

HP Enterprise Integration module for SAP applications

Software Version: 2.50

User Guide

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Software Release Date: May 2009



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http://h20230.www2.hp.com/new_access_levels.jsp

Table of Contents

Welcome to This Guide	7
How This Guide is Organized.....	8
Chapter 1: Setting Up Enterprise Integration	9
Prerequisites for Enterprise Integration	10
The Installation Process.....	10
Installing Enterprise Integration	12
Loading the Enterprise Integration License	25
Enabling the Enterprise Integration Extension.....	25
Upgrading Projects	27
Installing the SAP Application Importer Component	28
Uninstalling Enterprise Integration	29
Chapter 2: Synchronizing Requirements and Blueprints	37
About Synchronizing Requirements and Blueprints	37
Configuring Solution Manager	38
Adding and Editing Business Blueprint Content	39
Importing Business Blueprints to Quality Center.....	39
Assigning Tests to Imported Requirements.....	46
Updating Business Blueprints.....	46
Chapter 3: Synchronizing Defects and Support Messages	51
About Synchronizing Defects and Support Messages	51
Configuring Solution Manager	53
Creating Field Mappings	53
Managing SAP-Related Defects in Quality Center	59
Exchanging Defect Responsibility.....	61
Tracking Defect Synchronization in Quality Center	62

Chapter 4: Working with the Application Model Module.....	65
About Working with the Application Model Module	66
Viewing Application Entities.....	67
Importing the SAP Application Hierarchy	69
Adding Folders and Application Entities Manually	71
Modifying Folders and Application Entities	73
Associating Application Entities with Tests	75
Associating Application Entities with Business Components	79
Chapter 5: Customizing Enterprise Integration	81
About Customizing Enterprise Integration.....	81
Customizing User Group Permissions	82
Hiding Data for a User Group	85
Customizing Project Entities.....	86

Welcome to This Guide

Welcome to HP Enterprise Integration module for SAP solutions, which integrates SAP Solution Manager with Quality Center. Using Enterprise Integration, you can export SAP Solution Manager business blueprints to the Quality Center Requirements module. You can then design and run tests in Quality Center based on these requirements and update Solution Manager with their results.

Enterprise Integration also enables you to synchronize Quality Center defects with support messages that are recorded in the Solution Manager Service Desk. You can control the defects and support messages from either application.

In addition, when you install Enterprise Integration, the Application Model module is installed in Quality Center. You can import the application entity hierarchy from your SAP application to the Application Model module, enabling you to use the Application Model module to model your SAP application within Quality Center. You can then associate entities in the Application Model module with Quality Center tests and business components, enabling you to plan your testing process based on the application entity hierarchy.

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

How This Guide is Organized

This guide contains the following chapters:

Chapter 1 Setting Up Enterprise Integration

Describes how to install and enable Enterprise Integration.

Chapter 2 Synchronizing Requirements and Blueprints

Describes how to import Solution Manager business blueprints into Quality Center and how to update Solution Manager with test results from Quality Center.

Chapter 3 Synchronizing Defects and Support Messages

Describes how to synchronize Quality Center defects with Service Desk support messages and how to transfer control of the defects from one application to the other.

Chapter 4 Working with the Application Model Module

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

Chapter 5 Customizing Enterprise Integration

Describes how to customize permissions and project entities for Enterprise Integration.

1

Setting Up Enterprise Integration

This chapter describes the installation requirements and setup procedures for using Enterprise Integration.

This chapter includes:

- ▶ Prerequisites for Enterprise Integration on page 10
- ▶ The Installation Process on page 10
- ▶ Installing Enterprise Integration on page 12
- ▶ Loading the Enterprise Integration License on page 25
- ▶ Enabling the Enterprise Integration Extension on page 25
- ▶ Upgrading Projects on page 27
- ▶ Installing the SAP Application Importer Component on page 28
- ▶ Uninstalling Enterprise Integration on page 29

Prerequisites for Enterprise Integration

To use Enterprise Integration, you must have the following installed:

- Quality Center 10.00 (on your server machine)
- Quality Center 10.00 Patch 4 or later (on your server machine)
- SAP Solution Manager 7.0 EhP1 or later

The minimum system requirements to run Enterprise Integration are the same as for Quality Center, as described in the *HP Quality Center Installation Guide*. In addition, to import a Solution Manager business blueprint or to synchronize a support message containing content in a particular language, the Quality Center server machine must be installed on an operating system that supports that language.

The Installation Process

This section describes the Enterprise Integration installation process.

To install Enterprise Integration:

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*.

2 Install Quality Center 10.00 Patch 4 on your server machine.

- a** Visit the HP Software Support Web site at <http://www.hp.com/go/hpsoftwaresupport>.
- b** Under **Where do I find**, click **Software patches** and download the patch.
- c** Follow the on-screen installation instructions.

3 Install the Enterprise Integration extension on your server machine.

For more information on installing the Enterprise Integration extension, see “Installing Enterprise Integration” on page 12.

4 Load the Enterprise Integration license.

For more information, see “Loading the Enterprise Integration License” on page 25.

5 Enable the Enterprise Integration extension in Quality Center Site Administration for every project that requires Enterprise Integration.

For more information, see “Enabling the Enterprise Integration Extension” on page 25.

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

The Application Model module is installed automatically when you install Enterprise Integration. 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 Enterprise Integration

To install Enterprise Integration, you download the installation files from the HP Quality Center Add-ins page and run the installation wizard.

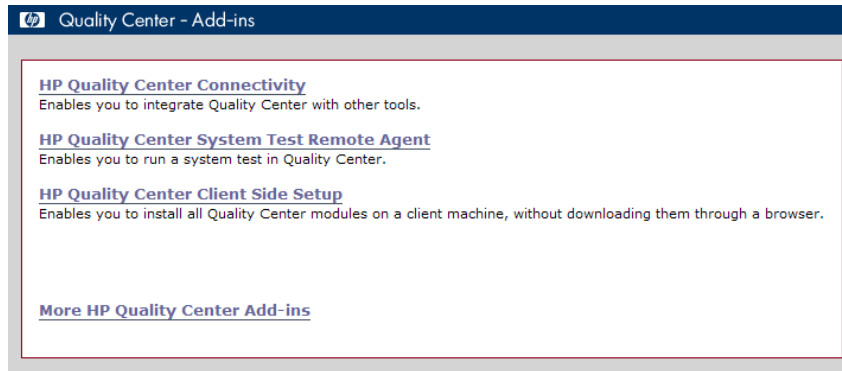
To install Enterprise Integration:

- 1 If you are logged in to Quality Center or Site Administration, select **Help > Add-ins page**. Proceed to step 4 on page 13.
- 2 Open your Web browser and type your HP Quality Center URL: `http://<Quality Center server name>[:<port number>]/qcbn`. The HP Quality Center Options window opens.



- 3 Click the **Add-ins Page** link.

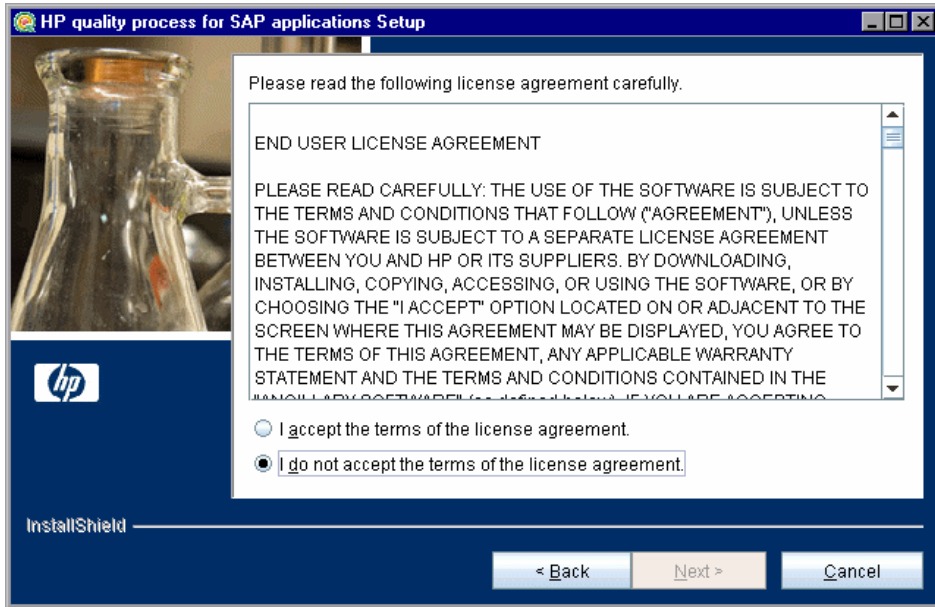
- 4 The HP Quality Center Add-ins page opens.



Click the **More HP Quality Center Add-ins** link. The More HP Quality Center Add-ins page opens.

- 5 Under **Quality Center User Add-ins**, under **Quality Center Extensions for SAP**, click the **HP Enterprise Integration module for SAP applications** link. The HP Enterprise Integration module for SAP applications page opens.
- 6 Right-click the **Download Enterprise Integration** link for your platform and click **Save Target As**. The Save As dialog box opens.
- 7 In the Save As dialog box, select a location on your Quality Center server machine to save the installation file and click **Save**.
- 8 From your Quality Center server machine, run the appropriate **setup** file.
If you are working on Solaris, Linux, AIX, or HP-UX platforms:
 - To install in console mode, use the console option. For example, `linux_setup.bin -console`.
 - To install in UI mode, make sure that the `DISPLAY` environment variable is properly configured on the Quality Center host machine, and that the machine from which you are installing is running an X-server (for example, Exceed).
- 9 If you are installing over a previous version of Enterprise Integration, a message is displayed recommending that you back up any custom configurations before continuing.
- 10 The Welcome dialog box opens. Click **Next**.

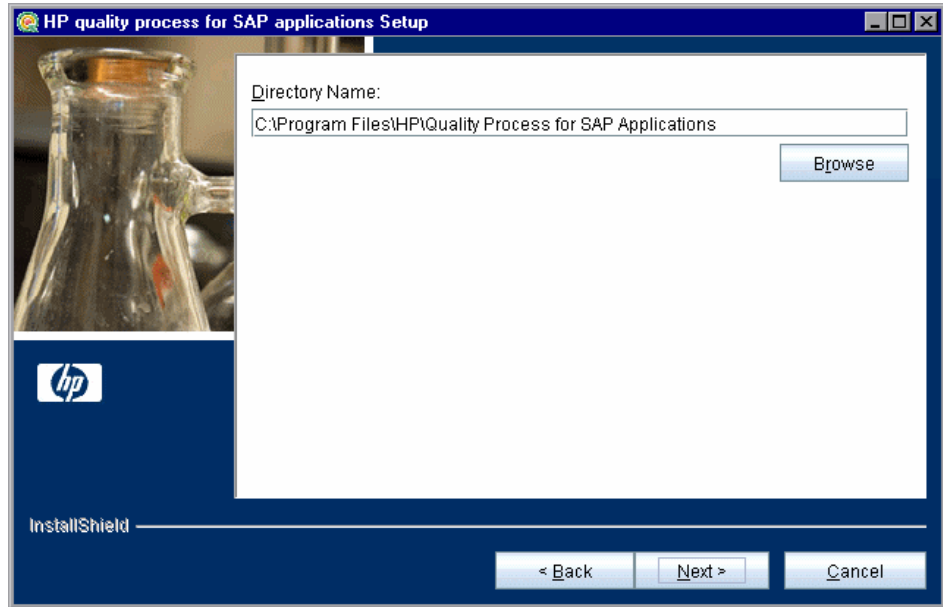
11 The License Agreement dialog box opens.



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

Click **Next**.

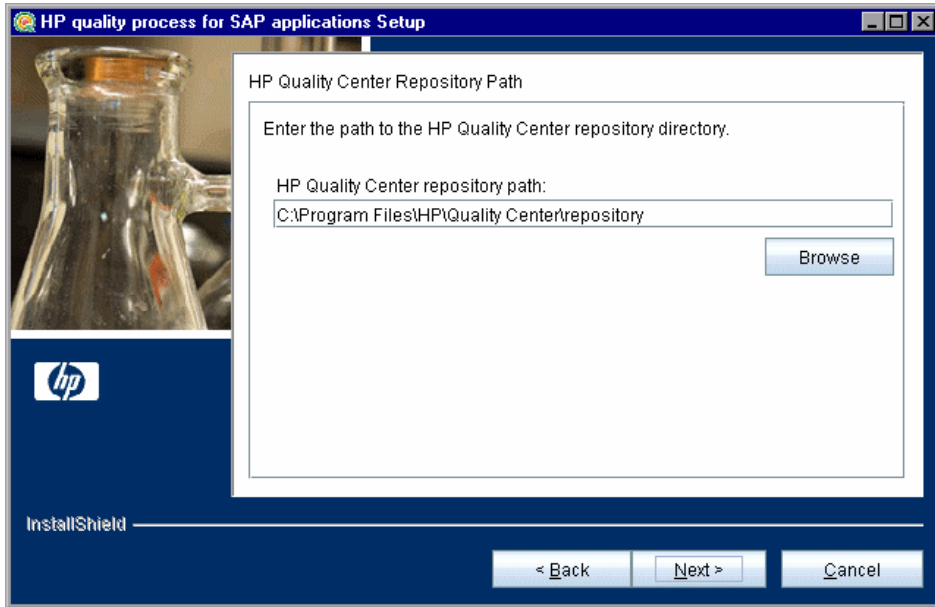
12 The Directory Name dialog box opens.



Accept the proposed folder for the Enterprise Integration installation or browse for an alternate folder.

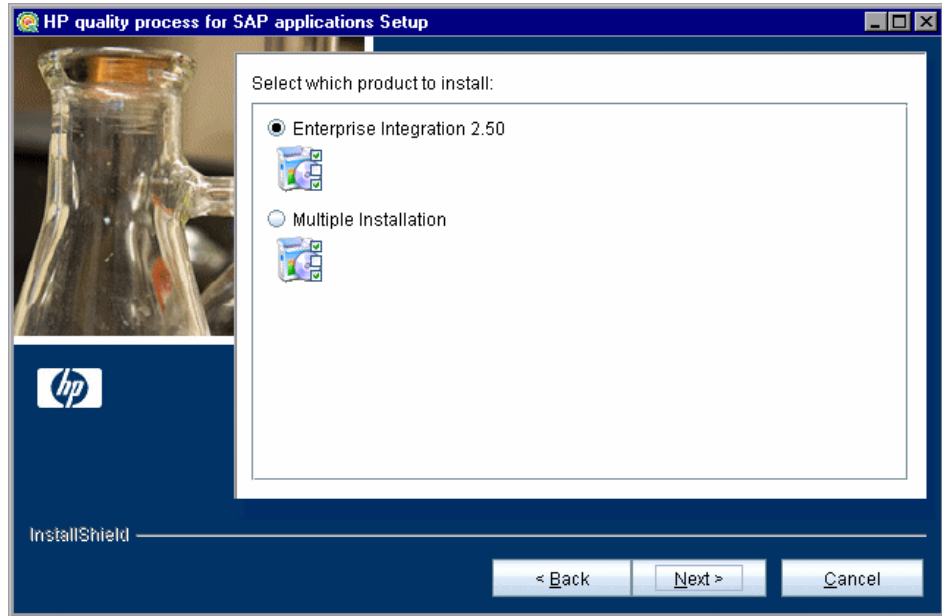
Click **Next**.

13 The HP Quality Center Repository Path dialog box opens.



Type the location of the Quality Center repository.

Click **Next**.

14 The Select which product to install dialog box opens.

Select whether to install only Enterprise Integration or Enterprise Integration together with other Quality Center extensions:

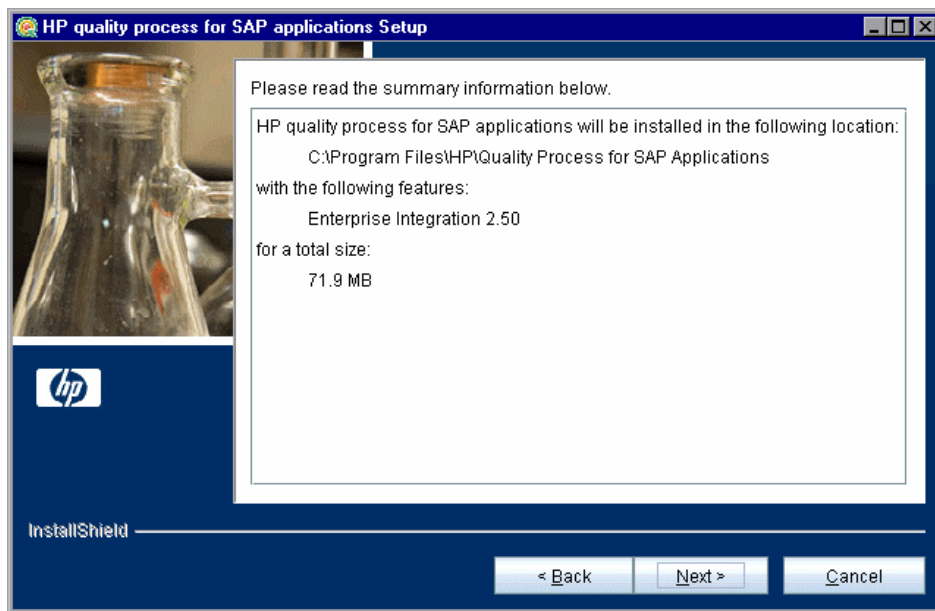
- To install only Enterprise Integration, select **Enterprise Integration 2.50**.
- To install Enterprise Integration together with other Quality Center extensions, select **Multiple Installation**.

Click **Next**.

15 If you chose to install only Enterprise Integration, proceed to step 16.

If you chose **Multiple Installations**, select the extensions that you want to install and click **Next**. For information on other extensions, see the documentation for the relevant extension.

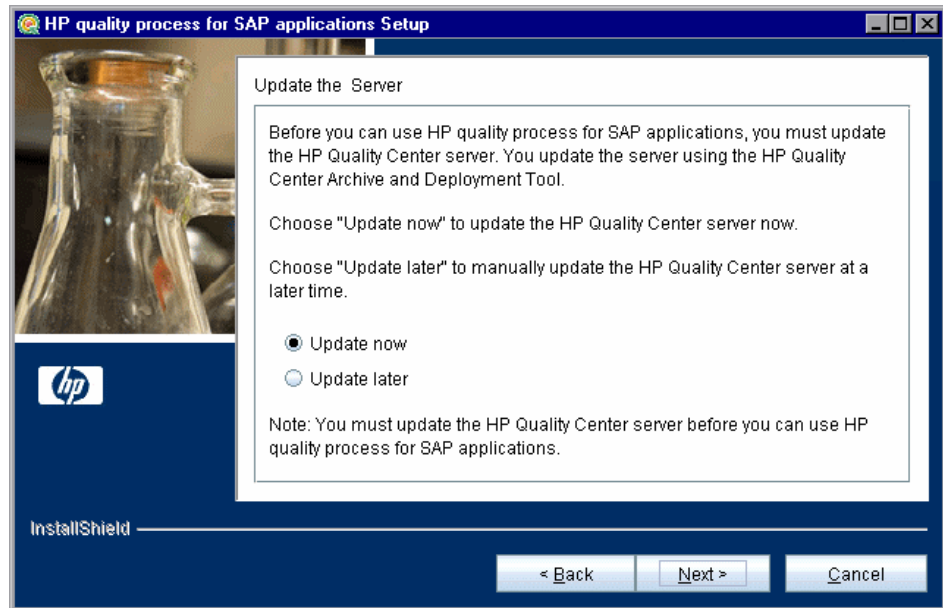
16 The Installation Summary dialog box opens.



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

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

- 17** When the installation process completes, the Update the Server dialog box opens.



When you update the Quality Center server, the Enterprise Integration files are copied into the opened **qcbn.war** archive directory in the **<Quality Center Installation>\application** directory. In addition, the **30EIServer.war** and **40EIServerWebSphere.war** folders are added. 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.** Updates the Quality Center archive files and launches the deployment tool now.
- **Update later.** To manually update the Quality Center server at a later time. You must update the Quality Center server before you can use Enterprise Integration.

Click **Next**.

18 If you selected **Update now**, proceed to step 20.

If you selected **Update later**, click **Next** and then click **Finish** to close the installation setup dialog box.

19 When you are ready to update the application server, run the **deploy.bat** script (or **deploy.sh** for non-Windows systems) from the **<Enterprise Integration 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\Mercury\Quality Center" "C:\Program Files\Mercury\Quality Center\repository"
```

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

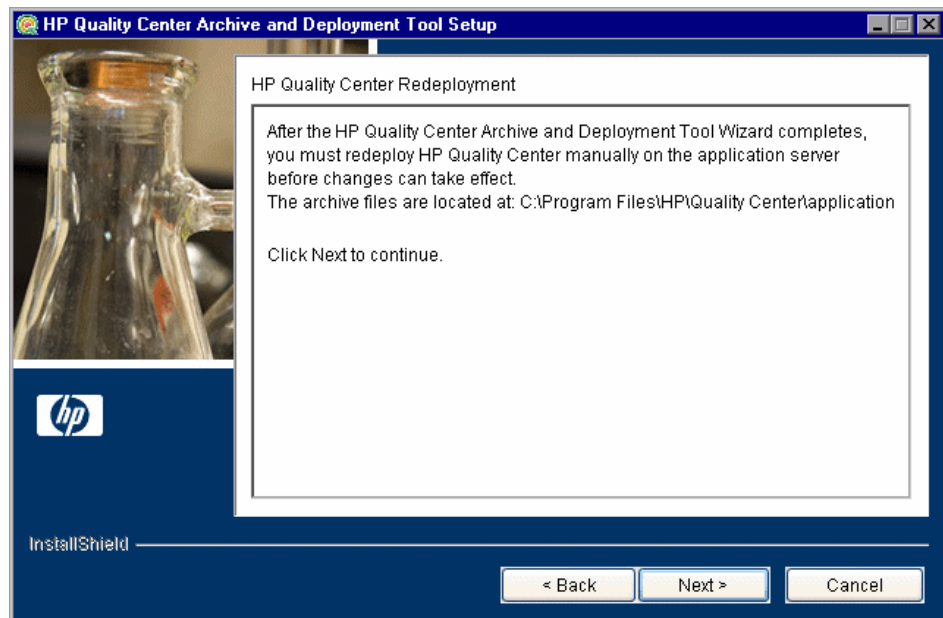


For Enterprise Integration to work with Quality Center, you must create a new archive and redeploy **qcbn.war** on the application server. This enables changes to the archive files to take effect. If Quality Center is deployed on a JBoss server, you must redeploy the **EIServer.war** file. If Quality Center is deployed on a WebSphere server, you must redeploy the **EIServerWebSphere.war** file.

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

- 21** If your application server is JBoss, proceed to step 22.

If your application server is not 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 files is shown in the dialog box.

The updated archive files are stored in different formats, although the content is the same. The files are stored openly in the **20qcbn.war**, **30EIServer.war**, and **40EIServerWebSphere.war** folders, and as closed archives in **qcbn.war**, **EIServer.war**, and **EIServerWebSphere.war**.

If Quality Center is deployed on a WebSphere server, you must perform the following steps:

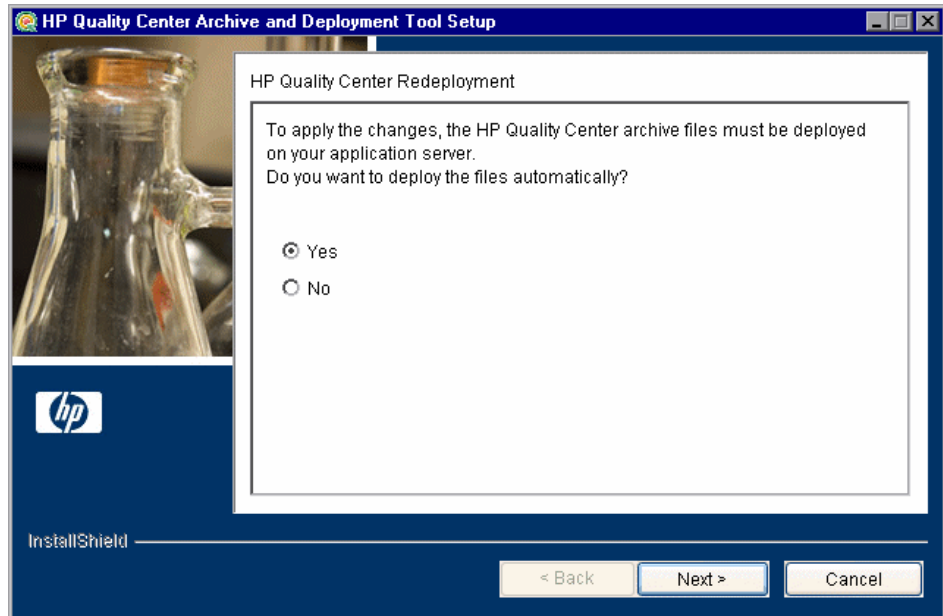
- a** Deploy the **EIServerWebSphere.war** file.
- b** During the deployment, make sure that you deploy web services, and set the context root to **EIServer** (case sensitive).
- c** From the <**Quality Center Installation**>\application directory, copy the **SPICore.jar** file to the <WebSphere installation folder>\lib folder.
- d** Restart the WebSphere server.

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 24.

22 If your application server is not JBoss, proceed to step 24.

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

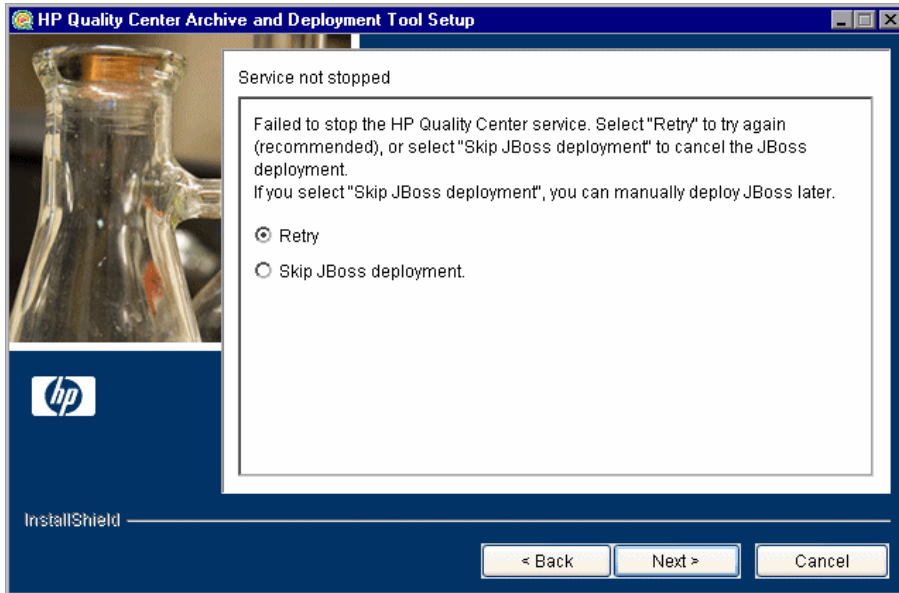


Choose one of the following options:

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

Click **Next**.

- 23** 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.** Tries stopping the JBoss service again.
- **Skip JBoss deployment.** Cancels the deployment. You must manually deploy JBoss later.

Click **Next**.

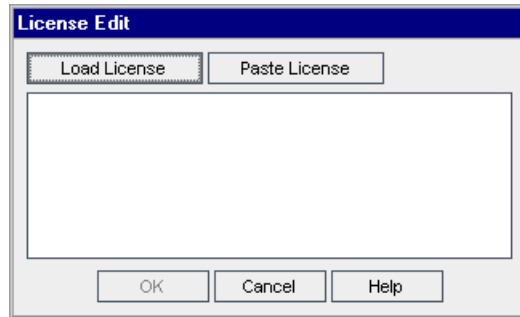
- 24** When the deployment is complete, the Completion dialog box opens. Click **Finish** to close the Quality Center Archive and Deployment Tool.
- 25** Click **Finish** to close the HP Quality Process for SAP Solutions Setup dialog box.
- 26** Restart the Quality Center server.

Loading the Enterprise Integration License

To enable the Enterprise Integration functionality, you must load your Enterprise Integration license.

To load the Enterprise Integration 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 Enterprise Integration 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 Enterprise Integration Extension

After installing Enterprise Integration on your Quality Center server, you must enable the Enterprise Integration extension for a Quality Center project. You should enable Enterprise Integration for the project in which you want to synchronize the SAP business blueprint and support messages. You can enable the extension for either a new project or an existing one.



Note: Projects that were enabled for a previous version of Enterprise Integration (for example, Enterprise Integration 2.10 on Quality Center 9.2), are automatically enabled for Enterprise Integration 2.50.

Before enabling the Enterprise Integration extension, consider the following points:

- ▶ You cannot disable an extension for a project after you enable it.
- ▶ When you enable a project for Enterprise Integration, the Application Model module and associated features are also 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 Enterprise Integration 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.

Project Details Project Users Project Extensions			
			
Extension Name	Version Installed on Site	Version Enabled for Project	Enabled
Application Model	2.5		<input type="checkbox"/>
Enterprise Integration for SAP applicatic	2.5		<input type="checkbox"/>
Change Impact Testing for SAP applical	2.5		<input type="checkbox"/>

- 4** For the **Enterprise Integration for SAP applications** extension, select the **Enabled** check box, and click **Yes** to confirm. The **Enterprise Integration for SAP applications** and **Application Model** extensions are both enabled and a confirmation message displays.

Upgrading Projects

If you worked with Quality Center projects on previous versions of the Enterprise Integration extension, you must upgrade those projects to work with the current version.

The following table describes the process required for working with a previously created project.

From version:	To Quality Center 10.00 with Enterprise Integration 2.50:
Quality Center 9.2 with Enterprise Integration 2.10	<ol style="list-style-type: none"> 1 Open the <code>qc_9.2_exceptions.xml</code> file. This is located by default in the <code>C:\Program Files\HP\Quality Center\repository\sa\DomsInfo\MaintenanceData\dat</code> directory. 2 Between the <code><excpetions></code> tags, add the following lines: <pre style="margin-left: 20px;"><IndexMissing> <object pattern="EI_FM_EX_NAME_IDX" type="extra" /> </IndexMissing></pre> 3 Upgrade your projects using Quality Center Site Administration 10.00.
Quality Center 9.2 with Enterprise Integration 2.0 or 2.0 Patch 1	<p>You can upgrade directly to Quality Center 10.00 with Enterprise Integration 2.50 (see “Quality Center 9.2 with Enterprise Integration 2.10”).</p> <p>However, to make sure all prerequisites and verifications are fulfilled, we recommend that you perform a gradual upgrade:</p> <ol style="list-style-type: none"> 1 Upgrade to Quality Center 9.2 with Enterprise Integration 2.10. 2 Upgrade to Quality Center 10.00 with Enterprise Integration 2.50.

For more information on upgrading projects, refer to the **Upgrading Projects** section in the *HP Quality Center Administrator Guide*.

Installing the SAP Application Importer Component

You must install the SAP Application Importer Component on each Quality Center client machine to which you want to import SAP application entity hierarchies. 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 administrator permissions on the client machine.

To install the SAP Application Importer Component:

- 1** From your Quality Center client machine, log in to a project for which Enterprise Integration 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 Enterprise Integration

This section describes how to uninstall Enterprise Integration from your server machine.

This section includes the following topics:

- “Uninstalling Enterprise Integration from Windows” on page 29
- “Uninstalling Enterprise Integration from Non-Windows Systems” on page 36

Uninstalling Enterprise Integration from Windows

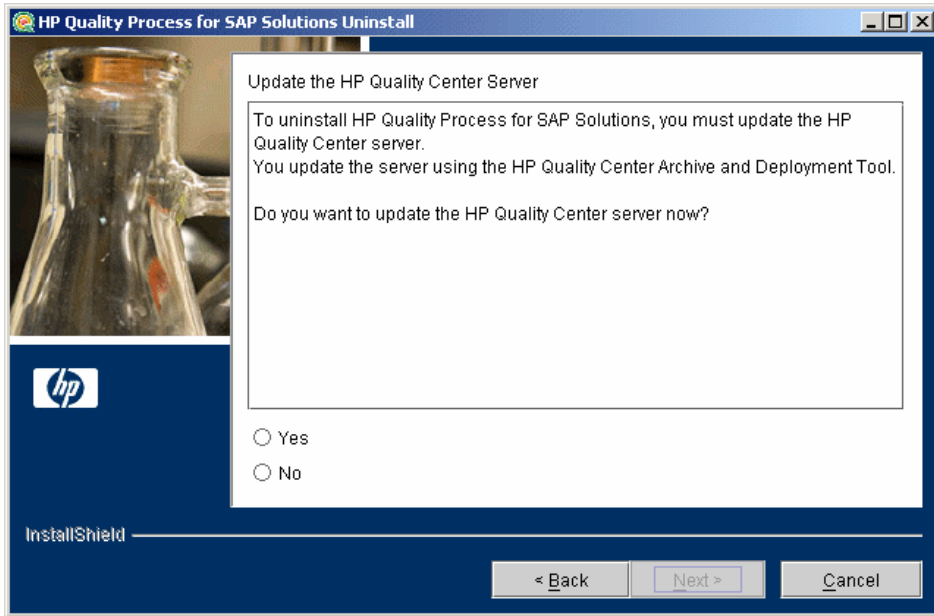
This section describes how to uninstall Enterprise Integration from Windows.

To uninstall Enterprise Integration 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 Enterprise Integration 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 HP Quality Center 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.

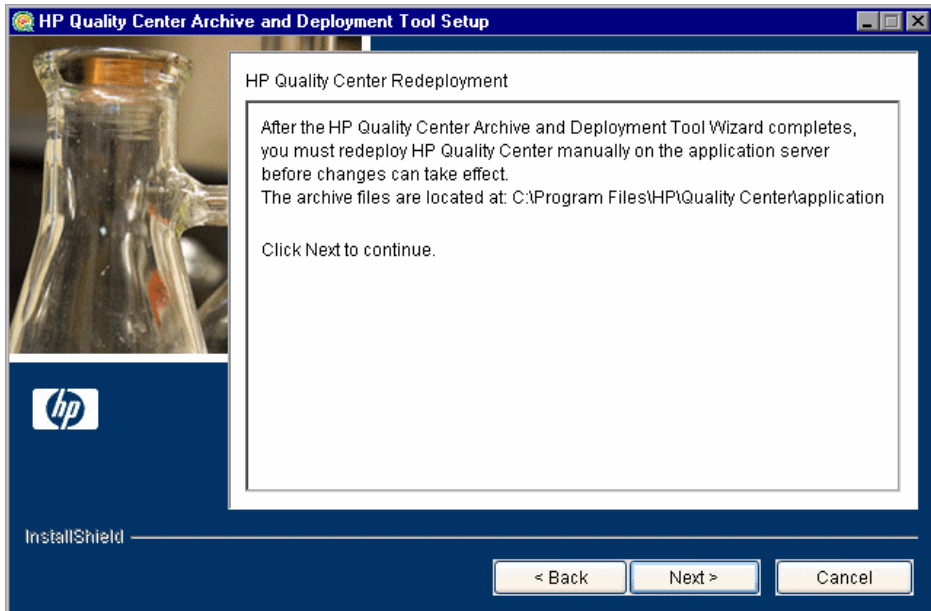


To uninstall Enterprise Integration, you need to create a new archive and redeploy **qcbn.war** on the application server. This enables changes to the file to take effect.

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 **<Enterprise Integration 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:

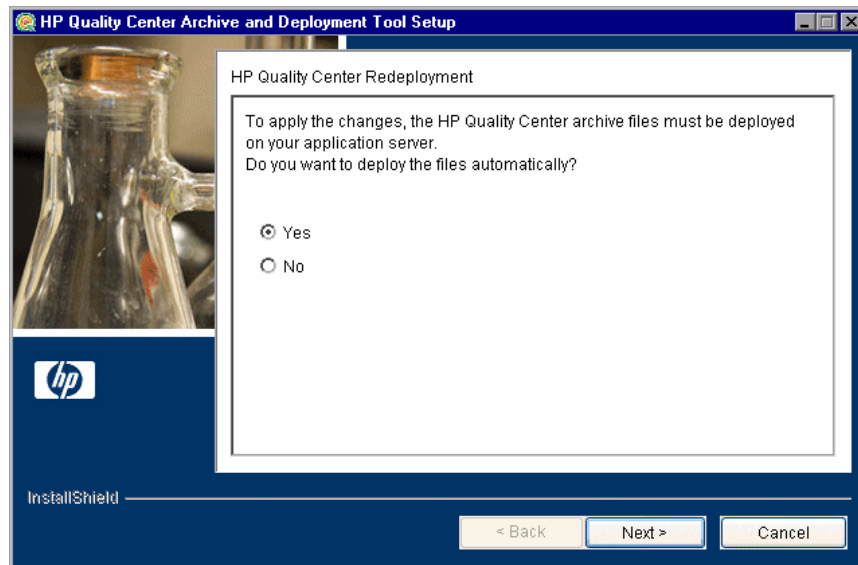
```
undeploy "C:\Program Files\HP\Quality Center" "C:\Program Files\HP\Quality Center\repository"
```

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.

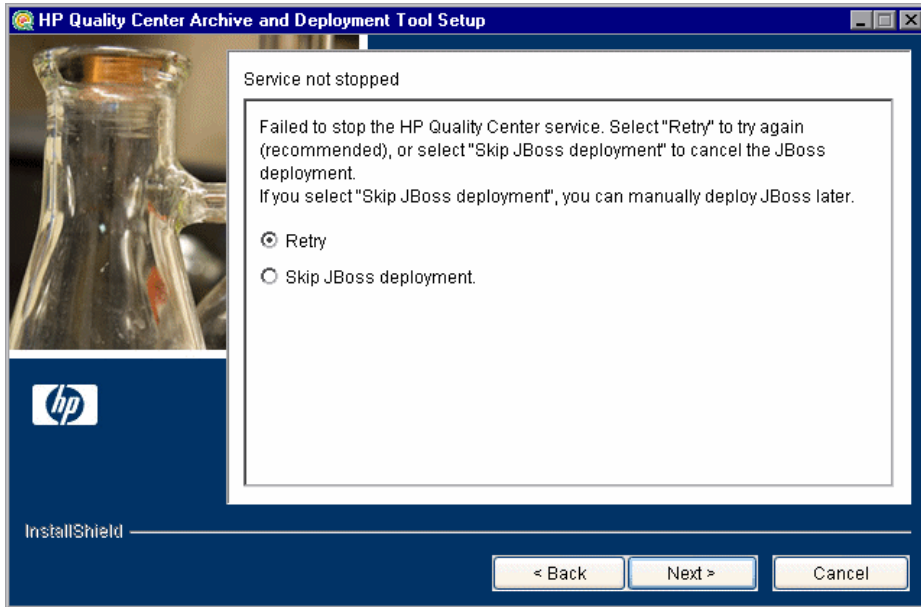


Choose one of the following options:

- **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.



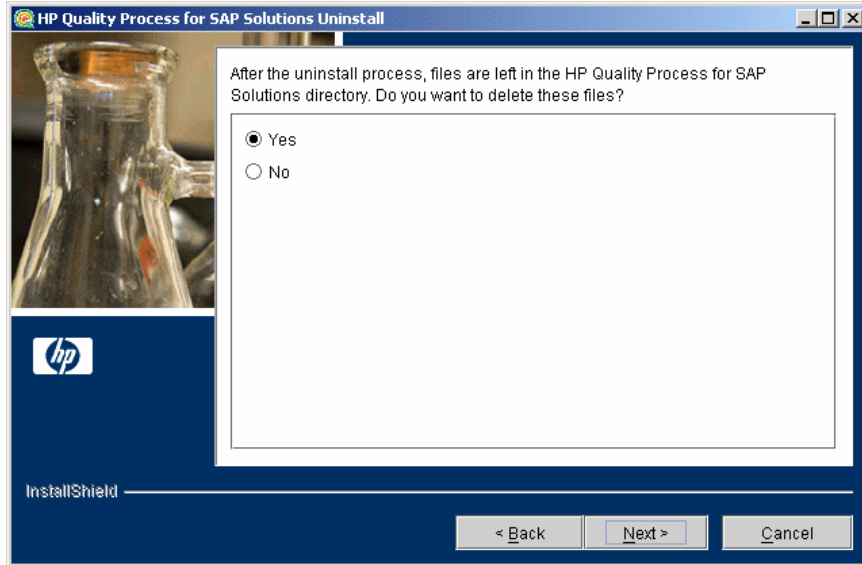
Choose one of the following options:

- **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 Enterprise Integration directory.

Click **Next**.

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

Uninstalling Enterprise Integration from Non-Windows Systems

This section describes how to uninstall Enterprise Integration from non-Windows systems, such as Linux or Solaris.

To uninstall Enterprise Integration from non-Windows systems:

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

To update the archives and undeploy them manually, run the **undeploy.sh** script from the **<Enterprise Integration 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]/[Enterprise Integration_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

Synchronizing Requirements and Blueprints

You import Solution Manager blueprints as Quality Center requirements. After you test the requirements in Quality Center, you synchronize the test results with Solution Manager.

This chapter includes:

- ▶ About Synchronizing Requirements and Blueprints on page 37
- ▶ Configuring Solution Manager on page 38
- ▶ Adding and Editing Business Blueprint Content on page 39
- ▶ Importing Business Blueprints to Quality Center on page 39
- ▶ Assigning Tests to Imported Requirements on page 46
- ▶ Updating Business Blueprints on page 46

About Synchronizing Requirements and Blueprints

Before you can perform requirement and blueprint synchronization, you must first configure your Quality Center project to work with Enterprise Integration. For more information, see “Enabling the Enterprise Integration Extension” on page 25.

After you add content to your Solution Manager business blueprint, you import the business blueprint into the Quality Center Requirements module. You can associate the imported requirements with tests and run the tests in Quality Center, and then update the tests and their results in Solution Manager.

Synchronizing requirements and blueprints involves the following stages:

- 1 Create a Solution Manager project and associate it with your Quality Center project. Optionally, you can map Solution Manager keywords with user-defined fields in Quality Center. For more information, see “Configuring Solution Manager” on page 38.
- 2 Create a business blueprint in your Solution Manager project. For more information, see “Adding and Editing Business Blueprint Content” on page 39.
- 3 Import your business blueprint to your Quality Center project. For more information, see “Importing Business Blueprints to Quality Center” on page 39.
- 4 Assign and run tests in Quality Center for the imported requirements. For more information, see “Assigning Tests to Imported Requirements” on page 46.
- 5 Update your business blueprint with the test results. For more information, see “Updating Business Blueprints” on page 46.

Configuring Solution Manager

You create a project in Solution Manager and associate it with your Quality Center project. You can then map keywords in Solution Manager with user-defined fields in Quality Center. You can associate each Solution Manager project with one Quality Center project only.

To configure Solution Manager:

- 1 Create a Solution Manager project in the **SOLAR_PROJECT_ADMIN** transaction. For more information on creating projects in Solution Manager, refer to the SAP Application Help.
- 2 In the **SOLAR_PROJECT_ADMIN** transaction, open your Solution Manager project and choose **Edit > Connection to HP Quality Center**.

Enter your Quality Center login details.

- 3 Map Solution Manager keywords with user-defined fields in your Quality Center project. For more information, see “Mapping Keywords” on page 39.

Mapping Keywords

Before importing the blueprint to a Quality Center project, you can map Solution Manager keywords to user-defined fields in Quality Center. You first create user-defined fields in the Quality Center project. Keywords can be mapped only to user-defined fields of type String or Memo. For more information on creating user-defined fields, refer to the *HP Quality Center Administrator Guide*.

You can map more than one keyword to a single user-defined field. The total length of all keywords mapped to a specific field cannot exceed the field's size.

Keywords that are not mapped to a specific user-defined field are mapped to the default keywords field in Quality Center, **SM_KEYWORDS**. These are separated by semicolons (;). For more information on mapping Solution Manager keywords, refer to the SAP Application Help.

Adding and Editing Business Blueprint Content

You add blueprint content as you would to a regular business blueprint, using the **SOLAR01** transaction. You must also add business requirement documents or testing objects in the **Transfer to SAP QC by HP** tab to the blueprint elements you want to export to Quality Center. You can also use the **SOLAR02** transaction to manage and export business blueprints.

Only blueprint elements that contain requirement documents or testing objects are exported to Quality Center. For more information on adding and editing business blueprint content, refer to the SAP Application Help.

Importing Business Blueprints to Quality Center

After you have added content to your business blueprint, you import it to the Quality Center Requirements module. The blueprint data is imported to Quality Center as requirements.

Alternatively, you can send the business blueprint to Quality Center from Solution Manager.

This section includes the following topics:

- Guidelines for Importing Business Blueprints to Quality Center on page 40
- Business Blueprint Import Example on page 42
- Importing Business Blueprints on page 43
- Sending Business Blueprints from Solution Manager on page 45

Guidelines for Importing Business Blueprints to Quality Center

When you import the business blueprint for an SAP Solution Manager project, elements in the blueprint are mapped to requirements and fields in the Quality Center Requirements module, according to the following rules:

- The blueprint structure is mapped to the Quality Center requirements hierarchy. The blueprint title is mapped to a requirement of type **Folder** created under the requirement **Solution Manager Blueprints**, itself created under the root requirement. The name of the requirement is the same as the title of the root element. All child elements of the root element are mapped as child requirements of the **Folder** requirement.
- Business requirement documents are mapped as Quality Center requirements of type **Business**.
- Transactions and other testing objects are mapped as requirements of type **Testing**.
- The test object ID of a blueprint element is mapped to the **Name** field of the requirement representing the element.

- Other blueprint element attributes and unmapped administrative keywords are mapped to the following Quality Center requirement fields described in the table below. These fields are created automatically when you enable the Enterprise Integration extension and are read-only.

Fields	Description
SM Keywords	A list of the keywords associated with the business blueprint element, separated by semicolons (;). Only keywords that are not mapped to user-defined fields in Quality Center are included in this field. For more information, see “Mapping Keywords” on page 39.
SM Logical Component	The name of the Solution Manager logical component. This field has a value only for requirements of type Business representing Solution Manager requirements.
SM Object Code	The Solution Manager object code. This field has a value only for requirements of type Testing representing Solution Manager requirements.
SM Object Type	The type of Solution Manager object. This field has a value only for requirements of type Testing representing Solution Manager requirements.

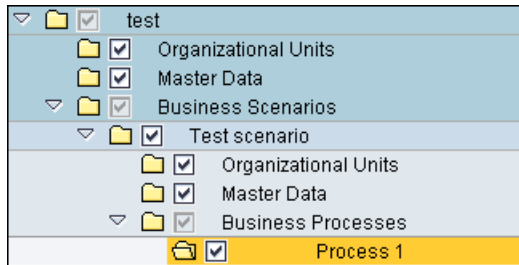
When you import a business blueprint that has already been imported, Enterprise Integration does not create new requirements in Quality Center. Instead, the existing requirements in Quality Center are updated. Note the following:

- Any changes that you made to the structure previously imported from Solution Manager are overwritten. For example, suppose you exported a business blueprint structure to Quality Center requirements and subsequently renamed and moved some of these requirements. When you import the business blueprint again, the requirements’ original names and locations are restored. To prevent data loss, it is recommended that you do not make changes to data imported from Solution Manager.
- Any changes you made to requirement fields that were not exported from Solution Manager are preserved, in addition to associations with tests or child requirements. For example, if you change the **Priority** field for a requirement, the changes you made are not overwritten.

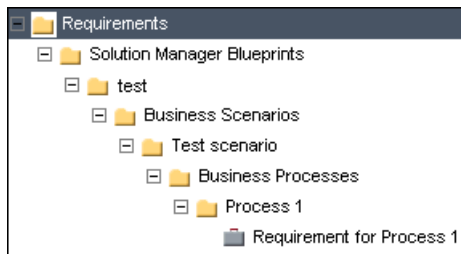
- ▶ If you import a business blueprint element to Quality Center and then delete the element in Solution Manager, when you import the business blueprint again, the requirement corresponding to the element is moved to the **Solution Manager Blueprints trash** folder. Any data under the requirement is also moved to this folder.
- ▶ **Version Control:** In version control enabled projects, when you import a blueprint, if the corresponding requirement is checked out, the requirement is not updated.

Business Blueprint Import Example

Consider the business blueprint structure below. Suppose the only requirement in the structure belongs to the process Process 1, and is named Requirement for Process 1.



After you import the blueprint structure to Quality Center, the requirements tree looks as follows:



The blueprint structure root element **test** is exported as a child requirement of the requirement **Solution Manager Blueprints**. The elements **Business Scenarios**, **Test scenario**, **Business Processes**, and **Process 1** are exported as child requirements of the requirement **test**. All these requirements are of type **Folder**. The Solution Manager business requirement document **Requirement for Process 1** is exported as a Quality Center requirement of the same name and of type **Business**. Note that the elements **Organizational Units** and **Master Data** are not exported as they do not contain any information to send.

Importing Business Blueprints

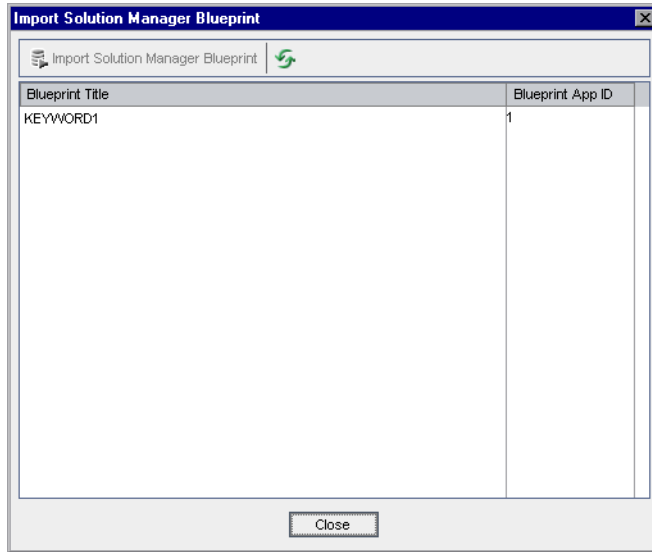
You import business blueprints from Solution Manager to Quality Center.

Note: Only blueprint structure elements containing at least one business requirement document or testing object can be imported from Solution Manager.

To import business blueprints:

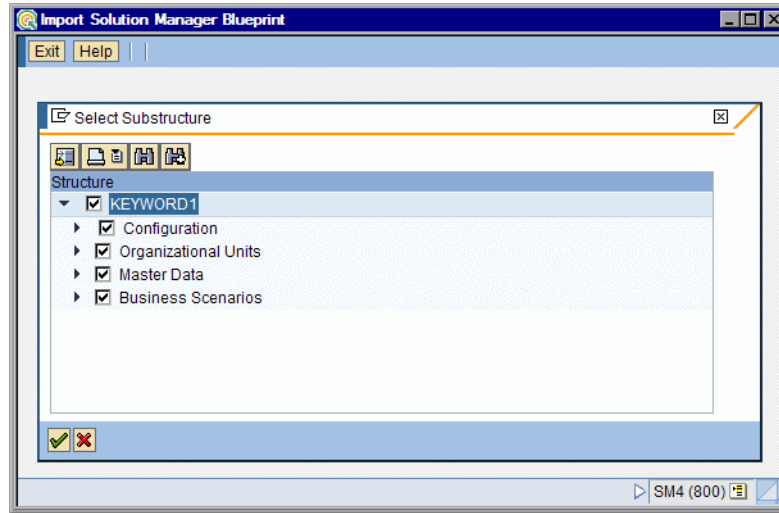
- 1 Connect to Quality Center with a user that has the appropriate permissions to work with Enterprise Integration. For more information on setting Quality Center permissions for Enterprise Integration, see “Customizing User Group Permissions for Integration with Solution Manager” on page 84.

- 2 In the upper right side of the Quality Center window, click the **Tools** button and choose **SAP Tools > Import Solution Manager Blueprint**. The Import Solution Manager Blueprint dialog box opens.



- 3 Select a blueprint from the list and click **Import Solution Manager Blueprint**. If you are prompted, enter your SAP login and password.

The SAP Select Substructure dialog box opens, displaying the blueprint structure.



- 4 Select the blueprint nodes to be imported.

To ensure that all nodes are selected, clear and select the root node.



- 5 Click the **Continue** button.
- 6 Click the **End Transaction** button.

Sending Business Blueprints from Solution Manager

You can export the blueprint content from Solution Manager by choosing **Business Blueprint > Send data to Quality Center** in the **SOLAR01** or **SOLAR02** transaction. For more information, refer to the SAP Application Help.

Assigning Tests to Imported Requirements

You can design and run tests to cover each of the requirements imported to Quality Center. You can assign tests to any requirement type imported to Quality Center, including the **Folder** type.

To assign tests to imported requirements:

- 1** In the Quality Center Test Plan module, design tests and create coverage between them and the imported requirements.
- 2** In the Quality Center Test Lab module, create test set folders and test sets.
- 3** Create test instances of the tests you created and assign them to the tests.
- 4** Run the test instances.

For more information on designing and running tests, see the *HP Quality Center User Guide*.

Updating Business Blueprints

After you run the test instances, you can export the results to Solution Manager. For each node in Solution Manager, you can view the associated test instances in Quality Center, and their status.

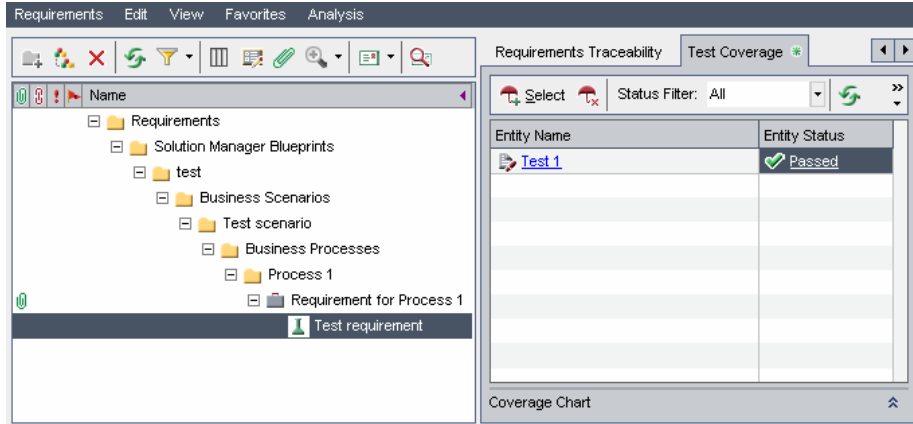
When you update a business blueprint, Quality Center sends information about test runs associated with nodes that represent business blueprint elements.

This section includes the following topics:

- “Blueprint Update Example” on page 47
- “Exporting Test Results to Solution Manager Blueprints” on page 48

Blueprint Update Example

Consider the business blueprint imported in “Business Blueprint Import Example” on page 42. Suppose you create a requirement of type **Testing** to test the business requirement document of type **Business Requirement** for Process 1. You create a test Test 1 to test this requirement and assign it to the requirement. You then assign an instance of this test to a test set and run the test, which passes successfully.



When you update the business blueprint, the test associated with the requirement is displayed in Solution Manager. You can see the status of the test in the **Test State** column.

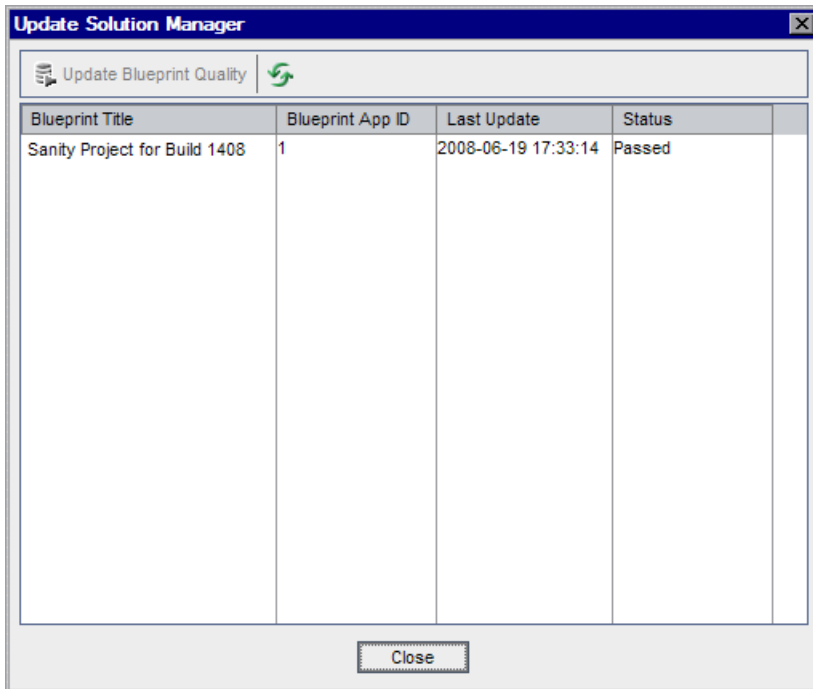
Project Structure	Document Name	Testcase Name	TestSet	Test Instance	Test State
test [OCS]					
Business Scenarios					
Test scenario					
Business Processes					
Process 1					
	Requirement for Process 1	Test 1	Test set	1	Passed

Exporting Test Results to Solution Manager Blueprints

You export test results from Quality Center to your Solution Manager blueprint.

To export test results to a Solution Manager blueprint:

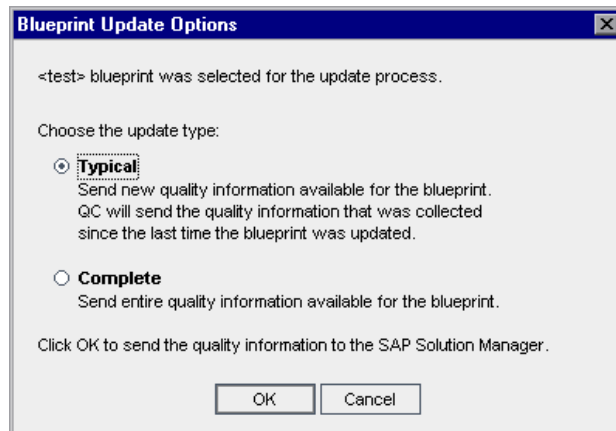
- 1 Click the **Tools** button located on the upper right side of the Quality Center window and choose **SAP Tools > Update Solution Manager**. The Update Solution Manager dialog box opens.



The Update Solution Manager dialog box displays the business blueprints previously exported to Quality Center. For each business blueprint, the following columns are displayed:

Fields	Description
Blueprint Title	The title of the business blueprint.
Blueprint App ID	The SAP application ID of the business blueprint.
Last Update	The time the business blueprint was last successfully updated from Quality Center.
Status	<p>The Solution Manager update status. Can have one of the following values:</p> <ul style="list-style-type: none"> ▶ New. The business blueprint was not previously updated from Quality Center. ▶ In Progress. Enterprise Integration is currently updating the business blueprint. ▶ No Run. No changes were made in the previous business blueprint update. ▶ Passed. The business blueprint was successfully updated with changes. ▶ Failed. Errors occurred during the previous business blueprint update.

- 2 Select the blueprint you want to update and click the **Update Blueprint Quality** button. The Blueprint Update Options dialog box opens.



- 3 Select one of the following options for updating the business blueprint:
 - **Typical.** Sends to Solution Manager only information related to the blueprint that you are updating and that was added or updated since the previous successful update.
 - **Complete.** Sends to Solution Manager all the test coverage and test execution information related to the blueprint you are updating. If you choose this option, updating the business blueprint may take some time.
- 4 Click **OK**. Enterprise Integration sends the test results to Solution Manager according to the option you specified.

You can view this information from the **SOLAR_EVAL** transaction under **Analysis > Projects > Testing with SAP Quality Center by HP > Test Results for Business Test Requirements**. Alternatively, you can view the information for a specific requirement from the **SOLAR01** transaction by browsing to the **QC Transfer** tab, choosing the object that was tested and clicking the **Test Results** tab of the properties window. For more information, refer to the SAP Application Help.

3

Synchronizing Defects and Support Messages

You can synchronize support messages in the Solution Manager Service Desk with defects in Quality Center.

This chapter includes:

- ▶ About Synchronizing Defects and Support Messages on page 51
- ▶ Configuring Solution Manager on page 53
- ▶ Creating Field Mappings on page 53
- ▶ Managing SAP-Related Defects in Quality Center on page 59
- ▶ Exchanging Defect Responsibility on page 61
- ▶ Tracking Defect Synchronization in Quality Center on page 62

About Synchronizing Defects and Support Messages

If you create a new SAP-related defect in Quality Center, a corresponding support message is automatically added in Service Desk. If a new support message is created in Service Desk, a corresponding defect is automatically added in Quality Center. Any changes you make to a record in one of the systems, is automatically updated in the other system.

To work with defect synchronization, you must log in to Quality Center with a user that has the appropriate permissions to work with Enterprise Integration. For more information on setting Quality Center permissions for Enterprise Integration, see “Customizing User Group Permissions for Integration with Solution Manager” on page 84.

Synchronizing Quality Center defects and Service Desk support messages includes the following stages:

- 1** Create a Solution Manager project and associate it with your Quality Center project. You do not need to perform this stage if you have already associated your Solution Manager project for requirement and blueprint integration. For more information, see “Configuring Solution Manager” on page 53.
- 2** Define how fields are mapped between Quality Center defects and Service Desk support messages. You must also map specific values of the corresponding fields. For more information, see “Creating Field Mappings” on page 53.
- 3** Create and edit SAP-related defects in Quality Center. For more information, see “Managing SAP-Related Defects in Quality Center” on page 59.
- 4** At any given time, only one of the systems can be responsible for a defect or its corresponding support message. You can transfer responsibility for a defect from Quality Center to Service Desk, or request responsibility from Service Desk. For more information, see “Exchanging Defect Responsibility” on page 61.
- 5** Track the progress of synchronization of Quality Center defects with Service Desk support messages. You can view defects that are pending synchronization, and prompt the synchronization of defects that failed to synchronize. For more information, see “Tracking Defect Synchronization in Quality Center” on page 62.

Configuring Solution Manager

You create a project in Solution Manager and associate it with your Quality Center project. You can associate each Solution Manager project with one Quality Center project only.

To configure Solution Manager:

- 1** Create a Solution Manager project in the **SOLAR_PROJECT_ADMIN** transaction. For more information on creating projects in Solution Manager, refer to the SAP Application Help.
- 2** In the **SOLAR_PROJECT_ADMIN** transaction, open your Solution Manager project and choose **Edit > Connection to HP Quality Center**.

Enter your Quality Center login details.

Creating Field Mappings

To enable synchronization of Quality Center defects and Service Desk support messages, you must map fields in Quality Center defects with their corresponding fields in Service Desk support messages.

If the support message fields in your SAP application were changed from the default definitions, you must update these definitions in Quality Center.

Mapping fields includes two stages: mapping the field labels and mapping the field values. For example, you can map the Quality Center field **Severity** to the Service Desk field **Priority**. You can then map value 1 of **Severity** to value 5 of **Priority**.

This section includes the following topics:

- Updating Support Message Field Definitions on page 54
- Mapping Field Labels on page 55
- Mapping Field Values on page 57

Updating Support Message Field Definitions

If the support message fields in your SAP application were changed from their default definitions, you need to update these definitions in Quality Center. If the fields in your SAP application were not changed from their default definitions, you do not need to take any action.

The support message field definitions are stored on your server machine in an **xml** file. The file contains metadata for the support message fields. For example, the following illustration shows the metadata stored for the support message **Priority** field:

```
<Field>
  <Name>SAPPriority</Name>
  <Label>Priority</Label>
  <IsRequired>Y</IsRequired>
  <Type>Char</Type>
  <Size>80</Size>
</Field>
```

The file is divided into two sections: **regular fields** and **fixed fields**. Only regular fields are displayed in the mapping grids, and you can map them to any Quality Center fields. Fixed fields are automatically mapped to Quality Center fields, as defined in the **MapTo** tag.

To update support message field definitions:

- 1 On your server machine, open Command Prompt, and navigate to the `<QC_Installation_Path>\application\30EIServer.war\WEB-INF\lib` folder. By default, the Quality Center installation path is `[drive]:\Program Files\Mercury\Quality Center`.
- 2 Open the **EIServer.jar** file.
- 3 In the list of compressed files, open the **SMFieldsMetaData.xml** file for editing.
- 4 Edit the metadata according to the changes in your SAP application.
- 5 Save and close the file.
- 6 Redeploy the Quality Center archive files. In the Installing Enterprise Integration procedure, follow steps 19 to 24.

Mapping Field Labels

You map fields in Quality Center defects with corresponding fields in Service Desk support messages. You must map all required fields. You can also map selected non-required fields.

Important: The number of required fields in Quality Center must be identical to the number of required fields in SAP. For information on defining required fields in Quality Center, refer to the *HP Quality Center Administrator Guide*.

To map a field:

- 1 In Quality Center, select **Tools > SAP Tools > Field Mapping**. The Field Mapping dialog box opens.

Field Mapping

Application: labm1sap20; SMZ; 800 [Reset]

Required Fields

Status	QC Field Label	QC Field Data, Type	SAP Field Label
—	Detected By	Free Value, char (60)	
—	Severity	Values List, char (70)	

Value Mapping...

SAP Field Label	SAP Field Name	SAP Field Data, Type
Priority	SAPPriority	Values List, Char (80)
Reported by	SAPReporterId	Free Value, Char (32)

Non-Required Fields

Status	QC Field Label	QC Field Data, Type	SAP Field Label
—	Actual Fix Time	Free Value, number (5)	
—	Assigned To	Free Value, char (60)	
—	Closed in Version	Values List, char (70)	
—	Detected in Cycle	Values List, char (0)	
—	Detected in Release	Values List, char (0)	
—	Detected in Version	Values List, char (70)	
—	Estimated Fix Time	Free Value, number (5)	
—	Planned Closing Version	Values List, char (70)	

Value Mapping...

SAP Field Label	SAP Field Name	SAP Field Data, Type
End customer requirement	SAPRequestedEnd	Free Value, Date (0)
OperatingSystem	SAPOperatingSystem	Free Value, Char (255)
SoftwareComponentPatch	SAPSoftwareComponentPatch	Free Value, Char (255)
Start customer requirement	SAPRequestedBegin	Free Value, Date (0)
FrontEnd	SAPFrontend	Free Value, Char (255)
SoftwareComponentRelease	SAPSoftwareComponentRelease	Free Value, Char (255)
Subject	SAPSubject	Values List, Char (255)
Database	SAPDatabase	Free Value, Char (255)

Apply "Append Only" mode to defects comments

Legend: ✓ Valid Mapping — Not Mapped ✗ Value Mapping is incomplete

OK Cancel Apply

- 2 In the **Application** box, select the appropriate value.
- 3 In the **Required Fields** section, map a required Quality Center field to a required Service Desk field.




Choose one of the following mapping options:



- ▶ Select a non-mapped Quality Center field in the left grid that you want to map. Potential SAP fields for mapping are displayed in the right grid. Select a corresponding field in the right grid, and click the **Map Field** button.
- ▶ Select an SAP field in the right grid. Potential Quality Center fields for mapping are displayed in the left grid. Drag a label from the right grid to its corresponding label in the left grid.

Tip: For all the Quality Center fields to reappear, click anywhere outside the grids.

The **Mapping Status** column can contain the following values:

Mapping Status	Name	Description
	Not Mapped	The Quality Center field is not mapped to a Service Desk field.
	Value Mapping is incomplete	The Quality Center field is mapped to a Service Desk field, but the field values mapping is not completed.
	Valid Mapping	Both the Quality Center field and its values are mapped respectively to a Service Desk field and its values.

If the mapped Quality Center field requires its values from a list, its mapping status changes to **Values Mapping not completed**. Otherwise, its mapping status changes to **Valid Mapping**.

Repeat this step to map all the required Quality Center fields.

- 4** In the **Non-Required Fields** section, repeat step 3 to map non-required Quality Center fields.



- 5** To undo the mapping of a field, drag the **SAP Field Label** from the left grid to the right grid. The **Mapping Status** changes to **Not Mapped**. Alternatively, select a field in the left grid, and click the **Remove Mapping** button.
- 6** To map the values of the mapped fields, see “Mapping Field Values” on page 57.
- 7** At the bottom of the dialog box, select **Apply "Append Only" mode to defects comments**. This confirms that, when working with Enterprise Integration, you can only add comments to defects, but you cannot edit existing comments. If you do not select this option, the synchronization will not succeed.
- 8** To save the current mappings and continue to work, click **Apply**.
- 9** To reset all field mappings, click the **Reset** button. After you confirm the action, all the mapped SAP fields return to the right grid.
- 10** To close the dialog box, click **OK**. The current mappings are saved and the dialog box closes.

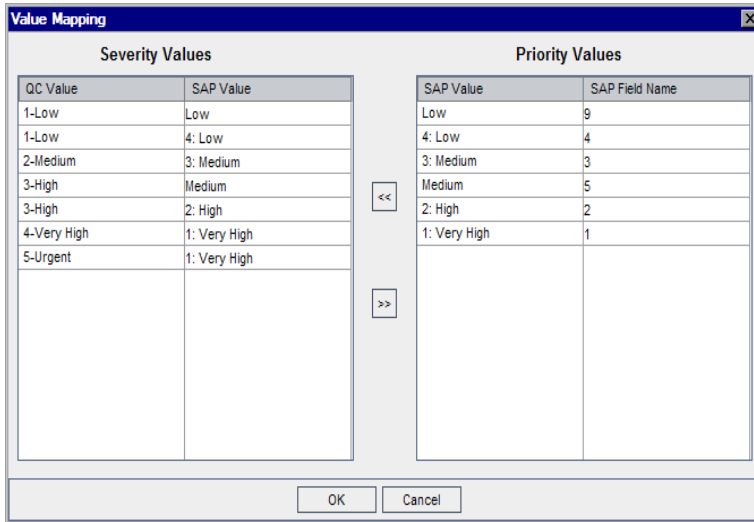
Mapping Field Values

For a specific mapped Quality Center field, you map the field values with the values of the corresponding Service Desk field.

To map a field value:

- 1** In Quality Center, select **Tools > SAP Tools > Field Mapping**. The Field Mapping dialog box opens.
- 2** In the **Application** box, select the appropriate value.
- 3** Select a field in the left grid with the **Value Mapping is incomplete** mapping status.

- 4 Click the **Value Mapping** button. The Value Mapping dialog box opens.



The left grid displays a list of the values for the Quality Center field. The right grid displays a list of the values for the SAP field.



- 5 Select a value in the left grid and its corresponding value in the right grid, and click the **Map Value** button. Alternatively, drag a value from the right grid to its corresponding value in the left grid.

Repeat this step until each **QC Value** in the left grid is assigned an **SAP Value**.

Note:

- ▶ You can map the same **SAP Value** to more than one **QC Value**.
 - ▶ You can map more than one **SAP Value** to a single **QC Value**. In that case, the **QC Value** is duplicated in the grid.
-



- 6 To undo the mapping of a **QC Value**, drag the **SAP Value** to the right grid. Alternatively, select a **QC Value** and click the **Remove Mapping** button.

- 7 Click **OK**. The Value Mapping dialog box closes and the Field Mapping dialog box displays. If the value mapping is valid, the **Mapping Status** of the Quality Center field changes to **Valid Mapping**.
- 8 Click **OK**. The current mappings are saved and the dialog box closes.

Managing SAP-Related Defects in Quality Center

You create SAP-related defects in Quality Center. For each new SAP-related defect, a new support message is automatically created in Service Desk. For more information, see “Creating SAP-Related Defects in Quality Center” on page 60.

If a Quality Center defect has a corresponding Service Desk support message, you can edit the defect in Quality Center. Changes you make to the defect are automatically updated in the Service Desk support message. For more information, see “Editing SAP-Related Defects in Quality Center” on page 60.

For information on creating and editing support messages in Service Desk, see the SAP Application Help.

The life cycle of defects and support messages is controlled by the **Status** fields in both systems. These are automatically synchronized according to specific events:

Event in Application A	Synchronization in Application B
New support message created in Service Desk.	Quality Center defect status set to Open .
Support message confirmed in Service Desk.	Quality Center defect status set to Closed .
Quality Center defect status set to Closed .	Service Desk support message is confirmed.
Send Solution to External Service Desk selected in Service Desk.	Quality Center defect status set to Fixed .
Quality Center defect status set to Reopen .	A new support message is created in Service Desk, and linked to the defect.

Creating SAP-Related Defects in Quality Center

You can create SAP-related defects in Quality Center. For each new SAP-related defect, a new support message is automatically created in Service Desk.

For defects to be synchronized with Service Desk, you must assign them a special defect type. In addition, you must complete fields that are required in Service Desk.

To create an SAP-related defect:

- 1** In the Quality Center Defects module, click the **New Defect** button.
- 2** In the **Defect type** field, select **SAP Related Defect**. The SAP Related Defect Details tab is added to the New Defect dialog box.
- 3** Complete the defect details, including the fields in the SAP Related Defect Details tab.
- 4** Click **Submit**. The defect is entered into the **Defect Synchronization Pool** until a corresponding support message is created in Service Desk. To track the status of the synchronization, see “Tracking Defect Synchronization in Quality Center” on page 62.

While the defect remains in the Defect Synchronization Pool, it is flagged with an alert. For more information on viewing alerts, refer to the *HP Quality Center User Guide*.

- 5** To transfer responsibility for the defect to Service Desk, see “Exchanging Defect Responsibility” on page 61.

Editing SAP-Related Defects in Quality Center

You can edit defects transferred from Service Desk. Changes you make to these defects are automatically applied to the corresponding support messages in Service Desk.

To be able to make changes to an SAP-related defect in Quality Center, you must have responsibility for the defect. For more information, see “Exchanging Defect Responsibility” on page 61.

To edit an SAP-related defect in Quality Center:

- 1** In the Defects module, select an **SAP Related Defect**.
- 2** Edit the defect.

Due to SAP limitations, you can add a new comment in the **Comments** field, but you cannot edit existing comments.
- 3** If the defect is linked to more than one requirement, in the **Transferred Requirement** field, select the requirement to be transferred to Solution Manager.
- 4** If the defect is linked to more than one test, in the **Transferred Test** field, select the test to be transferred to Solution Manager.
- 5** Click **OK** to close the defect. The defect is entered into the **Defect Synchronization Pool** until the corresponding support message is updated in Service Desk. To track the status of the synchronization, see “Tracking Defect Synchronization in Quality Center” on page 62.

While the defect remains in the Defect Synchronization Pool, it is flagged with an alert. For more information on viewing alerts, refer to the *HP Quality Center User Guide*.
- 6** To transfer responsibility for the defect to Service Desk, see “Exchanging Defect Responsibility” on page 61.

Exchanging Defect Responsibility

To make changes to an SAP-related defect in Quality Center, Quality Center needs to be responsible for the defect. To allow a Service Desk user to make changes to support messages, you must assign him responsibility.

In Quality Center, you can identify the responsible system, request responsibility from Service Desk, and assign responsibility to Service Desk.

- To identify the responsible system for the defect, in the Defects module, open the defect, select the **SAP Related Defect Details** tab, and check the value in the **Responsible System** field.

If Quality Center does not have responsibility, you can request the responsibility from Service Desk.

- ▶ To request responsibility for a defect from Service Desk, navigate to the defect in the defects grid, right-click and select **Request Responsibility from SAP**.

After making changes to the defect in Quality Center, you can assign the responsibility to Service Desk. You cannot assign responsibility of a defect to Service Desk while the defect is in the Synchronization Pool. For more information on the Synchronization Pool, see “Tracking Defect Synchronization in Quality Center” on page 62

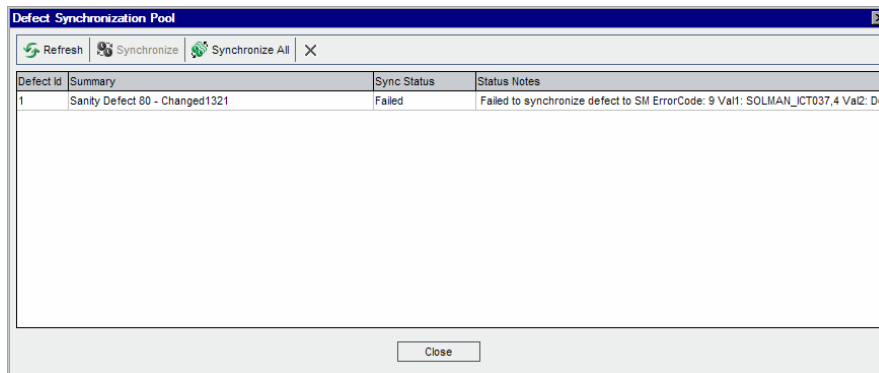
- ▶ To transfer responsibility for a defect to Service Desk, navigate to the defect in the defects grid, right-click and select **Assign Responsibility to SAP**.

Tracking Defect Synchronization in Quality Center

SAP-related defects that are created or modified in Quality Center are lined up for synchronization with Service Desk. Until synchronization is completed, the defects are listed in the **Defect Synchronization Pool**. If a defect failed to synchronize, you can prompt its synchronization manually from the Defect Synchronization Pool.


To track defect synchronization in Quality Center:

- 1 Select **Tools > SAP Tools > Manage Defect Synchronization**. The Defect Synchronization Pool dialog box opens.



The grid displays all defects in line for synchronization. Each defect is assigned one of the following statuses:

Status	Description
Synchronizing	The system is currently synchronizing the defect with the SAP application.
Pending	The defect is lined up to be synchronized.
Failed	The system attempted to synchronize the defect, but failed. You can prompt another attempt to synchronize in the dialog box.
Closing - Pending to Close - Failed to Close	The defect in Quality Center is set to Closed and is prepared to be confirmed in Service Desk. If failed, you can prompt another attempt in the dialog box.
Disconnecting - Pending to Disconnect - Failed to Disconnect	The defect is deleted in Quality Center. The system attempts to disconnect the corresponding Service Desk support message. If failed, you can prompt another attempt in the dialog box.

- 2** If a defect has failed to synchronize, and in the **Status Notes** field Quality Center states that the defect is linked to more than one requirement or test, you must select a specific requirement or test:
 - a** Close the Defect Synchronization Pool and select the relevant defect.
 - b** Select the **SAP Related Defect Details** tab.
 - c** In the **Transferred Requirement** field or **Transferred Test** field, select the requirement or test to be transferred to Solution Manager.
- 3** To prompt the synchronization of a defect in **Failed** status, select the defect and click the **Synchronize** button.
- 4** To prompt the synchronization of all defects currently in **Failed** status, click the **Synchronize All** button.
- 5** To refresh the display, click the **Refresh** button.
-  **6** If a defect has failed, or is pending to synchronize, you can remove it from the Defect Synchronization Pool. To do so, select the defect and click the **Delete defects from Synchronization Pool** button.

4

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. The Application Model module is automatically enabled when you enable Enterprise Integration for a Quality Center project.

This chapter includes:

- ▶ About Working with the Application Model Module on page 66
- ▶ Viewing Application Entities on page 67
- ▶ Importing the SAP Application Hierarchy on page 69
- ▶ Adding Folders and Application Entities Manually on page 71
- ▶ Modifying Folders and Application Entities on page 73
- ▶ Associating Application Entities with Tests on page 75
- ▶ Associating Application Entities with Business Components on page 79

About Working with the Application Model Module

You use the Application Model module to manage a representation of your SAP application components and entities. For example, if you link your SAP application components and application entities to tests, you can see which tests you need to run when changes affecting these components and entities are made in your application.

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.

After you develop your application model tree, you can associate each application entity with tests in the Test Plan module. 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

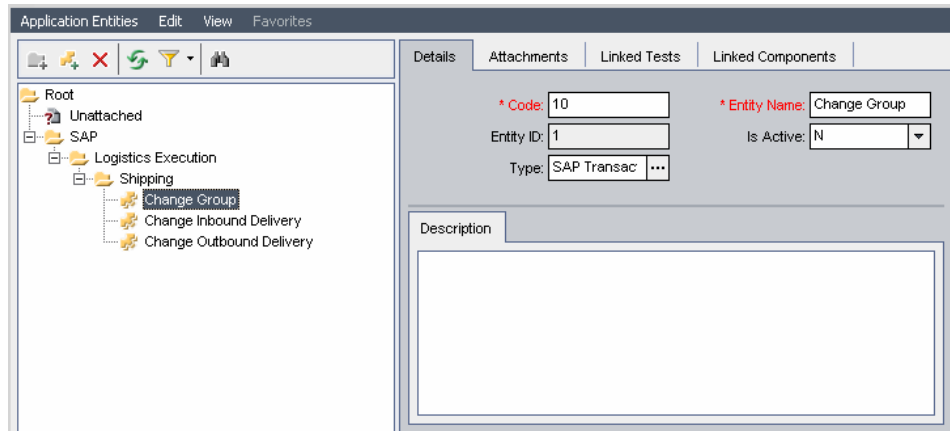




You import, add, and modify application entities using the Application Model module. To open the Application Model module, click the **Application Model** button on the sidebar.

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

The Application Model Tree

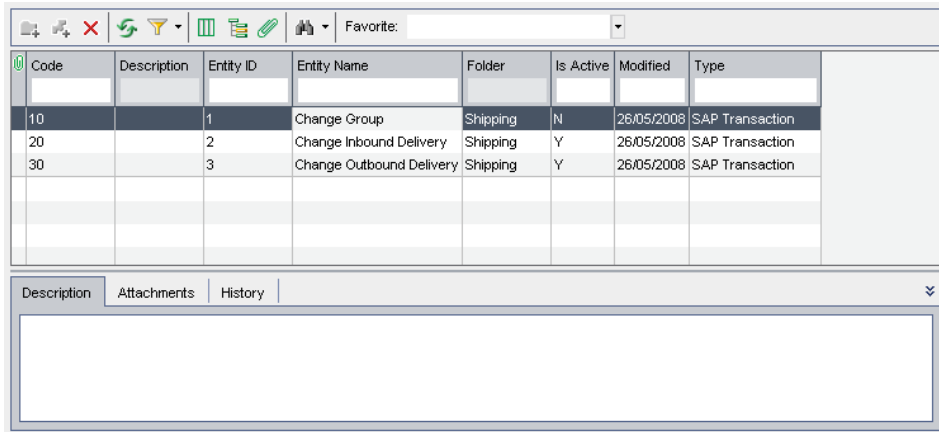
You can view a hierarchical representation of your application entities in the application model tree. To view the application model tree, select **View > Application Model Tree**.



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	This column is relevant only for Change Impact Testing module for SAP applications. For more information, see the <i>HP Change Impact Testing module for SAP applications User's Guide</i> .

Column	Description
Modified	The date and time when the application entity was last modified.
Type	The type of SAP application entity, for example, SAP Transaction.

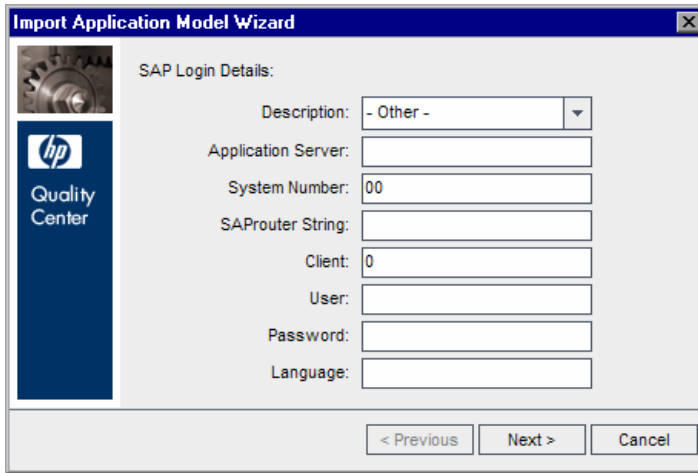
Importing the SAP Application Hierarchy

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.

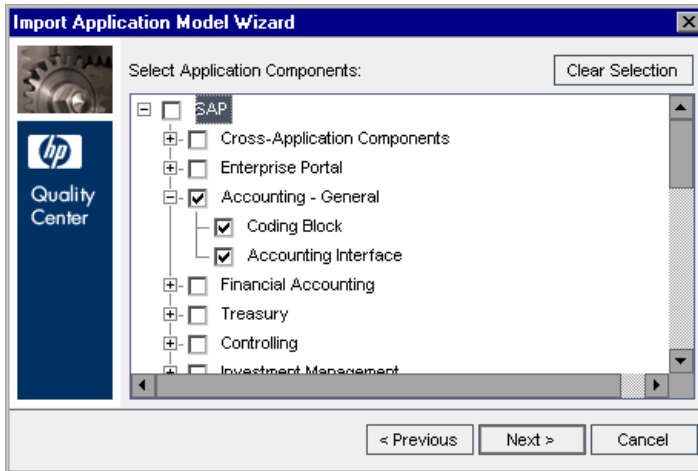
You can import the application hierarchy more than once. For example, if you add new entities to your SAP application, you may want to include them in the application hierarchy, or you may decide to include application entities that were previously out of scope. When you import application entities that 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 Type the login details for your SAP application and 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.

When you import application entities to the Application Model module, a default values are assigned to various fields for each imported application entity. These default values are based on the properties of the entity in the SAP application.

Adding Folders and Application Entities Manually

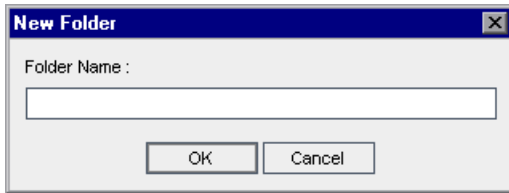
You can add folder and application entities manually.

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 69.

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.

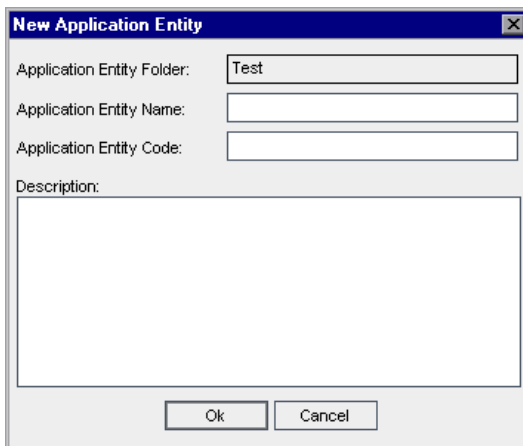


- 2 In the **Folder Name** box, type a name for the folder and click **OK**. The new folder is added to the application model tree under the folder you selected in step 1.
- 3 You can add a description for the new folder in the Description tab in the right pane.
- 4 You can add an attachment to the new 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.

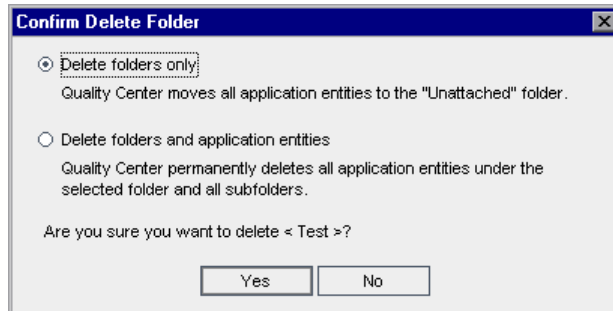
Deleting Folders and Application Entities

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

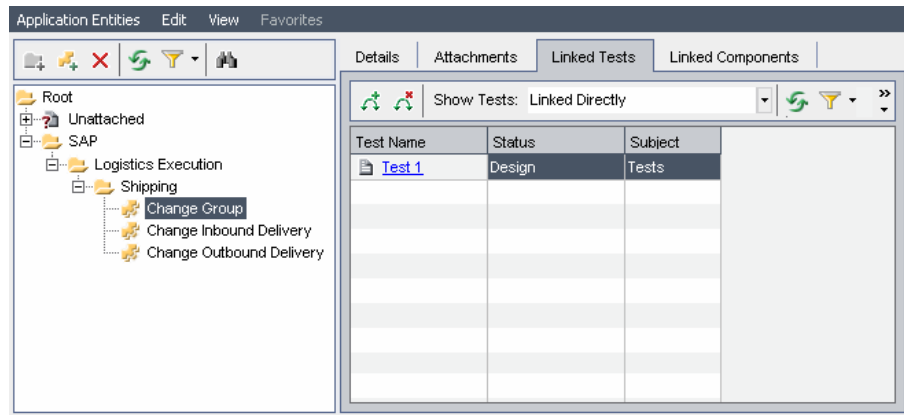
You can associate the application entities you created in the Application Model module with tests from the Test Plan module. You can perform this task from the Application Model module or from the Test Plan module.

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:

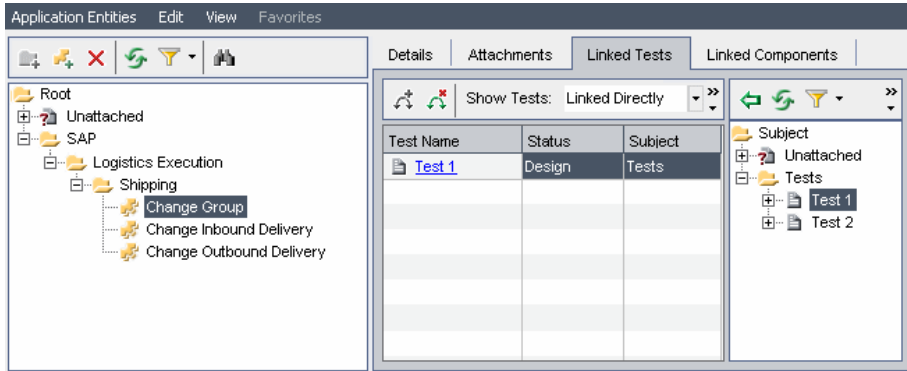
- 1 In the application model tree, select an application entity and click the **Linked Tests** tab. The Linked Tests tab displays the coverage grid for the selected application entity.



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.



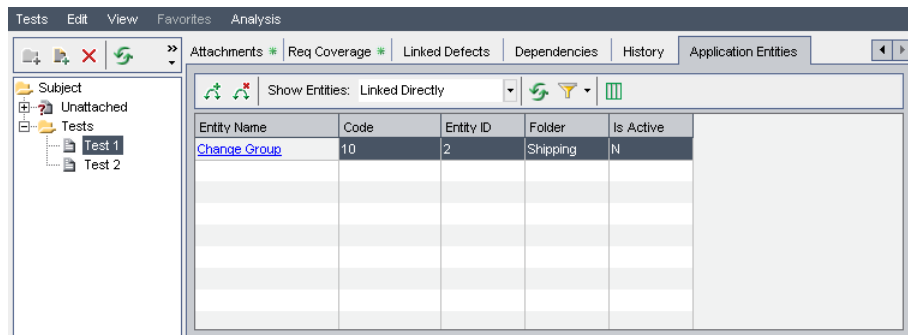
- ▶ To remove test coverage from the Application Model module, verify that **Linked Directly** is displayed in the **Show Entities** box. Then select the test you want to remove from coverage and click the **Remove Link** button. Click **Yes** to confirm.

Associating Application Entities Using the Test Plan Module

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

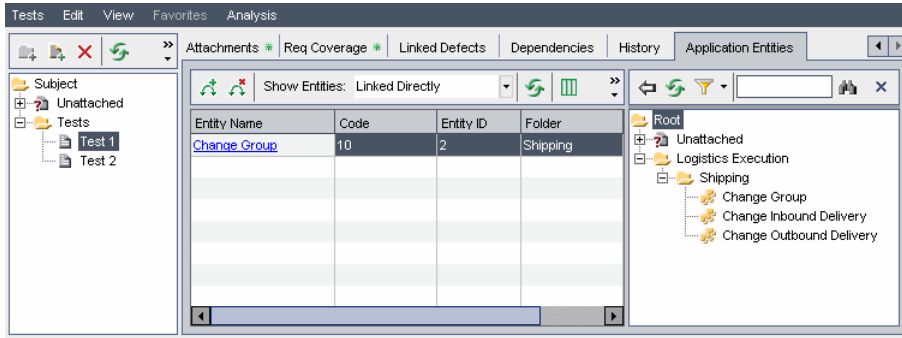
To associate application entities with tests using the Test Plan module:

- 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 68.



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.

5

Customizing Enterprise Integration

You can customize user group permissions, hide data for a user group and customize project entities for Enterprise Integration.

This chapter includes:

- ▶ About Customizing Enterprise Integration on page 81
- ▶ Customizing User Group Permissions on page 82
- ▶ Hiding Data for a User Group on page 85
- ▶ Customizing Project Entities on page 86

About Customizing Enterprise Integration

You can customize entities in the Application Model module, which is enabled automatically when you enable Enterprise Integration. 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 and application entities. You can also determine which application entities and application entity fields each user group can view. In addition, you can add and customize Application Model fields.

You can also customize which Quality Center user groups can export business blueprints from Solution manager, and which user groups can update business blueprints.

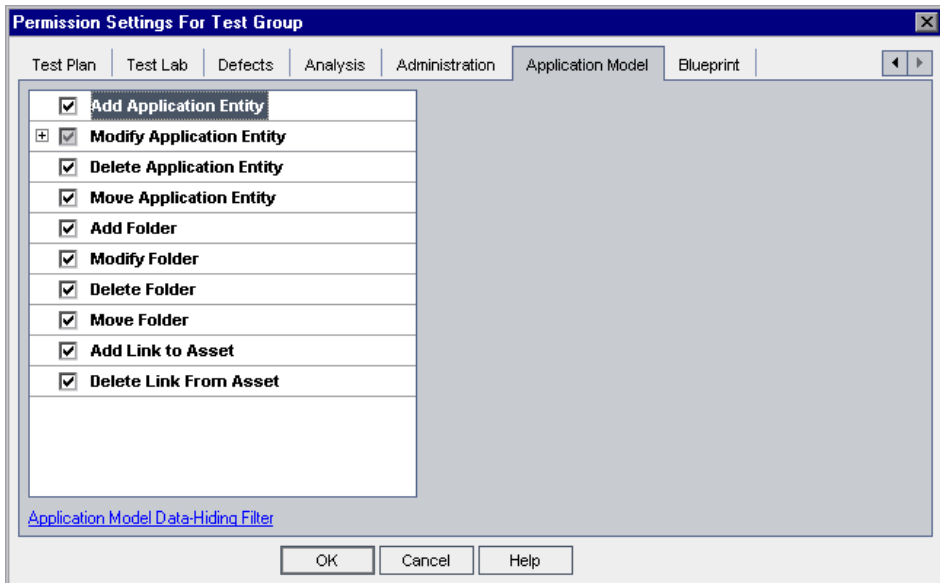
This chapter describes the additional customization options available with Enterprise Integration. For more information on project customization, refer to the *HP Quality Center Administrator Guide*.

Customizing User Group Permissions

You can customize the permission settings for the Application Model module and for the integration with Solution Manager 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.

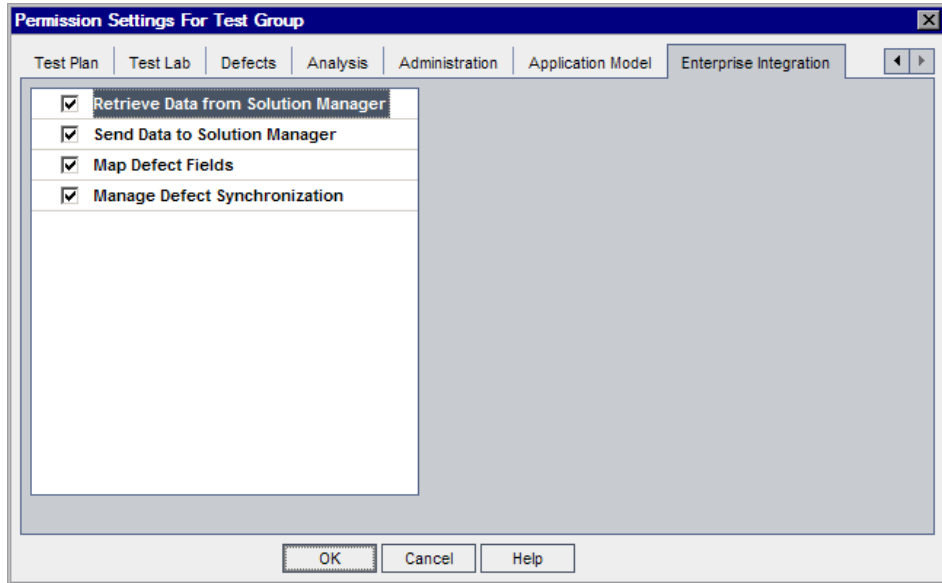


The Application Model tab includes the following tasks:

Task	Description
Add Application Entity	User group can add application entities to the Application Model module. A user group must have permissions for this task and for the Modify Application Entity task to import SAP application entities.
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. A user group must have permissions for this task and for the Add Application Entity task to import SAP application entities.
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. Note that this task enables you to specify the fields that the selected user group can modify.
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 Integration with Solution Manager

The Blueprint tab displays the tasks available for integration with Solution Manager.



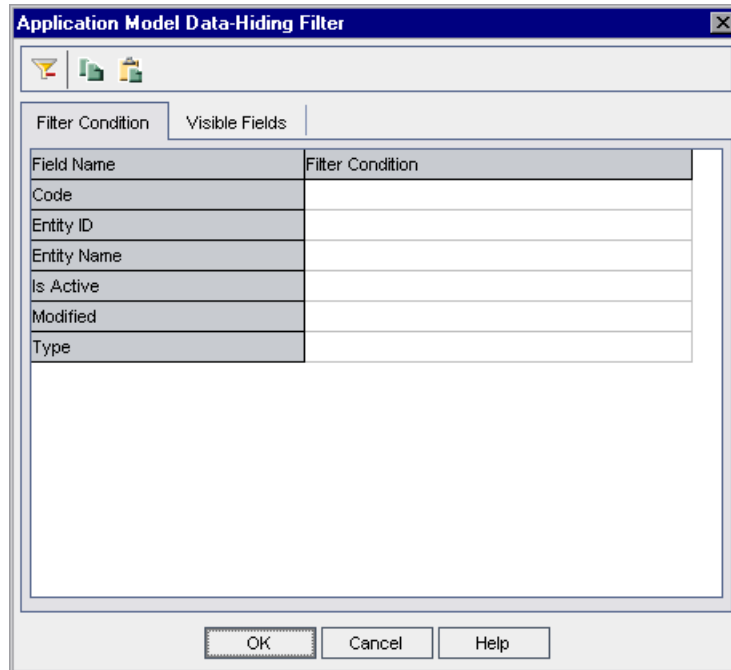
The Blueprint tab includes the following tasks:

Task	Description
Retrieve Data from Solution Manager	User group can import business blueprints, and connect to Quality Center from Solution Manager and export business blueprints.
Send Data to Solution Manager	User group can update Solution Manager with Quality Center test results.
Map Defect Fields	User group can create field mappings for Quality Center defects and Service Desk support messages.
Manage Defect Synchronization	User group can access the defect pool to manage the synchronization of Quality Center defects and Service Desk support messages.

Hiding Data for a User Group

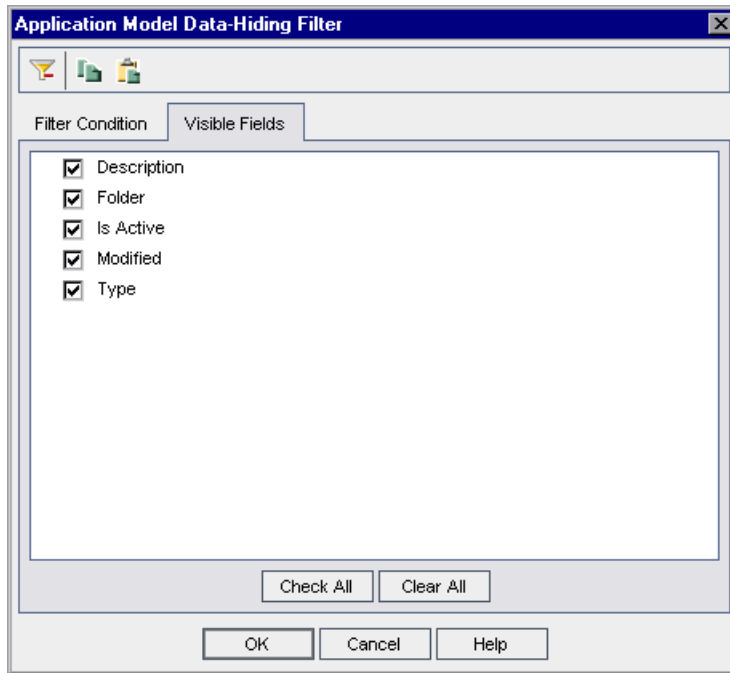
You can instruct Quality Center to hide specific application entities and application entity fields that a user group can view in the Application Model module.

You can set filters for specific fields, 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: **Application**, **Code**, **Entity ID**, **Entity Name**, **Folder**, **Is Active**, **Modified**, and **Type**. For more details on these fields, see “The Application Model Grid” on page 68.

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 Visible Fields tab in the Application Model Data-Hiding Filter dialog box.



You can choose to hide the following fields: **Application**, **Description**, **Folder**, **Is Active**, **Modified**, and **Type**. For more details on these fields, see “The Application Model Grid” on page 68.

Customizing Project Entities

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