

## File commands

### ls [option] file

-a: show hidden  
-A: show hidden except . and ..  
-h: human readable size  
-i: inode info  
-l: long list format  
-m: output as csv  
-n: numeric uid and guid  
-r: sort in reverse order  
-S: sort by file size  
-t: sort by modification time

### tree [options] dir

-d: only directories  
-f: show full paths  
-P pattern: only matching pattern  
-I pattern: except matching pattern  
-h: print sizes in human readable way  
-C: use colors  
-L x: max x level depth

### cp [options] source dest

-b: backup dest before overwrite  
-r: recursive  
-f: force  
-l: link files instead of copy  
-P: dont follow sym links  
-i: interactive  
-u: copy only if source newer than dest

### mv [options] source dest

-b: backup dest before overwrite  
-f: force  
-i: interactive  
-u: move only if source newer than dest

### rm [options] file

-f: force  
-i: interactive

rm - -foo if file name is -foo

### tail [options] file

-f: show end of file live  
-35: show last 35 lines  
-q: be quiet

### ln [options] file link

-s: sym link (hard by default)  
-f: overwrite link if exists  
-b: backup old link before overwrite

### head [options] file

-35: show first 35 lines  
-q: be quiet

### tac file(s)

print files starting from last line

### cut [options] file

-d char: use char as delimiter  
-f 1,3,5: print fields 1, 3 and 5

### chmod [options] mode file(s)

-R: recursive

#### symbolic mode

format: [ugoa][[+|=][perms]],...  
example: u+x,o-wx,g-w

u: owner  
g: group  
o: others a: all  
+: add mode  
-: remove mode  
=: exact mode  
r: read  
w: write  
x: execute files and search for dirs  
X: search for dirs  
s: setuid or setgid  
t: sticky bit

#### numeric mode

format: [0-7]1,4  
example: 755

first digit: setuid(4), setgid(2)  
second digit: owner perms  
third digit: group perms  
fourth digit: others perms

read: 4  
write: 2  
execute: 1

### find path [options] [tests] [actions]

-mindepth x: ignore levels < x depth  
-maxdepth y: ignore levels > y depth

#### tests:

-name "xyz\*": name like xyz\*  
-iname "xyz\*": case insensitive  
-type d: only directories  
-type f: only files  
-mtime 0: modified < 1 day  
-mtime -x: modified < x days  
-mtime +x: modified > x days  
-mmin: like  
-mtime but in minutes  
-size +100M: size > 100MB  
-size -100M: size < 100MB  
(M for MB, k for KB, G for GB)  
-perm /o+w: writable by others  
! -perm /o+r : not readable by others

#### actions:

-print: print matching  
-delete: rm matching files  
-exec cmd '{}' ; : cmd on every match  
-exec cmd '{}' + : cmd once on all results  
-exec rm -rf '' : remove matching items  
-fprint /tmp/result: write matches to /tmp/result

### diff [options] files

-r: recursive  
-w: ignore whitespaces  
-B: ignore blank lines  
-q: only show file names  
-x"sync\*": exclude files with path like .sync\*

### grep [options] pattern files

-i: ignore case  
-P: pattern is a perl regex  
-m: stop after m matches  
-n: also show matching line number  
-R: recurse directories  
-c: only show matching lines count  
-exclude=glob : exclude these  
-include=glob : only consider these

### cat [options] file(s)

-v: non ascii chars except tab and eol  
-T: show tabs  
-t: equivalent to -vT  
-E: show eol end of line  
-e: equivalent to -vE  
-A: equivalent to -vET  
-s: remove repeat empty lines

### uniq [options] input output

-c: prefix lines by occurrence  
-d: only print duplicate lines  
-u: only print unique lines

### sort [options] file

-n: numeric sort  
-b: ignore blank lines  
-f: ignore case  
-r: reverse order

### tar [options] file

-f file: archive file  
-c: create  
-t: list  
-x: extract  
-C DIR: cd to DIR  
-z: gzip  
-j: bzip2

### du [options] file

-c: a grand total  
-h: human readable  
-L: dereference sym links  
-P: no dereference of sym links  
-s: total for each argument  
-exclude=pattern  
-max-depth=N: no deeper than N levels

### df [options] file

-h: human readable  
-i: list inodes info  
-P: no dereference of sym links

## Process Commands

### ps [options]

-e: all processes  
-f: full listing  
-H: show hierarchy  
-p pid: this process pid  
-C cmd: this command name cmd  
-w: wide output  
-ww: to show long command lines  
-l: long listing, including wchan  
-o x,y,z: show columns x y z  
-o user,pid,cmd: show columns user, pid command  
-N: negation  
-u user: processes owned by user  
-u user -N: processes not owned by user  
-sort=x,y: x y are columns in ps output  
-sort=user: sort by user  
-sort=+time: sort by cpu time asc  
-sort=-time: sort by cpu time desc  
-sort=size: sort by memory size  
-sort=vsize: sort by vm size

### top [options]

-d x: refresh every x seconds  
-p pid1 -p pid2: only processes with pid1 pid2  
-c : show command lines  
interactive commands  
space: udpdate display  
n: change number of displayed proces- ses  
up and down: browse processes  
k: kill a process  
o: change order  
T: sort by time  
A: sort by age  
P: sort by cpu  
M: sort by memory  
c: display/hide command line m: display/hide memory  
t: display/hide cpu  
f: manage list of displayed columns  
up and down: move between columns  
d: display/hide the selected column  
q: apply and quit the field mgmt screen

### pgrep [options] pattern

-l : show pid and process name  
-a : show pid and full command line  
-n : if more than one show newest  
-o : if more than one show oldest  
-u uid : show only processes of uid  
-c : count results

## Network & Remote

### ssh [options] user@host ["cmd1;cmd2"]

-2: force protocol 2  
-o StrictHostKeyChecking=no: ignore remote host key change  
-X: forward X11 display

### wget [options] url

-b: run in background  
-o file: print wget output in file  
-o /dev/null: suppress wget output  
-q: be quiet  
-d: debug  
-O file: save response to file  
-c: resume file download  
-S: print server headers  
-T N: timeout after N seconds  
-user=user: basic auth user  
-password=pwd: basic auth password  
-save-cookies file: save cookies to file  
-load-cookies file: use file as cookies  
-post-data=string  
-post-file=file  
-no-check-certificate: ignore ssl certificate

### curl [options] url

-H header: like -H "Host: st.com"  
-u <user:password>: basic http auth  
-s: be silent  
-S: show errors if silent mode  
-L: follow new location in case 301  
-data "field=value": x-www-form-urlencoded query  
-data-binary data: post data as is without encoding  
-data-binary @filename: post filename content as is  
-X method: use PUT, GET, POST etc.  
-request method: use PUT, GET, POST etc.

### mail [options] to-address

-s subject: email with subject  
-c address1,address2: cc copy  
-b address1,address2: bcc copy  
mail -s 'hello there' 'joe@st.com' < so-mefile

## Terminal

(C- = Ctrl, M- = Alt)  
C-c: halt current process  
C-z: pause current process  
bg %1: resume it in background  
fg %1: resume it in foreground  
jobs: list background processes  
C-d: logout  
C-r: search in history  
C-k: remove to end of current line  
C-y: paste removed text  
C-w: remove a word backward  
M-d: remove a word forward  
C-u: remove current line  
C-a: beginning of current line  
C-e: end of current line  
C-x C-e: edit current line in \$EDITOR