

Learning "vi" Editing Commands

How to Learn the "vi" Editor

Simple "vi" (oxymoron)

"vi" as a religion

© *by Stan Reichardt*

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INTRODUCTION:

- The choice of editor is critical to the new user.
- The learning of an editor is a major point of failure for users new to UNIX, UNIX-Like, and GNU/Linux OSs.
- The "vi" editor is standard - it's everywhere (almost).
- You will (eventually) need to know it.

GOALS:

- Quick Overview of "vi" & "vi" like editors
- Learn Simple "vi"
 - *least number of commands necessary*
 - *don't fail*
 - *Eventually learn more "vi"*

Definitions

- font - assortment of printing type of one size and style
- line editor - text editor that deals with one line at a time
- text file - has lines of text - no binary controls or data
- text processing - editing with embedded commands to format documents
- *vedit*- on some systems, a simplified setup of "vi" for beginning users
- *vi*- the visual mode of the "ex" editor
- *view*- "vi" run as a read-only file viewer
- visual editor - uses whole screen to display lines
- word processing - program to edit text, pictures & formatting codes in one file
- wysiwyg (whizy-wig) - What You See Is What You Get

Background

- 1969 ARPAnet born & UNIX by Ken Thompson at Bell Labs
- Jan 1974 Berkely gets AT&T version 4 of UNIX for nearly free
- 1975 Bill Joy and Chuck Haley arrive as graduate students
- they build popular *Pascal* compiler & "ex" line-at-a-time editor
- early 1977 BSD UNIX distributed with *Pascal* & "ex" editor {30}
- ADM-3a terminals with screen-addressable cursors arrive
- Bill Joy enhances "ex" to be "vi" the Virtual screen editor
- Bill Joy also writes basis for "*termcap*" monitor interpreter
- expanded user community feedback enhances system & tools
- 1978 2BSD UNIX distributed with *Pascal*, "vi" & "*termcap*" {75}

CONS - DISADVANTAGES

- The *<CAPS LOCK>* key is your enemy!!!!
- Hard to learn everything
- Mode confusing to new users
- Less than intuitive
- Mouse assistance NOT universal
- NOT for brain dead & too lazy to learn crowd

PROs - ADVANTAGES

- Fingers never leave keyboard area
 - NOT mouse dependent
 - NOT PFkey dependent
- Fast
- Powerful
- Content Oriented
- Learned keystrokes are common in other UNIX applications
- TAGS (advanced feature)

Available:

- On Virtually Every UNIX/UNIX-like platform
- As Clones for other O/Ss
 - MKS toolkit "vi"- commercial collection of tools
 - *ELviS* - "vi" clone
 - Sterling Software "vi"- commercial M\$DOS clone
 - *Stevie* - predicesor to *VIM*
 - *VIM* for GNU/Linux distributions - M\$DOS/Windows

Need to Know

- **GETTING IN:**

- invoked as "vi" for editing
- invoked as "view" for read only viewing

- **GETTING OUT:**

- *ZZ* - Write (save) any changes and quit file
- *:q* - Quit file (discarding any changes)
- *:w* - to write out your changes to a file
- *:w filename* - write out to a new file name
- *:w!* - Write (save) file (over-riding protection)

More to Know

- **COMMAND STRUCTURE:**

- Editing commands can take most movement commands as objects.

*Examples: **dw** deletes word and **y\$** yanks to end of line into a buffer.*

- Most vi commands can be preceded by a count.

*Examples: **5x** erases five characters, **5i?** inserts five "?" characters and **2dw** deletes two words.*

- **CONFIGURATION CONTROL:**

- Invoked by using the ":" {shift colon} key
- ***:set all*** - - to show all (or almost all) options
- ***:help set*** - - to get more information { VIM }

Least Commands Necessary

<http://www.lpi.org> - Objective 1.7.1:

Perform basic file editing ops using vi

- basic modes
- navigation
- inserting
- editing & deleting text
- finding text
- copying text

BASIC MODES

- Mode confusing to new users
 - **command mode** - keystrokes perform editing functions
 - **insert mode** - keystrokes are inserted into file
- NOT all implementations of *vi* show current mode on screen
- **<ESC>** - - key to go into command mode

TIPS TO HELP

- The **<CAPS LOCK>** key is your enemy!!!!
- **<ESC>** - key to go into command mode, i.e. exit insert mode and return control to you
- ***u,U*** - undo last edit, restore current line
- **<Ctrl>-L** - redraw the screen

THE BASIC "vi" COMMANDS

- *h,j,k,l* - left, down, up, right {avoid arrow keys}
- *i,a* - Insert text before, after cursor
- *r* - replace with the next typed character
- *x* - delete character
- *dd* - delete current line
- */pattern* - search forward for **pattern**
- *yy* - yank (copy) current line into a buffer
- *p,P* - put deleted (or yanked) text before, after cursor

More on navigation

- *h,j,k,l* - left, down, up, right { *avoid arrow keys* }
- *O,\$* - first, last position of current line
- *w,W,b,B* - Forward, backward by word
- *e,E* - end of word
- *H,M,L* - jump to Home, Middle, Low screen line^{*↵}
- *<Ctrl>-F* - move forward a screen
- *<Ctrl>-B* - move backward a screen
- *<Ctrl>-E* - shift display one line up
- *<Ctrl>-Y* - shift display one line down

More on inserting

- *i,a* - Insert text before, after cursor
- *I,A* - Insert text at beginning, end of line
- *o,O* - Open new line below, above cursor

More on editing & deleting text

- *r* - replace with the next typed character
- *R* - replace until `<ESC>` (overtime mode)
- *cw* - change word until `<ESC>`
- *dw* - delete a word
- *4dw* - delete 4 words
- *dd* - delete current line
- *3dd* - delete 3 lines
- *D* - delete to end of line
- *x* - delete character
- *6x* - delete 6 characters
- *xp* - delete a single character, then put back
(to swap two letters)
- *~* - swap case of character

More on finding text

- ***/pattern*** - search forward for **pattern**
- ***?pattern*** - search backward for **pattern**
- ***n,N*** - Repeat last search in same, opposite direction
- ***fx*** - search forward for character **x** in current line
- ***Fx*** - search backward for character **x** in current line

More on copying text

- ***yy*** - yank (copy) current line into a buffer
- ***yw*** - yank (copy) a word into a buffer
- ***p,P*** - put deleted (or yanked) text before, after cursor

ALTERNATIVE EDITORS

- *VIM - Vi IMproved* - "vi" clone on many GNU/Linux distributions, Unix, M\$-DOS, Win3.x/95/98/NT/OS2/Mac/Atari/Amiga/VMS
- *elvis* - "vi" clone
- *vile* - "vi" clone
- *emacs* (the other religion)
- *pico*
- *aee* { *Another Easy Editor* }
- and about 30 others...

Resources

BOOKS:

- Almost every introductory UNIX book
- "*Learning the VI Editor*" by Linda Lamb - O'Reilly Book +
- "*Rescued by UNIX*" by Augie Hansen - 7 lessons - Jamsa Press

OTHER:

- *man vi* -- Read The Friendly Manual (RTFM)
- *VIM* has *:help* available internally
 - *VIM* *":help tutor"* to find location of **tutor.vi** file
 - **tutor.vi** - text file used to teach "**vi**" in 25-30 minutes
- www.vim.org - VIM HOME PAGE
- www.thomer.com/thomer/vi/vi.html - VI LOVERS HOME PAGE
- www.networkcomputing.com/unixworld/tutorial/009/009.html
- advanced "**vi**" tutorial (for power users)
- www.freshmeat.net - points to most UNIX+ editor packages
- www.linuxapps.com - points to GNU/Linux editor packages

SUMMARY:

- Recap the key points
- Suggestions and observations
- Questions, comments and other feedback on these materials to: *stan@mail.sluug.org*