Mercury IT Governance Center — Quality Center Integration for Change Management

Guide

MERCURY™

Mercury IT Governance Center—Quality Center Integration for Change Management Guide,
for Mercury IT Governance Center 6.0 SP4 and Mercury Quality Center 8.2 SP1 Enterprise Edition.

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If you have any comments or suggestions regarding this document, please send them via e-mail to
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**PART III: WORKING WITH IT GOVERNANCE/QUALITY CENTER
INTEGRATION FOR CHANGE MANAGEMENT**

Welcome

Welcome to IT Governance Center-Quality Center Integration for Change Management, which enables you to integrate between IT Governance Center and Quality Center. This allows you to include Quality Center functionality in IT Governance Center workflows.

Using IT Governance Center-Quality Center Integration for Change Management, you can create Quality Center requirements and defects from IT Governance Center, and IT Governance Center requests of type Defect from Quality Center. This allows users of both applications to participate in the processing of defects and requests for change.

Using This Guide

This guide explains how to install and configure the integration components on IT Governance Center and Quality Center, and how to enable the integration between the two applications. The guide also includes examples that show how to use integrated IT Governance Center requests and Quality Center projects.

It is recommended that you check the Mercury IT Governance Download Center or the Mercury Quality Center Add-ins page for documentation updates. Refer to the copyright page to view the document release date.

For information on using IT Governance Center, refer to the Mercury IT Governance Center documentation. For information on using Quality Center, refer to the Mercury Quality Center documentation.

This guide contains the following parts:

Part I   Introducing IT Governance/Quality Center Integration for Change Management

This part provides an overview of the integration process and describes the components that enable integration.

Part II   Installation and Configuration

This part explains how to install the components and configure IT Governance Center and Quality Center for the integration, and gives guidelines for creating IT Governance Center request types and workflows for integration with Quality Center projects.

Part III   Working with IT Governance/Quality Center Integration for Change Management

This part shows how to use integrated IT Governance Center requests and Quality Center projects.

Typographical Conventions

This book uses the following typographical conventions:

1, 2, 3	Bold numbers indicate steps in a procedure.
➤	Bullets indicate options and features.
>	The greater than sign separates menu levels (for example, **File** > **Open**).
Stone Sans	The **Stone Sans** font indicates names of interface elements on which you perform actions (for example, "Click the **Run** button.").
Bold	**Bold** text indicates method or function names.
Italics	*Italic* text indicates method or function arguments, file names or paths, and book titles.
<>	Angle brackets enclose a part of a file path or URL address that may vary from user to user (for example, *<MyProduct installation folder>\bin*.
Arial	The Arial font is used for examples and text that is to be typed literally.
[ ]	Square brackets enclose optional arguments.
{ }	Curly brackets indicate that one of the enclosed values must be assigned to the current argument.
...	In a line of syntax, an ellipsis indicates that more items of the same format may be included. In a programming example, an ellipsis is used to indicate lines of a program that were intentionally omitted.
|	A vertical bar indicates that one of the options separated by the bar should be selected.

Welcome

Part I

Introducing IT Governance/Quality Center Integration for Change Management

1

IT Governance Center-Quality Center Integration for Change Management Overview

This chapter introduces you to Mercury IT Governance Center-Quality Center Integration for Change Management.

This chapter includes the following topics:

➤ About This Chapter

➤ Introduction

➤ Supported Processes

➤ Benefits of the Integration

➤ New Functionality in IT Governance Center and Quality Center

➤ Components

About This Chapter

This chapter introduces you to Mercury IT Governance Center-Quality Center Integration for Change Management, gives you a high-level overview of its features and functionality, and lists the components that enable the integration.

Introducing IT Governance Center-Quality Center Integration for Change Management

Mercury IT Governance Center-Quality Center Integration for Change Management integrates Mercury IT Governance Center 6.0 SP4 with Mercury Quality Center 8.2 SP1 Enterprise Edition.

The two applications together add functionality that enhances the efficiency of your development or production environment.

IT team members (for example, business liaisons and application developers) primarily use IT Governance Center and view information through the IT Governance Center Dashboard, while Quality team members primarily use Quality Center and view information through the Quality Center Dashboard.

IT Governance Center-Quality Center Integration for Change Management provides the users of each application with information and features of the other.

Supported Processes

IT Governance Center-Quality Center Integration for Change Management supports the following processes:

➤ Request for change

➤ Defect synchronization

Request for Change

When an IT manager or business liaison enters a Request for Change in IT Governance Center, a requirement is created in Quality Center. This causes the QA personnel to begin the QA process.

Upon completion of the QA process, the IT manager or business liaison is notified via the IT Governance Center Dashboard, and can complete the deployment process.

Defect Synchronization

The defect synchronization features of IT Governance Center-Quality Center Integration for Change Management allow users to do the following:

➤ Developers can use IT Governance Center to manage the defect fixing process, while QA continue to use Quality Center.

➤ Project managers and IT managers can see all the defects in the system, whether they originate in IT Governance Center or in Quality Center. This helps the manager to decide on content for the next release or new requirements and enhancements.

➤ QA personnel can use Quality Center to manage defects created through IT Governance Center.

Benefits of the Integration

Integrating IT Governance Center and Quality Center provides the following benefits to users of each application:

➤ **Data sharing**

IT Governance Center-Quality Center Integration for Change Management allows data sharing between IT Governance Center and Quality Center. Business managers and IT personnel using IT Governance Center gain visibility into visibility into how a project is affected by both the quality control process and the parameters that are collected in Quality Center. They can make use of Quality Center capabilities when creating requests for changes.

➤ **Inclusion of Quality Center data in the workflow**

The IT Governance Center workflow is a well-defined process that allows IT managers to plan, track, and deploy software enhancements. IT Governance Center-Quality Center Integration for Change Management allows customers to build their own workflows and steps in IT Governance Center while using fields and data from Quality Center. Quality Center's defect resolution capabilities become part of the workflow. This makes the quality process an integral and formal part of the IT processes.

➤ **QA-dependent workflow progression**

When IT Governance Center is integrated with Quality Center, progress from one step in the workflow to the next can be made dependent on progress by the QA team. IT Governance Center shows the IT manager how a project is affected by the quality defects that are collected in Quality Center. The IT manager can view the information from Quality Center, and decide whether a defect has been resolved or an enhancement can be deployed. Drill-down capabilities between IT Governance Center and Quality Center provide more detailed data than that provided by each application separately.

➤ **Direct activation of processes**

Once the integration is enabled, processes can be activated by IT Governance Center and by Quality Center. Creating a request in IT Governance Center also creates a defect or requirement in Quality Center, if the relevant execution step in the IT Governance Center workflow is activated.

Likewise, creating a defect in Quality Center also creates a request in IT Governance Center.

In addition, mapped fields are synchronized: changing a value in a mapped field in one application changes the corresponding field in the other application as well. Note that the user can specify the dominant field (that is, whether the field in Quality Center or in IT Governance Center determines the value).

New Functionality in IT Governance Center and Quality Center

The integration between IT Governance Center and Quality Center is enabled by the following functionality that is added to the applications:

➤ **Creation of defects and requirements in Quality Center projects from inside IT Governance Center.**

When the IT Governance Center user executes the relevant step in the workflow, a defect or requirement is created in Quality Center.

➤ **Creation of requests in IT Governance Center when defects are created in Quality Center.**

When a defect is created in Quality Center, a corresponding request is created in IT Governance Center. Note that creating a requirement in Quality Center has no effect on IT Governance Center.

➤ **Synchronization of status or any other mapped field between IT Governance Center and Quality Center.**

When you change the status or value of any other mapped field of a defect or request for change in IT Governance Center or Quality Center, the corresponding field is updated in the other application.

For example, when you change a defect's status to **Fixed** in IT Governance Center, one of the provided execution steps changes the status in the corresponding Quality Center project to **Fixed**.

Components

The IT Governance Center-Quality Center Integration for Change Management includes the following components:

➤ Add-ins for IT Governance Center and Quality Center that enable the integration.

➤ IT Governance Center workflows, steps, request types, and request type headers, customizable by the user.

For information on these components, see Chapter 2, "Integration Components."

➤ IT Governance–Quality Center Configuration, an application that maps IT Governance Center fields to Quality Center fields and enables communication between IT Governance Center and Quality Center.

For information on IT Governance–Quality Center Configuration, see Chapter 7, "Configuring IT Governance Center and Quality Center for the Integration."

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Integration Components

This chapter describes the integration components that are provided with Mercury IT Governance Center-Quality Center Integration for Change Management.

This chapter includes the following topics:

➤ About the Integration Components

➤ IT Governance Center Components

➤ Quality Center Components

About the Integration Components

IT Governance Center-Quality Center Integration for Change Management includes components that serve as building blocks for enabling integration between IT Governance Center and Quality Center projects. There are components for both IT Governance Center and Quality Center.

IT Governance Center Components

The IT Governance Center components include:

➤ Workflows

➤ Steps

➤ Request types

➤ Request header types

Execution Steps

An ITG workflow contains several types of steps:

➤ **Decision steps:** Steps that require action from the user in order to proceed. When the user reaches this step, he sees what his choices are. Each choice causes the workflow to proceed in a different manner.

For example, at one step in a workflow, a project manager might be offered the choice of either deploying a package or sending it back to QA for more testing.

➤ **Condition steps:** Steps that determine the direction that the workflow takes.

➤ **Execution Steps:** Steps that are automated through IT Governance Center. For example, creating a requirement or defect in Quality Center, executing a script, or running a build.

To help the user in integrating IT Governance Center with Quality Center, the integration package includes two execution steps that can be used in IT Governance Center to build a workflow. The execution steps do the following:

➤ Create a defect in Quality Center

➤ Create a requirement in Quality Center

Workflows

The integration package also includes example workflows based on the provided execution steps. These workflows serve as templates for creating your own.

Note: Although you can create new workflows from scratch, it is recommended to create them from the examples.

To create a new workflow, you use the IT Governance Center Workbench to create a copy of a provided workflow and then modify the copy (add, delete or change its steps) to suit your needs.

The workflows provided are:

➤ BTO Defect Workflow

➤ BTO Request for Change Workflow

BTO Defect Workflow

The BTO Defect workflow is used for creating a defect and tracking how it is resolved.

Following is a map of the workflow as seen in the IT Governance Center Workbench:
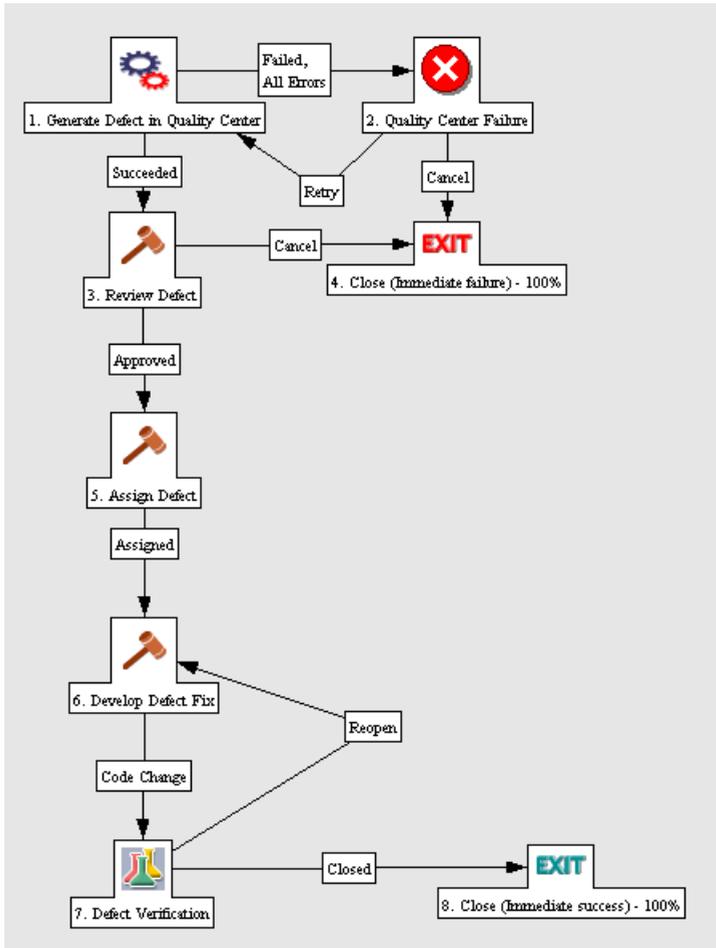
When a request of type BTO Defect is created in IT Governance Center, the first step in the workflow creates a defect in Quality Center. Subsequent steps change the defect status in Quality Center and IT Governance Center to **Open**, **Reopen**, **Fixed** or **Closed**, depending on the stage in the workflow.

BTO Request for Change Workflow

The BTO Request for Change workflow is used for creating a software enhancement and tracking how it is developed, tested and deployed. This workflow is also used for creating a requirement.

Following is a map of the workflow as seen in the IT Governance Center Workbench:

Request Types

The integration package includes additional request types that are enabled for integration with Quality Center.

Each provided request type uses its appropriate workflow, and does not allow you to choose a different one. For example, the BTO Request for Change request type uses the BTO Request for Change workflow. This prevents you from inadvertently using a workflow that is not enabled for integration.

Note: If you create your own request types for integration with Quality Center, make sure you use workflows that are enabled for integration.

While it is possible to create new request types from scratch, it is recommended to copy the provided request types and customize the copies.

You can also create a new request type with a customized request header type. (See "Request Header Types" below.)

The following table lists the request types and the workflows with which they can be used.

Request Type	Workflow
BTO Defect	BTO Defect
BTO Request for Change	BTO Request for Change

Request Header Types

The provided request types use the following request header types:

Request Header Type	Used By Request Type:
BTO Defect Header	BTO Defect
BTO Request for Change Header	BTO Request for Change

When you create a new request type from a provided one, the new request type by default uses the request header type from the provided request type.

When creating a new request type, you can:

➤ Use the supplied request header types without changing them

➤ Copy the request header types, customize the copies, and use them in the new request types

➤ Create completely new request header types

Note: Your request header type must include the Quality Center fields that appear in the provided request header type. If you customize a request header type, make sure you do not delete the Quality Center fields.

If you create a completely new request header type, add the mandatory integration fields by selecting the appropriate field group:

➤ For a defect header, select the **Quality Center Defect Information** field group.

➤ For a request for change header, select the **Quality Center Info** field group.

To select a field group:

Click the **Field Groups** button on the Request Header Type form, and check the appropriate field group in the pop-up window.

Quality Center Components

When the user enables a Quality Center project for integration using the configuration tool, the configuration tool creates (if the project is new) or updates (if the project already exists) some of the Quality Center lists, and if the project is new, it adds VB workflow scripts to the user's existing scripts.

The lists and VB scripts create a Quality Center project that can work out of the box with the provided IT Governance Center components.

The configuration tool makes the following changes to a Quality Center project to enable it for integration:

➤ It adds a **Requirement Status** list with the following values:

  ➤ **New**

  ➤ **Cancelled**

  ➤ **Closed**

  ➤ **1-Requirements Setup Completed**

  ➤ **2-Test Plan Setup Completed**

  ➤ **3-Test Lab Setup Completed**

  ➤ **4-Running Tests in Quality Center**

  ➤ **5-Test Execution Completed**

➤ It adds a **Deleted** value to the **Bug Status** list.

The VB script files enforce the following workflow:

➤ **Defect**: The user can make the following status changes only:

  ➤ **Fixed** to **Closed**

  ➤ **Rejected** to **Closed**

  ➤ **Fixed** to **Reopen**

➤ **Requirement**: The user can make the following status changes only:

- ➤ **New** to **1-Requirements Setup Completed**
- ➤ **1-Requirements Setup Completed** to **2-Test Plan Setup Completed**
- ➤ **2-Test Plan Setup Completed** to **3-Test Lab Setup Completed**
- ➤ **4-Running Tests in Quality Center** to **5-Test Execution Completed**

Part II

Installation and Configuration

3

Installation at a Glance

This chapter describes how you enable integration between IT Governance Center and Quality Center by installing and configuring components.

This chapter describes:

➤ The Installation Process

➤ System Requirements

The Installation Process

To enable the integration between IT Governance Center and Quality Center, perform the following steps:

1 Install the IT Governance Center–Quality Center Integration Add-in on Quality Center.

See Chapter 4, "Installing the Quality Center Integration Add-in."

2 Install the integration patch on IT Governance Center.

See Chapter 5, "Installing the IT Governance Center Integration Patch."

3 Create integration–enabled IT Governance Center request types and workflows.

The IT Governance Center-Quality Center Integration for Change Management is supplied with IT Governance Center request types and workflows that use Quality Center capabilities. You use these components in creating your own integration–enabled request types and workflows.

See Chapter 8, "Creating Request Types and Workflows for Integration with Quality Center."

4 Install the IT Governance–Quality Center Configuration Tool.

You use IT Governance–Quality Center Configuration to enable the Quality Center project for integration and to map IT Governance Center fields to Quality Center fields.

For details on how to install the tool, see "Installation" on page 42.

5 Enable the Quality Center project for integration.

Use IT Governance–Quality Center Configuration to enable the Quality Center project for integration.

For details on how to use IT Governance–Quality Center Configuration, see Chapter 7, "Configuring IT Governance Center and Quality Center for the Integration." For specific details on how to enable Quality Center projects for integration, see "Enabling the Quality Center Project for Integration" on page 43.

6 Map Quality Center fields to IT Governance Center fields.

Use IT Governance–Quality Center Configuration to map IT Governance Center fields to Quality Center fields. IT Governance–Quality Center Configuration creates an XML mapping file that specifies the mapping between the IT Governance Center and Quality Center fields.

For details on how to use IT Governance–Quality Center Configuration, see Chapter 7, "Configuring IT Governance Center and Quality Center for the Integration." For specific details on how to map IT Governance Center fields to Quality Center fields, see "Mapping Fields" on page 51.

7 Load the mapping file.

Load the XML mapping file into Quality Center and IT Governance Center. For details, see "Loading the XML Mapping File" on page 64.

8 Restart IT Governance Center.

System Requirements

Before you install Mercury IT Governance Center-Quality Center Integration for Change Management, ensure that the following applications are installed on the relevant machines:

➤ Mercury IT Governance Center 6.0 SP4

➤ Mercury Quality Center 8.2 SP1 Enterprise Edition

Note: To install and use Mercury IT Governance Center-Quality Center Integration for Change Management, you need to ensure that you have user licenses for IT Governance Center Demand Management. For information on permissions, configuration, and security, refer to the IT Governance Center document *Mercury Demand Management: Configuring a Request Resolution System and Security Model Guide and Reference*.

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Installing the Quality Center Integration Add-in

This chapter describes how to install and configure the IT Governance Center-Quality Center Integration Add-in on your Quality Center server.

This chapter describes:

➤ About Installing the Add-in

➤ Installing the Add-in

➤ Deploying the Add-in on a WebSphere Application Server

About Installing the Add-in

Before you install the IT Governance Center-Quality Center Integration Add-in, make sure you have installed Quality Center 8.2 SP1 Enterprise Edition on the Quality Center server.

Note: To install this add-in, you must log in with administrator privileges.

If you are installing the add-in on a WebSphere application server, make sure that after you install it you also perform the deployment procedure described in "Deploying the Add-in on a WebSphere Application Server" on page 28.

Installing the Add-in

The following section describes how to install the IT Governance Center-Quality Center Integration Add-in.

To install the add-in:

1 Open your Web browser and type your Quality Center URL:
http://<Quality Center server name>/<virtual directory name>/default.htm.
The Mercury Quality Center Options window opens.

2 Click the **Add-ins Page** link. The Mercury Quality Center Add-ins page opens.
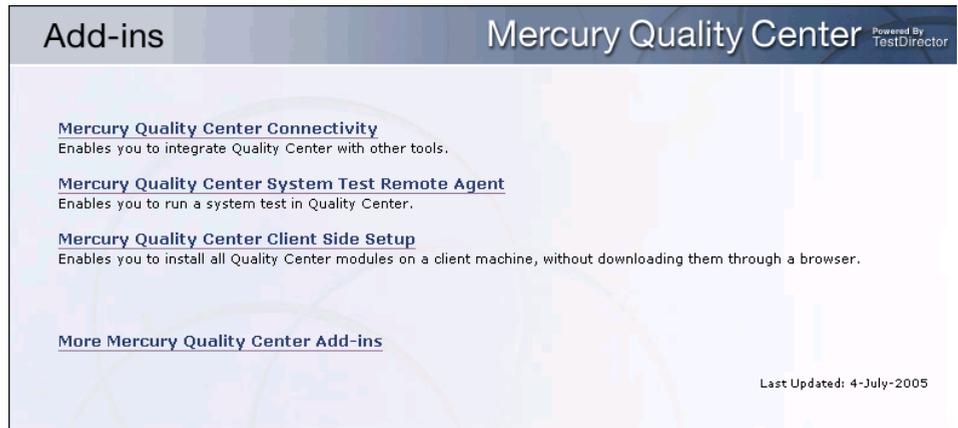
3 Click the **More Mercury Quality Center Add-ins** link. The More Mercury Quality Center Add-ins page opens.

4 Under **Mercury Tool Add-ins**, click the **IT Governance Center-Quality Center Integration Add-in** link. The IT Governance Center-Quality Center Integration Add-in page opens.

5 Click the appropriate **Download Add-in** link to download and install this add-in on your Quality Center server machine. Note that to install this add-in, you must log in with administrator privileges.

Deploying the Add-in on a WebSphere Application Server

After installing the add-in on a WebSphere application server, you must deploy it.

To deploy the add-in on a WebSphere application server:

1 If the WebSphere Application Server has not been started, start it by pointing your browser at the WebSphere Administrative Console: http://localhost:9090/admin.

2 On the left side of the Console, select **Applications** > **Install New Application**.

3 In the first screen, set the **Local path** (or **Server path** for a network deployment) by using the Browse button to navigate to the application directory and selecting the qcbin.war Web application.

4 Set the **Context Root** to the name of the Web application (the filename without the .war extension), and then click **Next**.
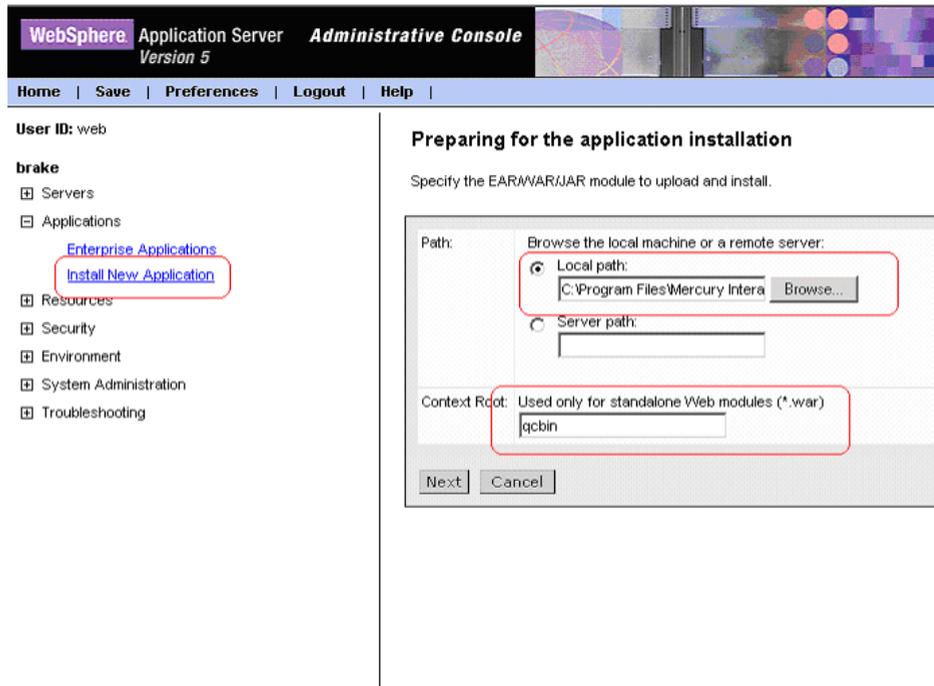
In general, in the next series of screens you should accept the defaults until, when prompted on the last screen, you select **Finish** to deploy the Web application.

5 In the Installing window, select **Save to Master Configuration**. In the Save window, select **Save** to save the changes to the master configuration.

6 QC ClassLoader configuration:

➤ On the left side of the Console, select **Applications** > **Enterprise Applications**.

➤ To display the configuration for QC application, double-click the application's name in the list of deployed applications on the right side of the Console.

➤ Set the Class loader mode to **Parent Last** and select **OK**.

 7 Select **Save** at the top of the page. On the Save screen, select **Save** to save the changes to the master configuration.

 8 Stop the WebSphere Application Server.

 9 Update the **QC deployed files** located in the

WAS_HOME\installedApps\<host>\qcbin_war.ear folder as follows:

Copy **jdom.jar**, **saaj.jar** and **jaxrpc.jar** from

WAS_HOME\installedApps\<host>\qcbin_war.ear\ qcbin.war

WEB-INF\lib

to **WAS_HOME\ installedApps\<host>\qcbin_war.ear**.

 10 Update the **MANIFEST.MF** file located in the

WAS_HOME\installedApps\<host>\qcbin_war.ear\qcbin.war

META-INF folder as follows:

Add the following classpath entry:

Class-Path: jdom.jar saaj.jar jaxrpc.jar

 11 Start the WebSphere Application Server.

Uninstalling the IT Governance Center-Quality Center Integration Add-in

This section describes how to uninstall the IT Governance Center-Quality Center Integration Add-in.

To uninstall the IT Governance Center-Quality Center Integration Add-in:

 1 On the Quality Center server machine, copy the **qcbinj.war** file from <Quality Center home directory>\Patches\Patch101\backup\application to the <Quality Center home directory>\application directory.

 2 If Quality Center is installed on JBoss, also copy the **qcbinj.war** file to <Quality Center home directory>\jboss\server\default\deploy and restart Quality Center.

 If Quality Center is installed on WebLogic or WebSphere, after copying the file redeploy it.

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Installing the IT Governance Center Integration Patch

This chapter describes how to install the IT Governance Center Integration patch on your IT Governance Center server.

This chapter includes the following section:

➤ Installing the IT Governance Center Integration Patch

Installing the IT Governance Center Integration Patch

Before you install the IT Governance Center Integration patch, make sure you have installed IT Governance Center 6.0 SP4 on the IT Governance Center server, and that IT Governance Center is running.

For details about the patch, see the Readme for IT Governance Center 6.0 SP4 (or later) at the IT Governance Center Download Center.

To install the IT Governance Center Integration patch:

 1 Make sure that IT Governance Center is active.

 2 Download the bundle (**ITGQC Accelerator**) from the IT Governance Center download page (http://itg.merc-int.com/support/download/main.jsp).

 3 Copy the bundle to the $ITG_HOME directory. This is the directory where the Mercury IT Governance Server is installed.

 4 Open a command shell.

 5 Change to the $ITG_HOME/bin directory.

 6 Run **sh kDeploy.sh –i ITGQC**.

6

Preparing Quality Center Projects for Integration

This chapter describes how to prepare Quality Center projects so that they can be integrated with IT Governance Center. You can either create new Quality Center projects for integration, or enable existing projects.

This chapter includes the following topics:

➤ Using a New Project

➤ Using an Existing Project

Using a New Project

If you want to integrate defects from an existing Quality Center project with IT Governance Center, you can create a new project, copy the defects from the existing project to the new one, and use the new project for the integration. This allows you to include the existing defects in the integration.

To use a new Quality Center project for integrating existing defects with IT Governance Center:

1 Create a new project in Quality Center.

2 Make sure that the new project includes all the user fields defined in the existing one, with the same parameters. If necessary, add any missing user fields and parameters.

3 Use IT Governance Center–Quality Center Configuration to enable the new project and map its fields to those of IT Governance Center. For details, see Chapter 7, "Configuring IT Governance Center and Quality Center for the Integration."

4 In the old project, select the defects that you want to include in the integration, copy them, and then paste them into the new project.

The defects will be copied to IT Governance Center and will have a status of **New**. The mapped fields of defects and requirements that are subsequently created will be integrated with IT Governance Center.

Using an Existing Project

If you do not need existing defects to be integrated with IT Governance Center, you can use an existing Quality Center project for the integration.

Use IT Governance Center–Quality Center Configuration to enable the project and map its fields to those of IT Governance Center. For details, see Chapter 7, "Configuring IT Governance Center and Quality Center for the Integration."

The mapped fields of defects that are subsequently created in the Quality Center project will be integrated with IT Governance Center.

Note: Defects that were created prior to the mapping will not be integrated with IT Governance Center.

After the user has enabled an existing project and mapped it to a request for change, if a request of that type is created in IT Governance Center, a corresponding requirement will be created in Quality Center.

7

Configuring IT Governance Center and Quality Center for the Integration

This chapter describes how to configure IT Governance Center and Quality Center for the integration.

It contains the following sections:

- ➤ About Configuring IT Governance Center and Quality Center for the Integration
- ➤ The Configuration Process
- ➤ Setting IT Governance Center Properties
- ➤ Installation
- ➤ Enabling the Quality Center Project for Integration
- ➤ Mapping Fields
- ➤ Loading the XML Mapping File
- ➤ Changing Configuration
- ➤ Uninstalling

About Configuring IT Governance Center and Quality Center for the Integration

After installing the patches on IT Governance Center and Quality Center, you install and use IT Governance Center-Quality Center Configuration to enable the mapping and subsequently make changes to it.

To configure IT Governance Center and Quality Center for the integration:

1 Set properties in the IT Governance Center properties file. See "Setting IT Governance Center Properties" on page 40.

2 Invoke IT Governance Center-Quality Center Configuration and enable the Quality Center projects that you want to use in the integration.

See "Enabling the Quality Center Project for Integration" on page 43.

3 Map Quality Center requirements and defects to IT Governance Center request types. See "Mapping Fields" on page 51.

When you have finished entering all the information requested by the wizards, IT Governance Center-Quality Center Configuration creates an XML mapping file that defines the mappings between IT Governance Center and Quality Center fields.

4 Update properties in the IT Governance Center configuration file. See the note in "Loading the XML Mapping File" on page 64.

5 Load the XML mapping file into IT Governance Center and Quality Center.

See "Loading the XML Mapping File" on page 64.

6 Restart IT Governance Center to enable the integration.

After you have enabled the mapping, you can use IT Governance Center-Quality Center Configuration to make changes to it. Note that any configuration changes that you make will apply only after you load the updated XML file into IT Governance Center and Quality Center.

The Configuration Process

IT Governance Center-Quality Center Configuration includes wizards that allow you to integrate Quality Center projects with IT Governance Center.

One IT Governance Center server can work with many Quality Center servers, but each IT Governance Center request type can be mapped to only one Quality Center server (although it can be mapped to many projects on that Quality Center server). You use IT Governance Center-Quality Center Configuration to create the connections between IT Governance Center and Quality Center projects.

In IT Governance Center, a request type is used as a template. To create a request, you choose a request type. When you create the request, this also creates a defect or requirement in the Quality Center project to which the IT Governance Center request type is mapped. For example, an IT Governance Center request of type "Siebel Defect" might create a defect in Quality Center project A, while an IT Governance Center request of type "OtherApp Defect" might create a defect in Quality Center project B.

On the other hand, when you create a defect in Quality Center, this can be used to create (i.e., be mapped to) only one request in IT Governance Center. This request can be of only one request type: the default IT Governance Center request type. So when you create the entity in Quality Center, a request of that request type is created in IT Governance Center. You specify the default request type in IT Governance Center-Quality Center Configuration.

When you have completed running IT Governance Center-Quality Center Configuration, the application creates an XML file that you subsequently load into Quality Center and IT Governance Center to enable integration.

Setting IT Governance Center Properties

Before you can use IT Governance Center-Quality Center Configuration, you need to make sure that the following properties are set correctly in the server.conf configuration file, located in the IT Governance Center root directory on the IT Governance Center server. Note that some properties must be assigned different values after the configuration process is complete, to enable integration.

➤ com.kintana.core.server.ENABLE_QUALITY_CENTER_INTEGRATION

If no integration has been enabled (that is, no XML mapping file exists in the ITG\conf directory), this property should be set to **false**. After you have enabled the integration, mapped the fields and deployed the XML mapping file, set the property to **true**. **Note:** If this property is assigned the value **true** before the XML mapping file is located in the ITG\conf directory, the IT Governance Center server will not start.

The property determines whether IT Governance Center should attempt to send information to Quality Center. Setting the property to **false** prevents IT Governance Center from sending data to Quality Center. This effectively disables the IT Governance Center to Quality Center part of the integration. Note that even if this property has the value **false**, Quality Center may still attempt to send information to IT Governance Center.

➤ com.kintana.core.server.ENABLE_WEB_SERVICES

This property should always have the value **true**. If it is set to **false**, IT Governance Center-Quality Center Configuration will not be able to access IT Governance Center.

The property enables or disables the Web services that let external systems connect to IT Governance Center. Setting the property to **false** prevents Quality Center from accessing IT Governance Center, and may also affect other systems that use IT Governance Center Web services.

➤ com.kintana.core.server.ENABLE_QUALITY_METRICS_SYNC

If no integration has been enabled (that is, no XML mapping file exists in the ITG\conf directory), set this property to **false** before running IT Governance Center-Quality Center Configuration. After you have enabled the integration, mapped the fields and deployed the XML mapping file, set the property to **true**. **Note**: If this property is assigned the value **true** before the XML mapping file is located in the ITG\conf directory, the IT Governance Center server will not start.

The property determines whether IT Governance Center should attempt to gather quality metrics from Quality Center for integrated requests. Setting the property to **false** prevents IT Governance Center from updating the information displayed in the IT Governance Center request's Quality Metrics section.

Installation

This section describes how to install IT Governance Center-Quality Center Configuration.

To install IT Governance Center-Quality Center Configuration:

1 Download the IT Governance Center-Quality Center Configuration setup file from the IT Governance Center-Quality Center Integration Add-in page to a Windows machine that can open an HTTP connection to the IT Governance Center server and to the Quality Center server. (For details on how to access the Quality Center Add-Ins page, see Chapter 4, "Installing the Add-in.")

2 Double-click the setup file to invoke the InstallShield wizard.

3 Follow the instructions in the wizard. The wizard installs IT Governance Center-Quality Center Configuration on your computer, and creates a shortcut to the application on the desktop.

Enabling the Quality Center Project for Integration

You begin the configuration by enabling the Quality Center project so that it can be integrated with IT Governance Center.

Note: It is strongly recommended not to enable a project more than once. If a project is enabled more than once, this may cause problems in the integration. For details, see "Troubleshooting" on page 86.

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1 Double-click the **IT Governance Center-Quality Center Configuration Tool** icon on your desktop. The main IT Governance Center-Quality Center Configuration window opens.
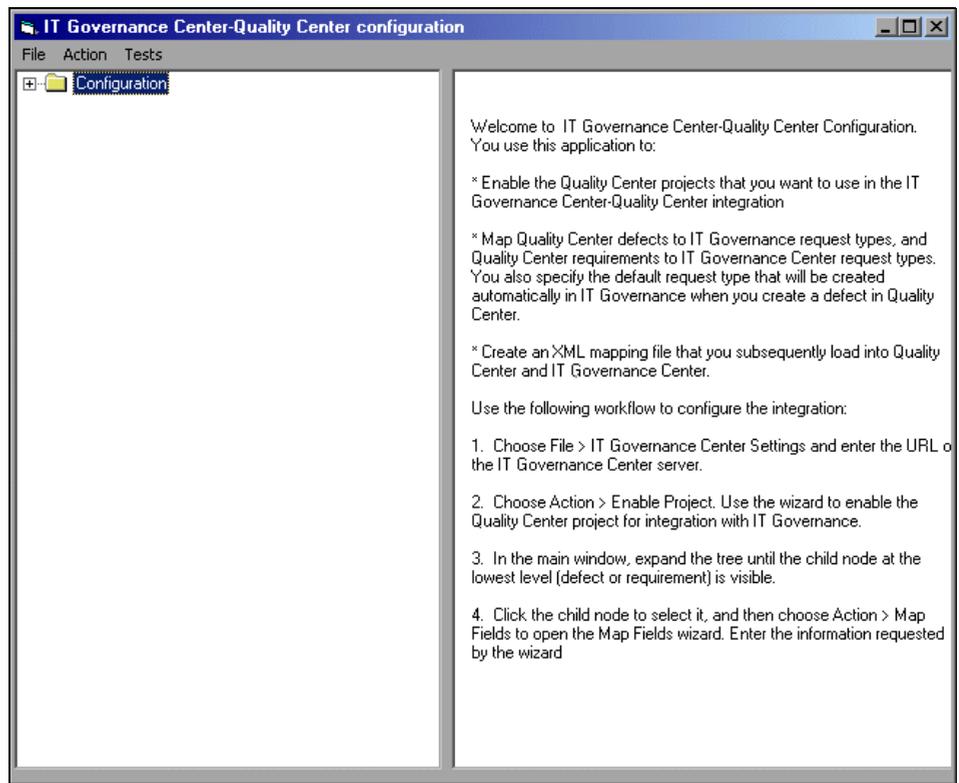
2 Choose **File** > **IT Governance Center Settings**. The IT Governance Center Settings dialog box opens.
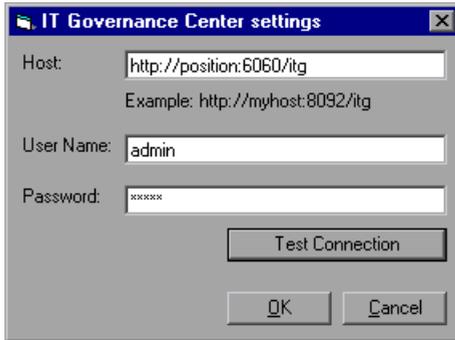
3 In the **Host** box, enter the URL of the IT Governance Center server.

4 Enter the IT Governance Center user name and password in the appropriate fields.

5 Click **Test Connection** to test the connection with the IT Governance Center.

6 Click **OK** to close the IT Governance Center Settings dialog box.

7 In the main IT Governance Center-Quality Center Configuration window, choose **Action** > **Enable Project**. The Enable Quality Center Project wizard opens.
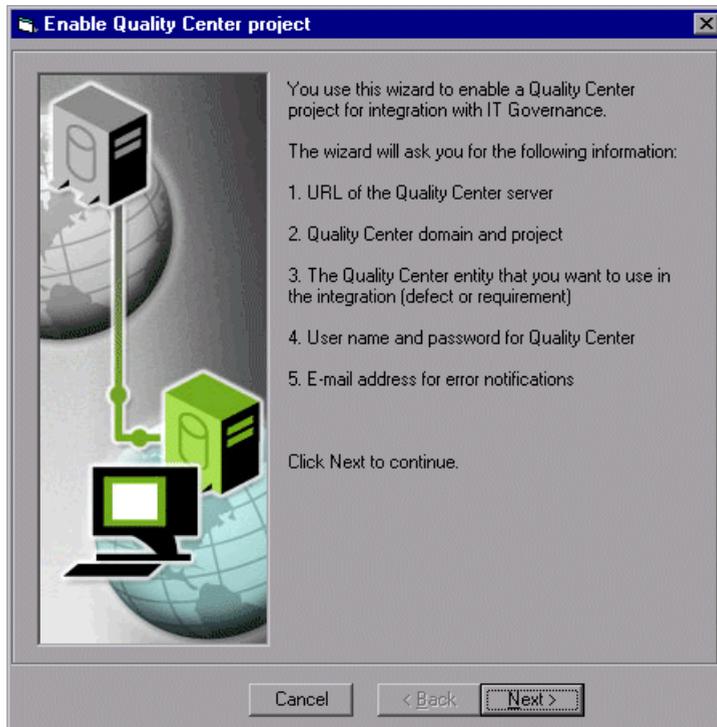
Click **Next** to continue.

8 The following dialog box opens.
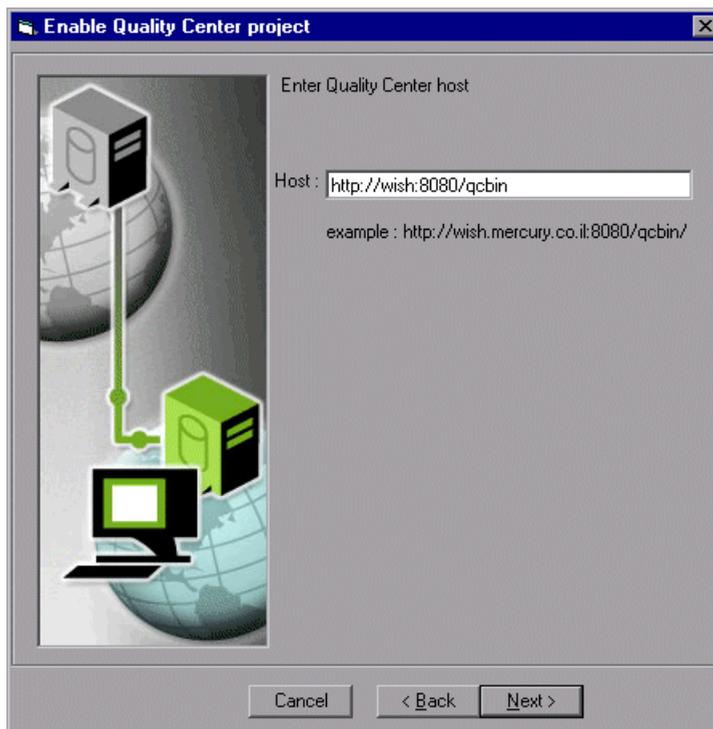
In the **Host** box, enter the URL of the Quality Center server.

9 Click **Next**. The following dialog box opens.
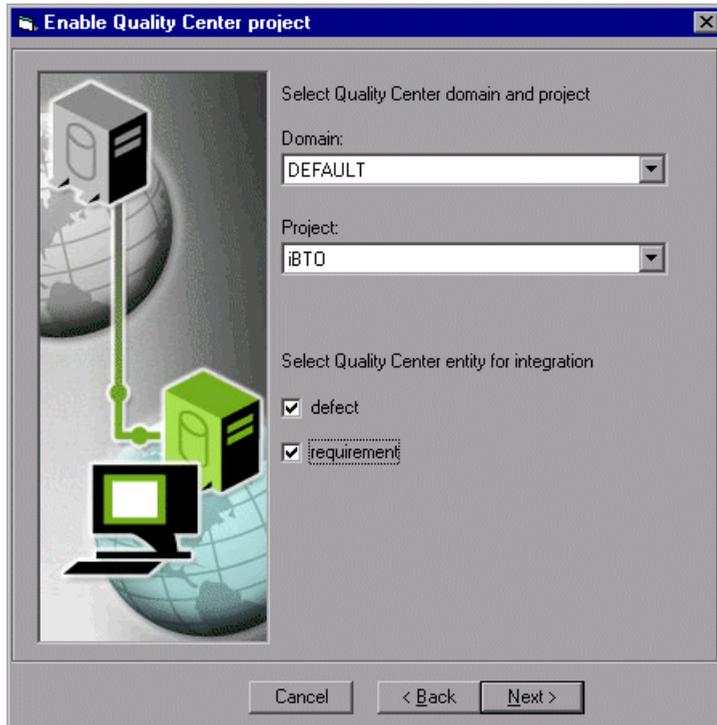
Choose the Quality Center domain and project, and specify whether you want to map Quality Center defects, requirements, or both.

10 Click **Next**. The following dialog box opens.
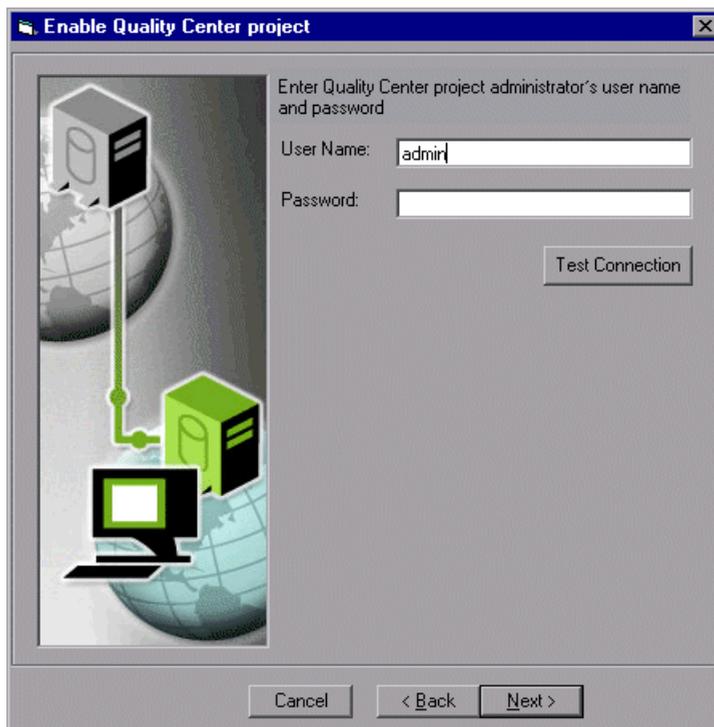
Enter the Quality Center project administrator's user name and password. You can now click **Test Connection** to verify that you have access to the Quality Center project.

11 Click **Next**. The following dialog box opens.
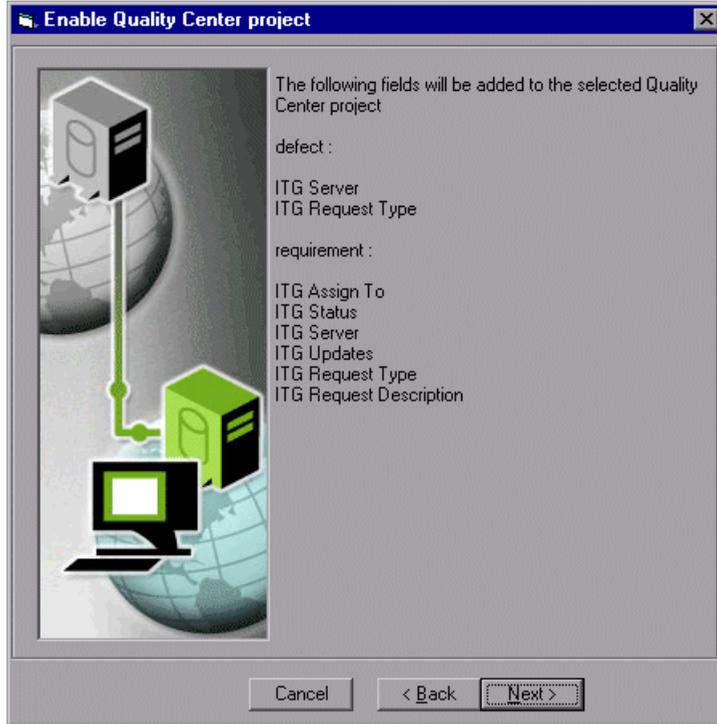
The dialog box displays the fields that will be added to the Quality Center project for the integration. These include those fields in the IT Governance Center project that will be mapped to the Quality Center fields and added to the Quality Center project.

When you click **Next**, the listed fields are added to the Quality Center project, and the VB script that determines the Quality Center workflow is updated to support integration with IT Governance Center.

If the Quality Center project already contains one or more fields with the same names, a dialog box asks you whether you want to change the names of the added fields. If you choose **Yes**, the added fields will receive different names. If you choose **No**, the configuration procedure is aborted.

If the Quality Center project does not have a workflow VB script in its repository, a dialog box asks you whether you want to create a new one. If you choose **Yes**, a new script with support for the integration is added to the Quality Center repository. If you choose **No**, the script file is not updated.

12 Click **Next**. The Finish dialog box opens.
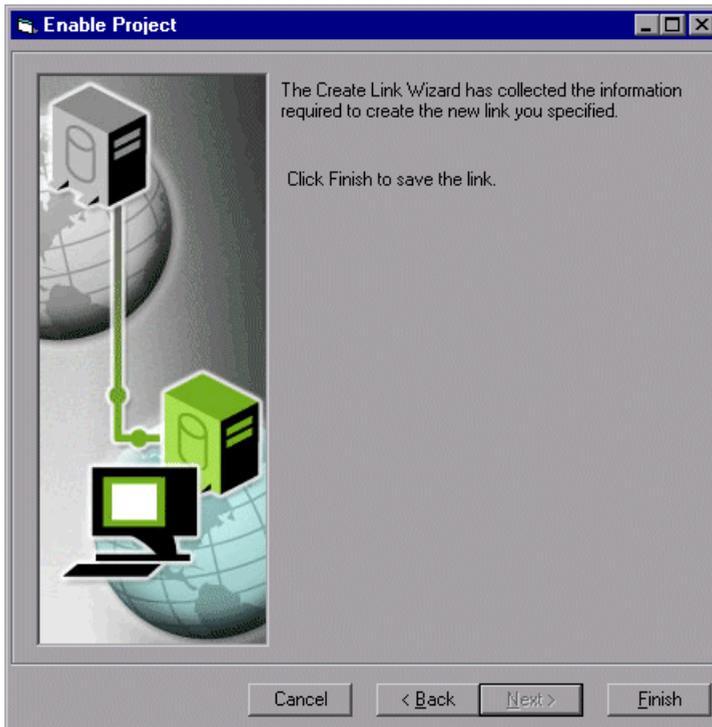
Click **Finish** to close the wizard and create a shortcut on your desktop.

Mapping Fields

After you have enabled the Quality Center project for integration, you map the Quality Center fields to IT Governance Center fields.

To map fields:

1 In IT Governance Center-Quality Center Configuration's main window, expand the tree until the child node at the lowest level ("defect", "requirement", or both) is visible.

2 Click the child node that you want to map, and then choose **Action** > **Add Mapping**.

The Map Fields wizard opens.
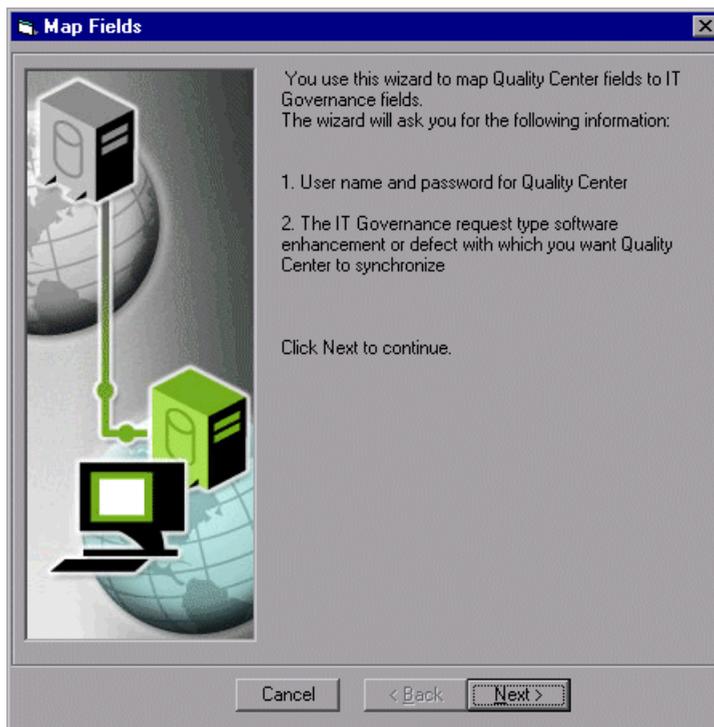
Click **Next** to continue.

3 In the next dialog box, enter the Quality Center administrator's user name and password
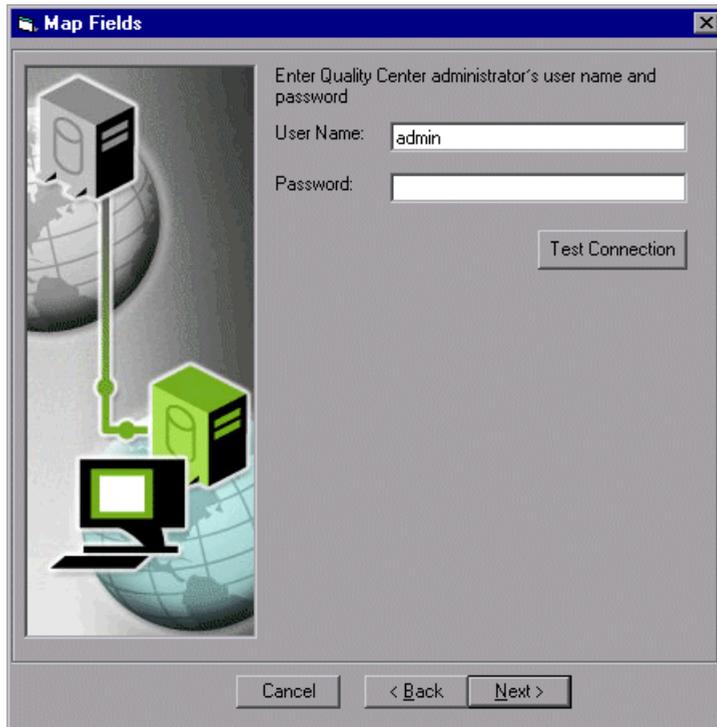
4 Click **Next**. The following dialog box opens.
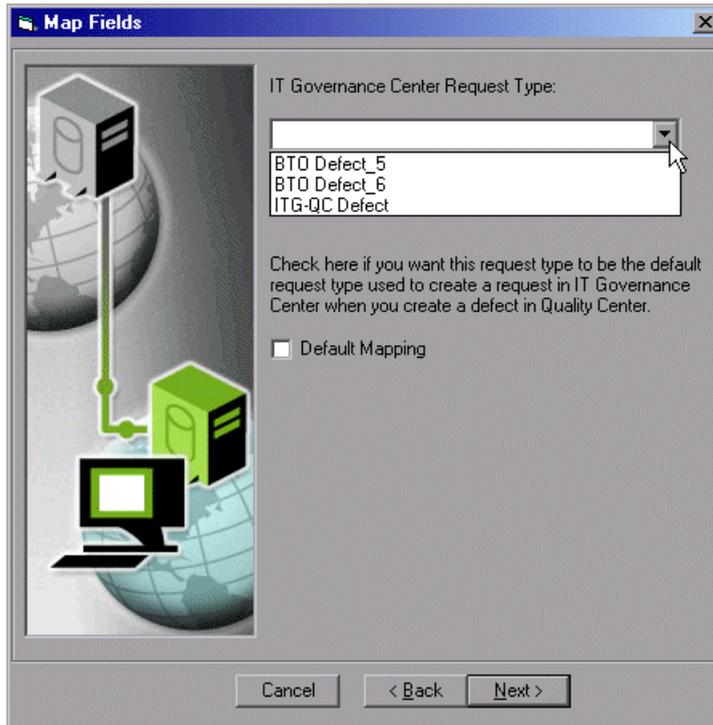
The drop-down list includes all the IT Governance Center request types that can be mapped to a Quality Center defect or requirement (depending on whether you selected a defect or a requirement from the tree when you opened this wizard).

Choose the IT Governance Center request type with which you want Quality Center to synchronize.

If you are mapping the fields of a defect, the dialog box includes a **Default Mapping** check box. If this is the first defect mapping you are creating for the Quality Center project (that is, the first time you are mapping a request type to a defect in the Quality Center project), the Default Mapping box is selected and disabled, so you cannot deselect it. If this is not the first defect mapping for the project, the box is enabled and is not selected.

To specify that the request type you are mapping should be the default request type used to create a request in IT Governance Center when you create a defect in Quality Center, select **Default Mapping**.

5 Click **Next**. In the next window, the IT Governance Center fields and the Quality Center fields to which they are mapped are displayed.
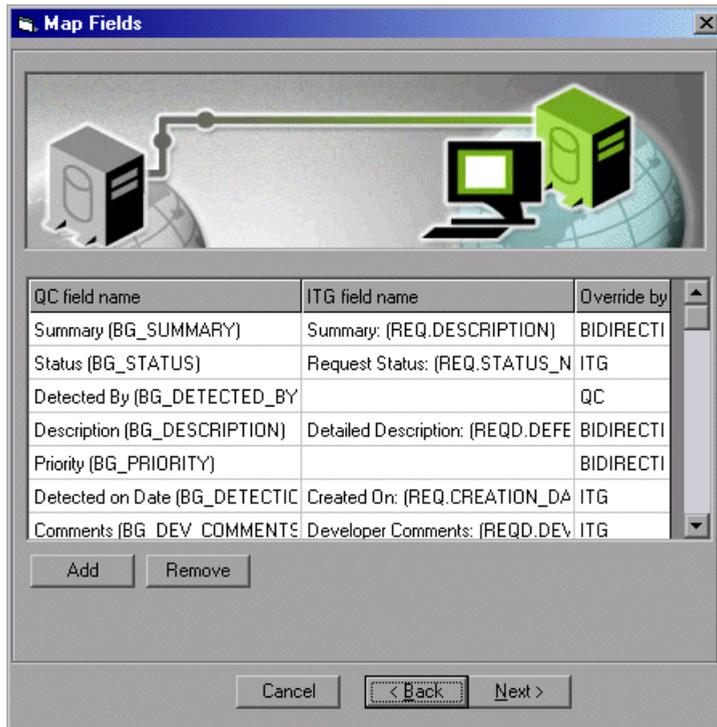
The **Override by** column specifies the dominant field—that is, the one that overrides the other if a pair of mapped fields contain different values:

➤ **QC**: Changing the value in a Quality Center field causes the same change to be made to the corresponding IT Governance Center field.

➤ **ITG:** Changing the value in an IT Governance Center field causes the same change to be made to the corresponding Quality Center field.

➤ **BIDIRECTIONAL:** Changing the value of a field in either application will cause a change to the corresponding field in the other.

To change the dominant field, click the **Override by** field of the relevant field mapping, and choose another value from the list.

6 To add a pair of fields to the mapping, click **Add**. The Add Field dialog box opens.
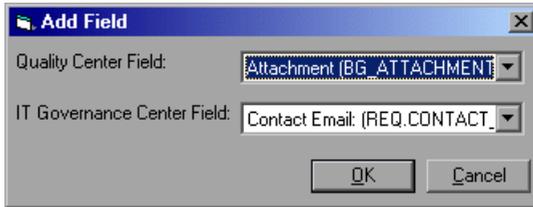
In the **Quality Center Field** box, choose the Quality Center field. In the **IT Governance Center Field** box, choose the IT Governance Center field to which you are mapping the Quality Center field. Then click **OK**. The pair of fields is added to the mapping and appears in the list of mapped fields.

7 To remove a pair of fields from the mapping, click a line to select it and then click **Remove**. When the application asks whether you want to delete the selected line or lines, click **Yes**.

8 Make any necessary changes to the mapping and click **Next**.

9 Click **Next**. In the window that opens, click **Finish** to save the link and close the wizard.

The new mapping is displayed in IT Governance Center-Quality Center Configuration.
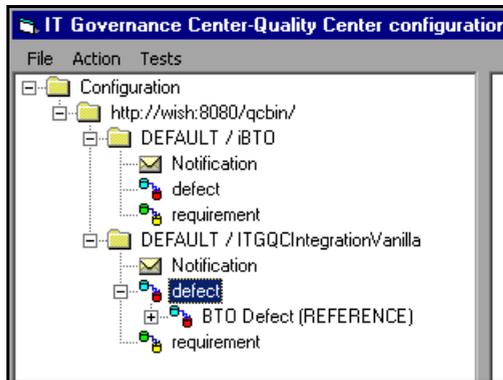
10 By default, the XML mapping file (ITGQCIntegration.xml) is saved in the directory in which you installed IT Governance Center-Quality Center Configuration.

To save the XML file elsewhere, choose **File > Export To** and specify the location.

11 Choose **File > Exit** to close IT Governance Center-Quality Center Configuration.

After you have completed the mapping, you can proceed to loading the XML mapping file.

For more information, see "Loading the XML Mapping File" on page 64.

Changing Configuration

After you have configured IT Governance Center and Quality Center for the integration, you can use IT Governance Center-Quality Center Configuration to make changes to the configuration.

You can change the configuration for a request type mapping or for an entire Quality Center project. When you make changes to the project's mapping, the changes apply to all the request types mapped to the project. For example, if you delete the mapping for the project, this also deletes the mapping for all the project's mapped request types.

You can do the following:

➤ Delete a mapping

➤ Disable a mapping

➤ Enable a mapping that you disabled previously

➤ View and change a mapping

Deleting a Mapping

When you delete a mapping, the connection between the corresponding fields in IT Governance Center and Quality Center is removed, and updating a field in one application no longer causes an update in the other. If you subsequently want the applications to update each other, you need to create a new mapping (see "Mapping Fields" on page 51).

To delete a mapping:

1 Right-click the project or request type and choose **Delete Mapping**.
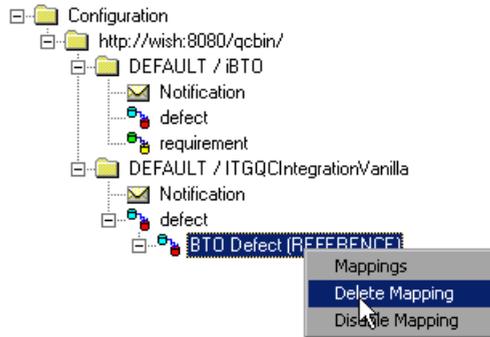
2 The application asks whether you want to delete the mapping. Click **Yes**.

Disabling a Mapping

When you disable a mapping, the mapping is not deleted, but does not accommodate integration: creating a request in IT Governance Center does not create a defect or requirement in the Quality Center project, and creating a defect in Quality Center does not create a request in IT Governance Center. In addition, updating a field in one application does not update the field to which it is mapped in the other.

If you subsequently want to enable the mapping, you do not need to recreate it. See "Enabling a Mapping" on page 61.

To disable the mapping between a request type and a defect or requirement:

1 Right-click the project or request type and choose **Disable Mapping**.
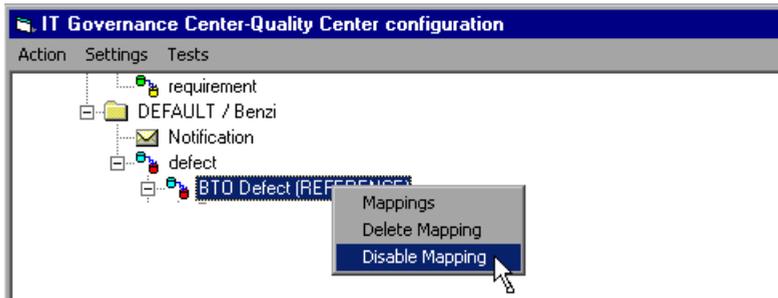
2 The application asks whether you want to disable the mapping. Click **Yes**.

Enabling a Mapping

You can enable a mapping that you previously disabled (see "Disabling a Mapping" on page 60).

To enable a mapping that was previously disabled:

Right-click the project or request type and choose **Enable Mapping**.

Viewing and Changing a Mapping

You can view the way fields are mapped, and make changes to the mapping.

To view a mapping:

1 Right-click the request type and choose **Mappings**.
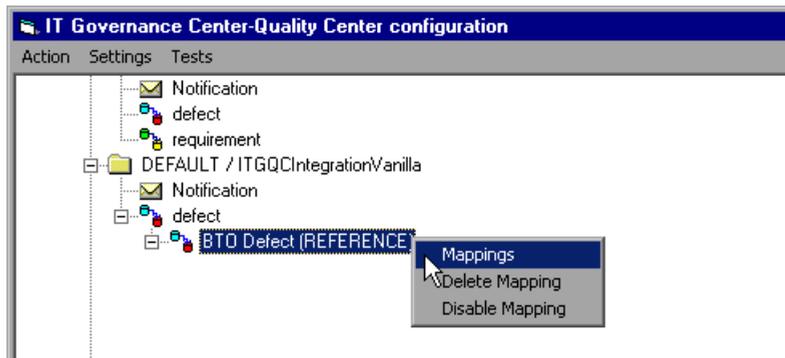
The Map Fields dialog box opens, displaying the Connection Settings tab.
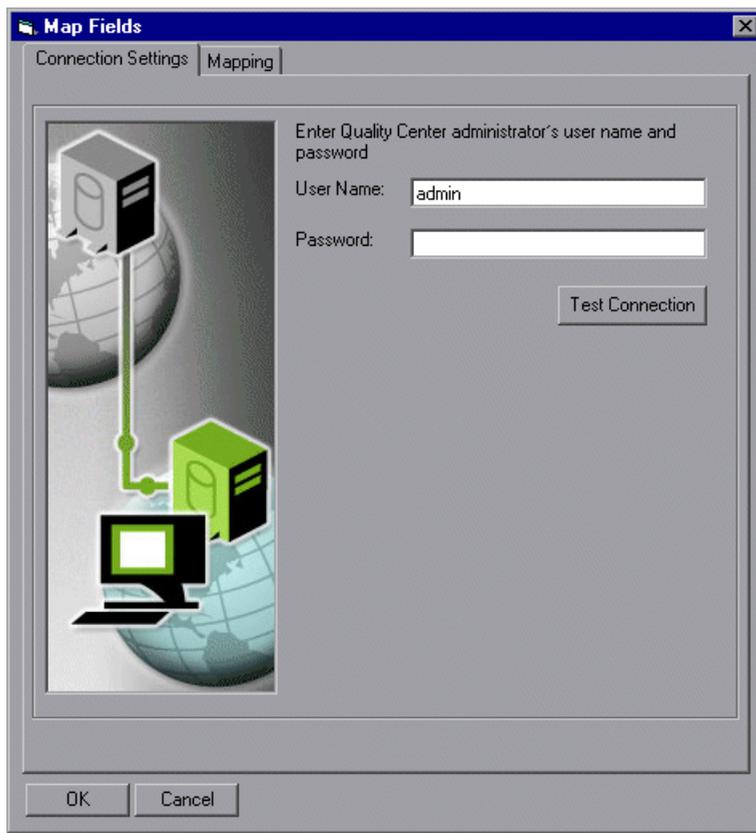
2 To view the mapping, enter your Quality Center user name and password and then click the **Mapping** tab.

The mapping is displayed as in the following example.
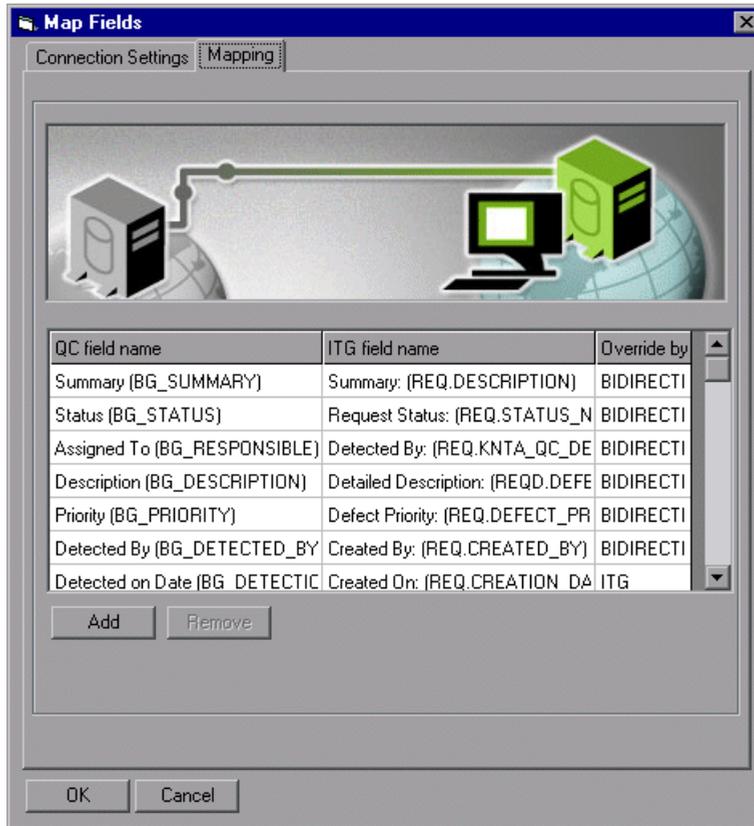
You use this tab to change the mapping in the same ways in which you created the initial mapping. For more information on how to make changes to the mapping, see "Mapping Fields" on page 51.

Loading the XML Mapping File

Once you have completed the configuration process, you load the XML mapping file (ITGQCIntegration.xml) into IT Governance Center and Quality Center, and then restart IT Governance Center.

When you created the XML mapping file, it was stored either in the directory in which you installed IT Governance Center-Quality Center Configuration or in another directory that you specified (see Step 10 of "Mapping Fields" on page 57). If you do not know where the file is located, check the Windows registry. The path in the registry is HKEY_LOCAL_MACHINE\SOFTWARE\Mercury Interactive\IT Governance - Quality Center Integration Configuration Tool\IntegrationXml.

Note: Before you load the XML mapping file into IT Governance Center, make sure that the relevant properties are set as follows in the server.conf configuration file.

com.kintana.core.server.ENABLE_WEB_SERVICES=true

com.kintana.core.server.ENABLE_QUALITY_CENTER_INTEGRATION=true

com.kintana.core.server.ENABLE_QUALITY_METRICS_SYNC=true

For details on these properties, see "Setting IT Governance Center Properties" on page 40.

To load the mapping file into IT Governance Center:

1 Copy the mapping file to <ITG_home_directory>/conf/ on the IT Governance Center server.

2 Restart IT Governance Center.

To load the mapping file into Quality Center:

1 Copy the mapping file to the Quality Center script repository at repository/sa/DomsInfo on each of the Quality Center servers that you defined in the integration.

2 Uncomment the following tag in the XML file's **configurations** > **general** > **params** section:

<param name="QC_URL">QC-URL</param>

3 Edit the tag so that it specifies the Quality Center server's URL.

For example, if the Quality Center server's URL is http://wish:8080/qcbin/, edit the tag so that it reads as follows:

<param name="QC_URL">http://**wish:8080/qcbin/**</param>

4 For each Quality Center server, browse to the following URL:

http://<host>:8080\qcbin\services\QCAdminServices?method= reloadConfigXML

The mapping file is loaded into the Quality Center servers.

Uninstalling

To uninstall IT Governance Center-Quality Center Configuration, use the **Add/Remove Programs** command in the Windows Control Panel.

8

Creating Request Types and Workflows for Integration with Quality Center

This chapter contains guidelines on how to build request types and workflows that integrate with Quality Center, based on the provided request types and workflows.

This chapter includes the following sections:

➤ About Creating Request Types and Workflows

➤ Customizing Request Types

➤ Customizing Workflows

About Creating Request Types and Workflows

To enable integration between IT Governance Center requests and Quality Center projects, you need to make sure that the request types and projects have the necessary matching fields, and that the workflows use steps that support integration.

IT Governance Center-Quality Center Integration for Change Management includes IT Governance Center request types and workflows that use Quality Center capabilities. The provided workflows include the required steps. It is recommended to use the IT Governance Center Workbench to copy these steps from the provided workflows and paste them into your own workflows, or use them as guidelines for creating your own steps.

After you install the integration add-ins on IT Governance Center and Quality Center, you can create integration–enabled request types and workflows in the following ways:

➤ Customizing your existing IT Governance Center request types by adding the components required for integration.

➤ Creating new request types that incorporate the components required for integration.

➤ Copying the provided request types and workflows (which already contain the components required for integration) and making your changes to the copies.

After you have customized the request types and workflows, you use the configuration tool to map the IT Governance Center fields to Quality Center fields. For details, see Chapter 7, "Configuring IT Governance Center and Quality Center for the Integration."

Customizing Request Types

When you create or customize a request type for integration with Quality Center, you need to do the following:

➤ Decide which request type is going to be mapped to each Quality Center project. Then make sure that the request type and project have the required corresponding fields.

➤ Make sure that each pair of corresponding fields allows the required valid values. For example, if a Quality Center field contains a drop-down list, make sure that the corresponding field in the IT Governance Center request can accept the values in the list. If you update a field in one application with a value that is not valid in the other, the field in the second application will not be updated.

Customizing Workflows

When you create or customize an IT Governance Center workflow for integration with Quality Center, you need to ensure that the workflow includes execution steps and decision steps that enable the integration. You can create these steps, or use the ones that appear in the provided workflows.

Execution Steps

If your workflow needs to create a defect or a requirement in Quality Center, it is recommended to use the special execution steps that are included in the provided workflow (instead of building the steps yourself). One step creates a defect, and the other a requirement.

Note: If your workflow does not include one of these steps, it cannot create defects or requirements in Quality Center.

Once an execution step has created a requirement or defect in Quality Center, every time the IT Governance Center request status changes, the Quality Center status also changes if the IT Governance Center status appears in its list.

For example, if the IT Governance Center request status changes to **Open**, the Quality Center status will also change to **Open**, as long as **Open** is one of the allowed values in the Quality Center status field.

Note: Quality Center workflows include VB scripts that can limit the changes that a user can make to a field. For example, a VB script may specify that at a certain point in the Quality Center workflow, the user cannot change the status from **Open** to **Closed**.

If you update an IT Governance Center field with a value that is valid in the corresponding Quality Center field, the Quality Center field will be updated with the IT Governance Center value even if according to the VB script the field should not be updated with the value.

To add the special execution steps to workflows:

1 Open the IT Governance Center Workbench and choose **Configuration** > **Workflows**. The Workflow Workbench opens, along with the Workflow Step Sources window.
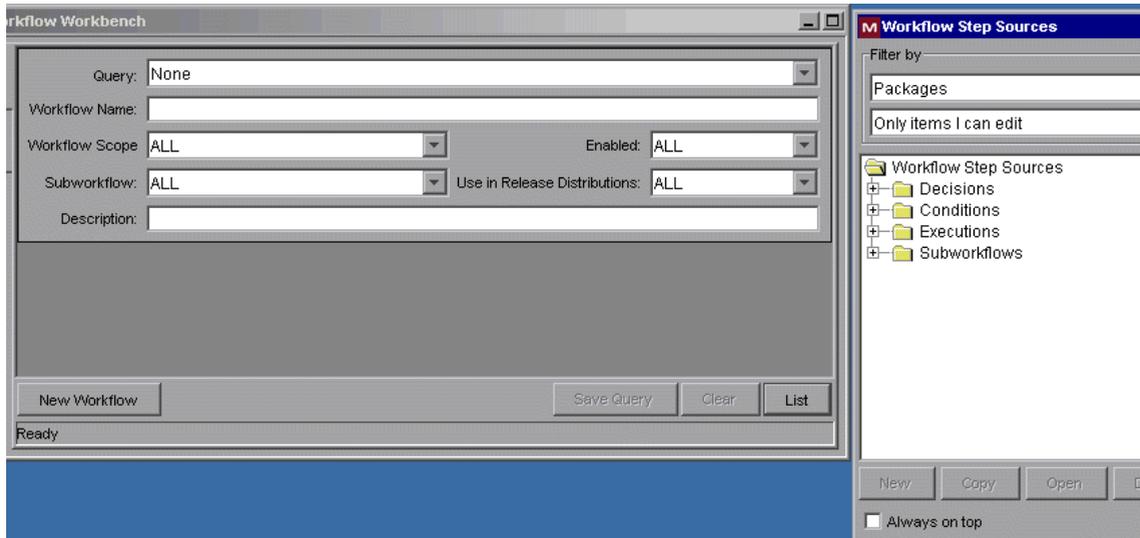
2 Click **List**. The list of available workflows is displayed.
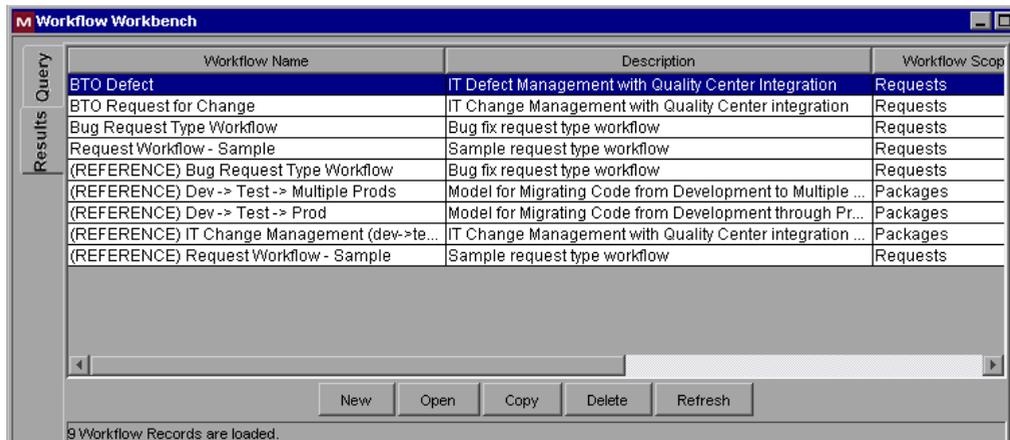
3 Select the relevant provided workflow. For example, if you are creating a workflow for creating and handling a software change, click **BTO Request for Change**.

4 Click **Open**. The selected workflow opens.

5 In the Workflow Step Sources window, expand the Executions element. The available execution steps are displayed.
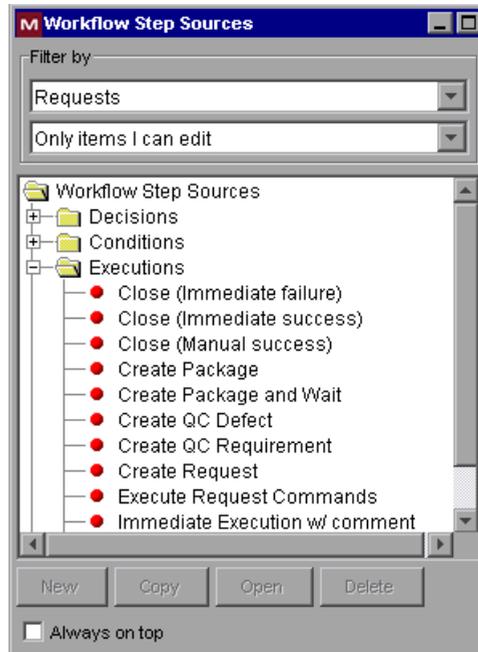
6 Select the execution step that you want to add to your workflow:

- ➤ If your workflow needs to create a defect, select the **Create QC Defect** step.

- ➤ If your workflow needs to create a change, select the **Create QC Requirement** step.

7 Click **Copy** in the Workflow Step Sources window. The Copy Execution window opens.
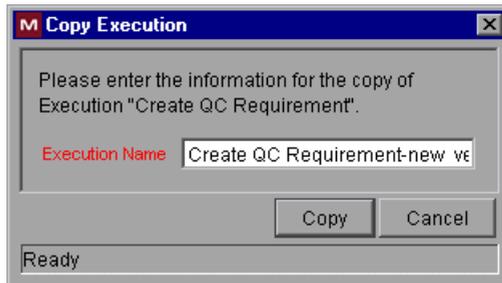
8 Enter a name for your execution step and click **Copy**. The Workbench application asks you whether you want to edit your new step. You can either edit the step now or do so at a later date using the Workbench.

If you decide not to edit the step now, or after you finish editing the step, the new step is added to the list of execution steps in the Workflow Step Sources window.
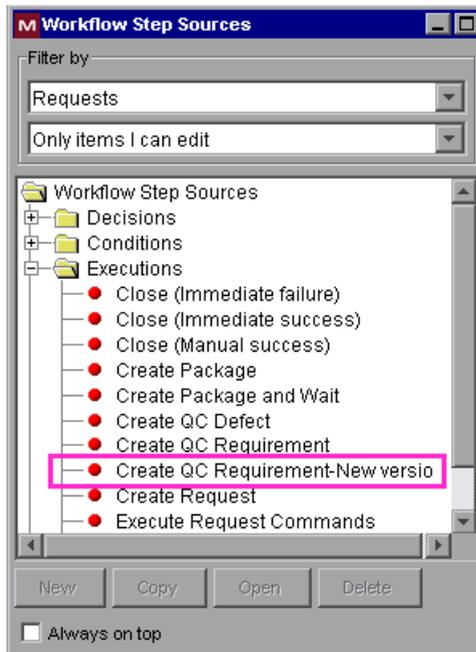
Note: You may need to collapse and then expand the Executions element in order to see the new step.

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9 In the Workbench, select the workflow to which you want to add the new step, and click **Open**. The Workbench displays your workflow.

10 In the Workflow Step Sources window, select your new step and drag it into your workflow's Layout tab. The Workflow Step dialog box opens.

11 Enter the necessary information in the Workflow Step dialog box and click **OK** to add the step to your workflow.

12 If necessary, use the Workbench to modify the step as needed for your workflow.

Decision Steps

When an IT Governance Center workflow is integrated with a Quality Center project, you can use a change in the Quality Center status to change the status in the IT Governance Center request, causing the request to progress through an active decision step to the next step in the workflow.

To enable this functionality, you need to ensure that the IT Governance Center includes correctly–designed decision steps. This means making sure that the following 3 fields contain the same value:

➤ The new Quality Center status

➤ The content of the Meaning field of the validation in an active decision step

➤ The value of the Request Status field in the destination step

If these three fields are not identical, the IT Governance Center workflow does not advance when the Quality Center status is updated.

For example, in the following section of a workflow, the transition leading from Step 10 to Step 11 is called **1 - Requirements Setup Completed**.
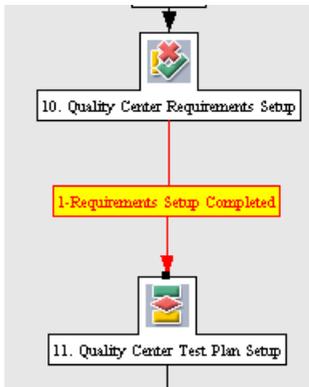
If you double-click Step 11 (the destination step), the Properties tab of the Workflow Step window shows that the value in the Request Status field is also **1** - **Requirements Setup Completed**.

This means that if the Quality Center status is changed to **1 - Requirements Setup Completed** when Step 10 is active, the workflow will progress to Step 11, because all 3 fields—the Quality Center status, the transition, and the destination step's Request Status—have the same value.

To change the value of the destination field's Request Status field:

In the step's Workflow Step window, enter the new value and click **OK**.

To set the transition's Meaning field to the same value as the destination step's Request Status:

1 In the Workbench, select your workflow and click **Open**. The Workbench displays your workflow.

2 Right-click the decision step and choose **Edit Source**. The Decision window opens.
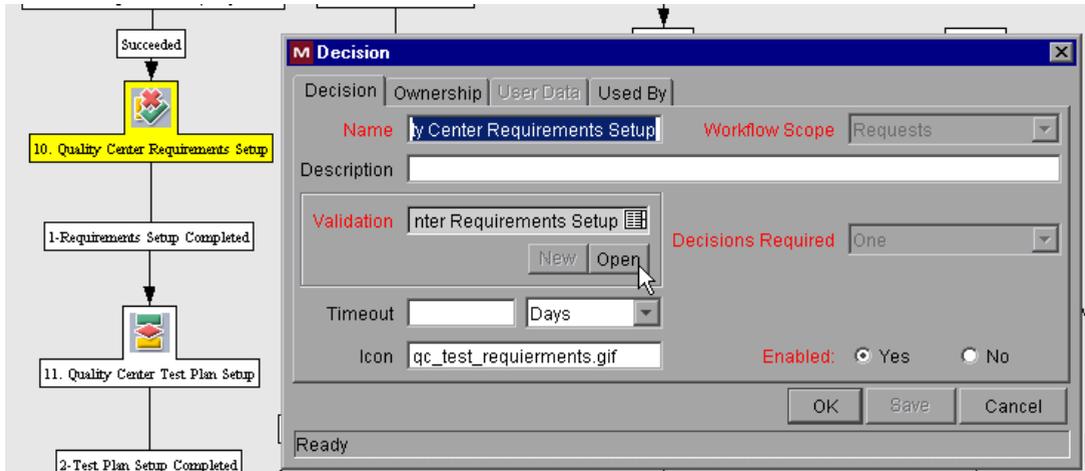
3 In the Validation section, click **Open**.

The Validation window opens.

The Meaning fields contain values that determine transitions. In this example, the Meaning field specifies that the step will transition to another step if the destination step's Request Status is **1 - Requirements Setup Completed**.

4 To change the value in the Meaning field, click the field and then click **Edit**.

The Edit Validation Value window opens.
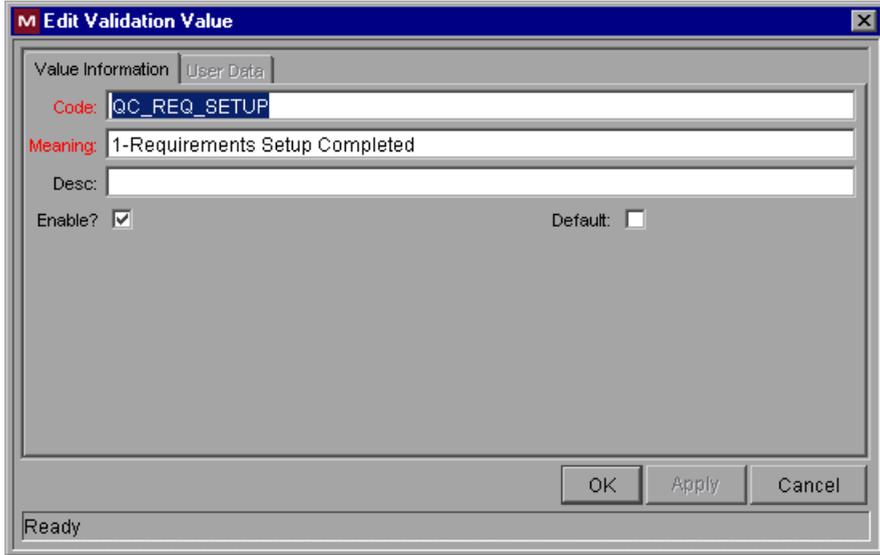
Enter the new value in the Meaning field and click **OK**.

For examples of decision steps that have been configured to be integrated with Quality Center, see the provided workflows.

Note: A Quality Center decision step in IT Governance Center (that is, an IT Governance Center request that is supposed to be updated by the Quality Center change in status) can have its status changed in Quality Center only by a user with Administrator rights.

Make sure that the list of valid request status values in IT Governance Center includes the Quality Center status names.

If the Quality Center status does not appear in the list of valid request status values in IT Governance Center, IT Governance Center transmits an error message to Quality Center, the Quality Center status reverts to what it was before it was changed, and the IT Governance Center workflow does not progress.

9

Troubleshooting the Integration

This chapter describes how troubleshoot the integration between IT Governance Center and Quality Center.

It contains the following sections:

➤ About Testing the Integration

➤ The Testing Process

➤ Configuration Tool Tests

➤ Troubleshooting

About Testing the Integration

After you have installed the patches, configured the applications, and loaded the XML files into IT Governance Center and Quality Center, you can run tests to verify that the integration is working.

Note: Before you can run the tests, you need to temporarily disable the Quality Center Web service security as follows:

In the XML mapping file, delete or comment out the following line:

<param name="AUTHENTICATION">U3NrZFdWeVJz</param>

After you finish testing, make sure you replace the line in the file.

The Testing Process

You use IT Governance–Quality Center Configuration for testing the integration.

You test the integration as follows:

1 Invoke IT Governance–Quality Center Configuration. For details about IT Governance–Quality Center Configuration, see Chapter 7, "Configuring IT Governance Center and Quality Center for the Integration."

2 In the main IT Governance–Quality Center Configuration window, choose **Tests > Test**.

The Quality Center Domains and Projects dialog box displays a list of the mapped projects.

	Quality Center URL	Domain	Project	Defect	Requirement
☐	http://wish:8080/qcbin/	DEFAULT	iBTO	True	True
☐	http://wish:8080/qcbin/	DEFAULT	ITGQCIntegrationVa	True	True
☐	http://wish:8080/qcbin/	DEFAULT	Benzi	True	False

Quality Center Domains and Projects

Select the domains and projects to test:

Cancel   Next
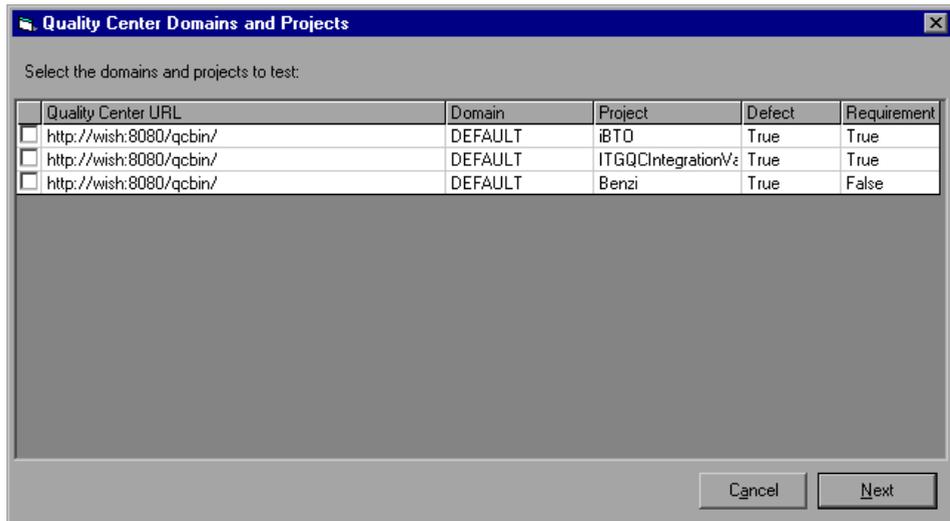
3 Select a project that you want to test. The Quality Center authentication dialog box asks for the Quality Center administrator's user name and password.

4 Enter the requested information and click **OK**.

5 Repeat steps 3 and 4 for each of the projects that you want to test.

6 Click **Next**. The Integration Tests window opens.
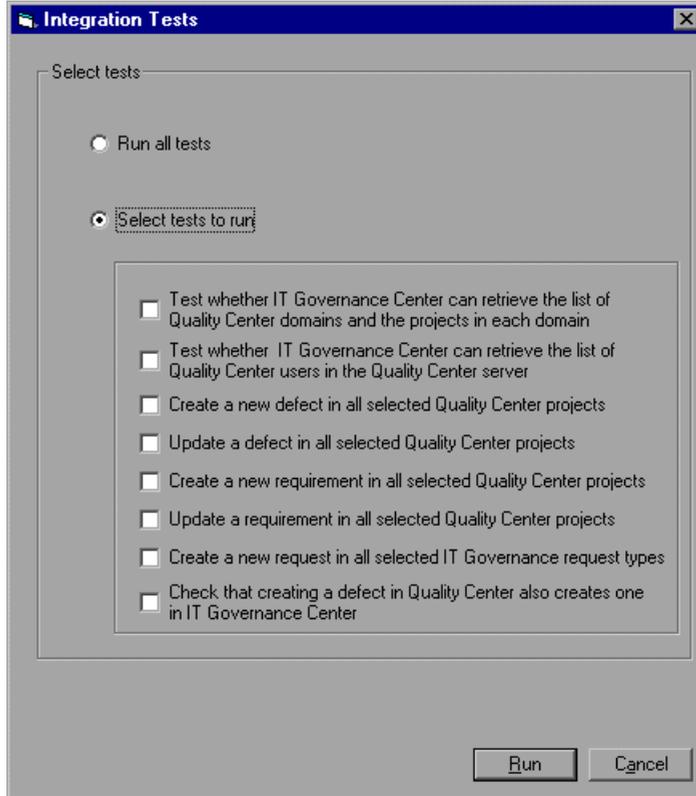
You can perform one or more of the following tests:

➤ Test whether IT Governance Center can retrieve the list of Quality Center domains and the projects in each domain

➤ Test whether IT Governance Center can retrieve the list of Quality Center users in the Quality Center server

➤ Create a new defect in all selected Quality Center projects

➤ Update a defect in all selected Quality Center projects

➤ Create a new requirement in all selected Quality Center projects

➤ Update a requirement in all selected Quality Center projects

➤ Create a new request in all selected IT Governance Center projects

➤ Check that creating a defect in Quality Center also creates one in IT Governance Center

---

Note: The first two tests can be run as soon as you finish mapping IT Governance Center to the Quality Center projects. To run the other tests, you first need to load the XML mapping file into IT Governance Center and Quality Center. For details, see Chapter 9, "Loading the XML File."

---

7 Select the tests that you want to run. For details on each test, see "Configuration Tool Tests" on page 84.

To select all the tests, select **Run all tests**.

8 Click **Run** to run the selected tests. When the tests are complete, a log is displayed. The log shows the result of each test.

Test Name	Result Name	Result Value	Domain	Project
Get Domains -http://wish:8080/qcbin/				
	Domain - Projects	DEFAULT - Benzi,		
	Domain - Projects	DEMO - Demo1, Vanilla		
	Domain - Projects	QA - QA1, QA2		
	Domain - Projects	RDTESTS - R_DTest2, R_DTest1		
Get All Users - http://wish:8080/qcbin/				
	At least one user created	OK		
Create New Defects - http://wish:8080/qcbin/				
	Create defect	Fail	DEFAULT	iBTO
	Create defect	Fail	DEFAULT	ITGQCInteg
Update Defects - http://wish:8080/qcbin/				
	Create defect	Fail	DEFAULT	iBTO
	Create defect	Fail	DEFAULT	ITGQCInteg
Create New Requirements - http://wish:8080/qcbin/				
	Create requirement	Fail	DEFAULT	iBTO
	Create requirement	Fail	DEFAULT	ITGQCInteg
Update Requirements - http://wish:8080/qcbin/				
	Create requirement	Fail	DEFAULT	iBTO
	Create requirement	Fail	DEFAULT	ITGQCInteg
QC ITG Create Defect Integration - http://wish:8080/qcbin				
	Integration create defect	Fail create defect on ITG	DEFAULT	iBTO
	Integration create defect	Fail create defect on ITG	DEFAULT	ITGQCInteg

Configuration Tool Tests

This section explains what you should do if a test fails.

Test 1: Test whether IT Governance Center can retrieve the list of Quality Center domains and the projects in each domain

If the test fails, check whether one of the following has occurred:

➤ General Quality Center installation problem. To eliminate this possibility, open a browser to Quality Center and check that it works as expected.

➤ The IT Governance Center-Quality Center Integration Add-in was not installed properly. Reinstall the add-in.

   If this does not help, call Mercury Support.

➤ If you are running Quality Center on WebSphere, see the instructions on deploying Quality Center on WebSphere ("Deploying the Add-in on a WebSphere Application Server" on page 28).

Test 2: Test whether IT Governance Center can retrieve the list of Quality Center users in the Quality Center server

If the test fails, this indicates that the Quality Center project or domain is not valid. Check whether either was deleted or disabled in Quality Center.

Test 3: Create a new defect in all selected Quality Center projects

If this test fails, check whether one of the following has occurred:

➤ The configuration tool and Quality Center have different versions of the XML mapping file (ITGQCIntegration.xml). Make sure that IT Governance Center, the configuration tool, and Quality Center have the same XML mapping file.

   If the mapping files are identical and the test still fails, call Mercury Support.

Test 4: Update a defect in all selected Quality Center projects

If this test fails, contact Mercury Support.

Test 5: Create a new requirement in all selected Quality Center projects

If this test fails, check whether one of the following has occurred:

➤ The configuration tool and Quality Center have different versions of the XML mapping file (ITGQCIntegration.xml). Make sure that IT Governance Center, the configuration tool, and Quality Center have the same XML mapping file.

If the mapping files are identical, call Mercury Support.

Test 6: Update a requirement in all selected Quality Center projects

If this test fails, contact Mercury Support.

Test 7: Create a new request in all selected IT Governance Center request types

If this test fails, call Mercury Support.

Test 8: Check that creating a defect in Quality Center also creates one in IT Governance Center

If this test fails, do the following:

➤ Check that there is a connection between Quality Center and IT Governance Center. (Use the **Ping** command.)

➤ Check that the IT Governance Center user credentials that were specified in the configuration tool (**File** > **IT Governance Center Settings**) are valid. If the IT Governance Center user name or password has been changed, use the configuration tool to specify the new values (**File** > **IT Governance Center Settings**), click **OK**, and reload the XML file to Quality Center and IT Governance Center.

➤ Make sure that the IT Governance Center user whose credentials you entered in the configuration tool has the role of Administrator.

Troubleshooting

This section gives you information on handling problems that may occur when installing, configuring, or using IT Governance Center-Quality Center Integration for Change Management.

If you encounter a problem that is not listed in this section, run the configuration tool tests to try to locate the cause of the problem. For details, see "Configuration Tool Tests" on page 84.

If after running the tests you have still not solved the problem, call Mercury Support.

Unsuccessful connection test in IT Governance Center Settings dialog box

In the IT Governance–Quality Center Configuration tool (see Chapter 7, "Configuring IT Governance Center and Quality Center for the Integration"), if clicking **Test Connection** in **File** > **IT Governance Center Settings** indicates a problem in the connection, check the following:

1 SP4 was installed properly on ITG and the installation passed with full success.

2 Installation of IT Governance Center patch was successful.

3 The following properties exist and have been set to **true** in the ITG_HOME/server.conf file:

com.kintana.core.server.ENABLE_QUALITY_CENTER_INTEGRATION=true

com.kintana.core.server.ENABLE_QUALITY_METRICS_SYNC=true

com.kintana.core.server.ENABLE_WEB_SERVICES=true

Note: If these hints do not solve the problem, call Mercury Support.

Mapped fields are not synchronized

If you discover that a pair of mapped fields is not synchronized, this may be caused by special field names in IT Governance Center. Search the XML mapping file for the string **.UD** and delete any occurrences of it.

Error in Quality Center when saving a defect

If the content of a memo field in Quality Center is longer than the maximum size of the IT Governance Center field to which it is mapped, an error is generated in Quality Center when Quality Center saves the defect. **Workaround**: Enlarge the IT Governance Center maximum size, or shorten the content of the field.

Synchronization Error

If you receive the following error message when updating the IT Governance Center request,

Error

The system encountered a problem while trying to synchronize changes to Quality Center. The changes have been saved in ITG. Please try saving again later in order to complete the synchronization with Quality Center. Click here to redisplay request details. (KCRT-40199)

this might be caused by having an existing requirement with the same name as the request's description.

When creating a request in IT Governance Center also causes creation of a requirement in Quality Center, the requirement's name is taken from the request's Description field. For example, if the request's Description field contains the string "UI_ADDITION", the requirement will be named "UI_ADDITION". If a requirement with the same name already exists in the same tree in Quality Center, the new requirement will be named "UI_ADDITION**1**".

Check in Quality Center whether redundant requirements have been created in the same tree. If they exist, change the content of the Description field in the IT Governance Center request.

Open Defects field does not include all relevant statuses

By default, the Open Defects field in an IT Governance Center request shows only the number of defects that have the status **Open** in the Quality Center project. If you want the field to include defects that have other statuses (for example, **New** or **Reopen**), you need to add an element for each additional status to the XML mapping file.

In the **Params** element for the specific project, use a text editor to add the following element for each additional status:

<param name="BUG_STATUS_OPEN">**<additional status>**</param>

For example, if you want the Open Defects field to include the status **New**, add the following element:

<param name="BUG_STATUS_OPEN">**New**</param>

Note: After you have used the text editor to add the necessary elements, you cannot use the configuration tool to view or edit the XML file. If you need to edit the xml file, do as follows:

1 Using a text editor, comment out the added lines and save the file.

2 Use the configuration tool to make your changes.

3 Use the text editor to uncomment the added lines

Redundant User Fields and Functions

It is strongly recommended not to enable a project more than once. If a project is enabled more than once, the project will include the following redundant items:

➤ User fields: These will appear as fields with slightly different names.

➤ Functions in the script of the enabled module (Requirements module or Defects module): The function will be duplicated in the script.

To avoid problems, delete the extra fields and functions.

IT Governance Center fields not seen in the configuration tool

This indicates that neither the Quality Center Defect Information nor the Quality Center Info appear in any of the IT Governance Center request types. Solution: Reinstall the ITG patch.

Request not created in IT Governance Center when a defect is created in Quality Center

If Quality Center displays the **Failed to post Defect values** message, do the following:

1 Check the connection from Quality Center to IT Governance Center (use the **ping** command).

2 Continue with the configuration tool tests ("Configuration Tool Tests" on page 84).

Part III

Working with IT Governance/Quality Center Integration for Change Management

10

Examples of Processing Integrated Requests

IT Governance Center-Quality Center Integration for Change Management allows you to create requests that use the functionality of both IT Governance Center and Quality Center. At different stages in the request's life cycle, you use either IT Governance Center or Quality Center to progress through a request's workflow.

Note: The provided workflows have been updated and may differ from the workflows described in this chapter. Check the Mercury Quality Center More Add-ins page or the IT Governance Center Download Center for documentation updates.

This chapter gives examples of how these requests are processed by users of both applications.

This chapter includes the following topics:

➤ About Processing Integrated Requests

➤ Users

➤ Processing a Request for Change

➤ Processing a Defect Created in IT Governance Center

➤ Processing a Defect Created in Quality Center

About Processing Integrated Requests

When you create defects and requests for changes, IT Governance Center and Quality Center interact in the following ways:

Processing Requests for Changes

When you create a request for change, you use IT Governance Center for the development, and Quality Center for the QA process. When you create the request in IT Governance Center, a requirement is created in Quality Center and the QA process begins in parallel with development.

As the QA team progresses from one stage in the process to the next, the QA status is communicated to IT Governance Center. This allows the IT Governance Center Dashboard to show Quality Center information, and enables progress through the IT Governance Center workflow.

Processing Defects

When you need to create a defect, you can do it in either IT Governance Center or Quality Center.

If you create the defect in IT Governance Center, a defect is created in Quality Center as well.

If you create the defect in Quality Center, a request is created in IT Governance Center. The request is based on the default request type specified for defects. For information on specifying the default request type, see Chapter 7, "Configuring IT Governance Center and Quality Center for the Integration."

You use IT Governance Center for the development and Quality Center for the QA process.

Users

Depending on his function, a user may use either IT Governance Center or Quality Center to progress through a request's workflow. QA personnel typically use Quality Center for handling the QA process, and other types of personnel—Marketing and Development, among others—usually use IT Governance Center.

Following is a list of the typical users who participate in the processing of a request, and the application (or applications) that each uses:

User	Responsibilities	Applications used
IT Manager	Approves new requests Approves changes for Production	IT Governance Center
Business Liaison	Creates requests	IT Governance Center
Project Manager	Assigns approved requests to personnel for fixing or creating	IT Governance Center Quality Center
Developer/ Designer	Approves design completion Approves Development completion Creates packages Fixes bugs	IT Governance Center Quality Center
QA Manager	Evaluates whether requests should enter the QA process Creates Quality Center requirements Assesses quality	IT Governance Center Quality Center

Processing a Request for Change

When you create a request for change, the process might be as follows:

Create the Request in IT Governance Center

The business liaison uses the IT Governance Center Dashboard to create a software change request.

When creating a new request, he chooses a request type and workflow that are enabled for integration. (Note that not all request types and workflows are enabled for integration.) IT Governance Center-Quality Center Integration for Change Management is supplied with building blocks that help you build integration-enabled requests. These building blocks include request types, workflows and workflow steps. It is recommended to use the provided request types and workflows as guidelines for creating your own.

The business liaison chooses the provided request type for a request for change: **BTO Request for Change**.

The request includes the Quality Metrics and Quality Center Request Info sections. These sections are used for entering details of the Quality Center project, and displaying information received from Quality Center:

Quality Metrics

Quality Center
Requirements coverage %:   Quality Center Open
                                                       Defects:

Quality Center Request Info

Quality Center Domain: [   ]   Quality Center Project: [   ]

Assigned to Quality
Center User: [   ]

Requirement No.   Requirement Status:

Link to Quality Center
Requirement
Attachments:

Requirement Integration
Message:

The business liaison submits the request.

Analyze the Change

The request is now displayed in the IT Manager's to-do list on his IT Governance Center Dashboard.

In this step, the IT Manager analyzes the request, adds comments, attaches any documents that he created or collected during the analysis (for example, Requirements documents), and clicks **Analysis Complete** to pass the request on to the next stage.

The status section of the screen shows the workflow, with the current step (**Analyze Change**) highlighted.

The graphical view also shows that the **Analyze Change** step is the next one that will be executed.
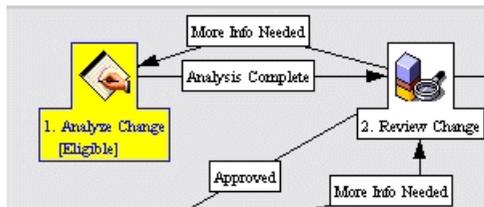
Review the Request

The next step is reviewing the request. The Dashboard displays 3 buttons for setting the request status. The reviewer can approve the request, reject it, or request more information.

BTO Request for Change - #30565

Description: add XP support	**Most Recent Note:** (View Notes Below)

Request Status: Ready for Review (View Full Status Below)

□ **Available Actions**

Review Change

Approved	Rejected	More Info Needed

Make a Copy   Delete

Expand All   Collapse All   Save

□ **Header**

□ **Summary**

Request No.:	30565	**Request Type:**	BTO Request for Change
Created By:	Admin User	**Created On:**	June 26, 2005
Department:	IS	**Application:**	CSM App
Assigned To:		**Assigned Group:**	
Priority:		**Request Status:**	Ready for Review
*Description:	add XP support		

The Graphical View displays the different paths the workflow can take at this stage. Note that the **Review Change** step—the active step—is highlighted.
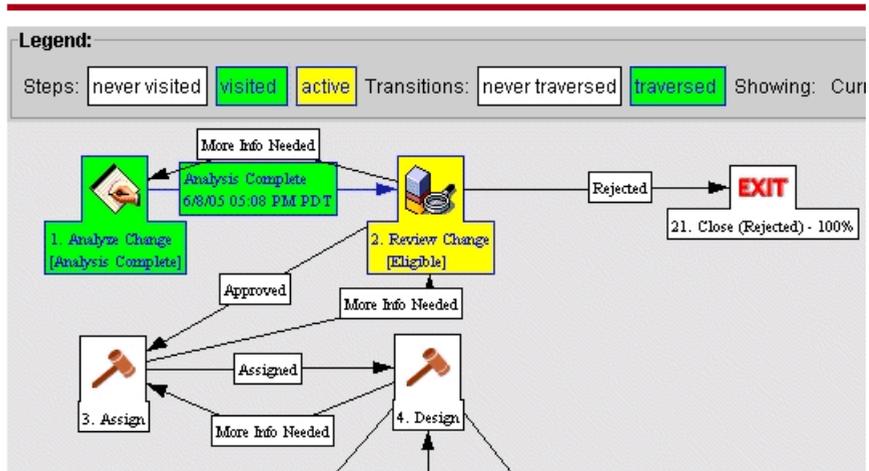
The reviewer has the following choices:

➤ **Reject the request.** If he clicks **Rejected**, the workflow ends without creating the enhancement and the request is closed.

➤ **Request more information.** If the reviewer clicks **More Info Needed**, the request is sent back to the IT Manager for more information.

➤ **Approve the request.** Once the request is approved, the request is passed on to the next stage towards creating the change: assigning it to Development for design.

He reviews the request and makes a decision. At the end of the review process, if the request is approved, the workflow progresses to the **Assign** step.

Assign the Request for Design

The Development team leader's Dashboard now displays the information for assigning the request. If there is a need for more information before assigning it, clicking **More Info Needed** sends the request back for more information.

Description: add XP support	**Most Recent Note:** (View Notes Below)
Request Status: Review Complete (View Full Status Below)	

Available Actions

Assign

Assigned	More Info Needed

Make a Copy	Delete

Expand All	Collapse All		Save

Header

Summary

Request No.:	30565	**Request Type:**	BTO Request for Change
Created By:	Admin User	**Created On:**	June 26, 2005
Department:	IS	**Application:**	CSM App
Assigned To:		**Assigned Group:**	
Priority:		**Request Status:**	Review Complete
*Description:	add XP support		

If the Development team leader chooses the name of the person to whom he is assigning the request and clicks **Assigned**, the request is passed to the development team leader for the **Design** step.

Design the Enhancement

The request is displayed on the development team leader's Dashboard.

BTO Request for Change - #30565

Description:	add XP support	**Most Recent Note:**	(View Notes Below)

Request Status: In Design (View Full Status Below)

▬ **Available Actions**

Design

Design Complete	More Info Needed

Make a Copy	Delete

Expand All	Collapse All		Save

▬ **Header**

▬ **Summary**

Request No.:	30565	**Request Type:**	BTO Request for Change
Created By:	Admin User	**Created On:**	June 26, 2005
Department:	IS	**Application:**	CSM App
Assigned To:		**Assigned Group:**	
Priority:		**Request Status:**	In Design
***Description:**	add XP support		

The development team leader is responsible for creating the design documents needed for use by the developers. He creates the documents, attaches them to the request, and adds any comments and instructions for the developers. He then clicks **Design Complete**.

Now that the design stage is complete, the workflow splits into two tracks: one for Development and one for QA, as seen in the graphical view:
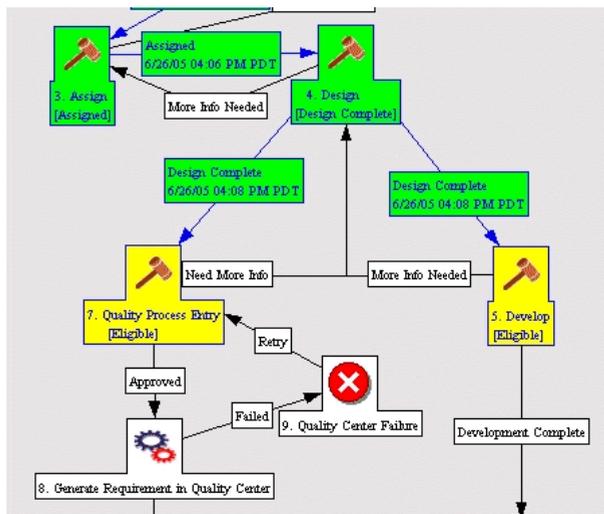
Accordingly, in the Status section, you see two steps are active: **Develop** and **Quality Process Entry**.

☐ Status				
Seq	Workflow Step Name	Step Status	Completed By	Date
1	Analyze Change	Analysis Complete	Admin User	June 29
2	Review Change	Approved	Admin User	June 29
3	Assign	Assigned	Admin User	June 29
4	Design	Design Complete	Admin User	June 29
5	Develop	Develop (View Available Actions)		June 29
6	Create Package			
7	Quality Process Entry	Quality Process Entry (View Available Actions)		June 29
9	Quality Center Failure			
10	Quality Center Requirements Setup			
11	Quality Center Test Plan Setup			
12	Quality Center Test Lab Setup			
15	Approve for Testing			
16	Quality Center Test Execution			
17	Evaluate quality			
18	Rework			
19	Approve To Production			
20	Jump to Change Manager			
21	Change in Production			
22	Close (Rejected)			
23	Close (Immediate success)			

The request now shows up in the developer's to-do list on his IT Governance Center Dashboard, and in the QA manager's.

The remainder of this section shows how each track progresses through the workflow.

Develop the Enhancement

The request is displayed on the developer's Dashboard.

The developer begins development. While development is going on, the QA process is started in parallel.

Start the QA Process

The QA manager views the request on his IT Governance Center Dashboard.

The QA Manager evaluates the request and decides whether it is ready to enter the QA process. If he decides that it is, he enters details of the Quality Center domain and project where the request will be handled.

He then clicks **Approved**. This creates and assigns a new requirement in Quality Center (under New Requests) according to the parameters he entered. (In this example, the request description in IT Governance Center was "Add XP support". This becomes the name of the new requirement in Quality Center).

Quality Center displays the IT Governance Center request number in the ITG Request field.

Note: If the QA Manager decides that the request does not need to enter the QA process, it waits in IT Governance Center for end of development.

The graphical view shows that the requirement has been created and that the next step in the QA track is **Quality Center Requirements Setup**.
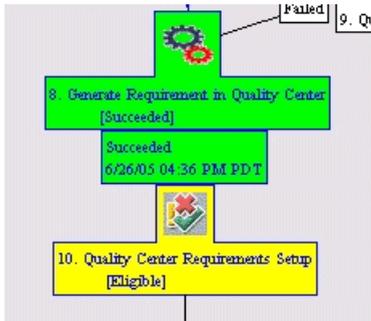
Set Up the Quality Center Requirement

In parallel with the development work, a QA engineer completes the Requirement setup in Quality Center. When this is complete, he changes the Test Requirement status in Quality Center to **1 - Requirements setup completed**.

This also updates the IT Governance Center request status. In the IT Governance Center request, you can now see the following information from Quality Center in the Quality Metrics and Quality Center Request Info sections:

➤ **Quality Center Requirements Coverage %:** The percentage of tests planned for this requirement that have been run.

➤ **Quality Center Open Defects:** The number of open defects in the project.

➤ **Assigned to Quality Center User:** The user to whom the defect has been assigned in Quality Center.

➤ **Requirement No.:** The number of the requirement in Quality Center.

➤ **Requirement Status:** The status of the requirement in Quality Center.

➤ **Link to Quality Center Requirement Attachments:** Clicking this link opens a window that displays a list of all the documents attached to the requirement in Quality Center, and allows you to open them.

➤ **Requirement Integration Message:** A message informing you whether the Quality Center integration is working properly or whether there are errors. The message changes when one of the following occurs: a new entity (a requirement or defect) is created in Quality Center by IT Governance Center, the request is updated in IT Governance Center by Quality Center, or IT Governance Center attempts to update Quality Center but encounters an error.

▣ Quality Metrics		
Quality Center Requirements coverage %:		**Quality Center Open Defects:**

▣ Quality Center Request Info		

*Quality Center Domain:	DEFAULT ▤	***Quality Center Project:**	BTO_Build6 ▤
Assigned to Quality Center User:	▤		

Requirement No.   7   **Requirement Status:**

Link to Quality Center Requirement Attachments: http://fire:8080/qcbin/getAttach?op=2&d=DEFAULT&p=BTO_Build6&t=REQ&id=7

Requirement Integration Message: A requirement was successfully created in Quality Center.

Now that the QC Requirements Setup step has been completed, the following step—**Quality Center Test Plan Setup**—is active.

Seq	Workflow Step Name	Step Status	Completed By	Date
1	Analyze Change	Analysis Complete	Admin User	June 29,
2	Review Change	Approved	Admin User	June 29,
3	Assign	Assigned	Admin User	June 29,
4	Design	Design Complete	Admin User	June 29,
5	Develop	Develop (View Available Actions)		June 29,
6	Create Package			
7	Quality Process Entry	Approved	Admin User	June 29,
9	Quality Center Failure			
10	Quality Center Requirements Setup	1-Requirements Setup Completed	Admin User	June 29,
11	Quality Center Test Plan Setup	Quality Center Test Plan Setup (View Available Actions)		June 29,
12	Quality Center Test Lab Setup			

(Status section header above table)

The graphical view also shows that the next step is **Quality Center Test Plan Setup**.

Set Up the Quality Center Test Plan

In Quality Center, the QA engineer moves to the next step: test planning, using the Quality Center Test Plan module. He creates the tests and relates them to the requirement that they cover, which Quality Center associates with the IT Governance Center Request ID.

When the QA engineer's tests cover the requirement and are ready to run, he changes the requirement status to **2 - Test Plan Setup Completed**.

Name	Direct Cover Status	ITG Request Status	ITG Request Id	ITG Request Description	ReqID
⊟ ● **New Requests**	？ Not Covered		0		[RQ0001]
⠿ add XP support	？ Not Covered	2-Test Plan Setup Completed	30565	current support is only for ...	[RQ0012]

This updates the IT Governance Center workflow status, and the appropriate workflow step is approved. The status shows that the Quality Center Test Plan Setup step has been completed, and the **Quality Center Test Lab Setup** step is now active.

⊟	**Status**			
Seq	**Workflow Step Name**	**Step Status**	**Completed By**	**Date**
1	Analyze Change	Analysis Complete	Admin User	June 26, 2
2	Review Change	Approved	Admin User	June 26, 2
3	Assign	Assigned	Admin User	June 26, 2
4	Design	Design Complete	Admin User	June 26, 2
5	Develop	Develop (View Available Actions)		June 26, 2
6	Create Package			
7	Quality Process Entry	Approved	Admin User	June 26, 2
9	Quality Center Failure			
10	Quality Center Requirements Setup	1-Requirements Setup Completed	Admin User	June 26, 2
11	Quality Center Test Plan Setup	2-Test Plan Setup Completed	Admin User	June 26, 2
12	Quality Center Test Lab Setup	Quality Center Test Lab Setup (View Available Actions)		June 26, 2
14	Quality Center Test Execution			

The graphical view also shows that the next step is **Quality Center Test Lab Setup**.
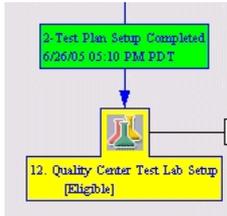
Create the Test Labs in Quality Center

The QA manager's next step is creating the Test Labs for the requirement. When this is complete, he changes the requirement status in Quality Center to **3 - Test Lab setup completed**. This also updates the IT Governance Center workflow status, which shows that the **Quality Center Test Lab Setup** step has been completed, and the QA track has ended (there is only one active step).

Status

Seq	Workflow Step Name	Step Status	Completed By	Date
1	Analyze Change	Analysis Complete	Admin User	June 29
2	Review Change	Approved	Admin User	June 29
3	Assign	Assigned	Admin User	June 29
4	Design	Design Complete	Admin User	June 29
5	Develop	Develop (View Available Actions)		June 29
6	Create Package			
7	Quality Process Entry	Approved	Admin User	June 29
9	Quality Center Failure			
10	Quality Center Requirements Setup	1-Requirements Setup Completed	Admin User	June 29
11	Quality Center Test Plan Setup	2-Test Plan Setup Completed	Admin User	June 29
12	Quality Center Test Lab Setup	3-Test Lab Setup Completed	Admin User	June 29
15	Approve for Testing			
16	Quality Center Test Execution			
17	Evaluate quality			
18	Rework			
19	Approve To Production			
20	Jump to Change Manager			
21	Change in Production			
22	Close (Rejected)			
23	Close (Immediate success)			

In IT Governance Center, the next step in the QA process (**Quality Center Test Execution**) is waiting for the Development process to complete, as seen in the graphical view.
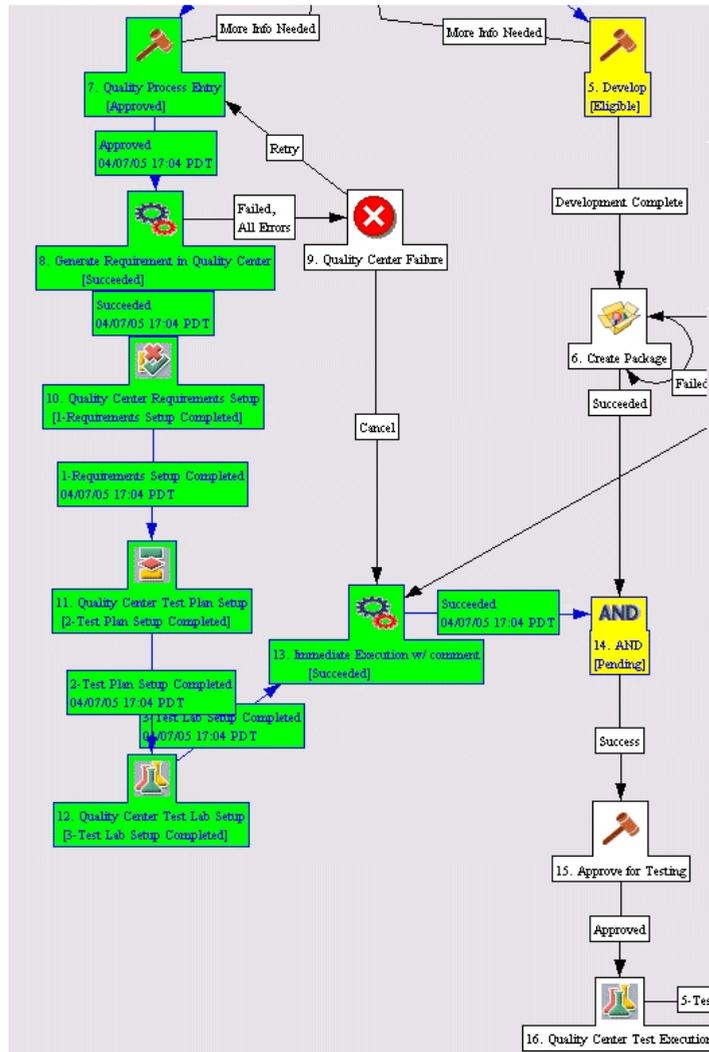
Approve for Testing

The QA manager, IT manager or project manager is responsible for approving the project for testing in Quality Center. After verifying that the Quality Center test plans are ready and that the development process is complete, he approves the project for testing.

BTO Request for Change - #30241

Description: allow multi-user access	Most Recent Note: (View Notes Below)
Request Status: 2-Test Plan Setup Completed (View Full Status Below)	

■ **Available Actions**

Approve for Testing

Approved

Make a Copy   Delete

Complete Development

When the developer has finished creating the change, he clicks the **Development Complete** button on his Dashboard.

BTO Request for Change - #30565

Description: add XP support	Most Recent Note: (View Notes Below)
Request Status: Test Plan Setup Completed (View Full Status Below)	

■ **Available Actions**

Develop

Development Complete   More Info Needed

Make a Copy   Delete

Expand All   Collapse All   Save

■ **Header**

■ **Summary**

Request No.:	30565	**Request Type:**	BTO Request for Chan
Created By:	Admin User	**Created On:**	June 26, 2005

The workflow progresses to the **Create Package** step.

Seq	Workflow Step Name	Step Status	Completed By	Date
	☐ Status			
1	Analyze Change	Analysis Complete	Admin User	June 26
2	Review Change	Approved	Admin User	June 26
3	Assign	Assigned	Admin User	June 26
4	Design	Design Complete	Admin User	June 26
5	Develop	Development Complete	Admin User	June 27
6	Create Package	Create Package (View Available Actions)		June 27
7	Quality Process Entry	Approved	Admin User	June 26
9	Quality Center Failure			
10	Quality Center Requirements Setup	1-Requirements Setup Completed	Admin User	June 26
11	Quality Center Test Plan Setup	2-Test Plan Setup Completed	Admin User	June 26
12	Quality Center Test Lab Setup	3-Test Lab Setup Completed	Admin User	June 26
14	Quality Center Test Execution			
15	Evaluate quality			
16	Rework			
17	Approve To Production			
18	Approved For Production			
19	Change in Production			
20	Close (Rejected)			
21	Close (Immediate success)			

The developer's Dashboard shows the Create Package button.

BTO Enhancement For R&D Tests - #34594

Description:	UI enhancements	Most Recent Note:
Request Status:	Execution Planning Completed (View Full Status Below)	

☐ **Available Actions**

Create Package

[**Create Package**]

He creates a package in Change Management.

When the development package is ready, the QA Manager and QA engineer receive e-mail notifications from IT Governance Center that the package is ready for deployment in the test lab (for a manual procedure) or that the package has been deployed (for an automatic process).

In IT Governance Center, the developer clicks **Create Package**.
IT Governance Center displays the New Package screen:

New Package 30032

| Save | Cancel |

Header

*Package No.:	30032	Package Group:		Created By:	Admin User
Description:	add XP support			Created On	June 27, 2005
Workflow:	(REFERENCE) IT Change Management (dev->test)			Status:	New

Assigned User:		*Priority:	High	Parent:	Request 30565
Assigned Group:		*Package Type:	Customization	*Priority Seq:	50
Percent Complete:	0				

Notes

Notes to be added on save:

The developer enters the package details and clicks **Save**. The graphical view shows that the development and QA tracks have come together; now that the development work is complete and the tests have been prepared, it's time to run the tests: the next step in the workflow is **Quality Center Test Execution**.
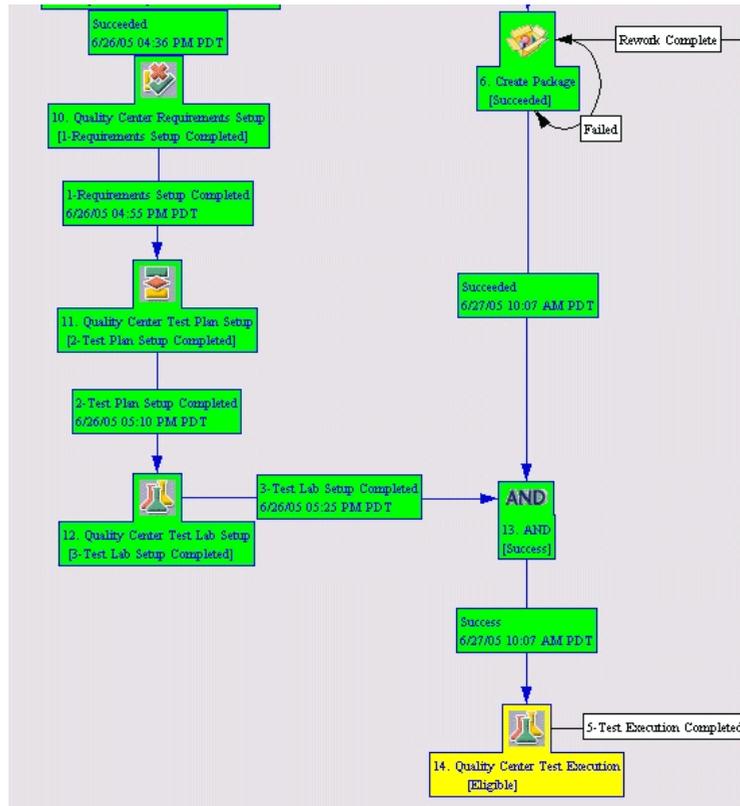
Run Tests

IT Governance Center proceeds to the **Quality Center Test Execution** step and changes the status in Quality Center to **4 - Running Tests in Quality Center.**

Ⓟ	Name	◀	Direct Cover Status	ITG Request Status	ITG Request Id	ITG Request Desc
	⊟ ● **New Requests**		❓ Not Covered		0	
	∷ add XP support		🅿 Not Covered	4-Running Tests in Quality Center	30565	current support is (

The graphical view shows us that this step will be considered complete when all the required tests have been completed
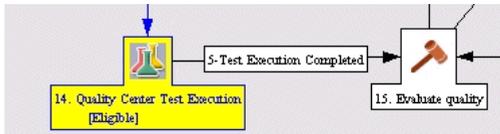
In Quality Center, the QA engineer runs the tests and creates defects for problems that he finds.

In either IT Governance Center Dashboard or Quality Center Dashboard (whichever is more convenient), the Project Manager periodically checks the test status. In IT Governance Center, requests that have **4 - Running Tests in Quality Center** status are waiting for the QA Manager to indicate that the tests are complete and can proceed to the evaluation stage. When the tests are complete, the QA Manager changes the Quality Center status to **5 - Test Execution Completed**.

Ⓟ	Name	◀	Direct Cover Status	ITG Request Status	ITG Request Id	ITG Request Descr...	🔑 ReqID	
	⊟ ● **New Requests**		❓ Not Covered		0		[RQ0001]	
	∷ add XP support		🅿 Not Covered	5-Test Execution Completed	30565	current support is on...	[RQ0012]	A

This causes the IT Governance Center workflow to proceed to the **Evaluate Quality step**.

Evaluate Quality

In this step, the IT Manager keeps track of the quality metrics that are displayed in his IT Governance Center Dashboard. A service in IT Governance Center synchronizes the quality metrics with Quality Center.

Quality Metrics				
Quality Center Requirements coverage:		85%	**Quality Center Open Defects:**	6

Quality Center Request Info

Quality Center Domain:	DEFAULT		**Quality Center Project:**	BTO_Build6
Assigned to Quality Center User:				
Requirement No.		12	**Requirement Status:**	5-Test Execution Completed
Link to Quality Center Requirement Attachments:	http://fire:8080/qcbin/getAttach?op=2&d=DEFAULT&p=BTO_Build6&t=REQ&id=12			
Requirement Integration Message:	A requirement was successfully created in Quality Center.			

The graphical view shows that when this step is complete, the workflow will progress to the **Approve to Production** step.
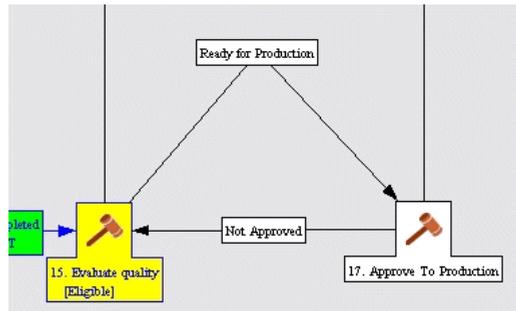
After testing, rework, and regression testing are complete, the QA Manager uses the IT Governance Center Dashboard to approve the software change, by clicking **Ready for Production**.

The workflow progresses to the **Approve to Production** step.

Approve for Production

In this step, the IT Manager's Dashboard lets him approve the enhancement for production. This moves the request to the IT Manager's to-do list for approval.

If the IT Manager is satisfied with the quality of the change, he indicates his final approval by clicking **Approved for Production**. He is able to react to the final approval request far more quickly than in the past, because he has been watching the quality metrics improve over the past few days and is comfortable with the quality level of the software being released.

The Dashboard shows that the request has progressed to the **Close (Immediate Success)** step, and its status is **Ready for Production**.

This is also indicated in the graphical view.
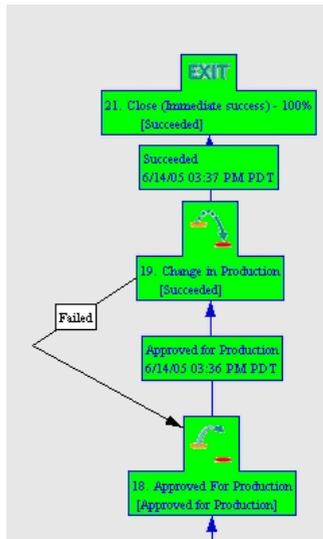
This shows that the request has progressed through the workflow successfully.

Processing a Defect Created in IT Governance Center

When you create the defect by creating a request in IT Governance Center, the process might be as follows:

Create the Defect

Someone uses the IT Governance Center Dashboard to create a request of type Defect. He bases it on a request type and workflow that allow integration: **BTO Defect**.

The request includes the Quality Center Request Info sections. These sections are used for entering details of the Quality Center project, and displaying information received from Quality Center:

The person creating the defect in IT Governance Center specifies the Quality Center domain and project where the defect will be created.

Quality Center Connection Info			
Quality Center Domain	RDTESTS	Quality Center Project	R_DTest1
Assigned to Quality Center User			

Note: IT Governance Center allows you to create a rule that fills in the Quality Center Domain and Quality Center Project fields automatically when you create a request of a certain type.

He assigns a severity for the defect. Note that the Severity field is marked with an asterisk, indicating that it is a required field at this stage of the workflow.

*Summary:	Can't shut down system		
Department:		Created By:	Admin User
*Severity:		Assigned To:	Roberts
Detected in Version:		Assigned Group:	
Defect Priority:		Application:	
Reproducible:		Request Status:	New

When the request is submitted, IT Governance Center creates a defect in Quality Center according to the parameters entered, and gives it the status of **New**. Text from mapped fields in the IT Governance Center request is copied to fields in the Quality Center defect.

The graphical view shows that the defect has been created and that the next step to be executed is the Review step.

Review the Defect

The IT Governance Center Dashboard now displays the information for reviewing the request. The business liaison manager or project manager reviews the defect, sets its priority and target release date, and decides whether to approve its entering the fixing process. The status section of the screen shows the current step (**Review Defect**) highlighted.

Seq	Workflow Step Name	Step Status	Completed By	Date
	Status			
2	Quality Center Failure			
3	Review Defect	Review Defect (View Available Actions)		June 23, 2005 10:33:53 AM PDT
4	Close (Immediate failure)			
5	Assign Defect			
6	Develop Defect Fix			
7	Defect Verification			
8	Close (Immediate success)			

The IT Governance Center Dashboard displays buttons that allow him to either approve the request or cancel it.

BTO Defect - #30317

Description: Response time too long for Web access	**Most Recent Note:** (View Notes Below)

Request Status: New (View Full Status Below)

Available Actions

Review Defect

Approved	Cancel

At the end of the review process, if he approves the request, the workflow progresses to the **Assign** step. In Quality Center, the defect's status changes to **Open**.

Assign the Defect to a Developer

The Dashboard now displays the information necessary for assigning the defect to a developer responsible for fixing it.

BTO Defect - #30033

Description: Can't shut down system		**Most Recent Note:** (View Notes Below)	
Request Status: Open (View Full Status Below)			

■ Available Actions

Assign Defect

Assigned

Make a Copy	Delete

Expand All	Collapse All		Save

■ Header

■ Summary

Request No.:	30033	**Created On:**	June 23, 2005
Request Type:	BTO Defect		
***Summary:**	Can't shut down system		
Department:	⬇	**Created By:**	Admin User
***Severity:**	5-Urgent ⬇	**Assigned To:**	🔲
Detected in Version:		**Assigned Group:**	▤
Defect Priority:	⬇	**Application:**	▤

In IT Governance Center, the Development Manager assigns the defect to a developer by choosing a name from the **Assigned to** list.

Fix the Defect

Once the defect has been assigned to a developer, the next step is fixing the code. In IT Governance Center, the workflow progresses to the **Develop Defect Fix** step.

The developer fixes the code and then clicks the **Code Change** button on his IT Governance Center Dashboard.

This causes IT Governance Center to change the defect's status in Quality Center to **Fixed**.

Verify the Fix

The workflow progresses to the **Defect Verification** step.

In this step, the QA engineer performs tests in Quality Center to verify whether the fix meets the necessary criteria.

If he decides that the defect has not been fixed, he changes the status in Quality Center to **Reopen**. This returns the request in IT Governance Center to the **Develop Defect Fix** step, as shown in the graphical view, and the developer again sees it on his Dashboard. He makes the necessary changes to the code, and clicks **Code Change**, causing the workflow to progress to the **Defect Verification step** again.
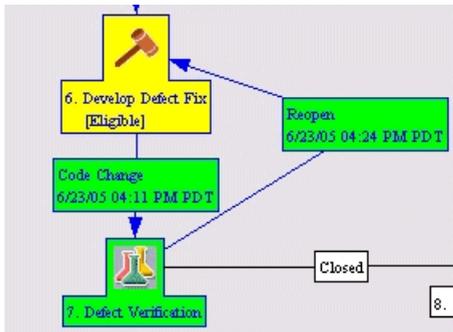
When the QA process is complete, the QA engineer either changes the status to **Closed** in Quality Center or clicks **Closed** in the IT Governance Center request. When the status is changed in one application, it is updated in the other as well.

In IT Governance Center, the workflow progresses to the last step—
Close (Immediate Success)—and executes it. The request header shows that
the request status is **Complete**.

BTO Defect - #30450

| Description: | System crashes when overloaded | Most Recent Note: | (View Notes Below) |

Request Status: Complete (View Full Status Below)

No Available Actions

Processing a Defect Created in Quality Center

When you create the defect in Quality Center, the process might be as
follows:

Create the Defect

A QA engineer uses Quality Center to create a defect. When the defect is
submitted, Quality Center creates a request of type Defect in IT Governance
Center. After the request has been created in IT Governance Center, Quality
Center displays the IT Governance Center request number in the
ITG Request field.

	📎	!	🚩	Defect ID	Status	Priority	Assigned To	Summary	Severity	ITG Request	ITG Request	ITG Server	Comments
▶				11	New			n does not install on XP	4-Very High	30451		BTO Defect	http://wish:80	

The graphical view shows that the defect has been created and that the next step to be executed is the **Review** step.
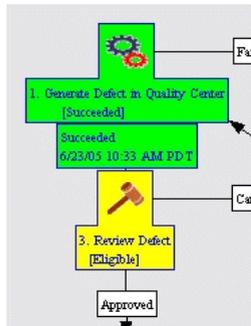
The remainder of the request's workflow is identical to that of a defect created in IT Governance Center. For a description of the rest of the workflow, see "Review the Defect" on page 125.

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