

# LINUX TERMINAL

Created by @Manz (<https://twitter.com/Manz>)<https://terminaldelinux.com/>

## h Help Manual & information

\* --help fast &amp; short help

### HELP COMMANDS

man manual page (wide)  
whatis short description  
apropos related help

## u Users Info about users

### CHANGE AND INFO

whoami current user  
su switch to user [root]  
sudo run command as [root]  
visudo edit sudoers [vi+sudo]

### SYSTEM USERS

useradd create/update user  
adduser friendly add user  
userdel delete user  
deluser friendly del user  
usermod modify user account  
groups group members  
passwd change password  
lslogins show known users

### LOGGED USERS

who current logged users  
w current logged users & data  
users current logged users  
last last logged users & reboots  
lastb last bad logins (btmpt)  
lastlog recent login users

## n Network Internet & net related

### NET CONFIGURATION

ifconfig config ip/net features  
ip new ifconfig tool  
dhclient DHCP client

IP  
ip addr

### DNS AND DOMAINS

ping send ICMP to hosts  
nslookup query DNS lookup  
dig DNS lookup utility  
whois whois domain name or ip

### TRACE ROUTE

tracert print route packets  
tracert trace path  
mtr network diagnostic tool

### NETWORK TOOLS

nmap network security scanner  
nc cat via network connection  
ss show sockets statistics

### NETWORK MONITORING

bmon bandwidth monitor  
iftop interface network monitor  
nethogs net monitor by process  
wondershaper bandwidth limit  
iptraf-ng network monitor  
tcpdump network activity dump  
netstat print network statistics

### MAC ADDRESS

arp show mac/ip address cache  
arping ping mac address

### FIREWALL

iptables ip packet filter & NAT  
shorewall firewall for iptables  
ufw firewall for iptables

## f Files & Folders

### FOLDERS (DIRECTORIES)

mkdir create dir  
pwd current dir  
ls list files & dirs  
exa enhanced ls  
cd change to dir  
pushd / popd directory stack  
autojump smart jump to dirs  
tree list files in tree format

### FILE HANDLING

file show file type  
touch update/create  
mv move/rename files  
cp copy files  
rm remove files  
ln make link to file  
stat filesystem stats

LS  
-l long data  
-h human  
-R recursive

CP / RM  
-f force  
-r recursive

### FILE MANAGERS

mc midnight commander  
lfm last file manager  
ytree unix file manager  
ranger visual file manager

### FIND FILES

type display command type  
find search files in a dir  
locate search files in database  
updatedb update file database  
whereis locate binary/manpage  
which get binary file pathname

## v Version Control

### GIT CLIENT

git fast/scalable control version  
tig text-mode interface for git

### OTHER CLIENTS

svn subversion cv client  
hg mercurial cv client  
cvs concurrent control version  
bazaar cv client

## b Browser & Downloads

### BROWSER

lynx text browser  
elinks text mode browser  
w3m text browser/pager

### DOWNLOAD

wget network downloader  
curl transfer a URL  
axel download accelerator  
puf parallel downloader  
youtube-dl download vids  
cclive media downloader

## r Remote

### CONNECTION

telnet telnet connection  
ftp file transfer connect  
ssh remote connection  
sftp connect ftp via ssh  
sshfs connect disk via ssh

### COPY

scp remote cp via ssh  
rsync remote sync files

### MKDIR

-p all dirs

### LS

-l long data  
-h human  
-R recursive

### MV

-f force  
-u update

### CP / RM

-f force  
-r recursive

## PERMISSIONS

OWNER GROUP OTHERS  
drwxr-xr-x -rw-r--r--  
REGULAR FILE  
r READ  
w WRITE  
x EXEC/OPEN  
- NO PERMISSION

### APT-GET

update clean remove  
install purge download  
upgrade autoremove

## e Editors

### EDITORS

vi programmer editor  
vim vi improved  
pico another editor  
nano pico improved  
emacs gnu emacs  
jed programmers editor  
micro micro editor  
mcedit midnight editor

## d Differences

### DIFF TOOLS

diff find differences  
sdiff side-by-side diff  
wdiff word differences  
colordiff colorize diff

### GIT

START  
init  
clone  
remote

### WORK

status  
add  
mv/rm  
reset  
log

### GIT

REPO  
fetch  
pull  
push

### MANIPULATE

checkout  
branch  
merge  
rebase  
commit

### GIT FAST CHEAT

git remote add origin <server>  
git push origin master send

## p Permissions

### OWNER/GROUPS

chown set owner  
chgrp set group

### PERMISSIONS

chmod set file permission  
umask set permission mask

### CHOWN

owner.group

### CHMOD/CHOWN

-R recursive

### CHMOD

0 none-- 3 wx  
1 exec=x 5 rx  
2 write=w 6 rw  
4 read=r 7 rwx  
COMMON  
777 755 644 655

### TMUX

^B+ split horiz  
^B+% split vert  
^D close term  
^B+ move to  
^B+ resize  
^B+ rotate

## p Packages Install & uninstall

### INSTALL/UNINSTALL PACKAGES

apt-get package manager  
apt friendly apt-get  
aptitude friendly apt-get  
 wajig friendly apt-get

### SEARCH/LIST PACKAGES

apt-cache search packages  
apt-file list package contents

### MANUAL MANAGE PACKAGES

dpkg manage .deb package

### VIM

:q! exit w/o save  
:wq! save & exit  
:5 jump to line 5  
:colorscheme set color  
:shell temp shell / exit=return  
:split / :vsplit open horiz/vert  
:set number number lines  
:set mouse=a enable mouse  
:word find word (n find next)  
:tabnew open file in new tab  
:%s/old/new/g repl. old -> new

### DPKG

-i install  
-r remove  
-c contents

## c Compressor

### ARCHIVE PACKAGING

tar archive tool  
split file into pieces

### LINUX TOOLS

gzip handle .gz file  
gunzip uncompress .gz  
bzip2 handle .bz2 file  
bunzip2 uncompress .bz2  
xz handle .xz file  
unxz uncompress .xz  
zip handle .zip file  
unzip uncompress .zip file  
rar handle .rar file  
unrar uncompress .rar file  
7z handle .7z file  
cabextract extract .cab files

### EXECUTABLE COMPRESSOR

upx compress exec files  
gzexe compress exec files

## s Session control & Terminal

clear empty to clean screen  
reset reinitialize terminal  
history show prev commands  
fuck corrects prev commands

### CONTROL

exit / logout end shell session  
reboot reboot the machine  
poweroff / shutdown switch off  
init send control init level

### MULTIPLEXORS

screen multiplexor & manager  
tvt 2-cols virtual terminal  
tmate terminal & term sharing  
tmux terminal multiplexer  
byobu screen/tmux wrapper

CTRL R  
REV. HISTORY

Emezeta.com

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## t Text manipulation

### MAIN CONTENT

**echo** print line of text  
**cat** print or concatenate files  
**tac** reverse cat

### PAGINATE TOOLS

**more** classic pager  
**less** enhanced pager  
**most** enhanced less pager

### COMPRESS FILTERING CAT/LESS TOOLS

**zcat .gz bzcat .bz2 xzcat .xz**  
**zless .gz bzless .bz2 xzless .xz**

### GENERAL FILTERING TOOLS

**head** print first part  
**tail** print last part  
**rev** reverse line characterwise  
**nl** number lines  
**sort** reorder lines  
**wc** count bytes/chars/words/lines  
**uniq** count or omit repeated lines

### TRANSFORM TOOLS

**iconv** convert to diff encoding  
**tr** translate or delete chars  
**expand** convert tabs to spaces  
**unexpand** convert spaces to tabs

### FRAGMENT FILTERING TOOLS

**cut** remove sections or fragments  
**paste** merge lines

### POWERFUL FILTERING/TRANSFORM TOOLS

**grep** print lines matching pattern  
**gawk** pattern scanner & process  
**sed** stream editor for filtering  
**xargs** build & execute commands

## t Time

**date** print or set date/time

### CALENDARS

**cal** display an calendar  
**ncal** display an alternative cal  
**pal** display an event calendar

### TIMERS

**timeout** run cmd w/time limit  
**time** benchmark command  
**sleep** delay specified time  
**watch** exec program repeatedly

### SCHEDULE COMMANDS

**at** queue jobs for later exec  
**cron** exec scheduled cmds

### CRONTAB

MINUTE (0-59) DAY (1-31) WEEKDAY (0-6)  
 HOUR (0-23) MONTH (1-12)  
 \* / 5 4 1 \* \* command sample line

## c Checksum

### CHECKSUM BASE

**sum** checksum & count blocks  
**cksum** checksum & count bytes

### COMPUTE & CHECK MESSAGE DIGEST

**b2sum** BLAKE2 **sha224sum** SHA224  
**md5sum** MD5 **sha256sum** SHA256  
**shasum** SHA **sha384sum** SHA384  
**sha1sum** SHA1 **sha512sum** SHA512

## d Disks & Partitions

### PARTITIONS / BLOCK DEVICES

**parted** manipulate partitions  
**fdisk** manipulate partition table  
**cgfdisk** enhanced fdisk  
**mkfs** make/create a filesystem  
**dd** low level data duplicator

### RECOVERY/REPAIR

**fsck** check & repair filesystem  
**testdisk** scan & repair partitions  
**photorec** recover lost files/data

### MOUNT

**mount** enable a filesystem  
**umount** disable a filesystem

### DISKSPACE

**df** show disk free  
**du** show disk used  
**ncdu** enhanced disk used  
**fdupes** find duplicate files

## g Games & Fun

### FUN

**fortune** print rnd fortune cookie  
**sl** aim to correct sl instead ls  
**cowsay** configurable thinking cow  
**toilet / figlet** display large chars  
**cmatrix** simulate matrix screen

### GAMES

**ninvaders** ncurses space invaders  
**bastet** bastard tetris clone  
**moon-buggy** drive across moon  
**nsnake** ncurses snake game  
**pacman4console** pacman clone  
**greed** erase number grid game  
**nethack-console** explore mazes  
**freesweep** minesweeper clone  
**nettoe** network tic tac toe clone  
**asciijump** ascii ski jump game  
**bombardier** gnu bombing game

## m Image Handling

### LOSSY (JPEG RELATED)

**jpeginfo** show jpeg information  
**jpegoptim** optimize jpeg images  
**jpegtran** jig jpeg transform  
**mozjpeg** mozilla jpeg optimizator  
**jhead** exif header manipulator  
**webp** webpicture google format

### LOSSLESS (PNG RELATED)

**pngmeta** extract png metadata  
**optipng** optimize png images  
**pngquant** png compressor  
**pngcrush** optimize png files  
**pngnq** quantize png images

### ANIMATED (GIF RELATED)

**gifsicle** manipulation gif tool  
**apngopt** apng otimizator

### IMAGEMAGICK

**convert** transform/convert image  
**identify** describe format image  
**composite** overlaps images  
**mogrify** convert (overwrite src)  
**montage** combine mult. images  
**stream** stream 1+ components  
**import** save visible region to file  
**compare** math/visual diff image

## p Processes & threads

### PROCESSES VIEWERS

**ps** show active processes  
**pstree** tree-format version of ps  
**atop** system/process monitor  
**top** show top processes & info  
**htop** enhanced top

### BACKGROUND & FOREGROUND

**jobs** list jobs (bg or stopped)  
**bg** move process to background  
**fg** move process to foreground

### PRIORITY PROCESS

**nice** run with custom priority  
**renice** change priority

### KILL PROCESSES

**kill** send signal to process  
**killall** kill all processes by name

## h Hardware & System

### SYSTEM SOFTWARE INFO

**uname** show distro/kernel info  
**lsb\_release** show distro info  
**uptime** data uptime, users & load

### HARDWARE

**nmon** sysadmin monitor tool  
**gtop** system monitor dashboard  
**iostat** input/output monitor  
**iotop** report cpu & i/o stats  
**mpstat** report multiprocess stats  
**glances** system monitoring tool  
**hwinfo** hardware information  
**inxi** hardware information

### MEMORY

**free** show free & used memory  
**vmstat** virtual memory stats  
**pmap** show memory map process

### DEVICES

**lspci** list PCI devices  
**lsusb** list USB devices  
**lscpu** list CPU features  
**lsblk** list block devices  
**lsdf** list open files  
**lslocks** list local system locks

### KERNEL & MODULES

**dmesg** diagnostic messages  
**lsmod** list kernel modules status  
**depmod** gen dep/map mod files  
**modinfo** show info about a mod  
**modprobe** add/remove modules  
**insmod** insert mod into kernel  
**rmmod** remove mod from kernel

## m Audio / Video

### MEDIA PLAYER

**mplayer** cli media player  
**mpv** media player enhanced  
**vlc** videolan media player  
**mpsyrt** youtube media player

### MUSIC

**music123** play sound files  
**id3tool** mp3 editor id3 tags  
**arecord** ALSA sound recorder  
**aplay** ALSA sound player

### MEDIA CONVERTER

**ffmpeg** media converter

## s Services & Daemons

### SERVICES

**/etc/init.d/\*** sysvinit  
**service** service wrapper  
**systemctl** systemd  
**journalctl** systemd logs

### WEB SERVER

**apachectl** apache control  
**nginx** http reverse proxy  
**htpasswd** gen auth pass

### LOGS

**ccze** robust log colorizer  
**lnav** ncurses log viewer  
**goaccess** fast log viewer

### SYSTEMCTL

**status** service status  
**start / stop** service  
**restart** stop & start  
**reload** reload config

### APACHE

**a2enconf** enable config  
**a2disconf** disable config  
**a2ensite** enable site  
**a2dissite** disable site  
**a2enmod** disable mod  
**a2dismod** disable mod

### NGINX

**nginx-conf** enable site  
**ngx-conf** disable site  
**ngx-conf** remove site  
**ngx-conf** list list all conf

### DOCKER

**search** find image on hub  
**run** exec cmd container  
**images / ps** list img/cont  
**start / stop** container  
**rmi / rm** remove img/cont  
**pull** get image from reg  
**push** put image to reg

### FFMPEG

**-i** input file/information  
**-vcodec** video codec  
**-acodec** audio codec  
**-b:a** bitrate audio 192k  
**-b:v** bitrate video  
**-vn** remove video  
**-an** remove audio  
**-vol** change volume 256  
**-r** set frame rate (fps)  
**-ss** start at N:N time  
**-to** ends at N:N time  
**-t** vid duration N secs  
**-vf** hflip horizontal flip  
**-vf** vflip vertical flip  
**-vf** scale=W:H resize vid  
**-vf** crop=W:H:X:Y crop  
**-vf** vignette=PI/4 effects  
**-vf** fade=t=in:st=0:d=5,  
 fade=t=out:st=25:d=5  
**-vf** setpts=0.02\*PTS  
**-pix\_fmt** yuv420p / rgb24