

Manual

**CollabNet Subversion Connector
to HP Quality Center™**

Version 1.2

About the Connector

The CollabNet Subversion Connector to HP Quality Center enables Quality Center users to store test plans and related documents and files in a CollabNet Subversion repository. This Connector permits CollabNet Subversion to be used transparently as the underlying version control engine for test plans (i.e., design steps, test cases, and test scripts) created in HP Quality Center.

CollabNet Subversion repositories allow you to store data in a central location that can be accessed by other users and to track changes made to files. CollabNet Subversion identifies each set of changes as a separate version of the file or directory. The Connector enables members of a CollabNet project to view revision history and checkin comments for Quality Center test plans from within the CollabNet Enterprise Edition Subversion environment.

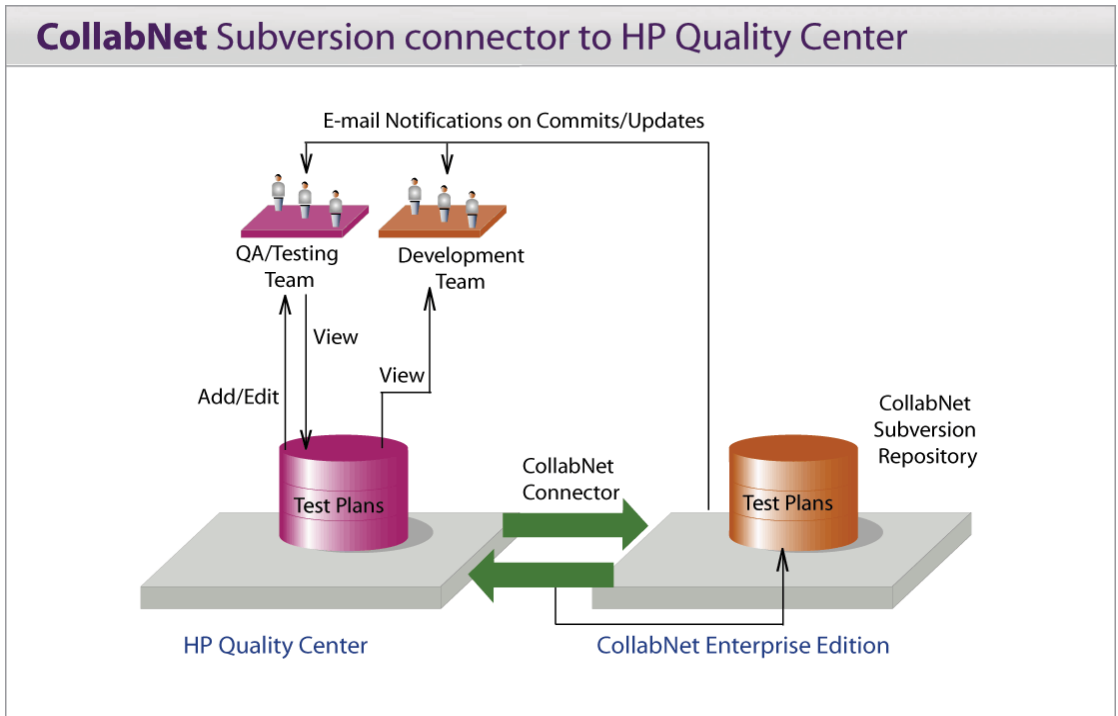
This connector can be used with the CollabNet Enterprise Edition Subversion (part of the suite of CollabNet products) and with the stand-alone Subversion.

How the Connector works

The CollabNet Subversion Connector allows Quality Center administrators to configure projects to use CollabNet Subversion as the version control system and enables Quality Center users to store test plans in the CollabNet Subversion repository.

You can perform checkin operations to update files in the repository. Every time a checkin is made in Quality Center, a new version is created in the corresponding CollabNet Subversion repository of the CollabNet Enterprise Edition project. You can checkout files to access the test plans from within Quality Center as well as to modify their content.

In CollabNet Enterprise Edition, when you commit changes to the test plans, e-mail notifications are sent to members who have subscribed to the '*Commits*' mailing list for that project. For a version control enabled project, every time a test plan is added in Quality Center, it is correspondingly added in the CollabNet Subversion repository as well.



The CollabNet Subversion Connector to HP Quality Center enables CollabNet Subversion to be used as the version control engine for Quality Center test plans

Users must have permission to perform versioning operations, such as checkin and checkout, on CollabNet Subversion repository. In addition to enabling Quality Center users to use CollabNet Subversion, the Connector allows CollabNet Enterprise Edition users to view revision history and checkin comments from a CollabNet Enterprise Edition project.

Note: Quality Center users must have a CollabNet Enterprise Edition login with the same username and password as they have for Quality Center.

Setup

This section covers the following:

- ⇒ System requirements and Installation of the Connector

System requirements

The system requirements for the installation are:

- ⇒ CollabNet Enterprise Edition v. 5.0
- ⇒ CollabNet Subversion v1.4.2, v. 1.4.3
- ⇒ HP Quality Center v. 9.2
- ⇒ HP Quality Center v. 9.2 supports the following operating systems:
 - ⇒ Windows Server 2000, Standard and Enterprise Editions with Service Pack 4
 - ⇒ Windows Server 2003, Standard and Enterprise Editions with Service Pack 1
- ⇒ Network access between Quality Center and CollabNet Enterprise Edition over HTTP or HTTPS
- ⇒ Microsoft SQL Server 2000 Enterprise Edition
- ⇒ Memory (RAM): 256 MB minimum
- ⇒ Free disk space: 100 MB

Additional Information

- ⇒ **Upgrading to the HP Quality Center version** - We do not support Quality Center upgrades.
- ⇒ **Multi-application environment management** - Not applicable
- ⇒ **Support for multi-lingual and multi-locale environment** -This connector supports English, Simplified Chinese, Japanese and Korean and standard localized environments.
- ⇒ **Installation requirements for Quality Center** - Our xml mapping ensures that the user has administrator privileges.
- ⇒ **Entities or files that are synchronized during a typical data synchronization** - Test plans and test script
- ⇒ **Version numbers of integration dlls**

intl3_svn.dll	0.14.1.1519
libapr.dll	0.9.12.0

libapricnv.dll	0.9.7.0
libaprutil.dll	0.9.12.0
libdb43.dll	4.0.3.28
libeay32.dll	0.9.8.2
libsvnjavahl-1.dll	1.4.3.23084
ssleay32.dll	0.9.8.2
libdb44.dll	4.0.4.20

Installation

This section covers the following:

- ⇒ Installing the CollabNet Subversion Connector to HP Quality Center.
- ⇒ Configuring the CollabNet Subversion Connector to HP Quality Center.

Installing the CollabNet Subversion Connector to HP Quality Center

Notes:

- ⇒ Run the Connector installer on the system where HP Quality Center 9.2 is installed.
- ⇒ Before installing the CollabNet Subversion Connector, make sure that you quit all open programs to ensure that installation can proceed without conflicts over resources or dependencies.

Go to the folder where you have saved the installer file and execute the '*Connector_Installer.exe*' file.

1. Provide an installation directory. Specify the path where you would like the Connector to be installed, for example, [c:\CollabNet Subversion Connector]. Click Next.
2. Select a location to create the shortcut icon to launch the installation folder, and click Next.
3. A window appears that shows the product name, destination folder and other details. Click Install.
4. The version control plug-in installer is invoked.
5. Once the required components are installed, a window appears that prompts you to set up the configuration XML file by choosing the '*Continue*' or '*Finished*' option. To set up the configuration file automatically, choose the '*Continue*' option, click Next and proceed to Step 7. If you choose the '*Finished*' option and click Next, you will have to manually set up the configuration file. Refer to the section "*Configuring the Connector*" in the Manual.

6. Fill in the necessary details for the Quality Center project (refer Figure 1). Click Next.

COLLABNET QC Project Information

Please enter the appropriate QC project information.

Domain name

QC project name

QC login name

InstallAnywhere by Macrovision

Figure 1 Details of the project created in HP Quality Center

7. Fill in the CollabNet Subversion repository URL, CollabNet login name and password (refer Figure 2).

COLLABNET Subversion Project Information

Please enter the Subversion project URL that will be used for the QC Versioning. Also enter the account information (user name and password) that will be used to connect to the project.

Subversion project URL

Subversion user name

Subversion user password

Allow other QC users to access this project using these creden...

InstallAnywhere by Macrovision

Figure 2 Details of the CollabNet project

To allow other Quality Center users to access this project using the Subversion credentials you supplied, select the corresponding option. Click Next.

8. A version control plug-in installer window is invoked (refer Figure 3). Click Next.

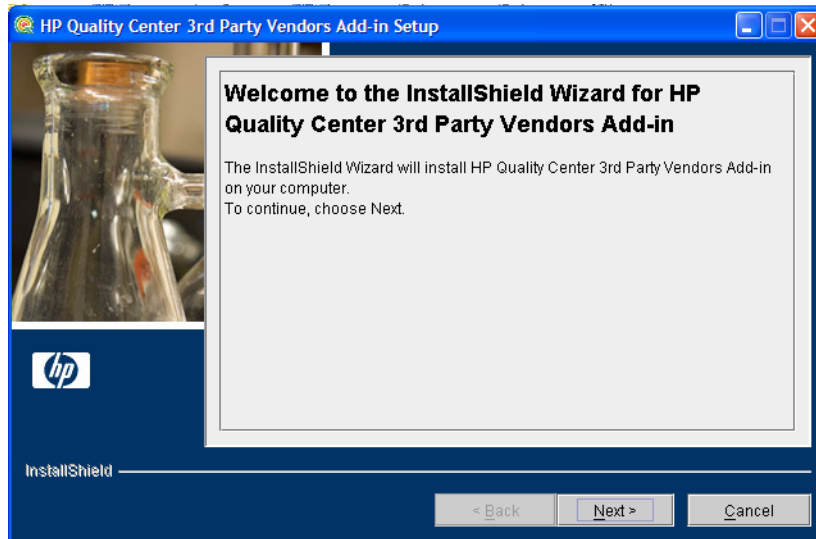


Figure 3 HP 3rd Party Vendor Add-in Setup window

9. Accept the terms of agreement and click Next.
10. From the available installation type options, select *Node* and click Next.
11. Specify the path where the QCVcAddin plugin is to be installed on your system and click Next.
12. Once the installation is complete, click Done.
13. It is recommended that you restart your system to enable the version control plug-in and other changes to take effect.

Note: If you want to manually configure the Quality Center project or CollabNet project field values, edit the '*td2svn.xml*' file available at the following location:

```
<system path where Quality Center is  
installed>\repository\sa\DomsInfo\vc
```

Configuring the Connector

This section describes how to map the project created in Quality Center to the CollabNet project using the configuration XML file. Open the '*td2svn.xml*' file and map the required fields from the project in CollabNet Subversion to the project in Quality Center.

Edit your project details in the configuration file (see figure 4):

```
<?xml version="1.0"?>
<!-- SAMPLE FILE -->
<td2svn>
  <project_mapping>
    <mapping> <td> <td_project>
      <domain>department_12</domain>
      <project>salary</project> </td_project>
    </td>

    <svn> <svn_project>
      <svn_url>http://domain/svn/repository/trunk </svn_url>
      </svn_project> </svn> </mapping>
    <user_mapping> <users>
      <td>
        <user>qc_admin</user>
        <password>password</password>
      </td>
      <td>
        <user>alex_qc</user>
        <password>password</password>
      </td>
      <svn>
        <user>svn_user</user>
        <password>password</password>
      </svn>
    </users>
    <svn_admin_user use_for_nonmapped_qcuser="true">
      <user>svn_user</user>
      <password>password</password>
    </svn_admin_user>
  </project_mapping>
</td2svn>
```

Figure 4 Configuring the "td2svn.xml" file

Note: In the case of a CEE Subversion project the url will be `http://projectname.domainname/svn/projectname`

A -> Enter the name of the domain and the project that has been assigned to you in Quality Center.

Note: Use the domain and project name as given in the Project Directory field of your Quality Center project.

Labels in Figure 5:

⇒ Label (1) refers to the domain name: *department_12*

⇒ Label (2) refers to the project name: *salary*

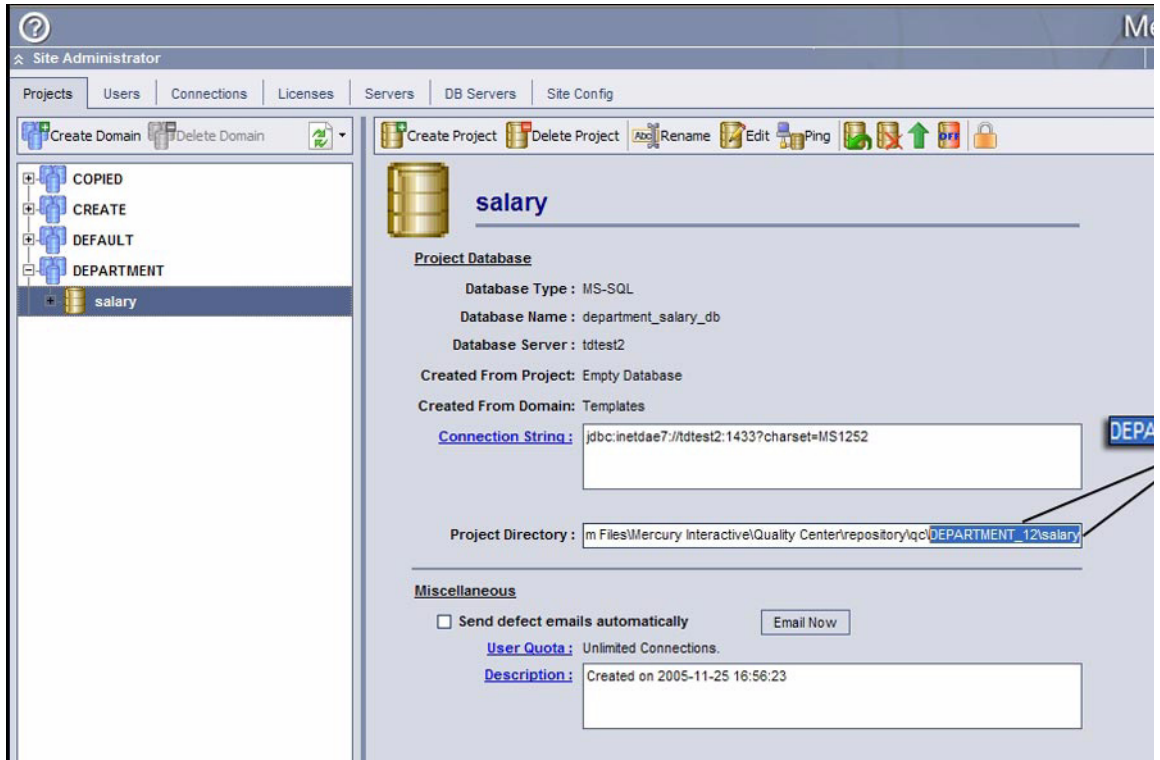


Figure 5 Project directory field of a Quality Center project

B -> Enter the Subversion URL of the project created in CollabNet Enterprise Edition. Refer to the section "*Locating the CollabNet project information*" to obtain this Subversion URL. The list below describes the standard CollabNet project URL:

http://project.domain/svn/PROJECT_NAME/trunk (If your project is in CEE Subversion)

http://domain/svn/PROJECT_NAME/trunk (If your project is in stand-alone Subversion)

⇒ **Project** and **PROJECT_NAME**: This is the CollabNet Enterprise Edition project name, which in this case is 'Salary'.

⇒ **Domain**: This is the site name the CollabNet project belongs to. This is the name of the site where you access CollabNet Enterprise Edition.

ABOUT THE CONNECTOR

⇒ **Trunk:** This is the location in the CollabNet Subversion repository where all the test plan revision changes are made. Trunk could be suffixed with the path to a specific folder in the repository where the test plans should reside. Trunk could also be replaced with the name of a specific branch in the repository which again could include a path to a specific folder. Any folders and branches used in the URL must be consistent with what has been created in the repository itself.

C & D -> The username "admin" in Quality Center must be mapped to an appropriate CollabNet Enterprise Edition username and password (admin cannot be used as a username in CollabNet Enterprise Edition as it is a reserved word in that environment).

E -> Enter the username and password for the CollabNet Enterprise Edition administrator who should create the initial Quality Center project folder in the CollabNet Subversion repository.

Note: The "use_for_nonmapped_qcuser" attribute within the "svn_admin_user" tags is set to "true" if you selected the checkbox to allow other QC users access to the project, during installation.

Note: After making changes to the file, you must refresh your Internet browser or log into Quality Center again, for the version control plug-in changes to take effect.

ABOUT THE CONNECTOR

Using Quality Center

This section covers the following:

- ⇒ Enabling and disabling version control for a Quality Center project
- ⇒ Creating a Test Plan
- ⇒ Performing a Checkin and a Checkout

Enabling and disabling Version Control for a Quality Center project

After you have configured the CollabNet Subversion Connector to HP Quality Center by adding project details (for more information refer the section titled “Configuring the Connector” - Figure 7), you need to make sure that you enabled version control in Quality Center.

The following steps will show how you can enable version control for a project in Quality Center:

1. Log in to Quality Center as an Administrator.
2. Choose the project, right-click and choose Enable Version Control. You will have to choose between two options: ‘Yes’ and ‘No’.
 - ⇒ If you choose *No*, an empty version control repository will be created; and you will manually have to add existing test plans to the CollabNet Subversion repository.
 - ⇒ If you choose ‘Yes’, existing test plans will automatically be added to the CollabNet Subversion repository. In either case, every new test plan created in a version control enabled project in Quality Center will be added to the CollabNet Subversion repository.
3. Click Next and then Finish to enable Version Control.

- Log out as the Administrator and log in to Quality Center as a user to create new test plans.

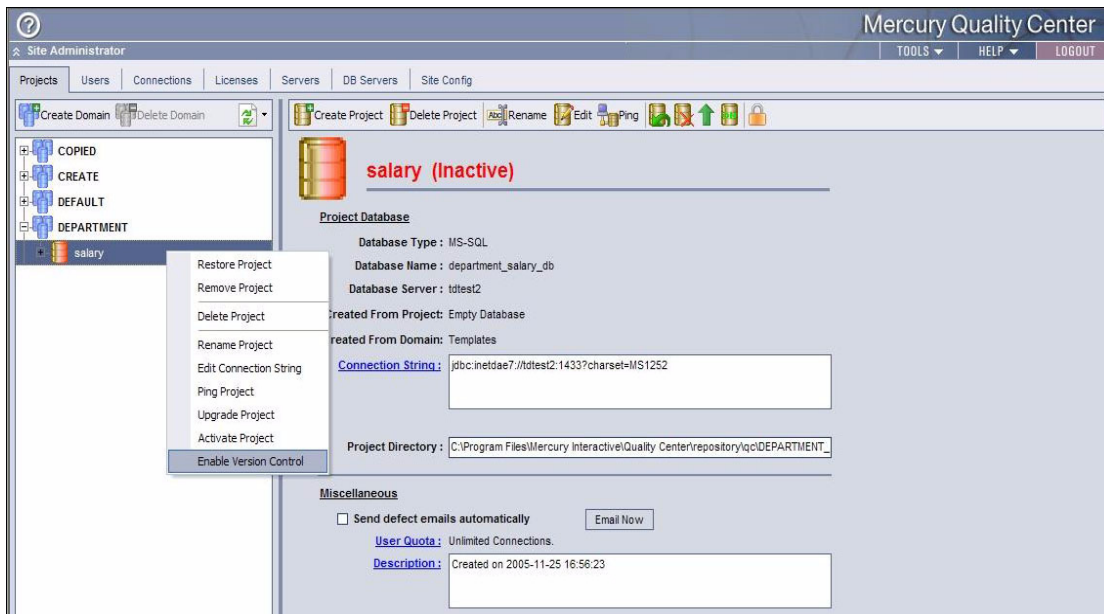


Figure 6 Enabling version control for a project in Quality Center

For a project that is version control enabled, basically the same steps can be followed to disable it as the “Enable Version Control” option is replaced by the “Disable Version Control” option in the pop-up menu.

Creating a Test Plan

In order to create a test plan, you have to log in to Quality Center using an account and password the Administrator supplied you with. Log in to the domain where you have a project assigned to you.

- After you have logged in, click the Test Plan tab and from the left navigation menu, click the folder icon. After you have created a folder, click the test plan icon next to it.
- You will see a small window where you can specify the type of test plan you want. Give a test plan name and click OK. If you wish to modify the file, enable the ‘*Check Out Immediately*’ checkbox. This will checkout the test plan which means that the file can be modified only by you. A green colored ‘lock’ symbol will prefix against the test plan revision which indicates that the file can be modified only by you. But other users will receive a red colored ‘lock’ symbol,

denying them rights to modify that test plan revision. If you do not enable this checkbox, the file is open for modification by other users.

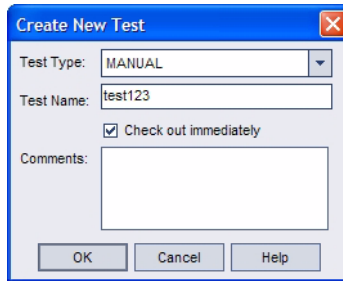


Figure 7 Creating a test plan

3. You will see another window with fields such as Level, Priority and Reviewed. Select the fields according to requirements and click OK. The appearance of this window depends on the project configuration.

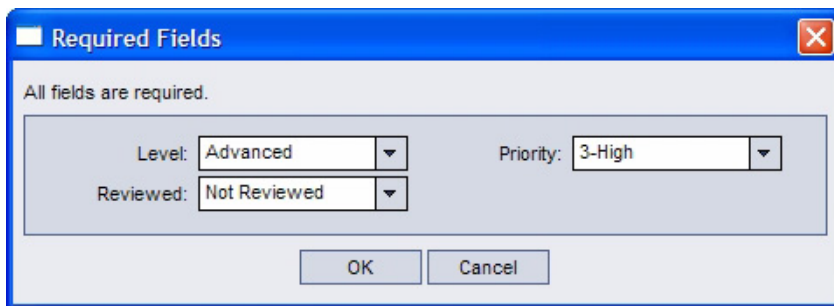


Figure 8 Fields to be entered while creating a test plan

4. After you have created a test plan, you can add Attachments, Details, Design Steps and Test Scripts to the test plan that is then versioned in the CollabNet Subversion repository. Figure 9 represents the test plans with tabs which can be used to add attachments, test scripts, design steps and details.

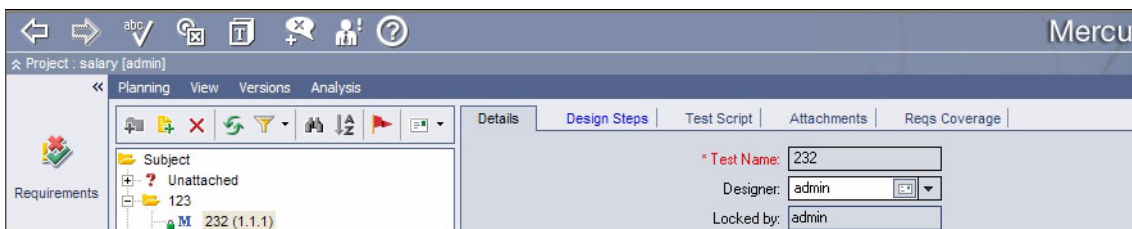


Figure 9 Components where data is added in a test plan

Checking out a test plan

If you checkout a test plan, the test plan is locked. This prevents the possibility of another user overwriting the changes you have made.

To do a checkout

1. Right click the test plan, choose Versions > Check Out.
2. Add a comment (if appropriate) and click OK .

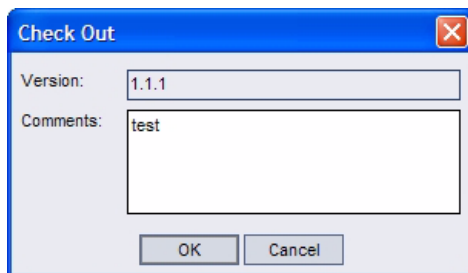


Figure 10 Performing a Checkout

Checking in a test plan

Checking in a test plan enables you to version the changes. Every time a checkin is made to the test plan, a new version is created and the test plan becomes unlocked. To deny others from modifying the file, enable the 'Keep checked out' checkbox which will lock the file.

To do a checkin

1. Right click the test plan you created, choose Versions > Check In.
2. Enter a comment on the changes you have made and click OK.

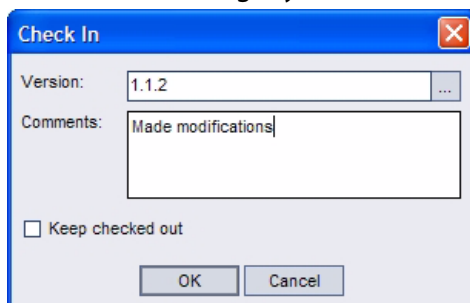


Figure 11 Performing a Checkin

Reverting back to an earlier version of a test plan

If you want to revert back to an earlier version of a test plan in Quality Center, you will need to do a Check Out of the earlier version.

To revert back to an earlier version

1. Right-click a test plan and click Versions > Versions... option.
2. The current and previous versions of the test plan are displayed. Choose the version you want to revert back to and click Check Out. You will need to do a checkin to revert back to the old version. Note that the 'Get Version' button will retrieve the file version on your local machine as a Read-Only copy.

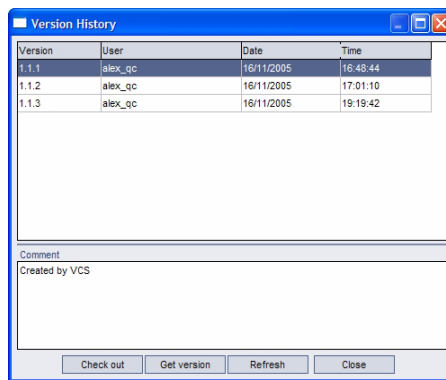


Figure 12 Revert back to a previous version

Using CollabNet

This section talks about using CollabNet Enterprise Edition to view version control changes that have been made in Quality Center.

The topics covered are:

- ⇒ Locating the CollabNet Enterprise Edition project information
- ⇒ Viewing version control changes in Quality Center using CollabNet Enterprise Edition
- ⇒ FAQ and Troubleshooting

In order to use the CollabNet Subversion Connector to HP Quality Center to provide version control for test plans, they must be used with CollabNet Enterprise Edition projects that use CollabNet Subversion as the versioning component.

Locating the CollabNet project information

In order to map your project with Quality Center, you will need to enter the CollabNet Subversion URL of the CollabNet Enterprise Edition project created. To find this URL, click *Subversion* from the left navigation menu and click *Access Options*. In the figure titled “URL required to map CollabNet Subversion with Quality Center”, the highlighted portion is the *Subversion URL* that has to be provided in the configuration XML file (Figure 4) in order to map the Quality Center project with the CollabNet Enterprise Edition project.

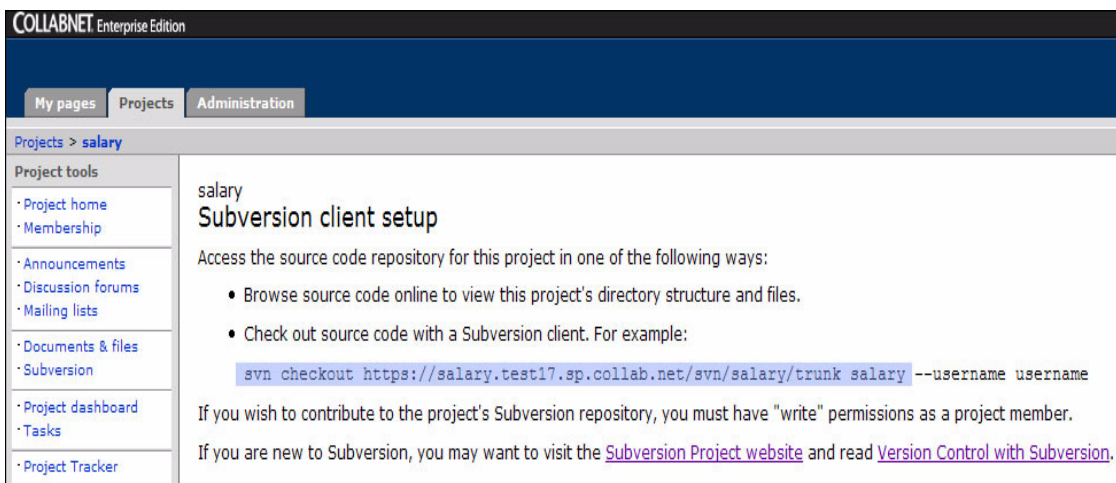


Figure 13 URL required to map CollabNet Subversion with Quality Center

Note: The URL may be different if the project’s configuration management process requires the use of a specific branch or tag. Please confirm this URL with your system administrator.

Viewing version changes in Quality Center through CollabNet Enterprise Edition

When you perform a checkin of a file in Quality Center, you enter a version number for that particular modification. You can provide different version numbers for different changes.

To check for version changes using CollabNet Enterprise Edition, click Subversion from the left navigation menu and locate the folder link where the data has been saved. Only the version numbers and checkin comments can be viewed using CollabNet Enterprise Edition. Accessing the contents of the test plans must be done using Quality Center.

The screenshot shows the CollabNet Enterprise Edition interface. The main content area displays the 'Subversion' view for a file named 'salary'. The path is shown as 'Up to [salary] / trunk / www / salary / TESTS / Test 2 / Test_2.zip'. Below this, there are three revision entries:

- Revision 22**: Commit info: 2005-11-28 08:55:58+0000 (45 hours, 33 minutes ago) by alex_qc; Filesize: 1882 bytes; Diff to: previous 21; Commit message: TDRRev:1.1.4~Added attachments to design steps.
- Revision 21**: Commit info: 2005-11-28 08:54:24+0000 (45 hours, 35 minutes ago) by alex_qc; Filesize: 1882 bytes; Diff to: previous 18; Commit message: TDRRev:1.1.3~Renaming the test plan.
- Revision 18**: Commit info: 2005-11-28 08:49:27+0000 (45 hours, 40 minutes ago) by alex_qc; Filesize: 1882 bytes; Diff to: previous 11; Commit message: TDRRev:1.1.2~Modified description on the test.

The left sidebar contains navigation menus for 'Project tools', 'Lifecycle Manager', and 'Search'. The 'Project tools' menu includes options like 'Project home', 'Membership', 'Announcements', 'Discussion forums', 'Mailing lists', 'Documents & files', 'Subversion', 'Project dashboard', 'Tasks', and 'Project Tracker'. The 'Lifecycle Manager' menu includes 'Stages' (Definition, Design, Code & Build, Testing, Deployment, Support), 'Project Management', 'Communications', and 'Metrics and Reporting'. The 'Search' section has a dropdown for 'This project', a search input field, and a 'Go' button.

Figure 14 Viewing version changes in CollabNet Enterprise Edition

Frequently asked questions

Q. Is there a need for a separate versioning tool if I were to use Quality Center with CollabNet Enterprise Edition?

A. No, CollabNet Enterprise Edition provides all of the version control capabilities required by Quality Center when using this Connector.

Q. When I create a new project in CollabNet Enterprise Edition, there are two choices for the Version Control System – either CVS or Subversion. Does this Connector work with both Version Control Systems?

A. No, this Connector is designed to take advantage of the capabilities provided by CollabNet Subversion. The Connector will not work with a CVS project.

Troubleshooting

Problem: When I perform a checkin or checkout of a test plan, I get error messages.

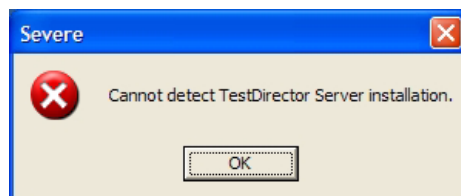
Solution: Take a look at the error file to determine the cause of the error. This file is present at the location on the system where Quality Center has been installed. This file records all error messages from the CollabNet Subversion Connector to HP Quality Center.

The log files for HP Quality Center are generally stored in the following location:<hard drive path name:><installation dir>\log\sa\SaServerLog_2007_03_03_10_29_55_187.html

Problem: When I try to enable Version Control in Quality Center I get error messages.

Solution: Make sure that the project you created in CollabNet Enterprise Edition was mapped to Quality Center in the 'td2svn.xml' configuration file. For more details, go to the section titled "Configuring the Connector."

Problem: During installation, I receive the error below. What does this signify?



Solution: This error signifies that the installer did not detect an installed version of HP Quality Center v. 9.2 on the system where you are trying to install the CollabNet Subversion Connector.

Uninstalling the connector

To uninstall the connector:

1. Navigate to the 3rd party vendor QCVcAddin folder. (You provided this path in step 10 of the installation procedure)
2. Click Uninstall.exe.
3. Click Next and Yes to delete the required files.
4. Click Finish to complete the uninstallation of the addin.
5. Now navigate to the connector repository : C://ProgramFiles/ CollabNet SVN Connector to HP Quality Center.
6. Click the Uninstall folder.
7. Click the Uninstall CollabNet SVN Connector to HP Quality Center.exe file.
8. Click Done to complete the uninstallation.

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