; will copy files under directories
- a** Archive; preserve symlinks
- u** Copy only if original file is newer

**cut** – manipulate data by columns

- c** Range to cut [-c2-4]
- d** Define a delimiter to use with fields
- f** Return the numbered field

**dig** – look up IP addresses and DNS names

**env** – show environmental variables for current user

**exit** – terminates all current processes, including shell

**find** – locate file in system

- .** Search in current directory

**finger** – used to find out information regarding a user

**free** – reports on system memory

**grep** – search for string

- i** Case insensitive

**-n** Include line number in output

**groupadd** – add group

**-g** Group ID

**-p** Password

**-r** Create system group

**groupmod** – modify group

**-g** GID

**-p** Password

**gzip/gunzip** – gzip; compresses files

**head** – output the first ten lines of a file

**halt** – shuts down operating system

**id** – outputs user and group IDs for a user

**-u** Show only UID

**-g** Show only GID

**-G** Show all groups to which a user belongs

**-Gn** Group name

**if** – conditional statements in bash scripting

**-d** See if directory exists

**-e** See if file exists

**-f** See if file exists and it is a regular file

**-G** See if file exists and it is owned by a defined group

**-h** See if file exists and it is symlinked

**-L** See if file exists and it is symlinked (same as **-h**)

**-O** See if file exists and it is owned by defined UID

**-r** See if file exists and has read permissions

**-w** See if file exists and had write permissions

**-x** See if file can be executed

**ifconfig** – shows NIC for network card; configures network settings

**info** – improved manual pages

**init 0** – shuts down operating system

**init 6** – reboots the operating system

**ip addr** – replaces **ifconfig** on newer systems

**last** – shows last command used by defined user

**less** – opens file in a vim-like environment for viewing

**ln** – link files

**-s** Create symbolic link

**ls** – list contents of directory

**-a** List all files, including hidden files  
**-l** List files, including details such as owner and permissions  
**-p** Adds a / to the end of directories  
**-R** Enable recursion, including all sub-directories

**man** – manual pages

**1** Executable programs and shell commands  
**2** System calls for the kernel  
**3** Library calls  
**4** Device files  
**5** File formats  
**6** Games  
**7** Misc.  
**8** Programs only run by the root user  
**9** Kernel routines  
**-k** Returns all documentation containing search keyword (apropos)

**mv** – move; used to move or rename files

**-m** Set permissions mode  
**-p** Force recursion

**netstat** – shows network status

**-a** All listening and non-listening sockets  
**-i** Network interface statistics  
**-l** Listening sockets  
**-s** Summary of each protocol

**passwd** – change/set password

**-S** View password settings  
**-l** Locks account  
**-u** Unlocks account  
**-d** Remove password  
**-n** Set days before password change  
**-x** Set maximum days before password change  
**-w** Days to warn prior to password reset  
**-i** Days to wait after expired password to disable account

**ping** – test connectivity of remote network device

**ps** – process status

**-u** Define user

**pwck** – verifies the integrity of the password files

**pwconv** – syncs /etc/passwd and /etc/shadow

**pwd** – print working directory

**reboot** - shuts down, then restarts the system

**route** - view routing tables

**set** - similar to env; works with environment variables

**sort** - sorts text in file

**-r** Sort in reverse order

**-n** Sort numerically

**su** - substitute user

**sudo** - run command as root

**tail** - outputs the last ten lines of a file

**rm** - remove

**-r** Enable recursion

**rmdir** - remove directory

**shutdown** - shuts down the system

**-H** Halts the machine

**-P** Power off

**-r** Reboot

**-h** Equivalent to powering off, overridden by --halt

**-k** Send warning, but perform no actions

**-c** Cancel a shutdown

**su** - substitute user

**tar** - archives files

**-cf** Create file

**-xf** Extract file

**-v** Verbose

**-zcf** Archive with gzip

**-jcf** Archive with bzip2

**top** - shows list of current applications/processes, and system usage

**h** Help

**k** Input process ID to kill

**r** Change process priority

**p** Sort by CPU usage

**m** Sort by memory usage

**touch** - created empty file

**-c** Will not create file if one exists; will update timestamp

**-d** Manually set timestamp; can be used with directories

**traceroute** - traces the route a packet takes

**uname** - returns information related to the system

- s** Displays kernel name
- n** Displays hostname
- r** Kernel release number
- v** Kernel version number
- m** Hardware architecture
- p** Processor architecture
- i** Hardware platform
- o** Operating system
- a** All information

**useradd** - adds new user

- D** Outputs defaults
- c** Comment
- e** When to expire account
- f** Number of days after password expiration to disable account
- g** Default group
- G** Additional groups
- M** Do not create home directory
- m** Set home directory
- p** Define password
- r** Create system user
- s** Set default shell
- u** Define UID

**userdel** - delete user

- r** Delete home folder

**usermod** - modify user account

- c** Comment
- e** Expire date
- f** Days after password expiration to disable account
- G** Add groups
- l** Change username
- L** Lock account
- m** Move home directory
- p** Change password
- u** Set user ID
- U** Unlock account

**w** - displays user system information

**wc** - word count

- w** Count words
- c** Count characters

**whatis** - returns available man pages for command

**which** - shows location of application

**who** - displays who is logged in

- b** Last boot time of machine
- m** Hostname and associated user
- r** Run level for current user
- q** Number of logged-in users
- a** All

**whoami** - outputs username of current user

**zip/unzip** - zip; compresses files