

Version Control And Git

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Useful Links

- Software Carpentry Course:

<http://swcarpentry.github.io/git-novice>

- Matthew Brett's 'Curious Coders Guide to Git' Page:

<https://matthew-brett.github.io/curious-git>

- Git homepage:

<https://git-scm.com/>

Why do we need Version Control?

- Recording changes
 - Being able to record every precise change in a (text) document and record the reasons for that change
- Providing 'backups'
 - Allowing an easy 'undo' option in case of editing errors
- Reproducibility:
 - Being able to return to a previous version of a project and know it's exactly as it was when it was originally created
- Collaboration:
 - By keeping track of the versions of files, it is a lot easier for groups to work on the same project

Version Control in Code Development

- The general points in the previous slide can be applied to any files in a project, e.g. bid documents, teaching materials, etc.
- However, where Version Control becomes (arguably) essential is in code development
- Keeping track of changes in code on any significant sized project is very important to:
 - Tag releases of code
 - Compare versions of a code base
 - Identify where bugs have been introduced
 - Allow parallel and collaborative code development
 - Etc., etc.