

Help Commands

whatis

Search whatis database for complete words; used to find short descriptions of system commands

which

Shows the full path to shell commands

whereis

Locate binary, source and man pages for a command

apropos

Search through a database of short description to find help and man pages containing certain terms and commands

man

Manual pages for commands

Bash Variables

env List current environment variables

echo Output value of *\$NAME* variable

export set *\$NAME* to value in environment

set Change value of shell attributes and positional parameters or display list of shell variables and functions

\$PATH Executable search path

\$HOME Home directory

\$SHELL Current shell

Partitions and Disk Management

df

Report file system disk space usage

mount

Show whats mounted or mount a file system

umount

Unmount a file system

fuser

Identifies processes using files or sockets

lsdf

list open files on the system

Directory Operations

clear clears your screen

pwd Shows current directory

cd Change directories

ls List directory contents

mkdir Create a new directory

rmdir Delete an empty directory

File Operations

cat Print a file on the screen, concatenate files

touch Create an empty file, change file timestamps

cp Copy directories or files

mv Moves directories or files

rm Removes directories or files (This is how you remove recursively)

ln Creates a symbolic or hard link for a file

File Operations (cont)

less View a file on page at a time, allows for going backwards

head Print the first 10 lines of a file

tail Print the last 10 lines of a file

wc Count the number of words or characters in a file

stat Display file of file system status

cut Remove sections from lines of input

paste Merge lines of files

Searching Files

grep Search text files for lines containing a matching pattern

locate Find files by matching the whole path name

find search for files in a directory hierarchy

Commands to know

uname Prints information about a machine and operating system it is run on

who Print who is currently logged in

uptime Prints system uptime and load

sudo Execute a command as another user, usually with higher permissions

shutdown Bring the system down in a safe way

ls Options

-a Show all (including hidden)

-R Recursive list

-r Reverse order

-t Sort by last modified

-S Sort by file size

-l Long listing format

-1 One file per line

-m Comma-separated output

-Q Quoted output

grep Options

-i Case insensitive search

-r Recursive search

-v Inverted search

-o Show matched part of file only

Process Management

ps Report on current processes

pstree Display a tree of processes

top Show real time processes

kill Terminate a process by PID

killall Kill a process by name

pskill Look up or signal processes based on same and other attributes

pgrep Grep for process information

ctrl+z Stop the job but don't end process

& Place this after a command to put the process in the background

jobs Display all jobs

File Permissions

chmod 775 file

Change file permissions to 775

chmod -R 600 folder

Recursively chmod *folder* to 600

chown user.group file

Change *file* owner to *user* and group to *group*

File Permission Numbers

First number is the **owner** permission, second is **group** and third is **everyone**

Calculate permission digits by adding number below:

suid=4 **421** **421** **421**

sgid=2 **rwX** **rwX** **rwX**

flag=1 **owner** **group** **world**

example: **chmod 777 /etc/file.txt**

Networking Directories

/etc/sysconfig/network-scripts

This folder contains the configuration files for each interface on the system; usually named ifcfg-eth0 or ifcfg-eth1.

/etc/resolv.conf

This file contains the permanent Domain Name Server (DNS) settings

Networking

ifcon Configure network interface
fig

route Show/Manipulate the IP routing table

ip Show/Manipulate routing, devices, policy and tunnels; replaces ifconfig, arp, and route

ifup Bring network interface up

Networking (cont)

ifdown Bring network interface down

ping Send ICMP ECHO_REQUEST to network hosts

Accounts and Security Administration

groupadd

Create a new group

groupdel

Delete a group

groupmod

Modify definition of a specified group

useradd

Create a new user

userdel

Delete a user

usermod

Modify a user account

passwd

Update a user's password

vipw

Edit password, group, shadow-password (Updates etc/shadow)

vigr

Edit password, group, shadow-group (Updates etc/gshadow)

chage

Change password policy