

Learning to Use the Unix vi Editor.

Linux provides a number of editors which employ a graphical user interface and are therefore easy to learn how to use. The standard Unix editor is called vi and is harder to learn how to use but most of you will eventually teach yourselves how to use. For those who wish to start with vi straight away, the following information should help.

vi is a text based editor. It comes from a time when the only relationship between mice and computers was when a mouse electrocuted itself by nibbling on a computer cable!

Using vi has the advantage of not requiring the window manager which means that:

- It can be used remotely via telnet
- It can be used in the labs without starting the window manager (i.e. startx).

This means all user input must come from the keyboard. You must run vi from a shell window by type vi followed by the name of the file you wish to edit. For example:

```
vi frog.txt
```

Would load the vi editor and allow the user to edit a file called *frog.txt*.

Once you load vi, you have to keep in mind that the keyboard is used to:

- enter text into your file.
- enter commands for vi (e.g. save the file).

To make this possible, vi has two modes of operation :—

- Command Mode. In this mode editing commands for manipulating text can be issued.
- Insert Text Mode. vi must be in this mode to enter text into the file being edited.

In modern editors these two modes are merged together. vi must be told which mode the user wishes to be in.

- When in command mode, every key stroke will be interpreted as a vi command (e.g. delete a line, change cursor position etc).
- When in insert mode every key stroke will be inserted into the file being edited. EVEN NON-PRINTABLE CHARACTERS!
- To change from insert mode to command mode, press the ESC key once.

There are a number of vi commands for changing from command mode to insert mode (see later).

If you are unsure of which mode you are in then press the ESC key once and you will be in command mode.

The act of changing from command mode to insert mode and back again is the hardest thing for new vi users to remember.

When entering insert mode remember the first letter that you press will not be placed in

the text. This letter is the vi insert command (e.g. i–insert, a–append). Everything you type after the first letter up until you press the ESC key will be placed into the file. The following commands are available for entering insert text mode:

- a Append. Text is inserted immediately after the cursor position, on the same line.
- i Insert. Text is inserted before the position of the cursor position, on the same line.
- o Open Below. Text is inserted on a new line immediately below the position of the cursor.
- O Open Above. text is inserted on a new line immediately above the position of the cursor.

e.g.

Before:

```
if {} then
```

You are in command mode and enter the following keystrokes:

```
i<space>sparc<space><ESC>
```

where :

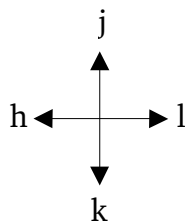
- <space> indicates a blank space and
- <ESC> indicates the ESC key.

After:

```
if { sparc_} then
```

Cursor movement

When in command mode cursor movement is achieved as below:–



You can also use the curser keys, when vi was first used, keyboards did not have curser keys!

Other cursor movement commands are :

w	Move to the beginning of the next word.
e	Move to the end of the word.
0	Move to the beginning of the current line.
\$	Move to the end of the current line.
G	Move to the last line in the file.
Ctrl/u	Page up.
Ctrl/d	Page down.

Exiting vi :—

The following commands are available for exiting vi :

ZZ	Save and exit.
:wq	Save and exit.
:w	Save and do not exit.
:q	Do not save, exit only if no changes have been made.
:q!	Exit but do not save.

Deleting text :—

The following commands are available for deleting text :

x	Deletes the character at the position of the cursor.
de	Deletes to the end of word.
db	Deletes back to the beginning of word.
dd	Deletes entire line.
D	Deletes to end of line.

The undo command :—

At any point while in command mode, pressing the u key will undo the action of the previous command.

There are thousands of editing commands available in vi. The above commands are a small sub set.

Appendix A: The Basic Set of vi Commands

Cursor movement :

left	h
right	l
up	k
down	j
page down	control/f
page up	control/b
forward a word	w
backward a word	b
move to line n	nG or :n

Editing commands :

Insert text	<i>itext</i> <esc>	(i followed by your text, followed by the escape key).
Append text	<i>atext</i> <esc>	(a followed by your text, followed by the escape key).
Delete line	dd	
Delete character	x	
Delete next word	dw	
Delete previous word	db	
Search forward	/searchstring	
Search backward	?searchstring	
Find next occurrence	n	
Find previous occurrence	N	
Save your file	:w	
Save and exit	ZZ or :wq	
Quit without saving changes	:q!	
Undo last command	u	
Redraw screen	control/r	