Sequence Analysis Spring 2000 Dr. Richard Friedman
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Lesson 1 Basic Unix Commands

Assignment 1

1. Read: Introduction to Computing on the Columbia University Cancer Center Computer and Informatics Resource Center's Dec-Alpha.

2. Read Unix Primer Plus: p. 19-31, 35-39, 59-76, 134-144, 207-210

3. Login. Change your password. Use the who, u, and finger commands. logout.

4. Learn to use Pine. Send e-mail back and forth and use the reply, forward, save, and export functions.

5. Work through the files module of the learn program. (section files 10.1a of learn does not work properly. Carl Yazstremski is a baseball player. Also, section files 13.01a, dealing with ctrl-S and ctrl-Q to stop and restart output will not work, because these commands do not work in the system implementation described here).

Summary of commands:

Note: In this document different fonts have different meanings:

Times is used to explain commands and otherwise address the reader directly.

`Courier is used to indicate commands and command options.`

`Courier italics are used to indicate command parameters, for example, filenames.`

`Courier bold is used to indicate commands that are not displayed.`

`Courier bold italics are used to indicate computer-generated output.`

Helvetica is used to indicate menu items.

`login`	gets you onto the system.
`passwd`	changes your password.
`who`	identifies users on the system in detail.
`u`	gives usernames of users on system.

`finger` *`username`*	gives information about the user named.
`logout`	gets you off the system.
`pine`	starts the pine e-mail program.

pine menu items:

C compose message.

Compose menu commands:

^X (ctrl X) - send message.
^R include file in message.

I - displays folder index.
L - displays list of folders.
Reading mail commands:
P previous message.
D delete message.
U undo deletion of message.
R reply to message.
F forward message.
S save message in mail folder.
E (export) save message as Unix file.

(more Unix commands)

`man` *`commandname`*	defines the command and its options. "man" is short for "manual".
`ls`	lists the files in the directory. "ls" is short for "LiSt".
`ls -s`	lists the size of the file in kilobytes. "ls -s" is short for "List Size".
`ls -F`	lists directories with a slash after their name.
`ls -a`	lists "hidden" files (files whose names begins with a ".").
`ls -R`	lists all the files in all of the directories in the current directory. "ls -R" stands for "LiSt Recursive".
`ls -l`	gives a detailed description of each file listed. "ls -l" stands for "LiSt Long".
`ls -sF`	is the default in cuccfa, i.e the size in kilobytes is given and directories are indicated with a slash.
`cd` *`directoryname`*	changes the directory to the directory specified. "cd" is short for "Change Directory".
`cd`	changes the directory to the user's login directory.
`cd ..`	changes the directory to the directory immediately above the present directory.

`back`	changes the directory to the directory that the user was in most recently. "back" is not a standard Unix command, but is a command that works on cuccfa.
`cat` *`filename`*	displays the contents of the file on the screen.
`cat` *`filename1 filename2`*	displays the contents of the two files consecutively on the screen ("cat" stands for "conCATenate").
`command` *`filename(s) > outputfile`*	redirects output of command to new outputfile.
`lpr` *`filename`*	prints "filename" on cuccfa's printer ("lpr" is short for "Laser PRinter").
`lpq`	checks cuccfa's printer queue ("lpq" is short for "Laser Queue").
`lprm` *`printjobnumber`*	removes job with printjobnumber from printerqueue ("lprm" is short for "Laser Printer ReMove").
`pr` *`filename`*	formats files into numbered pages with headers("pr" is short for "PRepare").
`pr` *`filename`* `| lpr`	formats file into numbered pages with headers and prints out on cuccfa's laser printer.
`command1 | command2`	takes the output of "command1" and uses it as the input of "command2". "|" is called a "pipe".
`more` *`filename`*	displays the contents of a file a page at a time.
more commands:	
`<space bar>`	displays the next page.
`<return>`	displays the next line.
`b`	displays the previous page.
`q`	quits more.
`head` *`filename`*	displays the first 10 lines of a file.
`head -n` *`filename`*	displays the first n of lines of a file.
`tail` *`filename`*	displays the last 10 lines of a file.
`tail -n` *`filename`*	displays the last n lines of a file.
`wc`	gives the number of lines, words, and characters in a file. "wc" stands for "Word Count".
`rm` *`filename`*	removes a filename. ("rm" stands for "ReMove").
`rm -i` *`filename`*	asks you if you are sure before you remove the filename. "i" stands for "inquire".
`rm -i`	is the default on cuccfa.
`rm -f` *`filename`*	removes a file without asking you if you are sure.
`mkdir` *`directoryname`*	makes a directory. ("mkdir" stands for "MaKeDIRectory").
`rmdir` *`directoryname`*	removes an empty directory ("rmdir" stands for "ReMove DIRectory").

`rm -r` *`directoryname`*	removes a directory and all of its contents. (“rm -r” stands for “Recursive ReMove”).
`rm -rf` *`directoryname`*	removes a directory and all of its contents without asking you if you are sure. (“rm -rf” stands for “Recursive Forced ReMove”).
`mv` *`oldfilename newfilename`*	changes the name of a file from oldfilename to newfilename (“mv” stands for “MoVe”).
`mv -i` *`oldfilename newfilename`*	asks you if you are sure before it changes the name of a file (“mv -i” stands for “MoVe Inquire”). “mv –i” is the default on cuccfa.
`mv` *`newversion oldversion`*	replaces the original version of a file with the new version and gives the new version the name of the old version.
`mv` *`filename directoryname`*	moves the file to a new directory.
`mv` *`directoryname1 directoryname2`*	moves a directory and everything that’s in it to a new directory.
`cp` *`filename1 filename2`*	copies a file to a new file with a different name (“cp” stands for “CoPy”).
`cp -i` *`oldfilename newfilename`*	asks you if you are sure before it changes the name of an existing file (“cp -i” stands for “CoPy” Inquire”). “cp –i” is the default on cuccfa.
`cp` *`filename directoryname`*	copies a file to a new directory.
`cp -r` *`directoryname1 directoryname2`*	copies the entire contents of a directory to a new directory. (“cp -r” stands for “Recursive CoPy”).
`learn`	activates self instruction program for learning Unix.
Exceed	Activates a PC X-Windows program which can be used to access Common Desktop Environment.
Exodus	Activates a Mac X-Windows program which can be used to access Common Desktop Environment.