

Navigation:

pwd – print working directory

ls -la – list contents of directory

cd – change directory

cp -avr <path to source directory/file> <path to destination directory/file> - copy directory / file

mv <path to source directory/file> <path to destination directory/file> - move directory / file

mkdir <directory name> - create directory

touch <filename> - create / update file

rm -rf <directory / file name> - delete directory / file

Viewing:

cat <path to file> - view contents of a file

more <path to file> - view contents of a file (screen full at a time)

less <path to file> - view contents of a file (screen full at a time with option to scroll backwards)

nano <path to file> - create and open / open file for editing in nano text editor

vi <path to file> - create and open / open file for editing in vi text editor

head <path to file> - view first 10 lines of the file

tail <path to file> - view last 10 lines of the file

tail -f <path to file> - view last 10 lines of a changing file (usually a log file) in real time

watch <linux command> - watch the output of a command (refreshes every 2 seconds by default)

File Permissions:

File permissions representation:

- r w x(owner) r w x(group) r w x(others)

r (read) – Allows user to view the file – numerical value = 4

w (write) – Allows user to edit the file – numerical value = 2

x (execute) – Allows user to run the file as an executable – numerical value = 1

chmod 777 <path to file> - Owner, group users and other users can read, write and execute the file.

chmod 700 <path to file> - Owner can read, write and execute the file. Group users and other users do not have any permission for the file.

chmod 666 <path to file> - All users can read and write to the file.

chmod 644 <path to file> - Owner can read and write to the file. Group users and others can only read the file.

For more Linux tips and tricks visit <http://ihaveapc.com/category/linux/>

Folder Permissions:

Folder permissions representation:

d r w x(owner) r w x(group) r w x(others)

r (read) – Allows user to list the files in the directory – numerical value = 4

w (write) – Allows user to create new files and delete the files in the directory – numerical value = 2

x (execute) – Allows user to change to the directory via cd command – numerical value = 1

chmod 777 <path to folder> - Allows owner, group members and others to list files in directory, create files in directory, delete files from the directory and to change to the directory.

chmod 755 <path to folder> - Allows owner to list files in directory, create files in directory, delete files from the directory and to change to the directory. Group members and others can change to the directory and list the files only.

chmod 700 <path to folder> - Allows owner to list files in directory, create files in directory, delete files from the directory and to change to the directory. Group members and others do not have any permission on the directory. This makes the directory private to the owner.

User Management:

adduser <new user name> - create a new user

deluser <existing user name> - remove a user without removing user's home directory

deluser <existing user name> -remove-home – remove a user with user's home directory

addgroup <new group name> - create a new group

delgroup <existing group name> - remove a group

passwd – modify password

who – shows list of logged in users

useradd -g <group name> <user name> - add user to a group, group specified will be user's primary group

useradd -G <group name> <user name> - add user to a group, group specified will be user's secondary group

usermod -g <group name> <user name> - change user's primary group

usermod -a -G <group name> <user name> - change user's secondary group

chown <user name> <file name> - change file's owner

chgrp <group name> <file name> - change file's group ownership

System:

hostname - displays the hostname of Linux Mint/Ubuntu system

uptime - displays how long the system has been running

echo \$SHELL - displays the current Linux Mint/Ubuntu shell being used (bash by default)

man <command name> - displays the manual pages of specified command

ps - lists all the processes running in the system

top - real-time information about Linux system uptime, number of users, system load, number of tasks, and utilization of system resources

kill -9 <pid> - kills the process with the specified process id

killall proc - kills all processes named proc*

uname -a - name, kernel version, machine type, network node host name, processor type, OS release, OS version and other system architecture details

lsb_release -a - LSB version, distributor ID, description of distribution, release number and codename of the distribution

df -h - display file system and disk space usage

free -m - display amount of free and used system memory

lspci - lists all PCI buses and devices connected to them

lsusb - lists all USB buses and devices connected to them

lshal - lists all the devices that HAL(Hardware Abstraction Layer) is aware about i.e. most of the hardware connected to your system

lshw - lists hardware present in the system including information about manufacturer, device type and where it is connected

Networking:

ping <website/ip address> - to test connectivity or response from a particular IP address or website

traceroute <website/ip address> - trace the network path to a website or IP address.

ifconfig - displays list of all network interfaces

ifconfig <interface> up - enables the specified interface

ifconfig <interface> down - disables the specified interface

iwconfig - displays list of all wireless network interfaces

ssh <user name>@<host name> - login to network host as specified user

Installation:

apt-get install <packagename> - installs specified application / package

apt-get remove <packagename> - uninstalls specified application / package

apt-get update - updates the Linux Mint / Ubuntu package lists

apt-get upgrade - upgrades the Linux Mint/Ubuntu packages

apt-get -f install - troubleshoots broken packages

apt-get autoremove - automatically removes obsolete packages

Installation from source:

./configure

make

make install

Search:

locate <file name> - search the system for the specified file name

grep <pattern> <file name> - searches file for specified pattern

Linux command | grep <pattern> - searches the output of the command for the specified pattern

whereis <command> - shows the locations of the command's executable file

which <command> - shows the executable which would be run by default for executing the command

Compression:

tar -czvf <archive name>.tar.gz <file name 1> <file name 2>...<file name n> - create a tarball by compressing the specified files

tar -xzvf <archive name>.tar.gz - extract files from a tarball

tar -cf <archive name>.tar <file name 1> <file name 2>...<file name n> - create a tar archive by compressing the specified files

tar -xf <archive name>.tar - extract files from a tar archive

gzip <file name> - compresses a file and creates a gzip archive called <file name>.gz

gzip -d <file name>.gz - extracts files from a gzip archive

Power:

poweroff - powers off the system

reboot - reboots the system

echo b > /proc/sysrq-trigger - hard reboot