

CAIA Infrastructure Series: Revision Control

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What & Why



- What is a revision control system?
 - It automates the management of changes to a set of files
- Why would you want to use it?
 - In a nut shell, to avoid this: `ls ~/badpractice/`
important_280711.txt important_draft.txt
important_gjaedit_270711.txt important_yesterday.txt
- Common usage scenarios around CAIA:
 - Software development, paper writing, PhD work, website management

Benefits



- Incremental, documented history
- Saves time
- Protects your work
- Eases collaboration
- Centralised access from anywhere
- Encourages rapid development and prototyping
- Automatic merging for text-based formats
- Preserves sanity
- Useful skills in industry



Revision Control @ CAIA



- Both Subversion and Mercurial
 - Subversion is used for most things
 - Mercurial is used for development against third-party code e.g. FreeBSD
- Available for use by all of CAIA
- Backed up to our redundant RAID servers
- Currently administered by Lawrence, soon to switch to self-administered
- A tool which **everyone** should be using



Demo



- Create a local repository
 - Key concept: repository
- Import and commit some files
 - Key concept: working copy
- Create a tag
 - Key concepts: branching and cheap copies
- Create and resolve a conflict
 - Key concepts: collaboration and conflict resolution



Links



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| <ul style="list-style-type: none">■ Subversion<ul style="list-style-type: none">□ http://subversion.apache.org/□ http://svnbook.red-bean.com/□ http://tortoisesvn.net/■ Mercurial<ul style="list-style-type: none">□ http://mercurial.selenic.com/□ http://hgbook.red-bean.com/□ http://tortoisehg.bitbucket.org/ | <ul style="list-style-type: none">■ Git<ul style="list-style-type: none">□ http://git-scm.com/■ Free online hosting:<ul style="list-style-type: none">□ https://github.com/□ https://bitbucket.org/□ http://gitorious.org/ |
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