

Linux Cheat Sheet

file command

ls – directory listing
ls -al – formatted listing with hidden files
cd dir – change directory to dir
cd .. – change to home
pwd – show current directory
mkdir dir – create a directory dir
rm file – delete file
rm -r dir – delete directory dir
rm -f file – force remove file
rm -rf dir – force remove directory dir *
cp file1 file2 – copy file1 to file2
cp -r dir1 dir2 – copy dir1 to dir2; create dir2 if it doesn't exist
mv file1 file2 – rename or move file1 to file2
if file2 is an existing directory, moves file1 into directory file2
ln -s file link – create symbolic link link to file
touch file – create or update file
cat > file – places standard input into file
more file – output the contents of file
head file – output the first 10 lines of file
tail file – output the last 10 lines of file
tail -f file – output the contents of file as it grows, starting with the last 10 lines

Process Management

ps – display your currently active processes
top – display all running processes
kill pid – kill process id pid
killall proc – kill all processes named proc *
bg – lists stopped or background jobs; resume a stopped job in the background
fg – brings the most recent job to foreground
fg n – brings job n to the foreground

File Permissions

chmod octal file – change the permissions of file to octal, which can be found separately for user, group, and world by adding:

- 4 – read (r)
- 2 – write (w)
- 1 – execute (x)

Examples:

chmod 777 file – read, write, execute for all
chmod 755 file – rwx for owner, rx for group and world
For more options, see man chmod.

SSH

ssh user@host – connect to host as user
ssh -p port user@host – connect to host on port port as user
ssh-copy-id user@host – add your key to host for user to enable a keyed or passwordless login

Searching

grep pattern files – search for pattern in files
grep -r pattern dir – search recursively for pattern in dir
command | grep pattern – search for pattern in the output of command
locate file – find all instances of file

Installation

Install from source: [command](#)

/configure

make

make install

dpkg -i pkg.deb – install a package (Debian)

rpm -Uvh pkg.rpm – install a package (RPM)

Shortcuts

Ctrl+C – halts the current command

Ctrl+Z – stops the current command, resume with fg in the foreground or bg in the background

Ctrl+D – log out of current session, similar to exit

Ctrl+W – erases one word in the current line

Ctrl+U – erases the whole line

Ctrl+R – type to bring up a recent command

!! – repeats the last command

System information

date – show the current date and time
cal – show this month's calendar
uptime – show current uptime
w – display who is online
whoami – who you are logged in as
finger user – display information about user
uname -a – show kernel information
cat /proc/cpuinfo – cpu information
cat /proc/meminfo – memory information
man command – show the manual for command
df – show disk usage
du – show directory space usage
free – show memory and swap usage
whereis app – show possible locations of app
which app – show which app will be run by default

Compression

tar cf file.tar files – create a tar named file.tar containing files
tar xf file.tar – extract the files from file.tar
tar czf file.tar.gz files – create a tar with Gzip compression
tar xzf file.tar.gz – extract a tar using Gzip
tar ejf file.tar.bz2 – create a tar with Bzip2 compression
tar xjf file.tar.bz2 – extract a tar using Bzip2
gzip file – compresses file and renames it to file.gz
gzip -d file.gz – decompresses file.gz back to file

Network

ping host – ping host and output results
whois domain – get whois information for domain
dig domain – get DNS information for domain
dig -x host – reverse lookup host
wget file – download file
wget -c file – continue a stopped download
ifconfig – configure the kernel-resident network interfaces
iwconfig – configure wireless networking interfaces only

General command

Sudo command:

\$ sudo command – run programs with the security privileges (by default, as the superuser)

Man command:

\$ man vi – view a system's reference manuals(man pages)

shutdown command:

sudo shutdown – shutdown process starts after 1 minute, which is the default time interval

sudo shutdown 11:00 – schedule system shutdown at 11 A.M

sudo shutdown +10 – schedule system shutdown in 10 minutes from now

sudo shutdown now – shutdown system immediately, can use +0 or its alias now

reboot command:

sudo reboot

poweroff command: Instructs system to power down

sudo poweroff

poweroff --halt – Halts the system

poweroff -- reboot – Reboots the system

halt command :

sudo halt [OPTION] – instructs the hardware to stop all the CPU functions

halt -p – power off the system

halt --reboot – reboot the system

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