UNIX QUICK REFERENCE

Login/Logout

`login:` *name*/`password:` *passwd*	(login)	`exit`	(logout)

Navigating Directories/Manipulating Files

`ls`	(list contents of directory)	`cd` *path*	(change directory)	`pwd`	(print current directory)
`.`	(current directory)	`..`	(parent directory)	`rm` *file*	(remove file)
`cp` *file1 file2*	(copy file)	`ln -s` *source target*	(soft link)	`chmod` *mode file*	(change mode)
`cat` *file*	(display file)	`head`	(display begin of file)	`tail`	(display end of file)
`mv` *file1 file2*	(move/rename file)	`rmdir`	(delete a directory)	`chgrp`	(change group of a file)
`diff`	(difference of two files)	`mkdir` *name*	(create a directory)	`chown`	(change ower of a file)
`tee`	(file and screen)	`<` *file*	(stdin redirect)	`>` *file*	(stdout redirect)
`<<` *or* `>>`	(append)	*com1* `|` *com2*	(pipe)	`cut`	(extract fields)
`echo`	(expand/display command)	`*`	(0 or more characters)	`?`	(1 or more characters)

Utilities

`vi` *or* `emacs`	(ASCII text editors)	`pine`	(mail programs)
`ps`	(print the running processes)	`kill` *procID*	(kill a running process)
`nohup nice` *a.out*	(run in background)	`gs/gv/acroread`	(display/convert ps/eps/pdf files)
`tex/latex/dvips`	(TeX text processing system)	`kill` *procID*	(kill a running process)
`sort`	(short a file by lines)	`find`	(find files of given attributes)
`paste`	(combine two files)	`grep/awk/perl`	(text file processing)
`file`	(classify files)	`finger` *user*	(information about user)
`date`	(current date/time)	`who`	(who is currently logged in)
`passwd` *or* `yppasswd`	(change password)	`time` *comm*	(timing a program)
`tar`	(creat tape archive file)	`gzip/gunzip`	(compress file)
`gnuplot` *or* `xmgr`	(plotting programs)	`telnet`	(remote login)
`ftp`	(transfer files between computers)	`ssh`	(secure shell)

Compilers and Application Packages

`cc` *or* `cxx`	(evoke C or C++ compiler)	`cc -E` *file*	(do preprocessing only)
`cc -O3` *file*	(optimizing speed)	`f77` *or* `f90`	(Fortran 77 or 90 compiler)
`lint`	(C syntax checking)	`javac`	(Java compiler)

Common File Name Extensions

`.c`	(C file)	`.f`	(Fortran 77)	`.f90`	(Fortran 90)	`.cpp`	(C++ file)
`.nb`	(Mathematica notebook)	`.m`	(matlab script)	`.ps`	(PostScript)	`.html`	(web html file)
`.o`	(object file)	`.h`	(C header file)	`.a`	(library file)	`.tex`	(tex/latex file)
`.jpeg`	(graphics)	`.png`	(graphics)	`.tiff`	(graphics)	`.eps`	(encapsulated PS)

Vi Editor

`Esc`	(to command mode)	`i`	(insert text)	`o`	(open line)	`a`	(append text)
`h`	(to left)	`j`	(move down)	`k`	(move up)	`l`	(to right)
`ctr-F`	(down a page)	`ctr-B`	(up a page)	`ctr-L`	(refresh screen)	`ctr-G`	(show status)
`^`	(begin of line)	`$`	(end of line)	`1G`	(begin of file)	`G`	(end of file)
`x`	(delete char)	`dd`	(delete line)	`u`	(undo command)	`.`	(repeat)
`yy`	(yank a line)	`p`	(print back)	`/`	(search string)	`s`	(substitute)
`:%s/`*str1*`/`*str2*`/g`	(substitute)	`:w`	(write to file)	`:q`	(quit)	`:x`	(save and quit)

Choice of Shells

`sh`	(Bourne shell)	`csh`	(C shell)	`ksh`	(Korn shell)	`tcsh`	(enhanced)

Manual and Help, Web Resources

`man` *command*	(manpage)	`man -k` *word*	(help on topics)
UNIX for the Impatient	(by P. W. Abrahams et al)	`http://www.linux.org/`	(all about linux)

revised July 2002

Prepared by A/P Jian-Sheng Wang