

Linux Cheat Sheet

**File Commands**

**Directory Aliases**

**File Permission Commands**

**Command Description**

**Alias Directory**

**Command Description**

cat<file> Printfilecontents

. Currentdirectory

chmod<mode><file> Changefilepermissions

touch<file> Createfile(orupdatetimestamp)

cp<src><dst> Copyafile

.. Parentdirectory

chmod u+x <file> Addexecutepermissionforthe owner

mv<src><dst> Move/renameafile

chmod644<file>

Set file permissions to 644 (read/writeforowner,readfor group and everyone else)

~ Homedirectory

rm<file> Removefile

**Link Commands**

head<file> Printfirst 10 linesof file

tail<file> Printlast10linesoffile

tail -f <file> Printlast10linesandanynew lines added to file

**Command Description**

ln<target><link> Createhardlink

readlink-f<file> Printabsolutepathoffile

ln-s<target><link> Createsymboliclink

chmod-Rg+w<dir> Addwritepermissionforthe

grouprecursivelytoadirectory

chown<owner><file> Changefileowner

chown-R<owner><dir> Changedirectoryowner

recursively

**Directory Commands**

**Search Commands**

chown<owner>:<group>

<file>

Changefileownerandgroup

**Command Description**

**Command Description**

chgrp<group><file> Changefilegroup

ls Listfilesin thecurrentdirectory

grep<pattern><file...>Searchforpatterninfile(s)

ls<dir> Listfilesin<dir>

ls-l Listfileswithdetails

ls-a Listallfiles(includinghidden)

ls-al Listallfileswithdetails

grep-r<pattern><dir>

Searchforpatternrecursivelyina directory

**Bit Description**

**File Permission Bits**

4 Read(r)

2 Write(w)

pwd

Printthecurrent/working directory

cd<dir>

Changecurrentdirectoryto

<dir>

grep-i<pattern><file>Searchforpatterncase-

insensitively

grep-v<pattern><file>Searchforlinesnotmatching

pattern

grep-n<pattern><file>Searchandprintlinenumbers

find<dir>-name<name>\*Findfilesin<dir>withname

startingwith <name>

find<dir>-type<type> Findfiles in <dir>of type

<type>

1 Execute(x)

Firstdigitrepresentstheowner,theseconddigitrepresentsthe group, and the third digit represents everyone else.

cd.. Gouponedirectory

mkdir<dir> Createdirectory

mkdir -p <dir> Createdirectoryandanymissing parentdirectories

cp-r<src><dst> Copyadirectoryanditscontents

mv<src><dst> Move/renameadirectory

rmdir<dir> Removeanemptydirectory

rm -r <dir> Removeadirectoryandits contents

**Command Description**

**Superuser Commands**

su Switchtosuperuser(root)

su<user> Switchtouser<user>

sudo<cmd> Runcommandassuperuser(root)

For example, 640means read/write for owner, read for group, and no permissions for everyone else.

**File Permission User Types**

**UserType Description**

u Owner

g Group

* Everyoneelse

a All

**SystemInformationCommands**

**SecureShell(SSH)Commands**

**IO Redirection**

**Command Description**

**Command Description**

**Command Description**

df Showfilesystemdiskusage

ssh-keygen GenerateSSHkeypair

df-h ShowdiskusageinMB/GB/TB

du Showdiskusageperdirectory

du-h ShowdiskusageinMB/GB/TB

free Showmemoryusage

free-h Show memoryusageinMB/GB/TB

uptime Showuptime

whoami Showcurrentuser

uname Showsysteminformation

uname-a Showallsysteminformation

ssh-add<key> AddSSHkeytoSSHagent

ssh-add-l ListSSHkeysinSSHagent

ssh-copy-id<user>@<host>CopySSHkeyto<host>for

<user>

ssh<host>

Connectto<host>ascurrent user

ssh<user>@<host> Connectto<host>as<user>

scp<src><host>:<dest> Copylocalfile<src>to<dest>

on<host>

scp<host>:<src><dest> Copyfile<src>from<host>to

local<dest>

**BashShortcuts**

**APTCommands(Debian/Ubuntu)**

<cmd>>><file> Appendoutputtofile

<cmd>><file>

Replacecontentsoffilewith output

<cmd><<file> Redirect inputfromfile

<cmd>2><file> Redirectstderrtofile

<cmd>&><file> Redirectstdoutandstderrtofile

**PipeCommands**

**Command Description**

<cmd1>|<cmd2> Pipestdouttonextcmd

<cmd1>|&<cmd2> Pipestderrtonextcmd

**Shutdown/RebootCommands**

**Command Description**

shutdown

Poweroffthesystemafter1 minute

**Command Description**

**Shortcut Description**

aptinstall<pkg> Install package

shutdownnow Poweroffthesystemimmediately

aptremove<pkg> Removepackage

shutdown16:30 Poweroffthesystemat16:30

aptpurge<pkg> Removepackageandconfig files

shutdown-c Cancelascheduledshutdown

aptupdate Updatepackage list

reboot Rebootsystem

aptupgrade Upgradepackages

poweroff Poweroffsystem

**ProcessCommands**

**Command Description**

ps List processes

ps-ef Listallprocesses

top Displayprocessesinrealtime

kill<pid> Killprocess

pkill<name> Killprocesswithname

killall<name> Killallprocesseswithname

aptsearch<term> Searchforpackage



+A

+E

+K

Gotobeginningofline Go to end of line

Cutcurrentline

Ctrl

Ctrl

Ctrl

+L Clear screen

+C Stopcurrentcommand

Ctrl

Ctrl

**OtherCommands**

**Command Description**

echo<msg> Printmessagetostdout

man<cmd> Displaymanualpagefor<cmd>

history

Displayhistoryofgiven commands

which<cmd> Findpathtoexecutable<cmd>

whereis<cmd>

Locatebinary,source,and manual page for <cmd>

**DirectoryStructure**

**Directory Description**

/ Root

/bin Binaryorexecutableprograms

/etc Systemconfigurationfiles

/home Userhome directories

/opt Optionalorthird-party software

/tmp Temporaryfiles

/usr Userprograms

/var Variabledata

/var/log Log files