

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  
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
```

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
```

Environment Variables:

```
-----  
printenv - Print one (or all) environment variable values  
export - Make environment variable be inherited by children  
env - Run a program in a modified environment
```

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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  
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)
```

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
```

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
```

Key Linux Commands

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  
bzcat - 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
```

Booting, 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
```

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
```

Key Linux Commands

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
```

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 - Compute and check MD5 message digest  
sha1sum - Compute and check SHA1 message digest  
  
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 - Do nothing, successfully  
false - Do nothing, unsuccessfully  
  
mail, nail - Send and receive mail (command line)
```