



LEADING SOFTWARE OUTSOURCING COMPANY IN VIETNAM

TMA SOLUTIONS

New Hire Training Subversion Usage

2012
QMS

❖ After this course, attendees can :

- Understand the need of Subversion
- Capable to install and perform basics activities on Subversion

- ❖ Why we need?
- ❖ How to install
- ❖ Usage
 - Working Process
 - ❑ *Get Content*
 - ❑ *Make Changes*
 - ❑ *Update Local Copy*
 - ❑ *Resolve Conflict*
 - ❑ *Commit Changes*
 - Locking/ Unlocking

Why we need?

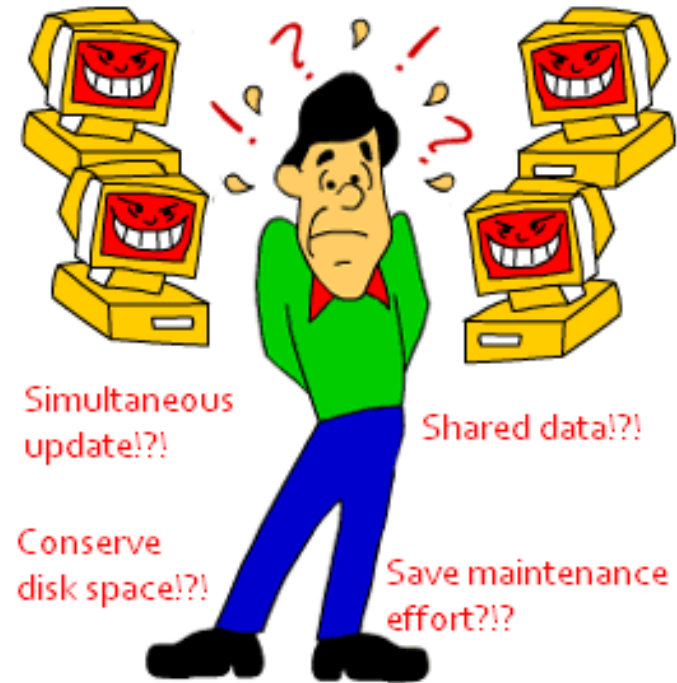
❖ Symptoms

- Too many copies of software
- Conflict when many people accesses and modify the same data
- Changes made by one person override changes made by another

❖ Why Should You Care? Because

- Save maintenance effort
- Shared data
- Simultaneous update
- Conserve disk space

=> Tracks and provides control over changes to project's documents and source code

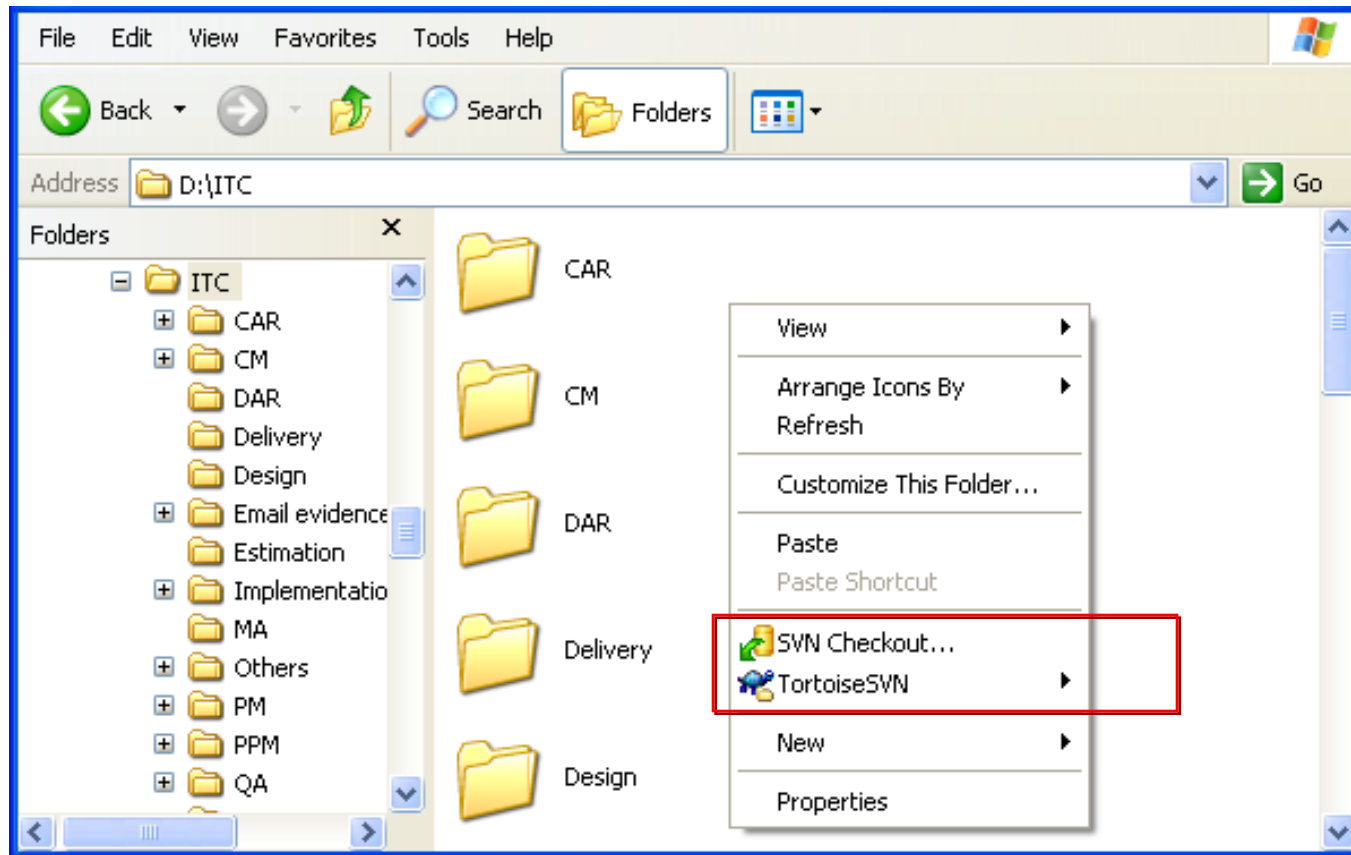


"Sometimes it is embarrassing to be a computer programmer."

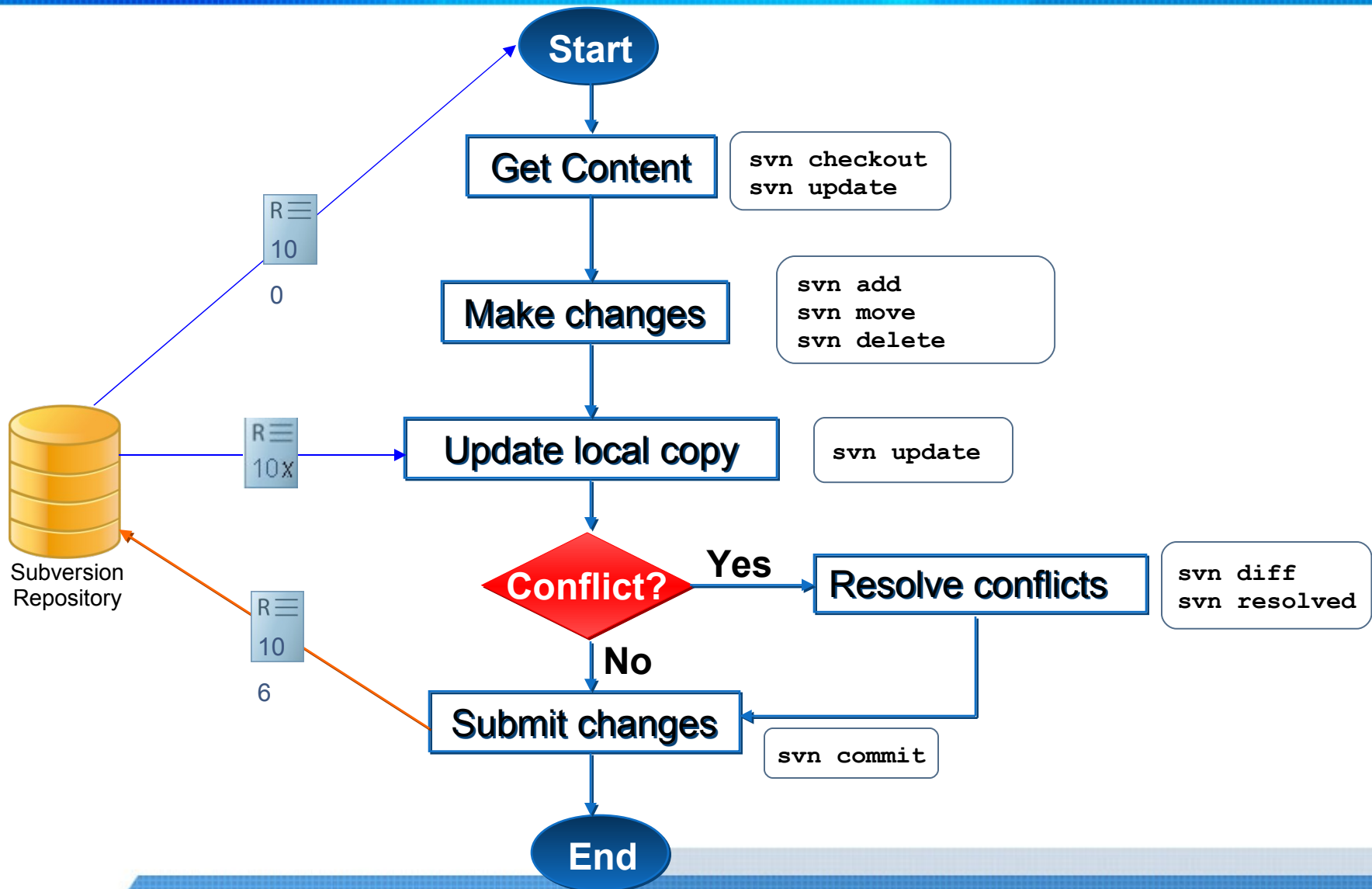
Install

❖ Install SVN client

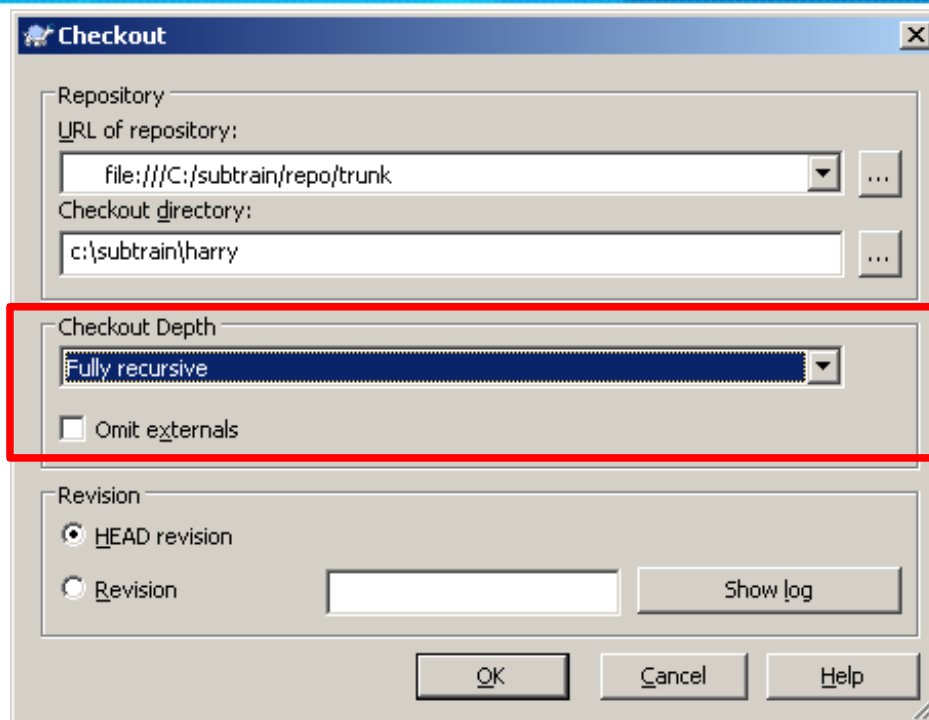
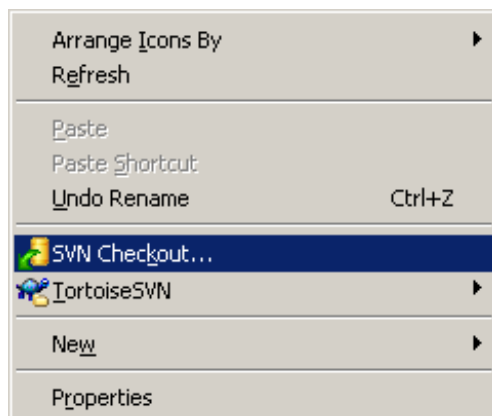
- `\\192.168.1.22\Softs\Development\Subversion\Client`, file TortoiseSVN-xxx-win32-svn-xxx.msi (should use the latest version)



Working Process



Get Content: svn checkout



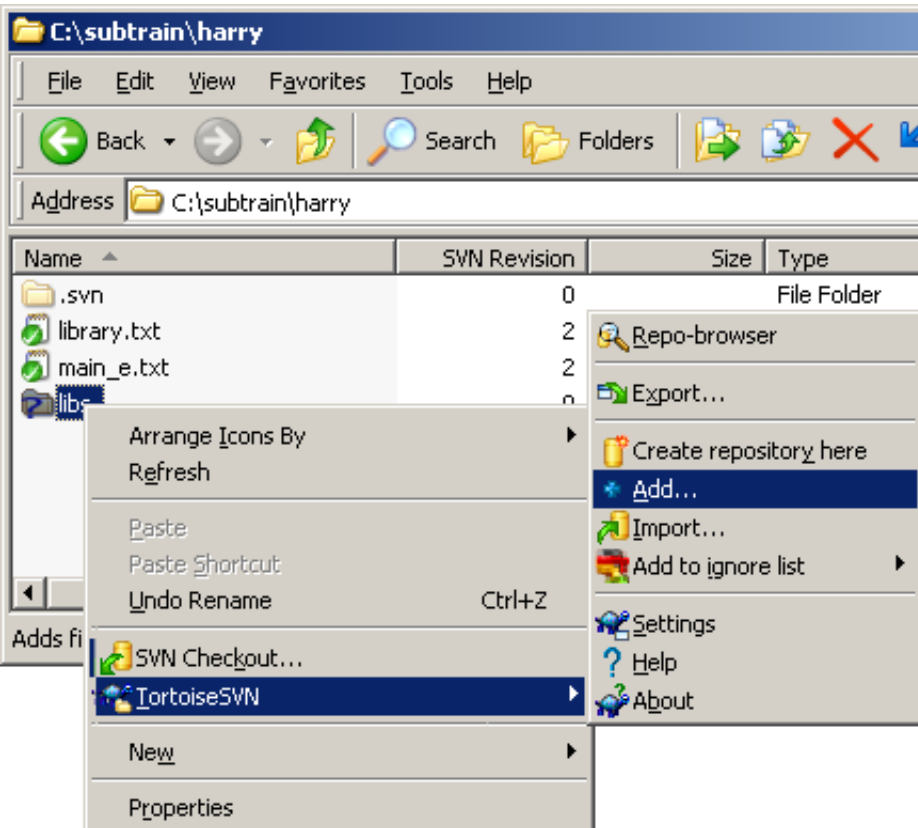
The client machine



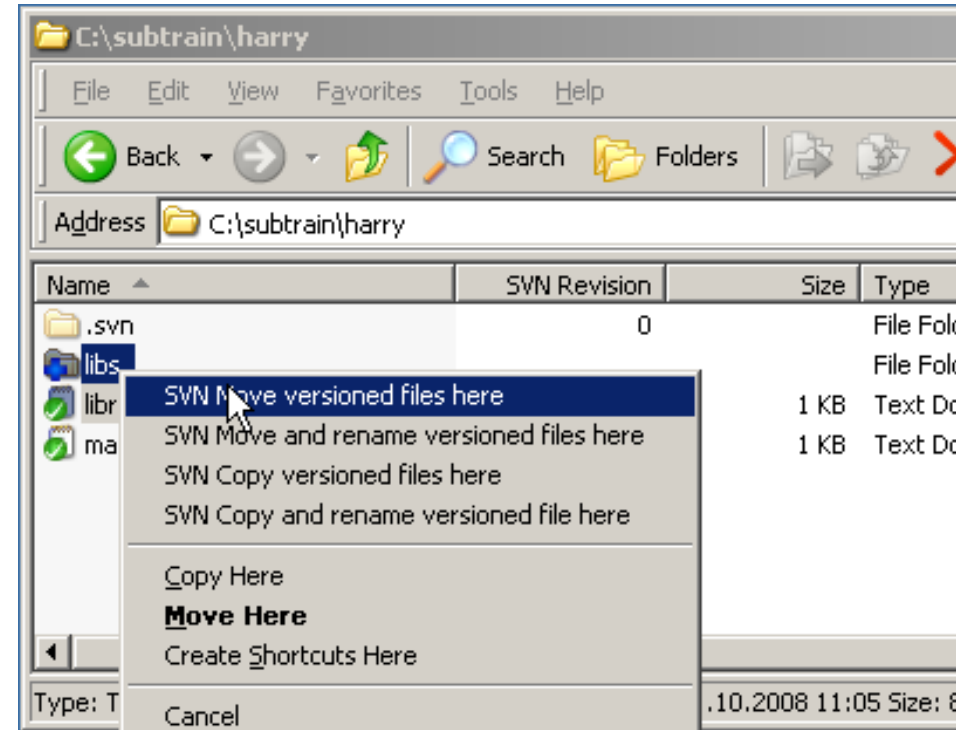
Repository Server

A check out will transfer the project's content from the repository server to the client machine.

Make Changes: Adding/ Moving Files



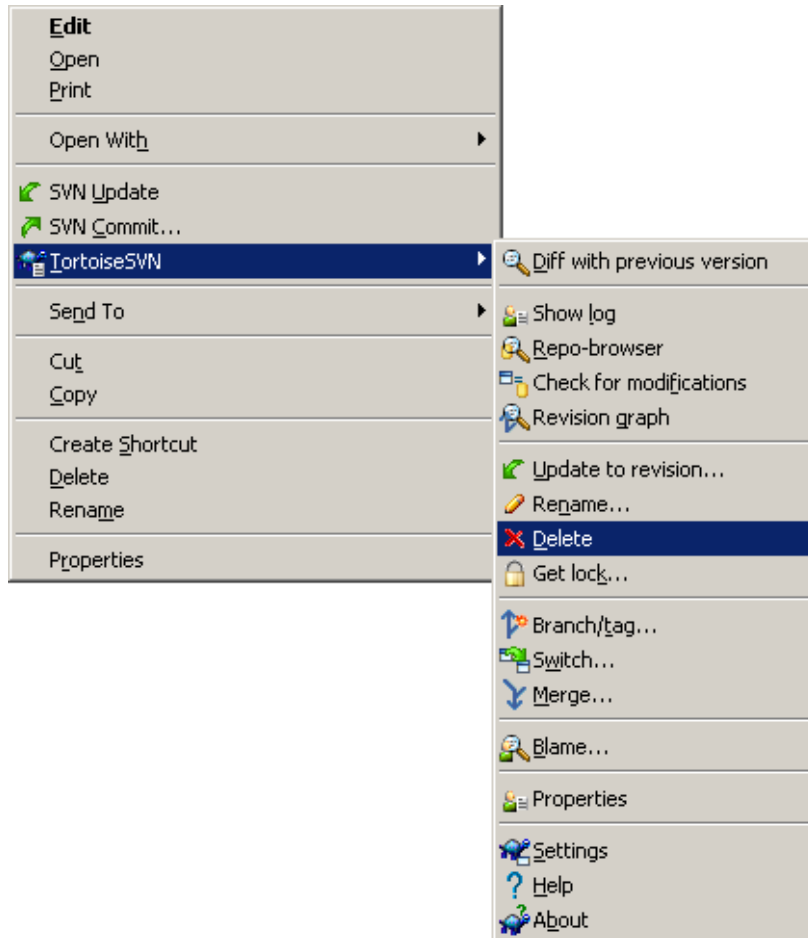
add folder/files via context menu to SVN



move or copy folder/files via
dragging with **right** mouse button

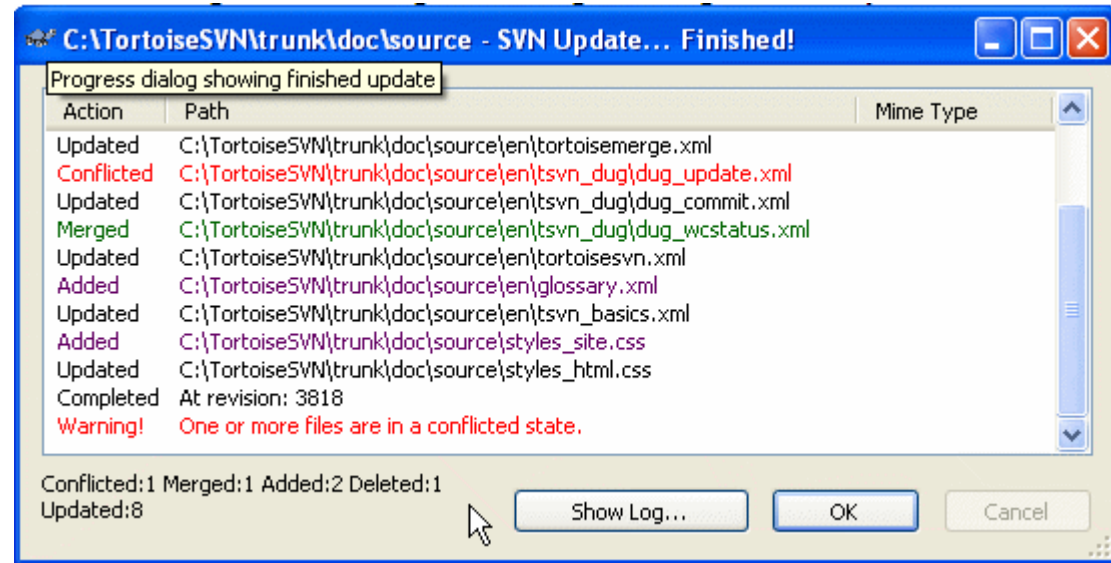
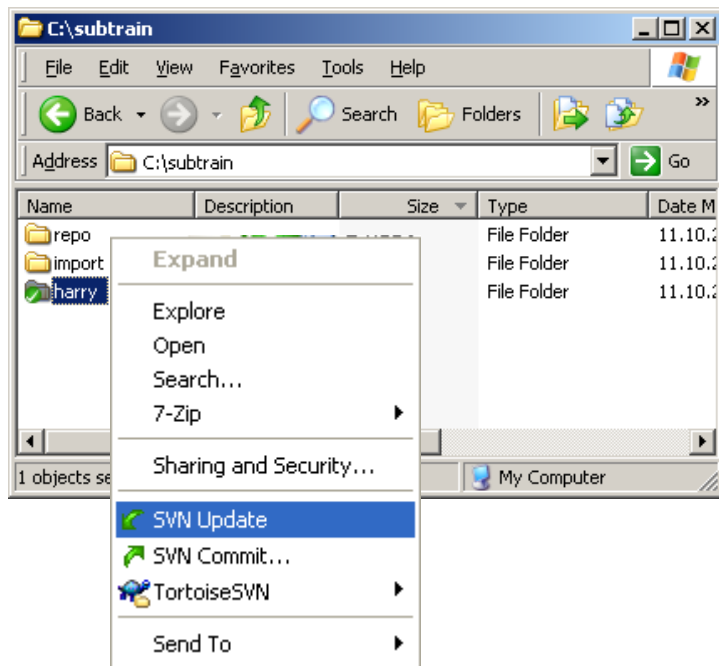


Make Changes: Deleting Files



- files will immediately be removed from your working copy
- folders will be marked as deleted until commit

Update local copy



❖ An update get changes from the server to your local copy:


- Changes done by others will be merged into your files, keeping any changes you may have done to the same files (for text file)
- The repository is not affected by an update

Resolve – File Conflicts 1

- ❖ A file conflict occurs if two (or more) developers have changed the same few lines of a file

Action	Path	Mime type
Command	Update	
Conflicted	D:_working\Tam\Line 1.doc	application/octet-stream
Completed	At revision: 43753	

Warning! One or more files are in a conflicted state



Double click on these lines to start the external merge tool to resolve the conflicts OR **right click** for context menu

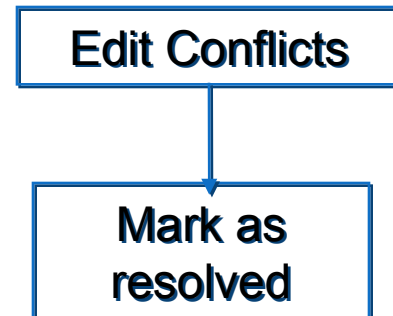
- Compare with working copy
- Edit conflicts**
- Mark as resolved
- Resolve conflict using 'theirs'
- Resolve conflict using 'mine'
- Show log
- Open
- Open with...
- Open parent folder
- Copy to clipboard

Conflicted:1

Resolve – File Conflicts 2



- ❖ **For every conflicted file Subversion places three additional files in your directory:**
 - **filename.ext: the file existed in your working copy before you updated your working copy**
 - **filename.ext.rOLDREV : the file that you checked out before you made your latest edits.**
 - **filename.ext.rNEWREV : the file that your Subversion client just received from the server when you updated your working copy**
- ❖ **Edit conflict and execute the command TortoiseSVN → Resolved and commit your modifications to the repository.**



Notes: Resolve command does not really resolve the conflict. It just removes the filename.ext.r* files, to allow you to commit your changes

Resolve – Tree Conflicts

- ❖ A tree conflict occurs when a developer moved/renamed/ deleted a file or folder, which another developer either also has moved/renamed/deleted or just modified

Use the Check for Modifications dialog to check what other users have changed

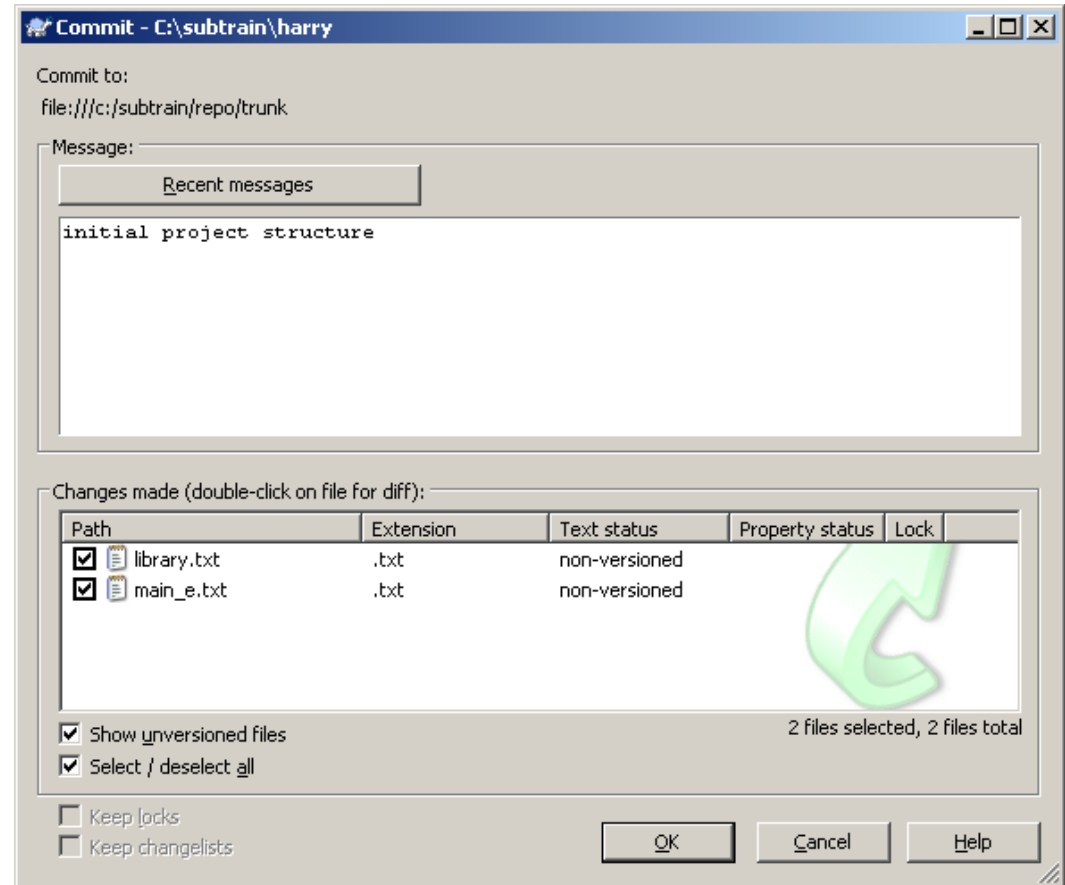
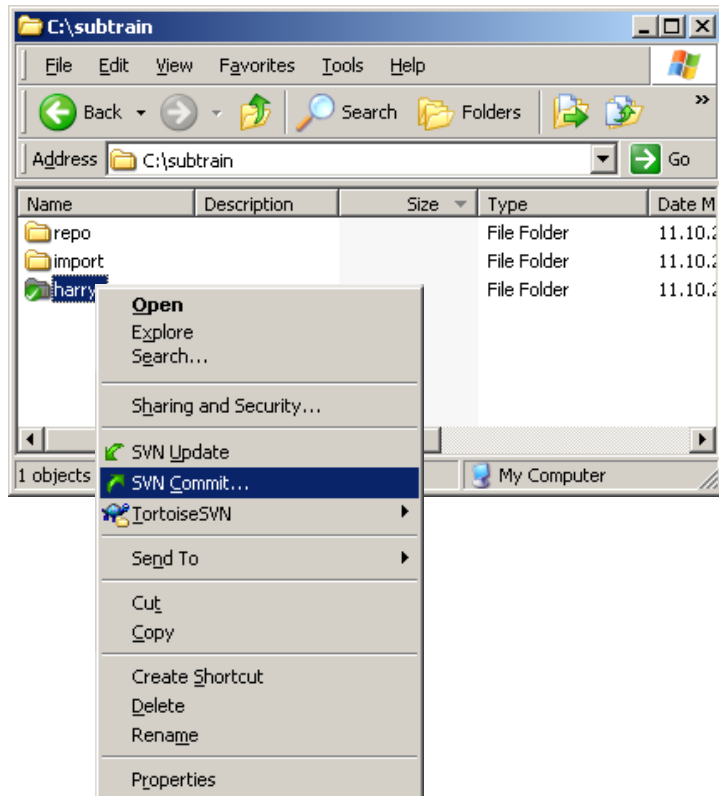
The screenshot shows the TortoiseSVN interface. On the left, a file explorer window displays the directory structure of 'C:\subtrain\harry'. The 'TortoiseSVN' menu is open, showing options like 'Open', 'Explore', 'Search...', 'Sharing and Security...', 'SVN Update', 'SVN Commit...', and 'TortoiseSVN'. The 'Check for modifications' option is highlighted in the 'TortoiseSVN' sub-menu. A red arrow points from the text box to this option.

The 'Working Copy - C:\subtrain\harry' dialog box is open, displaying a table of file status information:

Path	Text status	Property status	Remote text st...	Remot...	Lock	Lock comment	Author	Revision	Date
main.txt	normal	normal				important changes	ldornbusch	16	11.10.20

Below the table, there are checkboxes for 'Show unversioned files', 'Show unmodified files', 'Show ignored files', and 'Show properties'. The status bar at the bottom indicates 'Lowest shown revision: 16 - Highest shown revision: 16 - HEAD revision: 16'. The 'Check repository' button is highlighted with a red box.

Commit Changes

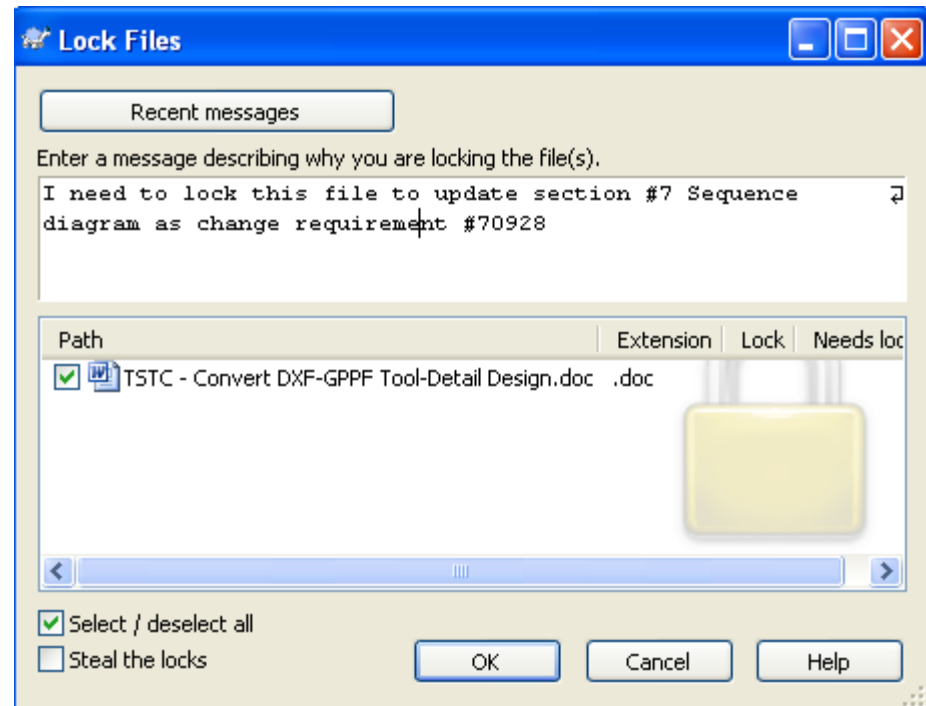
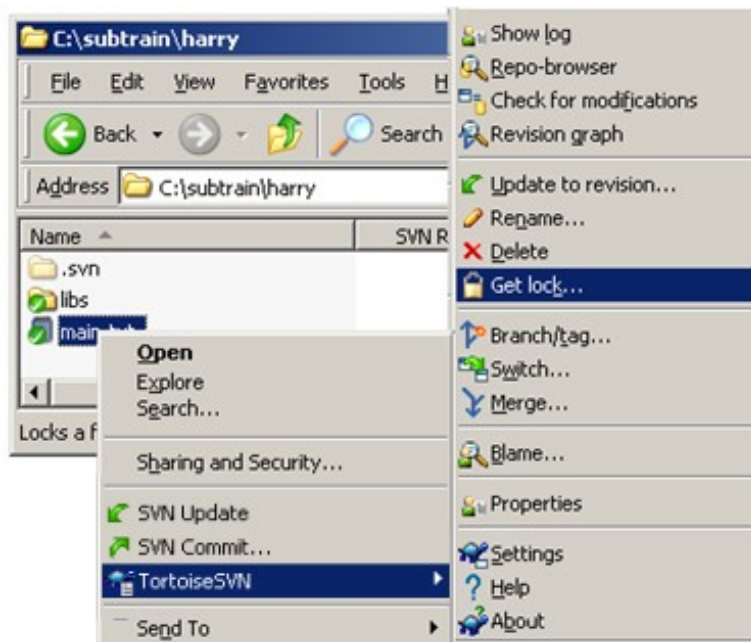


A commit transfers the project's modified files from the client machine to the repository server

Locking

❖ We need locking files when

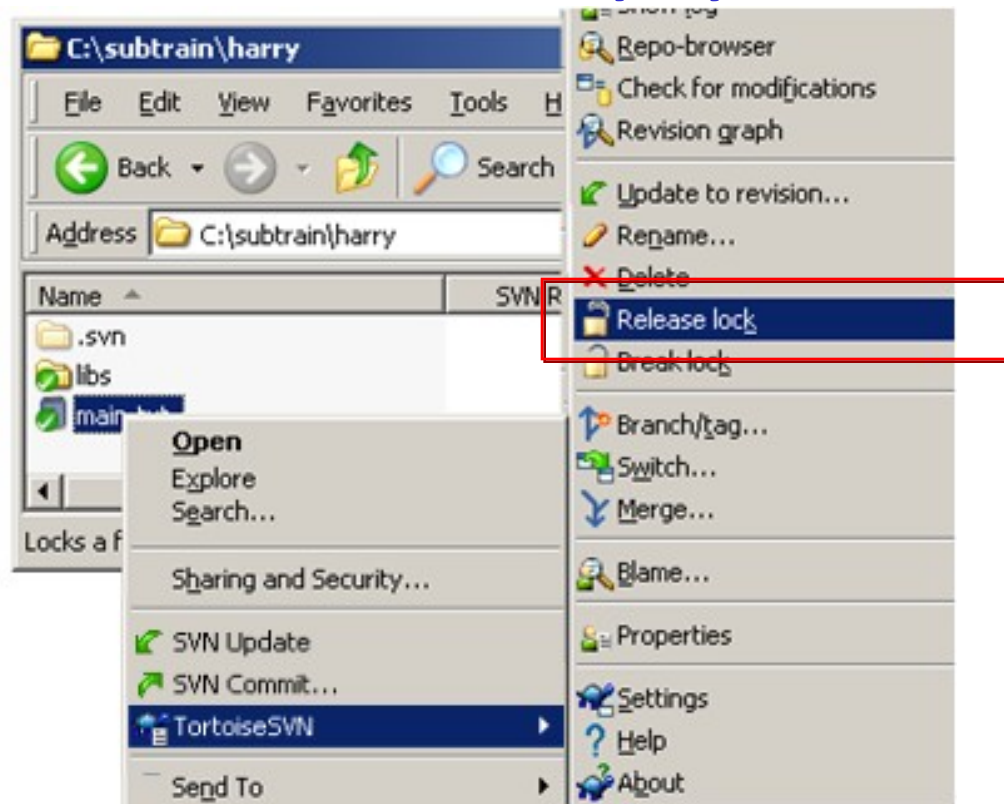
- Work with “un-mergeable” files such as binary files
- Files which are frequently updated by many users



Use a descriptive lock message to tell your co-workers why you need this lock

Unlocking

- ❖ To unlock a file: type the svn unlock command or click “Release lock”
- ❖ Locks will be released automatically if you commit your changes



❖ Working process

- Check out a working copy
- Edit content
- Merge changes from server
- Commit changes

❖ Locking files

❖ Unlocking files

Thank you !