Emacsen

Religion or Bread of Life?

Dr. Shawn Ostermann
Editors, Philosophy, and Religion

- The choice of text editors is a very 'religious' issue
  - People have favorites for reasons that can’t be explained by logic
    - Or reason
      - Or common sense!

- Personally, I use both emacs and vi
  - For trivial changes to a single file, I usually use vi
  - For anything more complex, I start emacs instead

- This whole presentation was written in emacs

- As a general rule, almost all of the best programmers/sysadmins I know use emacs
How Emacs is Different

- It’s a non-modal editor
  - VI, for example, is modal
    - You’re either in 'editing mode' or 'insert mode'

- Emacs doesn’t have modes
  - For the most part, most keys 'auto insert'
  - In combination with meta keys, the same keys perform movement, editing, and etc

- Emacs is a 'typists editor'
  - Everything can be done from the keyboard
  - You don’t need menus or the mouse
  - Modern versions also have those things too!
• One of the best features of standard emacs is that it works in X11 with menus, scroll bars, mouse positioning, etc, etc

• **BUT**, if all you have is a terminal window or console, emacs is happy to run in that environment too!
  – Just uses 'curses' to draw the screens
  – This is the environment that it grew up in, anyway
Emacs History

- Emacs stands for 'Editing Macros'

- Richard Stallman wrote EMACS as a series of macros for the TECO editor (running on a PDP11 minicomputer) in 1975

- James Gosling wrote “Gosling Emacs” in C in 1983
  - Still considered 'the real emacs' by hard-core emacs users
  - Much of the actions written in 'mock lisp'
  - Gosling went on to create a few other things of minor interest (JAVA)

- Richard Stallman released 'GNU Emacs' in 1985
  - Yes, the Richard Stallman of FSF fame
  - Underneath was 'real lisp'
  - The lisp code does most of the real work
Emacs History (continued)

- 'Lucid Emacs' forked off in 1992
  - Lucid was a company that needed a front-end for a software tool that it sold
  - Ported GNU Emacs to use X11 (several years before GNU Emacs could do it)
  - Lucid went bankrupt in 1994, and 'lucid emacs' became 'xemacs'

- GNU Emacs is more popular than xemacs
  - They’re pretty similar now
  - Xemacs is generally 'prettier' and handles fonts and etc. better
  - Richard Stallman is a 'very stubborn man' and has 'philosophical differences' with some of xemacs
  - It’s unlikely that they’ll re-integrate

(some history courtesy Jamie Zawinski jwz@jwz.org)
My Emacs Use

- I started using Gosling Emacs in about 1984
- Switched to Gnu Emacs in about 1985
- Switched to Lucid (X11) Emacs in about 1992
- Use xemacs almost exclusively now
  - Sort of the “macintosh” of emacs, better, but fewer people use it so software comes out more slowly
What Makes Learning Emacs Hard

- Using somebody else’s emacs is like using their shell
  - Nothing works the way that it did when it came out of the box

- It’s very customizable
  - No two people have it configured the same way
  - A hard-core emacs user has absolutely no idea which things are 'standard' and which have been customized

- Once the editing commands are in your 'muscle memory’, your fingers just do the right thing
  - Makes it hard to explain to somebody how to do things without having a keyboard in front of you
Things to Try

- Edit the source for this presentation
  - Compile
  - View from Shell
  - Check with cvs

- Edit the Makefile
  - Show what happens where there are bad spaces in it

- Edit a C program
  - Show automatic indentation
  - Show automatic re-indentation
  - Show the help bindings for
    - 'k' - what does key do
    - 'w' - whereis
  - Manual pages

- Look through my .emacs file a little
• OK, you can’t program in C/C++ without emacs
• Does syntax highlighting
• Automatically indents
• Matches braces
• Understands many different indentation styles
• Play with CVS
• How many lines in the file?

• OK, I just want avionics

• I want the amount at the front

• OK, delete the titles and stuff, I just want the amount and then the name

• Oh, wait, the names are backwards
  – Oh, wow, the numbers have commas, too

• Sort them by amount
The Best Things about Emacs

- The help system is all built in
  - Play with the info browser

- It understands the syntax of hundreds of computer languages

- It’s all unified

- ispell integration
  - flyspell

- If it doesn’t work the way you want, just change it
To use emacs, you need to memorize these things

- Help bindings (info tree and tutorial)
- META-x (to run commands that aren’t bound)
- All basic cursor movement keys
- Splitting windows and etc
I Already Use Emacs, What Should I Learn

- Built in help system
- Get away from using the menus (or turn them off)
- Macros
- Query-replace-regexp
- tags
- cvs integration
- compiling integration
- find something that you really want to be able to automate and figure out how to do it in lisp
Where To Get Other Ideas

- Look at Ostermann's emacs files
  - ~osterman/emacs/*\.el
  - ~osterman/.xemacs/init.el
  - http://oucsace.cs.ohiou.edu/~osterman/talks/emacs/

- Web stuff
  - http://xemacs.org
  - http://www.gnu.org/software/emacs
  - http://dotfiles.com
Final Hints

- Just start using it
  - Do not switch back to vi/pico/etc
    - It just defeats the purpose
- Do the tutorial first ('HELP t' or from the menus)
- Leave it running, don’t start and exit
- Use it for compiling
- Know how to get manual pages