

The 12 Unix Commands Everyone Should Know

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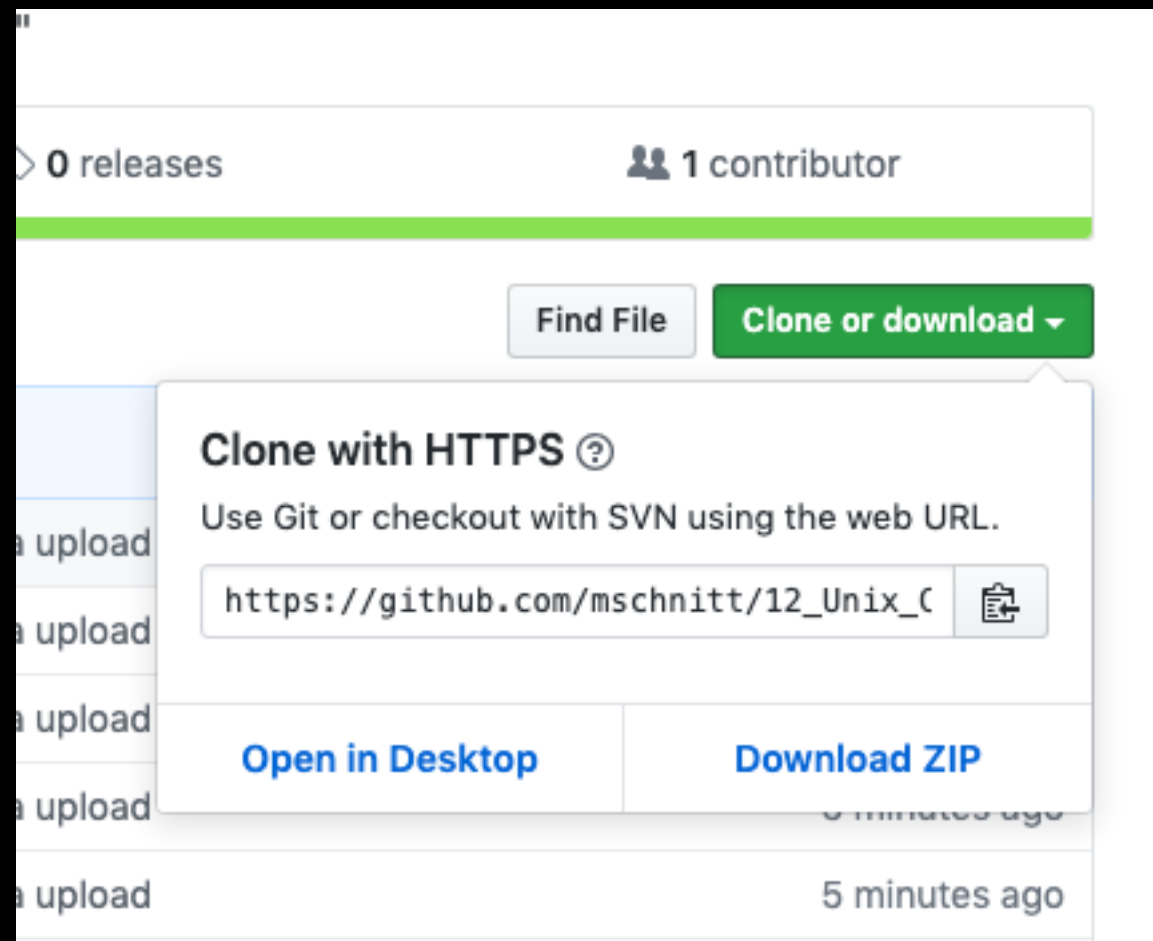
@mschnitt

What We'll Cover

- open
- diskutil
- ls
- chmod
- chown
- du
- df
- find
- grep
- top
- mv
- rsync

Code samples

https://github.com/mschnitt/12_Unix_Commands

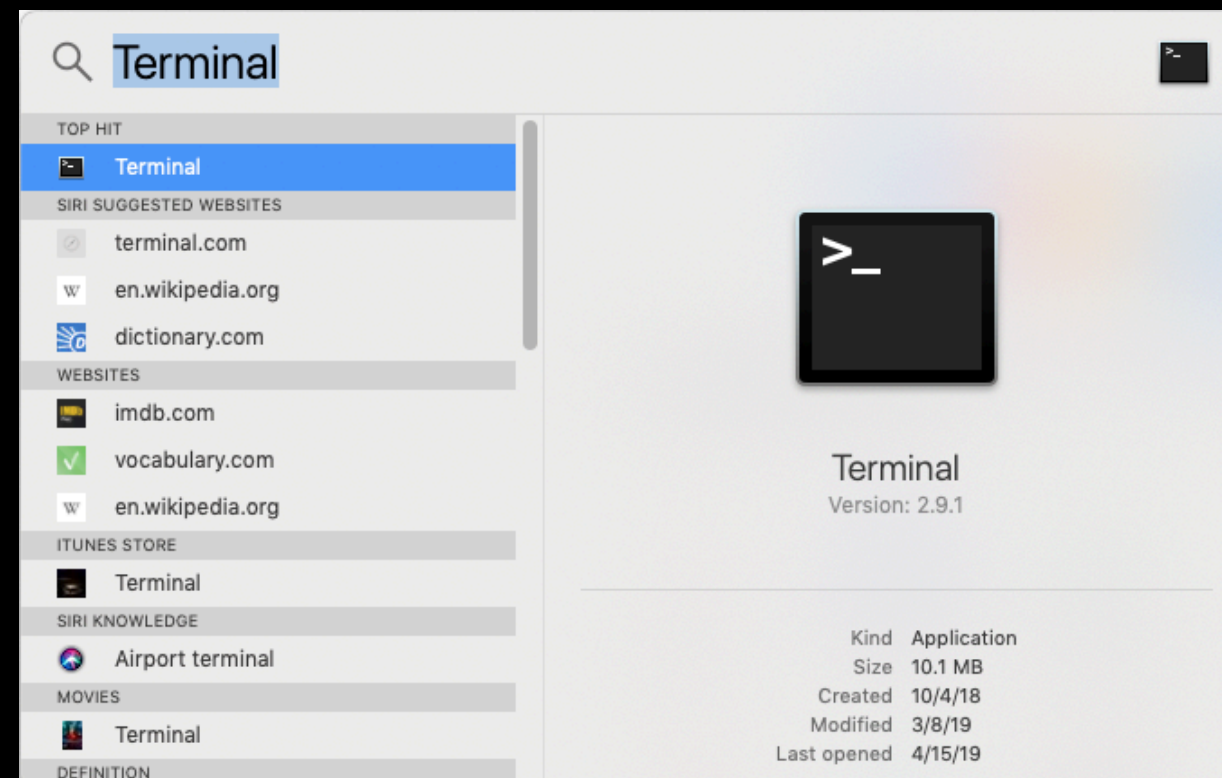


git clone https://github.com/mschnitt/12_Unix_Commands.git

Overview

- Could easily have been “50 Commands Everyone Should Know”
- Picked commands that help accomplish common tasks, or help illustrate deeper concepts
- Sorry if your favorite 12 are not here

The Terminal



- Unix (bash) shell similar environment to Linux
- Powerful abilities without leaving your keyboard

open

\$ man open

OPEN(1)

BSD General Commands Manual

OPEN(1)

NAME

open -- open files and directories

SYNOPSIS

```
open [-e] [-t] [-f] [-F] [-W] [-R] [-n] [-g] [-h] [-b bundle_identifier]  
    [-a application] file ... [--args arg1 ...]
```

DESCRIPTION

The open command opens a file (or a directory or URL), just as if you had double-clicked the file's icon. If no application name is specified, the default application as determined via LaunchServices is used to open the specified files.

If the file is in the form of a URL, the file will be opened as a URL. Opened applications inherit environment variables just as if you had launched the application directly through its full path. This behavior was also present in Tiger.

open

- `open <item to open>`
- Will open a path, file, or URL.
- Uses default application to handle it.
- Great for opening pictures and documents or getting a finder window.

```
$ open /Applications
```

```
$ open /usr/bin
```

```
$ open /Applications/Utilities/Console.app
```

```
$ open http://www.disneyanimation.com
```

```
$ open /Library/Desktop Pictures/Desert\ 2.jpg
```

```
$ open "/Library/Desktop Pictures/Yosemite.jpg"
```

```
$ open -a safari http://www.google.com
```

```
$ open -a google chrome http://disneycareers.com/en/default/
```


diskutil

\$ man diskutil

DISKUTIL(8)

BSD System Manager's Manual

DISKUTIL(8)

NAME

diskutil -- modify, verify and repair local disks

SYNOPSIS

diskutil [quiet] verb [options]

DESCRIPTION

diskutil manipulates the structure of local disks. It provides information about, and allows the administration of, the partitioning schemes, layouts, and formats of disks. This includes hard disks, solid state disks, optical discs, CoreStorage volumes, and AppleRAID sets. It generally manipulates whole volumes instead of individual files and directories.

diskutil

- Command line version of disk utility
- Handy tool for quick disk operations or scripting up disk partitioning.

```
$ diskutil list
```

```
/dev/disk0
```

#:	TYPE	NAME	SIZE	IDENTIFIER
0:	GUID_partition_scheme		*1.0 TB	disk0
1:	EFI	EFI	209.7 MB	disk0s1
2:	Apple_HFS	Monkeywrench_1TB	999.3 GB	disk0s2
3:	Apple_Boot	Recovery HD	650.0 MB	disk0s3

```
/dev/disk1
```

#:	TYPE	NAME	SIZE	IDENTIFIER
0:	GUID_partition_scheme		*2.0 TB	disk1
1:	EFI	EFI	209.7 MB	disk1s1
2:	Apple_HFS	Seagate_2TB	2.0 TB	disk1s2

```
/dev/disk2
```

#:	TYPE	NAME	SIZE	IDENTIFIER
0:	FDisk_partition_scheme		*2.0 TB	disk2
1:	Apple_HFS	Elements_2TB	2.0 TB	disk2s1

diskutil_command.sh

```
$ diskutil info /dev/disk0
```

```
Device Identifier:      disk0
Device Node:           /dev/disk0
Part of Whole:         disk0
Device / Media Name:   ST1000LM024 HN-M101MBB Media
Volume Name:           Not applicable (no file system)
Mounted:               Not applicable (no file system)
File System:           None
Content (IOContent):   GUID_partition_scheme
OS Can Be Installed:   No
Media Type:            Generic
Protocol:              SATA
SMART Status:          Verified
Total Size:            1.0 TB (1000204886016 Bytes) (exactly 1953525168 512-Byte-
Units)
Volume Free Space:     Not applicable (no file system)
Device Block Size:     512 Bytes
Read-Only Media:       No
Read-Only Volume:      Not applicable (no file system)
Ejectable:             No
Whole:                 Yes
Internal:              Yes
Solid State:           No
OS 9 Drivers:          No
Low Level Format:      Not supported
Device Location:       "Lower"
```

[diskutil_command.sh](#)

```
$ diskutil info /dev/disk0s1
```

```
Device Identifier:      disk0s2
Device Node:           /dev/disk0s2
Part of Whole:         disk0
Device / Media Name:   1TB Monkeywrench
```

```
Volume Name:           Monkeywrench_1TB
```

```
Mounted:               Yes
Mount Point:            /
```

```
File System Personality: Journaled HFS+
Type (Bundle):          hfs
Name (User Visible):    Mac OS Extended (Journaled)
Journal:                Journal size 81920 KB at offset 0x1d1c000
Owners:                 Enabled
```

```
Partition Type:        Apple_HFS
OS Can Be Installed:   Yes
Recovery Disk:         disk0s3
Media Type:            Generic
Protocol:              SATA
SMART Status:          Verified
Volume UUID:           EC3A4E85-A530-3E7D-84A2-91EE4559E1F9
Disk / Partition UUID: 84587A55-1BD4-4AA8-9349-26E7148D97B8
```

[diskutil_command.sh](#)

\$ diskutil

Usage: diskutil [quiet] <verb> <options>, where <verb> is as follows:

list	(List the partitions of a disk)
info[rmation]	(Get information on a specific disk or partition)
listFilesystems	(List file systems available for formatting)
activity	(Continuous log of system-wide disk arbitration)
u[n]mount	(Unmount a single volume)
unmountDisk	(Unmount an entire disk (all volumes))
eject	(Eject a disk)
mount	(Mount a single volume)
mountDisk	(Mount an entire disk (all mountable volumes))
enableJournal	(Enable HFS+ journaling on a mounted HFS+ volume)
disableJournal	(Disable HFS+ journaling on a mounted HFS+ volume)
moveJournal	(Move the HFS+ journal onto another volume)
enableOwnership	(Treat as exact User/Group IDs for a mounted volume)
disableOwnership	(Ignore on-disk User/Group IDs for a mounted volume)
rename[Volume]	(Rename a volume)
verifyVolume	(Verify the file system data structures of a volume)
repairVolume	(Repair the file system data structures of a volume)
verifyDisk	(Verify the components of a partition map of a disk)
repairDisk	(Repair the components of a partition map of a disk)
verifyPermissions	(Verify the permissions of a Mac OS X volume)
repairPermissions	(Repair the permissions of a Mac OS X volume)
eraseDisk	(Erase an existing disk, removing all volumes)
eraseVolume	(Erase an existing volume)
reformat	(Erase an existing volume with same name and type)

and more ...

[diskutil_command.sh](#)

Getting Help

- Can be inconsistent
- Looking at the man page
- Typing command by itself
- Sometimes typing “-h” after the command
- Sometimes typing “—help” after the command

ls

```
$ man ls
```

```
LS(1)
```

```
BSD General Commands Manual
```

```
LS(1)
```

NAME

```
ls -- list directory contents
```

SYNOPSIS

```
ls [-ABCFGHLOPRSTUW@abcdefghijklmnopqrstuvwxyz1] [file ...]
```

DESCRIPTION

For each operand that names a file of a type other than directory, `ls` displays its name as well as any requested, associated information. For each operand that names a file of type directory, `ls` displays the names of files contained within that directory, as well as any requested, associated information.

If no operands are given, the contents of the current directory are displayed. If more than one operand is given, non-directory operands are displayed first; directory and non-directory operands are sorted separately and in lexicographical order.

ls

- `ls <options> <path>`
- List contents of a directory or file.
- If path is omitted, current directory is used.
- Very powerful when used with expressions

#List contents of the /Volumes directory

```
$ ls /Volumes
```

#List /usr/bin

```
$ ls /usr/bin
```

#Multiple paths

```
$ ls /usr/bin /usr/sbin/ /bin
```

#What if you know some of the path? Use a wildcard.

```
$ ls /usr/sbin/ds*
```

```
$ ls /usr/*bin/ds*
```

#One File Per Line

```
$ ls -l /usr/sbin/ds*
```

#Long File Listing

```
$ ls -l /usr/sbin/ds*
```

#Hidden Files In My Home Directory

```
$ ls -a ~
```

#Long Listing

```
$ ls -la ~
```

#The current directory and parent directory

```
$ ls .
```

```
$ ls ..
```

#What if you know some of the path?

```
$ ls /usr/bin/ds*
```

#Any two letter commands starting with d?

```
$ ls /usr/bin/d?
```

#Three characters

```
$ ls /usr/bin/???
```

#Any three lowercase letters.

```
$ ls /usr/sbin/[a-z][a-z][a-z]
```

ls_command.sh

Recap Special Characters (So Far)

- Backslash “\” to “escape” characters
- Tilde “~” for your home directory
- Question mark “?” For a single letter or number
- Star “*” wildcard for many characters

POSIX Permissions

- User/Group/World
- Read/Write/Execute
- Traditionally in /etc/passwd and /etc/group

inodes

- POSIX representation of File, Directory, link
- Not used in HFS, but has corresponding components
- Much of what you see and can do is based on this older structure.
- Try “stat” on a file.

chmod

\$ man chmod

CHMOD(1)

BSD General Commands Manual

CHMOD(1)

NAME

chmod -- change file modes or Access Control Lists

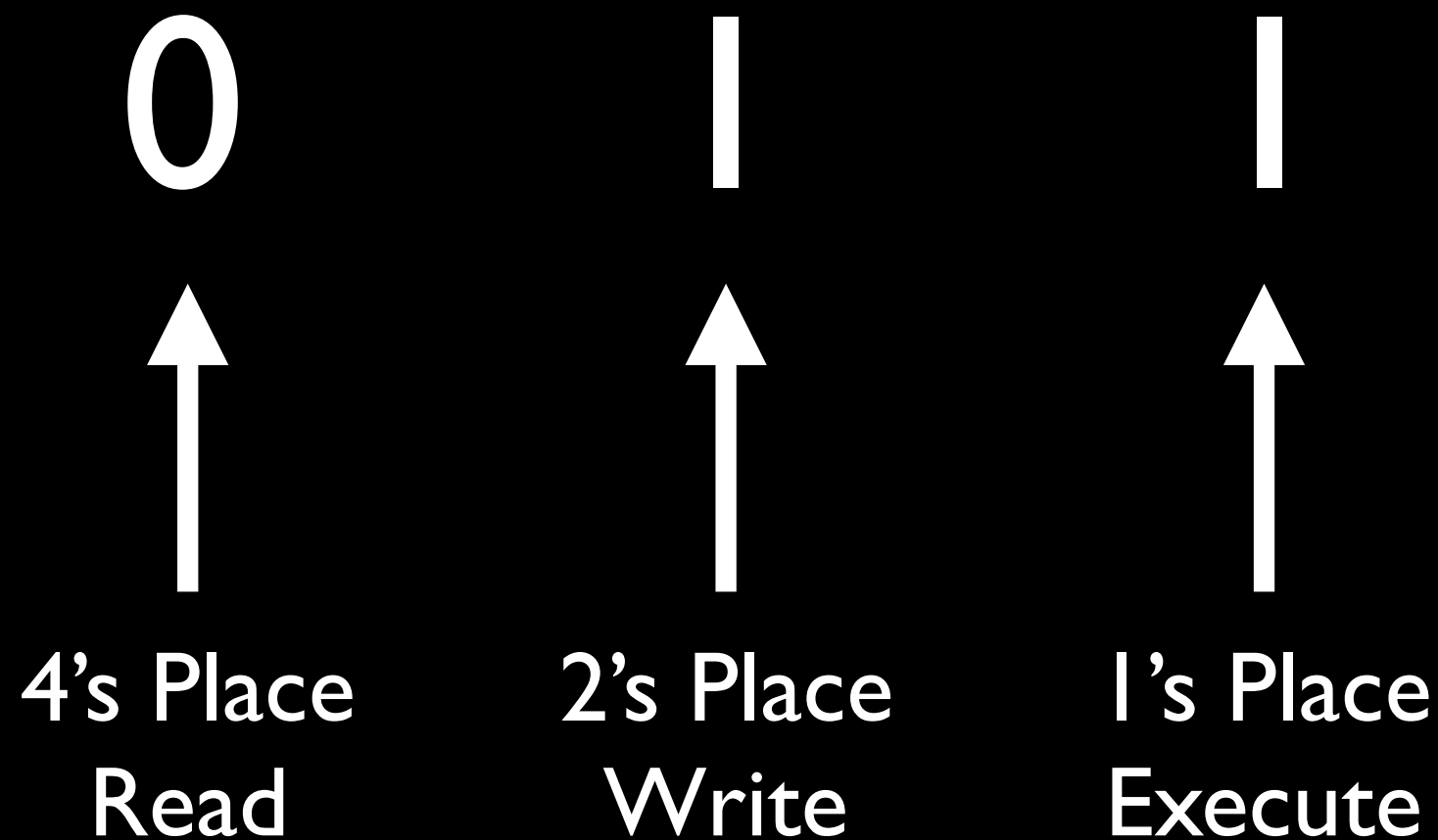
SYNOPSIS

```
chmod [-fv] [-R [-H | -L | -P]] mode file ...  
chmod [-fv] [-R [-H | -L | -P]] [-a | +a | =a] ACE file ...  
chmod [-fhv] [-R [-H | -L | -P]] [-E] file ...  
chmod [-fhv] [-R [-H | -L | -P]] [-C] file ...  
chmod [-fhv] [-R [-H | -L | -P]] [-N] file ...
```

DESCRIPTION

The chmod utility modifies the file mode bits of the listed files as specified by the mode operand. It may also be used to modify the Access Control Lists (ACLs) associated with the listed files.

Binary Tastes Great



000	=	0
001	=	1
010	=	2
011	=	3
100	=	4
101	=	5
110	=	6
111	=	7

chmod bits

	Read 4	Write 2	Execute 1	Total
Read Only	1	0	0	4
Read + Execute	1	0	1	5
Read + Write	1	1	0	6
Everything	1	1	1	7

#Create a testfile

```
$ touch testfile
```

#Give all permission to owner. Read Only to everyone else

```
$ chmod 744 testfile
```

```
$ ls -l testfile
```

```
-rwxr--r--  1 mschnitt  wheel  0 Jul  5 15:44 testfile
```

#or

```
$ chmod a-rwx testfile
```

```
$ chmod u+rwx testfile
```

```
$ chmod g+r testfile
```

```
$ chmod a+r testfile
```

```
$ ls -l testfile
```

```
-rwxr--r--  1 mschnitt  wheel  0 Jul  5 15:44 testfile
```

#Make the file readable by everyone

```
$ chmod 444 testfile
```

#or

```
$ chmod a+r testfile
```

```
$ ls -l testfile
```

```
-r--r--r--  1 mschnitt  wheel  0 Jul  5 15:44 testfile
```

#Make the file readable and executable by everyone

```
$ chmod 555 testfile
```

#or

```
$ chmod a+rx testfile
```

```
$ ls -l testfile
```

```
-r-xr-xr-x  1 mschnitt  wheel  0 Jul  5 15:44 testfile
```

#Give all permissions to file owner, but none to others

```
$ chmod 700 testfile
```

#or

```
$ chmod a-rwx
```

```
$ chmod u+rwx testfile
```

```
$ ls -l testfile
```

```
-rwx---  1 mschnitt  wheel  0 Jul  5 15:44 testfile
```

[chmod_chown_commands.sh](#)

chown

\$ man chown

CHOWN(8)

BSD System Manager's Manual

CHOWN(8)

NAME

chown -- change file owner and group

SYNOPSIS

```
chown [-fhv] [-R [-H | -L | -P]] owner[:group] file ...  
chown [-fhv] [-R [-H | -L | -P]] :group file ...
```

DESCRIPTION

The **chown** utility changes the user ID and/or the group ID of the specified files. Symbolic links named by arguments are silently left unchanged unless **-h** is used.

chown

- `chown <user> <item>`
- Change ownership of a directory or file
- If path is omitted, current directory is used.

```
#Create file and change ownership
$ touch testfile
#Might need "sudo" for this one
$ chown nobody testfile
$ ls -l testfile
-rwxr--r--  1 nobody  staff  0 Apr 20 10:32 testfile

#Change it back to me.
$ chown $USER testfile
$ ls -l testfile
-rw-r--r--  1 mschnitt  wheel  0 Jul  5 15:44 testfile
```

du

\$ man du

DU(1)

BSD General Commands Manual

DU(1)

NAME

du -- display disk usage statistics

SYNOPSIS

du [-H | -L | -P] [-a | -s | -d depth] [-c] [-h | -k | -m | -g] [-x]
[-I mask] [file ...]

DESCRIPTION

The du utility displays the file system block usage for each file argument and for each directory in the file hierarchy rooted in each directory argument. If no file is specified, the block usage of the hierarchy rooted in the current directory is displayed.

du

- `du <options> <path>`
- Gives disk usage.
- Can take a long time to run since it has to tally up the usage.

#How much space am I using in /Applications?

```
$ du -ks /Applications/Safari.app
```

#Space taken by users folders? You need admin for this.

```
$ sudo du -ks /Users
```

#Personal Library Folder and list all files?

```
$ du -hs ~/Library/Application\ Support/
```

df

\$ man df

DF(1)

BSD General Commands Manual

DF(1)

NAME

df -- display free disk space

SYNOPSIS

df [-b | -h | -H | -k | -m | -g | -P] [-ailn] [-t] [-T type]
[file | filesystem ...]

LEGACY SYNOPSIS

df [-b | -h | -H | -k | -m | -P] [-ailn] [-t type] [-T type] [file |
filesystem ...]

DESCRIPTION

The df utility displays statistics about the amount of free disk space on the specified filesystem or on the filesystem of which file is a part. Values are displayed in 512-byte per block counts. If neither a file or a filesystem operand is specified, statistics for all mounted filesystems are displayed (subject to the -t option below).

df

- `df <options> <path>`
- Gives free space on disk
- Usually runs quickly.

```
## df -k
```

filesystem	1024-blocks	Used	Available	Capacity	iused	ifree	%iused	Mounted on
/dev/disk0s2	975922976	283462440	692204536	30%	70929608	173051134	29%	/

```
$ df -h
```

Filesystem	Size	Used	Avail	Capacity	iused	ifree	%iused	Mounted on
/dev/disk0s2	931Gi	270Gi	660Gi	30%	70929686	173051056	29%	/
devfs	189Ki	189Ki	0Bi	100%	652	0	100%	/dev
map -hosts	0Bi	0Bi	0Bi	100%	0	0	100%	/net
map auto_home	0Bi	0Bi	0Bi	100%	0	0	100%	/home
/dev/disk1s2	1.8Ti	702Gi	1.1Ti	38%	183978721	304315945	38%	/Volumes/Sgt_2TB
/dev/disk2s1	1.8Ti	876Gi	987Gi	48%	229615733	258762121	47%	/Volumes/Elem_2TB
/dev/disk3s0	32Mi	32Mi	0Bi	100%	0	0	100%	/Volumes/SCHNITTK

```
$ df -h /Volumes/*
```

Filesystem	Size	Used	Avail	Capacity	iused	ifree	%iused	Mounted on
/dev/disk3s0	32Mi	32Mi	0Bi	100%	0	0	100%	/Volumes/SCHNITTK
/dev/disk2s1	1.8Ti	876Gi	987Gi	48%	229615733	258762121	47%	/Volumes/Elem_2TB
/dev/disk0s2	931Gi	270Gi	660Gi	30%	70928560	173052182	29%	/
/dev/disk1s2	1.8Ti	702Gi	1.1Ti	38%	183978721	304315945	38%	/Volumes/Sgt_2TB

du_df_commands.sh

find

\$ man find

FIND(1)

BSD General Commands Manual

FIND(1)

NAME

find -- walk a file hierarchy

SYNOPSIS

```
find [-H | -L | -P] [-EXdsx] [-f path] path ... [expression]  
find [-H | -L | -P] [-EXdsx] -f path [path ...] [expression]
```

DESCRIPTION

The find utility recursively descends the directory tree for each path listed, evaluating an expression (composed of the ``primaries'' and ``operands'' listed below) in terms of each file in the tree.

find

- `find <path> <options>`
- Searches through folder hierarchy
- Commonly used to find things by name, modification date, type or size.
- Can also run commands

#Find the path to the Terminal App

```
$ find /Applications -name "Terminal.app"  
/Applications/Utilities/Terminal.app
```

#Find applications changed in the last 5 days

```
$ find /Applications -mtime -5 -name "*.app"
```

#Be careful with searching “/”

```
$ find / -name ls
```

#Directories owned by root in the current directory

```
$ find . -type d -uid root  
<output not shown>
```

#Symbolic Links in my home directory

```
$ find ~ -type l  
<output not shown>
```

```
#Sometimes, permissions are a problem, use sudo!  
$ find /Volumes -type d -depth 2  
find: /Volumes/Elements_2TB/.Trashes: Permission denied
```

```
#sudo to the rescue!  
$ sudo find /Volumes -type d -depth 2
```

```
#Find Large Files in your users directory  
$ sudo find /Users -size +1000k
```

```
# ...and modified in the last 2 days  
$ sudo find /Users -size +1000k -mtime +2
```


#Send output to ls

```
$ find ~ -type f -size +50000k -exec ls -l {} \;
```

<output not shown>

#Size listing of directories

```
$ find ~ -type d -exec du -sk {} \;
```

#Also useful for removing files.. but let's not run this one.

```
$ find . -mtime +100 -exec rm {} \;
```

#Remove .DS_Store files

```
$ find . -name .DS_Store -exec rm {} \;
```

grep

\$ man grep

GREP(1)

BSD General Commands Manual

GREP(1)

NAME

grep, egrep, fgrep, zgrep, zegrep, zfgrep -- file pattern searcher

SYNOPSIS

```
grep [-abcdDEFGHhIiJLlmnOopqRSsUVvwXZ] [-A num] [-B num] [-C[num]] [-e pattern]  
      [-f file] [--binary-files=value] [--color[=when]] [--colour[=when]]  
      [--context[=num]] [--label] [--line-buffered] [--null] [pattern] [file ...]
```

DESCRIPTION

The **grep** utility searches any given input files, selecting lines that match one or more patterns. By default, a pattern matches an input line if the regular expression (RE) in the pattern matches the input line without its trailing newline. An empty expression matches every line. Each input line that matches at least one of the patterns is written to the standard output.

grep is used for simple patterns and basic regular expressions (BREs); **egrep** can handle extended regular expressions (EREs). See `re_format(7)` for more information on regular expressions. **fgrep** is quicker than both **grep** and **egrep**, but can only handle fixed patterns (i.e. it does not interpret regular expressions).

grep

- `grep <options> <pattern> <file>`
- Looks for patterns within files.
- Supports regular expressions

#Find a string in a file

```
$ grep root /etc/passwd
```

```
root:*:0:0:System Administrator:/var/root:/bin/sh
```

```
daemon:*:1:1:System Services:/var/root:/usr/bin/false
```

#Case Insensitive

```
$ grep -i version /Applications/Safari.app/Contents/Info.plist
```

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<plist version="1.0">
```

```
  <key>CFBundleInfoDictionaryVersion</key>
```

#Grep through multiple things at once

```
$ grep -i version /Applications/*.app/Contents/Info.plist
```

#Grep with Regular Expressions (Advanced)

```
grep "[0-9+]\.[0-9+]\.[0-9+]" /Applications/*/Contents/  
Info.plist
```

#Pipe into grep

```
$ find ~ -type d | grep Mozilla
```

#Match can be a single letter

```
$ ls /Applications | grep i
```

#Or, something more complex

```
$ ls /Applications | grep Safari
```

#Find bits from the environment

```
$ env | grep HOME
```

```
$ env | grep USER
```

top

\$ man top

op(1)

top(1)

NAME

top - display and update sorted information about processes

DESCRIPTION

The top program periodically displays a sorted list of system processes. The default sorting key is pid, but other keys can be used instead. Various output options are available.

OPTIONS

Command line option specifications are processed from left to right. Options can be specified more than once. If conflicting options are specified, later specifications override earlier ones. This makes it viable to create a shell alias for top with preferred defaults specified, then override those preferred defaults as desired

#top

Load Avg: 2.45, 2.45, 2.80 CPU usage: 19.81% user, 15.56% sys, 64.62% idle

SharedLibs: 12M resident, 19M data, 0B linkedit.

MemRegions: 58698 total, 2848M resident, 124M private, 1047M shared.

PhysMem: 7849M used (1332M wired), 343M unused.

VM: 611G vsize, 1065M framework vsize, 0(0) swapins, 0(0) swapouts.

Networks: packets: 9901086/13G in, 2549058/198M out. Disks: 1014451/24G read, 662307/35G written.

PID	COMMAND	%CPU	TIME	#TH	#WQ	#PORT	MEM	PURG	CMPRS	PGRP	PPID	STATE
80099	top	4.2	00:00.46	1/1	0	19	2752K	0B	0B	80099	78189	running
80067	QuickLookSat	0.0	00:00.29	3	1	42	11M	0B	0B	80067	1	stuck
80066	quicklookd	0.0	00:00.22	4	0	86	8404K	0B	0B	80066	1	sleeping
79965	mdworker	0.0	00:00.62	25	22	93	8548K	0B	0B	79965	1	sleeping
79960	mdworker	0.0	00:00.04	3	0	50	1520K	0B	0B	79960	1	sleeping
79953	com.apple.iC	0.0	00:00.13	2	0	45	1724K	0B	0B	79953	1	sleeping
78189	bash	0.0	00:00.12	1	0	15	620K	0B	0B	78189	77854	sleeping
77897	printtool	0.0	00:00.02	2	1	29	984K	0B	0B	77897	1	sleeping
77854	login	0.0	00:00.04	2	0	26	932K	0B	0B	77854	419	sleeping
4564	Google Chrom	0.0	00:03.28	8	0	98	32M	0B	0B	3501	3501	sleeping
4532	Google Chrom	7.9	14:00.95	25	0	72	76M	0B	0B	3501	3501	sleeping
4529	Google Chrom	3.0	03:56.60	10	0	100	101M	0B	0B	3501	3501	sleeping
4502-	crash-catche	0.0	00:00.02	2	0	34	1160K	0B	0B	4502	4499	sleeping
4499-	TextWrangler	0.0	00:50.42	3	0	291	44M	92K	0B	4499	1	sleeping
4442	DashboardCli	0.0	00:10.15	8	0	277	100M	3608K	0B	420	420	sleeping

top_command.sh

mv

```
$ man mv
```

MV(1)

BSD General Commands Manual

MV(1)

NAME

mv -- move files

SYNOPSIS

```
mv [-f | -i | -n] [-v] source target  
mv [-f | -i | -n] [-v] source ... directory
```

DESCRIPTION

In its first form, the mv utility renames the file named by the source operand to the destination path named by the target operand. This form is assumed when the last operand does not name an already existing directory.

In its second form, mv moves each file named by a source operand to a destination file in the existing directory named by the directory operand. The destination path for each operand is the pathname produced by the concatenation of the last operand, a slash, and the final pathname component of the named file.

mv

- `mv <source> <destination>`
- Move a file to a new location or rename

#Create a test file

```
$ touch myfile
```

```
$ ls myfile
```

#Simple file move

```
$ mv myfile yourfile
```

```
$ ls myfile
```

```
$ ls yourfile
```

yourfile

#Move From One Directory To Another

```
$ mkdir testdir1
```

```
$ mkdir testdir2
```

```
$ touch testdir1/myfile
```

```
$ mv testdir1/myfile testdir2/myfile
```

rsync

```
$ man rsync
```

```
sync(1)
```

```
rsync(1)
```

NAME

rsync - faster, flexible replacement for rcp

DESCRIPTION

rsync is a program that behaves in much the same way that rcp does, but has many more options and uses the rsync remote-update protocol to greatly speed up file transfers when the destination file is being updated.

The rsync remote-update protocol allows rsync to transfer just the differences between two sets of files across the network connection, using an efficient checksum-search algorithm described in the technical report that accompanies this package.

rsync

- `rsync <options> <source> <destination>`
- Used to copy a directory tree from one location to another.
- Can be run multiple times to pick up changes
- Great for migrating user data or filesystems.

```
#Copy your downloads folder to /tmp  
$ rsync -av ~/Downloads/ /tmp/
```

```
#Backup your home folder to /tmp  
$ rsync -av $HOME /tmp
```

What We Covered

- open
- diskutil
- ls
- chmod
- chown
- du
- df
- find
- grep
- top
- mv
- rsync

We Also Talked About

- man
- . .. ~
- rm
- env
- touch
- mkdir
- \$HOME
- \$USER
- Regular Expressions
- Pipe “|”
- Base2 (Binary)
- sudo

So Much More

- cd / pwd
- Sort
- sed / awk
- mkdir / rmdir / ln
- who / finger
- shutdown / uptime
- more / less / cat / head
- kill
- uname
- pkgutil
- system_profiler
- mount
- ifconfig / netstat
- wc

Thanks!

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