

7 Reasons to Use Version Control

What is Version Control?

- ▶ Track changes on steroids
- ▶ Tracks every change ever made in groups called commits
- ▶ Every commit stores the full state of the code



1. Track changes for collaboration

- ▶ Easily see what others have done
- ▶ Ability to reject bad changes



2. Simultaneous editing

- ▶ Anyone can work on the code at any time
- ▶ Easy if it's in different parts of the code
- ▶ Good system for handling conflicts in the same part of the code



3. There is one canonical version

- ▶ There is a clear place to go for the primary copy of the code



4. Never. Lose. Anything.

- ▶ **Have you ever**
 - ▶ Lost a file
 - ▶ Written over a file
 - ▶ Made a change that broke your code and couldn't remember how to get back to where you started

- ▶ **Not anymore**



5. Easily unbreak your code

- ▶ **Experiment with impunity**

- ▶ **No more of this:**

`my_file.py`

`my_file_091211.py`

`my_file_new.py`

`my_file_newest.py`

`my_file_final.py`

`my_file_reallyfinal.py`



6. Record of scientific workflow

- ▶ Like a lab notebook for computing
- ▶ For a publication just record/cite the revision number
- ▶ Then keep on improving and adding to your code



7. Using code on servers

- ▶ No need to transfer code, or results
- ▶ No forgetting to move the most recent updates

- ▶ **Just**

```
svn update
```

```
my_code.py
```

```
svn commit
```

