

5 minute introduction to Git



<https://xkcd.com/1597/>

What is it?

- Version control
 - Keeps a history of changes to a file
 - Get back old versions
 - Compare differences
- Collaborative Development
 - Share files with other people
 - Merge work together
- Synchronise work on different computers

Git add

- Marks a file as being ready to be “comitted” to git’s history
- `git add <filename>`

Git commit

- Saves a change into git's history
- Asks for a comment describing what you changed
- Usage:
 - `git commit <filename>`
 - Or
 - `git commit -a`
 - Or
 - `git add <filename>`
 - `git commit`
- **Commits are only saved locally**

Remote Repositories

- Everything so far is only saved locally
- Remote repositories:
 - Copy of the repository on another computer
 - Access via SSH (key file) or HTTPS (password)
- “Clone” a repository to take an initial copy of it
 - `git clone https://<repository address>`
 - Or
 - `git clone username@hostname:<path> (ssh)`

Git push/pull

- Commits can be “pushed” to a remote git repository
- You can also “pull” other people’s changes from a remote repository
- If local and remote changes exist you have to pull first.
- Must have a remote configured through the git remote command.

Try it for yourselves!

- <https://abersailbot.co.uk/intro/git>
- Signup to github.com
- Put your username into gitworkshop channel on Slack
 - We will add you to the Abersailbot git organisation