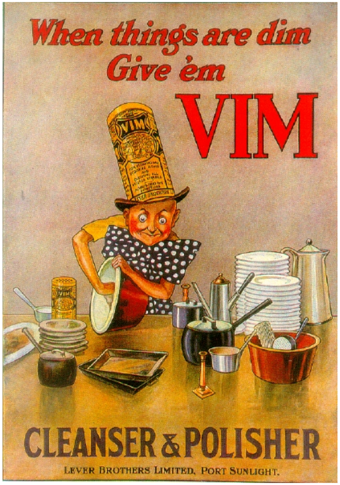
Vim: A great tool for your toolbox!



History

- Originally created for the Unix operating system by Bill Joy (one of the founders of Sun)
- Created a visual interface for the original ex line editor on UNIX
- The name vi is derived from the shortest unambiguous abbreviation for the command visual in ex
- The Single UNIX Specification specifies vi, so every conforming system must have it.
- vi is not open source but there are several clones with the most popular being Vim

Vim

- Vim is a clone of vi created by Bram Moolenaar and was first released in 1991
- Vim stands for Vi IMproved
- Vim is not 100% compatible with vi as defined in the Single Unix Specification
- Vim has many improvements over standard vi
- Vim has a built-in tutorial for beginners (accessible through the `vimtutor` command)
- Vim has 6 modes, 4 of which you will spend 99% of your time in.

Vim Modes

- Normal mode - For navigation and manipulation of text. This is the mode that vim will usually start in, which you can usually get back to with ESC.
- Insert mode - For inserting new text. The main difference from vi is that many important "normal" commands are also available in insert mode - provided you have a keyboard with enough meta keys (such as Ctrl, Alt, Windows-key, etc.).
- Visual mode -For navigation and manipulation of text selections, this mode allows you to perform most normal commands, and a few extra commands, on selected text.

Vim Modes - continued

- Select mode - Similar to visual but with a more MS-Windows like behavior.
- Command-line mode - For entering editor commands -
  - Try `:help`
  - Try `:Ni!`
- Ex-mode - Similar to the command-line mode but optimized for batch processing.

Using Vim

- When using Vim the goal is to keep your hands on the home row
- Primarily you will use normal mode, and insert mode when editing text
- Visual mode allows you to cut and paste large swaths of text all at once
- Command mode allows you to send commands to the editor such as save (`:w`) or quitting (`:q`)

Learning Vim - basic commands

- Saving a file - `ESC` then `:w`
- Opening a file - `ESC` then `:e <filename>`
- Quitting - `ESC` then `:q`
- Save then quit - `ESC` then `:wq`
- To switch to insert mode hit `i`. To get back to normal mode hit `ESC`
- Here is good guide to get you started with the basics. http://cs.boisestate.edu/~amit/teaching/handouts/vi-two-page-ref.html
- `vimtutor` will walk you through all the basic commands.

Learning Vim - Regular expressions

- Vim has a powerful regular expression engine built in to help you find and edit text.
- While in normal mode type /<regex> and Vim will find all the text that matches.
- You can also do a complex find and replace with :%s/<regex>/<new text>/cg which can be read as globally (g) find all the text that matches the <regex> and replace it with <new text> and confirm with me (c) before you actually make the change.

Customizing Vim

- When Vim starts up it looks for a file named `.vimrc` in your home directory
- You can use your `.vimrc` with any version of Vim
- You can customize your `.vimrc` to add in any plugins or settings that make Vim easier to use. For example changing the font to something easier to read.
- Take a look a Shane's vimrc as a starting point https://github.com/shanep/vim
- Vim takes some time to learn but once you have mastered it the payoff is faster editing and coding

Customizing Vim - Font example

- The font is bad with the default install you can fix it with the following code in your .vimrc

-
  ```
  if has("win32")
          set guifont=Consolas 18
  endif
  if has("unix")
      if system('uname')=~'Darwin'
          set guifont=Menlo\ Regular:h18
      else
          set guifont=Inconsolata\ Medium\ 18
      endif
  endif
  ```

Vim plug-ins

- Vim has an extensive set of plug-ins that you can leverage to add additional functionality. Below is a few plug-ins that you may want to try out.
- NERDTree - Gives you a buffer view of all the files and directories in your current working directory. (Similar to the project window in eclipse)
- TagBar - Gives you a layout off all the functions, methods, classes, and structs of the currently loaded buffer. (Similar to the class view window in eclipse)
- SuperTab - Ties the built in omnicomplete to the tab button. (Not as great as code complete in eclipse but better than nothing at all!)

GVim and MacVim

- There is a GUI version of Vim that is easier to use and more friendly in a graphical environment. You get a tool bar that provides many of the common commands so you don't have to memorize everything!
- You can install this on Fedora Linux with the command: `dnf install vim-enhanced vim-X11`
- MacVim is a version of vim that has been customized for Mac
- GVim is also available on windows.
- You should generally use GVim or MacVim for daily usage. The terminal version is handy if you are working over a slow ssh connection.

References

- Wikipedia entry on Vi: http://en.wikipedia.org/wiki/Vi
- Wikipedia entry on Vim: http://en.wikipedia.org/wiki/Vim_(text_editor)
- wikibooks entry on Vim: http://en.wikibooks.org/wiki/Learning_the_vi_Editor/Vim/Modes
- Vim homepage: http://www.vim.org