ubuntu cheat sheet

Package Management:

dpkg

Example package **package_1.0-2_i386.deb**

sudo dpkg -i package.deb # installs package
sudo dpkg -r package # removes package
sudo dpkg -S <filename> # which package contains filename
sudo dpkg -s package # status or info. on package
sudo dpkg --reconfigure package # re-run configure script(s)

Flags: **-G** do not overwright, **-E** overwright if newer **-R** recursive

gdebi

sudo gdebi package # same as dpkg -i but works like apt-get since it will install dependences from repositories. **gdebi-gtk** for GUI

apt-get

sudo apt-get update # updates package list
sudo apt-get upgrade # installs new updated packages
sudo apt-get dist-upgrade # smart upgrade to new packages
sudo apt-get install <package name> # installs package
sudo apt-get check # check for broken packages
sudo apt-get autoremove # remove any orphaned packages

apt-cache

apt-cache search <string> # search name and description
apt-cache show <package> # all the information on a package
apt-cache showpkg <package> # all dependencies
apt-cache depends <package> # what it depends on
apt-cache rdepends <package> # what depends on it

apt-file

sudo apt-get install apt-file # needs to be installed
sudo apt-file update # sync will all repositories
apt-file search <string> # searches for string, local and remote
apt-file list <package> # list contents of package even if not installed

apt-cacher

If you have many Ubuntu systems you can cache the apt repository with apt-cacher

- **sudo apt-get install apt-cacher** # install apt-cacher on server
- default port apt-cacher is running on is **port 3142**
- read: **http://www.debuntu.org/how-to-set-up-a-repository-cache-with-apt-cacher**

synaptic

- **To roll back to a previous version:**
  1) Select the package so it is highlighted
  2) From the menu Package->Force Version or Ctrl-e
  3) Pick the version you want from the dialog
- **Install by task:**
  Groups of packages that make up a task like LAMP
  Edit -> “Mark Packages by Task”

Building From Source

- Best to follow instructions from package usually a “tar.gz” or “tar.bz2”. For the latest code you will need to grab the source from the repository with CVS, SVN, GIT (also install curl), BZR or mercurial.
- For the example you need **build-essentials**, **git** and **autoconf** package installed
- elinks example (http://elinks.or.cz/download.html) :
  1. **git clone http://elinks.cz/elinks.git #** gets the source code
  2. Read the **README** and/or **INSTALL** files for instructions!
  3. **./autogen.sh #** will generate the configure script if it is missing.
  4. .**/configure #** install any needed dev or requisites until runs clean. also set options at this point
  5. **./make #** or “make all” will compile the code. Some sets will include a “make test” to verify the code before install.
  6. **sudo ./make install #** installs the code

The Debian alternatives system

For some special classes of applications which have many programs that can be used, Debian allows you to choose which particular alternative you wish to be used, globally.

- Text editors or **editor**
- Web browser or **www-browser**
- Window managers or **x-window-manager**

/etc/alternatives/<name> # the sym-links used
sudo update-alternatives --all # parse through all names
update-alternatives --display <name> # show current setting
sudo update-alternatives --configure <name> # pick a new installed version
update-alternatives --list name # show all options for name

Controlling Services

/etc/init.d/<service> # is the directory will all the
control scripts for diamonds

sudo /etc/init.d/ssh reload # will reload /etc/ssh/sshd_config

- To control runlevels aka what runs during boot:
  GUI = **bum (Boot Up Manager)** (needs to be installed)
  terminal = **sysvconfig** (needs to be installed)
  note: it will give you the service command as in “sudo service ssh reload”

- **runlevels in Debian/Ubuntu** are NOT the same as RedHat:
  0 System Halt
  1 Single user
  2 Full multi-user mode (Default)
  3-5 Same as 2
  6 System Reboot
- As of Ubuntu 7.04 **/etc/inittab** has been removed since upstart is used. The file **/etc/event.d/rc-default** is in control during boot

Controlling Processes

- use **ps** and **pstree** to locate processes.
  Use Shift-PgUp/PgDn to move up and down in a TTY session
- Since Ubuntu starts in runlevel 2 therefore **gdm (Gnome Display Manager)** is left as parent of X-Windows. (you may have kdm or xdm)
- If you want to compile and install graphics card drivers you must use a TTY (Alt-Ctrl-F1->5) then stop X-Windows and the display manager.
- **Alt-Ctrl-F7** is your Graphics Card, **Alt-Ctrl-F8** standard error
- In Gnome you can use the "**System Monitor**" to control processes
- Use **lsof** to list which processes have what files open

Logs

/var/log/messages # General log messages
/var/log/boot # System boot log
/var/log/debug # Debugging log messages
/var/log/auth.log # User login and authentication logs
/var/log/daemon.log # Running services
/var/log/dmesg # Linux kernel ring buffer log
/var/log/dpkg.log # All binary package logs
/var/log/faillog # User failed login log file
/var/log/kern.log # Kernel log file
/var/log/lpr.log # Printer log file
/var/log/user.log # All userlevel logs
/var/log/xorg.0.log # X.org log file
/var/log/fsck/* # fsck command log
/var/log/apport.log # Application crash report & log file

Hardware Information

lsdev # devices in the /dev tree
sudo lshw (lshw-gtk) # verbose hardware details
lspci # devices recognized for a driver
lsusb # what is connected on the USB bus
lsmod # Loaded kernel modules
lspcmcia # devices connected to the pcmcia bus
lshal # verbose hardware abstraction layer
hardinfo # verbose GUI of hardware details
(needs to be installed)also has hardware benchmarks

Recovery Vectors

- Boot from CD, **SystemRescueCd** is recommended, since it can be use to work on all i386 based systems including windows systems. (**www.sysresccd.org**)
- If using SystemRescueCD to gain network access use **”net-setup eth0”**
- Use recovery tools like **“e2fsck -cv /dev/<drive>”** to fix drives as needed.
- Mount the partition you wish to recover. Then cd to that drive, you can fix /boot/grub mistakes etc.
- cd to the '/' of the drive and use **“chroot /dev/<disk> bash”** to move '/' to the install base you want to recover. Now you can use apt or dpkg to fix things