

Minimal Unix Commands Reference page 1

File/directory commands:

		<i>sample usage</i>
<code>cd</code>	<i>change directory</i>	<code>cd bin</code> <code>cd ~/2350/hw</code> <code>cd</code>
<code>chgrp</code>	<i>change group ownership</i>	<code>chgrp appm2350 index.html</code>
<code>chmod</code>	<i>change permissions</i>	<code>chmod 664 myfile.html</code>
<code>cp</code>	<i>copy file(s)</i>	<code>cp thisfile newfile</code> <code>cp file* subdir/</code>
<code>ls</code>	<i>list files</i>	<code>ls -l</code> <code>ls -alrt *.html</code>
<code>mkdir</code>	<i>make new directory</i>	<code>mkdir 2005fall</code>
<code>mv</code>	<i>move/rename file(s)</i>	<code>mv a.out ProgramE</code> <code>mv file* subdir/</code>
<code>pwd</code>	<i>present working directory</i>	<code>pwd</code>
<code>rm</code>	<i>remove/delete file(s)</i>	<code>rm -i *.aux</code> <code>rm -rf subdir/</code>
<code>rmdir</code>	<i>delete empty directory</i>	<code>rmdir 1999fall</code>

Editing, Email, Documentation:

		<i>sample usage</i>
<code>emacs</code>	<i>text editor</i>	<code>emacs mythesis.tex</code>
<code>vi</code>	<i>text editor</i>	<code>vi mythesis.tex</code>
<code>nedit</code>	<i>text editor</i>	<code>nedit mythesis.tex</code>
<code>pico</code>	<i>text editor</i>	<code>pico mythesis.tex</code>
<code>pine</code>	<i>email</i>	<code>pine</code>
<code>mailx</code>	<i>email</i>	<code>mailx</code> <code>mailx smith@hotmail.com</code>
<code>latex</code>	<i>compiles DVI document</i>	<code>latex mythesis.tex</code>
<code>pdflatex</code>	<i>compiles PDF document</i>	<code>pdflatex mythesis.tex</code>

Remote login and file copying:

		<i>sample usage</i>
<code>scp</code>	<i>copy between computers</i>	<code>scp myfile amath.colorado.edu:subdir/file8</code>
<code>sftp</code>	<i>copy between computers</i>	<code>sftp</code>
<code>ssh</code>	<i>log onto remote computer</i>	<code>ssh amath.colorado.edu -l username</code>

Text filters:

		<i>sample usage</i>
<code>cat</code>	<i>display text contents</i>	<code>cat file1.txt file2.txt file3.txt</code>
<code>grep</code>	<i>find word/string</i>	<code>grep keyword file1 file2 file3</code>
<code>head</code>	<i>display first few lines</i>	<code>head -5 file.txt</code>
<code>more</code>	<i>display 20 lines at a time</i>	<code>more file.txt</code>
<code>sort</code>	<i>re-order text lines</i>	<code>sort -r -n file.txt</code>
<code>spell</code>	<i>find misspelled words</i>	<code>spell file.txt</code>
<code>tail</code>	<i>display last few lines</i>	<code>tail -5 file.txt</code>
<code>wc</code>	<i>word count</i>	<code>wc file.txt</code> <code>cat *.tex wc</code>

Other Utilities:

		<i>sample usage</i>
<code>man</code>	<i>manual page</i>	<code>man ls</code> <code>man -k editor</code>
<code>cal</code>	<i>calendar</i>	<code>cal</code> <code>cal 12 2005</code>
<code>date</code>	<i>current date/time</i>	<code>date</code>
<code>du</code>	<i>total size of directory</i>	<code>du -k sort -n</code>
<code>echo</code>	<i>print to screen</i>	<code>echo "This is great stuff."</code>
<code>look</code>	<i>suggest words</i>	<code>look stri</code>

Minimal Unix Commands Reference page 2

Process control:

sample usage

file	<i>type of file</i>	file *
jobs	<i>in current shell</i>	jobs
kill	<i>stop process</i>	kill 23098 kill -9 23098
nice	<i>process priority</i>	nice ./a.out
ps	<i>list processes</i>	ps -ef sort more
which	<i>command filename</i>	which netscape

Customizing:

sample usage

alias	<i>command shortcut</i>	alias dir '/bin/ls -al \!* more'
finger	<i>user identity</i>	finger smith finger @newton
passwd	<i>change password</i>	passwd
set	<i>variables</i>	set path=(\\$path /usr/local/tex/bin)
setenv	<i>variables</i>	setenv TEXHOME /usr/local/tex
w who whoami	<i>user identities</i>	w who whoami

Compilers and file utilities:

sample usage

cc c++ gcc g++	<i>C and C++ compilers</i>	cc -o myprogram progA.c
f77 f90 f95	<i>Fortran compilers</i>	f90 -o myprogram progA.f90
diff	<i>line-by-line difference</i>	diff file1.txt file2.txt
strings	<i>text embedded in binary</i>	strings a.out
tar	<i>archiving files</i>	tar cf myarchive.tar file1 file2 dir3 dir4
gzip	<i>compress file</i>	gzip myarchive.tar
gunzip	<i>uncompress file</i>	gunzip myarchive.tar.gz

SYNTAX:

sample usage

&	<i>run in background</i>	nice ./a.out &
>	<i>redirect to file</i>	nice ./a.out > results.out &
>>	<i>append to file</i>	nice ./a.out >> more.out &
<	<i>input from file</i>	nice ./a.out < input.dat > results.out &
 	<i>pipe to another program</i>	cat *.dat more
;	<i>separates commands</i>	./a.out < input1.dat ; ./a.out < input2.dat ; ls
\$VARIABLE	<i>variables</i>	set ; echo \$PATH
* and ?	<i>wildcard characters</i>	ls *.tex ; ls a* ; ls *.*?? ; ls file?.txt
!! \$!	<i>last command, last word</i>	echo "!!"

FILES:

what the file is for

~/.cshrc	<i>initialization file</i>	define shell variables and aliases
~/.login	<i>initialization file</i>	set 1-time login information
~/.ssh/known_hosts	<i>ssh keys file</i>	keys accepted from other hosts; sometimes needs editing