Linux System Administration

Editors

Getting Started with Linux

Goals

- Be able to edit a file using vi

- Begin to understand the "language" of configuration files

- Use alternate editors: ee, joe, pico, nano, emacs, xemacs, gedit, etc.

vi Philosophy

- It's available!

- Wait, what was that? Oh yeah, it's available!

- It's has some very powerful features.

- It's ubiquitous in UNIX and Linux (`visudo, vipw, vigr,` etc.)

- Not that hard to learn after initial learning curve.

- Impress your friends and family with your arcane knowledge of computers.

Why is vi "so hard to use"?

Like all things it's not really – once you are used to how it works.

The ***critical*** vi concept:

    1. vi has two modes

    2. These modes are ***insert*** and ***command***

Let's see how we use these...

vi command and insert modes

Swapping modes

- When you open a file in vi you are in *command mode* by default.

- If you wish to edit the file *you need to switch to insert mode first*.

- To exit *insert mode* press the ESCape key.

- If you get used to this concept you are halfway done to becoming a competent vi user.

vi insert mode

Two common ways to enter insert mode upon opening a file include:

- Press the "i" key to start entering text directly after your cursor.

- Press the "o" key to add a new line *below* you cursor and to start adding text on the new line.

- Remember, to exit *insert mode* press the ESCape key at any time.

vi command mode

Many, many commands in vi, but some of the most common and useful are:

– Press "**x**" to delete a character at a time.

– Press "**dd**" quickly to press the line you are on.

– Press "/", and text to search for and press <ENTER>.

- Press "n" to find the next occurrence of text.
- Press "N" to find previous occurrences of text.

Saving a file or "How to exit vi"

1. In vi press the *ESC*ape key to verify you are in command mode.

2. Depending on what you want to do press:

:w → write the file to disk

:wq → write the file to disk, then quit

:q → quit the file (only works if no changes)

:q! → quit and lose any changes made

:w! → override r/o file permission if you are owner or *root* and write the file to disk.

:w!q → override r/o file permission if you are owner or *root* and write the file to disk and quit.

Speed-Up your config file editing!

1. In vi press the *ESC*ape key to verify you are in command mode.

2. To search for the first occurrence of something:

   `/string` → press <ENTER>

   "n" → press "n" for each following occurrence

   "N" → press "N" for each previous occurrence

3. To replace *all* occurrences of a string in a file:

   `:%s/old_string/new_string/g`

4. To replace *all* occurrences of a string in a file:

   `:%s/old_string/new_string/gc`

Speed things up some more!

1. In vi press the *ESC*ape key to verify you are in command mode.

2. Go directly to a specific line number

   `:NN` → press <ENTER>. If NN=100, go to line 100

3. Go to start/end of a line

   press *Home* or press *End* on your keyboard

4. Go to top/bottom of a file:

   press *ctrl-Home* or press *ctrl-End* on your keyboard

5. Undo the last change you made (in command mode)

   press "u"

Other editors

joe

- Ctrl-k-h brings up the editor menu
- Ctrl-c aborts
- Cursors work as you expect

ee

- ESC brings up the editor menu
- Cursors work as you expect

Conclusion

vi's most confusing feature is that it works in two modes and you must switch between them.

Questions?

Some vi practice