

Key Linux Commands

Documentation:

- ✓ man - Format and display the on-line manual pages
- ✓ help - Display help info about Bash builtin commands
- ✓ info - Read/display Info documents
 - manpath - Determine user's search path for man pages
 - apropos - Search the whatis database for strings
- ✓ whatis - Search the whatis database for complete words

Information:

- ✓ which - Shows the full path of (shell) commands
- ✓ whereis - Locate the binary, source, and manual page files for a command
- ✓ locate, slocate - Find file paths containing string using slocate database
- ✓ find - Search for files in a directory hierarchy
 - type - Show if command is alias, etc.
 - file - Determine type of file
 - printenv - Print one (or all) environment variable values
 - hostname - Show or set the system's host name
 - uname - Print system (kernel, etc.) information
 - uptime - Tell how long the system has been running
 - free - Display amount of free and used memory in the system
 - vmstat - Report virtual memory statistics
 - dmesg - Print or control the kernel ring buffer (e.g., boot messages)
- ✓ alias - Show (or set) alias value for command
 - unalias - Remove/unset alias
- declare - Show (or set) shell variables/functions [builtin]
- ✓ id - Print UID and GID info for username

Files:

- ✓ cat - Concatenate files and print on the standard output
- ✓ tac - Concatenate and print files in reverse
- ✓ more, less - Output file page by page
- ✓ tail - Output the last part of files
- ✓ head - Output the first part of files
- ✓ rm - Remove files or directories
- ✓ mv - Move (rename) files
- ✓ cp - Copy files and directories
- ✓ dd - Convert and copy a file
 - touch - Change file timestamps (or create empty file)
 - ln - Make links between files
- ✓ grep, egrep, fgrep - Print lines matching a pattern
- ✓ wc - Print the number of newlines, words, and bytes in files
- ✓ chmod - Change file access permissions
- ✓ chown - Change file owner (and group)
- ✓ chgrp - Change group ownership
 - stat - Display file or filesystem status
 - od - Dump files in octal and other formats
- ✓ source - Read and execute commands in a file [builtin]

seq 1 10

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Directories:

- ✓ ls - List directory contents
- ✓ pwd - Print name of current working directory
- ✓ cd - Change directory
- ✓ mkdir - Make directories
- ✓ rmdir - Remove empty directories
- ✓ du - Estimate file space usage
 - pushd - cd and add directory to the directory stack [builtin]
 - popd - Remove directory from directory stack and cd [builtin]
 - dirs - Display the currently remembered directories [builtin]

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Environment Variables:

printenv - Print one (or all) environment variable values
export - Make environment variable be inherited by children [builtin]
unset - Remove/undefine a variable [builtin]
env - Run a program in a modified environment

Processes:

ps - Snapshot of the current processes
pstree - Display a tree of processes
top - Display current processes (realtime)
kill - Terminate a process (send a signal)
fuser, lsof - Identify processes using files or sockets
id - Print UID and GID info for current process
nice - Run a program with modified scheduling priority
renice - Alter priority of running process(es)
umask - Set process' file creation permissions mask [builtin]
ulimit - Control process resources limits [builtin]

Filters:

basename - Strip directory and suffix
cat - Concatenate and write files
csplit - Split by context
cut - Print selected parts of lines
dirname - Strip non-directory suffix
envsubst - Convert shell vars to environment values
expand - Convert tabs to spaces
fmt - Reformat paragraph text
fold - Wrap long input lines
✓ grep, egrep, fgrep - Print lines matching a pattern
✓ head - Output the first part of files
join - Join lines on a common field
nl - Number lines and write files
paste - Merge lines of files
pr - Paginate or columnate files
sed - Stream editor
seq - Print a sequence/list of numbers
sort - Sort text files
split - Split into fixed-size pieces
tac - Reverse files
✓ tail - Output the last part of files
tee - Redirect to multiple files
tr - Translate characters
tsort - Topological sort
unexpand - Convert spaces to tabs
uniq - Uniquify files
xargs - Convert standard input to command argument(s)

Filesystems/devices:

✓ df - Report filesystem disk space usage
✓ mount - Mount a filesystem
✓ umount - Unmount filesystem
✓ fdisk, cfdisk, sfdisk - Manipulate disk partition table
mkfs - Build a Linux file system
fsck - Check and repair a Linux file system
debugfs - Ext2/ext3 file system debugger
mkswap - Set up a Linux swap area
swapon, swapoff - Enable/disable devices and files for swapping
mknod - Make block or character special files
✓ dd - Convert and copy a file

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File Comparison:

diff - Compare 2 files line by line
cmp - Compare 2 files byte by byte
comm - Compare sorted files by line
diff3 - Compare 3 files line by line
sdiff - Merge 2 files side-by-side
patch - apply a diff file to an original

Archiving and Compression:

tar - Package/unpackage files (archive)
gzip, gunzip - Compress or expand files
zip, unzip - Package and compress (archive) files
bzip2, bunzip2 - Compress or expand files
bzip2 - decompresses files to stdout
compress, uncompress - Compress or expand files (old)
cpio - Copy files to and from archives

Login, Shell/Command, Logout:

✓ su - Run as a substitute user (e.g., root)
✓ sudo - Execute a command as another user (e.g., root)
✓ exit - Exit a shell
✓ logout - Logout/exit a login shell (e.g., SSH shell)
✓ chroot - Run command or interactive shell with special root directory

Remote Login and File Transfer:

ssh - Secure remote login/shell
sftp - Secure file transfer program
scp - Secure remote file copy
rsh - Remote login/shell (insecure!)
rlogin - Remote login (insecure!)
ftp - File transfer program (insecure!)
rcp - Remote file copy (insecure!)

Users:

✓ passwd - Update a user's password
chsh - Change your login shell
✓ useradd - Create a new user or update default new user information
✓ userdel - Delete a user account and related files
✓ usermod - Modify a user account
groupadd - Create a new group
groupdel - Delete a group
groupmod - Modify a group

Printing and Formatting:

lpr - Print files
lpq - Show printer queue status
lprm - Cancel print jobs
lpstat - Print cups status information
enscript - Convert text files to PostScript for printing, etc.
a2ps - Format files for printing on a PostScript printer
mpage - print multiple pages per sheet on PostScript printer

Bootting, Startup, Shutdown:

lilo - Install LILO boot loader
grub - Run the GRUB (boot loader) shell
init, telinit - Change system runlevel
halt, reboot, poweroff - Stop the system
shutdown - Bring the system down

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Network:

ping, ping6 - Send ICMP ECHO_REQUEST to network hosts
traceroute - Print the route packets take to network host
ifconfig - Configure a network interface
ifup, ifdown - Start/stop a network interface
route - Show/manipulate the IP routing table
netstat - Print network connections, routing tables, etc.
host, dig, nslookup - DNS lookup utilities
whois - Client for the whois directory service (DNS)
iptables - Administration tool for IPv4 packet filtering and NAT
arp - Manipulate the system ARP cache
arping - Send ARP REQUEST to a neighbour host

Terminal:

stty - Change and print terminal line settings
reset, tset - Terminal initialization
clear - Clear the terminal screen

Job Control:

jobs - List jobs (running in background)
fg - Move job to foreground
bg - Move job to background

Kernel Modules:

lsmod - Show the status of Linux kernel modules
modprobe - Add and remove modules from the Linux kernel
insmod - Insert a module into the Linux kernel
rmmod - Remove a module from the Linux kernel
modinfo - Show information about a Linux kernel module
mkinitrd - Creates initial ramdisk images for preloading modules

Hardware:

hdparm - Get/set hard disk parameters
lshw - List hardware
lspci - List all PCI devices
lsscsi - List all SCSI devices
lsusb - List USB devices
usbview - Display information on USB devices
usbmodules - List kernel driver modules available for a USB device

Misc:

md5sum, shasum - Compute and check MD5, SHA1 message digest (checksum)
service - Start/stop/restart/status a system service/daemon
chkconfig - Update/query runlevel information for system services
watch - Execute a program periodically, showing output fullscreen
screen - Terminal manager/multiplexer (multiple shells on a console)
sysctl - Configure kernel parameters at runtime
ldconfig - Update link bindings info for shared libraries
ldd - Print shared library dependencies for an executable
mkrescue - Make rescue floppy
date - Print or set the system date and time
hwclock - Query and set the hardware clock (RTC)
ntpdate - Set the system date and time via NTP
true, false - Do nothing, successfully, unsuccessfully
mail, nail - Send and receive mail (command line)