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 *$NAME*	Output value of *$NAME* variable
export *NAME=value*	set *$NAME* to value in enviroment
set	Change value of shell atrributes and positional parameters or display list of shell variables and functions
$PATH	Exectuable 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

unmount
Unmount a file system

fuser
Identifies processes using files or sockets

isof
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

File Operations (cont)

rm	Removes directories or files (This is how you remove recursively)
ln	Creates a symbolic or hard link for a file
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
pkill	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**

File Permission Numbers (cont)

Calculate permission digits by adding number below:

suid=4	**421**	**421**	**421**
sgid=2	**rwx**	**rwx**	**rwx**
flag=1	**owner**	**group**	**world**

`example`: **cmod** 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

ifconfig	Configure network interface
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
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