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)