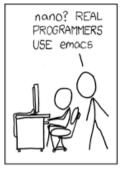
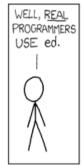


Unix Editors

Winter 2022

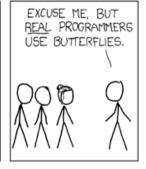












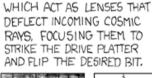


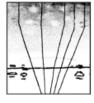
THE DISTURBANCE RIPPLES OUTWARD, CHANGING THE FLOW OF THE EDDY CURRENTS IN THE UPPER ATMOSPHERE.

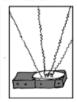


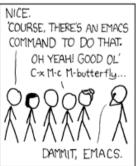


THESE CAUSE MOMENTARY POCKETS OF HIGHER-PRESSURE AIR TO FORM,











Unix editors

- Come in two types
 - Modal
 - An "input" mode and a "control" mode
 - E.g. vi and ed
 - Modeless
 - E.g. pico and emacs



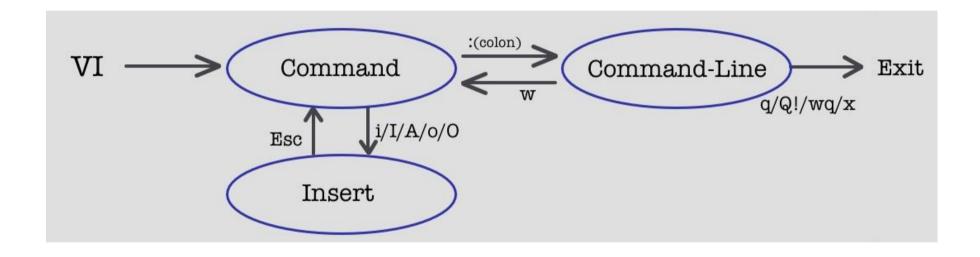
ed

- ed Line editor
- The original text editor
- Generally superseded by vi
- https://en.wikipedia.org/wiki/Ed (text editor)

- Much more popular
- Found on nearly any Unix system
- Has three modes
 - Input
 - Command
 - Colon command



Vi



- vi <filename>
- If the file already exists, you will see the file contents
- If the file does not exist, you will have a blank file ready for input
- The bottom of the screen will show the filename and the line/column number of the cursor



- Common commands
 - Arrow keys navigate around
 - i or a change to "insert" or "append" mode
 - ESC change to "command" mode
 - x delete the current character
 - 3x deletes 3 characters



- Common commands
 - dd delete the entire line
 - 3dd deletes 3 lines
 - u − undo
 - /string search for "string"

- Common commands
 - :w write the file
 - :wq or :x write the file and quit
 - :q quit
 - :q! quit discarding any changes

- Common commands
 - :%s/foo/bar/g search for any instance of regular express "foo" and replace it with the string "bar"
 - More on regular expressions later



emacs

- Modeless but uses "Meta" (usually ALT or ESC) and CTRL to perform functions
- Has a graphical option if you are at a GUI terminal
- Key combinations
 - E.g. C-x CTRL + x
 - E.g. C-x s CTRL + x + s

emacs

- Common key combinations
 - C-x C-s Save file
 - C-x C-c Quit
 - C-_ or C-x u Undo
 - C-a and C-e Goto start or end of line
 - C-g abort a partial command

emacs

- Popular because you can define your own key combination to do whatever you want (think Macros in Microsoft Office)
- https://i.imgur.com/SKm6x.png



Pico and nano

- Simple text editors that are always in insert mode
- Control options are always displayed at the bottom of the screen



What editor should you use for this course?

- Probably none of these.
- Use a graphical editor on your desktop and upload your code
 - VSCode (https://code.visualstudio.com/)
 - Notepad++ (<u>https://notepad-plus-plus.org</u>)
 - CLion (<u>https://www.jetbrains.com/clion/</u>)



Youtube links

- Fireship
 - Vim in 100 seconds (https://youtu.be/-txKSRn0qeA)
- Vim vs Emacs. Which is better (<u>https://youtu.be/VaBdlcYaZLQ</u>)

