

Be Subversive. Use Version Control!

Leslie Sherman
Business Information Systems
OBFS

July 12, 2006



Questions

- What is version control?
- What is Subversion?
- How do I use it?
- Is version control for me?



Version Control Defined

Revision control (also known as Version control) is the management of multiple revisions of the same unit of information.

-- [Wikipedia.org](https://en.wikipedia.org)



Time Machine

- Track who made what changes and when
 - Can even tell you why changes were made (Logs)
 - Changes made since last release of web site or application
- See files as they looked a year ago
- View files or folders you have already deleted
 - Nothing is ever really deleted



Safety Net

- Let's you track changes made today
- Provides an “Undo” button
 - Undo all changes made today



Your Own Sandbox

- Provides you with your own copy of files
- You control the changes made to your files:
 - When to share your changes
 - When to incorporate others' changes
- You can even isolate your work from yourself



Alternate Reality

- Manages different versions of the same project at the same time



Technical Side

- Is a big database of files and folders
- Keeps a record of every major change or set of changes made to a file or folder
- Enables sharing a project over a network



Version Control is Not...

- A substitute for communication within a team
 - It often helps to facilitate communication instead
- The solution to all problems
 - It is only a tool
 - It is only as good as the user



Version Control Myths...

- Only for large projects
- Only for source code
- Expensive
- Too hard to do



How to do Version Control?

- Chose one of the many different version control packages available
- Get buy-in from your team
- Decide upon a few practices
 - What info to log?
 - What goes into the version control system?
 - Directory structure layout
 - Naming conventions



Version Control Systems

Free or Open Source:

- CVS
- Subversion
- CVSNT
- GNU Arch
- RCS

Proprietary:

- Rational ClearCase
- MS Team Foundation Server
- MS Visual SourceSafe
- Perforce



Important Terms

- **Repository**

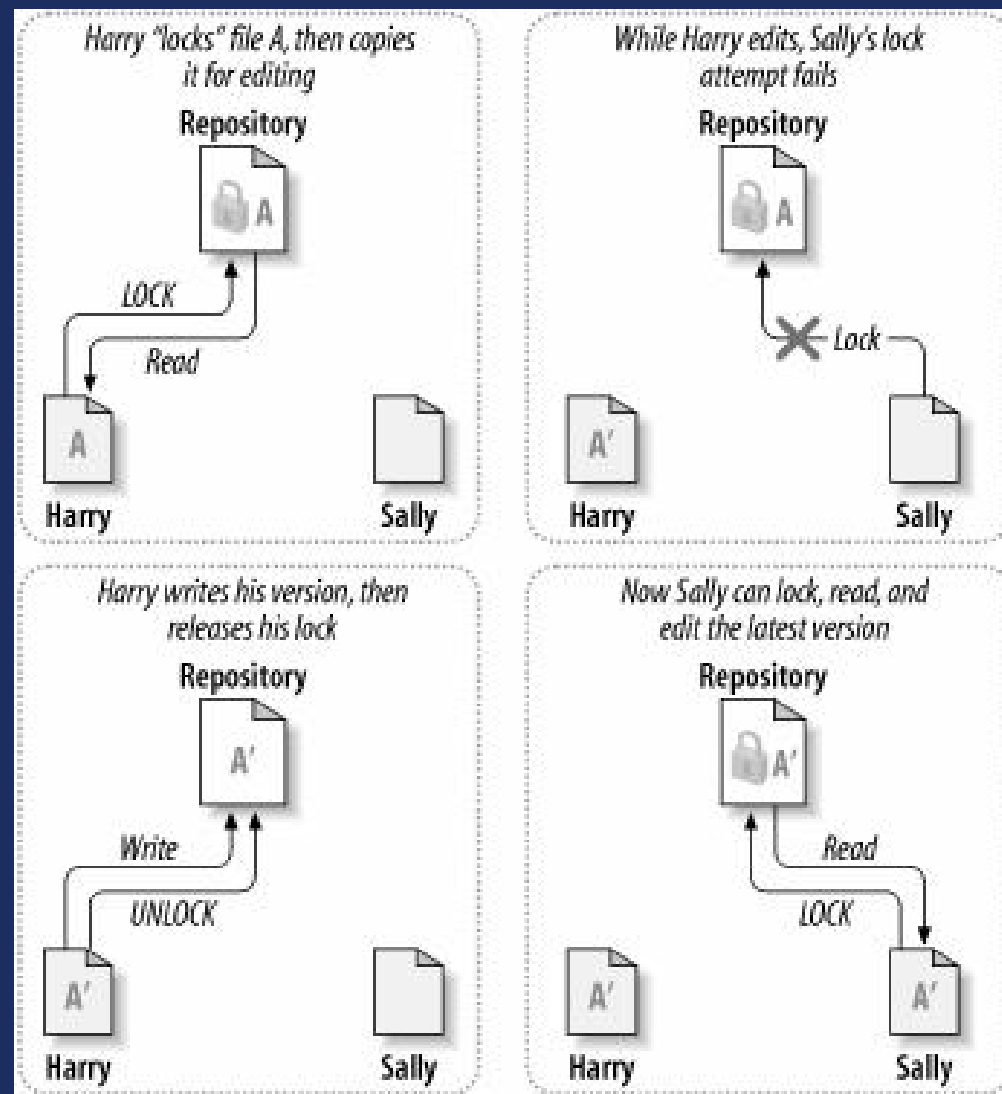
- The “database” where your files and a history of changes made to them are stored
- Located on a server

- **Working Copy**

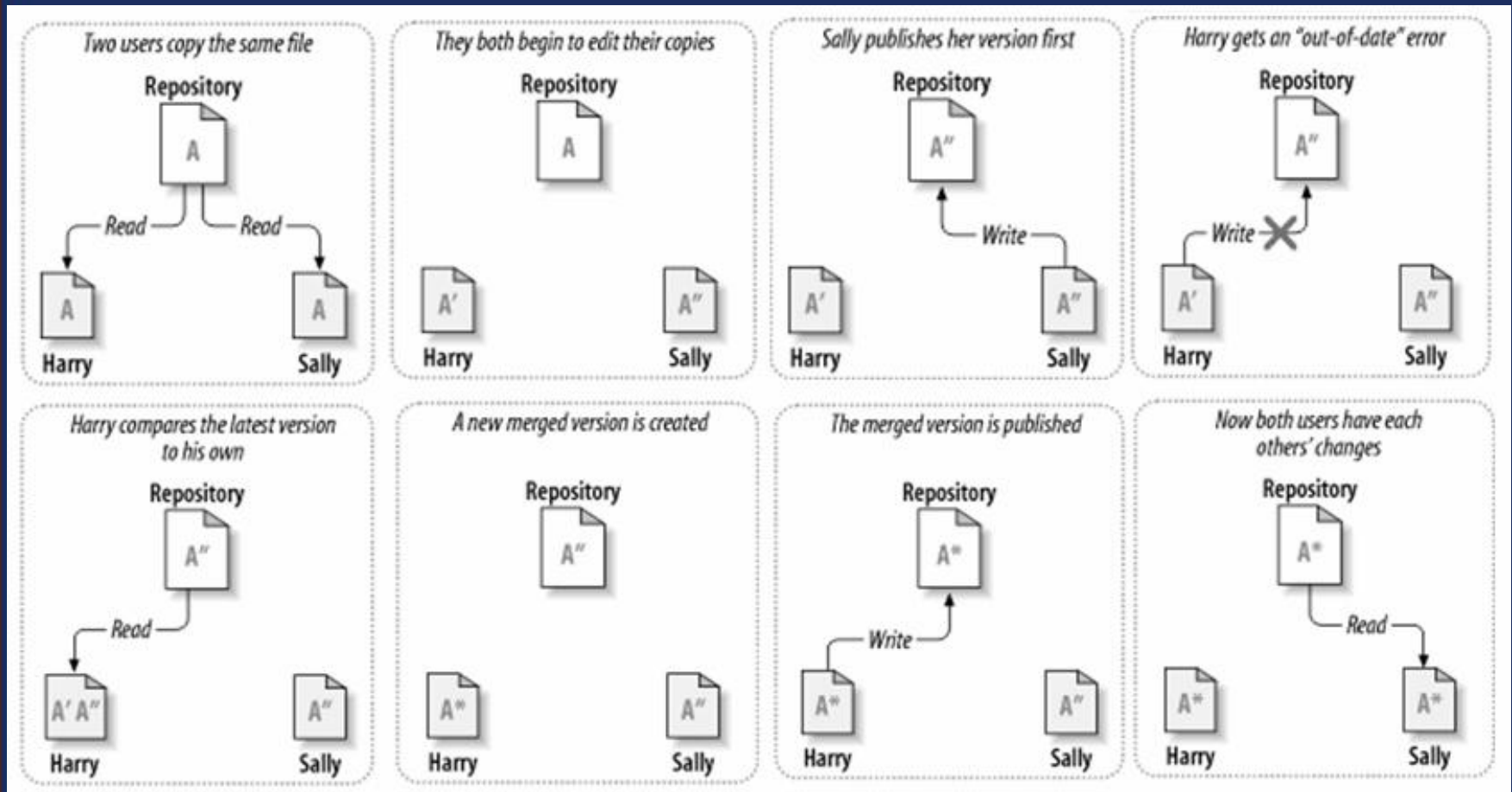
- Your local copy of a part of the Repository
- Where you do your work



Lock-Modify-Unlock strategy



Copy-Modify-Merge strategy





SUBVERSION



UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

www.uiuc.edu

Subversion – a brief history

- Project launched in early 2000 by [CollabNet Inc.](#) in response to frustrations of using and managing CVS repositories
- Subversion was designed from the ground up to have a look and feel like CVS but without CVS's flaws
- 1.0 release in February 2004
- Active Open Source Project
- Current (May 2006) release is 1.3.2



Why Subversion?

- Low-cost solution – Free!
 - Easy to administer
- Maintained and actively enhanced
- Robust set of features
- Portable – runs on many platforms
- Consistent data handling for both binary and text files



Common Actions

- **Check Out**
- **Add**
- **Status**
- **Update**
- **Diff**
- **Commit**



Less Common Actions

- **Rename/Move**
- **Revert**
- **Branch**
- **Merge**
- **Tag**



Subversion Clients

- Command-line tools
- [TortoiseSVN](#) (Windows shell extension)
- [Subclipse](#) (plug-in for Eclipse)
- [SvnX](#) (for Mac)
- [AnkhSVN](#) (plug-in for MS VisualStudio.NET)
- [SVN for Dreamweaver](#) (GraFX Software Solutions)



How do I use Subversion?

- Demo time



Where to get Subversion?

- Main Subversion site is <http://subversion.tigris.org/>
- Subversion book (HTML and PDF) is at <http://svnbook.red-bean.com/>
- Subversion FAQ is at <http://subversion.tigris.org/faq.html>
- Downloads – binaries for Linux, MacOS X, Solaris, and Windows, as well as source – are at http://subversion.tigris.org/project_packages.html



Questions

- ✓ What is version control?
- ✓ What is Subversion?
- ✓ How do I use it?
- Is version control for me?



References

- <http://svnbook.red-bean.com/>
- http://en.wikipedia.org/wiki/Revision_control
- http://en.wikipedia.org/wiki/Version_control_systems
- <http://happygiraffe.net/presentations/vc-intro-svn/>
- More Links at:
<http://del.ico.us/leslies61801/subversion>

