

Introduction to Unix

May 25, 2008

Exercises: Editing

vi Cheat Sheet

Open:

<code>vi filename</code>	(fn=filename)
<code>vi -r filename</code>	Recover a file from a crashed session
<code>vi + filename</code>	Place the cursor on last line of file.
<code>vi +n filename</code>	Place the cursor on line "n" of file.
<code>vi +/pat filename</code>	Place cursor on line with first occurrence of "pat"tern

Close:

<code>:w</code>	Write the file to disk. Don't exit.
<code>:w!</code>	Write the file to disk even if read/only.
<code>:wq</code>	Write the file to disk and exit.
<code>:wq!</code>	Write the file to disk even if read/only and quit.
<code>:q</code>	Quit the file (only if no changes).
<code>:q!</code>	Quit the file even if changes.

Movement:

<code>A</code>	Move to end of line, change to insert mode.
<code>h</code>	Move 1 space backwards (back/left arrow).
<code>j</code>	Move down 1 line (down arrow).
<code>k</code>	Move up 1 line (up arrow).
<code>l</code>	Move 1 space forwards (forward/right arrow)
<code>w</code>	Move cursor to start of next word.
<code>W</code>	Same as "w".
<code>b</code>	Move cursor to start of previous word.
<code>B</code>	Same as "b".
<code>:n</code>	Go to line number "n" in the file.

Editing:

<code>i</code>	Enter in to input mode.
<code>o</code>	Add a line below cursor and enter in to input mode.
<code>x</code>	Delete character (del key in some cases).
<code>D</code>	Delete line from right of cursor to end of line.
<code>dd</code>	Delete entire line.
<code>u</code>	Undo last edit or restore current line.
<code>p</code>	Put yanked text before the cursor.
<code>yy</code>	Yank current line.

Searching:

<code>/pattern</code>	Search for "pattern" in the file going forwards.
<code>?pattern</code>	Search for "pattern" in the file going backwards.
<code>n</code>	Find the next occurrence of pattern found forwards.
<code>N</code>	Find next occurrence of pattern found backwards.

Copy/Cut and Paste

<code>nyyp</code>	Copy n lines to buffer, paste below cursor
<code>nyyP</code>	Copy n lines to buffer, paste above cursor
<code>nddp</code>	Cut n lines and copy to buffer, paste below cursor
<code>nddP</code>	Cut n lines and copy to buffer, paste above cursor

1.) PRACTICE USING vi

Remember The vi editor uses "modes"

The easiest thing to do if you get confused in vi is to press the ESCape key a couple of times and start over. With what you were doing.

To begin log in or use a terminal with your *inst* user already logged in and do:

```
$ cd
$ touch temp.txt
$ vi temp.txt
```

Press the "i" key to switch to input mode.

Type something like, "VI is great! I think I'll be using vi from now on instead of Word"

Press <ENTER> to add lines.

Type some more text

Save the file that you are in. To do this do:

Press the ESCape key for command mode

Type ":wq" to save and quite the file

Copy a large file to your home directory so that you can play around with some more vi commands. We'll copy over your /etc/defaults/rc.conf file for this exercise. To do this do:

```
$ cd
$ cp /etc/defaults/rc.conf rc.conf.bak
```

Edit the file, but let's start at the bottom of the file:

```
$ vi + rc.conf.bak
```

Go to the first line of the file:

```
:1
```

Go to line 10, add a new line, and add in some text:

```
:10
```

Press the "o" key

Add the following text:

```
##
## A sample comment
##
```

Delete the three lines you just created:

Move to the first line of new text

Press the ESCape key

Press "dd" to delete a line, repeat until the text is gone

Practice copying and pasting text.

Go to line 10, copy 10 lines of text, go to the bottom of the file, place the text there:

```
ESC
:10
10yy
G
p
```

Under what we just did:

```
u
```

Go to the top of the file, replace all occurrences of “YES” with “NO”, but prompt for each change:

```
ESC
:%s/YES/NO/gc
```

Say “yes” or “no” to a few prompts then escape from this mode by pressing ctrl-c and <ENTER>.

Go to line 1, search for “named”, move to the end of the line, add some text:

```
ESC
:1
/named
$
i
“text here”
ESC
```

2.) COPY/PASTE BETWEEN TWO VIRTUAL TERMINALS

We already did this on day 1, but using your virtual terminals and the mouse buffer is extremely useful to practice.

```
Press ALT-F2. Make sure you are logged in as inst in this virtual terminal.
Press ALT-F3. Make sure you are logged in as inst in this virtual terminal.
Press ALT-F2.
```

Now we'll copy some text from virtual terminal 2 (ALT-F3) in to the file /home/inst/rc.conf.bak in virtual terminal 1 (ALT-F2).

```
Press ALT-F3
$ hostname
Highlight your machine's full name
Press ALT-F2
$ cd
$ vi rc.conf.bak
```

```
/hostname
Move your cursor over the second quote in after the “=” symbol
Press “i”
Press the middle mouse button
```

You should have a line that now reads something like:

```
hostname="pcn.sae.ws.afnog.org"
```

Now let's save the file with the change:

```
press ESCape
:wq
```

3.) PRACTICE, PRACTICE, PRACTICE

As you should be able to see vi is *extremely* powerful as an editor, but not necessarily intuitive. The best way to get good at using vi is to practice.

Make sure you are logged in as *inst* on whatever virtual terminal you wish to use. Then do the following:

```
$ cd
$ vi rc.conf.bak
```

In this file practice some of the following items:

- Moving around:
 - By word
 - End of line
 - Start of line
 - Top of file
 - Bottom of file
 - To an absolute line number
- Copying and pasting multiple lines (use vi commands)
- Copying and pasting single lines (use vi commands)
- Copying and pasting multiple lines (use your mouse buffer)
- Copying and pasting single lines (use your mouse buffer)
- Search for items backwards and forwards
- Replacing text

And, anything else you wish to practice.

4.) REPEAT EXERCISES 1, 2 AND 3 USING ee

To edit a file using the ee editor you simply type “ee filename”. See how much of exercises 1, 2 and 3 you can do using ee by using the built-in ee command help. Don't worry if you can't do everything, but give it a try.

