

Privileges

sudo command - run *command* as root
sudo -s - open a root shell
sudo -s -u user - open a shell as *user*
sudo -k - forget sudo passwords
gksudo command - visual sudo dialog (GNOME)
kdesudo command - visual sudo dialog (KDE)
sudo visudo - edit /etc/sudoers
gksudo nautilus - root file manager (GNOME)
kdesudo konqueror - root file manager (KDE)
passwd - change your password

Display

sudo /etc/init.d/gdm restart - restart X and return to login (GNOME)
sudo /etc/init.d/kdm restart - restart X and return to login (KDE)
(file) **/etc/X11/xorg.conf** - display configuration
sudo dexconf - reset xorg.conf configuration
Ctrl+Alt+Bksp - restart X display if frozen
Ctrl+Alt+FN - switch to tty *N*
Ctrl+Alt+F7 - switch back to X display

System Services¹

start service - start job *service* (Upstart)
stop service - stop job *service* (Upstart)
status service - check if *service* is running (Upstart)
/etc/init.d/service start - start *service* (SysV)
/etc/init.d/service stop - stop *service* (SysV)
/etc/init.d/service status - check *service* (SysV)
/etc/init.d/service restart - restart *service* (SysV)
runlevel - get current runlevel

Package Management¹

apt-get update - refresh available updates
apt-get upgrade - upgrade all packages
apt-get dist-upgrade - upgrade with package replacements; upgrade Ubuntu version
apt-get install pkg - install *pkg*
apt-get purge pkg - uninstall *pkg*
apt-get autoremove - remove obsolete packages
apt-get -f install - try to fix broken packages
dpkg --configure -a - try to fix broken packages
dpkg -i pkg.deb - install file *pkg.deb*
(file) **/etc/apt/sources.list** - APT repository list

Network

ifconfig - show network information
iwconfig - show wireless information
sudo iwlist scan - scan for wireless networks
sudo /etc/init.d/networking restart - reset network for manual configurations
(file) **/etc/network/interfaces** - manual configuration
ifup interface - bring *interface* online
ifdown interface - disable *interface*

Special Packages

ubuntu-desktop - standard Ubuntu environment
kubuntu-desktop - KDE desktop
xubuntu-desktop - XFCE desktop
ubuntu-minimal - core Ubuntu utilities
ubuntu-standard - standard Ubuntu utilities
ubuntu-restricted-extras - non-free, but useful
kubuntu-restricted-extras - KDE of the above
xubuntu-restricted-extras - XFCE of the above
build-essential - packages used to compile programs
linux-image-generic - latest generic kernel image
linux-headers-generic - latest build headers

Firewall¹

ufw enable - turn on the firewall
ufw disable - turn off the firewall
ufw default allow - allow all connections by default
ufw default deny - drop all connections by default
ufw status - current status and rules
ufw allow port - allow traffic on *port*
ufw deny port - block *port*
ufw deny from ip - block *ip* address

Application Names

nautilus - file manager (GNOME)
dolphin - file manager (KDE)
konqueror - web browser (KDE)
kate - text editor (KDE)
gedit - text editor (GNOME)

System

Recovery - Type the phrase "REISUB" while holding down Alt and SysRq (PrintScrn) with about 1 second between each letter. Your system will reboot.
lsb_release -a - get Ubuntu version
uname -r - get kernel version
uname -a - get all kernel information

1. Prefix commands with sudo to run.

File Commands

ls - directory listing
ls -al - formatted listing with hidden files
cd dir - change directory to *dir*
cd - change to home
pwd - show current directory
mkdir dir - create a directory *dir*
rm file - delete *file*
rm -r dir - delete directory *dir*
rm -f file - force remove *file*
rm -rf dir - force remove directory *dir* *
cp file1 file2 - copy *file1* to *file2*
cp -r dir1 dir2 - copy *dir1* to *dir2*; create *dir2* if it doesn't exist
mv file1 file2 - rename or move *file1* to *file2*
 if *file2* is an existing directory, moves *file1* into directory *file2*
ln -s file link - create symbolic link *link* to *file*
touch file - create or update *file*
cat > file - places standard input into *file*
more file - output the contents of *file*
head file - output the first 10 lines of *file*
tail file - output the last 10 lines of *file*
tail -f file - output the contents of *file* as it grows, starting with the last 10 lines

Process Management

ps - display your currently active processes
top - display all running processes
kill pid - kill process id *pid*
killall proc - kill all processes named *proc* *
bg - lists stopped or background jobs; resume a stopped job in the background
fg - brings the most recent job to foreground
fg n - brings job *n* to the foreground

File Permissions

chmod octal file - change the permissions of *file* to *octal*, which can be found separately for user, group, and world by adding:

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

Examples:

chmod 777 - read, write, execute for all
chmod 755 - rwx for owner, rx for group and world
 For more options, see **man chmod**.

SSH

ssh user@host - connect to *host* as *user*
ssh -p port user@host - connect to *host* on port *port* as *user*
ssh-copy-id user@host - add your key to *host* for *user* to enable a keyed or passwordless login

Searching

grep pattern files - search for *pattern* in *files*
grep -r pattern dir - search recursively for *pattern* in *dir*
command | grep pattern - search for *pattern* in the output of *command*
locate file - find all instances of *file*

System Info

date - show the current date and time
cal - show this month's calendar
uptime - show current uptime
w - display who is online
whoami - who you are logged in as
finger user - display information about *user*
uname -a - show kernel information
cat /proc/cpuinfo - cpu information
cat /proc/meminfo - memory information
man command - show the manual for *command*
df - show disk usage
du - show directory space usage
free - show memory and swap usage
whereis app - show possible locations of *app*
which app - show which *app* will be run by default

Compression

tar cf file.tar files - create a tar named *file.tar* containing *files*
tar xf file.tar - extract the files from *file.tar*
tar czf file.tar.gz files - create a tar with Gzip compression
tar xzf file.tar.gz - extract a tar using Gzip
tar cjf file.tar.bz2 - create a tar with Bzip2 compression
tar xjf file.tar.bz2 - extract a tar using Bzip2
gzip file - compresses *file* and renames it to *file.gz*
gzip -d file.gz - decompresses *file.gz* back to *file*

Network

ping host - ping *host* and output results
whois domain - get whois information for *domain*
dig domain - get DNS information for *domain*
dig -x host - reverse lookup *host*
wget file - download *file*
wget -c file - continue a stopped download

Installation

Install from source:

./configure
make
make install
dpkg -i pkg.deb - install a package (Debian)
rpm -Uvh pkg.rpm - install a package (RPM)

Shortcuts

Ctrl+C - halts the current command
Ctrl+Z - stops the current command, resume with **fg** in the foreground or **bg** in the background
Ctrl+D - log out of current session, similar to **exit**
Ctrl+W - erases one word in the current line
Ctrl+U - erases the whole line
Ctrl+R - type to bring up a recent command
!! - repeats the last command
exit - log out of current session

* use with extreme caution.

