Linux Commands Cheat Sheet

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Did you know that there are literally hundreds of Linux commands? Even on a bare-bones Linux server install there are easily over 1,000 different commands.

The interesting thing is that most people only need to use a very small subset of those commands. Below you’ll find a Linux “cheat sheet” that breaks down some of the most commonly used commands by category.

To get your own PDF and printable copy, scroll to the bottom of the page.

Enjoy!

**Contents** [[hide](https://www.linuxtrainingacademy.com/linux-commands-cheat-sheet/)]

* [1 – SYSTEM INFORMATION](https://www.linuxtrainingacademy.com/linux-commands-cheat-sheet/#1_8211_SYSTEM_INFORMATION)
* [2 – HARDWARE INFORMATION](https://www.linuxtrainingacademy.com/linux-commands-cheat-sheet/#2_8211_HARDWARE_INFORMATION)
* [3 – PERFORMANCE MONITORING AND STATISTICS](https://www.linuxtrainingacademy.com/linux-commands-cheat-sheet/#3_8211_PERFORMANCE_MONITORING_AND_STATISTICS)
* [4 – USER INFORMATION AND MANAGEMENT](https://www.linuxtrainingacademy.com/linux-commands-cheat-sheet/#4_8211_USER_INFORMATION_AND_MANAGEMENT)
* [5 – FILE AND DIRECTORY COMMANDS](https://www.linuxtrainingacademy.com/linux-commands-cheat-sheet/#5_8211_FILE_AND_DIRECTORY_COMMANDS)
* [6 – PROCESS MANAGEMENT](https://www.linuxtrainingacademy.com/linux-commands-cheat-sheet/#6_8211_PROCESS_MANAGEMENT)
* [7 – FILE PERMISSIONS](https://www.linuxtrainingacademy.com/linux-commands-cheat-sheet/#7_8211_FILE_PERMISSIONS)
* [8 – NETWORKING](https://www.linuxtrainingacademy.com/linux-commands-cheat-sheet/#8_8211_NETWORKING)
* [9 – ARCHIVES (TAR FILES)](https://www.linuxtrainingacademy.com/linux-commands-cheat-sheet/#9_8211_ARCHIVES_TAR_FILES)
* [10 – INSTALLING PACKAGES](https://www.linuxtrainingacademy.com/linux-commands-cheat-sheet/#10_8211_INSTALLING_PACKAGES)
* [11 – SEARCH](https://www.linuxtrainingacademy.com/linux-commands-cheat-sheet/#11_8211_SEARCH)
* [12 – SSH LOGINS](https://www.linuxtrainingacademy.com/linux-commands-cheat-sheet/#12_8211_SSH_LOGINS)
* [13 – FILE TRANSFERS](https://www.linuxtrainingacademy.com/linux-commands-cheat-sheet/#13_8211_FILE_TRANSFERS)
* [14 – DISK USAGE](https://www.linuxtrainingacademy.com/linux-commands-cheat-sheet/#14_8211_DISK_USAGE)
* [15 – DIRECTORY NAVIGATION](https://www.linuxtrainingacademy.com/linux-commands-cheat-sheet/#15_8211_DIRECTORY_NAVIGATION)

1 – SYSTEM INFORMATION

# Display Linux system information

uname -a

# Display kernel release information

uname -r

# Show which version of redhat installed

cat /etc/redhat-release

# Show how long the system has been running + load

uptime

# Show system host name

hostname

# Display the IP addresses of the host

hostname -I

# Show system reboot history

last reboot

# Show the current date and time

date

# Show this month's calendar

cal

# Display who is online

w

# Who you are logged in as

whoami

2 – HARDWARE INFORMATION

# Display messages in kernel ring buffer

dmesg

# Display CPU information

cat /proc/cpuinfo

# Display memory information

cat /proc/meminfo

# Display free and used memory ( -h for human readable, -m for MB, -g for GB.)

free -h

# Display PCI devices

lspci -tv

# Display USB devices

lsusb -tv

# Display DMI/SMBIOS (hardware info) from the BIOS

dmidecode

# Show info about disk sda

hdparm -i /dev/sda

# Perform a read speed test on disk sda

hdparm -tT /dev/sda

# Test for unreadable blocks on disk sda

badblocks -s /dev/sda

3 – PERFORMANCE MONITORING AND STATISTICS

# Display and manage the top processes

top

# Interactive process viewer (top alternative)

htop

# Display processor related statistics

mpstat 1

# Display virtual memory statistics

vmstat 1

# Display I/O statistics

iostat 1

# Display the last 100 syslog messages  (Use /var/log/syslog for Debian based systems.)

tail 100 /var/log/messages

# Capture and display all packets on interface eth0

tcpdump -i eth0

# Monitor all traffic on port 80 ( HTTP )

tcpdump -i eth0 'port 80'

# List all open files on the system

lsof

# List files opened by user

lsof -u user

# Display free and used memory ( -h for human readable, -m for MB, -g for GB.)

free -h

# Execute "df -h", showing periodic updates

watch df -h

4 – USER INFORMATION AND MANAGEMENT

# Display the user and group ids of your current user.

id

# Display the last users who have logged onto the system.

last

# Show who is logged into the system.

who

# Show who is logged in and what they are doing.

w

# Create a group named "test".

groupadd test

# Create an account named john, with a comment of "John Smith" and create the user's home directory.

useradd -c "John Smith" -m john

# Delete the john account.

userdel john

# Add the john account to the sales group

usermod -aG sales john

5 – FILE AND DIRECTORY COMMANDS

# List all files in a long listing (detailed) format

ls -al

# Display the present working directory

pwd

# Create a directory

mkdir directory

# Remove (delete) file

rm file

# Remove the directory and its contents recursively

rm -r directory

# Force removal of file without prompting for confirmation

rm -f file

# Forcefully remove directory recursively

rm -rf directory

# Copy file1 to file2

cp file1 file2

# Copy source\_directory recursively to destination. If destination exists, copy source\_directory into destination, otherwise create destination with the contents of source\_directory.

cp -r source\_directory destination

# Rename or move file1 to file2. If file2 is an existing directory, move file1 into directory file2

mv file1 file2

# Create symbolic link to linkname

ln -s /path/to/file linkname

# Create an empty file or update the access and modification times of file.

touch file

# View the contents of file

cat file

# Browse through a text file

less file

# Display the first 10 lines of file

head file

# Display the last 10 lines of file

tail file

# Display the last 10 lines of file and "follow" the file as it grows.

tail -f file

6 – PROCESS MANAGEMENT

# Display your currently running processes

ps

# Display all the currently running processes on the system.

ps -ef

# Display process information for processname

ps -ef | grep processname

# Display and manage the top processes

top

# Interactive process viewer (top alternative)

htop

# Kill process with process ID of pid

kill pid

# Kill all processes named processname

killall processname

# Start program in the background

program &

# Display stopped or background jobs

bg

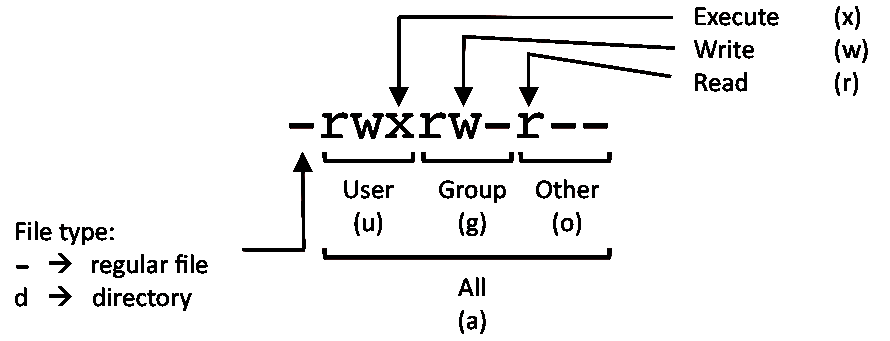
# Brings the most recent background job to foreground

fg

# Brings job n to the foreground

fg n

7 – FILE PERMISSIONS



        PERMISSION      EXAMPLE

         U   G   W

        rwx rwx rwx     chmod 777 filename

        rwx rwx r-x     chmod 775 filename

        rwx r-x r-x     chmod 755 filename

        rw- rw- r--     chmod 664 filename

        rw- r-- r--     chmod 644 filename

# NOTE: Use 777 sparingly!

        LEGEND

        U = User

        G = Group

        W = World

        r = Read

        w = write

        x = execute

        - = no access

8 – NETWORKING

# Display all network interfaces and ip address

ifconfig -a

# Display eth0 address and details

ifconfig eth0

# Query or control network driver and hardware settings

ethtool eth0

# Send ICMP echo request to host

ping host

# Display whois information for domain

whois domain

# Display DNS information for domain

dig domain

# Reverse lookup of IP\_ADDRESS

dig -x IP\_ADDRESS

# Display DNS ip address for domain

host domain

# Display the network address of the host name.

hostname -i

# Display all local ip addresses

hostname -I

# Download http://domain.com/file

wget http://domain.com/file

# Display listening tcp and udp ports and corresponding programs

netstat -nutlp

9 – ARCHIVES (TAR FILES)

# Create tar named archive.tar containing directory.

tar cf archive.tar directory

# Extract the contents from archive.tar.

tar xf archive.tar

# Create a gzip compressed tar file name archive.tar.gz.

tar czf archive.tar.gz directory

# Extract a gzip compressed tar file.

tar xzf archive.tar.gz

# Create a tar file with bzip2 compression

tar cjf archive.tar.bz2 directory

# Extract a bzip2 compressed tar file.

tar xjf archive.tar.bz2

10 – INSTALLING PACKAGES

# Search for a package by keyword.

yum search keyword

# Install package.

yum install package

# Display description and summary information about package.

yum info package

# Install package from local file named package.rpm

rpm -i package.rpm

# Remove/uninstall package.

yum remove package

# Install software from source code.

tar zxvf sourcecode.tar.gz

cd sourcecode

./configure

make

make install

11 – SEARCH

# Search for pattern in file

grep pattern file

# Search recursively for pattern in directory

grep -r pattern directory

# Find files and directories by name

locate name

# Find files in /home/john that start with "prefix".

find /home/john -name 'prefix\*'

# Find files larger than 100MB in /home

find /home -size +100M

12 – SSH LOGINS

# Connect to host as your local username.

ssh host

# Connect to host as user

ssh user@host

# Connect to host using port

ssh -p port user@host

13 – FILE TRANSFERS

# Secure copy file.txt to the /tmp folder on server

scp file.txt server:/tmp

# Copy \*.html files from server to the local /tmp folder.

scp server:/var/www/\*.html /tmp

# Copy all files and directories recursively from server to the current system's /tmp folder.

scp -r server:/var/www /tmp

# Synchronize /home to /backups/home

rsync -a /home /backups/

# Synchronize files/directories between the local and remote system with compression enabled

rsync -avz /home server:/backups/

14 – DISK USAGE

# Show free and used space on mounted filesystems

df -h

# Show free and used inodes on mounted filesystems

df -i

# Display disks partitions sizes and types

fdisk -l

# Display disk usage for all files and directories in human readable format

du -ah

# Display total disk usage off the current directory

du -sh

15 – DIRECTORY NAVIGATION

# To go up one level of the directory tree.  (Change into the parent directory.)

cd ..

# Go to the $HOME directory

cd

# Change to the /etc directory

cd /etc