Notes for starting

by Claudio Rebbi, Boston University, January 17, 2006

The words typeset in `teletype font` represent commands that you should enter in the computer. Do not enter the words in normal font, that are sometimes added as clarification.

1. Experimenting with Unix.

Login and try the following commands. Take a note of what they produce.

`ls` list

`ls -l` the -l flag produces a long output

`ls -la` the -a flag lists also the files whose name begins with a period

If you do not see the files .login, .cshrc and .aliases let me know.

`pwd` print working directory, note the directory tree starting from the root directory /

`whoami`

`cd ..` change directory, .. is the parent directory of the current directory

`ls`

`cd` gets you back to your home directory

`pwd` print working directory

`ls`

`[up arrow]` I am using the square brackets to denote a single key. We use the very friendly tc shell (tcsh), where you can use the up and down arrows to move through the history of past commands.

`mkdir work` this creates a new subdirectory

`cd wo [TAB] [ENTER]` another nice feature of tcsh, the [tab] key will generate the completion (if unique)

Now you are in the work directory.

`ls` no files

This is an ugly way to create a file:

`cat > temp`

`this is a simple file`

`D̂` D̂ stands for pressing the ctrl (control) key and the d key simultaneously. Control D is the end of file character and terminates the input.

`ls -l` see how many bytes the file temp has

`wc t [TAB]` word count, counts the number of bytes, words and lines

`more temp` more lets you scroll one page at a time, type q to quit

`cp temp new` copy

`rm temp` remove temp

`mv new alpha` changes the name

`mv alpha ..` move alpha to the parent directory

`cd`

`ls -l`

`more alpha`

`rm alpha` some clean up

`man ls` finding information on the commands. Use the spacebar to scroll down and type q to quit. Later we will see how to use man in an editor, which allows us to search and move around more easily.

`ls ~rebbi` the instructor's directory

`ls ~rebbi/courseware` find material here

`which ls` details about a command

`which evince` we will use evince soon

2. Reading and printing a postscript file.

Postscript files are files that contain commands in a special language, (Adobe-postscript) that can be used to produce printed output. They can be visualized with the evince viewer

`evince ~rebbi/courseware/notes/project1.ps &`

pdf files can also be read with evince

`evince ~rebbi/courseware/notes/starting_howto.ps &`

Note the ampersand &. It runs the job in background, so that you can type further commands. Run all jobs such as editing, netscape etc. in background.

3. The emacs editor.

Emacs is an editor with great functionality. I recommend that you always use it as your editor.

Make sure you are in the work directory:

`cd ~/work` (~ without anything else is the user's home directory)

`emacs &`

The following commands are all in emacs.

`^X ^F ex1` find the file ex1, or create it in emacs

`this is just a simple` type a few line

`exercise to learn to use`

`the emacs edtor` mispell editor on purpose

Remember, use

`^G` to quit the command you are typing (useful if you typed something wrong).

Just to see how powerful emacs is

`[Esc] x isp [tab] [spacebar] bu [Tab] [Enter]`

Enter now the key (4 when I run the exercise) that corrects your spelling.

`^X ^S` saves the buffer, if you now type `ls -l` in the main window, you will see the file. Many of the emacs command can be entered using the mouse and the pull down menus on top, but it is faster to use the keyboard

commands.

`[Esc] >`

`[Esc] <` to move to the bottom or the top

Go to the beginning of the second line, then

`^K` kills to the end of line

`^K` it kills the end of line, but everything is saved in a buffer

`^Y` yanks back the buffer

Go to the end, then

`^Y`

Go to the beginning of the word is, then

`Control Spacebar` press control, keep pressed and press the spacebar, this sets the mark

Go to the end of the word emacs, then

`^W` kills the region, but saves it in the buffer

`^Y` get it back

Go to the end

`^Y` another copy

`^X ^W ex2` writes another file

`^X ^F ex1` now we have two buffers

`^X b` go to another buffer, accept ex2

Mark a region again, go to the beginning of the first simple and

`Control Spacebar`

go to the end of the word editor and

`[Esc] W` this saves into the buffer without erasing

Go to the end

`^Y` some more insertions

Very useful, go to the top, then

`^S emacs` searches forward, repeat `^S` for the next occurrence

try also

`R̂ learn` searches backward

Go to the top, then

`[Esc] %` prompts you for the word to replace, enter

`simple`

after with: enter

`messy`

You will be prompted for the replacement, press the spacebar to accept, press the key n to refuse the replacement.

Consult the man pages in emacs:

`[Esc] x manual-entry [Enter]`

`ls` now you can scroll, search etc.

Emacs offers many, many more possibilities. Study the tutorial, which you can access clicking over the help button.