

UNIX (Solaris/Linux)

QUICK REFERENCE CARD

Logging In

At the **Login:** prompt, enter your username. At the **Password:** prompt, enter your system password. Linux is case-sensitive, so enter upper and lower case letters as required for your username, password and commands.

Exiting or Logging Out

Enter **logout** and press <Enter> or type <Ctrl>-D.

Changing your Password

Type **passwd** at the command prompt. Type in your old password, then your new password, then re-enter your new password for verification. If the new password is verified, your password will be changed. Many systems age passwords; this forces users to change their passwords at predetermined intervals.

Changing your MS Network Password

Some servers maintain a second password exclusively for use with Microsoft windows networking, allowing you to mount your home directory as a **Network Drive**.

Type **smbpasswd** at the command prompt. Type in your old SMB password, then your new password, then re-enter your new password for verification.

Mounting your Home Directory under Windows

Right click **My Computer** or **My Network Places** and select **Map Network Drive**. Your share name is of the form: \\servername\username : Example: [\\mama\bob](#)

Changing File Access

chmod sets file access privileges. **chmod** is followed by a person/action/attribute flag then the file name.

Person	Action	Attribute
a all	+ add	r read
u user	- remove	w write
g group	= absolute	x execute
o others		

Examples:

chmod a+r fn Makes *fn* readable by everyone
chmod a+x * Makes everything executable
chmod a-w fn Removes write access for *fn*
chmod ug+r fn Read access for user and group
chmod u+x pro Makes the program *pro* executable
chmod a+rx dn Open the directory *dn* for access by everyone
chmod og-rwx ~ Locks up home directory

Text Editors

JOVE Editor

jove fn Edits the file *fn* use the JOVE editor
Ctrl-Z Saves file and quits JOVE
Ctrl-C Quits JOVE without saving

VI Editor

vi fn Edit the file *fn* using the VI editor
<ESC> x Delete the character under the cursor
<ESC> dd Delete line
<ESC> i Enter insert mode
<ESC> A Append to line
<ESC> O Open new line and edit
<ESC>:w Writes file
<ESC>:wq Write file and quit
<ESC>:quit! Quits without saving changes

Directory Commands

ls Lists files in current directory
ls -l Long listing of files
ls -a List all files, including hidden files
ls -lat Long listing of all files sorted by last modification time.
ls wcp List all files matching the wildcard pattern
ls dn List files in the directory *dn*
tree List files in tree format
cd dn Change current directory to *dn*
cd pub Changes to subdirectory "pub"
cd .. Changes to next higher level directory (previous directory)
cd / Changes to the root directory
cd Changes to the users home directory
cd /usr/xx Changes to the subdirectory "xx" in the directory "usr"
mkdir dn Makes a new directory named *dn*
rmdir dn Removes the directory *dn* (the directory must be empty)

File Commands

rm fn Removes (deletes) the file named *fn*
rm f1 f2 f3 Removes the files named *f1, f2 & f3*
rm *.o Deletes all files ending with *.o*
rm -r dn Recursively deletes the directory *dn* and all files and directories in *dn* (BE CAREFUL!)
cat fn Displays the file named *fn*
cat f1 f2 Concatenates and displays files *f1 & f2*
cat > fn Writes input from the keyboard into the file name *fn*. End input with **Ctrl-D**
more fn Displays file *fn*, one page at a time. **space** shows next screen. Exit with "q"
less fn Like "more", but "less" is better
cp f1 f2 Copy the file *f1* to *f2*
cp *.c fn Copy files ending with *.c* into subdirectory *dn*
cp /x/f1 . Copy file *f1* in directory */x* to current directory
mv f1 f2 Moves (renames) file *f1* to *f2*
mv * .. Moves all files in the current directory to the previous directory.
mv p/* x Moves all files in the directory *p* to the directory *x*.

I/O Redirection

> file Redirects output to *file*
ex: **ls > output**
>> file Appends output to *file*
ex: **cat f1 >> f2**
< file Takes input from *file*
ex: **gzip < f1 > f2**
| Pipes output to next program
ex: **ls -la | less**

Wildcarding

*	Matches zero or more of anything
?	Matches any single character
[...]	Matches any single character enclosed in braces
[^...]	Matches any single character not enclosed in braces
~/	Expands to users home directory
~ <i>username</i> /	Expands to <i>username</i> 's home directory
Examples:	
*.[ch]	Matches all files ending with .c or .h
[A-Z]*	Matches all files beginning with an uppercase letter
.*	Matches all hidden files
X*.o	Matches all files beginning with X and ending with .o
~/x*	Matches all files beginning with x in users home directory

Compression and Archival Commands

gzip <i>fn</i>	Compresses the file <i>fn</i> . Compressed files are renamed with a .gz extension
gunzip <i>fn.gz</i>	Uncompresses the file <i>fn.gz</i> . The .gz extension is removed
bzip2 <i>fn</i>	Better form of compression, files renamed with .bz2 extension
bunzip2 <i>fn</i>	Restores files compressed with bzip2
tar -cvf <i>fn.tar dn</i>	Stores all the files in directory <i>dn</i> into the file <i>fn.tar</i> which can then be compressed
tar -cvf <i>fn.tar f1 f2 f3...</i>	Stores the files <i>f1, f2, f3, etc...</i> into the file <i>fn.tar</i>
tar -xvf <i>fn.tar</i>	Extracts the files from <i>fn.tar</i>
tar -tf <i>fn.tar</i>	Lists all the files in <i>fn.tar</i>

FTP Commands

open <i>hostname</i>	Starts an FTP connection to <i>hostname</i>
cd <i>dn</i>	Change directory to the directory named <i>dn</i>
lcd <i>dn</i>	Sets local directory (where files are put and got from)
ls	Short listing of files in directory
dir	Long listing of files in directory
binary	Sets binary transfer mode
ascii	Sets ascii transfer mode
get <i>fn</i>	Gets the file <i>fn</i> from the remote machine to the local machine
put <i>fn</i>	Puts the file <i>fn</i> from the local machine to the remote machine
!<i>cmd</i>	Executes the UNIX command <i>cmd</i>
quit	Ends the FTP session and exits

Internet Utilities

ssh <i>addr</i>	Encrypted Remote login to another server with name <i>addr</i> (of the form [<i>username@</i>] <i>hostname</i>)
scp <i>fn addr</i>:	Upload file <i>fn</i> to remote server <i>addr</i>
scp <i>addr:fn .</i>	Download file <i>fn</i> on server <i>addr</i> to local directory
rsync -av <i>src dst</i>	Synchronize files at <i>src</i> and <i>dst</i> so that they are the same. Use <i>addr: path</i> to specify remote machines. ex: <i>rsync -av /some/dir bob@mama:dir</i>
ncftp <i>addr</i>	File Transfer (FTP) to machine <i>addr</i>
sftp <i>addr</i>	Like FTP, but securely encrypted
links <i>URL</i>	Text based WWW client for viewing web pages at <i>URL</i>
talk <i>user</i>	Start a two way talk session with <i>user</i>
talk <i>user@hostname</i>	Start a remote two way talk session with <i>user</i> on the machine <i>hostname</i>

Additional Commands

stty erase <i>backspace</i>	Sets the backspace key to erase. Otherwise use delete.
man <i>cmd</i>	Online manual page for command <i>cmd</i>
irc	Internet Relay Chat (IRC) client
epic	Another IRC client
w	Show who is on and what they are doing
finger	Show finger information for those online
finger <i>user</i>	Show detailed finger information for the user <i>user</i>
chfn	Change your finger information
date	Show the date and time
cal	Print a calendar to the screen
du -s <i>dn</i>	Show disk usage used in directory <i>dn</i>
ispell <i>fn</i>	Spell check the file <i>fn</i> interactively
mail <i>user</i> < <i>mesg</i>	Mail to the user <i>user</i> the contents of the file <i>mesg</i>
pine	A graphical terminal based mail program
mutt	Like pine, but better.
sort <i>fn</i>	Sort the lines in the file <i>fn</i>
ps	List all processes you have running
kill -9 <i>PID</i>	Kill the process with the process number <i>PID</i>
alias <i>short command</i>	Creates an alias for <i>command</i> called <i>short</i> . To make the alias permanent, place the alias in your .cshrc file. ex: alias f finger