

# SVN using TortoiseSVN

## crash course

By Omar Nada  
Fall 2008

### What is Subversion (SVN)

Subversion (SVN) is a version control system. Version control is the management of multiple revisions of the same unit of information. It is most commonly used in engineering and software development to manage ongoing development of digital documents like application source code, art resources such as blueprints or electronic models, and other projects that may be worked on by a team of people. Changes to these documents are usually identified by incrementing an associated number or letter code, termed the "revision" and associated historically with the person making the change. A simple form of revision control, for example, has the initial issue of a drawing assigned the revision number "1". When the first change is made, the revision number is incremented to "2" and so on.[1]

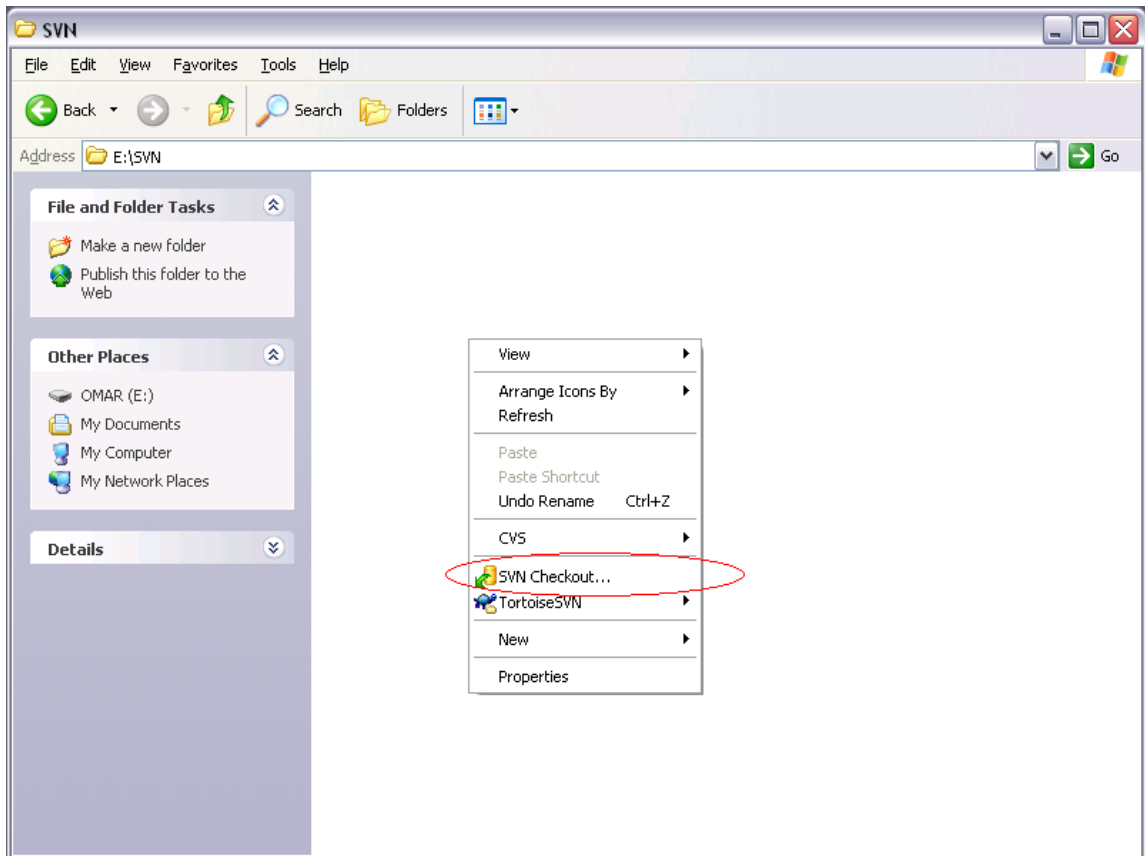
This system consists of server end and client end. The server end is usually provided to you by school, work...etc. The client end is needed to be installed on your local PC to be able to access the SVN server. There is a long list of known (closed and open courses, free and none free) subversion clients [See [http://en.wikipedia.org/wiki/Comparison\\_of\\_Subversion\\_clients](http://en.wikipedia.org/wiki/Comparison_of_Subversion_clients) for full list]. In this document, we chose TortoiseSVN since it is already installed on most SCE lab PCs and it is easy to install at home [See <http://en.wikipedia.org/wiki/TortoiseSVN> for more details].

Subversion is well-known in the open source community and is used on many open source projects such as: Apache Software Foundation, KDE, GNOME, Free Pascal, FreeBSD, GCC, Python, Django, Ruby, and Mono. SourceForge.net and Tigris.org also provide Subversion hosting for their open source projects. Google Code and Bounty Source systems use it exclusively.[1]

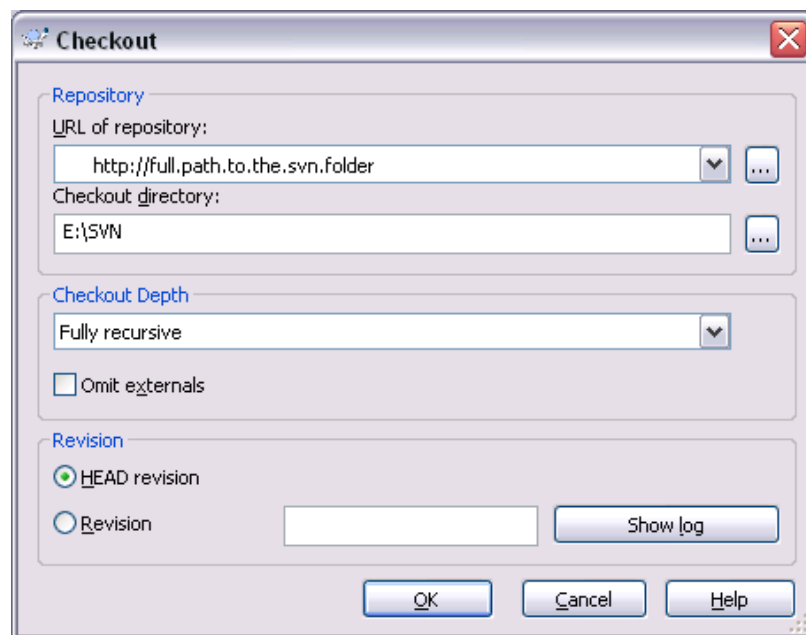
[1] [http://en.wikipedia.org/wiki/Subversion\\_\(software\)](http://en.wikipedia.org/wiki/Subversion_(software))

### **STEP 1: Check out (download) files**

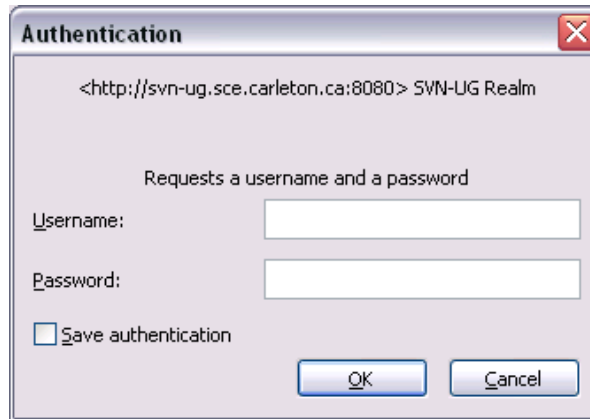
- 1) Create a new folder and browse to this folder
- 2) Right click to get the command menu, click on "SVN Checkout"



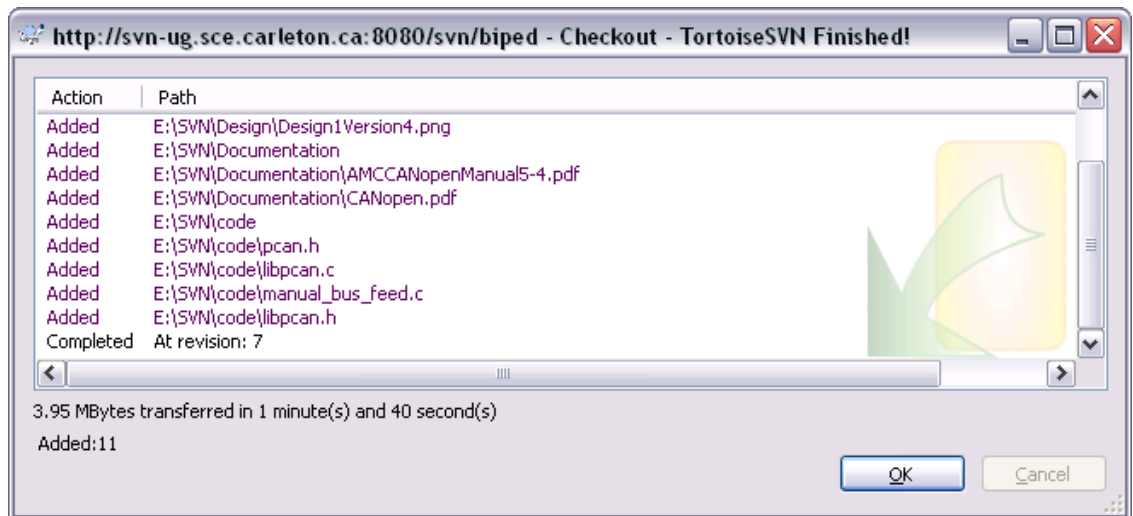
- 3) Using the SVN server address given to you by the server administrator, insert it in the URL of repository field (ex: *http://full.path.to.the.svn.folder*)



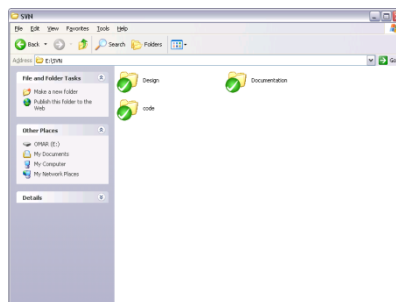
- 4) Provide the username and password provided to you (if asked)



- 5) This step might take a while, as it downloads the files:



- 6) When done, click on "OK". You are done, the code from the SVN repository should be in your folder.



## STEP II : working with files

Simply treat the files you just checkout as normal files located on your computer. Files related to SVN checkout will have extra overlay slots for status:



A fresh checked out working copy has a green checkmark as overlay. That means the Subversion status is Normal.



As soon as you start editing a file, the status changes to *Modified* and the icon overlay then changes to a red exclamation mark. That way you can easily see which files were changed since you last updated your working copy and need to be committed.



If during an update a *conflict* occurs then the icon changes to a yellow exclamation mark.



If you hold a lock on a file, and the Subversion status is normal, this icon overlay reminds you that you should release the lock if you are not using it to allow others to commit their changes to the file.

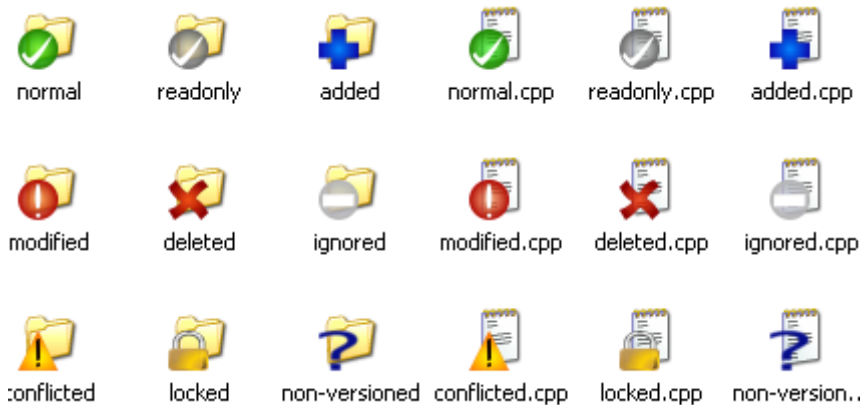


This icon shows you that some files or folders inside the current folder have been scheduled to be deleted from version control or a file under version control is missing in a folder.



The plus sign tells you that a file or folder has been scheduled to be added to version control.

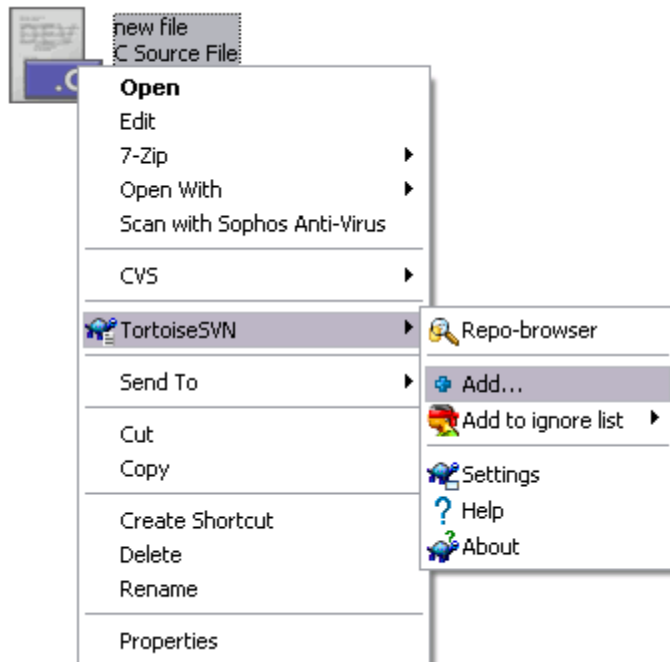
### Examples:




### To add new file / folder:

Dragging a new file or folder to the repository folder will not add it to the server repository. These new files and folders need to be added manually. This is how it is done:


- 1) Create the file or folder you want to add to the repository.
- 2) Right click on the file / folder and go to the TortoiseSVN menu
- 3) Click on "Add"



- 4) The file or folder should now have the  SVN overlay symbol.

### To edit files / folders:

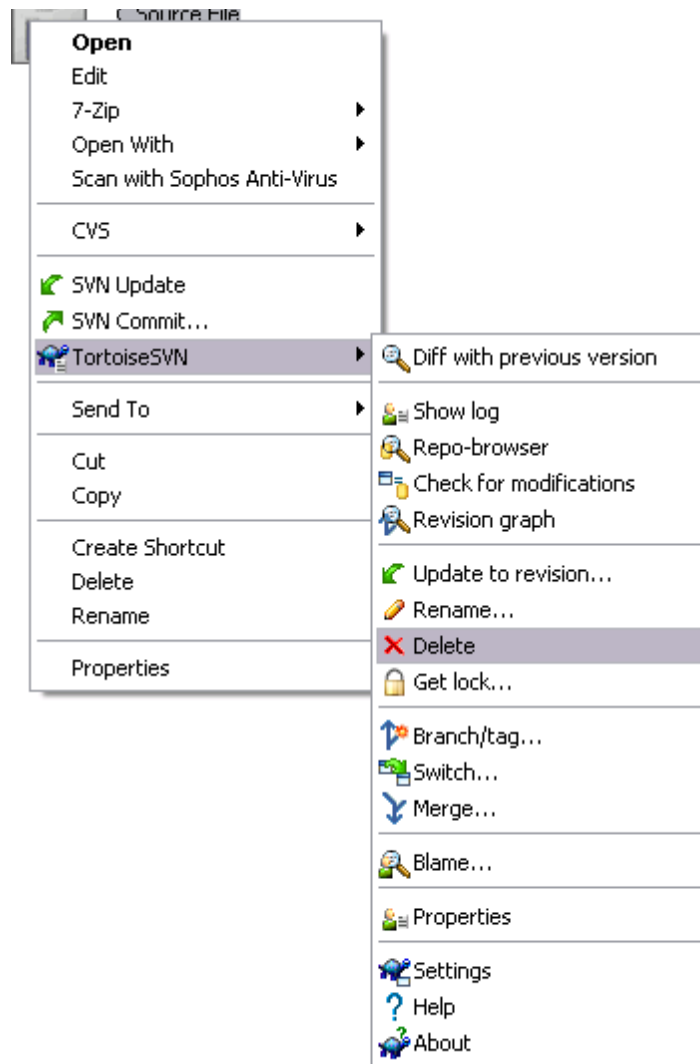
No special tool is required for this step. Simply use your favorite program to edit the file you want to. Once changes happen to the file or folder, the overlay symbol will change to indicate that the file has been edited.

 Indicates a changed file.

### To delete files / folders:

Simply removing the file from your computer will not remove the file from the repository. To delete a file from the repository, follow these steps:

- 1) Do not delete the file directly by using “delete” key on the keyboard or right click the file and choose deletion action.
- 2) Instead, right click on the file or folder you would like to delete, open the TortoiseSVN menu.
- 3) Then click on “Delete” as shown here:

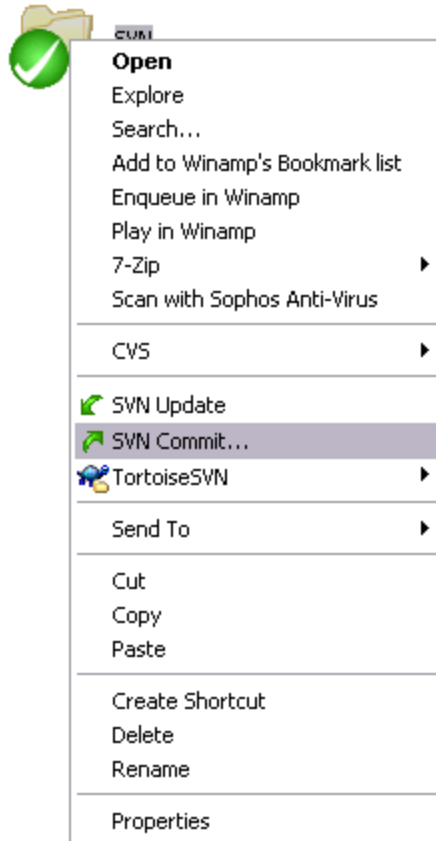


PS: File or folders are not really deleted, they are simply removed from the current repository. You can always go back to previous repositories and recover the deleted file or folder.

To update the SVN server:

Once you are done with the changes to the files or folder, you might want to update the server with your latest version. This is how it is done:

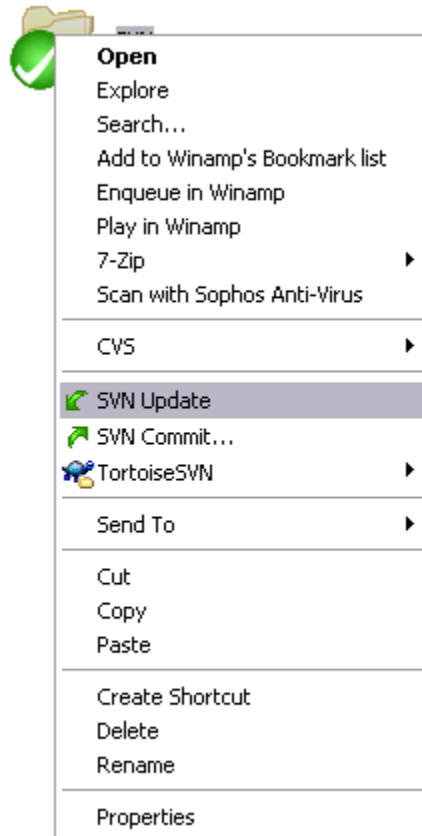
- 1) Right click on the file / folder you changed (or on root folder to update ALL files within it)
- 2) Click on “SVN Commit...”



To get the latest files on the SVN server:

To get the latest files and folders created or updated by your other team members working on the same repository, follow these steps:

- 1) Right click on the file / folder you changed (or on root folder to update ALL files within it)
- 2) Click on "SVN Update."



Not all SVN functions are covered in this document. For more advanced options and functions please visit the TortoiseSVN site at [http://tortoisesvn.net/docs/release/TortoiseSVN\\_en/index.html](http://tortoisesvn.net/docs/release/TortoiseSVN_en/index.html)