HP Change Impact Testing module for SAP applications

Software Version: 2.50

User Guide

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Welcome

Welcome to HP Change Impact Testing module for SAP applications, which integrates SAP application entities with Quality Center. Using Change Impact Testing, you can track the SAP application entities that are impacted by each change you make to an SAP application. This enables you to run tests associated with the affected application entities for each change made to an SAP application.

Note: This guide explains how to work with SAP Solutions in conjunction with Quality Center. For additional information on using Quality Center, refer to the *HP Quality Center User Guide*.

How This Guide is Organized

This guide contains the following chapters:

Chapter 1 Setting Up Change Impact Testing

Describes how to install and enable Change Impact Testing.

Chapter 2 The Change Impact Testing Workflow

Describes the steps performed when testing the impact of changes on an SAP application.

Chapter 3 Working with the Application Model Module

Describes how to import and manage application entities in the Application Model module.

Chapter 4 Testing Change Impact

Describes how to import changes to Quality Center and to analyze their impact. Also describes how to create test sets for testing the impact of these changes.

Chapter 5 Customizing Change Impact Testing

Describes how to customize permissions and project entities for Change Impact Testing.

1

Setting Up Change Impact Testing

This chapter describes the installation requirements and setup procedures for using Change Impact Testing.

This chapter includes:

- Requirements for Change Impact Testing on page 9
- The Installation Process on page 10
- Installing Change Impact Testing on page 11
- Starting the Change Impact Analysis Server on page 24
- Loading the Change Impact Testing License on page 25
- Enabling the Change Impact Testing Extension on page 26
- Configuring SAP Authorizations on page 27
- Installing the SAP Application Importer Component on page 28
- Uninstalling Change Impact Testing on page 29

Requirements for Change Impact Testing

To use Change Impact Testing, you must have the following installed:

- Quality Center 10.00 Enterprise Edition, or Quality Center 10.00 Premier Edition (on your server machine)
- SAP R/3 4.6C, R/3 Enterprise 4.70, or ECC 6.0 with SAP Java Connector (SAP JCo) 2.1.8

The system requirements to run Change Impact Testing are the same as for Quality Center, as described in the *HP Quality Center Installation Guide*.

The Installation Process

This section describes the Change Impact Testing installation process.

To install Change Impact Testing:

1 **Ensure that Quality Center 10.00 is installed on your server machine.**

For more information on installing Quality Center, refer to the *HP Quality Center Installation Guide*.

If you are upgrading from a previous version of Quality Center, you should upgrade your Quality Center projects only after you install Change Impact Testing.

2 **Install Change Impact Testing on your server machine.**

For more information on installing Change Impact Testing, see "Installing Change Impact Testing" on page 11.

3 **Install SAP Java Connector (SAP JCo).** From the SAP Service Marketplace (http://service.sap.com), download SAP JCo 2.1.8 suitable to your platform, and install it using the instructions described in the SAP JCo readme.

When the installation is complete, copy the file **sapjco.jar** from the SAP JCo installation directory to **<Change Impact Testing installation directory>\CIA**. If you installed Change Impact Testing on a Windows machine, you must also copy the file **sapjcorfc.dll** from the SAP JCo installation directory to **<Windows installation directory>\system32**.

4 **Start the Change Impact Analysis server.**

For more information, see "Starting the Change Impact Analysis Server" on page 24.

5 **Load the Change Impact Testing license.**

For more information, see "Loading the Change Impact Testing License" on page 25.

6 **Enable the Change Impact Testing extension in Quality Center Site Administration for every project that requires Change Impact Testing.**

For more information, see "Enabling the Change Impact Testing Extension" on page 26.

7 Install the SAP Application Importer Component on each client machine.

The Application Model module is installed automatically when you install Change Impact Testing. To import application entities from your SAP application to the Application Model module, the SAP Application Importer Component must be installed on each client machine from which you want to import application entities. For more information on installing the SAP Application Importer Component, see "Installing the SAP Application Importer Component" on page 28.

Installing Change Impact Testing

This section describes how to install Change Impact Testing on your Quality Center server machine.

To install Change Impact Testing:

1 From your Change Impact Testing DVD, run the suitable installation file.

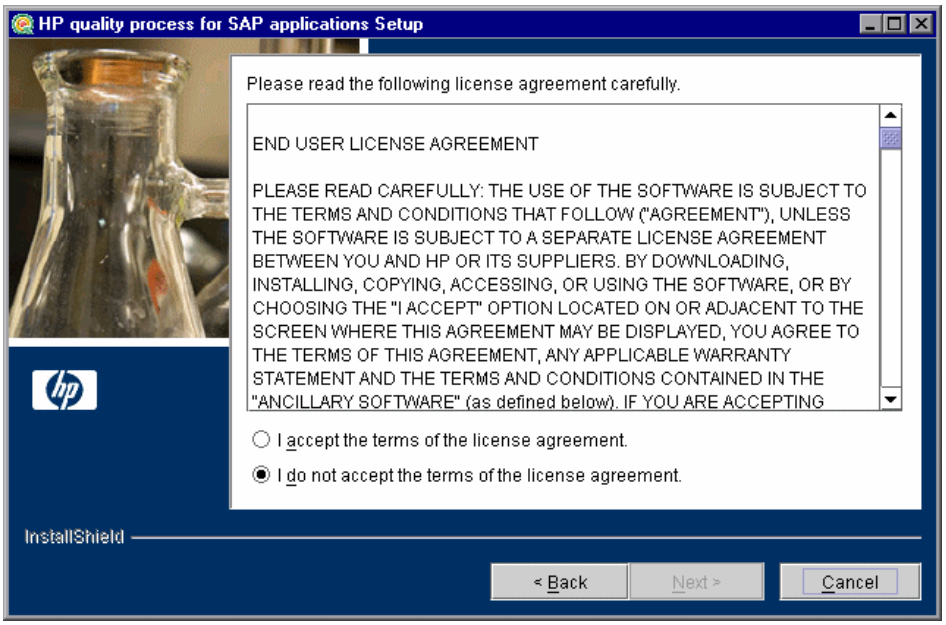
Platform	To install:
Windows	Run the **setup_win.exe** file.
Solaris, Linux, AIX, or HP-UX (console mode)	To install on a Solaris platform, type: **./setup_solaris -console** To install on a Linux platform, type: **./setup_linux -console** To install on an AIX platform, type: **./setup_aix -console** To install on an HP-UX platform, type: **./setup_hpux -console** **Note:** The console mode installation contains the same text and prompts as the UI mode installation. The text and prompts are displayed in text mode.

Platform	To install:
Solaris, Linux, AIX, or HP-UX (UI mode)	➤ Make sure that the DISPLAY environment variable is properly configured on the Quality Center host computer, and that the computer from which you are installing is running an X-server. For example, to configure the DISPLAY environment variable for TCShell: **1** Run an X-server (such as Exceed) on your client machine. **2** Login into the server machine. **3** Run the tcsh command to enter the TCShell. **4** At the command line prompt enter setenv DISPLAY 1.1.1.1:0.0, where 1.1.1.1 is the IP address of the client machine running the X-server. **5** Navigate to the DVD root directory. ➤ To install on a Solaris platform, type: ./setup_solaris.bin ➤ To install on a Linux platform, type: ./setup_linux.bin ➤ To install on an AIX platform, type: ./setup_aix.bin ➤ To install on an HP-UX platform, type: ./setup_hpux.bin

2 If you are installing over a previous version of Change Impact Testing, a message is displayed recommending that you back up any custom configurations before continuing.

3 The Welcome dialog box opens. Click **Next**.

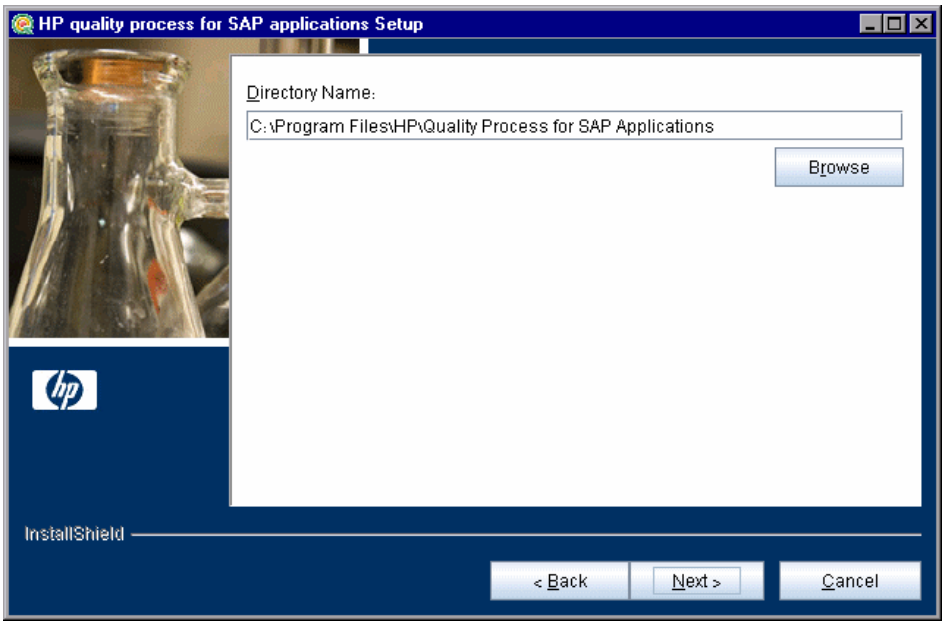
4 The License Agreement dialog box opens.



Read the license agreement. To accept the terms of the license agreement, select **I accept the terms of the license agreement**.

Click **Next**.

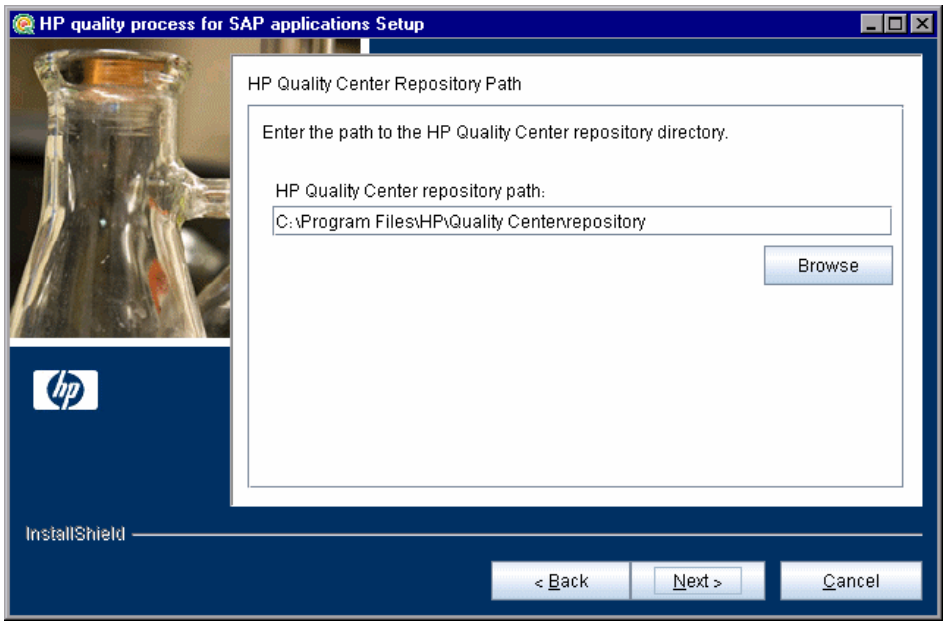
5 The Directory Name dialog box opens.



Accept the proposed folder for the Change Impact Testing installation or browse for an alternate folder.

Click **Next**.

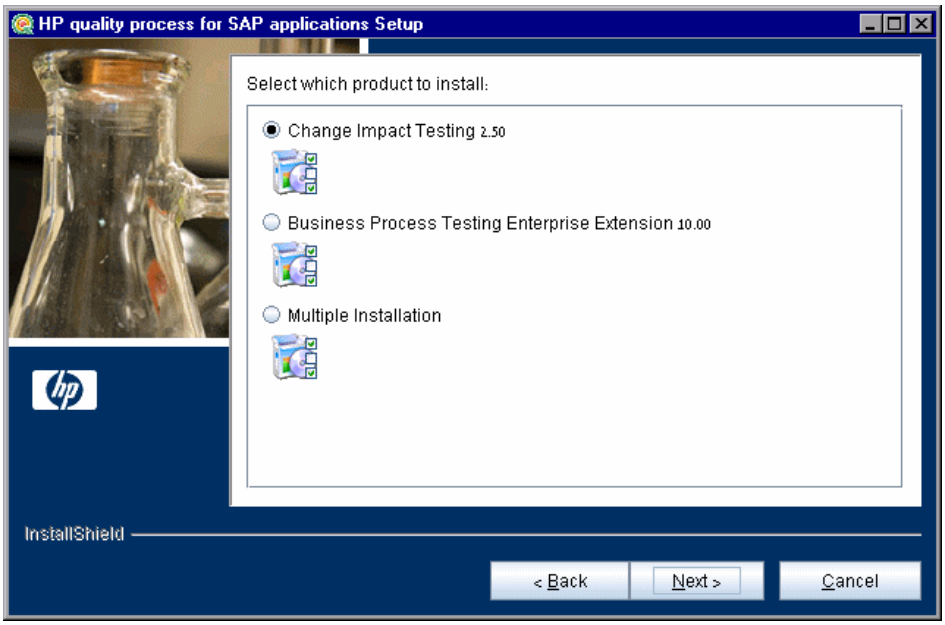
6 The HP Quality Center Repository Path dialog box opens.



Type the location of the Quality Center repository.

Click **Next**.

7 The Select Which Product to Install dialog box opens.

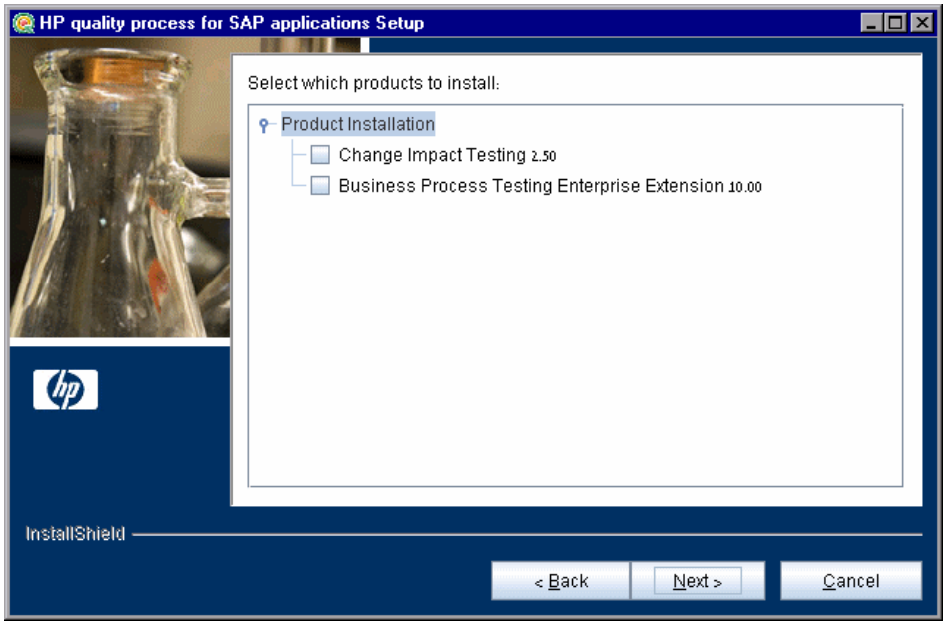


Select whether to install only Change Impact Testing, or Change Impact Testing together with other Quality Center extensions:

- To install only Change Impact Testing, select **Change Impact Testing 2.50**.
- To install Change Impact Testing together with other Quality Center extensions, select **Multiple Installation**.

Click **Next**.

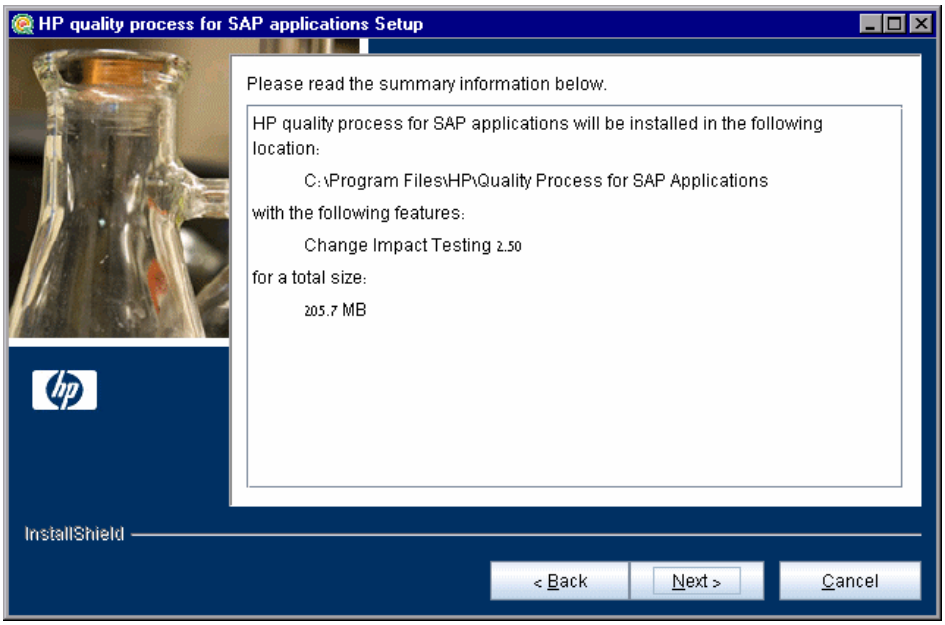
8 If you chose **Multiple Installations**, the Select Which Products to Install dialog box opens.



Select the extensions that you want to install, and click **Next**.

For information on other extensions, see the documentation for the relevant extension.

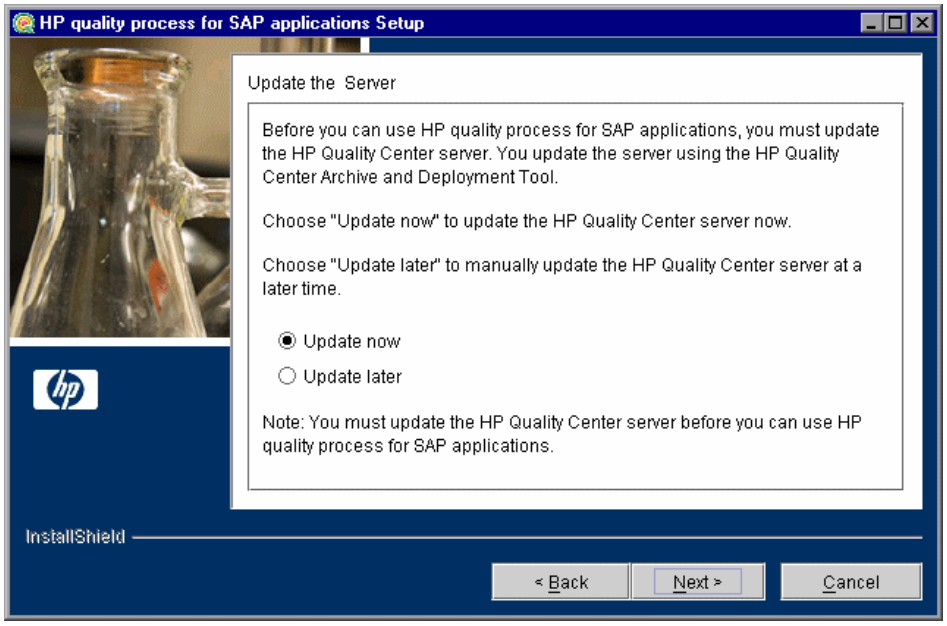
9 The Installation Summary dialog box opens.



To review or change any settings, click **Back**.

To accept the settings and start the installation, click **Next**. The installation process starts.

10 When the installation process completes, the Update the Server dialog box opens.



When you update the Quality Center server, the Change Impact Testing files are copied into the opened archive in the **<Quality Center Installation>\application\qcbin.war** directory. The Quality Center Archive and Deployment Tool is launched. This tool enables you to update the running Quality Center Web server.

Select an update option:

- **Update now.** Automatically updates the Quality Center archive files and runs the deployment tool.
- **Update later.** Enables you to manually update the Quality Center server at a later time. You must update the Quality Center server before you can use Change Impact Testing.

Click **Next**.

11 If you selected **Update now**, proceed to step 12.

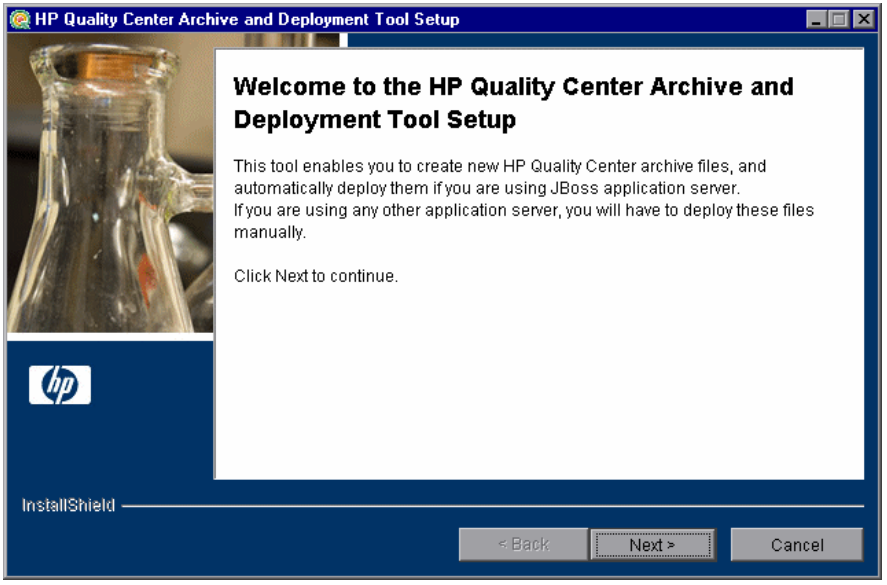
If you selected **Update later**, click **Next** and then click **Finish** to close the installation setup dialog box. When you are ready to update the application server, run the **deploy.bat** script (or **deploy.sh** for non-Windows systems) from the <**Change Impact Testing installation**> directory. When running the batch file, specify the Quality Center installation directory and the location of the Quality Center repository, using the format:

deploy <Quality Center installation directory> <Quality Center repository directory>

For example:

deploy "C:\Program Files\HP\Quality Center" "C:\Program Files\HP\Quality Center\repository"

12 After clicking **Update now** or manually launching the batch file, the Quality Center Archive and Deployment Tool opens.

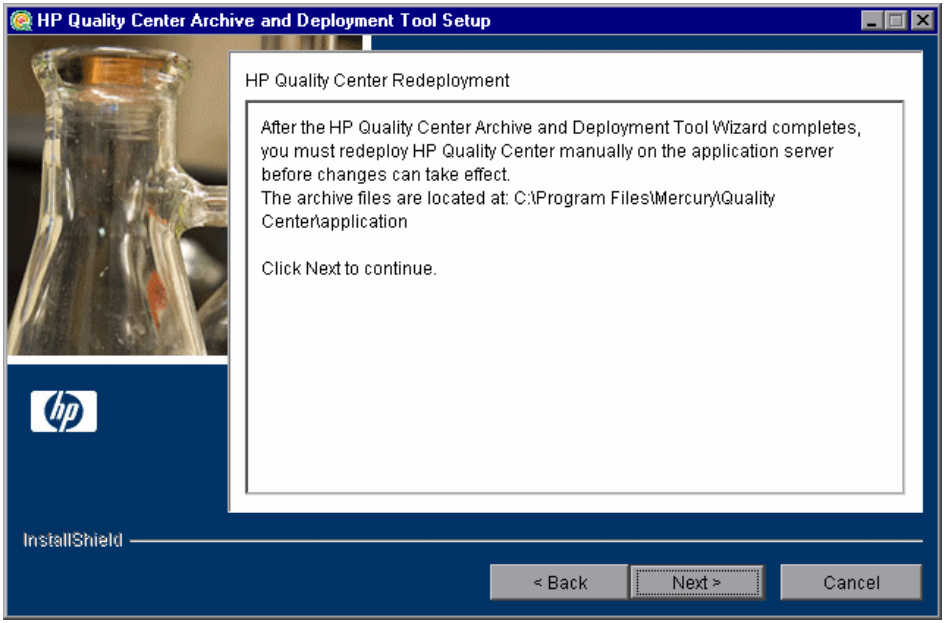


For Change Impact Testing to work with Quality Center, you need to create a new archive and redeploy the **qcbin.war** file on the application server. This enables changes to the archive file to take effect.

Click **Next** to create the new archive file.

13 If your application server is JBoss, proceed to step 14.

If your application server is WebSphere or WebLogic, the following dialog box opens.

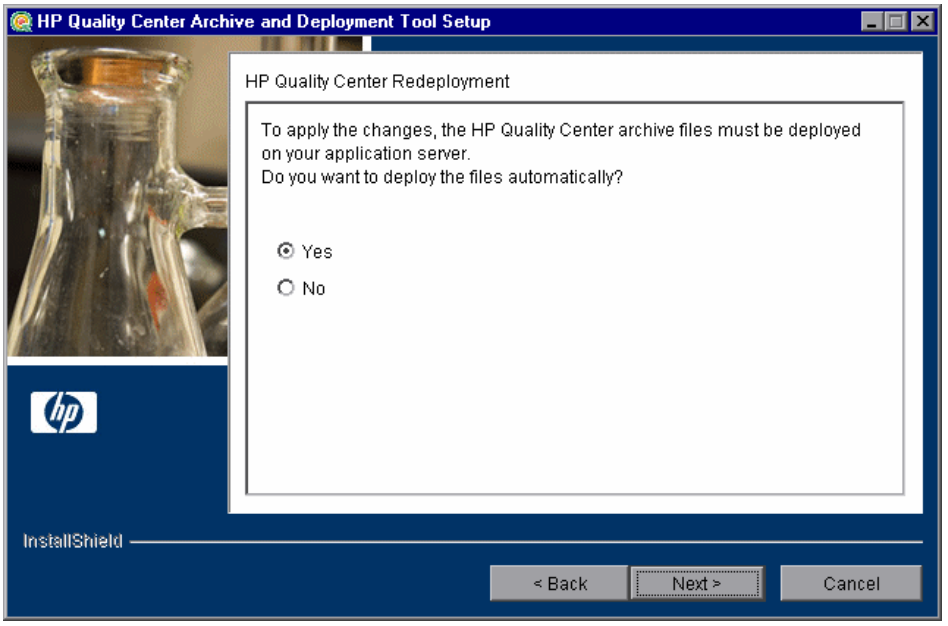


You must deploy Quality Center manually on the application server after the setup process completes. The location of the archive file is shown in the dialog box.

Note: For more information on manually deploying Quality Center on an application server, refer to the *HP Quality Center Installation Guide*.

Click **Next** and proceed to step 16.

14 If your application server is JBoss, the HP Quality Center Redeployment dialog box opens.

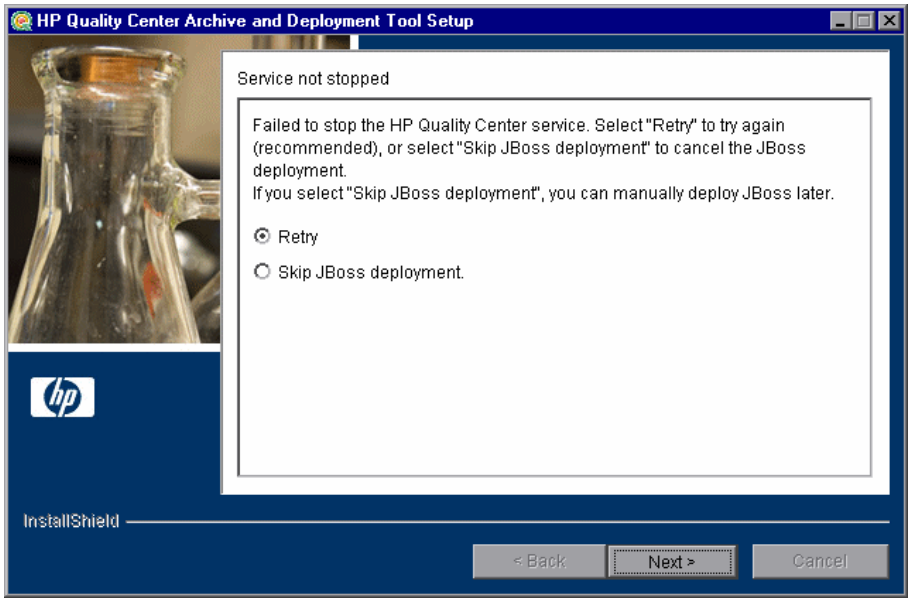


Choose one of the following options:

- **Yes.** To deploy the archive files automatically.
- **No.** To manually deploy the archive files later.

Click **Next**.

15 If the Quality Center service is running, the Archive and Deployment Tool automatically attempts to stop the service. If the tool is unable to stop the service, the Service Not Stopped dialog box opens.



Choose one of the following options:

- **Retry.** Instructs the setup program to try to stop the JBoss service again.
- **Skip JBoss deployment.** Instructs the setup program to cancel the deployment. You must manually deploy JBoss later.

Click **Next**.

16 When the deployment is complete, the Completion dialog box opens. Click **Finish** to close the Quality Center Archive and Deployment Tool.

Note: If you manually deployed the archive files on your application server, you must restart Quality Center after deployment.

---

17 Click **Finish** to close the HP quality process for SAP applications Setup dialog box.

Starting the Change Impact Analysis Server

After you have installed Change Impact Testing, you start the Change Impact Analysis server. The Change Impact Analysis server imports SAP application changes and analyzes their impact on your SAP application entities.

Note: You must have the SAP Java Component installed to import changes using the Change Impact Analysis server. For more information on installing this component, see "The Installation Process" on page 10.

To start the Change Impact Analysis server:

1. On your Quality Center server machine, open a command prompt window.
2. Navigate to **<Change Impact Testing installation directory>\CIA**.
3. Run the file appropriate for your platform:

Platform	To install:
Windows	Run the **Run_CIA_Server.bat** file.
Solaris, Linux, AIX, or HP-UX	Run the **Run_CIA_Server.sh** file.

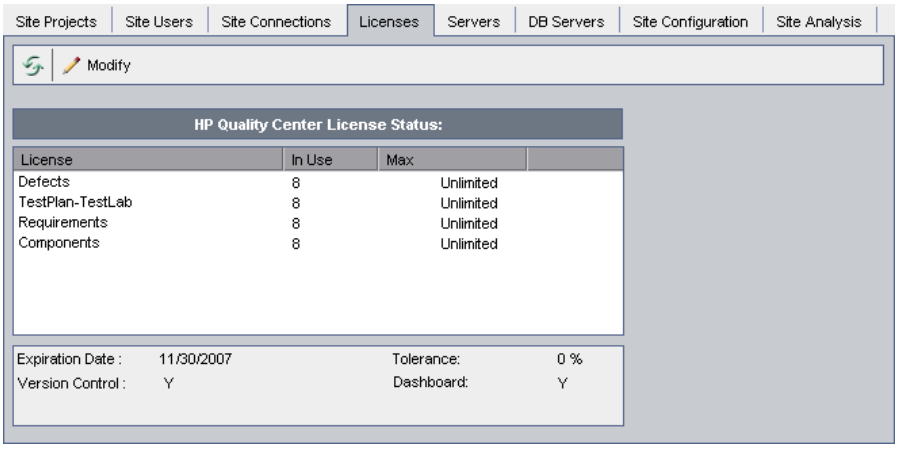
Important: To ensure that the Change Impact Analysis server keeps running, you must keep the command prompt window open, and the user who started the server must remain logged on. Alternatively, the batch file can be run as a service using any available third-party tool.

Loading the Change Impact Testing License

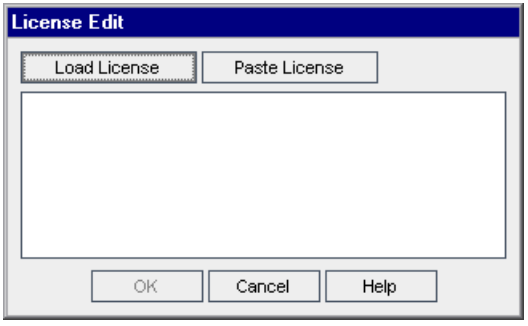
To enable Change Impact Testing in Quality Center, you must load your Change Impact Testing license.

To load the Change Impact Testing license:

1 In Site Administration, click the **Licenses** tab.



2 Click the **Modify License** button. The License Edit dialog box opens.



3 Click the **Load License** button and select the Change Impact Testing license file. Alternatively, copy the license file and click **Paste License**.

4 Click **OK**. The license is displayed in the list of licenses.

Enabling the Change Impact Testing Extension

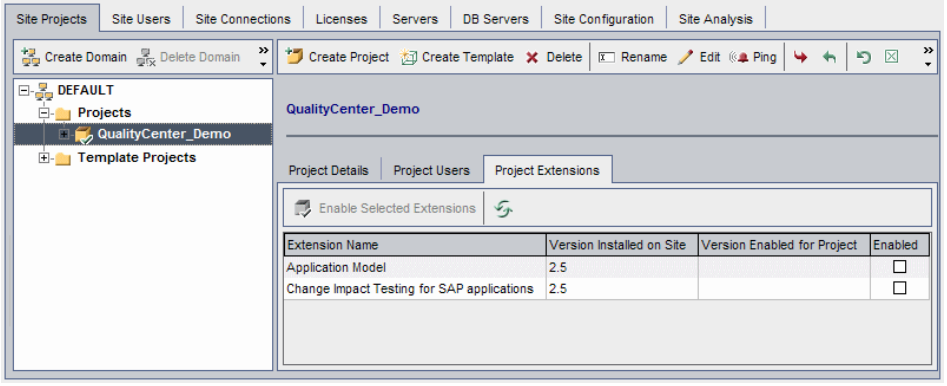
After installing Change Impact Testing on your Quality Center server, you must enable the Change Impact Testing extension for a project before you can use it with the project.

Before enabling the Change Impact Testing extension, consider the following points:

- You cannot disable an extension for a project after you enable it.
- When you enable a project for Change Impact Testing, the Application Model module and Changes module are enabled for the project.
- If the project is active, you must deactivate it before enabling an extension. After the extension has been enabled, you can reactivate the project.
- Enabling extensions for a project can take some time.

To enable the Change Impact Testing extension for a project:

1. In Quality Center Site Administration, click the **Site Projects** tab.
2. If relevant, create a new project in Quality Center in which to enable the extension. For more information on creating Quality Center projects, refer to the *HP Quality Center Administrator Guide*.
3. In the Projects list, select a project. In the right pane, click the **Project Extensions** tab. The Extensions list is displayed, listing extensions installed on the Quality Center server for which you have a license.



4 Select the **Enabled** check box for the **Change Impact Testing for SAP applications** extension, and click **Yes** to confirm. The **Change Impact Testing for SAP applications** and **Application Model** extensions are both enabled and a confirmation message displays.

Configuring SAP Authorizations

To work with Change Impact Testing, you must configure an SAP user role with the appropriate authorization objects. You then assign the properties of this SAP user role to the SAP user who will be logging in to the SAP server to import changes.

The following is the minimal set of authorization objects that must be configured for this SAP user role:

- **S_RFC (Authorization Check for RFC Access).** Grants permission to execute certain Remote Function Calls (RFCs)

  The following function groups require execution permissions:

  - **SYST.** A set of functions that provide basic connection tasks.
  - **SDTX.** Contains a single function (RFC_READ_TABLE) that provides external access to R/3 tables.
  - **SEU_COMPONENT.** An interface to the application components hierarchy, used when importing the application hierarchy.

  The following function groups require execution permissions if you want to import SAP Solution Manager business blueprints:

  - **SA_KW_RFC.** An interface to the document repository.
  - **SCUT.** An interface to ABAP.
  - **SIFP.** An interface to program objects.
- **S_TABU_DIS** (Table Maintenance). Grants permission to view R/3 tables.

Installing the SAP Application Importer Component

You must install the SAP Application Importer Component on each Quality Center client machine on which you want to import SAP application entity hierarchies to the Application Model module. The SAP Application Importer Component is the tool that communicates with the SAP server and imports application entity data from your SAP application to Quality Center.

Notes:

- To install the SAP Application Importer Component, you must have Microsoft .NET Framework 2.0 installed on the client machine. You can download these from the Microsoft Web site (http://www.microsoft.com).
- To install the SAP Application Importer Component, you must have operating system administrator permissions.

To install the SAP Application Importer Component:

1. From your Quality Center client machine, log in to a project for which Change Impact Testing is enabled. The SAP Application Importer Component files are downloaded to your client machine.
2. Locate the **APM** directory in the Quality Center installation directory (by default **C:\Program Files\Common Files\Mercury Interactive\Quality Center**).
3. Run the **SAPAppImporterSetup.exe** file located in this folder and follow the installation instructions on your screen.

Uninstalling Change Impact Testing

This section describes how to uninstall Change Impact Testing from your server machine. When you uninstall Change Impact Testing, the Change Impact Testing files are deleted from Quality Center.

This section includes the following topics:

- Uninstalling Change Impact Testing from Windows
- Uninstalling Change Impact Testing from Non-Windows Systems

Uninstalling Change Impact Testing from Windows

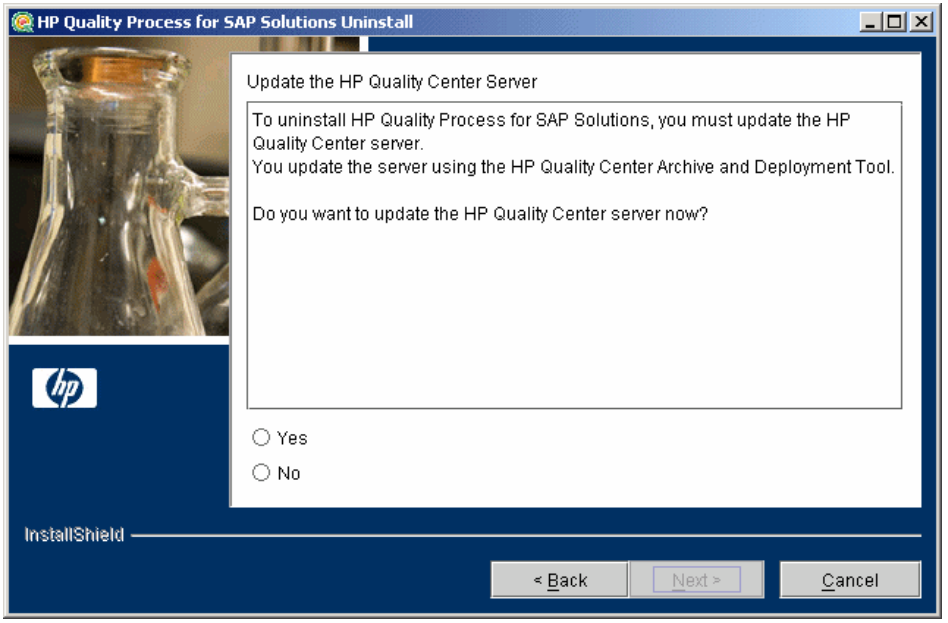
This section describes how to uninstall Change Impact Testing from Windows.

To uninstall Change Impact Testing from Windows:

1. Make sure that the application server is running.
2. To open the HP Quality Process for SAP Solutions Uninstall dialog box, you can:
   - Choose **Start** > **Settings** > **Control Panel** > **Add/Remove Programs**, select **HP Quality Process for SAP Solutions**, and click the **Change/Remove** button. Follow the instructions on your screen.
   - Locate the Change Impact Testing home directory. By default, the files are stored in [drive]:\Program Files\HP\Quality Process for SAP Solutions. In the **_uninst** subdirectory, double-click **uninstall.exe**.

   The HP Quality Process for SAP Solutions Uninstall dialog box opens.

3 Click **Next**. The Update the Server dialog box opens.

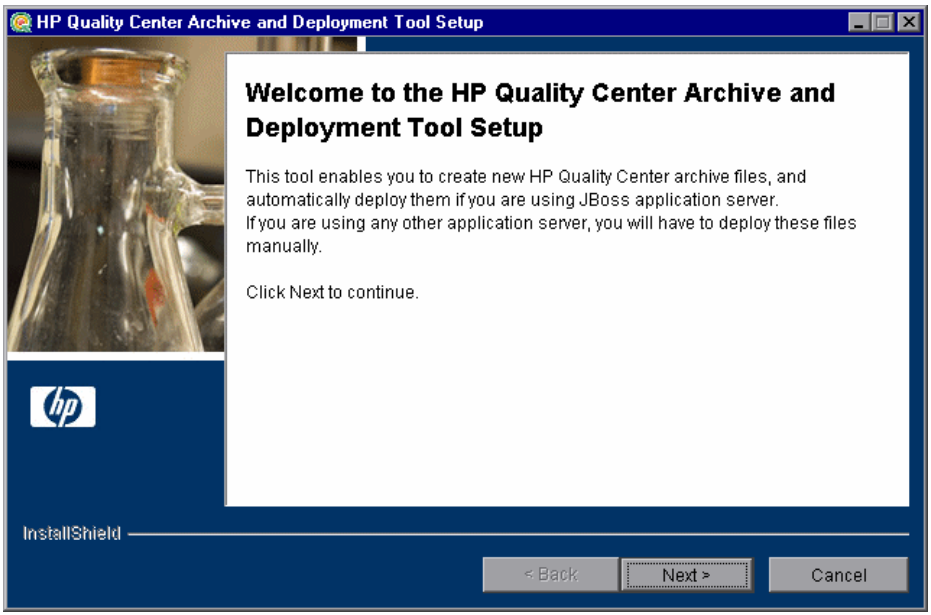


Select an update option:

- **Yes.** To update the archive files and launch the deployment tool now.
- **No.** To update and uninstall later.

Click **Next** to continue to uninstall, or **Cancel** to uninstall later.

4 The Quality Center Archive and Deployment Tool opens.

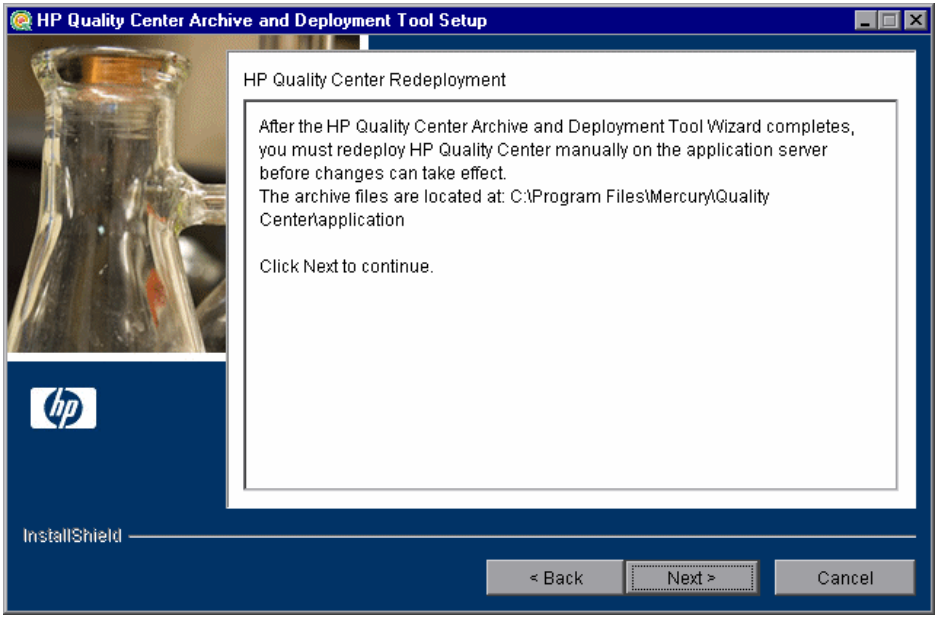


To uninstall Change Impact Testing, you need to create a new archive and redeploy **qcbin.war** on the application server. This enables changes to the file to take effect.

Click **Next** to create the new archive files.

5 If your application server is JBoss, proceed to step 6.

If your application server is other than JBoss, the following dialog box opens.



You must deploy Quality Center manually on the application server after the setup process completes. The location of the archive file is shown in the dialog box.

The updated archive file is stored in different formats, although the content is the same. The files are stored in the **20qcbin.war** folder, and are archived in **qcbin.war**.

To update the archives and undeploy them manually, run the **undeploy.bat** script from the <**Change Impact Testing installation**> directory. When running the batch file, specify the Quality Center installation directory and the location of the Quality Center repository, using the format:

undeploy <Quality Center installation directory> <Quality Center repository directory>

For example:

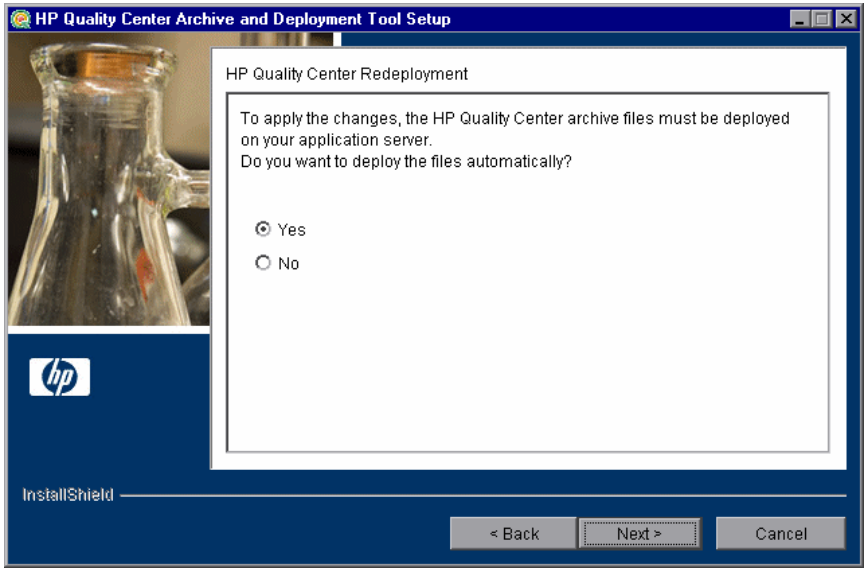
```
undeploy "C:\Program Files\HP\Quality Center" "C:\Program Files\HP\
Quality Center\repository"
```

Note: For more information on manually deploying Quality Center on an application server, refer to the *HP Quality Center Installation Guide*.

Click **Next** and proceed to step 8.

6 If your application server is other than JBoss, proceed to step 8.

If your application server is JBoss, the HP Quality Center Redeployment dialog box opens.

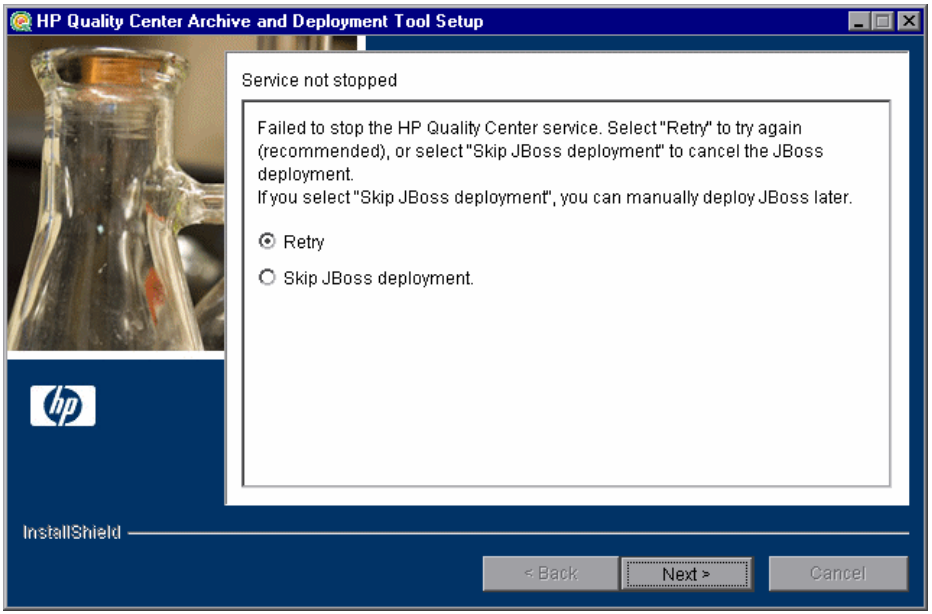


Choose one of the following options:

- **Yes.** To deploy the archive files automatically.
- **No.** To manually deploy the archive files later.

Click **Next** to continue.

7 If the Quality Center service is running, the Archive and Deployment Tool automatically attempts to stop the service. If the tool is unable to stop the service, the Service Not Stopped dialog box opens.



Choose one of the following options:

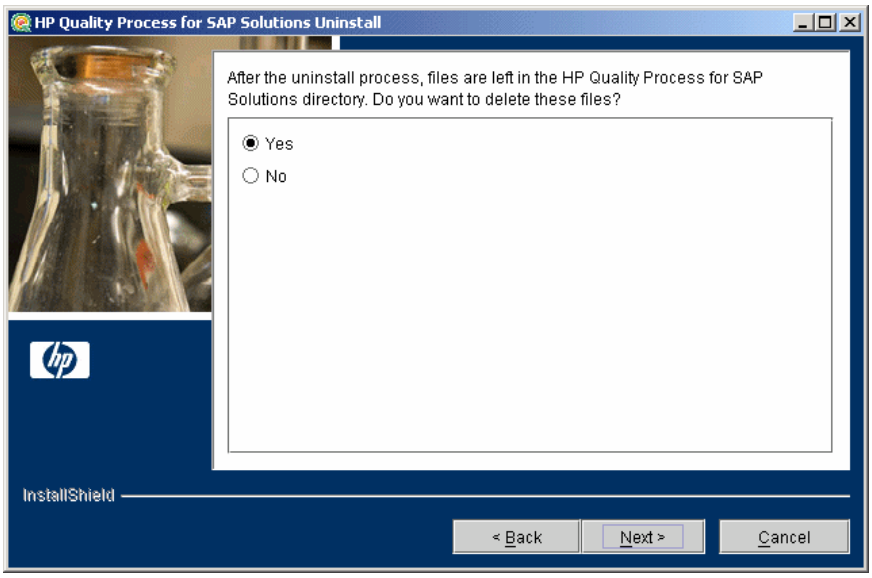
- **Retry.** To try again to stop the JBoss service.
- **Skip JBoss deployment.** To cancel the deployment and manually deploy JBoss later.

Click **Next**.

8 When the deployment is complete, the Completion dialog box opens. Click **Finish** to close the Quality Center Archive and Deployment Tool Setup. The HP Quality Process for SAP Solutions Uninstall dialog box is displayed.

9 Click **Next.** The Update completed dialog box opens.

10 Click **Next** to continue. The File Deletion dialog box opens.



Select **Yes** to delete the remaining uninstall files in the Change Impact Testing directory.

Click **Next**.

11 Click **Finish** to close the HP Quality Process for SAP Solutions Uninstall dialog box.

Uninstalling Change Impact Testing from Non-Windows Systems

This section describes how to uninstall Change Impact Testing from non-Windows systems, such as Linux or Solaris.

To uninstall Change Impact Testing from non-Windows systems:

1 Run the Quality Center Archive and Deployment Tool to create a new archive and redeploy the Quality Center .war file on the application server.

To update the archives and undeploy them manually, run the **undeploy.sh** script from the <**Change Impact Testing installation**> directory. When running the batch file, specify the Quality Center installation directory and the location of the Quality Center repository, using the format:

undeploy <Quality Center installation directory> <Quality Center repository directory>

2. Make sure that the application server is running.
3. Type the following command at the system prompt:

   /[directory]/[Change Impact Testing_directory]/_uninst/uninstall

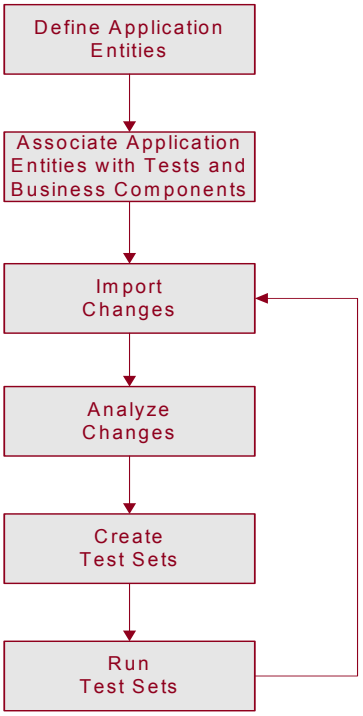
   The HP Quality Process for SAP Solutions Uninstall wizard opens.
4. Click **Next**. Follow the on-screen instructions.
5. When you are prompted to delete all add-in files, select **Yes**.

2

The Change Impact Testing Workflow

After you have installed and enabled Change Impact Testing, you can use it to analyze the impact of changes to an SAP application, and create and run test sets to test this impact.

Change impact testing includes the following stages.



Defining Application Entities

You first define which application entities (SAP transactions and batch jobs) to include in the scope for the change impact analysis. Only entities that you include in the scope at this stage are included in the change impact analysis. You can import the application entities hierarchy from your SAP application or define application entities manually. Entities that you define manually are not included in the change impact analysis.

For more information on defining application entities, see Chapter 3, "Working with the Application Model Module."

Associating Application Entities with Tests and Business Components

After you define which application entities are included in the scope, you associate them with tests by creating test coverage for each application entity. When you create a test set to test a change made to your SAP application, the tests associated with the application entities affected by the change form the basis for the test set.

You can associate application entities with existing tests located in the Test Plan module. Alternatively, you can create new tests specifically for the purpose of covering application entities from the Test Plan module.

For more information on associating application entities with tests, see "Associating Application Entities with Tests" on page 52.

If you are working with Business Process Testing, you can also associate application entities with business components. For more information, see "Associating Application Entities with Business Components" on page 56.

Importing Changes

After you define which application entities are included in scope, and associate them with tests, you import the SAP application changes to your Quality Center project. You first select which changes you want to import. The selected changes are then imported into the Changes module.

For more information on importing changes, see "Importing Changes" on page 64.

Analyzing Changes

After you import your changes to the Changes module, you select which changes you want to analyze. Change Impact Testing then analyzes these changes and determines which in-scope application entities they affect.

For more information on analyzing changes, see "Analyzing Changes" on page 66.

Creating Test Sets

After you analyze your changes, you create a test set to test the impact of all or some of the changes. You select the tests to include in the test set from the tests associated with application entities that are affected by the changes.

For more information on creating test sets, see "Creating Test Sets" on page 73.

Running Tests Sets

After you create your test sets to test the impact of changes made to your SAP application, you run them and record their results in the Quality Center Test Lab module. You can then analyze the results of the tests using Quality Center graphs, reports, and documents.

After you run your test sets and analyze their results, you can begin the next test cycle by importing new changes and reanalyzing existing changes if necessary. There is no need to redefine the application entities that are included in scope for the change impact analysis. You also do not need to recreate associations with tests.

For more information on running test sets and analyzing their results, see the *HP Quality Center User Guide*.

3

Working with the Application Model Module

The Application Model module enables you to manage a hierarchical representation of the entities in your SAP application. You can import entities from your SAP application, and add and modify application entities and folders. You can also associate application entities with tests or business components.

This chapter includes:

- About Working with the Application Model Module on page 42
- Viewing Application Entities on page 43
- Importing the SAP Application Hierarchy on page 45
- Adding Folders and Application Entities Manually on page 48
- Modifying Folders and Application Entities on page 50
- Associating Application Entities with Tests on page 52
- Associating Application Entities with Business Components on page 56

About Working with the Application Model Module

Before you analyze changes, you must decide which SAP components and application entities in your SAP application are analyzed for change impact. You define this scope in the Application Model module, which contains a representation of your SAP components and application entities in the application model tree. When you analyze your SAP application changes, the application entities that you include in scope at this stage are included in the change impact analysis. For more details on analyzing changes, see "About Testing Change Impact" on page 60.

You can import SAP components and application entities from your SAP application.When you import directly from your SAP application, the hierarchy of the elements in the application and the basic data for each business entity are preserved. If you want to extend the scope at any stage, you can import the application hierarchy again, without overwriting existing entities in the Application Model module.

You can also manually add and modify application entities in the Application Model module. Note that this does not affect corresponding application entities in your SAP application and application entities added manually are not included in the change impact analysis.

After you develop your application model tree, you can associate each application entity with tests in the Test Plan module. This is important when changes are made to your application entities, as it enables you to see which tests you need to run to test the impact of each change. If your Quality Center server is licensed for Business Process Testing, you can also associate an application entity with a business component. Each business process test containing that business component is then associated with all of the application entities associated with that component.

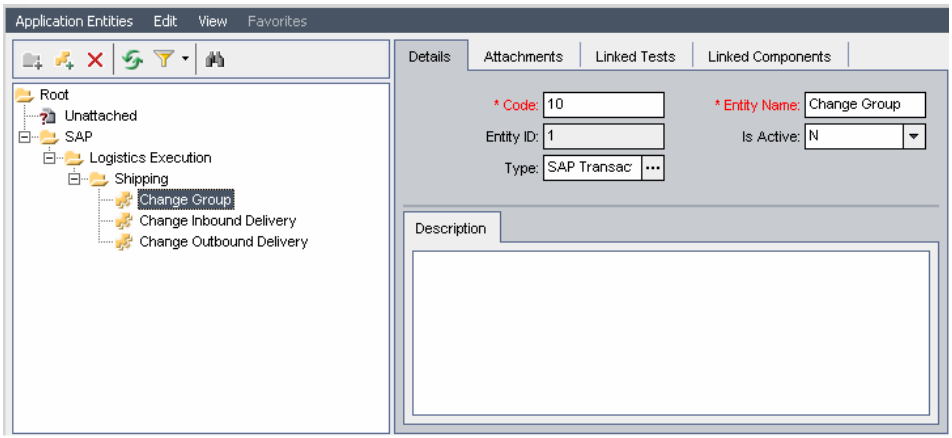
Viewing Application Entities

You import, add, and modify application entities using the Application Model module. To open the Application Model module, click the **Application Model** button on the sidebar.

You can view your application entities in The Application Model Tree or the The Application Model Grid.

The Application Model Tree

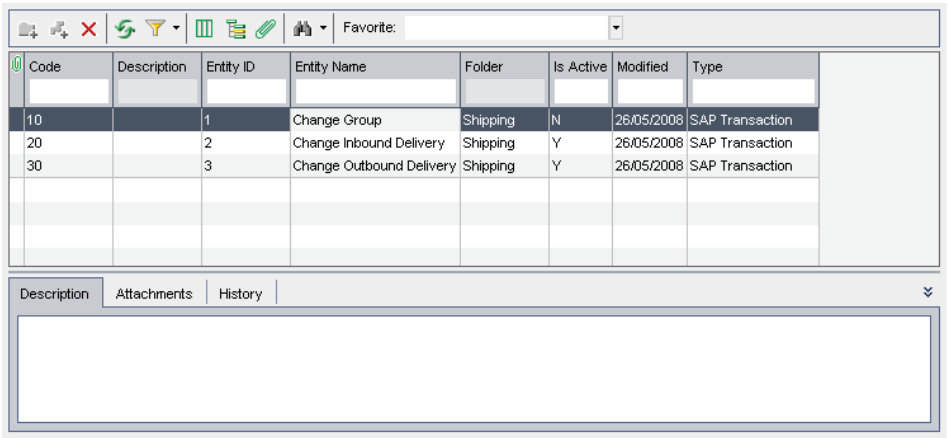
You can view a hierarchical representation of your application entities in the application model tree. To view the application model tree, select **View** > **Application Model Tree**.



By default, each folder in the application model tree represents an SAP application component in your SAP application. During the Learn Flow process, a folder with the name of the flow is created for any flow representing a transaction whose application entity is not in the application model tree. Each application entity represents an application entity in your SAP application.

The Application Model Grid

You can view all the application entities in a Quality Center project from the Application Model Grid. Each row displays a separate application entity. Each column represents a separate data item. To view the Application Model Grid, select **View > Application Model Grid**.



The following columns are displayed for each entity:

Column	Description
Code	The code of the entity in the SAP application.
Description	The description of the entity in the SAP application.
Entity ID	A unique numerical ID assigned by Quality Center to the application entity. This ID cannot be modified.
Entity Name	The name of the entity in the SAP application.
Folder	The folder in the application model tree in which the application entity is located. Each folder represents an SAP application element.
Is Active	If this column is set to “Y”, the application entity is included in the scope when analyzing change impact. Otherwise, the column is set to “N”, and the application entity is not included in the scope.

Column	Description
Modified	The date and time when the application entity was last modified.
Type	Indicates whether the application entity is an **SAP Transaction** or **SAP Batch Job**, or is an entity created by Change Impact Testing of type **SAP Functional Area** or **SAP Technical Object**.

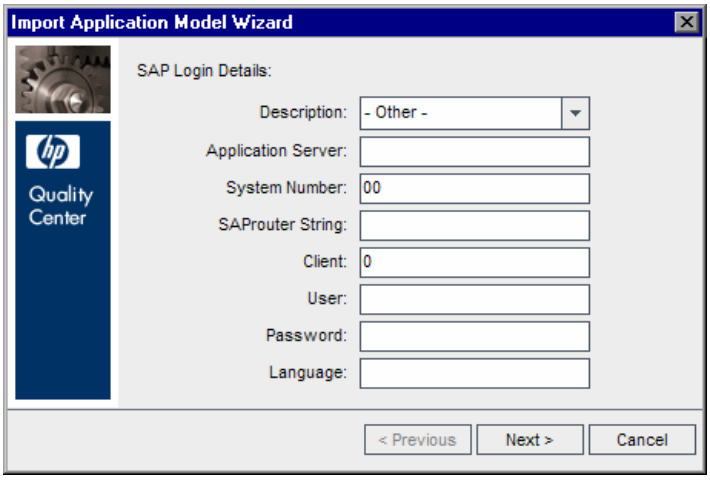
Importing the SAP Application Hierarchy

You can import the application hierarchy to the Application Model module. This maps the entities in your SAP application to application entities in the Application Model module, reproducing the same hierarchical structure. Each SAP application element is represented as a folder. Each folder contains representations of the application entities that are included in the SAP application element in your SAP application.

You can import the application hierarchy more than once. For example, if you add new entities to your SAP application, you may want to include them in the application hierarchy, or you may decide to include application entities in the change impact analysis that were previously out of scope. When you import application entities that are already in the Application Model module, the data that you entered for each application entity is preserved. Any associations you created with tests and business components are also preserved.

To import the application hierarchy:

1 In the Application Model module, display the application model tree and select **Application Entities** > **Import Application Model**. The Import Application Model Wizard dialog box opens.

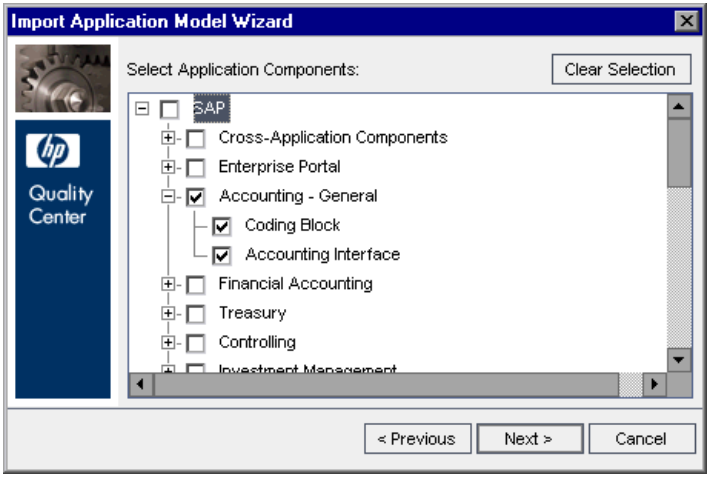


2 In the **Description** field, select your SAP system. The login details are filled in automatically. Alternitavely, type the login details for your SAP application.

Note: The look-up list in the **Description** field is populated from the **saplogon.ini** file. Make sure that the **SAPLOGON_INI_FILE** environment variable is defined pointing to the **saplogon.ini** file.

Click **Next**.

Quality Center connects to your SAP application and the Select Application Components dialog box opens, displaying the SAP components in your SAP application. (You can view the same hierarchy in your SAP application using the **SE81** transaction.)



3 Select the SAP application elements you want to import to the Application Model module. When these application components are imported, all child application entities are also imported. Click **Next**.

Note: You can also import user transactions that are not assigned to any application component. To import these transactions, select the **User Transactions (Unassigned)** node in the Select Application Components dialog box.

---

4 Click **Import** to import the SAP components and application entities to the Application Model module. Note that this process may take some time. When the import process is finished, a confirmation message displays. Click **OK**.

5 Click **Close** to close the Import Application Model Wizard.

The application components you selected are imported to the Application Model module. The hierarchical structure of the SAP application components is reproduced in the Application Model module, with the top-level components located under the **SAP** folder.

Note: The Application Model module may also contain entities that do not correspond directly to entities in your SAP application. These entities, which may be created when you import changes, are located under the **SAP Extended** folder. For more information on these entities, see "About Testing Change Impact" on page 60.

When you import application entities to the Application Model module, a default value is assigned to the **Is Active** field for each imported application entity. This default value is based on the properties of the entity in the SAP application. You can change this value manually after the import. The application entity will only be included in scope for the change impact analysis if this field is set to “Y”.

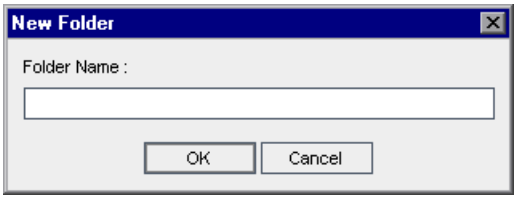
Adding Folders and Application Entities Manually

You can add folder and application entities manually.

Tip: You can also import folders and application entities using the Import Application Model Wizard. For more information, see "Importing the SAP Application Hierarchy" on page 45.

To add a folder:

1 In the application model tree, select a folder and click the **New Folder** button, or select **Application Entities** > **New Folder**. The New Folder dialog box opens.



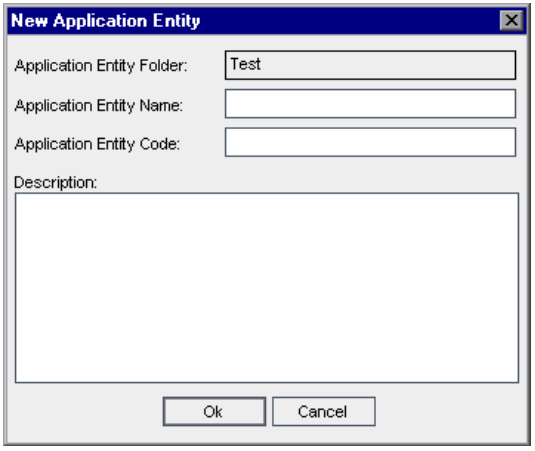
2 In the **Folder Name** box, type a name for the folder and click **OK**. The new folder is added to the application model tree under the folder you selected in step 1.

3 You can add a description for the new folder in the Description tab in the right pane.

4 You can add an attachment to the new folder in the Attachments tab. For more information on adding attachments, see the *HP Quality Center User Guide*.

To add an application entity:

1 In the application model tree, select a folder and click the **New Entity** button, or select **Application Entities** > **New Entity**. The New Application Entity dialog box opens.



2. In the **Application Entity Name** box, type the name of the application entity. This is a required field.
3. In the **Application Entity Code** box, type the unique code of the application entity. This is a required field.
4. In the **Description** box, type a description of the application entity.
5. Click **OK**. The new application entity is added to the application model tree under the folder you selected in step 1.

Modifying Folders and Application Entities

You can rename and delete folders and application entities in the Application Model module.

Renaming Folders and Application Entities

You can rename a folder or application entity in the Application Model module.

To rename a folder or application entity:

- To rename a folder or application entity in the application model tree, select a folder or application entity and select **Edit** > **Rename**. Alternatively, right-click the folder or application entity and select **Rename**. Edit the name and press ENTER.
- To rename an application entity in the Application Model Grid, click the name of the application entity and type the new name.

Deleting Folders and Application Entities

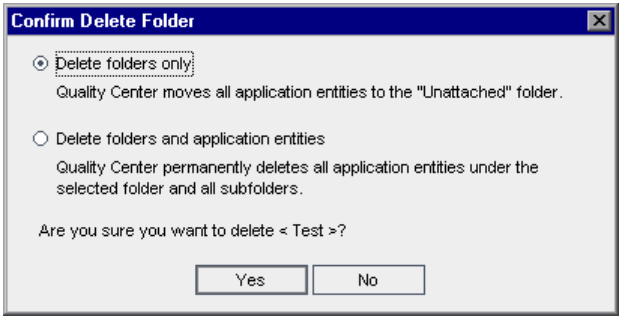
You can delete a folder or application entity from the application model tree. When you delete a folder, you can choose to delete the folder and its subfolders, or you can choose to delete the folder, its subfolders, and application entities.

- If you delete a folder with its subfolders, all of the application entities are moved to the **Unattached** folder in the application model tree.
- If you delete a folder with its subfolders and application entities, all subfolders and application entities under the selected folder are deleted permanently.

To delete a folder:

1 Select a folder from the application model tree.

2 Click the **Delete** button, or select **Edit** > **Delete**. Alternatively, right-click the folder and select **Delete**. The Confirm Delete Folder dialog box opens.



3 Select **Delete folders only** or **Delete folders and application entities.**

4 Click **Yes**.

To delete an application entity:

1 Select an application entity from the application model tree or Application Model Grid.

2 Click the **Delete** button, or select **Edit** > **Delete**. Alternatively, right-click the application entity and select **Delete**.

3 Click **Yes** to confirm.

Associating Application Entities with Tests

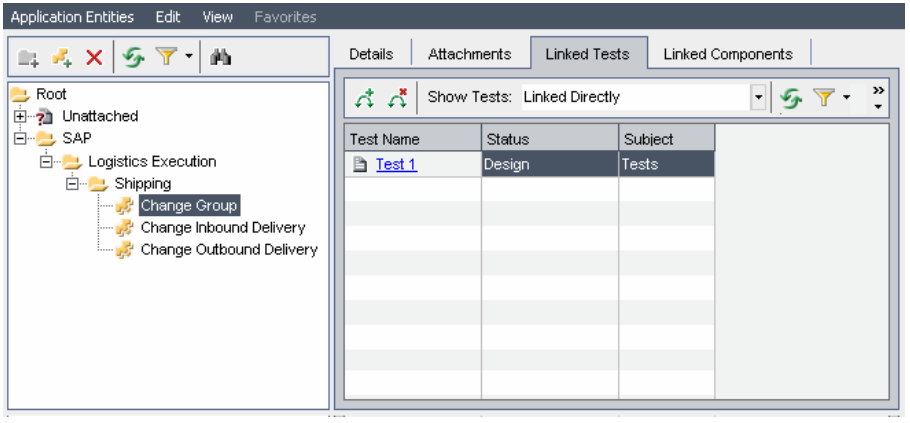
You can associate the application entities you created in the Application Model module with tests from the Test Plan module. You can add tests using the Application Model module or the Test Plan module.

Associating Application Entities Using the Application Model Module

You can associate application entities with tests using the Application Model module.

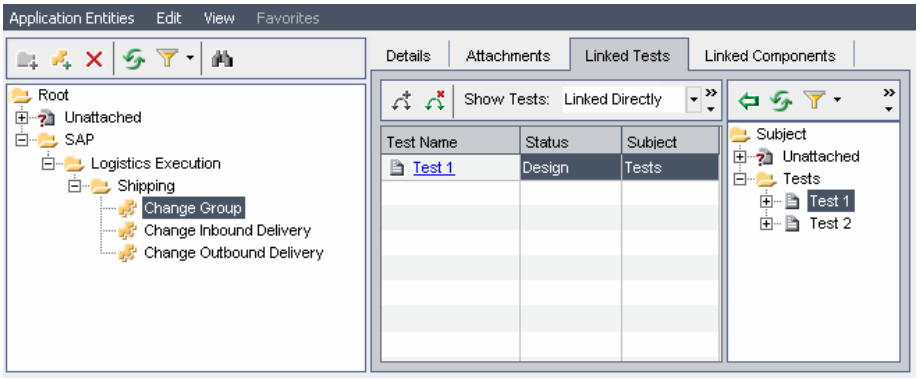
To associate application entities with tests using the Application Model module:

1 In the application model tree, select an application entity and click the **Linked Tests** tab. The Linked Tests tab displays the coverage grid for the selected application entity.



For information on the columns in the Linked Tests tab, see the *HP Quality Center User Guide*.

2 In the Linked Tests tab, click the **Select Tests** button to show the test plan tree on the right.



3 To search for a specific test in the tree, type the name (or part of the name) of the test in the **Find** box and click the **Find** button. If the search is successful, the test is highlighted in the tree.

4 To refresh all of the tests in the test plan tree, click the **Refresh All** button.

5 Select a test or test folder to add to the application entity's test coverage. Click the **Link Tests To Application Entity** button. The test is added to the coverage grid.

6 To refresh the application entities in the coverage grid, click the **Refresh All** button above the grid.

7 To filter the application entities displayed in the coverage grid, choose one of the following options from the **Show Entities** box:

- **Linked Directly.** Displays those tests that are associated directly with the application entity.
- **Linked Through Other Assets.** Displays those tests that are associated with the application entity via business components.
- **All.** Displays all of the application entities that are associated with the test.

8 Click the **Close** button to hide the test plan tree.

Notes:

- To modify the data in the coverage grid columns or to remove tests from the coverage grid, you must first select **Linked Directly** in the **Show Entities** box.

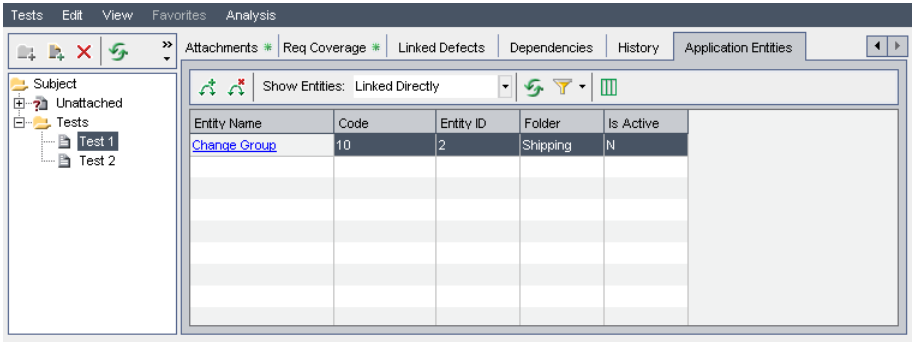
- To remove test coverage from the Application Model module, verify that **Linked Directly** is displayed in the **Show Entities** box. Then select the test you want to remove from coverage and click the **Remove Link** button. Click **Yes** to confirm.

Associating Application Entities Using the Test Plan Module

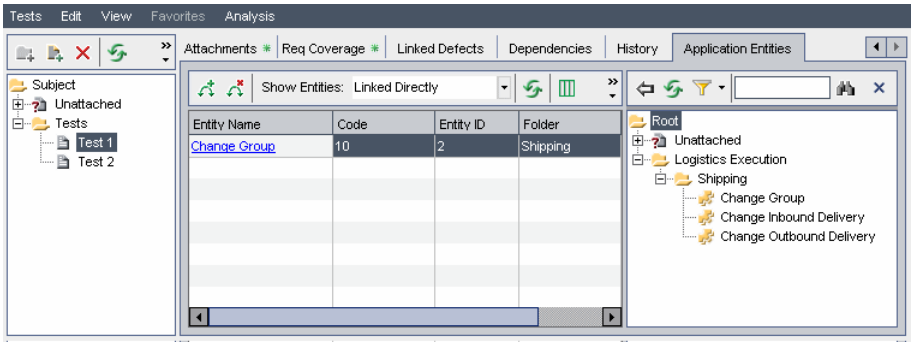
You can associate application entities with tests using the Test Plan module.

To associate application entities with tests using the Test Plan module:

1 In the test plan tree, select the test you want to associate with one or more entities, and click the **Application Entities** tab. The application entities associated with the selected test are displayed.



2 In the Application Entities tab, click the **Select Application Entities** button to show the application model tree on the right.



3 To search for a specific application entity in the tree, type the name (or part of the name) of the application entity in the **Find** box and click the **Find** button. If the search is successful, the application entity is highlighted in the tree.

4 To refresh all of the application entities in the application model tree, click the **Refresh All** button.

5 Select an application entity or application folder to add to the test's application entity coverage. Click the **Add Entity to Linkage** button. The application entity is added to the coverage grid.

6 To refresh the application entities in the coverage grid, click the **Refresh All** button above the grid.

7 To filter the application entities displayed in the coverage grid, choose one of the following options from the **Show Entities** box:

- **Linked Directly.** Displays those application entities that are associated directly with the test.
- **Linked Through Other Assets.** Displays those application entities that are associated with business components via business process tests.
- **All.** Displays all of the application entities that are associated with the test.

8 Click the **Close** button to hide the application model tree.

Notes:

➤ To modify the data in the coverage grid columns or to remove application entities from the coverage grid, you must first select **Linked Directly** in the **Show Entities** box.

➤ To remove application entity coverage from the Test Plan module, verify that **Linked Directly** is displayed in the **Show Entities** box. Then select the application entity you want to remove from coverage and click the **Remove Link** button. Click **Yes** to confirm.

Associating Application Entities with Business Components

You can associate an SAP entity with any type of test, including a business process test. To associate an entity with a business process test, you first associate the entity with one or more business components. Then, when you include these business components in a business process test, the test is automatically associated with the entities that are a part of the business process test's business components. For details on adding business components to a business process test, see the *HP Business Process Testing User Guide*.

You associate application entities with business components using the Business Components module. After they are associated, you can manage your associated application entities either from the Application Model module or from the Business Components module.

To manually associate application entities with business components:

1 In the component tree, select the component you want to associate with one or more application entities, and click the **Application Entities** tab. The application entities associated with the selected business component are displayed. For a description of each column displayed, see "The Application Model Grid" on page 44.

2 In the Application Entities tab, click the **Select Application Entities** button to show the application model tree on the right.

3 To search for a specific application entity in the tree, type the name (or part of the name) of the application entity in the **Find** box and click the **Find** button. If the search is successful, the application entity is highlighted in the tree.

4 To refresh all of the application entities in the application model tree, click the **Refresh All** button.

5 Select an application entity or application folder to add to the business component's application entity coverage. Click the **Add Entity to Linkage** button. The test is added to the coverage grid.

6 Click the **Close** button to hide the application model tree.

Note: To remove application entity associations from the Business Components module, select the application entity for which you want to remove an association, click the **Remove Link** button, and click **Yes** to confirm.

4

Testing Change Impact

After you have defined which application entities are included in scope and associated them with tests, you can import changes to your SAP application and analyze their impact. You can then create test sets to test the impact of these changes.

This chapter includes:

- About Testing Change Impact on page 60
- Viewing Changes on page 61
- Importing Changes on page 64
- Analyzing Changes on page 66
- Viewing Testing Impact on page 69
- Modifying Folders and Change Entities on page 71
- Creating Test Sets on page 73

About Testing Change Impact

After you define in the Application Model module which application entities are included in scope for the change impact analysis, you can import the changes to the Changes module. You can then analyze these changes.

The only impact included in the analysis is the impact on application entities that are included in the Application Model module with the **Is Active** field assigned value "Y". In addition, the impact to user transactions is included, even if the user transactions are not included in the Application Model module. If such a user transaction is affected by an imported change, it is added to the Application Model module.

Note: In addition to the entities included in the Application Model module that correspond directly to entities in your SAP application (of type **SAP Transaction** and **SAP Batch Job**), other entities may be created that do not exist as entities in your SAP application. These are created under the **SAP Extended** folder and can be of two types:

- **Functional Area.** These are entities that are applicable across different application areas. An example of such an entity may be Pricing, as most business functionality affects pricing in some way.
- **Technical Object.** These are physical workbench entities from the SAP environment, such as programs and function pools. These entities are only created if the impact is not already recorded on another entity.

For each change, you can view which application entities are impacted. You can also view which tests are needed to test the impact of each change, based on the associations you created between application entities and tests. You can then create a test set containing some or all of these tests. After you create the test set, you can run it and analyze its results to evaluate the impact of the changes on your SAP application.

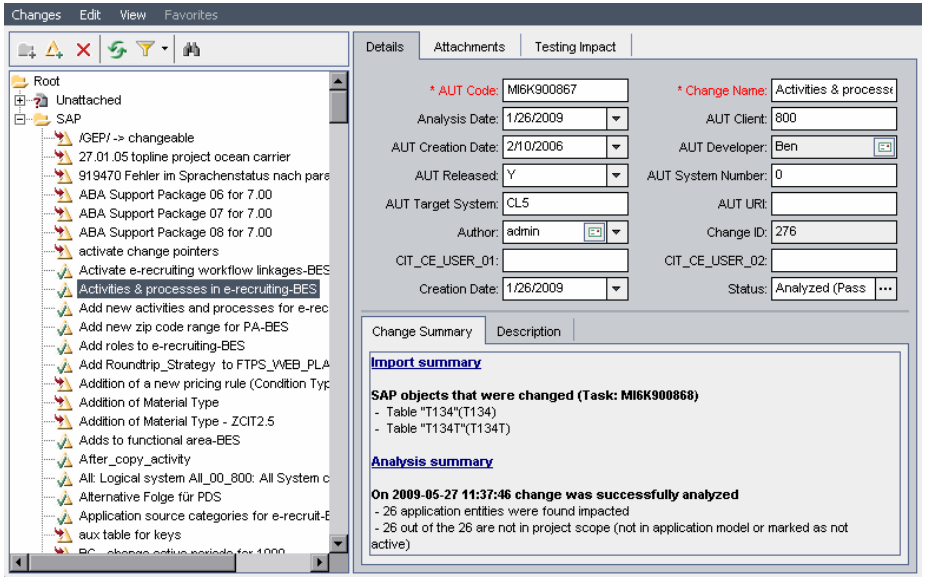
Viewing Changes

You view your SAP application changes using the Changes module. To open the Changes module, click the **Changes** button on the sidebar.

You can view your change entities in the changes tree or the Changes Grid.

The Changes Tree

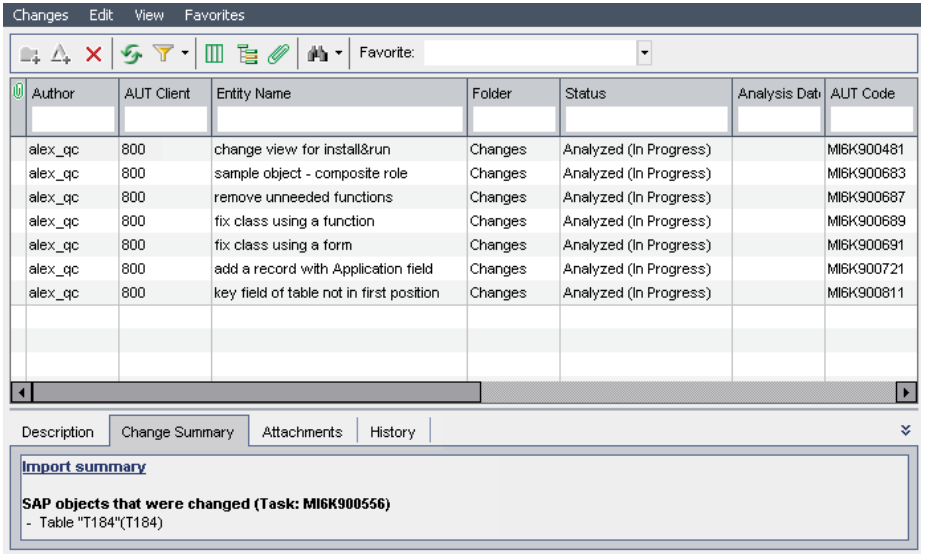
You can view a hierarchical representation of your application changes in the changes tree. To view the changes tree, choose **View** > **Changes Tree**.



Each folder in the changes tree can contain changes and other folders. Each change icon represents a change in your SAP application. A change icon with a red arrow represents a change that has not been analyzed.

The Changes Grid

You can view all the application changes in a Quality Center project from the Changes Grid. Each row displays a separate application change. Each column represents a separate data item. To view the Changes Grid, choose **View** > **Changes Grid**.



The following columns are displayed for each change:

Column	Description
Analysis Date	The time the change impact was performed that imported the change.
AUT Client	The client name of the SAP application.
AUT Code	The change code.
AUT Creation Date	The date on which the change was created.
AUT Developer	The developer who made the change.
AUT Released	Indicates whether the change was released.
AUT System Number	The system number of the change.
AUT Target System	The target system of the change.

Column	Description
AUT URI	The uniform resource identifier (URI) of the SAP application.
Author	The Quality Center user who imported the change to the Changes module.
Creation Date	The date the change was imported to the Changes module.
Description	A description of the change. Includes a list of SAP objects that were modified during the change.
Entity Name	The change's name.
Folder	The change folder in which the change is located.
Modified	The date and time the change was last modified in Quality Center.
Status	The current status of the changes. Can have one of the following values: ➤ **Analyzed (Failed).** The changes failed an analysis. ➤ **Analyzed (In Progress).** The change is currently being analyzed. ➤ **Analyzed (Passed).** The change passed an analysis successfully. ➤ **Closed.** The change has been tested and closed. ➤ **Imported.** The change was created as a result of an import from the SAP application and has not been analyzed. ➤ **Manual.** The change was created manually and has not yet been analyzed. ➤ **Failed.** One or more of the tests associated with the change failed. ➤ **Passed.** All the tests associated with the change passed. ➤ **Under Test.** The change is currently being tested.

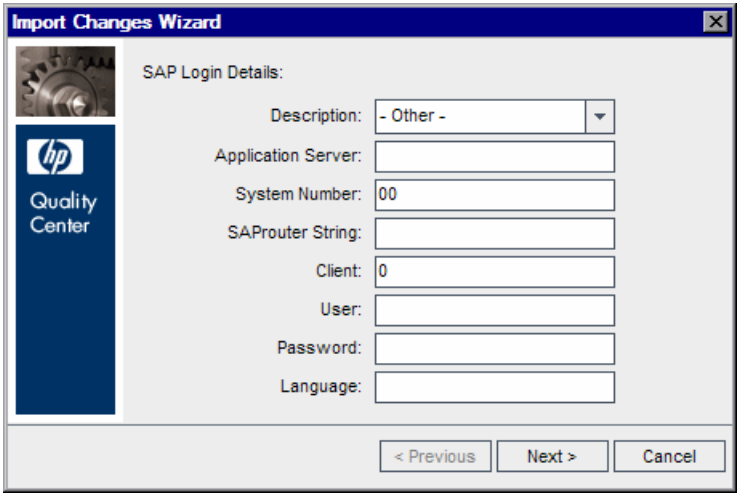
Importing Changes

Change Impact Testing enables you to import the changes you made to an SAP application into the Changes Module.

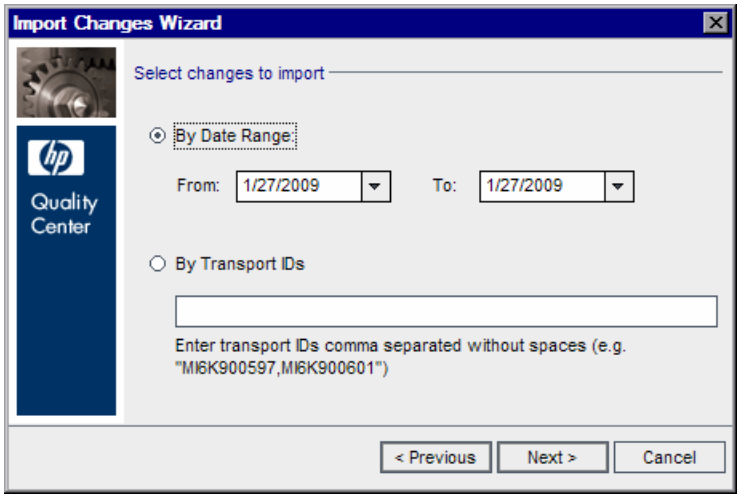
To import changes:

1 In the changes tree, select the folder to which you want to import the changes.

2 Choose **Changes** > **Import Changes**. The SAP Login Details dialog box opens.



3 Type the login details for your SAP application and click **Next**.
Quality Center connects to your SAP application and the Select Changes to Import dialog box opens.



4 You can choose to import changes made during a specified date range, or to import changes by their transport ID.

- Select **By Date Range** to import changes made during a specified range. In the **From** and **To** boxes, specify the range for which you want to import changes.
- Select **By Transport IDs** to import a single change. Type the transport IDs for the changes you want to import. You can type more than one transport ID, separating the transport IDs by commas (,) without spaces.

Click **Next**.

5 Click **Import**. The import process begins.

6 When the import process is complete, a message box displays and you are asked whether you want to analyze the imported changes. Click **Yes** to analyze the imported changes immediately, or **No** to analyze the imported changes at a later stage. For more information on analyzing changes, see "Analyzing Changes" on page 66.

The changes you imported are displayed in the changes tree under the folder you selected. You can view a summary of the analysis in the Change Summary tab, located at the bottom of the Details tab in the Changes module. The summary lists the change requests included in the change. For each change request, the SAP objects changed are also listed.

Analyzing Changes

After you import the changes made to your SAP application to the Changes module, you can analyze the impact of these changes on the SAP application entities.

Notes:

- When you analyze a change, results from previous analyses are overwritten. In addition, any associations that you created manually between the change entity and application entities are also overwritten.
- You can analyze changes on a different SAP application than the application from which they were imported. For example, you can import changes from a development SAP application, and analyze the changes on the testing application. If the two applications are not identical, the analysis may display different results.

To analyze changes:

1 In the Changes module, select the changes or change folder you want to analyze.

Note: The load on the Change Impact Analysis server is proportional to the complexity of analyzed changes and the amount of changes simultaneously sent to analysis. Analyzing a large quantity of changes simultaneously might result in a resource overload and could cause the Change Impact Analysis server to run out of memory and terminate. Out of Memory errors in the Change Impact Analysis server console and logs should be handled in one of the following ways:

- Increase the value for the Xmx parameter in the Run_CIA_Server batch file, and restart the Change Impact Analysis server.
- Send smaller groups of changes to the Change Impact Analysis server, and wait until the analysis completes before sending the next group.

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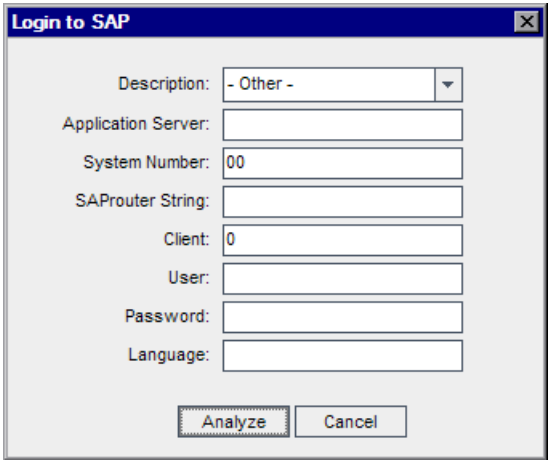
2 Choose **Changes** > **Analyze Changes**. The Confirm dialog box opens.

3 Click **Yes**. The Login to SAP dialog box opens.



4 Type the login details for your SAP application and click **Analyze**. The changes you selected are analyzed and a confirmation message displays.

Tip: The change impact analysis is performed in the background. You can view the current status of the change impact analysis for a change by clicking the **Refresh All** button to refresh the display and then checking the **Status** field for the change. For more information on the possible values for the **Status** field, see "The Changes Grid" on page 62.

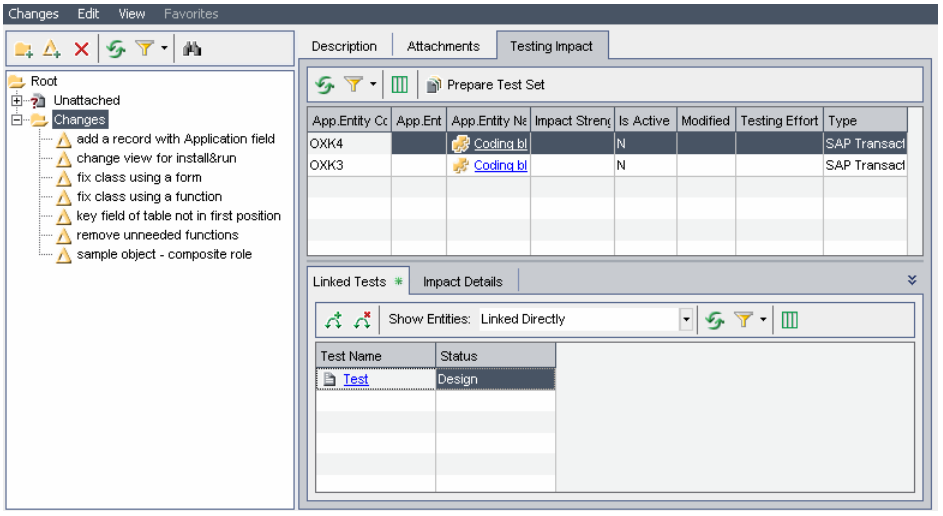
When the analysis is complete for a change, a summary of the analysis is added to the Change Summary tab, located at the bottom of the Details tab in the Changes module. The summary includes the time and status of the analysis, the total number of impacted application entities, and the number of impacted application entities not included in scope for the analysis.

Viewing Testing Impact

Change Impact Testing correlates the objects that were modified as part of each imported change with SAP application entities. You can view details of the SAP application entities that are impacted by each change.

To view testing impact:

1 In the changes tree, select a change or change folder and click the **Testing Impact** tab. The application entities affected by the selected change or change folder are displayed.



The following columns are displayed for each entity:

Column	Description
App.Entity Code	The code of the entity in the SAP application.
Application Entity Description	The description of the entity in the SAP application.
Application Entity Name	The name of the entity in the SAP application. You can click the name to go to the entity in the Application Model module.

Column	Description
Impact Strength	The level of risk that the change poses for the application entity. This level is automatically calculated by Change Impact Testing. For more information, see "Calculating Impact Strength" on page 70.
Is Active	If this column has value "Y", the application entity will be included in the scope when analyzing change impact. Otherwise, the column has value "N" and the application entity is not included in the scope.
Modified	The date when the change last impacted the application entity.
Type	Indicates whether the application entity is an **SAP Transaction** or **SAP Batch Job**, or is an entity created by Change Impact Testing of type **SAP Functional Area** or **SAP Technical Object**.

2 To filter or sort the application entities displayed in the Testing Impact tab, click the **Set Filter/Sort** button. For details on filtering and sorting, refer to the *HP Quality Center User Guide*.

3 To manually add application entities to the impact, click the **Select Application Entities** button. The application model tree displays in the right pane.

In the right pane, select the application entity you want to add to the impact and click the **Add Entity to Impact** button. The application entity is added to the impact.

4 To remove an application entity from the impact, select the application entity and click the **Remove Link** button. Click **Yes** to confirm.

Calculating Impact Strength

Change Impact Testing identifies the changed SAP objects that caused the application entity to be part of the impact, and calculates their risks. The highest risk is taken to be the strength of the impact.

The following table describes how Change Impact Testing ranks the change's impact strength:

Impact Strength	Description
1-Low	Changes that are supported by the SAP application, and that have little impact on Quality Center assets. For example, inserting or deleting rows in tables.
2-Medium	➤ Changes to objects that have minimal user interaction. For example, SAP interfaces. ➤ Changes that are supported by the SAP application (for example, screen variants) but may fail Quality Center test assets. ➤ Changes to IMG/customization table data.
3-High	➤ Changes to SAP definition objects. For example, tables, data elements, views. ➤ Changes to SAP patches.
4-Very High	Changes that affect a large functional area or user-defined transactions.
5-Critical	Changes related to ABAP code. This code is not verified by SAP.

Modifying Folders and Change Entities

You can rename and delete folders and change entities in the Changes module.

Renaming Folders and Change Entities

You can rename a folder or change entity in the Changes module.

To rename a folder or change entity:

➤ To rename a folder or change entity in the changes tree, select an folder or change entity and choose **Edit** > **Rename**. Alternatively, right-click the folder or change entity and choose **Rename**. Edit the name and press ENTER.

➤ To rename an application entity in the Application Model Grid, click the name of the change entity and type the new name.

Deleting Folders and Change Entities

You can delete a folder or change entity from the changes tree. When you delete a folder, you can choose to delete the folder and its subfolders, or you can choose to delete the folder, its subfolders, and change entities.

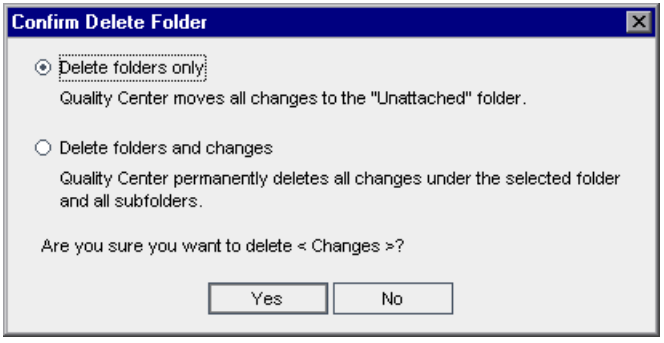
➤ If you choose to delete the folder with its subfolders, all of the change entities are moved to the **Unattached** folder in the changes tree.

➤ If you choose to delete a folder with its subfolders and change entities, all subfolders and change entities under the selected folder are deleted permanently.

To delete a folder:

1 From the changes tree, select a folder.

2 Click the **Delete** button, or choose **Edit** > **Delete**. Alternatively, right-click the folder and choose **Delete**. The Confirm Delete Folder dialog box opens.



3 Select **Delete folders only** or **Delete folders and changes.**

4 Click **Yes**.

To delete a change entity:

1 From the application model tree or Application Model Grid, choose a change entity.

2 Click the **Delete** button, or choose **Edit** > **Delete**. Alternatively, right-click the application entity and choose **Delete**.

3 Click **Yes** to confirm.

Creating Test Sets

To run the tests associated with the application entities impacted by a change, you must first create one or more test sets containing the tests you want to run. You create test sets in the Testing Impact tab, as part of the change impact testing process. You can then run these test sets.

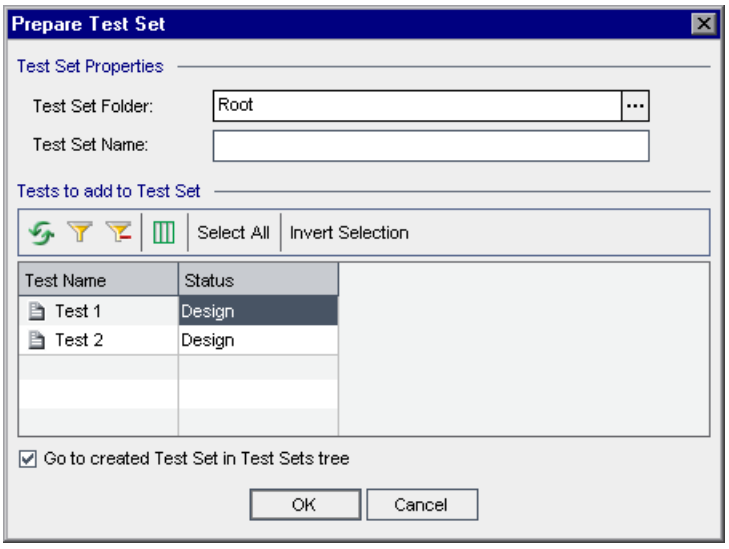
After you have run the test sets, you can analyze the results using Quality Center analysis functionality, including graphs, reports, and documents. For details on running test sets and analyzing test results, refer to the *HP Quality Center User Guide*.

To create a test set:

1 In the Changes module, select the change or change folder for which you want to create a test set.

2 Click the **Testing Impact** tab. For each application entity impacted by the change, the bottom pane displays the tests associated with that entity. You can associate tests with an application entity from the Application Model module. For more information, see "Associating Application Entities with Tests" on page 52.

3 Click the **Prepare Test Set** button. The Prepare Test Set dialog box opens.



4 From the **Test Set Folder** box, select the folder in which you want to save the test set you are creating. Note that you cannot add a test set directly to the **Root** folder. If you have not created a test set folder for the test set, click **Cancel** and create the folder in the **Test Lab** module.

5 In the **Test Set Name** box, type the name you want to assign the test set.

6 Under **Tests to add to Test Set**, select the tests you want to include in the test set, or click the **Select All** button to include all the displayed tests in the test set. To invert the order of the tests in the test set, select the tests whose order you want to invert and click the **Invert Selection** button.

Tip: You can use filters and cross filters to reduce the number of tests from which to select.

For example, to filter tests associated with business-critical requirements, under **Cross filter by**, select **Requirements**, and set the appropriate RBQM fields. **Risk-based quality management** enables you to calculate the level at which to test each requirement, based on the nature of the requirement and the testing resources you have available.

For more information on working with risk-based quality management, refer to the *HP Quality Center User Guide*.

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7 Select **Go to created Test Set in Test Sets tree** if you want to go to the test set in the Test Lab module when it is created.

8 Click **Finish**. The test set is created in the specified test set folder in the Test Lab module.

5

Customizing Change Impact Testing

You can customize user group permissions, hide data for a user group and customize project entities for Change Impact Testing.

This chapter includes:

- About Customizing Change Impact Testing on page 77
- Customizing User Group Permissions on page 78
- Hiding Data for a User Group on page 82
- Customizing Project Entities on page 86
- Customizing Module Access on page 86

About Customizing Change Impact Testing

You can customize entities in the Application Model module and the Changes module. You customize these entities in the same way as you customize other entities in your Quality Center projects. You can restrict which user groups can add, delete and modify folders, change entities, and application entities. You can also determine which application entities, application entity fields, change entities, and change entity fields each user group can view.

In addition, you can add and customize Application Model module and Changes module fields and customize access to the Application Model module and Changes module.

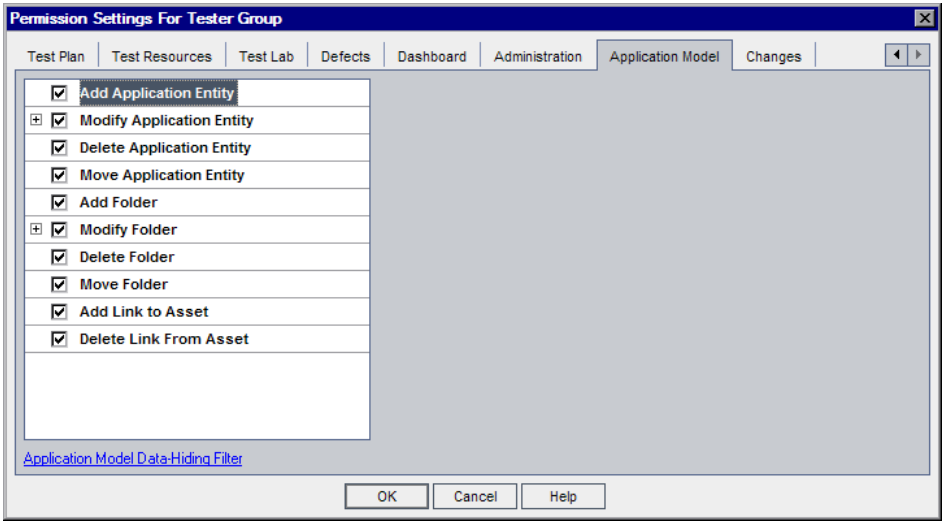
This chapter describes the additional customization options available with Change Impact Testing. For more information on project customization, refer to the *HP Quality Center Administrator Guide*.

Customizing User Group Permissions

You can customize the permission settings for the Application Model module and the Changes Module in the Permission Settings dialog box in Project Customization. For more information on user group permissions, refer to the *HP Quality Center Administrator Guide*.

Customizing User Group Permissions for the Application Model Module

The Application Model tab displays the tasks available in the Application Model module.

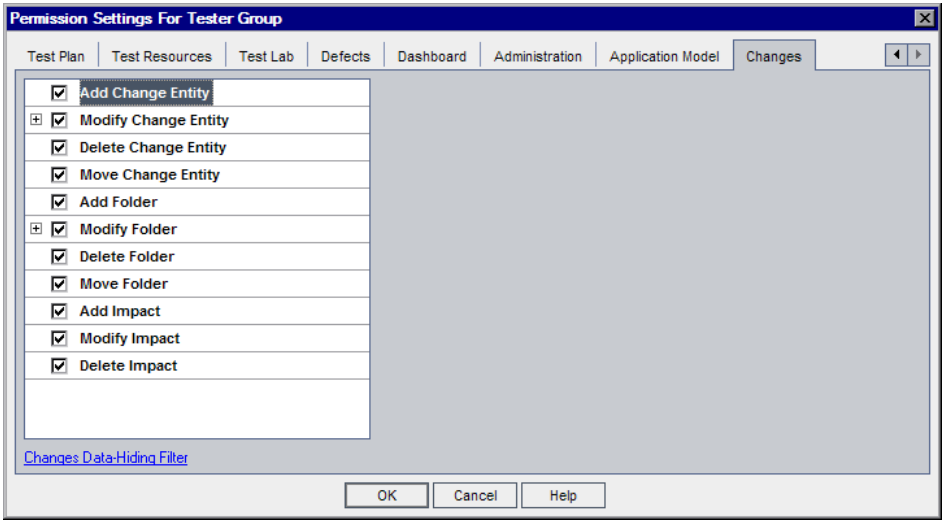


The Application Model tab includes the following tasks:

Task	Description
Add Application Entity	User group can add application entities to the Application Model module.
Modify Application Entity	User group can modify application entities in the Application Model module. Note that this task enables you to specify the fields that the selected user group can modify.
Delete Application Entity	User group can delete application entities from the Application Model module.
Move Application Entity	User group can move application entities in the Application Model module.
Add Folder	User group can add folders to the Application Model Tree.
Modify Folder	User group can modify folders in the Application Model Tree.
Delete Folder	User group can delete folders from the Application Model Tree.
Move Folder	User group can move folders in the Application Model Tree.
Add Link to Asset	User group can associate application entities with tests and business components.
Delete Link from Asset	User group can remove association of application entities with tests and business components.

Customizing User Group Permissions for the Changes Module

The Changes tab displays the tasks available for the Changes module.



The Changes tab includes the following tasks:

Task	Description
Add Change Entity	User group can add change entities to the Changes module.
Modify Change Entity	User group can modify change entities in the Changes module. Note that this task enables you to specify the fields that the selected user group can modify.
Delete Change Entity	User group can delete change entities from the Changes module.
Move Change Entity	User group can move change entities in the Changes module.
Add Folder	User group can add folders to the Changes Tree.
Modify Folder	User group can modify folders in the Changes Tree.

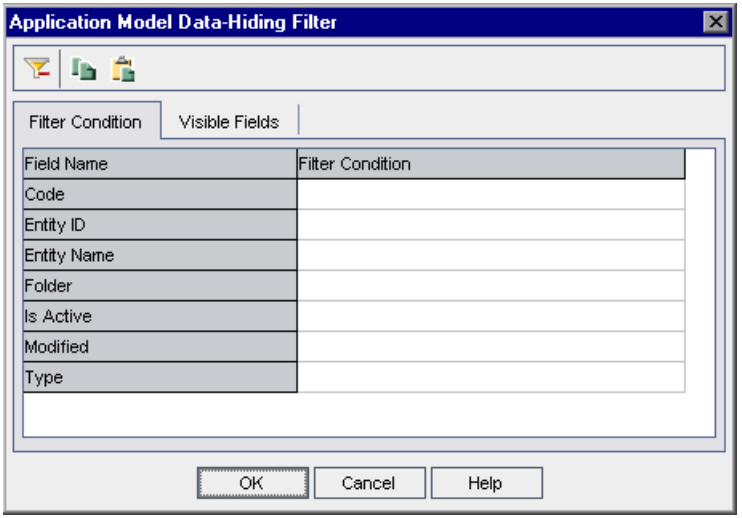
Task	Description
Delete Folder	User group can delete folders from the Changes Tree.
Move Folder	User group can move folders in the Changes Tree.
Add Impact	User group can add change impact.
Modify Impact	User group can modify change impact.
Delete Impact	User group can delete change impact.

Hiding Data for a User Group

You can instruct Quality Center to hide specific application entities and application entity fields that a user group can view in the Application Model module, and specific change entities and change entity fields in the Changes module.

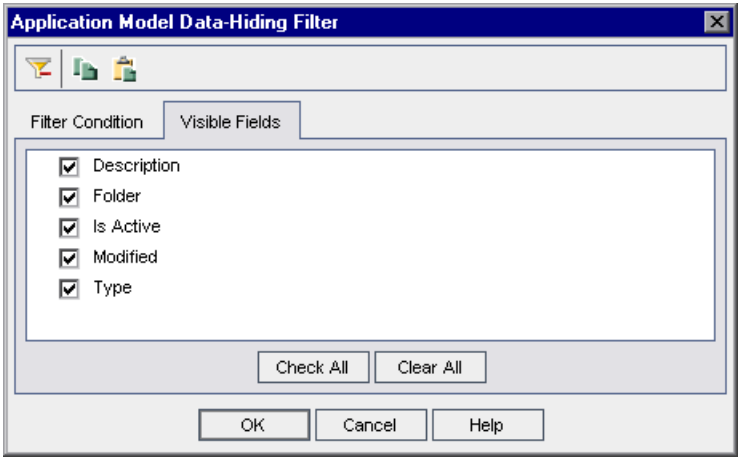
Hiding Data in the Application Model Module for a User Group

You can set filters for specific fields in the Application Model module, limiting the application entities that the user group can view. For example, you can set the filter for the field **Type** to SAP Batch Job. This instructs Quality Center to allow users belonging to the user group to view only application entities that are SAP batch jobs. You set filters in the Filter Condition tab in the Application Model Data-Hiding Filter dialog box. For more information on hiding data for a user group, refer to the *HP Quality Center Administrator Guide*.



You can filter by the following fields: **Code**, **Entity ID**, **Entity Name**, **Folder**, **Is Active**, **Modified**, and **Type**. For more details on these fields, see "The Application Model Grid" on page 44.

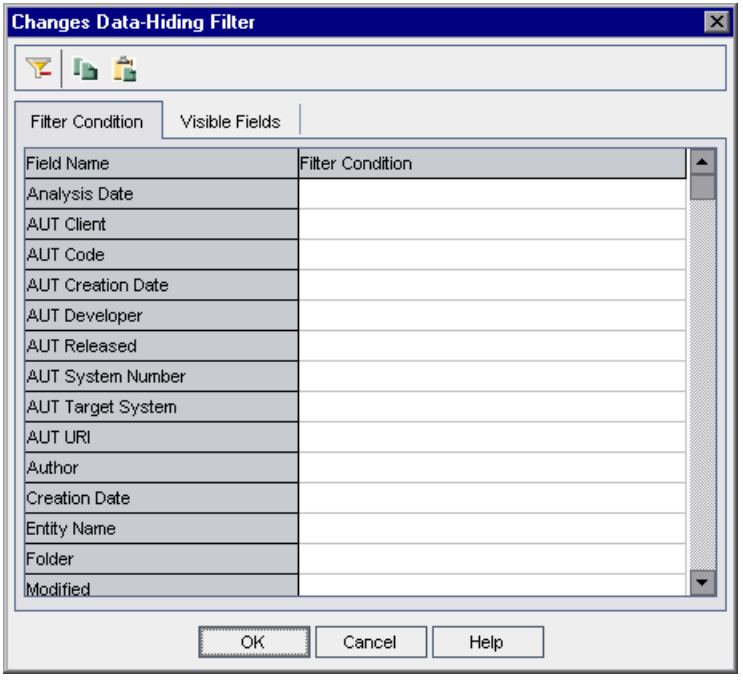
You can also select which fields in the Application Model module the user group can see and which should be hidden. You select these fields in the Application Model Data-Hiding Filter dialog box, in the Visible Fields tab.



You can choose to hide the following fields: **Description**, **Folder**, **Is Active**, **Modified**, and **Type**. For more details on these fields, see “The Application Model Grid” on page 44.

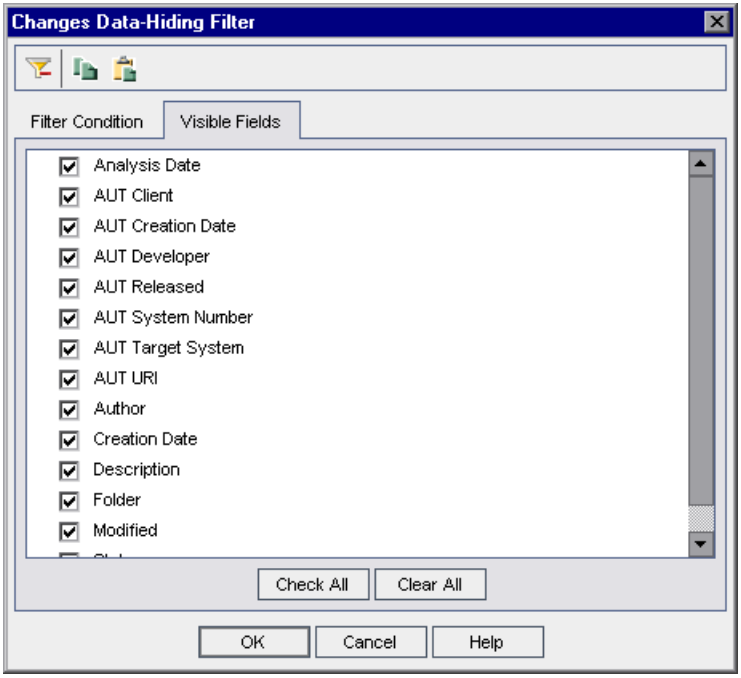
Hiding Data in the Changes Model Module for a User Group

You can set filters for specific fields in the Changes module, limiting the change entities that the user group can view. For more information on hiding data for a user group, refer to the *HP Quality Center Administrator Guide*.



You can filter by the following fields: **Analysis Date**, **AUT Client**, **AUT Code**, **AUT Creation Date**, **AUT Developer**, **AUT Released**, **AUT System Number**, **AUT Target System**, **AUT URI**, **Author**, **Creation Date**, **Entity Name**, **Folder**, **Modified**, and **Status**. For more details on these fields, see "The Application Model Grid" on page 44.

You can also select which fields in the Changes module the user group can see and which should be hidden. You select these fields in the Changes Data-Hiding Filter dialog box, in the Visible Fields tab.



You can choose to hide the following fields: **Analysis Date**, **AUT Client**, **AUT Creation Date**, **AUT Developer**, **AUT Released**, **AUT System Number**, **AUT Target System**, **AUT URI**, **Author**, **Creation Date**, **Description**, **Folder**, **Modified**, and **Status**. For more details on these fields, see "The Application Model Grid" on page 44.

Customizing Project Entities

You can customize the system fields and add new user-defined fields for the Application Model module and the Changes module from the Project Entities page in Quality Center Project Customization. You customize these fields under the **Application Entity** and the **Change Entity** entities. For more information on customizing project entities, refer to the *HP Quality Center Administrator Guide*.

Customizing Module Access

You can customize which user groups can access the Application Model module and the Changes module. You customize access to these modules from the Module Access page in Quality Center Project Customization. For more information on customizing access to Quality Center modules, refer to the *HP Quality Center Administrator Guide*.