

A LINUX CRIB SHEET

1. Basic commands

Command	Function	Example
<code>cat</code>	print one or more files on the screen	<code>cat program1.cpp</code>
<code>cd</code>	change current directory	<code>cd Programs</code>
<code>cd ..</code>	go up one level in the directory tree	<code>cd ..</code>
<code>cmp</code>	compare two files (use <code>diff</code> with ASCII files)	<code>cmp this that</code>
<code>cp</code>	make a copy of a file	<code>cp program1.cpp back.cpp</code>
<code>g++</code>	the gnu /C++ compiler (use <code>-o</code> to name the binary)	<code>g++ alpha.cpp -o alpha</code>
<code>grep</code>	find strings or patterns within files (with many options)	<code>grep if program1.cpp</code>
<code>head</code>	display the first ten lines of a file	<code>head program1.cpp</code>
<code>head -n</code>	display the first <i>n</i> lines of a file	<code>head -20 program1.cpp</code>
<code>lpr¹</code>	print one or more files (<code>-Pxyz</code> to send to printer <code>xyz</code>)	<code>lpr -Pxyx program1.cpp</code>
<code>ls</code>	do a short listing of files (<code>-s</code> gives file sizes in blocks)	<code>ls thisdirectory</code>
<code>ls -l</code>	provide a detailed list files in a directory	<code>ls -l thisdirectory</code>
<code>man</code>	<code>man xyz</code> displays manual page for command <code>xyz</code>	<code>man nano</code>
<code>mkdir</code>	make a new directory	<code>mkdir 4330</code>
<code>less</code>	display file contents screenful by screenful	<code>less program1.c</code>
<code>mv</code>	move or rename a file	<code>mv alphah.cpp alpha.cpp</code>
<code>passwd</code>	let you change your password	<code>passwd</code>
<code>nano</code>	a very simple screen-oriented editor	<code>nano program1.cpp</code>
<code>rm</code>	remove one or more files	<code>rm oldfile</code>
<code>rm -i</code>	remove files after confirmation (<i>make it the default!</i>)	<code>rm -i oldfile</code>
<code>rmdir</code>	remove a directory (<i>must be empty</i>)	<code>rmdir oldprograms</code>
<code>sort</code>	sort one or more files (with many options)	<code>sort friendlist.txt</code>
<code>who</code>	tells you who is on the system	<code>who</code>

2. Shell wildcards

- `.` matches any character
- `*` matches any string (including an empty string)
- `.*` matches any non-empty string
- `[a-z]` matches any character from `a` to `z` (lower-case only)

Examples:

- `ls *.cpp` lists all C++ files that are in your current directory
- `rm -i *` removes all files in your current directory
- `ls program[0-9].cpp` lists all files with names going from `program0.cpp` to `program9.cpp`

3. Some hints

- Add to your `.bashrc` file, the four following lines:

```
set noclobber
alias mv="mv -i"
alias cp="cp -i"
alias rm="rm -i"
```

¹ Will not work with the Windows Subsystem for Linux unless you install a printer.

- If you want a more powerful test editor than **nano**, may I suggest **vi/vim** (the one that I use).