Linux Cheatsheet

Basic commands

- cat: Dump the contents of a file to the screen. eg: 'cat ./foo'
- cd Change to another directory. eg: 'cd /bin'
- chmod Change a file's permissions. eg: 'chmod +r ./foo'
- chown Change a file's owner/group. eg: 'chown philipl.users ./foo'
- cp Copy a file to a new name/location. eg: 'cp ./foo /tmp/bar'
- grep Look for text in files. eg: grep "He's dead jim" *.txt"
- gzip/gunzip Compress/Uncompress a file. eg: "gzip foo"
- head/tail Dump the first/last few lines of a file. eg: 'tail ./foo'
- locate Find files by name. eg: 'locate ssh'
- ls Display the contents of a directory. eg: 'ls /bin'
- mkdir Make a directory. eg: 'mkdir bar'
- mv move a file to a new name/location. eg: 'mv ./foo /tmp/bar'
- pwd Print the current directory to the screen. eg: 'pwd'
- shutdown Shutdown/reboot the computer. eg: 'shutdown -r now'
- su Change to another user temporarily. eg: 'su root'
- tar Archive directories and their contents. eg: 'tar cf /tmp tmp.tar'
- rm Remove (delete) a file. eg: 'rm ./foo'

Getting Help

- man Read the manual page for a command. eg: 'man ls'
- apropos Read the one line summary for a command. eg: 'apropos ls'

Basic vi commands

- i Change to insert mode (so you can type)
- <Esc> Change to command mode (don't try and type)
- :w Save the file being edited (command mode only)
- :q Quit (command mode only)
- :q! Get me out of here now! (ignore unsaved work)
- h/j/k/l Navigation keys if your arrows break (command mode only) (Try pressing scroll-lock first to try and make arrows work)

The basic parts of the filesystem

- /bin Basic programs
- /boot Bootloader files
- /dev Device nodes for hardware and other non-file resources
- /etc Configuration files
- /home Where everyone's home directory lives
- /lib Base system libraries
- /lost+found When your filesystem breaks, the pieces go here.
- /mnt Place to attach other filesystems (usually removable media)

- /opt Optional packages (usually just KDE)
- /proc Virtual filesystem for communication with the kernel
- /root Root's home directory (root is special)
- /sbin Basic programs that are usually only useful for root
- /tmp Temporary file storage area
- /usr 'User' files. Most stuff goes here. Programs in /usr/bin, libraries in /usr/lib, program resources in /usr/share, etc.
- /var System and program state storage

Compiling programs from source (very general case)

- Unpack the source archive: tar zxf foo-1.0.tar.gz
- Go to source directory: cd foo-1.0
- Read README, INSTALL and output of ./configure --help
- Run configure: ./configure (if it fails, identify the error and try to correct it). The most common error will be a missing program/library that is required for foo to work.
- Make the program: make
- Install the program: make install (This step usually has to be run as root, unless installation is to the user's home directory)

Recompiling your kernel (very high level. Read up on this!)

- Goto the kernel source directory: cd /usr/src/linux
- Configure the kernel to your liking: make xconfig / make menuconfig
- Build the kernel: make bzImage
- Build the kernel modules: make modules
- Install the kernel modules: make modules_install
- Install the kernel: Very distribution dependent. The kernel itself is arch/i386/boot/bzImage (unless you're on non-intel hardware) and should be copied to wherever your current kernel lives (usually / or /boot).
- Update your bootloader to use the new kernel. For lilo, edit /etc/lilo.conf

Cool Programs to investigate

Character based/Command Line

Graphical

ssh/sftp/scp: Secure remote access and file transfer
mozilla: Comprehensive web browsing and email handling package
ncftp: FTP isn't secure, but ncftp does it the best
evolution: Specialised enterprise-capable email program
traceroute: Find out what's between you and another system
galeon: The best web browser around! :-) (Trust us, Phil knows best)
lynx/links: Text-mode web browsing
gedit; Simple but extensible text editor
naim: Text mode instant- messaging
gaim: Slick multi-protocol instant messanger
emacs: If it can't do it, you've run out of hd space
OpenOffice.org: Fully featured office suite. Word-processing/Spreadsheets/Presentations

nano/pico: Simple user friendly text editor. Shock!
Abiword/Gnumeric: Standalone word-processor and spreadsheet programs.
gcc/gdb: Compile and debug code
xmms: Plugin based media player