**Basic Work Cycle**

SVN has numerous features, but on a day-to-day basis you will use only a few of them.

The typical work cycle looks like this:

* Update your working copy
* Make changes
* Examine your changes
* Possibly undo some changes
* Merge others' changes
* Commit your changes

**Update your working copy**

When working on a project with a team, you'll want to update your working copy to receive any changes made by other developers on the project since your last update. Use the **Update** command (SVN | Update menu item) to bring your working copy in sync with the latest revision in the repository.

**Make changes**

Now you can get to work and make changes in your working copy. It's usually most convenient to decide on a discrete change (or set of changes) to make, such as writing a new feature, fixing a bug, etc.

Important:

To delete a versioned file (file that is in the server version), it is necessary to use the **Delete** command (SVN | Delete menu item).

To rename a versioned file, it is necessary to use the **Rename** command (SVN | Rename menu item).

**Examine Your Changes**

Once you've finished making changes, you need to **Commit** them to the repository, but before you do so, it's usually a good idea to take a look at exactly what you've changed. By examining your changes before you commit, you can write a more accurate log message. You may also discover that you've inadvertently changed a file, and this gives you a chance to revert those changes before committing them. Additionally, this is a good opportunity to review and scrutinize changes before publishing them.

You can see an overview of the changes you've made by using Show Changes window. To open the window choose the SVN | Check for modifications menu item.

**Possibly undo some changes**

Suppose while examining your changes you determine that all the changes you made to a particular file are mistakes. Maybe you shouldn't have changed the file at all, or perhaps it would be easier to make different changes starting from scratch.

This is a perfect opportunity to use the **Revert** command (SVN | Revert main menu). You'll see SVN's Revert window where you can examine and undo some of your changes.

Note that this command overwrites the specified(s) local file(s) with the repository version.

**Merge other's changes**

It often happens that while you've been working on your changes, somebody else already finished and committed their own changes to the repository. Thus it's a good idea to merge any changes into your working copy before commiting. Just use the **Update** command and all changes committed by others but not reflected in your working copy will be incorporated into your working copy.

Let's suppose that you and other developer both edited the same file at the same time. Fortunately this is not a problem in most cases and simultaneous changes will be merged automatically by SVN.

However, sometimes SVN can't automatically merge changes within a file and this file is marked as “conflicted”. You will be notified about conflicted files in SVN's Update window after you use the Update command. (See the end of the document for further details about conflicted files)

**Commit your changes**

Your edits are finished, you've merged all changes from the server into your working copy, and you're finally ready to commit your changes to the repository.

Use the **Commit** command (VisualSVN | Commit menu item) to send all of your changes to the repository. When you commit a change, you need to supply a “log message”, describing your change. Your log message will be attached to the new revision you create and it is very useful to resolve possible future problems/conflicts.

If somebody has changed any of the files that you changed, the entire commit will fail with a message informing you that one or more of your files are out-of-date. At this point, you need to **Update** your working copy, deal with any merges or conflicts that result, and attempt your commit again.

**Conflicted files:**

Generally a file will be marked as “conflicted” when you and other developer both have modified the same file and **the same lines**, in this case the SVN can’t merge automatically the changes and you must explicitly indicate which changes you want to keep in your local version.

In the **Update Windows** you must select the conflicted file and indicate if you want to keep the server version, or your version, or merge the two versions (specifing explicitly the merge). Using the Edit Conflict menu item, you will see the two version of the file, the local version and the server version, and you can specify how to merge the files.

Once you finish to explicitly specify the merge, you must save the changes and mark the conflict in the specific file as “resolved” in the Update Window.