

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:
joe, pico/nano, emacs/jed,
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 *ESCape* 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`
 - 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 *ESCape* 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
- 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

nano (or pico – same thing!)

- Help always available at the bottom
- Cursors work as you expect

jed (mini-emacs)

- F10 brings up menu
- Functions like EMACS (CTRL-X, CTRL-S)

Conclusion

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

Questions?

Some vi practice