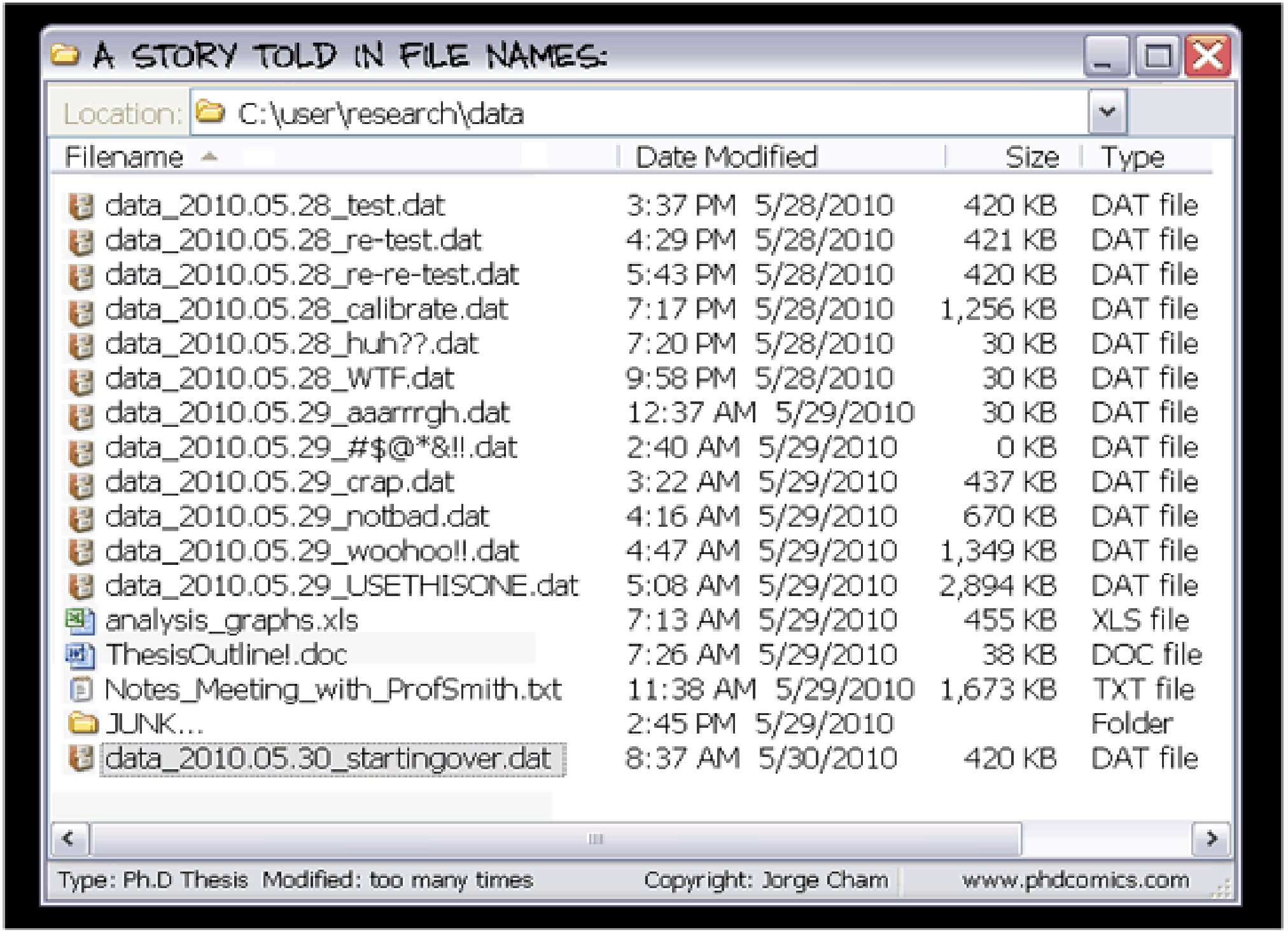
Version Control


A STORY TOLD IN FILE NAMES:
Location: C:\user\research\data
Filename
Date Modified
Size
Type
data_2010.05.28_test.dat 3:37 PM 5/28/2010 420 KB DAT file
data_2010.05.28_re-test.dat 4:29 PM 5/28/2010 421 KB DAT file
data_2010.05.28_re-re-test.dat 5:43 PM 5/28/2010 420 KB DAT file
data_2010.05.28_calibrate.dat 7:17 PM 5/28/2010 1,256 KB DAT file
data_2010.05.28_huh??.dat 7:20 PM 5/28/2010 30 KB DAT file
data_2010.05.28_WTF.dat 9:58 PM 5/28/2010 30 KB DAT file
data_2010.05.29_aaarrrgh.dat 12:37 AM 5/29/2010 30 KB DAT file
data_2010.05.29_#$@*&!!.dat 2:40 AM 5/29/2010 0 KB DAT file
data_2010.05.29_crap.dat 3:22 AM 5/29/2010 437 KB DAT file
data_2010.05.29_notbad.dat 4:16 AM 5/29/2010 670 KB DAT file
data_2010.05.29_woohoo!!.dat 4:47 AM 5/29/2010 1,349 KB DAT file
data_2010.05.29_USETHISONE.dat 5:08 AM 5/29/2010 2,894 KB DAT file
analysis_graphs.xls 7:13 AM 5/29/2010 455 KB XLS file
ThesisOutline!.doc 7:26 AM 5/29/2010 38 KB DOC file
Notes_Meeting_with_ProfSmith.txt 11:38 AM 5/29/2010 1,673 KB TXT file
JUNK... 2:45 PM 5/29/2010 Folder
data_2010.05.30_startingover.dat 8:37 AM 5/30/2010 420 KB DAT file
Type: Ph.D Thesis Modified: too many times
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What is Version Control?

- A way to track changes to files
- A way to sync files on multiple machines
- A way to allow many people to collaboratively edit the same files

Git

- We'll be using Git, a version control system
- Other examples: Subversion, Mercurial, CVS

GitHub

- Allows you to create **unlimited, free** git repositories that you can access from anywhere
  - The catch: they have to be public, or you'll have to pay
- Another option: BitBucket, which allows free private Git repositories

Four layers of Git

- **The “working directory”**
  - (directory on your computer where you store your files)
- **The “stage”**
  - This is where you prepare to commit changes
- **The local repository**
  - This stores a permanent record of all changes you make to your files
- **The remote repository (GitHub)**
  - Used to make changes available to others

GitHub

- Step 1: create a GitHub account

  http://www.github.com

Git setup

- Let's configure Git. In the shell, run these two commands:

```
git.config --global user.name “your_name”

git.config --global user.email “you@abc.com”
```