Bash Commands

uname -a	Show system and kernel
head -n1 /etc/issue	Show distribution
mount	Show mounted filesystems
date	Show system date
uptime	Show uptime
whoami	Show your username
man *command*	Show manual for *command*

Bash Shortcuts

CTRL-c	Stop current command
CTRL-z	Sleep program
CTRL-a	Go to start of line
CTRL-e	Go to end of line
CTRL-u	Cut from start of line
CTRL-k	Cut to end of line
CTRL-r	Search history
!!	Repeat last command
!*abc*	Run last command starting with *abc*
!*abc*:p	Print last command starting with *abc*
!$	Last argument of previous command
ALT-.	Last argument of previous command
!*	All arguments of previous command
^*abc*^*123*	Run previous command, replacing *abc* with *123*

Bash Variables

env	Show environment variables
echo *$NAME*	Output value of *$NAME* variable

Bash Variables (cont)

export *NAME=value*	Set *$NAME* to *value*
$PATH	Executable search path
$HOME	Home directory
$SHELL	Current shell

IO Redirection

cmd < file
> Input of *cmd* from *file*

cmd1 <(cmd2)
> Output of *cmd2* as file input to *cmd1*

cmd > file
> Standard output (stdout) of *cmd* to *file*

cmd > /dev/null
> Discard stdout of *cmd*

cmd >> file
> Append stdout to *file*

cmd 2> file
> Error output (stderr) of *cmd* to *file*

cmd 1>&2
> stdout to same place as stderr

cmd 2>&1
> stderr to same place as stdout

cmd &> file
> Every output of *cmd* to *file*

cmd refers to a command.

Pipes

cmd1 | cmd2
> stdout of *cmd1* to *cmd2*

cmd1 |& cmd2
> stderr of *cmd1* to *cmd2*

Command Lists

cmd1 ; cmd2
> Run *cmd1* then *cmd2*

cmd1 && cmd2
> Run *cmd2* if *cmd1* is successful

cmd1 || cmd2
> Run *cmd2* if *cmd1* is not successful

cmd &
> Run *cmd* in a subshell

Directory Operations

pwd	Show current directory
mkdir *dir*	Make directory *dir*
cd *dir*	Change directory to *dir*
cd ..	Go up a directory
ls	List files

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

Search Files

grep *pattern files*	Search for *pattern* in *files*
grep -i	Case insensitive search
grep -r	Recursive search
grep -v	Inverted search
grep -o	Show matched part of file only
find */dir/* -name *name**	Find files starting with *name* in *dir*

Search Files (cont)

find /dir/ -user name	Find files owned by name in dir
find /dir/ -mmin num	Find files modifed less than num minutes ago in dir
whereis command	Find binary / source / manual for command
locate file	Find file (quick search of system index)

File Operations

touch file1
Create file1

cat file1 file2
Concatenate files and output

less file1
View and paginate file1

file file1
Get type of file1

cp file1 file2
Copy file1 to file2

mv file1 file2
Move file1 to file2

rm file1
Delete file1

head file1
Show first 10 lines of file1

tail file1
Show last 10 lines of file1

tail -F file1
Output last lines of file1 as it changes

Watch a Command

watch -n 5 'ntpq -p'
Issue the 'ntpq -p' command every 5 seconds and display output

Process Management

ps	Show snapshot of processes
top	Show real time processes
kill pid	Kill process with id pid
pkill name	Kill process with name name
killall name	Kill all processes with names beginning name

Nano Shortcuts

Files

Ctrl-R	Read file
Ctrl-O	Save file
Ctrl-X	Close file

Cut and Paste

ALT-A	Start marking text
CTRL-K	Cut marked text or line
CTRL-U	Paste text

Navigate File

ALT-/	End of file
CTRL-A	Beginning of line
CTRL-E	End of line
CTRL-C	Show line number
CTRL-_	Go to line number

Search File

CTRL-W	Find
ALT-W	Find next
CTRL-\	Search and replace

More nano info at:
http://www.nano-editor.org/docs.php

Screen Shortcuts

screen
Start a screen session.

screen -r
Resume a screen session.

Screen Shortcuts (cont)

screen -list
Show your current screen sessions.

CTRL-A
Activate commands for screen.

CTRL-A c
Create a new instance of terminal.

CTRL-A n
Go to the next instance of terminal.

CTRL-A p
Go to the previous instance of terminal.

CTRL-A "
Show current instances of terminals.

CTRL-A A
Rename the current instance.

More screen info at:
http://www.gnu.org/software/screen/

File Permissions

chmod 775 file
Change mode of file 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 digit is owner permission, second is group and third is everyone.

Calculate permission digits by adding numbers below.

4	read (r)
2	write (w)
1	execute (x)