

Linux Command Reference Sheet

Clean, succinct and organized for quick reading. Email Wruddy@PhoenixTS.com for suggestions and additions.

Networking

ip addr show – displays network interfaces and up addresses
ip address add – Setups an ip address
hostname – system hostname
hostname -i – looks up local ip address
whois domain – See whois info for domain
ping host – tests connectivity to host and produces output
dig – Grabs DNS info from domain
dig -x host – Reverse host lookup
ifconfig – Configures network interfaces
iwconfig – Configures wireless network interfaces
host domain – Looks up the DNS ip address for the specified domain
ethtool eth0 – Ethernet status
mii-tool eth0 – Ethernet status
netstat – Network monitor tool
iptables -L – Firewall rules
wget file – Downloads file
wget -c file – Stops file download
nmap localhost – Scans local host for ports
traceroute6 ipaddress – Detects network route to target ip address

Administration

Pwd – print working directory
Sudo – Elevates user to administrator access
Sudo -s – Makes a system administrator
Exit – Exits current job and terminal
Clean – Cleans files in current directory
Cd – Change directory
Cd - – Change to last directory you were present
Ls – list content of current directory
Ls -l – view details of content in directory
Ls -a – Shows all content, including hidden files
Ls -R – Lists content recursively
Ls -r – lists content in reverse order
Ls -t – Lists by last modified
Ls -S – Lists by file size
Ls -l – Long listing format
Ls -l – Lists one file per line
Ls -m – Lists in comma separated output
Ls -Q – Quotes the listed content
Man command – Shows manual of command
Time command – times the command process length
Mount – mounts a filesystem
Cal – terminal calendar
Control -c – kills current process
Control-insert – Copies text to windows clipboard
Shift-insert – Pastes copied text to terminal

Hardware

dmesg – Detects hardware and boot messages
last reboot – System reboot history
uptime – System's up time
lshw – Shows hardware systems configuration info
lsblk – Shows block devices and info
lspci -tv – Shows PCI devices
lsusb -tv – Shows USB devices
lshal – Lists devices and properties
dmidecode – Shows BIOS hardware info
hdparm -l /dev/sda – Shows disk info
hdparm -tT /dev/sda – Speed test on disk
badblocks -s /dev/sda – Test for unreadable disk blocks

File and Directory

./ – current directory
../ – parent directory
../.. – two parent directories down
/* – all files in targeted directory
Mkfs – Creates filesystem
Dd – Clones filesystem
Touch – Creates file with timestamp
Cat – Shows file content
More – Segments file to navigate content
Head – Shows first 10 lines of text
Tail – Shows last 10 lines of text
Tail -f – Shows Content of new file as it grows
Vi – editor
Nano – text editor
Mkdir – creates new directory
Rmdir – Removes directory
Cp file other file – copies one file to another
Cp -r dir newdirectory – Copies one directory to new dir
Rm – removes file
Rm -f – does not ask for permission
Mv file newdir – Moves file to new directory
Mv dir subdir – Moves directory to new sub-directory
Mv dir newdirname – Renames directory
Wc – Prints number of file bytes, words and lines
Ln -s file link – Creates symbolic link to file

Compression

Tar -cf .tar file – Creates compressed archive
Tar -xf – Extracts files from .tar archive
Gzip file – Compresses file and renames it
Gzip -d .giz file – Decompresses file

Executing Commands

Cmd1 ; cmd2 - Runs cmd1 and then cmd2
Cmd1 && cmd2 - Runs cmd2 if cmd1 is successful
Cmd1 | cmd2 - Pipes output of cmd1 to cmd2
Cmd1 || cmd2 - runs cmd2 if first command is unsuccessful
Cmd & - Runs command in a subshell
Command > file - redirects command to write to file
Command >> file - Appends output of command to the file
Date > timestamp - Redirects date command output to timestamp file in current directory
Date >> timestamp - appends date command output to timestamp file

Bash Variables

Env - environment variables
Echo \$NAME - output value of NAME variable
Export NAME=value - Sets NAME to value
\$PATH - shows executable search path
\$HOME - home directory
\$SHELL - current shell

Bash Shortcuts

CTRL-z - sleeps current program
CTRL-a - moves cursor to start of the line
CTRL-e - moves cursor to end of the line
CTRL-u - Cuts to start of the line
CTRL-k - Cuts to the end of the line
CTRL-r - Searches history
!! - Repeats last command
!abc - Runs last command starting with "abc"
!abc:p - prints last command starting with "abc"
!\$ - last argument of previous command
!* - all arguments of previous command
^abc^123 - runs previous command replacing "abc" with "123"

Installing from Source

Make - builds package
Make install - builds and installs package
Dpkg -i pkg.deb - installs a debian package
Rpm -Uvh pkg.rpm - installs an RPM package
Makepkg - tool for building packages in Arch Linux
Yoaurt - package manager front-end for building packages in Arch Linux

Encryption

Gpg -o newfile.gpg -c targeted file - Encrypts file
Gpg -o newfile -d encryptedfile.gpg - Decrypts file
Gpg-zip -o encryptedfile.tgz.gpg -c -s targetedfile - Zips and encrypts directory

File Permissions

Adduser - adds user
Usermod - edits user credentials
Deluser - deletes user
Groups - lists group info
Groupadd - adds group
Groupmod - edits group credentials
Delgroup - deletes group
Users - lists users
Talk - tool for talking between system users
Chmod users=permissions file/directory - changes file/archive permissions

Searching Files

Locate - searches for files in system index
Find /dir -name file name -- Finds files starting with name dir
Find /dir -user name - finds files owned by name dir
Find /dir -mmin num - finds files modified less than the number of minutes ago
Grep pattern files - searches for pattern in files
Grep -i - case sensitive search
Grep -r - recursive search
Grep -v - inverted search
Grep -o - matches part of file only

Process Management

Pmap - memory map of processes
Ps - shows snapshot of processes
Top - Shows real-time processes
Kill pid - Kills process with set id
Pkill - kills all processes with set name
Command & - Starts processes in background
Nohub command & - Starts processes in background and keeps it running after logging off
Killall - kills all processes with set name

System Info

Uname -a - prints system and kernel inform
W - who is online
Head -n1 /etc/issue - Shows distribution info
Whoami - Shows username
Finger user - user info
Cat /proc/cpuinfo - cpu information
Cat /proc/meminfo - memory information
Df - disk information
Du - Directory space usage
Free - Memory and swap usage
Whereis - applications location
Which - Applications run by default