LEADING SOFTWARE OUTSOURCING COMPANY IN VIETNAM

TMA SOLUTIONS

New Hire Training
Subversion Usage

2012

QMS

Course Objectives

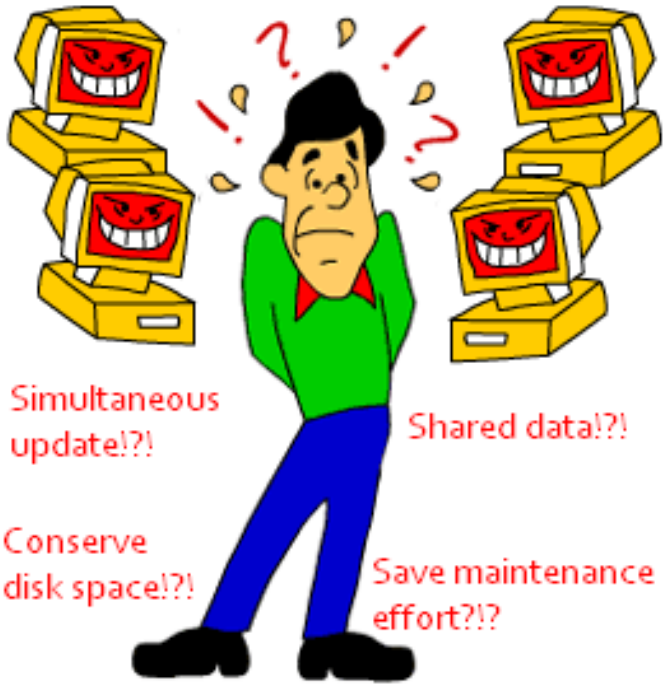
- **After this course, attendees can :**
  - Understand the need of Subversion
  - Capable to install and perform basics activities on Subversion

Content

- **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



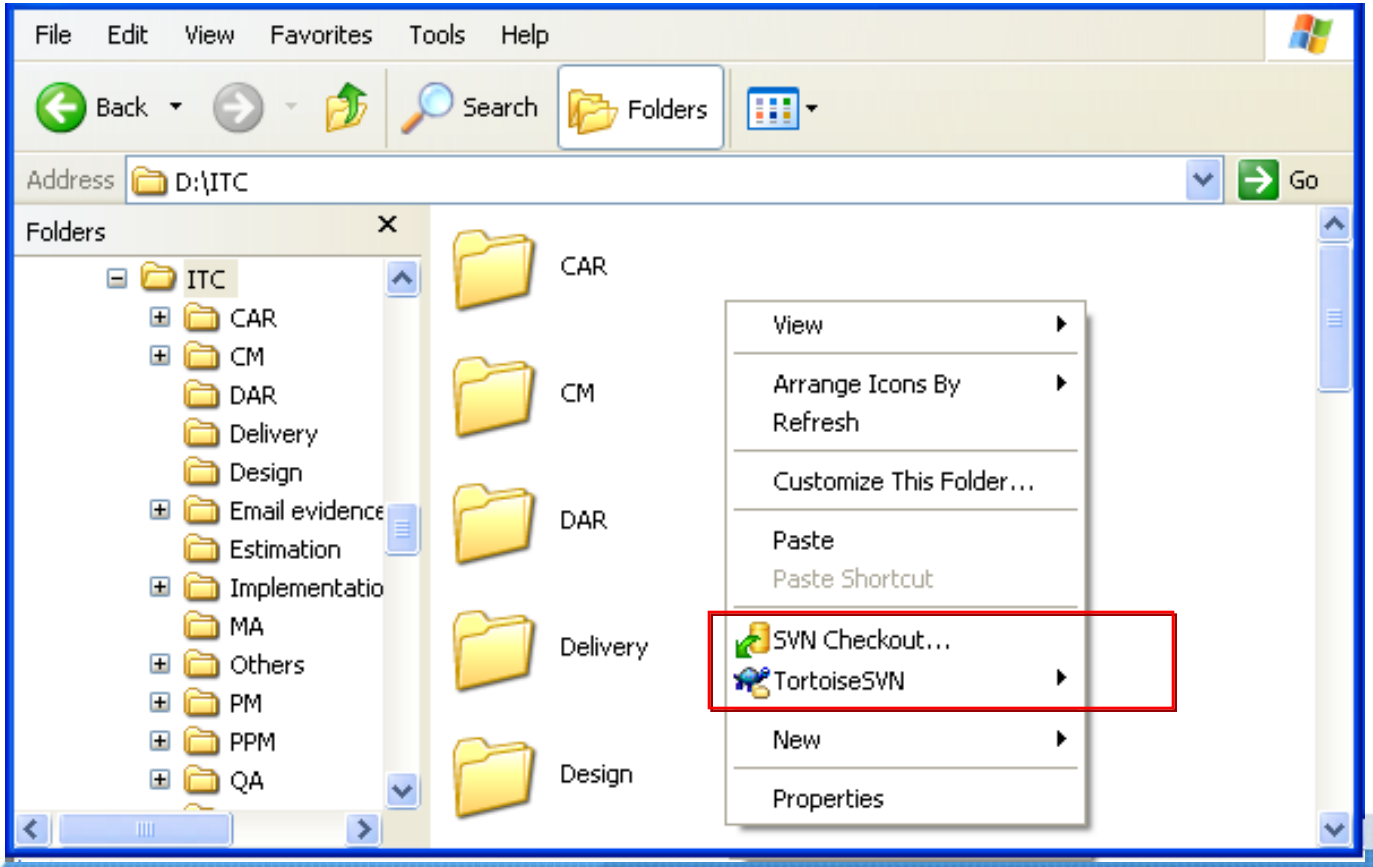
"Sometimes it is embarrassing to be a computer programmer."

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

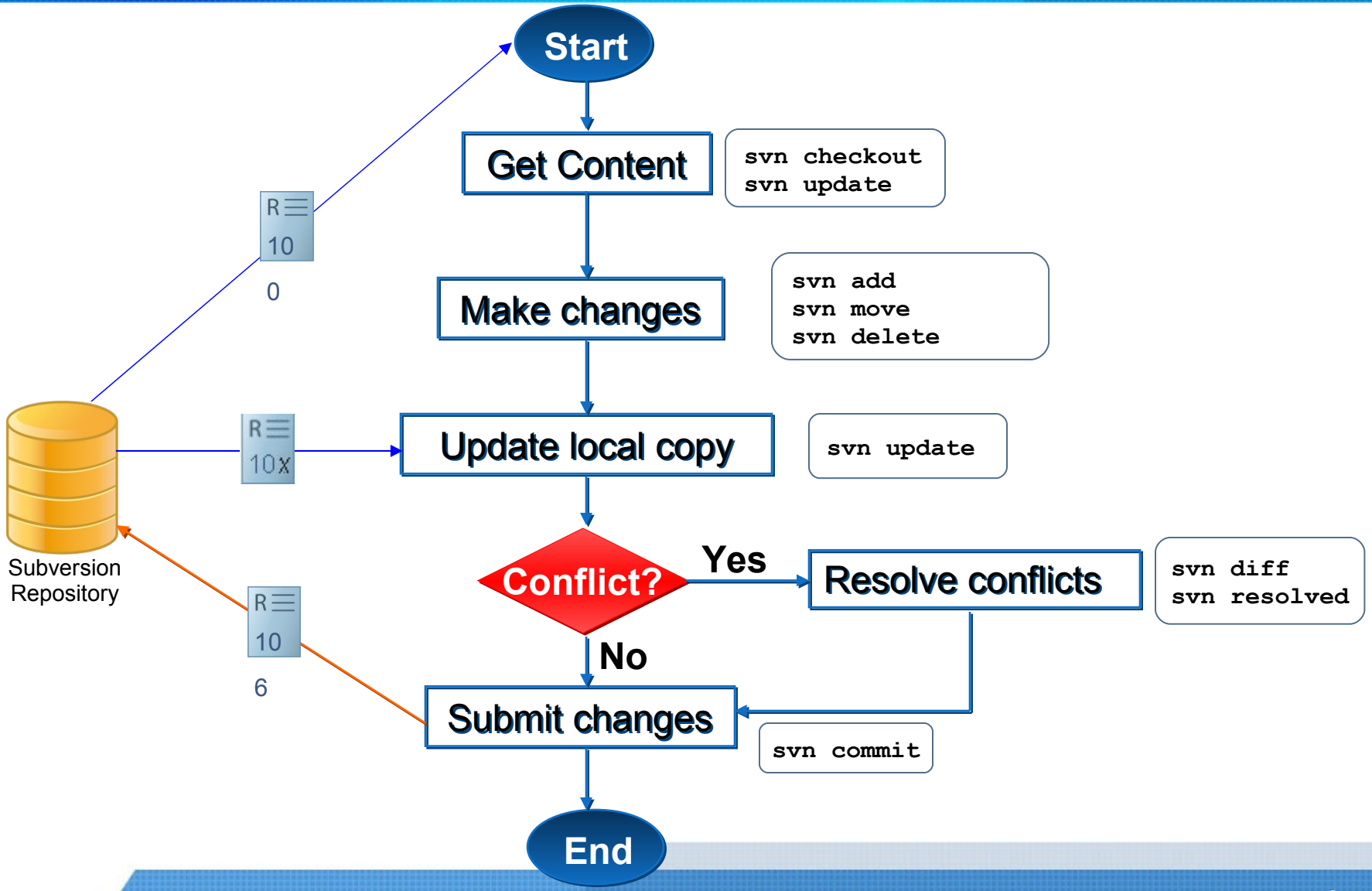
Install

Install SVN client

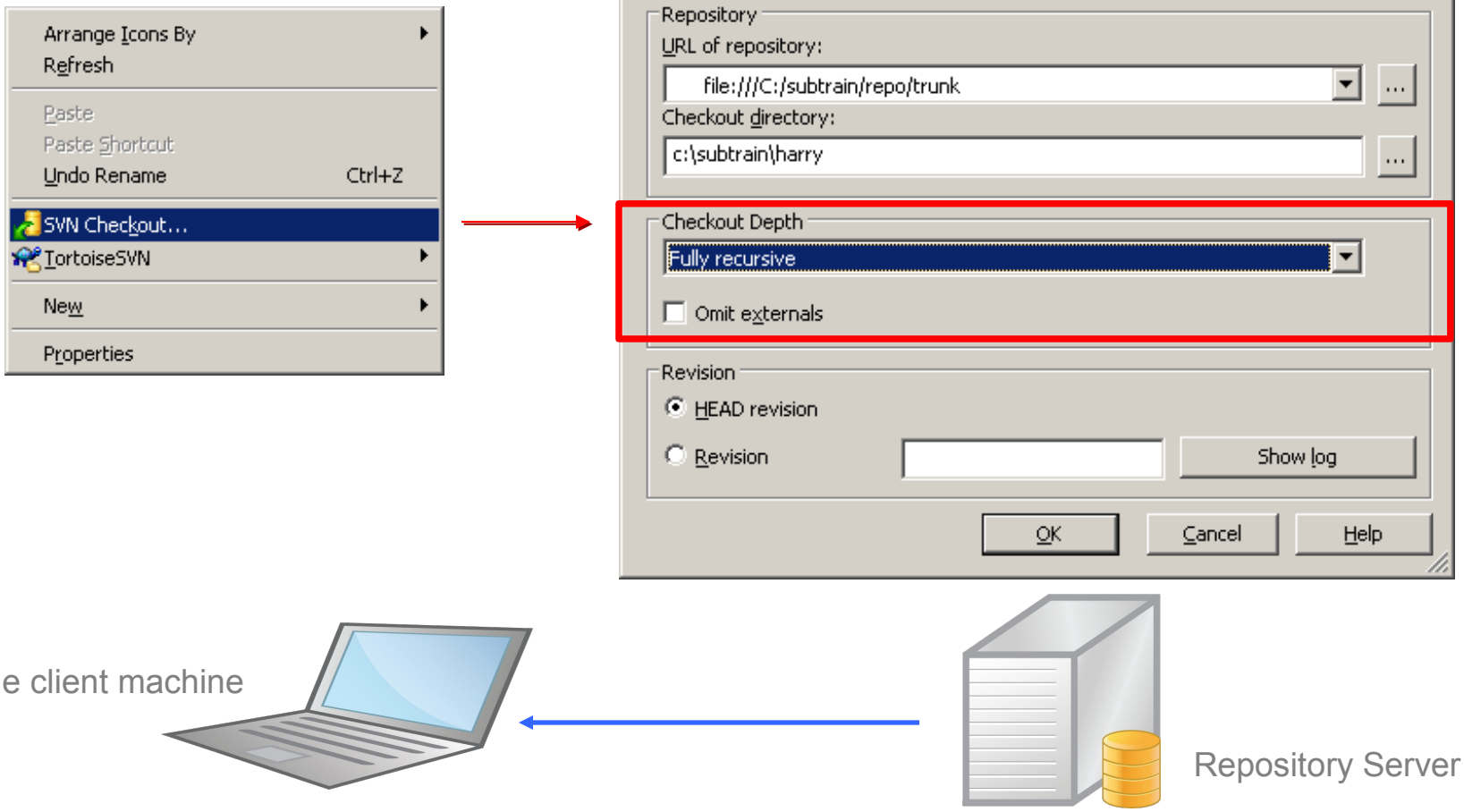
- \\192.168.1.22\Softs\Development\Subversion\Client, file TortoiseSVN-xxx-win32-svn-xxx.msi (should use the latest version)



Working Process

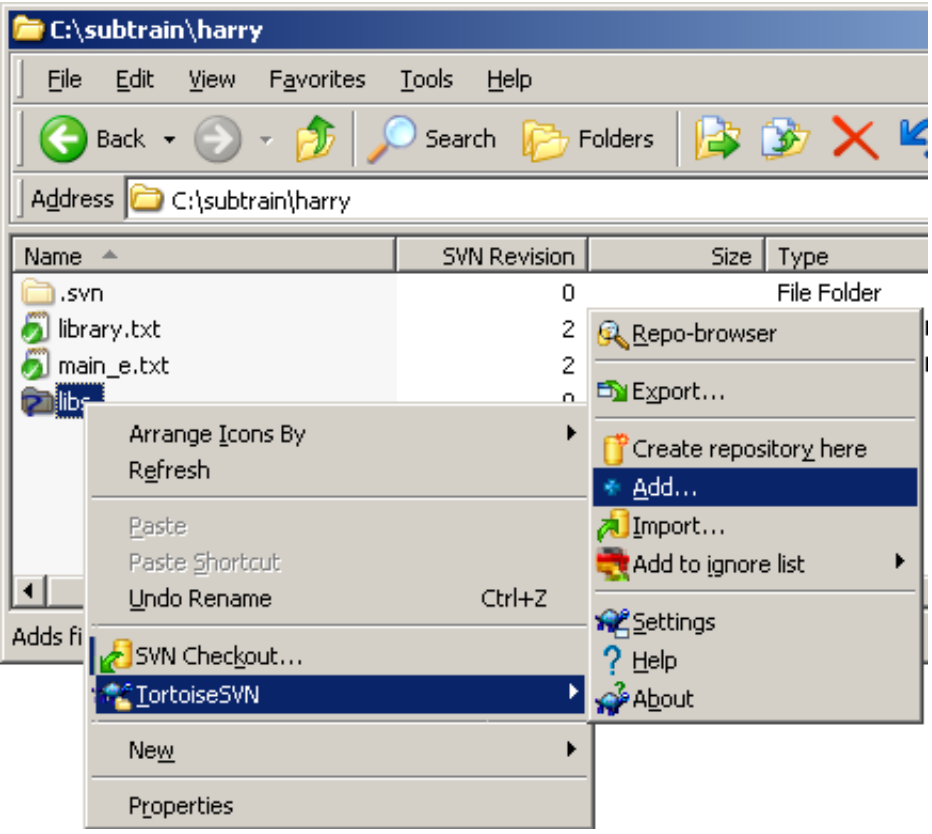


Get Content: svn checkout

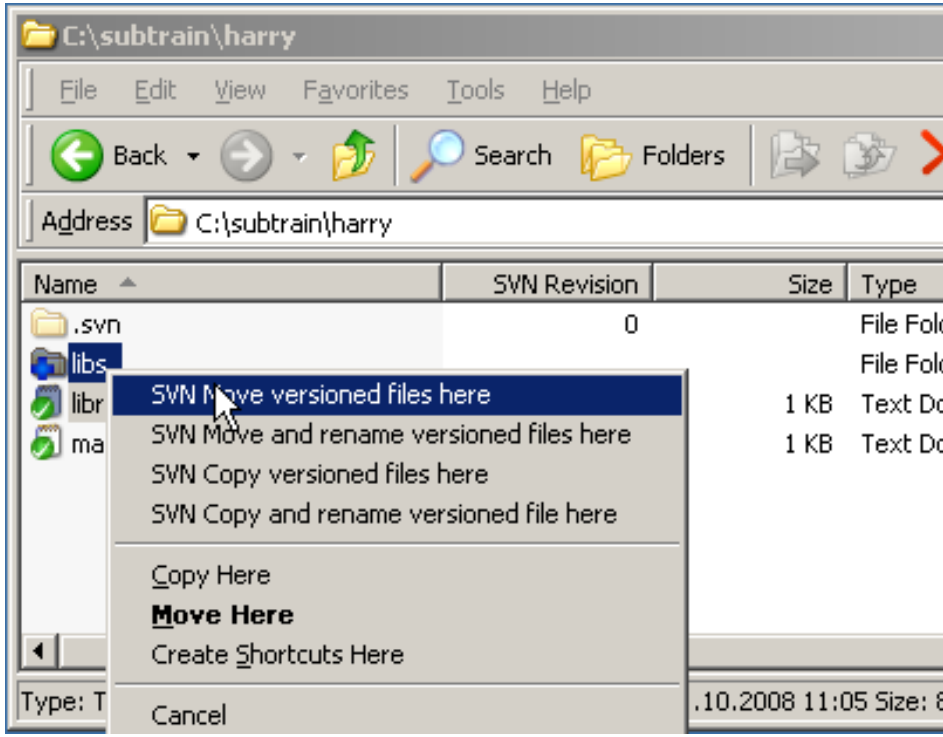


A check out will transfer the project's content from the repository server to the client machine.

Make Changes: Adding/ Moving Files

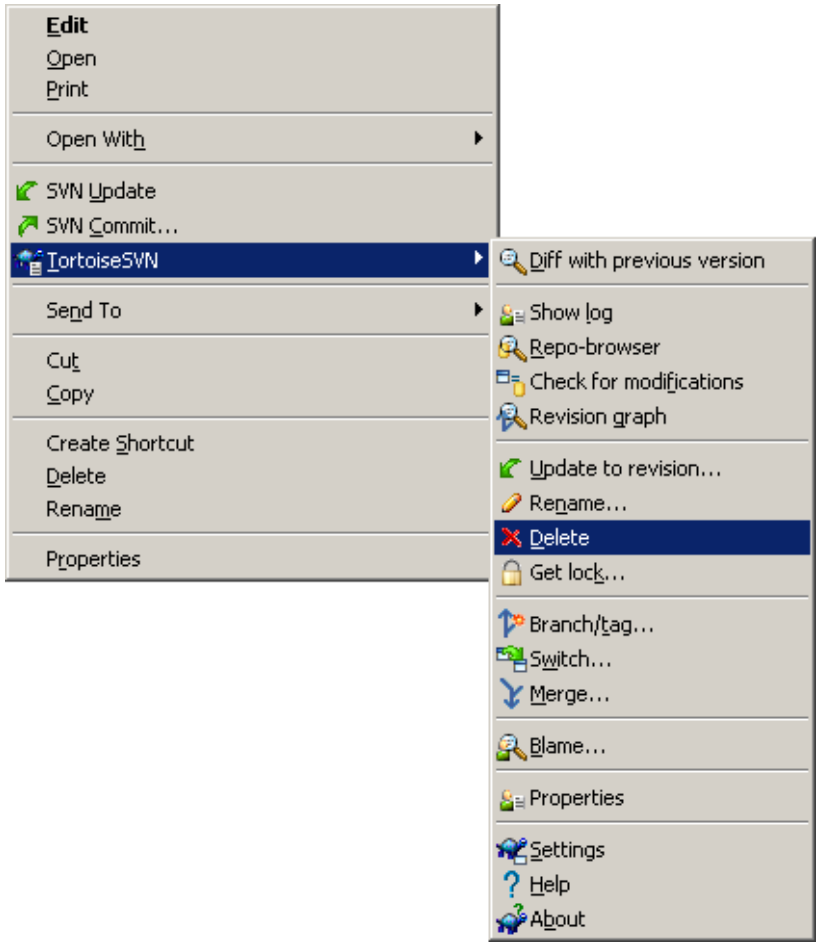


add folder/files via context menu to SVN



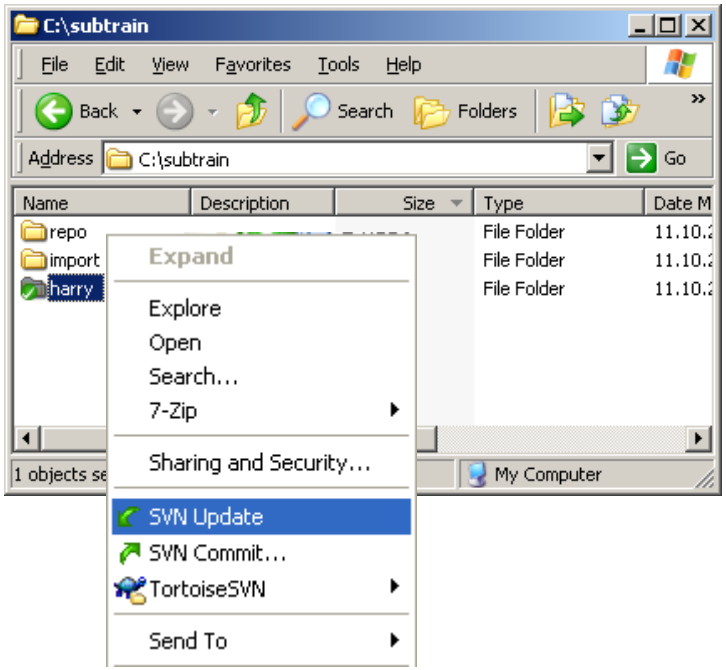
move or copy folder/files via dragging with **right** mouse button

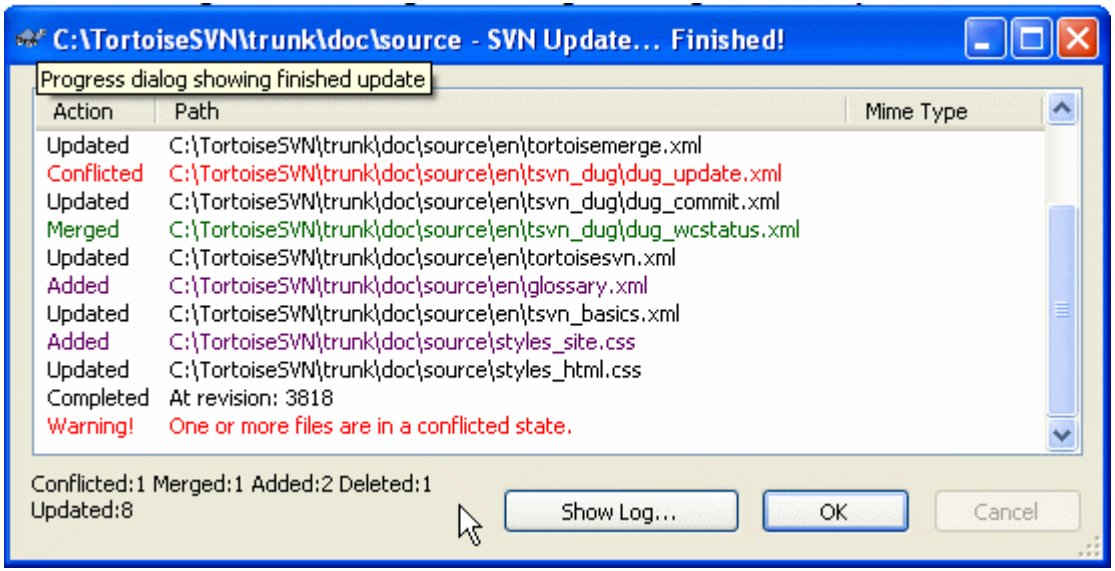
Make Changes: Deleting Files



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

Update local copy

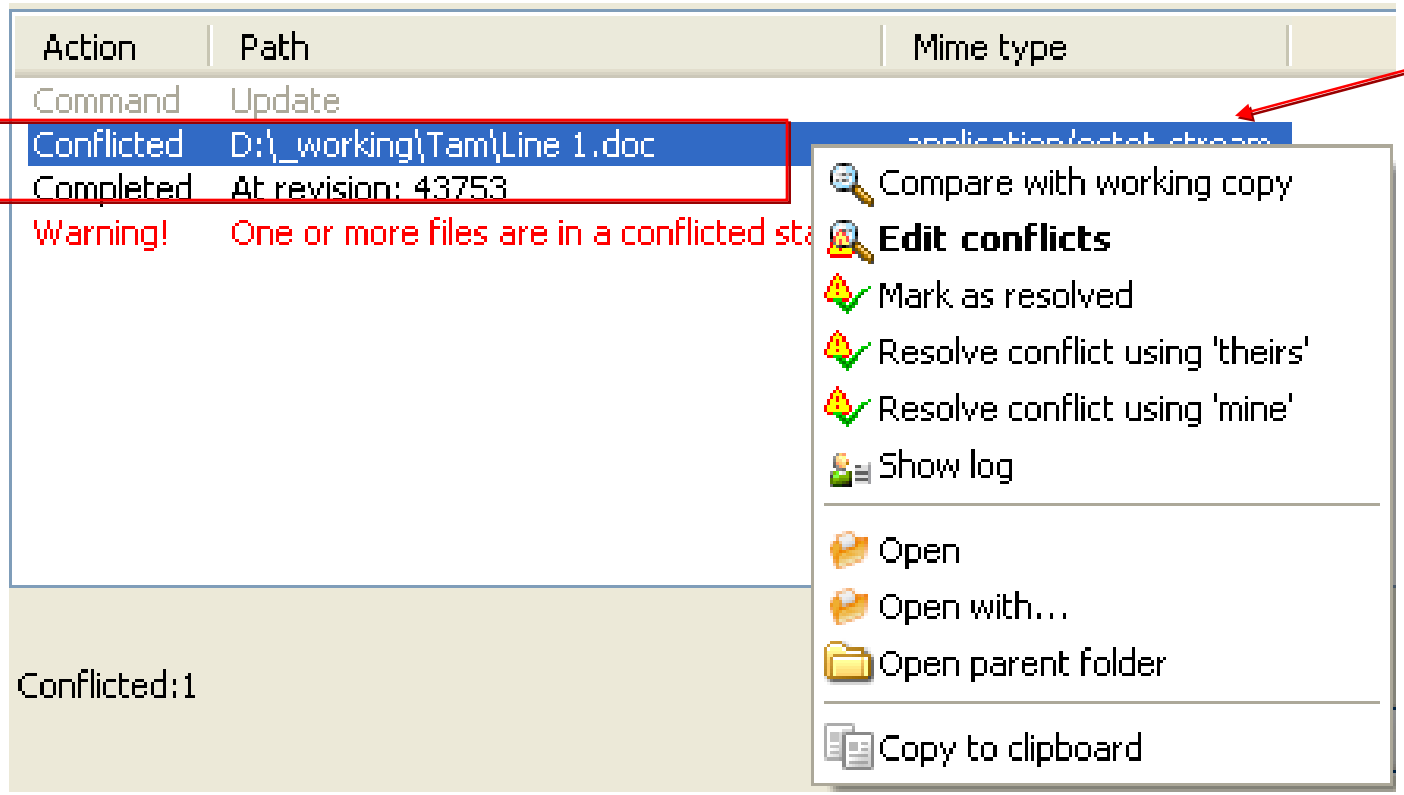




- **An update get changes from the server to your local copy:**
  - Changes done by others will be merged into your files, keeping any changes you may have done to the same files (for text file)
  - The repository is not affected by an update

Resolve – File Conflicts 1

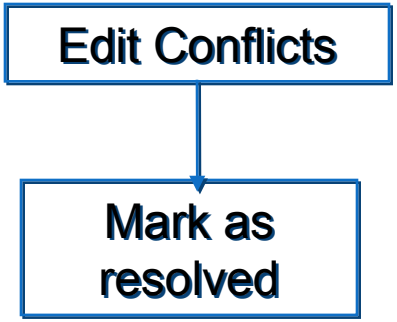
- A file conflict occurs if two (or more) developers have changed the same few lines of a file



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

Resolve – File Conflicts 2

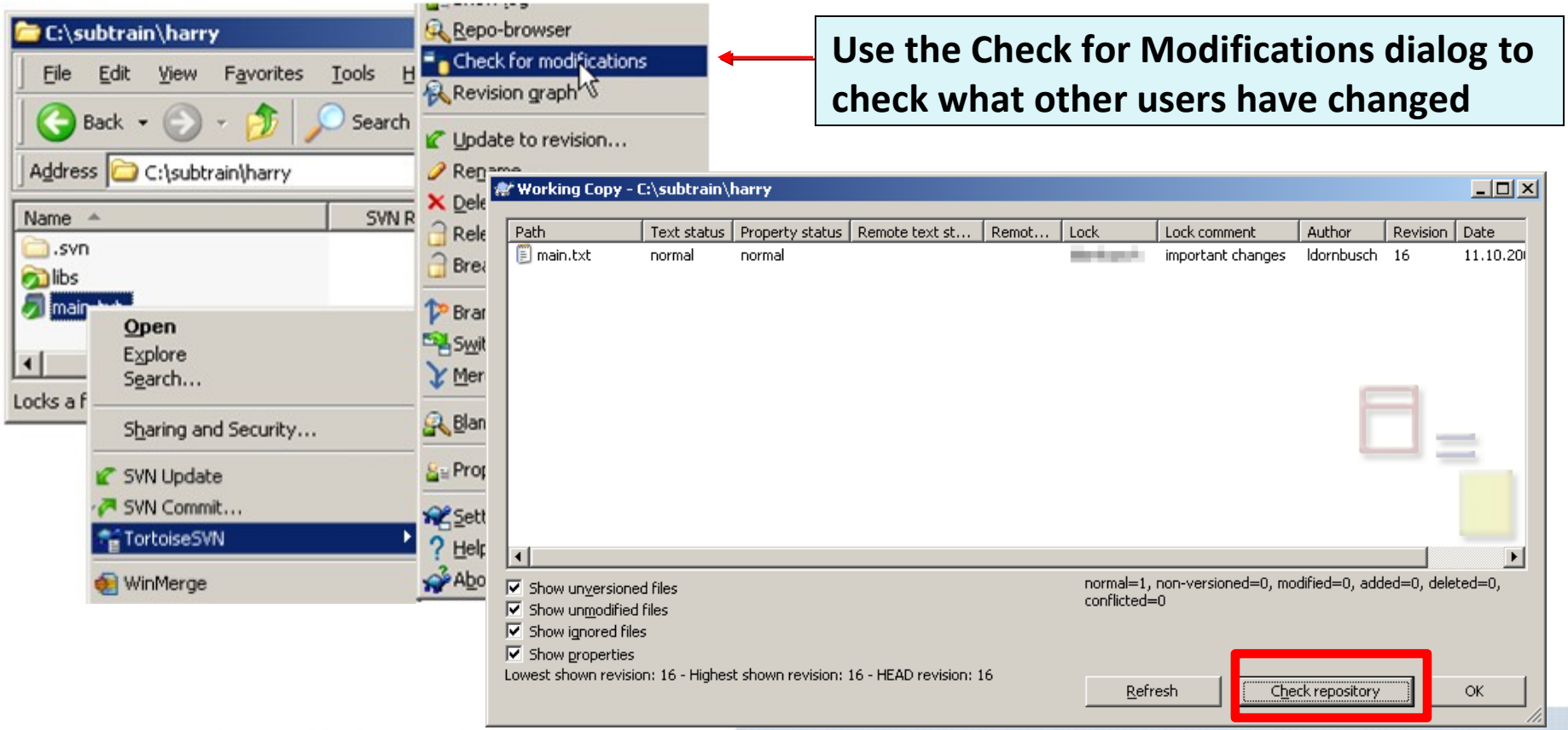
- **For every conflicted file Subversion places three additional files in your directory:**
  - filename.ext: **the file existed in your working copy before you updated your working copy**
  - filename.ext.rOLDREV : **the file that you checked out before you made your latest edits.**
  - filename.ext.rNEWREV : **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**

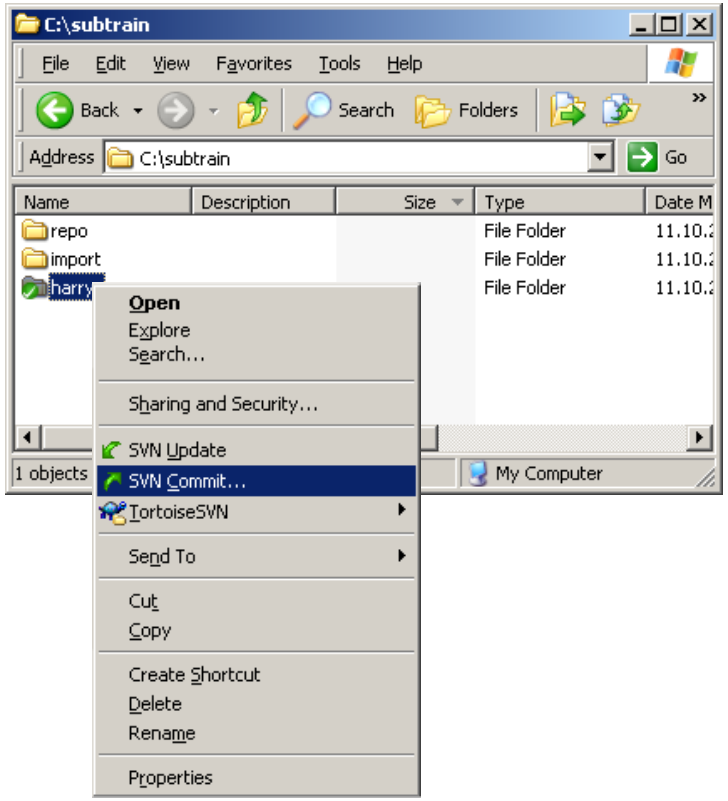
Resolve – Tree Conflicts

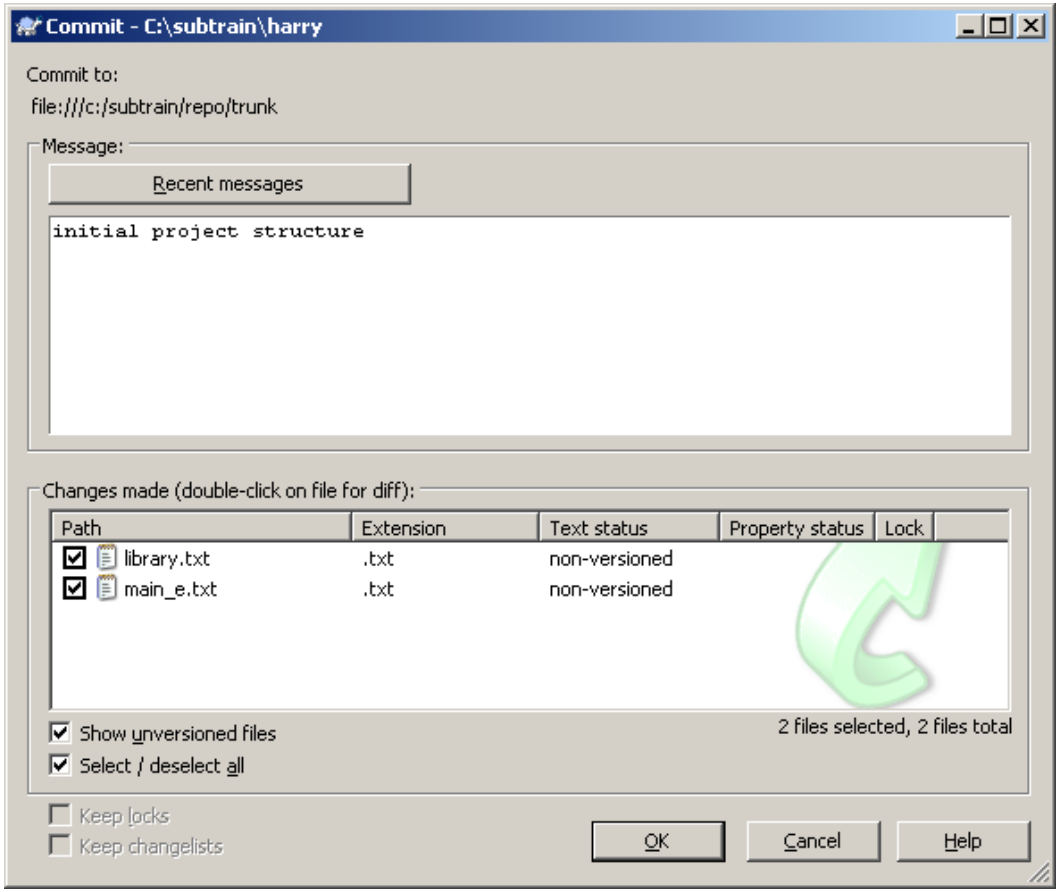
- A tree conflict occurs when a developer moved/renamed/ deleted a file or folder, which another developer either also has moved/renamed/deleted or just modified



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

Commit Changes





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

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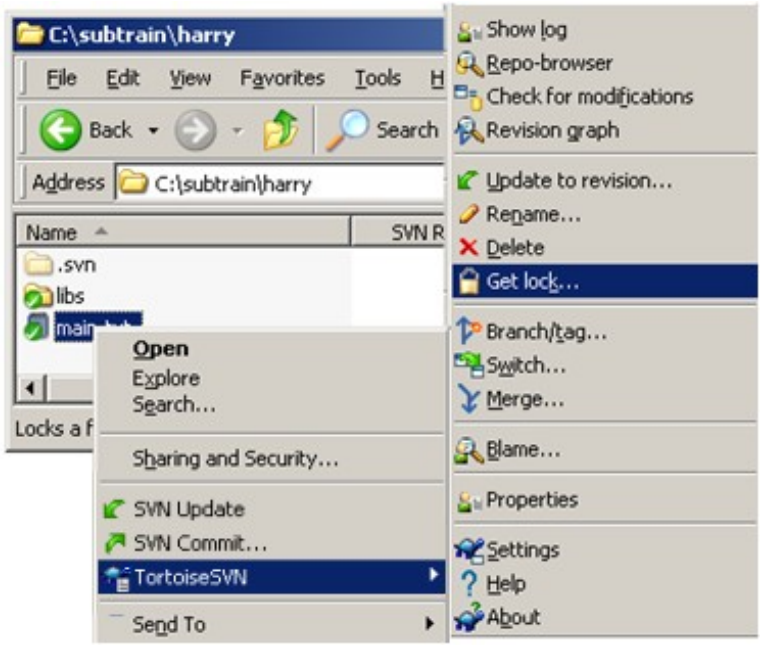
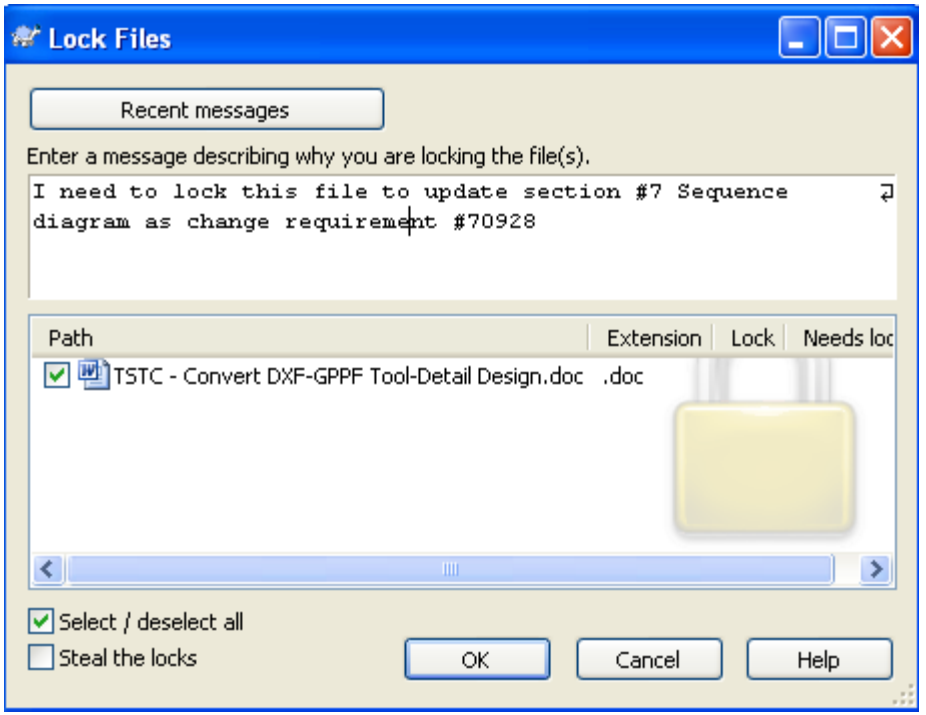
Locking

- **We need locking files when**
  - Work with “un-mergeable” files such as binary files
  - Files which are frequently updated by many users

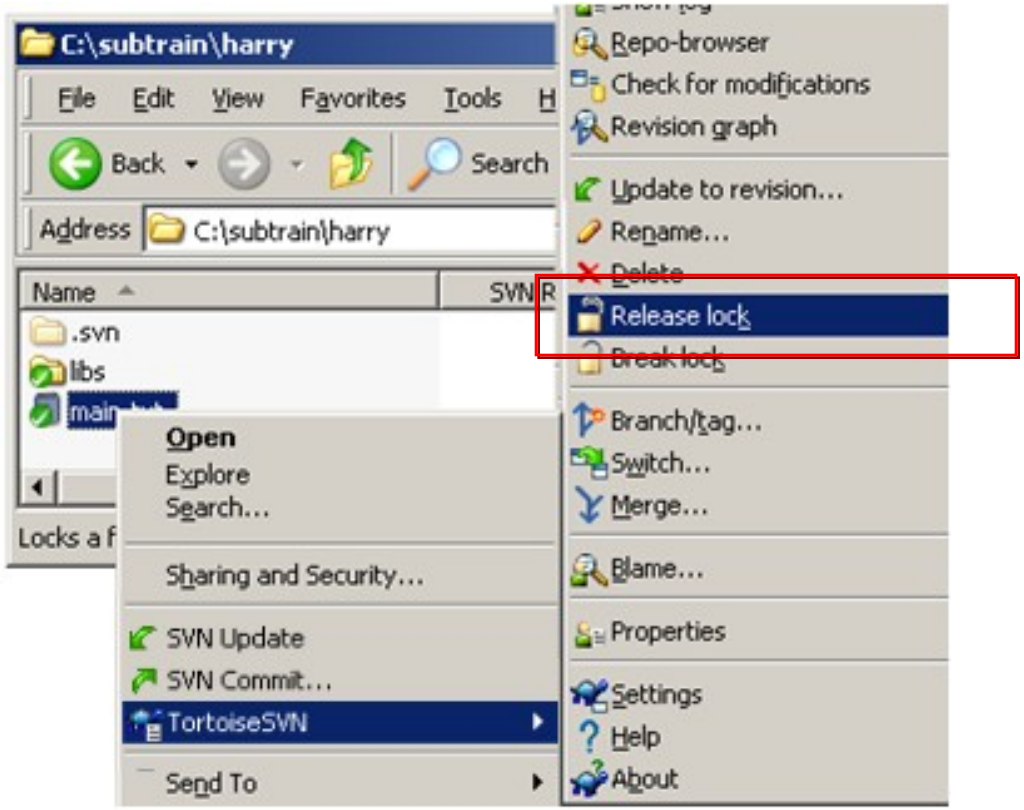




Use a descriptive lock message to tell your co-workers why you need this lock

Unlocking

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



Summary

- **Working process**
  - Check out a working copy
  - Edit content
  - Merge changes from server
  - Commit changes
- **Locking files**
- **Unlocking files**

Thank you !