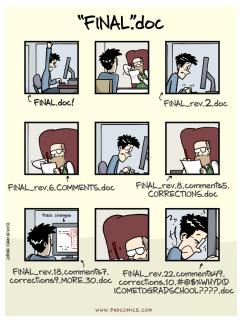
# Make Incremental Changes

Version Control with git and GitHub



http://www.phdcomics.com/comics/archive.php?comicid=1531

## Methods for tracking versions

- ▶ Don't keep track
- ► Save numbered files
- ► Formal version control

## Suppose it stops working...

- ▶ Don't keep track
  - good luck!
- Save numbered files
  - Manually compare files (with diff)
- Formal version control
  - Easy to study changes back in time
  - Easy to jump back and test



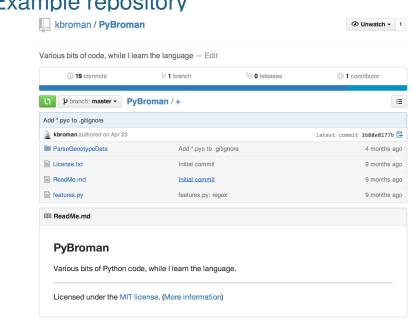


@mtholder motivating git: You mostly collaborate with yourself, and me-from-two-months-ago never responds to email. @swcarpentry

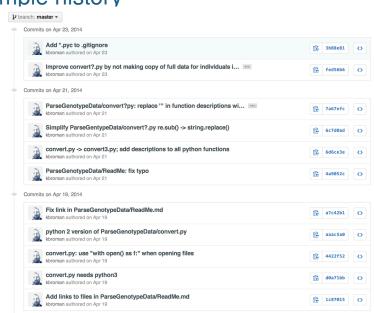
## Why use formal version control?

- Backup files that are changing
- Store a history of those changes
- Explore that history
- No worries about breaking things that work
- Merge changes from multiple people

### Example repository



### **Example history**



#### Example commit

