

Welcome to CSE 331!

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Version Control

...

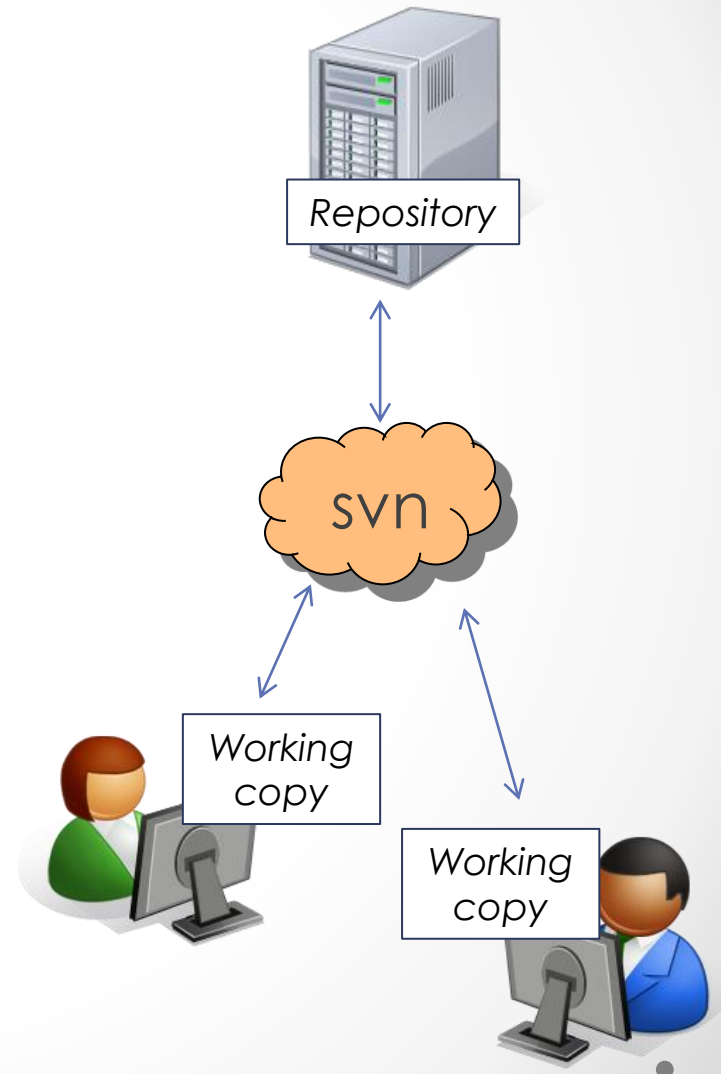
(in which we build big software without losing our sanity)

Overview

- System for tracking changes to code
- Essential for managing big projects
 - Learn it now – you WILL use it again and again!
- Makes it easy to:
 - See a history of changes
 - Revert back to an older version of your code
 - Back up your work in case of hardware failure or stolen laptops
 - Merge multiple developers' changes
 - Avoid overwriting each others' changes
 - ...and more!
- You'll use **Subversion** (SVN) this quarter
 - There are others: Mercurial, Git, CVS, ...

Organization

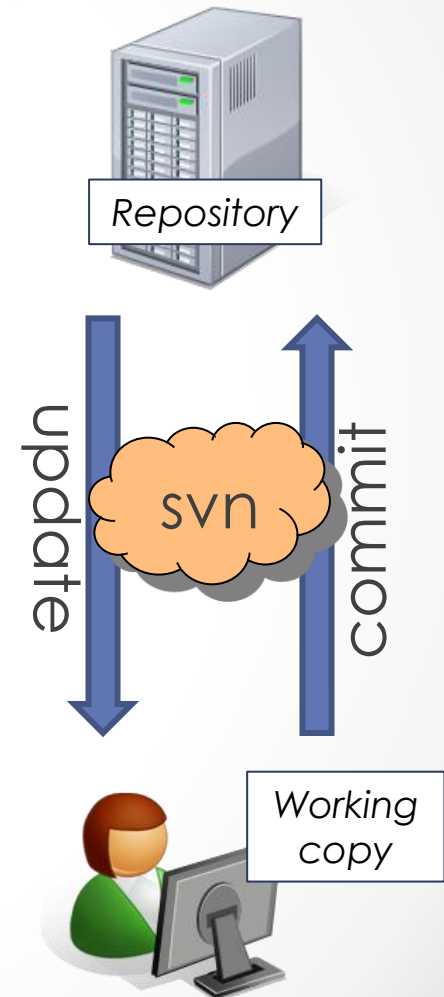
- A *repository* stores the master copy of the project
 - Someone creates the repo for a new project
 - Then nobody touches this copy directly
 - Lives on a server everyone can access
- Each person *checks out* her own *working copy*
 - Makes a local copy of the repo
 - You'll always work off of this copy
 - The version control system syncs the repo and working copy (with your help)



Common Actions

Most common commands:

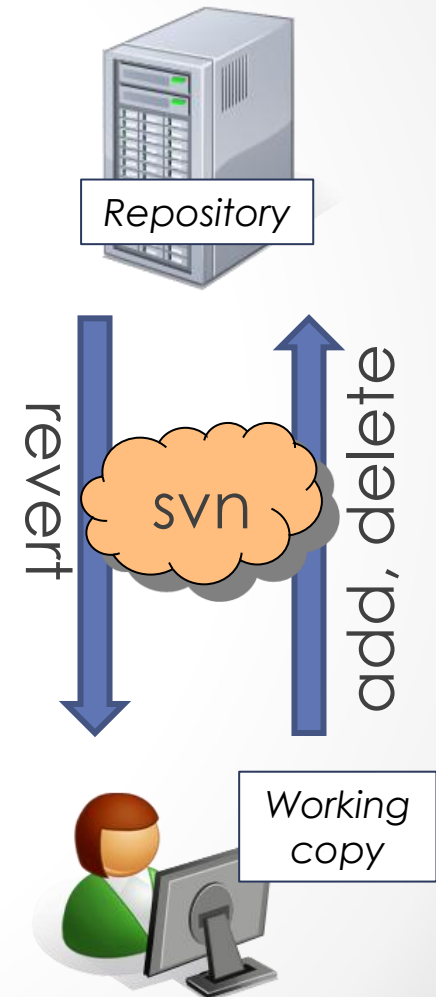
- **Commit / checkin**
 - integrate changes *from* your working copy *into* the repository
- **Update**
 - integrate changes *into* your working copy *from* the repository



Common Actions

More common commands:

- **Add, delete**
 - add or delete a file in the repository
 - just putting a new file in your working copy **does not add it to the repo!**
- **Revert**
 - wipe out your local changes to a file
- **Resolve, diff, merge**
 - Handle a **conflict** – two users editing the same code



This Quarter

- Use Subversion for your homework assignments
- We distribute starter code by adding it to your repo
- You turn in your files by **adding** them to the repo and **committing** your changes
- Run validator tool to make sure you added everything correctly, etc.
- See the version control handout:
<http://www.cs.washington.edu/education/courses/cse331/12sp/tools/versioncontrol.html>

How to use SVN

- Subclipse: Eclipse plugin
 - **Recommended approach**
- Command line
- GUI interface: TortoiseSVN, NatilusSVN