

15

Team Collaboration with Subversion Repository

Chapter 15 - Team Collaboration with Subversion Repository

More and more development team adopt Subversion as version control and collaboration platform. With SDE-VS Subversion repository integration you can record and keep history of all changes in your design in your Subversion repository. Moreover, your designs are stored along with source codes in the same repository. This allows both design and source code to be backed up together, and also saves administration cost by needing only a single repository in your team. Other people who may need to only view your designs just need to use the free Viewer to have a look at the project. Please be reminded that Subversion server is only available in Standard Edition or above.

In this chapter:

- Importing and managing projects
- Operating projects
- Reviewing the old revisions of projects
- Comparing the differences between revisions
- Using branch and tag

Starting the Teamwork Client Dialog Box

The Teamwork Client dialog box is the access point for all Teamwork functions, such as importing and managing projects, operating projects, reviewing and comparing projects and using branches and tags. There are three ways you can start Teamwork Client.

You can also right click on the project node of solution explorer and select **SDE-VS Project > Open Teamwork Client...** .

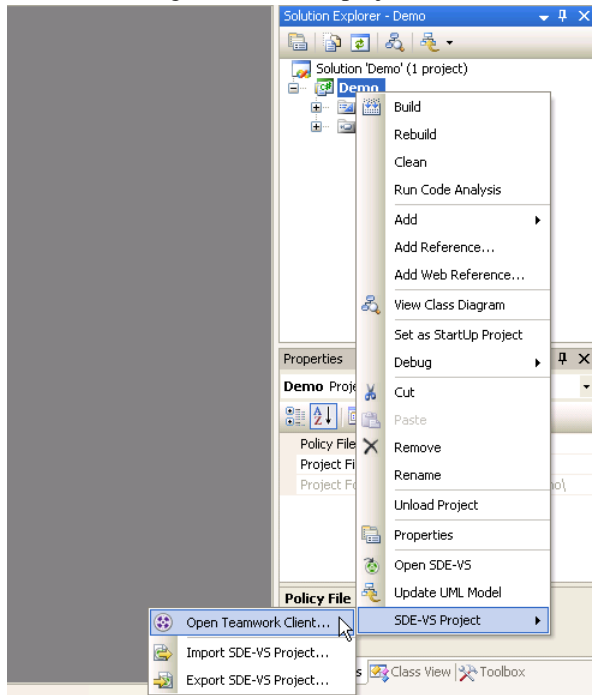


Figure 15.1 - Open Teamwork Client with project node

By using any one of these methods, the **Login to the Teamwork Server** dialog box is displayed.

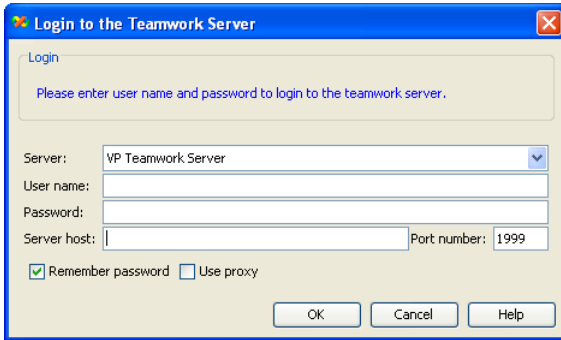


Figure 15.2 - Login to the Teamwork Server dialog box

You can select **Subversion** as server.

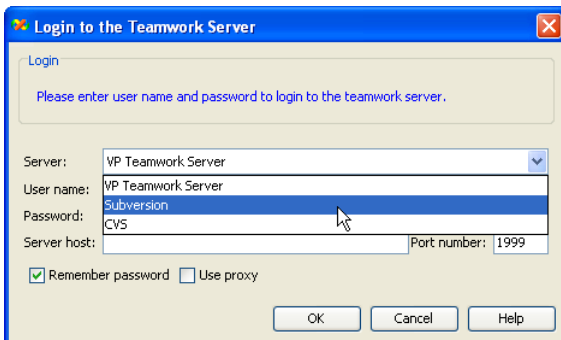


Figure 15.3 - Select subversion as server

Then, configure the details of server connection. Then click **OK** to confirm.

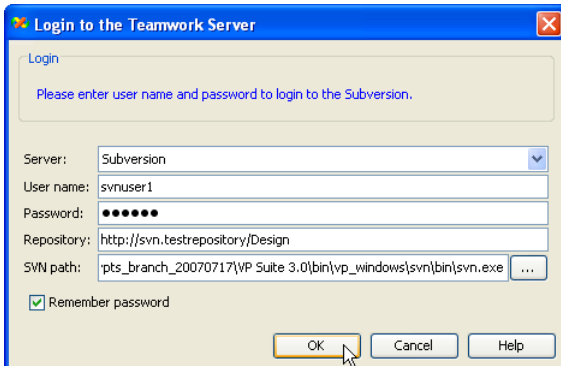


Figure 15.4 - Configure details of server connection

Teamwork Client dialog box is opened.

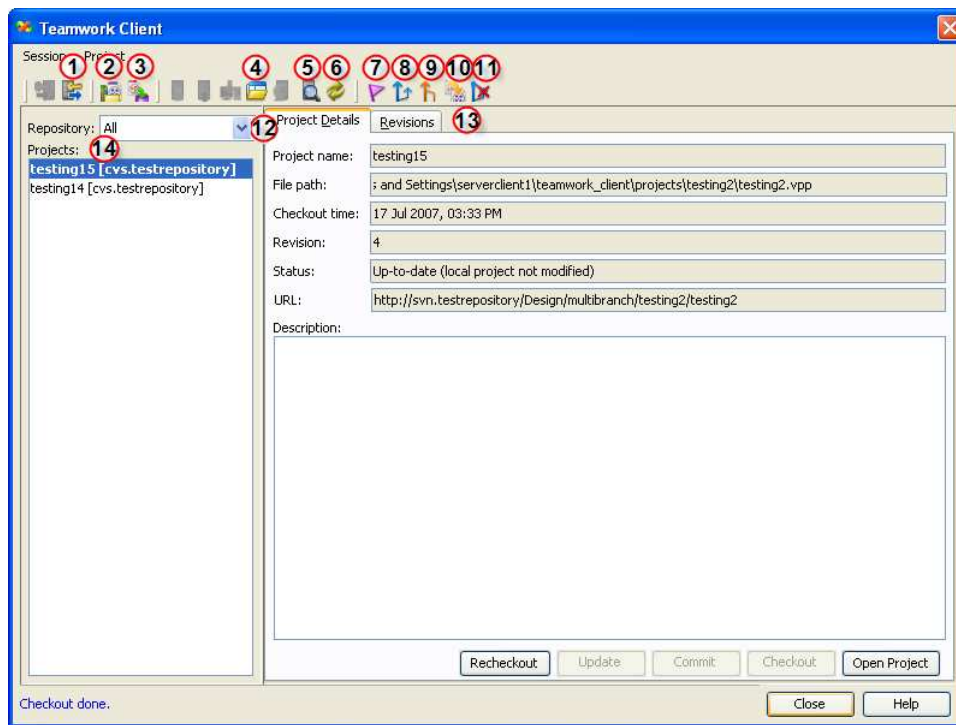


Figure 15.5 - Teamwork Client dialog box

	Name	Function
①	Logout	Logout from the server.
②	Manage project	Manage projects in the server.
③	Import project	Import a project into the server.
④	Open	Open the selected project.
⑤	Check for Update	Check if there is any update in the selected project.
⑥	Refresh projects	Refresh the projects to get the latest status of them.
⑦	Tag...	Create a tag for the selected project.
⑧	Branch...	Create a branch for the selected project.
⑨	Merge...	Merge the modification of branch and trunk.
⑩	Switch...	Switch your location in the project.
⑪	Delete branch...	Delete a branch.
⑫	Project Details...	The details of the selected project is shown.
⑬	Revision	History of modification of the selected project.
⑭	Projects list	The projects which have been selected to be managed is shown.

Table 15.1

Importing Project to the Repository

You can import your project to the repository by clicking the **Import Project to Repository** icon in the **Teamwork Client** dialog box.

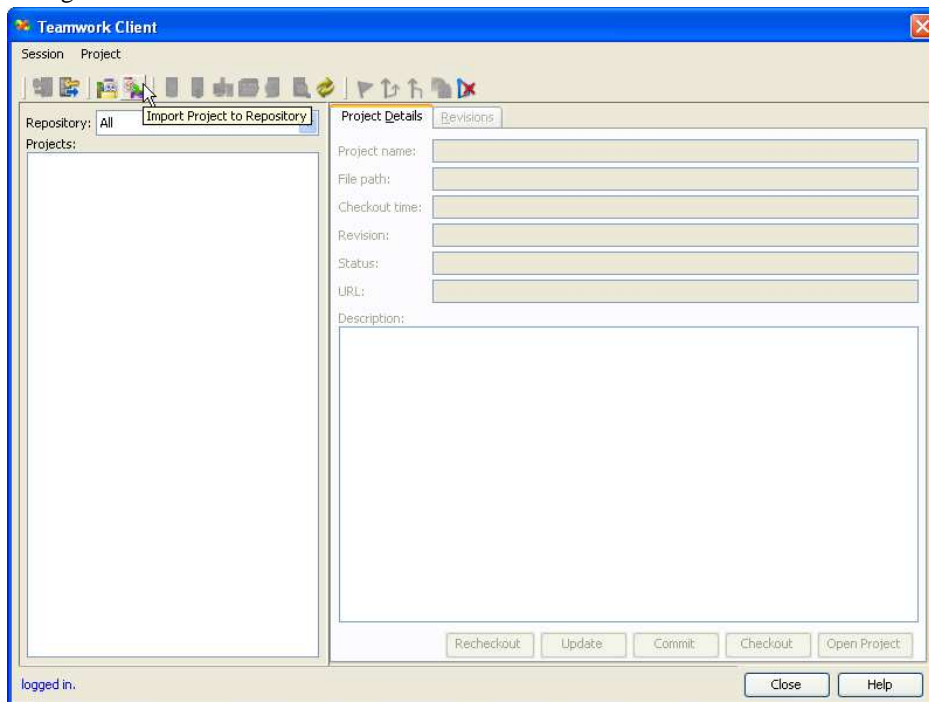


Figure 15.6 - Select Import Project to Repository

Import Project dialog box will be displayed. You can edit the project name and the type of project file you want to import.

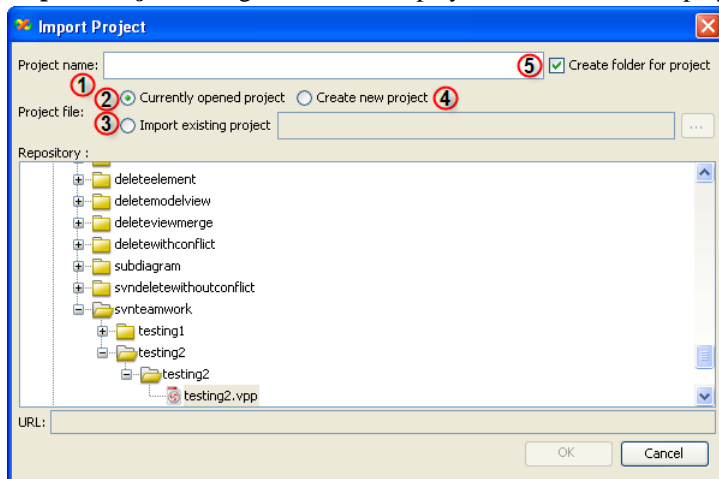


Figure 15.7 - Import Project dialog box

	Name	Function
1	Project name	Edit the name of imported project.
2	Currently opened project	Import the project you have opened.
3	Import existing project	Import an existing project from the local file system.
4	Create new project	Create a new project in the repository.
5	Create folder for project	When import a project, create a folder for that project automatically.

Table 15.2

Then, you can select the repository where your project will be imported to. You may right-click on a folder and select **New Remote Folder** from the popup menu to create another folder in it.

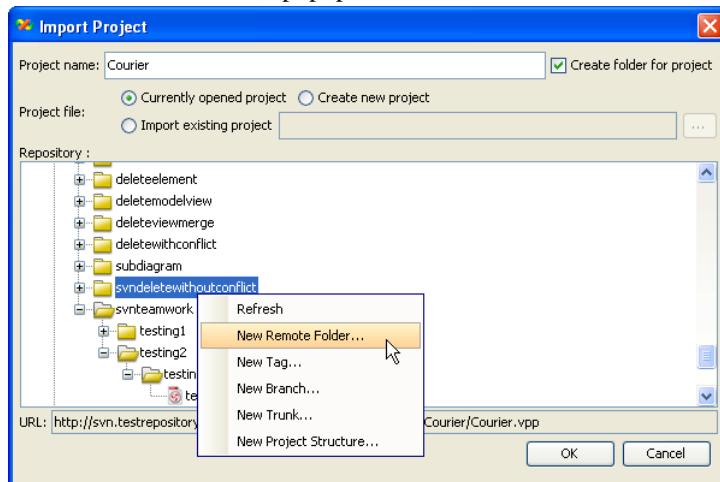


Figure 15.8 - Open a new remote folder

Managing Teamwork Project

Only the first project user, who usually is Project Leader or Business Analyst, needs to import project to repository. Other team members may use the **Manage Project** dialog box to manage these working projects. To open the **Manage Project** dialog box, you can right-click on the Projects List in the Teamwork Client dialog box, and select **Manage Project** in the popup menu.

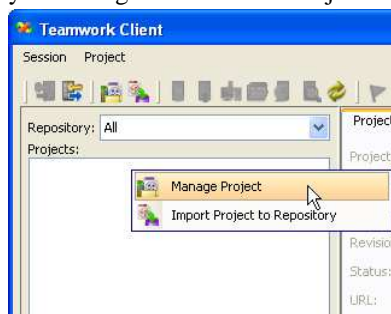



Figure 15.9 - Select Manage Project

You can select a project in the repositories and click **Add selected**  to add the project to the **Projects** list. You may manage more than one teamwork project at the same time by selecting different projects and click **Add selected**.

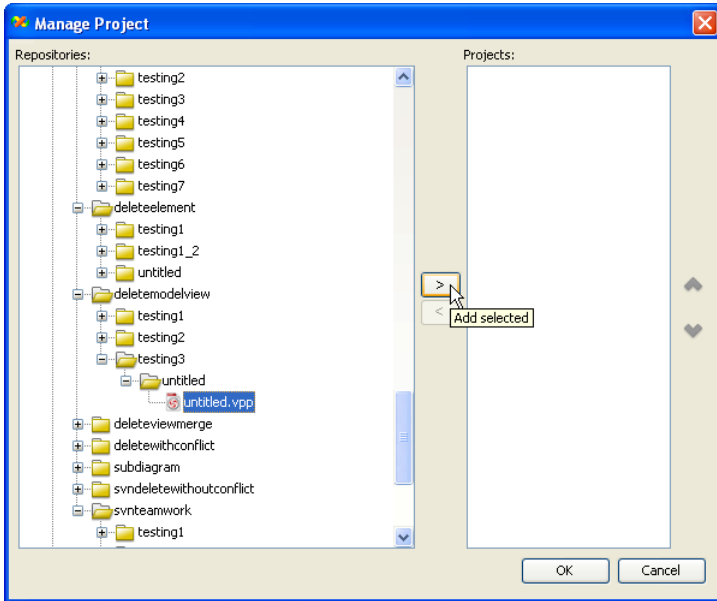


Figure 15.10 - Manage Project dialog box

If you want to remove a project which is added to your **Projects** list, you can select **Remove selected**  to remove the project selected in the list.

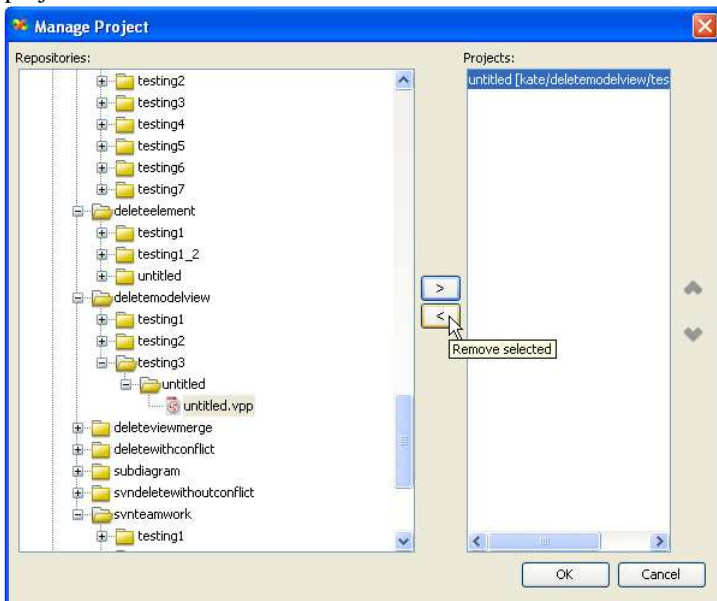


Figure 15.11 - Remove selected project

Checking Out Project

If you have already imported a project to server or selected a project to manage, you can checkout the project from the repository.

When you have just selected a project in the **Projects** list, the status is '**Not checked out**'.

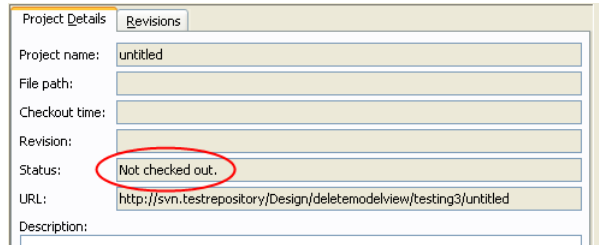


Figure 15.12 - Project not checked out

You click **Open Project**, you can checkout the project and open it immediately.

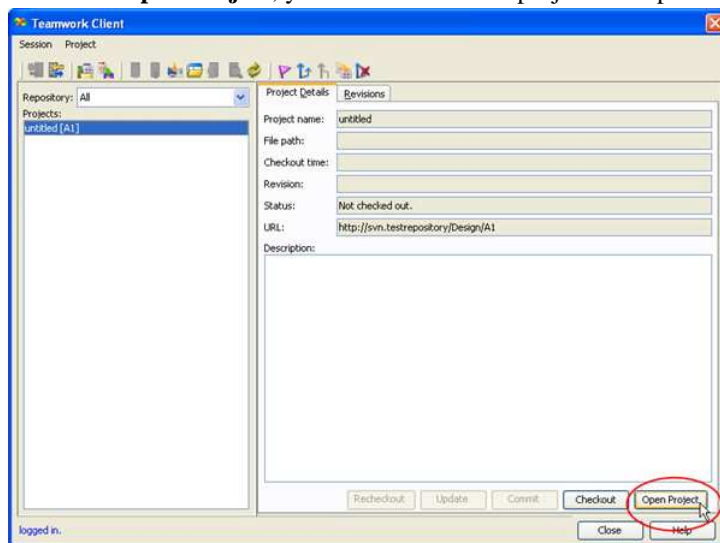


Figure 15.13 - Open the project

Alternatively, you can choose to checkout the project without opening it. Checkout Project is quite different from Open Project. After checking out the project, your will stay in the Teamwork Dialog for further actions. For example, creating branch, Merge change from branch. If you select Open Project, you will open the project for viewing and modification. To checkout the project, click **Checkout** in **Teamwork Client** dialog box.

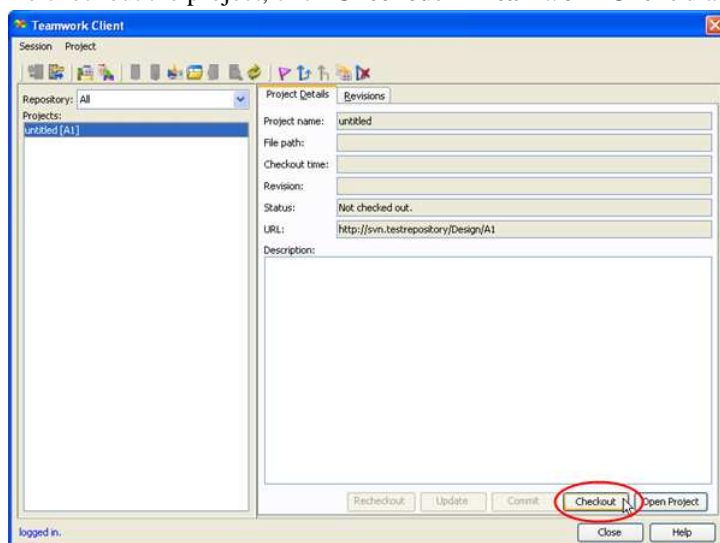


Figure 15.14 - Checkout the project

The status of the project is changed and you have checked out the project successfully.

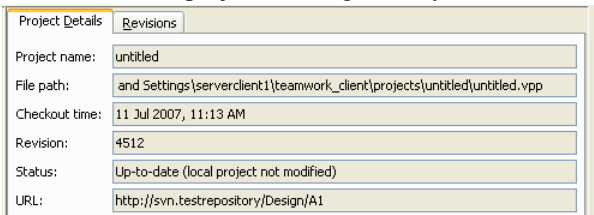


Figure 15.15 - Project checked out

Committing Project

After you have modified the project, you can share your local changes with other team member by committing the project to server.

You may commit project in the toolbar.

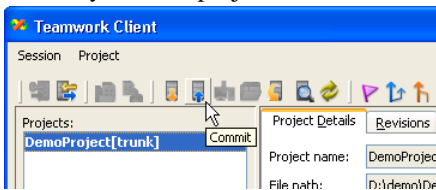


Figure 15.16- Commit project

A **Commit Project** dialog box will show you the progress of commit.

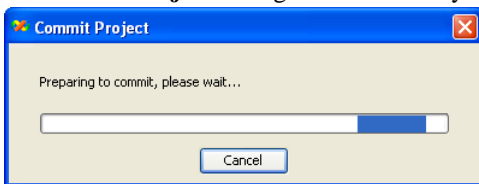


Figure 15.17 - Commit project dialog box

A dialog box will be displayed and you may enter a description of the changes. Then, click **OK**.

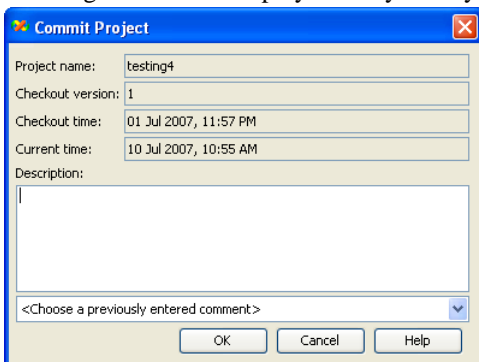


Figure 15.18 - Enter description of commit change

A **Commit Model(s)** dialog box shows the models you have modified. You can click **OK** to commit.

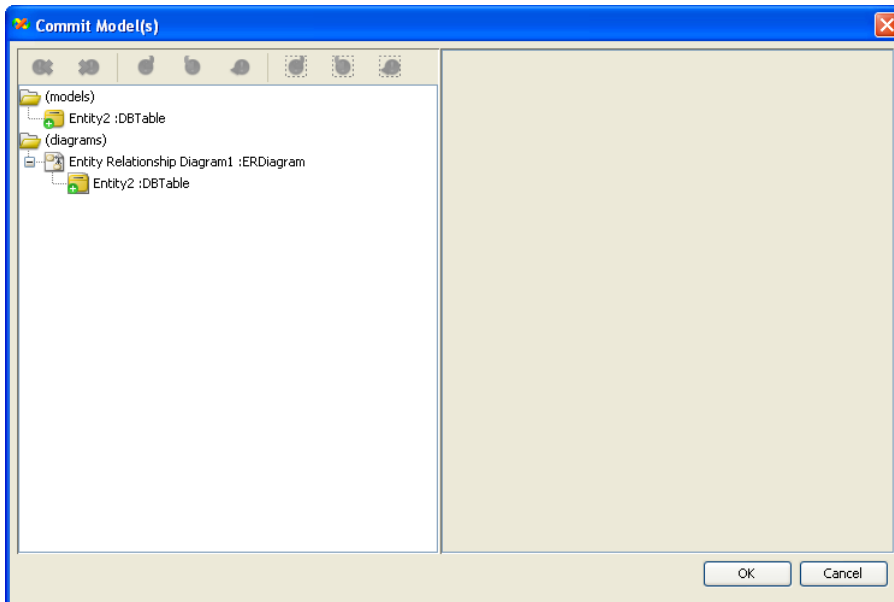


Figure 15.19 - Commit Model(s) dialog box

Sometimes, you may encounter conflict when committing models.

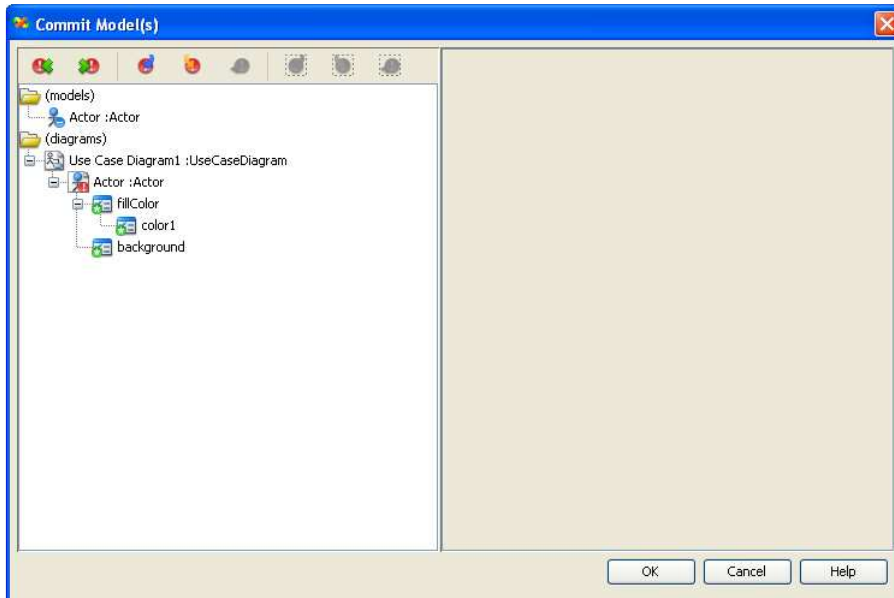


Figure 15.20 - Commit with conflict

You can choose to revert or overwrite to solve. For more details, please refer to the section 'Resolving Conflict'.

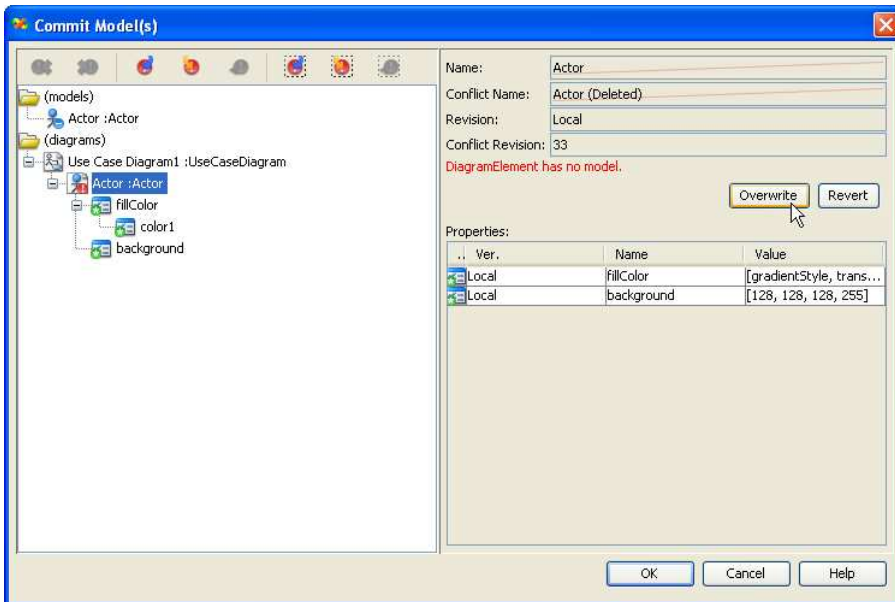


Figure 15.21 - Select overwrite or revert

Updating Project

Apart from committing the project you have changed to the server, you can also get other teammates' changes in the server to local by updating project.

To update project, you can click the icon for update in toolbar.

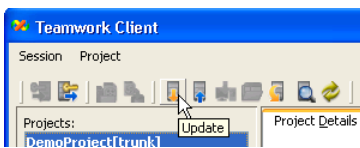


Figure 15.22 - Update project

Update Model(s) dialog box is displayed. The models changed by others are shown. You can click OK to update the models.

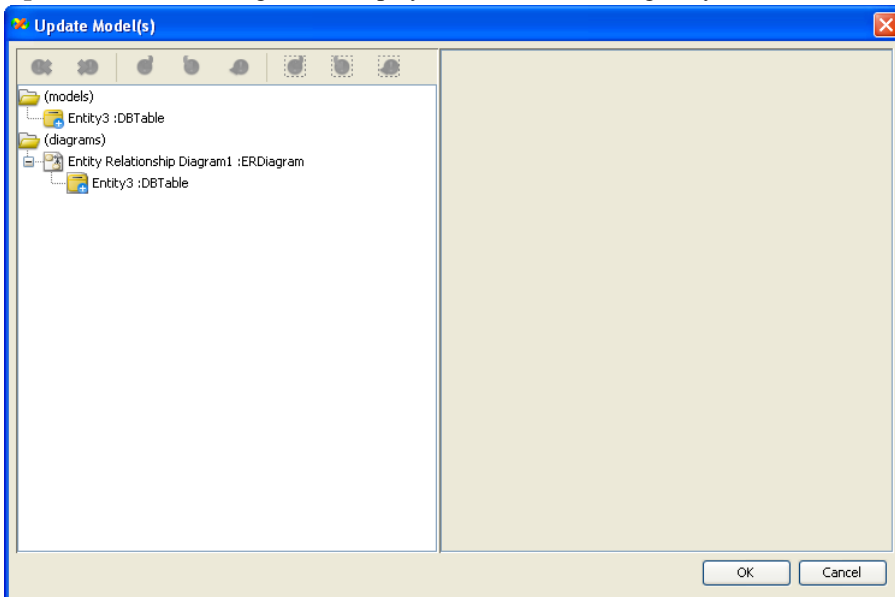


Figure 15.23 - Update Model(s) dialog box

Reverting Project

You may encounter the situation that you have made a lot of changes in the project just to find there are a lot of mistakes. In this case, you may want to rollback all the changes and redo the whole project.

Here, you can revert all local changes by clicking the **Revert** button.

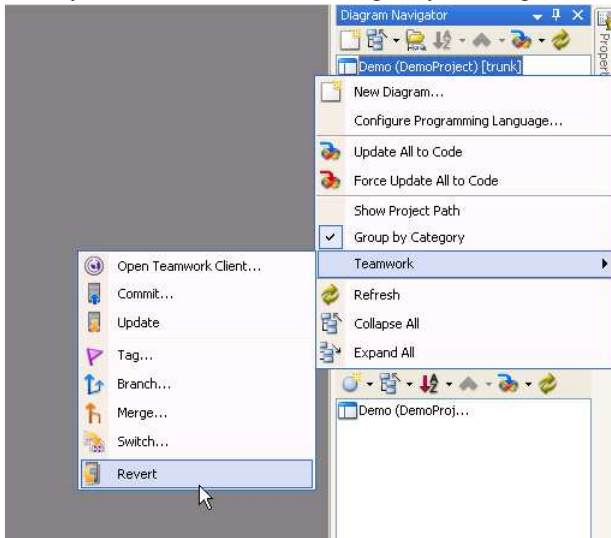


Figure 15.24 - Revert project

A dialog box will show and ask if you want to revert. Click **Yes** to confirm and the project is reverted.

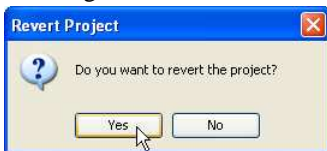


Figure 15.25 - Confirm revert project

Resolving Conflict

Sometimes, you may modify the same model as your teammate with different changes. In this way, the server may not know which revision should be preserved and it shows conflict.

Conflicts can happen when you commit the project.

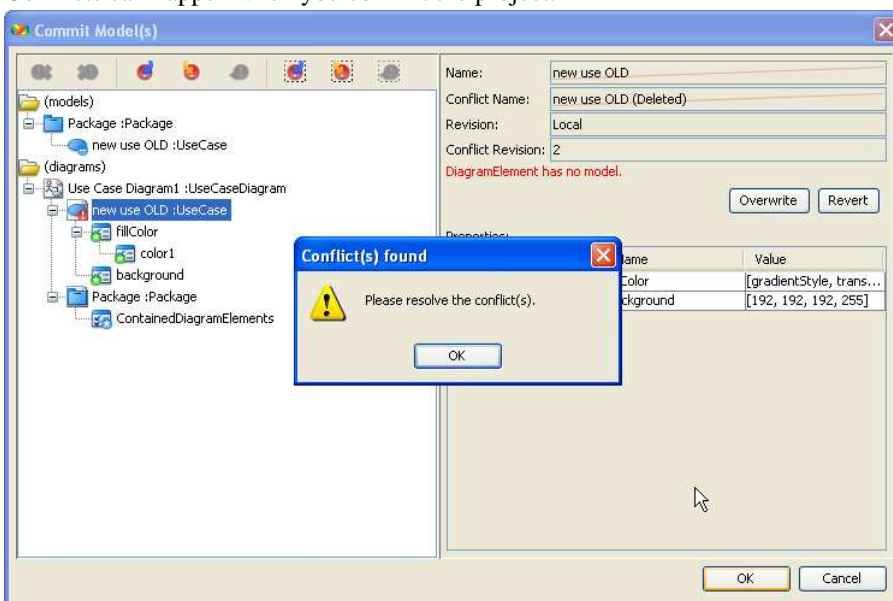


Figure 15.26 - Conflict found in merging

Conflict may also happen when you update your project.

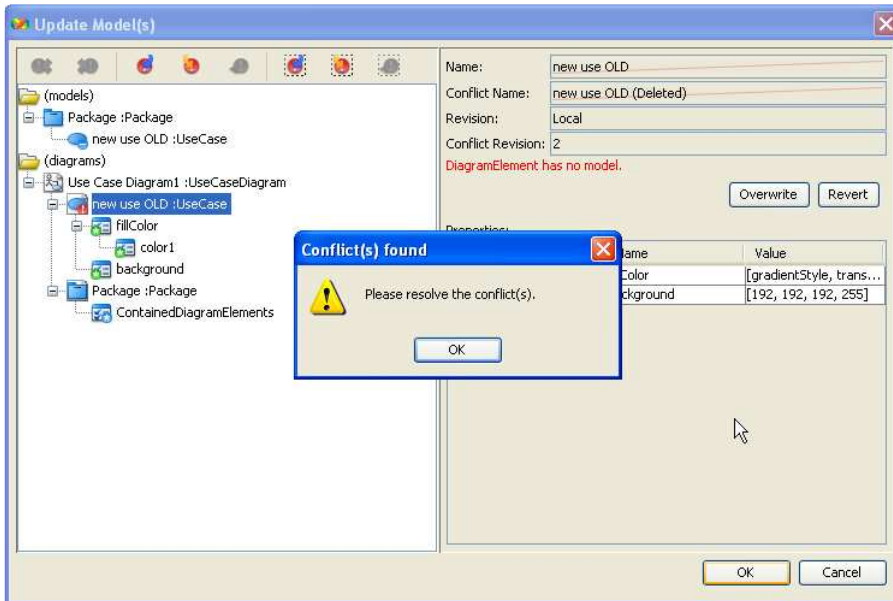


Figure 15.27 - Conflict found in updating

When you face conflict, you can solve it by selecting the conflict model and clicking **Overwrite** or **Revert**. **Overwrite** is to keep local changes while **Revert** is to accept changes from server.

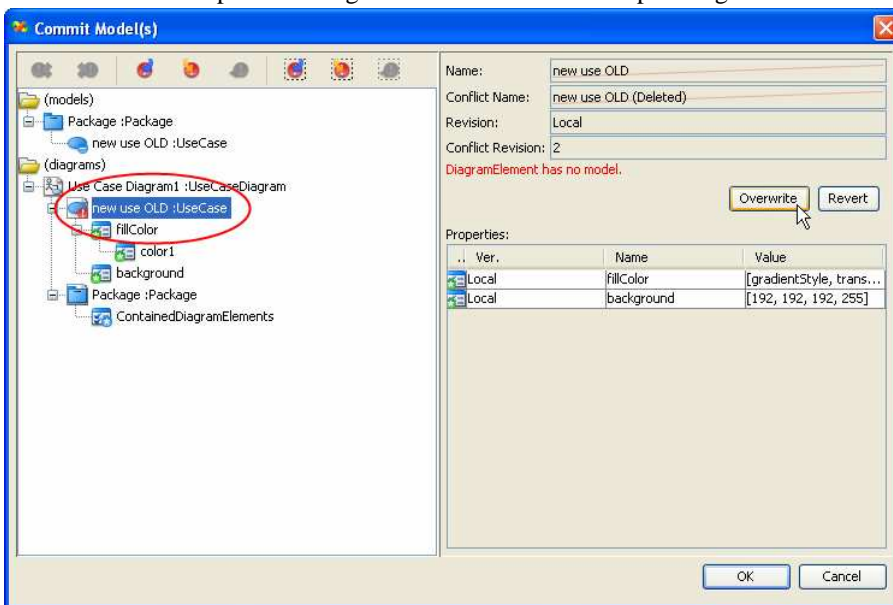


Figure 15.28 - Solving conflict

Viewing Revision History

From time to time, there may be a lot of changes made by you and your teammates. In SDE-VS, you can view back the previous revisions of the project.

To view the history of committed changes, open the **Teamwork Client** dialog box and select **Revisions** tag.

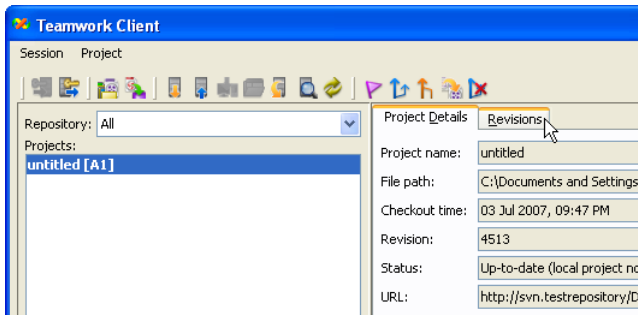


Figure 15.29 - Select Revisions

You can see the different revisions of the project.

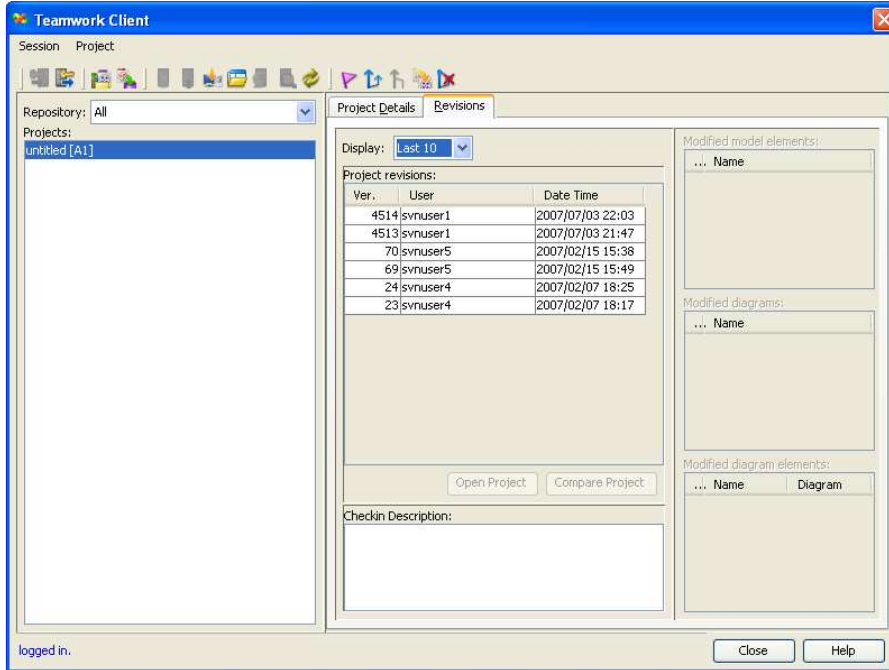


Figure 15.30 - Different revisions of the project

You can see the model, diagram and diagram elements modified in that version. You can also see the checkin description in that version.

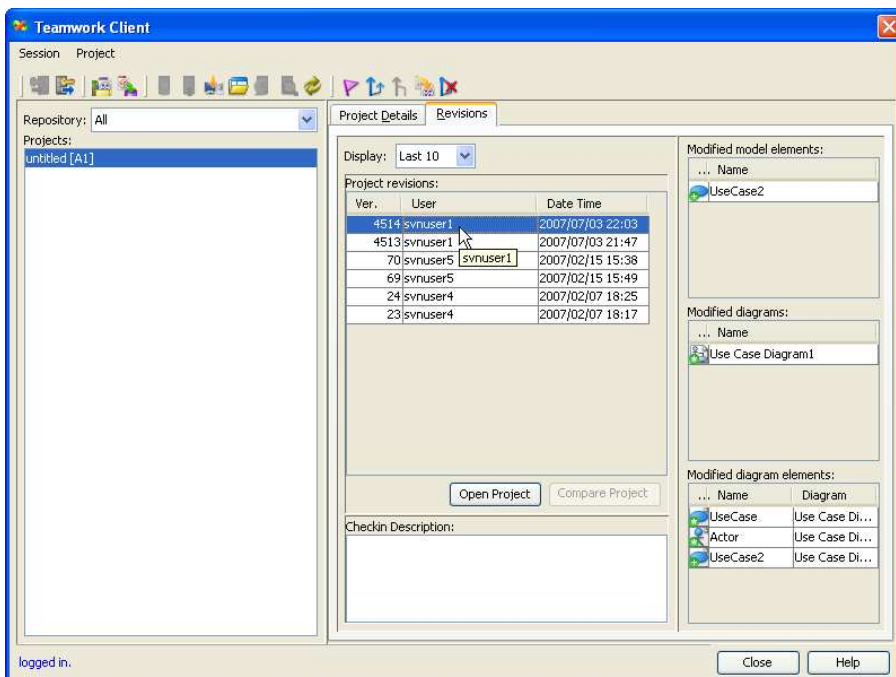


Figure 15.31 - Changes of different revisions

Checking Out Old Revision

You can checkout the old revision of project and make changes in it. Afterwards, you can commit your changes to the server. To check out a revision of a project, you can select a revision and click **Open Project**.

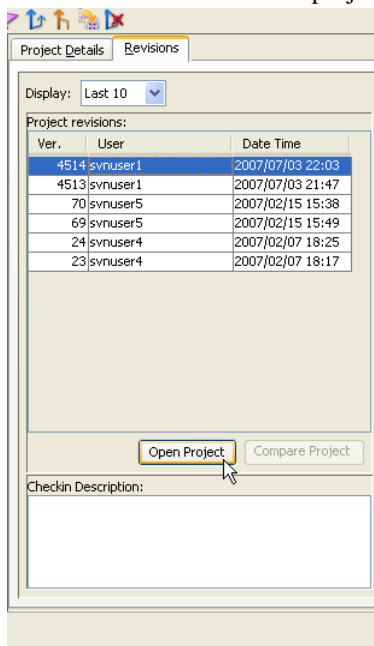


Figure 15.32 - Check out old revision

Comparing Between Revisions

You may want to see the differences between different revisions here in SDE-VS. To achieve, first you may select a revision.

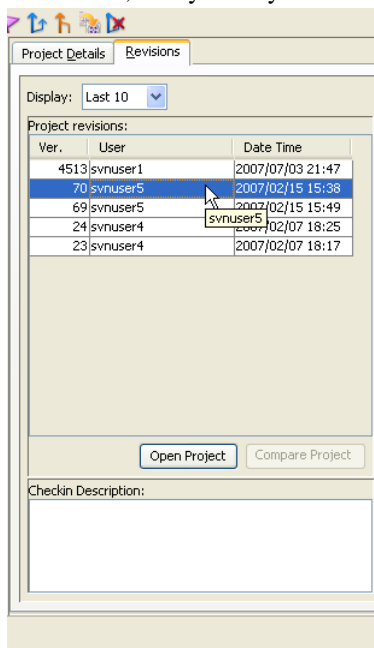


Figure 15.33 - Select one revision

Then, you may press *Ctrl* and click on the revision you want to compare with.

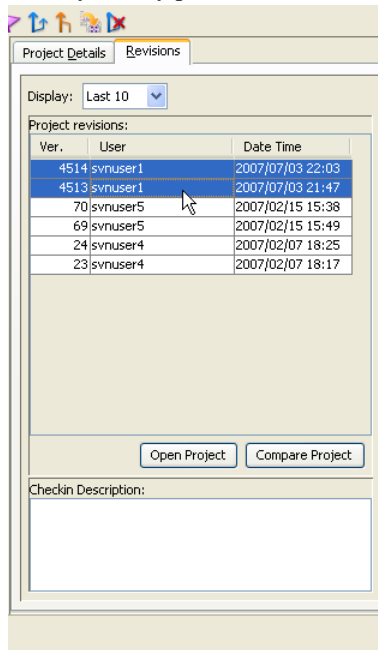


Figure 15.34 - Select another revision

Afterwards, click **Compare Project** to compare.

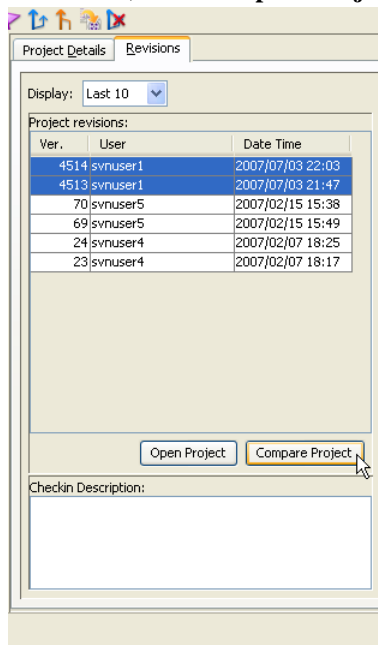


Figure 15.35 - Select Compare Project

A **Compare Projects from revision** dialog box appears and shows you the differences between your selected revisions.

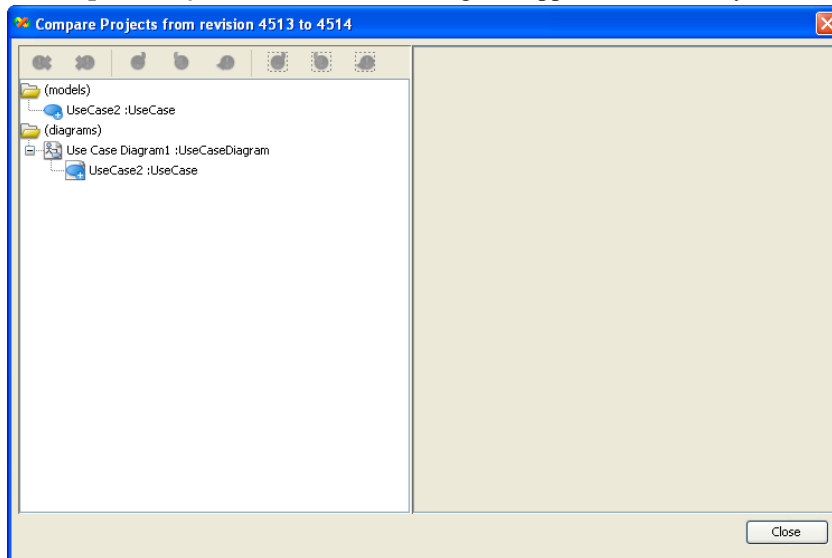


Figure 15.36 - Compare Project dialog box

Branch and Tag Project

Branch is a technique to separate the development of project from trunk. You can modify the project in branch while keep the most stable version design in trunk.

In this way, you can perform some research or time-taking task in branch and merge the changes to trunk only when the branch is proven to be stable.

Tag provides a convenient technique to manage and label a stable version. You can go back to check the stable version by switching to Tag.

Creating a Branch

You can create a branch by clicking the icon for branch in toolbar.

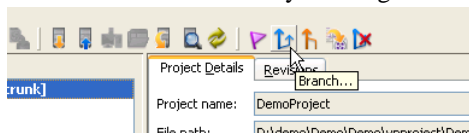


Figure 15.37 - Select branch

Create Branch dialog box is displayed and you can enter the name of branch you want to create.

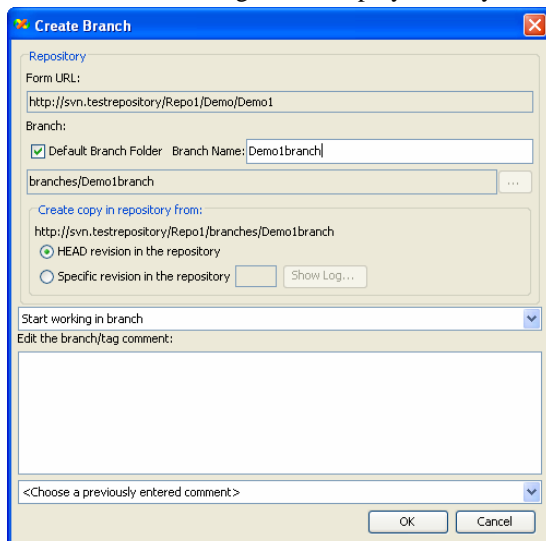


Figure 15.38 - Create Branch dialog box

Then, select a status of branch from the drop-down menu.

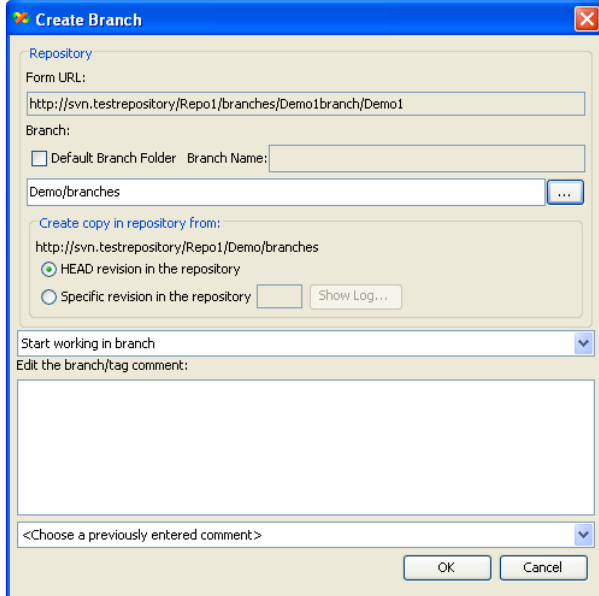


Figure 15.39 - Select from drop-down menu

Then, click OK to confirm creating branch.

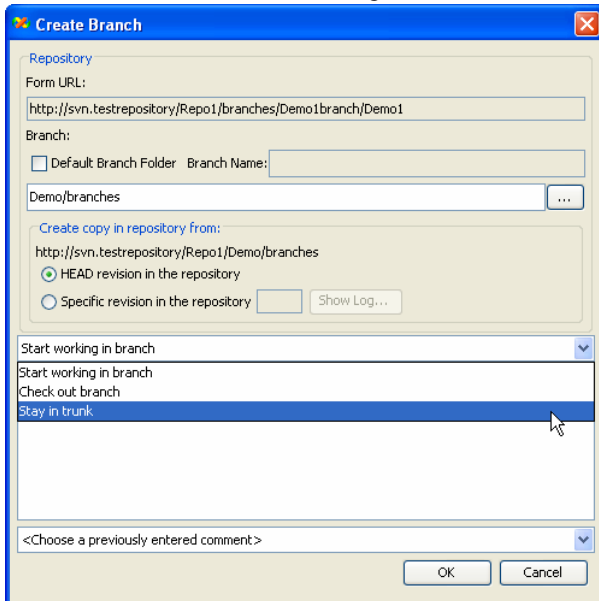


Figure 15.40 - Confirm creating branch

Managing a Branch

Similar to managing a project, you can manage a branch in the **Manage Project** dialog box. First, you may select a branch under your desired project.

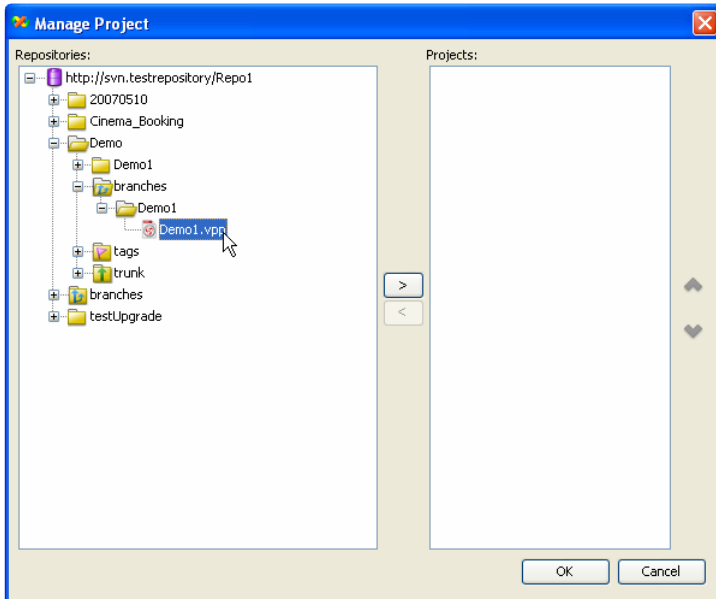



Figure 15.41 - Manage project dialog box

You can click **Add selected**  to add the branch to your **Projects** list.

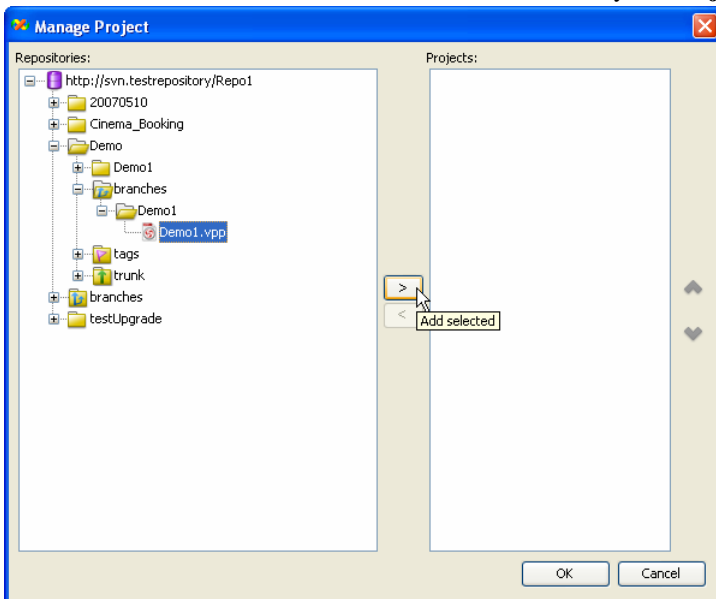


Figure 15.42 - Add selected branch

On the other hand, you can click **Remove selected**  to remove the branch from **Projects** list.

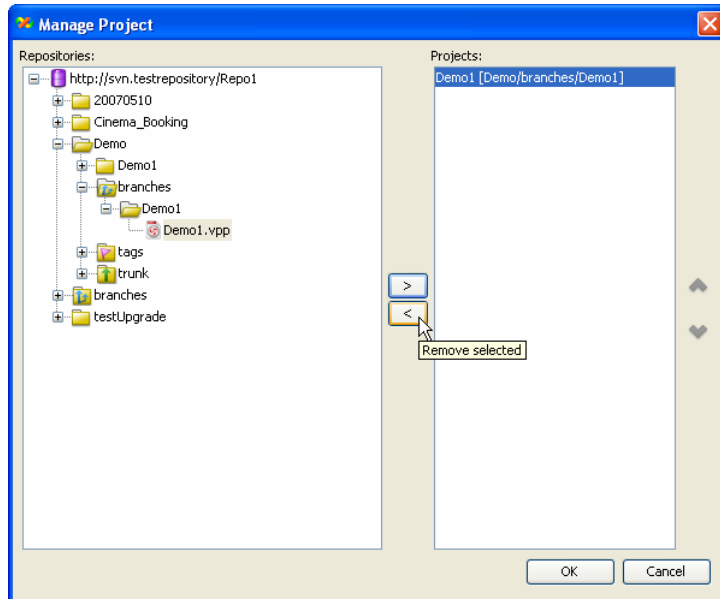


Figure 15.43 - Remove selected branch

Creating a Tag

You can label the stable version of project by creating a tag there. To create a tag, select **Tag...** in the toolbar.

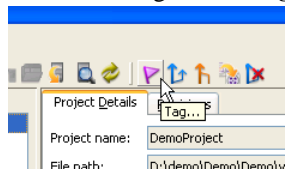


Figure 15.44 - Select Tag...

Then, you can enter tag name in the Create Tag dialog box.

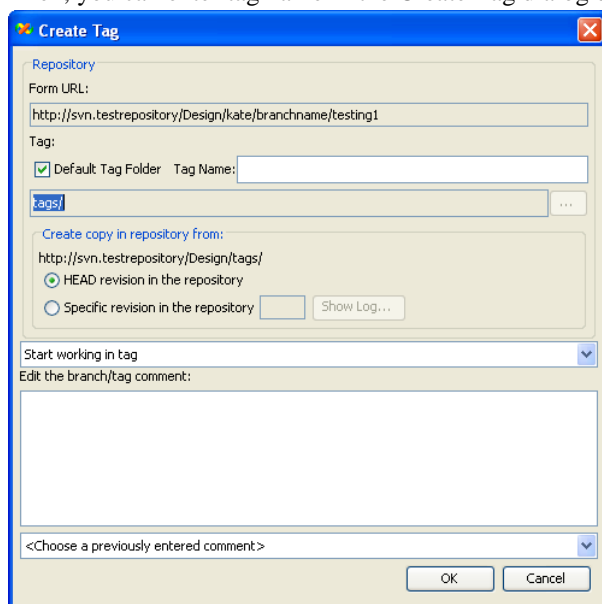


Figure 15.45 - Create Tag dialog box

Afterwards, you can select your location after creating tag.

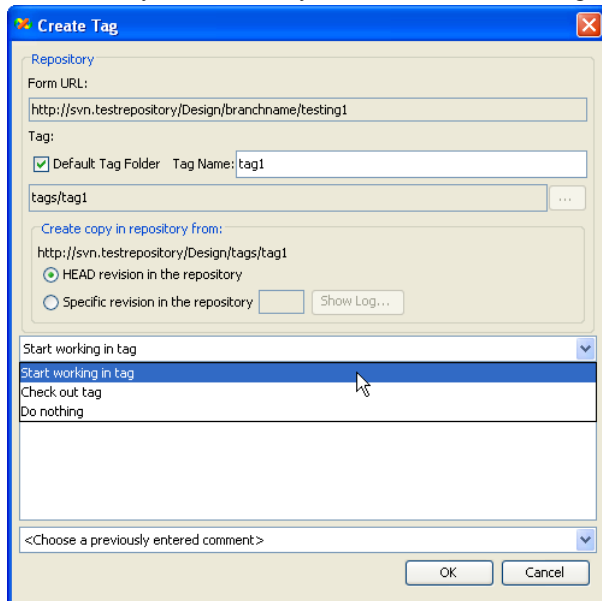


Figure 15.46 - Select location after creating tag

Managing a Tag

Similar to managing a branch, you can select a tag and click **Add Selected** in **Manage Project** dialog box to add the project to **Projects** list.

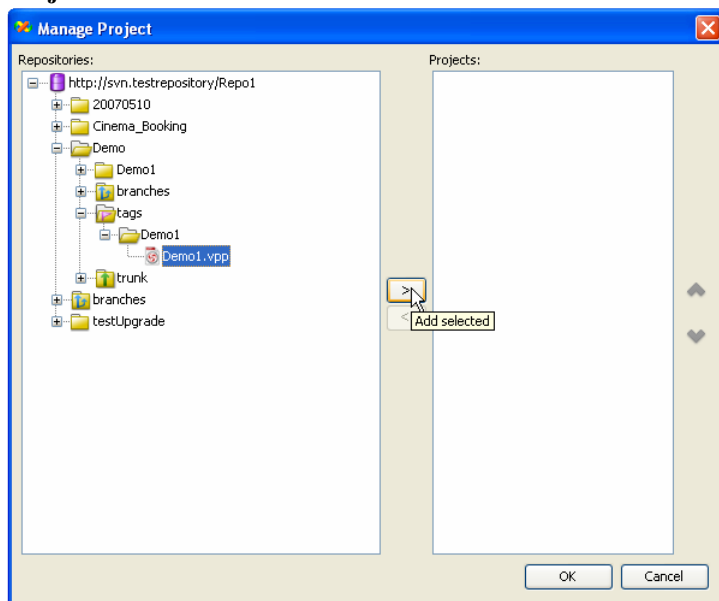


Figure 15.47 - Add selected project

You may remove the tag from **Projects** list by click **Remove selected**.

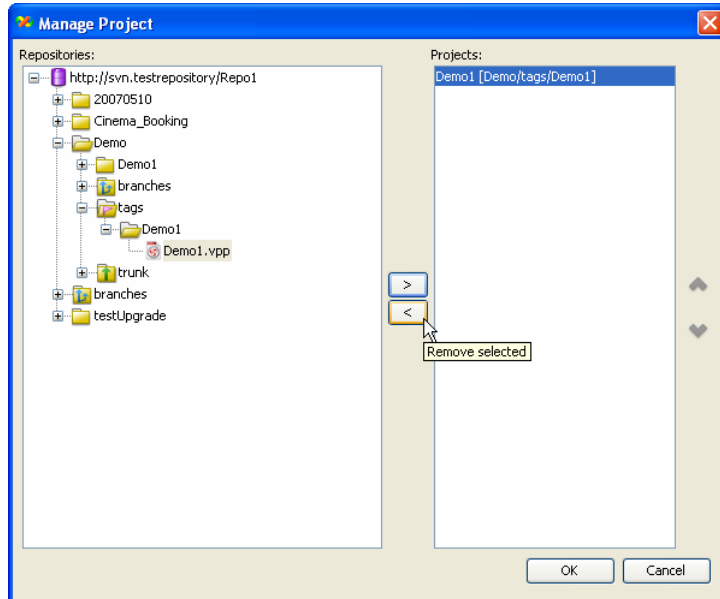


Figure 15.48 - Select Remove selected

Usage of Merge

When you have modified your project in branch, you can merge the changes you made to trunk. To merge, you can select the icon for merging in the toolbar.

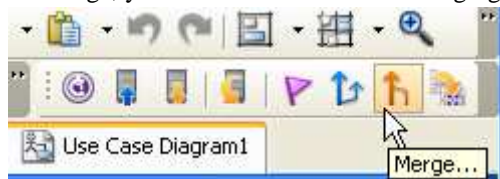


Figure 15.49 - Icon for merging

Merge dialog box is displayed. You can select the URL you want to merge from by typing in the text box or select You can also select the revision which take part in the merging.

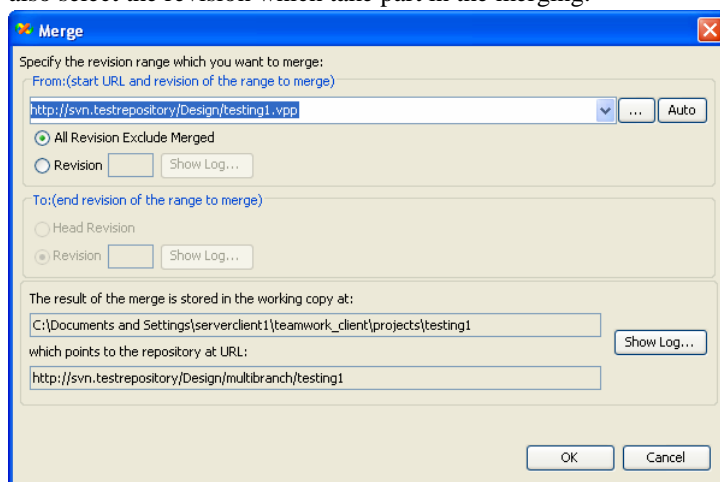


Figure 15.50 - Merge dialog box

The progress of merging is shown.

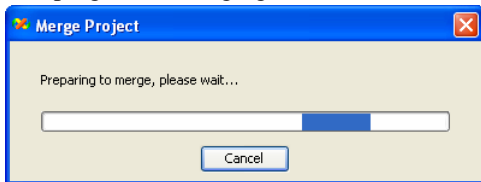


Figure 15.51 - Progress of merging

Then, a dialog box tells you what models and diagrams are going to be merged. You can click OK to confirm merging.

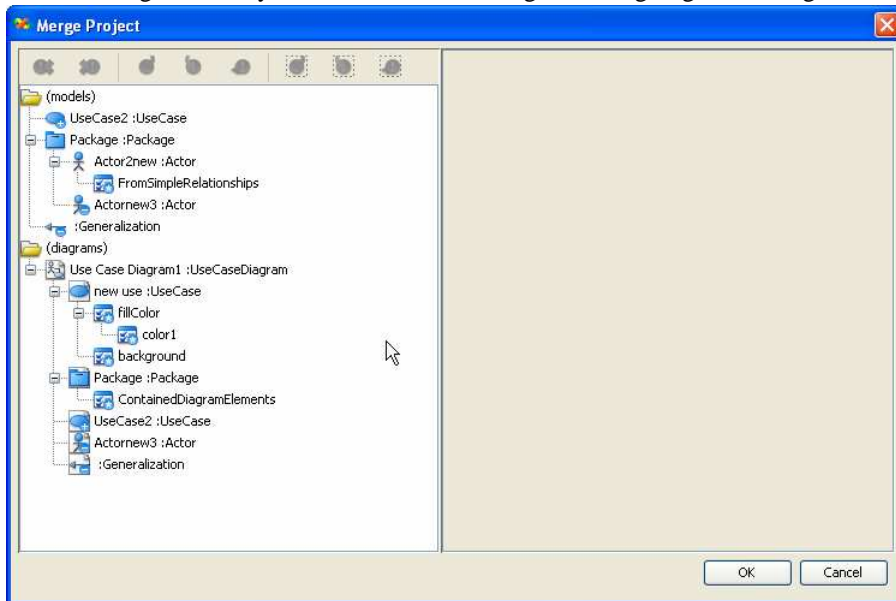


Figure 15.52 - Models and diagrams which are going to merge

Suggested Branch Usage

This section will show you the suggested usage of the Branch with SDE-VS SVN integration. Here, you will learn how to create a single branch called "supportWebService". However, you can choose to have multiple branch running at the same time.

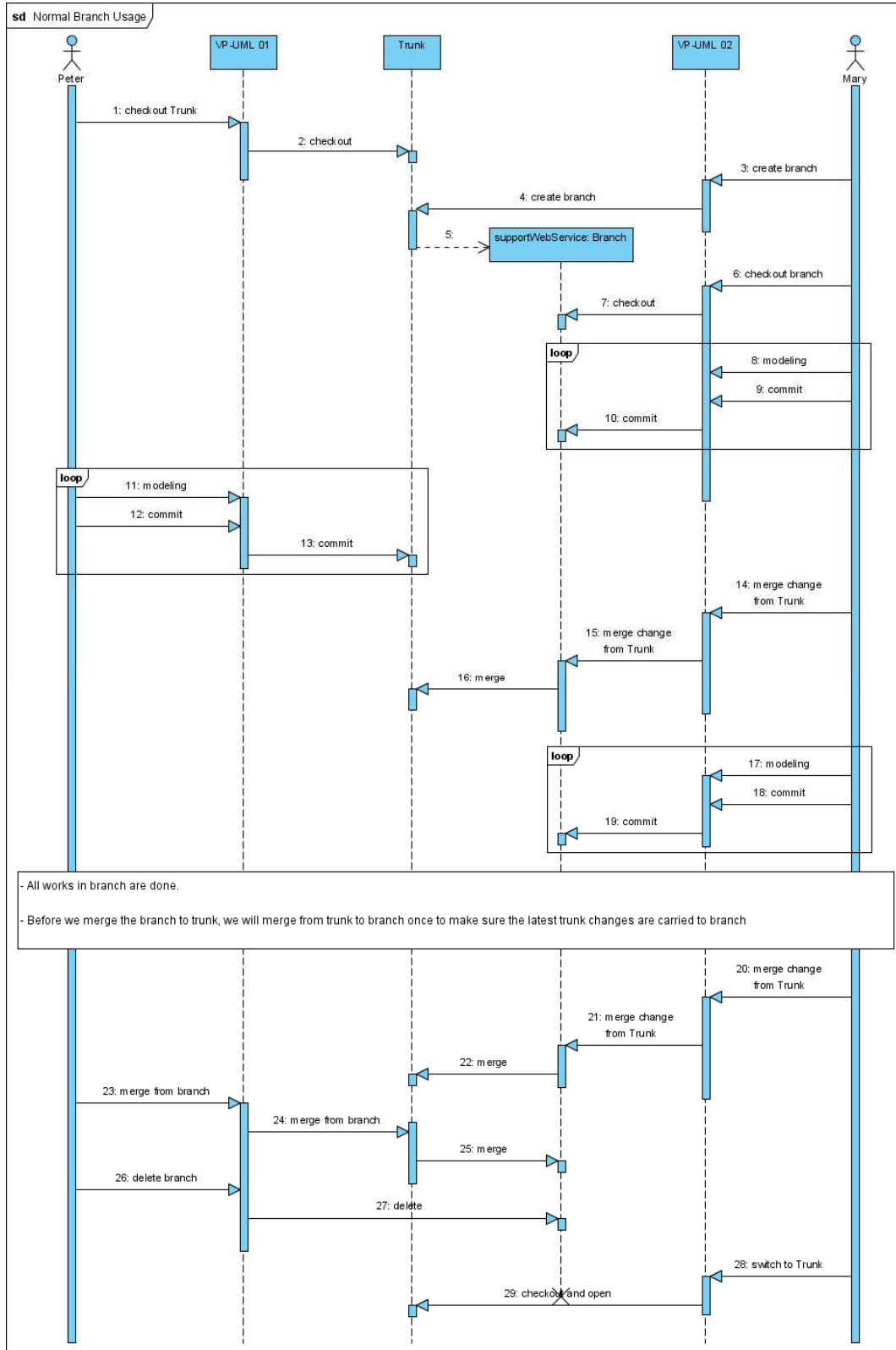


Figure 15.53 - Suggested branch usage