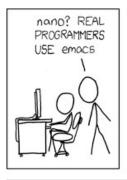
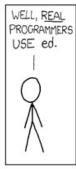


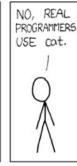
## **Unix Editors**

#### Winter 2022

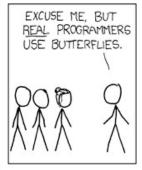




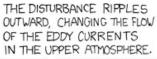








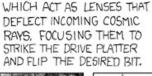


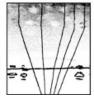




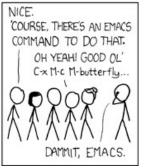


THESE CAUSE MOMENTARY POCKETS OF HIGHER-PRESSURE AIR TO FORM,











## **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



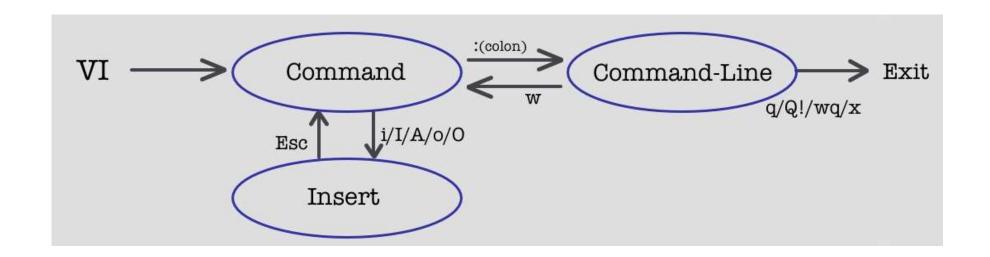
#### ed

- 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- Generally superseded by vi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"

## vi

- 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 (<u>https://code.visualstudio.com/</u>)
  - Notepad++ (<u>https://notepad-plus-plus.org</u>)
  - CLion (<u>https://www.jetbrains.com/clion/</u>)



#### Youtube links

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



