

**IBM Rational Change for HP Quality Center
Interface
User Guide**

Release 3.7

Before using this information, be sure to read the general information under Appendix A, “Notices” on page .

This edition applies to **IBM Rational Change for HP Quality Center Interface 3.7 (product number 5724V87)** and to all subsequent releases and modifications until otherwise indicated in new editions.

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Introduction

Welcome to the IBM Rational® Change for HP Quality Center Interface™ 3.7.

The IBM Rational Change for HP Quality Center Interface organizes the transfer of defect data between HP Quality Center and IBM Rational® Change™, enabling you to manage project defects using the most suitable tool for your needs.

For example, if the development team uses IBM Rational Change and the quality assurance team uses HP Quality Center, the IBM Rational Change for HP Quality Center Interface enables the teams to integrate their projects so that they are both working with the same data. This means that the quality assurance team can use one tool to handle the testing process, while the development team can use its preferred change management tool.

The IBM Rational Change for HP Quality Center Interface employs multiple transfer options to satisfy varying user needs. This enables users to create defects that do not yet exist in the receiving tool, or update existing defects.

You begin working with the IBM Rational Change for HP Quality Center Interface by creating a synchronization link in IBM Rational Change for HP Quality Center Interface. When you create a synchronization link, you define and configure the data to be transferred between a change request entity in a IBM Rational Change database and a defect entity in a HP Quality Center project.

After you create a synchronization link, you can work with your defects in HP Quality Center or in IBM Rational Change, as required. You can also run the synchronization as a service. The service synchronizes your links automatically, according to predetermined time intervals.

Using this guide

This guide contains the following chapters:

- Chapter 1** **What's New in IBM Rational Change for HP Quality Center Interface**
This chapter describes the new features available in this version of integration.
- Chapter 2** **Installing the IBM Rational Change for HP Quality Center Interface**
This chapter describes how to install the IBM Rational Change for HP Quality Center Interface 3.7.
- Chapter 3** **Integration strategies**
This chapter describes the IBM Rational Change for HP Quality Center Interface 3.7 concepts and data mapping between HP Quality Center and IBM Rational Change.
- Chapter 4** **HP Quality Center project & IBM Rational Change process setup**
This chapter describes how to prepare your HP Quality Center projects and process to use this integration.
- Chapter 5** **Creating links between HP Quality Center and IBM Rational Change**
This chapter describes how to create a new link between a HP Quality Center project and a IBM Rational Change database. This chapter also describes how to delete an existing link and how to update an existing link.
- Chapter 6** **Working with the IBM Rational Change for HP Quality Center Interface**
This chapter describes how to run the Synchronization task, either manually or as a service. It also explains how to migrate defects from IBM Rational Change.

Documentation Updates for HP Quality Center

HP is continuously updating its product documentation with new information. You can download the latest version of HP Quality Center documentation from the HP Customer Support Web site at <http://support.openview.hp.com>.

Assumptions about your background

This document assumes that you have a basic understanding of how to use HP Quality Center and IBM Rational Change.

Typographical conventions

This document uses the following typographical conventions:

Typefaces and symbols

Typeface	Description
<i>Italic</i>	Used for book titles and terminology. Also designates names of roles (<i>developer</i>), states (<i>working</i>), groups (<i>ccm_root</i>), and users (<i>laura</i>).
Bold	Used for items that you can select, such as buttons, icons, etc., and menu paths. Also used for the names of dialog boxes, dialog box options, toolbars, folders, baselines, databases, releases, properties, and types. Also used for emphasis.
Courier	Used for commands, filenames, and directory paths. Represents command syntax to be entered verbatim. Signifies computer output that displays on-screen.
<i>Courier Italic</i>	Represents values in a command string that you supply. For example, (<i>drive:\username\commands</i>).

Contacting IBM Rational Software Support

If the self-help resources have not provided a resolution to your problem, you can contact IBM® Rational® Software Support for assistance in resolving product issues.

Note: If you are a heritage Telelogic customer, a single reference site for all support resources is located at

<http://www.ibm.com/software/rational/support/telelogic/>

Prerequisites

To submit your problem to IBM Rational Software Support, you must have an active Passport Advantage® software maintenance agreement. Passport Advantage is the IBM comprehensive software licensing and software maintenance (product upgrades and technical support) offering. You can enroll online in Passport Advantage from <http://www.ibm.com/software/lotus/passportadvantage/howtoenroll.html>

- To learn more about Passport Advantage, visit the Passport Advantage FAQs at http://www.ibm.com/software/lotus/passportadvantage/brochures_faqs_quickguides.html.
- For further assistance, contact your IBM representative.

To submit your problem online (from the IBM Web site) to IBM Rational Software Support, you must additionally:

- Be a registered user on the IBM Rational Software Support Web site. For details about registering, go to <http://www.ibm.com/software/support/>.
- Be listed as an authorized caller in the service request tool.

Submitting problems

To submit your problem to IBM Rational Software Support:

1. Determine the business impact of your problem. When you report a problem to IBM, you are asked to supply a severity level. Therefore, you need to understand and assess the business impact of the problem that you are reporting.

Use the following table to determine the severity level.

Severity	Description
1	The problem has a <i>critical</i> business impact: You are unable to use the program, resulting in a critical impact on operations. This condition requires an immediate

	solution.
2	This problem has a <i>significant</i> business impact: The program is usable, but it is severely limited.
3	The problem has <i>some</i> business impact: The program is usable, but less significant features (not critical to operations) are unavailable.
4	The problem has <i>minimal</i> business impact: The problem causes little impact on operations or a reasonable circumvention to the problem was implemented.

2. Describe your problem and gather background information. When describing a problem to IBM, be as specific as possible. Include all relevant background information so that IBM Rational Software Support specialists can help you solve the problem efficiently. To save time, know the answers to these questions:
 - What software versions were you running when the problem occurred?
To determine the exact product name and version, use the option applicable to you:
 - Start the IBM Installation Manager and select **File > View Installed Packages**. Expand a package group and select a package to see the package name and version number.
 - Start your product, and click **Help > About** to see the offering name and version number.
 - What is your operating system and version number (including any service packs or patches)?
 - Do you have logs, traces, and messages that are related to the problem symptoms?
 - Can you recreate the problem? If so, what steps do you perform to recreate the problem?
 - Did you make any changes to the system? For example, did you make changes to the hardware, operating system, networking software, or other system components?
 - Are you currently using a workaround for the problem? If so, be prepared to describe the workaround when you report the problem.
3. Submit your problem to IBM Rational Software Support. You can submit your problem to IBM Rational Software Support in the following ways:
 - **Online:** Go to the IBM Rational Software Support Web site at <https://www.ibm.com/software/rational/support/> and in the Rational support task navigator, click **Open Service Request**. Select the electronic problem reporting tool, and open a Problem Management Record (PMR), describing the problem accurately in your own words.

For more information about opening a service request, go to <http://www.ibm.com/software/support/help.html>

You can also open an online service request using the IBM Support Assistant. For more information, go to <http://www.ibm.com/software/support/isa/faq.html>.

- **By phone:** For the phone number to call in your country or region, go to the IBM directory of worldwide contacts at <http://www.ibm.com/planetwide/> and click the name of your country or geographic region.
- **Through your IBM Representative:** If you cannot access IBM Rational Software Support online or by phone, contact your IBM Representative. If necessary, your IBM Representative can open a service request for you. You can find complete contact information for each country at <http://www.ibm.com/planetwide/>.

Installing the IBM Rational Change for HP Quality Center Interface 3.7

This chapter describes how the IBM Rational Change for HP Quality Center Interface 3.7 works, how to install the integration, and how to setup the systems for smooth running of the integration.

This chapter includes

Before you begin
Installing IBM Rational Change for HP Quality Center Interface 3.7
After the installation

Before you begin

1. Install HP Quality Center 9.0 or 9.2. For detailed instructions, refer to the HP Quality Center documentation.
2. Install IBM Rational Synergy 7.1 and IBM Rational Change 5.2. For detailed instructions refer to the documentations of these products and the read me files in each of their patches.

Installing IBM Rational Change for HP Quality Center Interface 3.7

Installation instructions

1. Install the IBM Rational Change for HP Quality Center Interface 3.7 on a separate, dedicated standard desktop machine that is not being used as a HP Quality Center or IBM Rational Change server.
1. To successfully work with the IBM Rational Change for HP Quality Center Interface 3.6, the machine must meet the minimum requirements and recommendations of Microsoft® .NET Framework 2.0 Desktop System requirement. For more information, refer to the Microsoft .NET product requirement guide.
2. HP Quality Center is a Web-based product. Therefore, you do not need to install HP Quality Center on the client machine where you are about to install IBM Rational Change for HP Quality Center 3.6 Interface. However, you must connect to the HP Quality Center server at least once from this machine prior to installing the integration. This will

enable the HP Quality Center to download the client components that are required to run this integration. The URL to connect to HP Quality Center server is in the following format.

<http://ServerMachineName:portNo/virtualdir>

example: http://qcserv:8080/qcbin

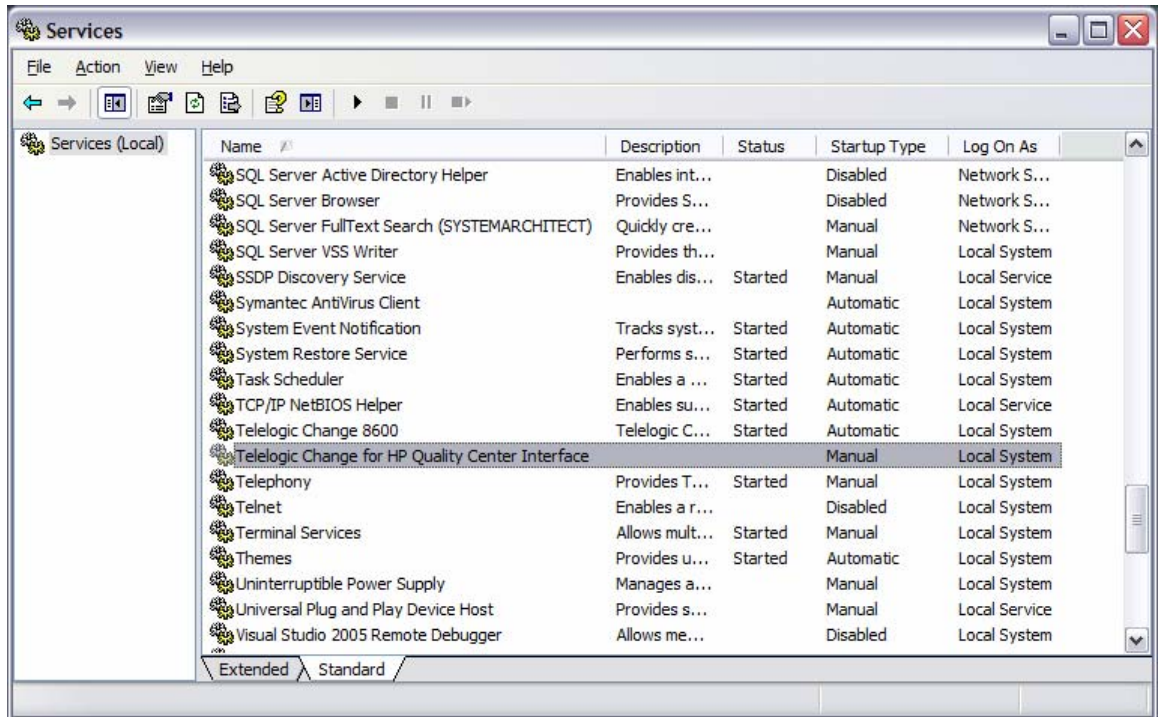
3. If the HP Quality Center and IBM Rational Change servers are located on different machines, the clock on these machines should be set to same time. This action is important for the integration to work correctly during the synchronization process.
4. If it is not already installed, install Microsoft .NET Framework 2.0 before installing IBM Rational Change for HP Quality Center 3.7 Interface. For more information see:
<http://msdn.microsoft.com/netframework/technologyinfo/howtoget/default.aspx>
5. Obtain the interface zip file (See [Contacting IBM Rational Software Support](#))
6. Use a zip program to extract the contents of the zip file to a local directory. Example *C:\TEMP*.
7. Double Click the `TlogicChangeQualityCenterInt.msi` file to install the integration.
8. Follow the Installation wizard instructions to complete the installation.

IBM Rational Change for HP Quality Center Interface 3.7 installer installs the following programs on your machine:

IBM Rational Change for HP Quality Center Interface

IBM Rational Change for HP Quality Center Interface Service

The IBM Rational Change for HP Quality Center Interface Service is shown below in the Services window.



After the installation

Configure IBM Rational Change

If you would like to use the default IBM Rational Change lifecycle process provided by this interface, follow these steps to create and install the IBM Rational Change package. The default lifecycle comes with all the required attributes to run this interface.

1. Copy the `td_process.xml` file, which is in the interface zip file, to the IBM Rational Change Process installation directory. For example, this directory might be as follows:

```
C:\Program Files\IBM Rational\Change
5.2\cs_app\webapps\synergy\WEB-INF\cr_process
```

2. Unzip the `td_template.zip` file, which is in the interface zip file, to the IBM Rational Change package_templates directory. For example, this directory might be as follows:

```
C:\Program Files\IBM Rational\Change
5.2\cs_app\webapps\synergy\WEB-INF\
package_templates
```

3. Log on to IBM Rational Change as *Admin*, and create a new package using the `td_process.xml` process file and the `td_template` package template. To learn how to create and install a new package, refer to the IBM Rational Change documentation.

Configuring IBM Rational Change users roles

The user of IBM Rational Change must have *pt_admin* role privileges. This role is required by the integration to modify change requests.

Creating attributes for IBM Rational Change custom lifecycle

If you would like to use your own existing custom lifecycles in IBM Rational Change, you must add the following.

1. Add the *td_problem* attribute to your custom lifecycle. This attribute will save the HP Quality Center Defect ID value. This is a required attribute for the correct operation of this integration.

Name: `td_problem`
Label: TD BUG ID
Web type: `CCM_STRING`
Database type: `string`

2. The **R&D Comments** field in HP Quality Center must be mapped to a IBM Rational Change attribute defined as having the `CCM_TEXT` web type.

Example:
Name: `r_d_comments`
Label: R and D Comments
Web type: `CCM_TEXT`
Database type: `string`

3. You must add the following lines to your package template CFG file:

```
[CCM_ATTRIBUTE] [NAME]db_id[/NAME] [ALIAS]DCMDBID[/ALIAS] [TYPE]CCM_STRING[/TYPE] [/CCM_ATTRIBUTE]

[CCM_ATTRIBUTE] [NAME]delimiter[/NAME] [ALIAS]DCM
Delimiter[/ALIAS] [TYPE]CCM_STRING[/TYPE] [/CCM_ATT
RIBUTE]
```

4. Login to IBM Rational Change as *Admin*, and create a new package using your custom template.

5. Install the package you just created.

Integration strategies

To successfully use this integration, you must be able to transfer data between HP Quality Center and IBM Rational Change. After you understand the concepts described in this section, you are ready to setup your HP Quality Center project to use IBM Rational Change data, and vice versa.

At your site, you most likely have one of the following scenarios:

You are just starting out and setting up new projects in HP Quality Center. You already have data in HP Quality Center and IBM Rational Change that needs to be integrated.

You have data in either HP Quality Center or IBM Rational Change, but not in both.

In addition, you may have customized the default HP Quality Center defect lifecycle, the default IBM Rational Change lifecycle, or both.

Regardless of which scenario applies to you, you must consider some basic strategies that make the integration work. Moreover, you must understand these strategies before you use this integration.

Learning how the defect synchronization works

When you perform a synchronization operation, HP Quality Center defects are synchronized with the specific IBM Rational Change change requests that they have been mapped to.

Understanding data mapping

HP Quality Center uses the concept of defects and IBM Rational Change uses the concept change requests (CR). However, the information contained in a specific defect field and a corresponding CR attribute is not the same for both applications. Thus, data mapping is used to define how specific fields that are used in a HP Quality Center defect and a corresponding IBM Rational Change Request relate to each other.

Special default mappings

IBM Rational Change for HP Quality Center Interface comes with the following default mapping for the lifecycle package provided with this integration. The default mapping is shown in the following table.

If you already have a custom lifecycle at your site, you could customize your mapping as explained in the [Creating attributes for IBM Rational Change custom Lifecycle on page](#) .

HP Quality Center Defect System Field	IBM Rational Change CR attribute	Comments
BG_CLOSING_DATE	conclusion_date	Part of default lifecycle
BG_CLOSING_VERSION	release	Part of default lifecycle
BG_DESCRIPTION	problem_description	Part of default lifecycle
BG_DETECTED_BY	submitter	Part of default lifecycle
BG_DETECTION_VERSION	product_version	Part of default lifecycle
BG_DEV_COMMENTS	r_d_comments	Can be mapped to any IBM Rational Change CR attribute of type CCM_TEXT. The default lifecycle that comes with this integration has an attribute r_d_comments. The BG_DEV_COMMENTS can be mapped to this attribute or you can choose to create a new attribute
BG_PLANNED_CLOSING_VER	None	Can be mapped to any IBM Rational Change CR attribute of type CCM_STRING.
BG_PRIORITY	priority	Part of default lifecycle
BG_PROJECT	product_name	Part of default lifecycle
BG_REQUEST_ID	None	No attribute in IBM Rational Change
BG_RESPONSIBLE	resolver	Part of default lifecycle
BG_SEVERITY	severity	Part of default lifecycle
BG_STATUS	crstatus	Part of default lifecycle
BG_SUMMARY	problem_synopsis	Part of default lifecycle
BG_REPRODUCIBLE	None	No attribute in IBM Rational Change
BG_SUBJECT	None	No attribute in IBM Rational Change
BG_ACTUAL_FIX_TIME	None	Not mapped.
BG_ESTIMATED_FIX_TIME	None	Not mapped.
BG_DETECTION_DATE	None	Can be mapped to creation_date attribute in IBM Rational Change.
BG_BUG_ID	None	Not mapped

Mapping HP Quality Center defect status to IBM Rational Change lifecycle states

This integration supports the dissimilar lifecycles used by developers and testers and also supports lifecycle hiding. Lifecycle hiding means hiding some workflow states used by one team from the other.

See Chapter 5: “Creating links between HP Quality Center and IBM Rational Change”, which explains how to map lifecycles between HP Quality Center and IBM Rational Change. This integration comes with default status mapping (see Lifecycle Configuration mapping dialog).

How data is synchronized between HP Quality Center and IBM Rational Change

When you first synchronize a HP Quality Center Project with a IBM Rational Change database, for each defect in the HP Quality Center project, a corresponding CR is created in the IBM Rational Change database. At that time, the HP Quality Center defect is mapped to this IBM Rational Change change request number in the current IBM Rational Change database. This CR number is saved in the next available **BG_USER** field, in the HP Quality Center defect. This CR number is used as reference for all the feature synchronization purpose. The **BG_USER** field created by the synchronization process is labeled as **problem_number**. This user field should not be deleted or modified manually outside of the synchronization process to ensure the proper running of this integration.

Synchronization also considers new CRs in IBM Rational Change that match the user defined custom query. These CRs are migrated to HP Quality Center as defects. While migrating the change request, a new defect is created in HP Quality Center and that defect's **BG_BUG_ID** is saved in the **td_problem** attribute of the CR. The **td_problem** attribute uniquely identifies the HP Quality Center defect with HP Quality Center domain name, server name, project name, and defect ID. The following figure shows the TD BUG ID and R & D Comments attributes that are used in synchronization process.

The process is similar to migrating a IBM Rational Change CR to the HP Quality Center project database.

Defect Details

Defect: 1 Summary 1

Details

* Detected By: bob
 * Severity: 4-Very High
 * Detected on Date: 10/2/2008

Assigned To:
 Closing Date:
 Detected in Release:
 Estimated Fix Time:
 Planned Closing Version:
 problem_number: 1

Actual Fix Time:
 Closed in Version:
 Detected in Cycle:
 Detected in Version:
 Modified: 10/2/2008 4:58:01 PM
 Priority:
 Project:

Description: Description 1
 Comments:

Execution Report

OK Cancel Help

(User) : base70 - Microsoft Internet Explorer

IBM Telelogic Change

Home | Queries | Reports | Advanced Search | Settings | Help | Exit

Submit a CR Go CR Task 28 Show Search DB: base70

Change Request Information Save Printer Friendly View | Help

Entered CR More Info...

Transitions: [Assign](#) | [Defer](#) | [Mark as Duplicate](#) | [Mark as Obsolete](#) | [Reject](#) | [Verify](#) | [Admin Transition](#)

CR ID: 28 Status: entered

Synopsis: Screenshot text

Description: This is a description

TD Bug ID: http://seraph:8080/qcbin.DEFAULT.Sync.8

R and D Comments: Some comments

Request Type: Action Item
 Severity: Showstopper
 Product Name: Product C
 Product Version: Any
 Product Sub-System: Any
 How Found: Any
 Origin: Any
 Keyword:

Work in DB:
 Hardware: Any
 Operating System: Any
 OS Version: Any
 Web Browser: Any
 Browser Version: Any
 Customer ID:
 Call Ticket:

HP Quality Center project & IBM Rational Change process setup

Customize a project

Whether you created a new project or are using one that was already created, you **must** customize it as described in this section. This will ensure that this integration tool works properly.

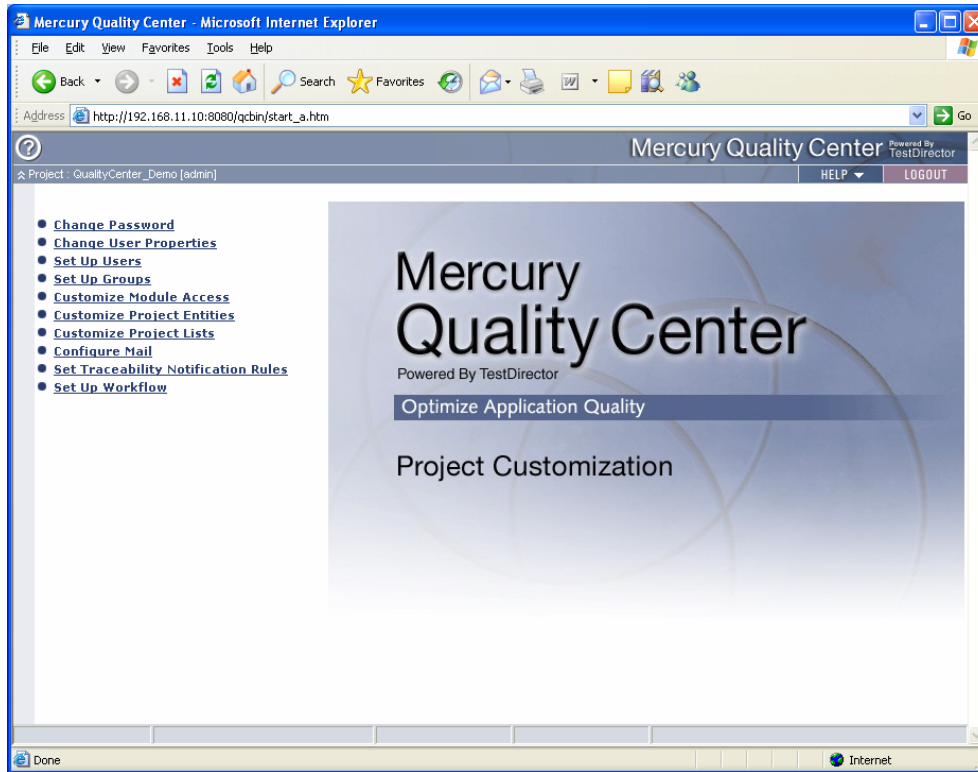
Note: You must have administrator rights to customize the project.

Customize system fields

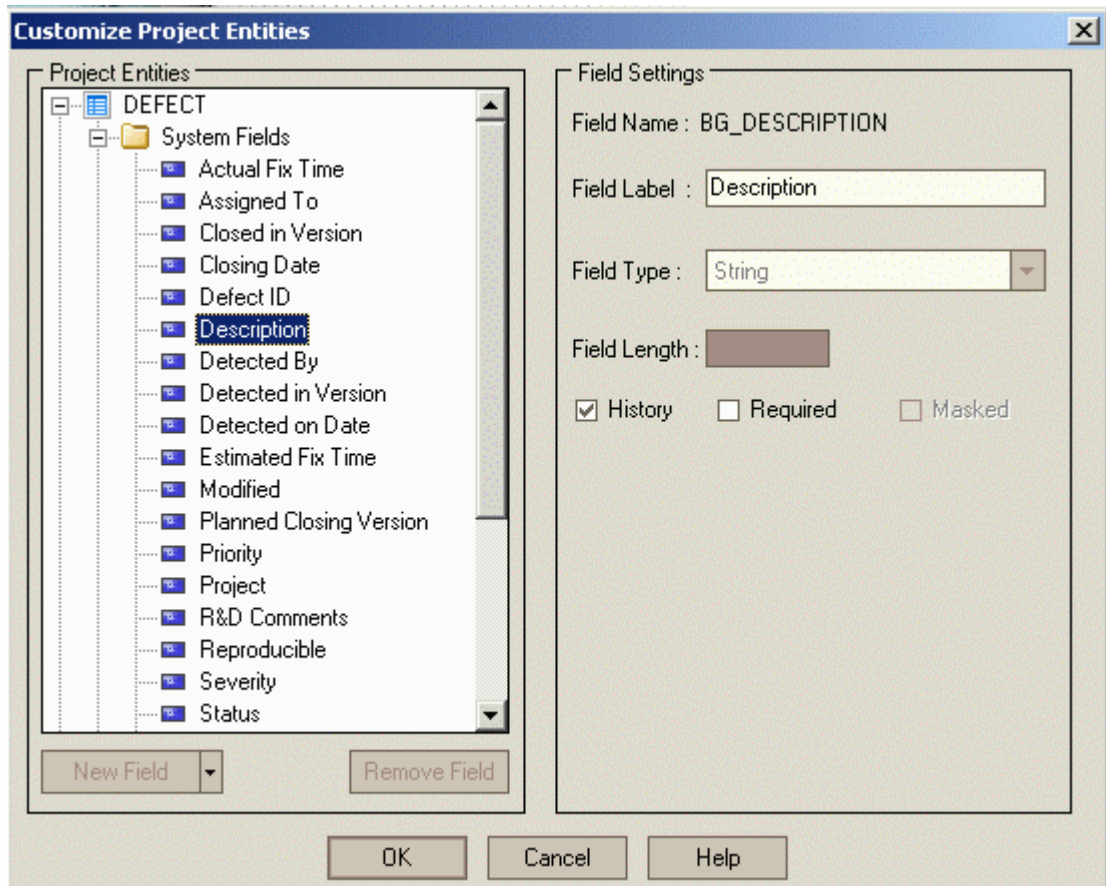
To customize the system fields:

1. Connect to the HP Quality Center server machine, for example http://Server_name:portno/QCBIN
2. Login to the desired domain and project.
3. Click **Tools** -> **Customize**

The **Project Customization** screen is displayed.



4. Click **Customize Project Entities**.
The **Customize Project Entities** dialog box is appears
5. In **Project Entities**, select the **DEFECT** entity and Click on System Fields.



6. See the Special Default Mappings shown in Chapter 3. Each HP Quality Center Defect Field in table1 has a corresponding field in the **System Fields** folder.
7. Select the **History** check box for all system fields that are mapped to IBM Rational Change attributes.

When the **History** check box is selected for a specific system field, HP Quality Center keeps a log of any changes that are made to that field. In addition, during the synchronization operation, the HP Quality Center database is queried to find all defect fields that have been modified since the last synchronization.

Customize project lists

HP Quality Center projects contain lists (such as projects, priority, and severity) that contain defect field values. Similarly, IBM Rational Change list boxes contain values for CR attributes (such as product, priority, and severity). The contents of these lists can be customized.

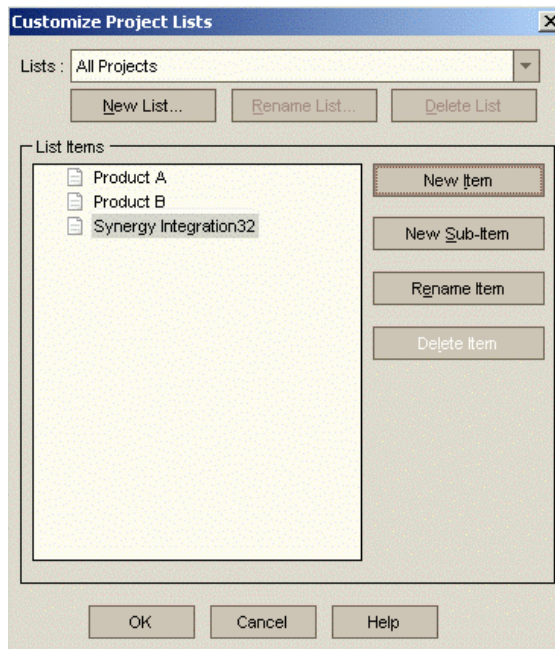
If a defect field has a list box and if that field is mapped to a IBM Rational Change attribute, the items in the list must match the attribute range values in IBM Rational Change. To help you learn how to do this, the following example is provided.

Note: If you have many lists that change frequently, consider using the IBM Rational Change external listbox feature. This feature can be configured so that IBM Rational Change retrieves attribute range values directly from the HP Quality Center database. Using this feature allows you to maintain lists using HP Quality Center without the need to make corresponding changes in IBM Rational Change.

Map project name list items:

To map the Project name **list items** in HP Quality Center to the **product_name** list box values in IBM Rational Change, do the following:

1. Go to the **Project Customization** page.
2. Click the **Customize Projects Lists** link to display the **Customize Project Lists** dialog box.



3. In **Lists**, select **All Projects**.

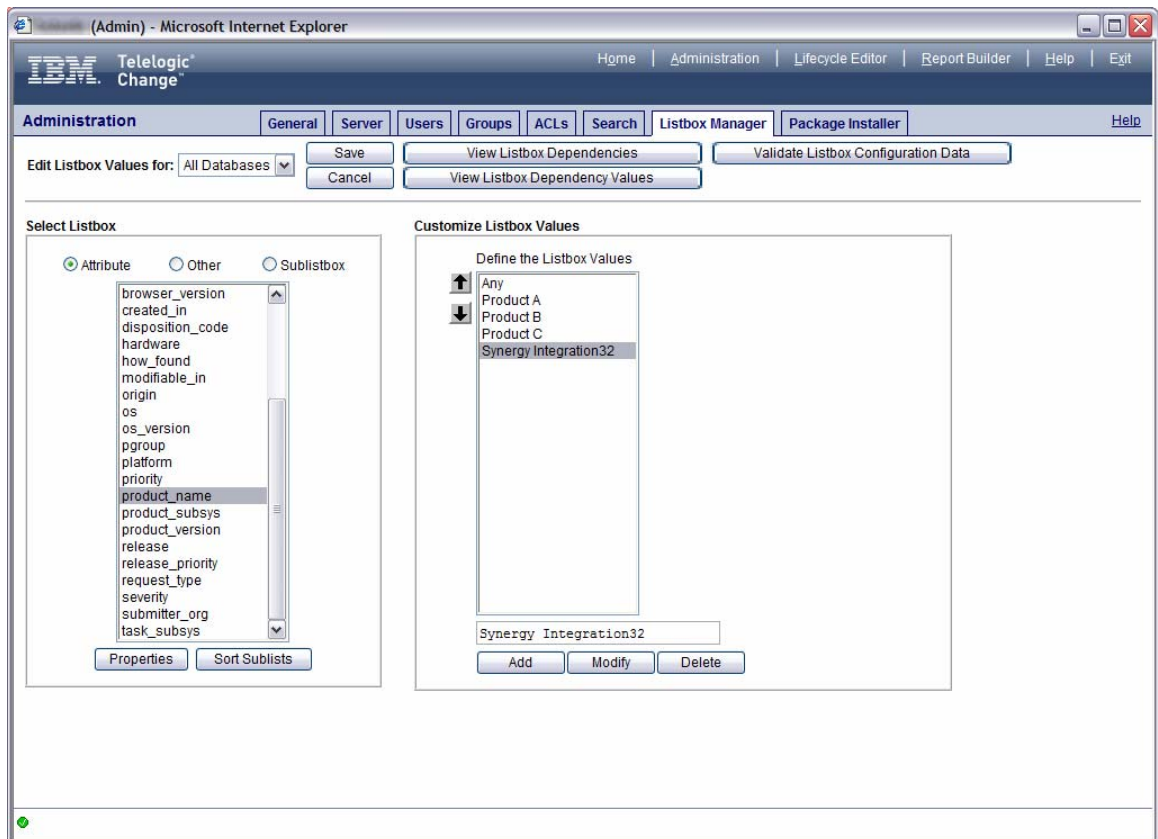
All project list items are shown in the **List Items area**.
When a new defect is created in the HP Quality Center project, the value for the **BG_PROJECT** field is selected from this list.

4. Make a note of the projects shown in the **List Items area** in the **Customize Project Lists** dialog box.

The **BG_PROJECT** field is mapped to IBM Rational Change attribute **product_name**. Enter these values in the IBM Rational Change **product_name** list box.

To enter the Project names in IBM Rational Change, do the following:

5. Log on to IBM Rational Change as *Admin*, and click **Administration**. The **Administration** page appears.
6. Click **Listbox Manager**.



7. In **Select Listbox**, click **product_name**.

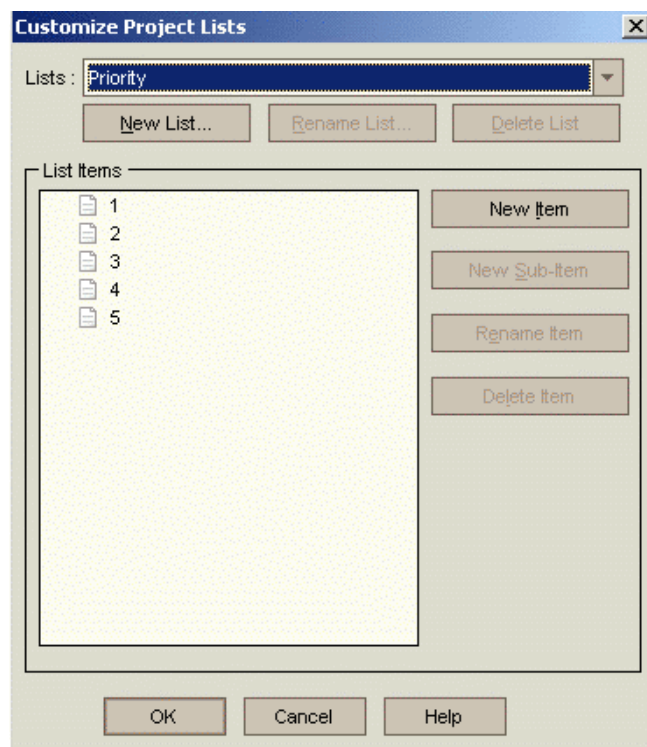
8. Add the project names, that you noted earlier, to the **Define the Listbox Values** list.
9. If there are any additional IBM Rational Change products names that were not present in the HP Quality Center Project **List Items**, add them to the HP Quality Center **Project List Items**.

Mapping priority list items

To map the priority list items in HP Quality Center to the priority list box values in IBM Rational Change, do the following:

1. Display the **Customize Project Lists** dialog box.
2. In **Lists**, select **Priority**.

All priority list items are shown in the **List Items** area. The priority field value for a defect is assigned from **List Items**.



3. Make a note of the priorities shown in **List Items**.

The priority field is mapped to IBM Rational Change attribute priority. Enter these values in IBM Rational Change **priority** list box. To enter the priority values in IBM Rational Change, do the following:

4. Log on to IBM Rational Change as *Admin*, and click **Administration**. The **Administration** page appears.
5. Click **Listbox Manager**.
6. In **Select Listbox**, select **priority**.
7. Add the priority values that you noted earlier, to **Define the Listbox Values**.
8. If there are any additional IBM Rational Change priority values that were not there in the HP Quality Center Priority **List Items**, add them to the HP Quality Center **Priority List Items**.

Map severity list items

To map the **severity** list items in HP Quality Center to the **severity** list box values in IBM Rational Change, follow the steps shown in **Map Priority List Items** section.

Creating links between HP Quality Center and IBM Rational Change

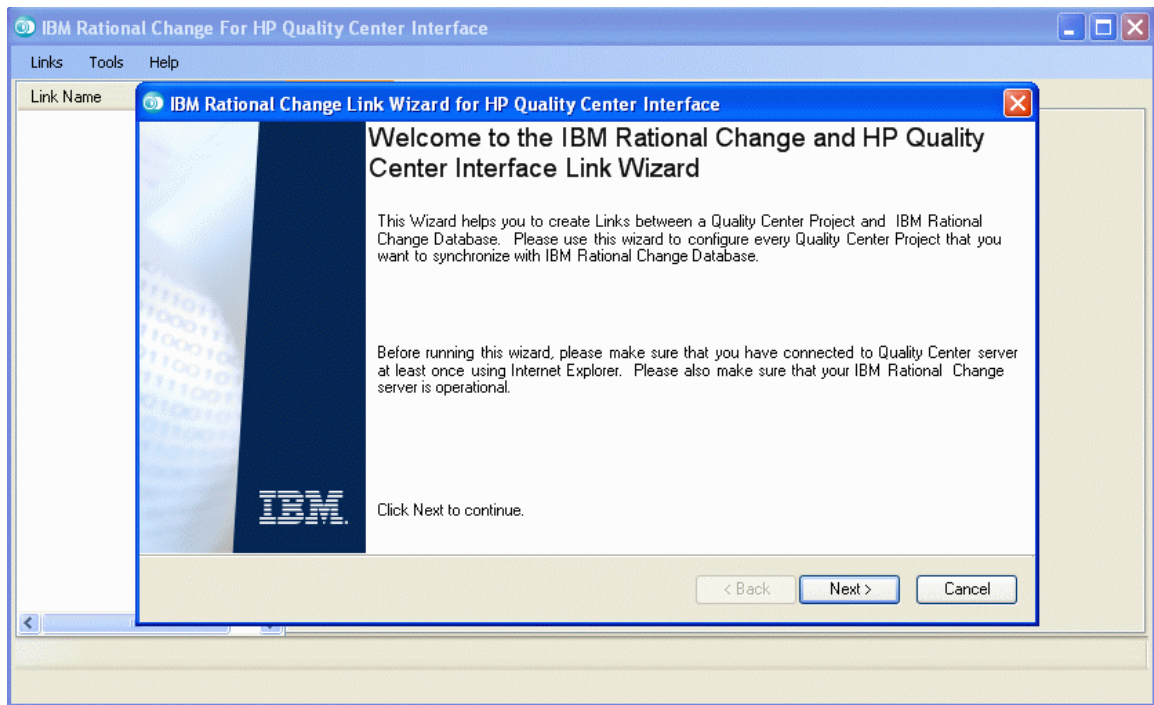
Creating links

Use the IBM Rational Change Link Wizard to create a link in the the IBM Rational Change for HP Quality Center Interface. The the IBM Rational Change Link Wizard enables you to define and configure the data to be transferred between a the IBM Rational Change database and a HP Quality Center project.

To create new links:

From your desktop, start the IBM Rational Change for HP Quality Center Interface by double-clicking .

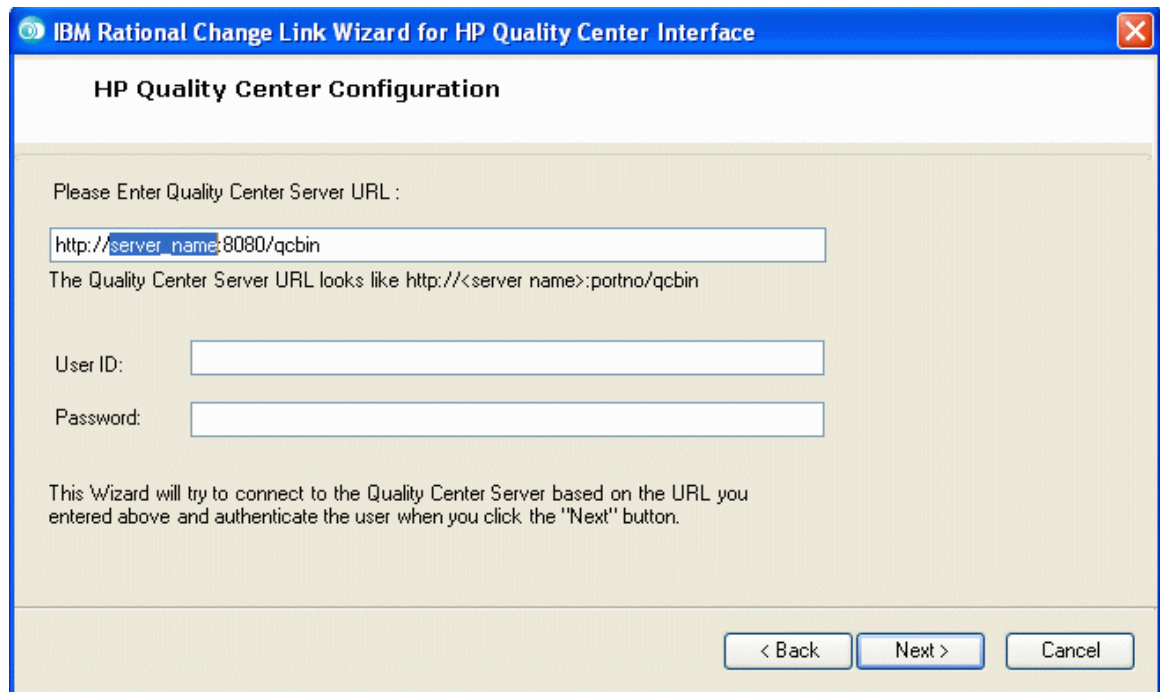
Your first task is to create links between the IBM Rational Change database and the HP Quality Center project using IBM Rational Change Link Wizard. If no links are configured during startup, the IBM Rational Change for HP Quality Center Interface automatically launches the IBM Rational Change Link wizard. You could also start Link Wizard by selecting **Links > Create** menu from IBM Rational Change for HP Quality Center Interface.



Click **Next** to begin creating a link using the wizard.

The **HP Quality Center Configuration** dialog box appears. In **Server URL**, type the HP Quality Center server and the virtual directory name.

Note: Type a real host name, not **localhost**.



IBM Rational Change Link Wizard for HP Quality Center Interface

HP Quality Center Configuration

Please Enter Quality Center Server URL :

http://server_name:8080/qcbin

The Quality Center Server URL looks like http://<server name>:portno/qcbin

User ID:

Password:

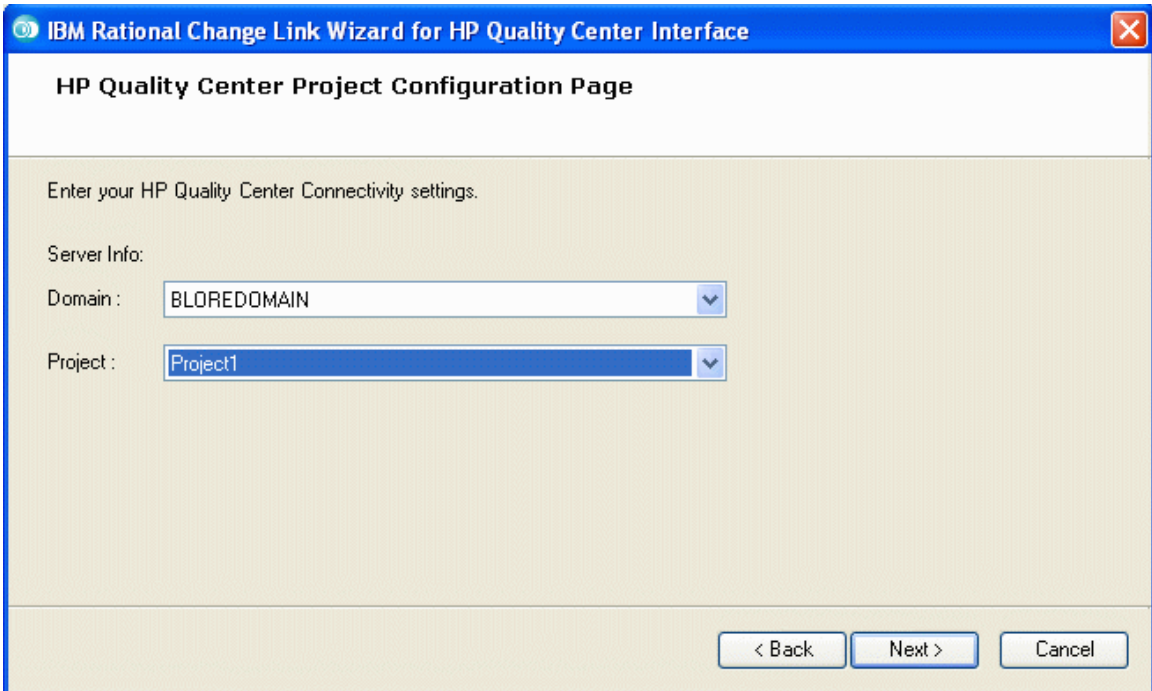
This Wizard will try to connect to the Quality Center Server based on the URL you entered above and authenticate the user when you click the "Next" button.

< Back Next > Cancel

Type the username and password for the user you will use to synchronize data with HP Quality Center. This user must be an administrator for the HP Quality Center project you will synchronize with.

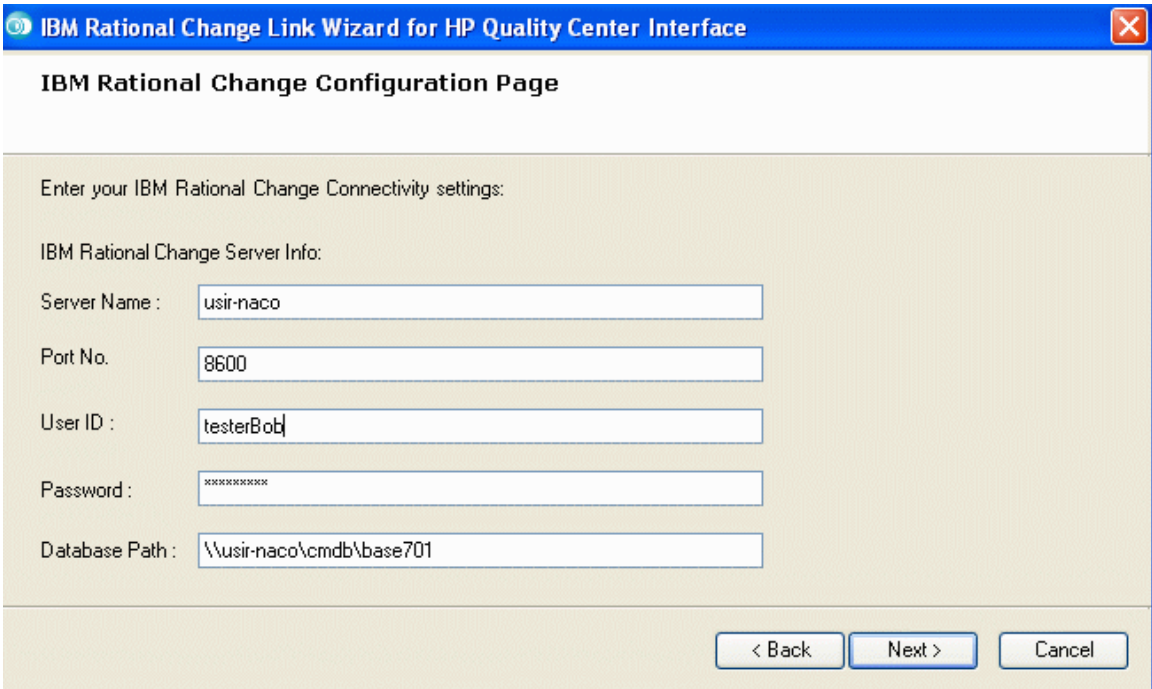
Click **Next**.

The **Quality Center Project Configuration** dialog box opens.



4. In **Domain**, select a HP Quality Center Domain.
5. In **Project**, select a project and click **Next**.

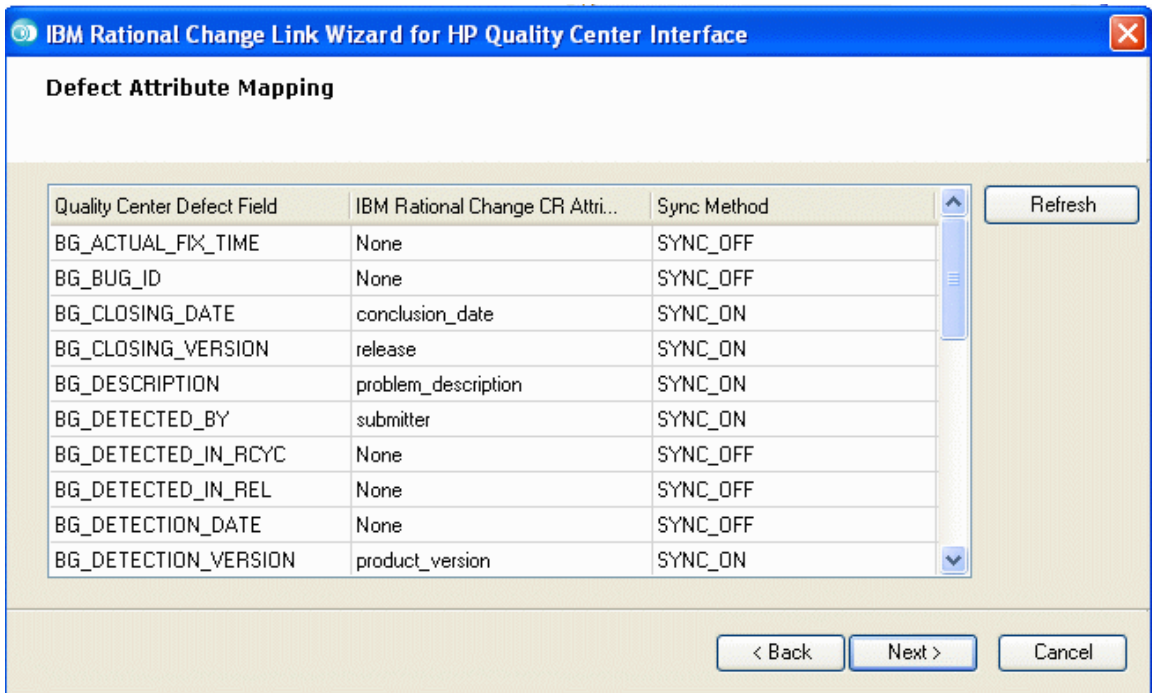
The **IBM Rational Change Configuration Page** dialog box appears.



6. Type the IBM Rational Change **server name, port, userid, password** and database path used by IBM Rational Change and then click **Next**.

Note: You must have *pt_admin* role in IBM Rational Change to use this integration.

The **Defect Attribute Mapping** dialog box appears.



A default mapping of HP Quality Center Defect field with IBM Rational Change CR attribute is displayed in this dialog. You can use this default setting or customize it for your needs.

The **HP Quality Center Defect Field** column displays the current defect fields in the HP Quality Center project that was selected in the previous wizard dialog.

The IBM Rational **Change CR Attribute** column shows all available IBM Rational Change CR attributes in the Change database.

A default sync method is also set for each field. You can use this default setting or modify the settings to your needs.

The Sync method column has the following options.

SYNC_OFF: Synchronization process ignores any changes made to the field in HP Quality Center and corresponding attribute in IBM Rational Change.

SYNC_TD2CCM: Changes made to the field in HP Quality Center override the changes made to the corresponding attribute in IBM Rational Change.

SYNC_CCM2TD: Changes made to a attribute in IBM Rational Change override the change made to the corresponding field in HP Quality Center

SYNC_ON: Synchronization process determines which tool has the most recent update for any given attribute and updates the out-of-date tool with latest changes.

Refresh: Updates the HP Quality Center Defect fields and the IBM Rational Change CR attribute list with the latest values from the HP Quality Center and the IBM Rational Change servers.

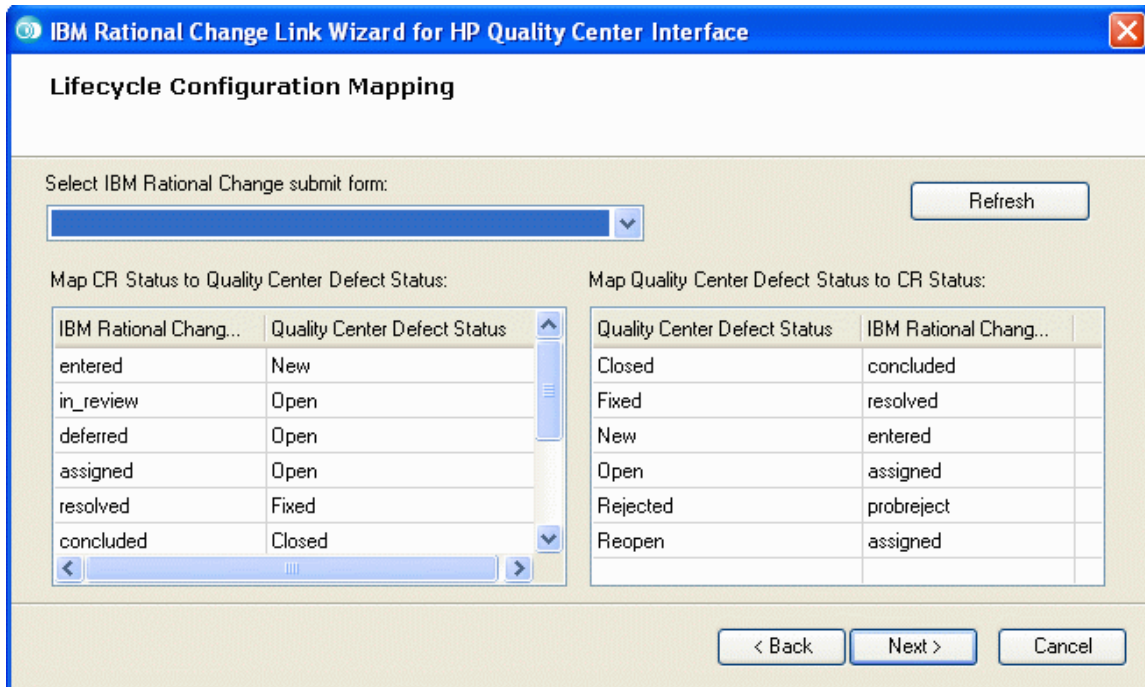
Note:

It is very important that the user checks and adjusts the time on HP Quality Center and IBM Rational Change Server machines during the setup process. The Synchronization process uses system time as a reference to determine the latest changes.

Link Wizard restricts the user from configuring a single CR attribute to multiple HP Quality Center defect fields to avoid any data loss during the synchronization process.

7. Click **Next**.

The **Lifecycle Configuration Mapping** dialog box appears.



8. Make the following selections in the **Lifecycle Configuration Mapping** dialog box

From **Select IBM Rational Change submit form** select a submit form for your custom lifecycle.

9. From **Map CR Status to Quality Center Defect Status**, map your states

The **CR Status to Quality Center Defect Status** mapping is used for updating defect status brought in from IBM Rational Change. All available CR status are listed in the **IBM Rational Change CR Status** column. The CR status names are not modifiable. The **Quality Center Defect Status** list box contains all available HP Quality Center status. You could choose an empty value in this column. If the value is empty it means that HP Quality Center Defect lifecycle does not have a corresponding state. Unmapped states are not synchronized.

10. From **Map Quality Center Defect Status to CR status**, map your states

The **Quality Center Defect Status to CR status** mapping is used for updating the CR status brought in from HP Quality Center projects. All available HP Quality Center Defect status are listed in the **Quality Center Defect Status** column. The defect status names are not modifiable. The **IBM Rational Change CR Status** list box has all available IBM Rational Change lifecycle status. You could choose an empty value in this column. If the value is empty, it means that IBM Rational Change lifecycle does not have a corresponding state and IBM Rational Change for HP Quality Center Interface will not update the CR status.

Note: It is not mandatory to map all HP Quality Center defect states to IBM Rational Change CR states or vice versa. The unmapped states are hidden and are not synchronized. This level of flexible customization allows a team to hide the lifecycle that is internal to a team and synchronize only those states that are meaningful for the other team.

11. Click **Next**. The **IBM Rational Change and Quality Center Custom Query Page** dialog box appears.

The screenshot shows a dialog box titled "IBM Rational Change Link Wizard for HP Quality Center Interface". The main heading is "IBM Rational Change and Quality Center Custom Query Page".

Quality Center

Quality Center Custom Query:

The string entered here will be added with AND to the default Quality Center query used during sync: `SELECT * FROM BUG WHERE BG_VTS >= '<last_sync_time>'`

Example: entering `BG_PRIORITY='5-Urgent'` will result in the query: `SELECT * FROM BUG WHERE BG_VTS >= '<last_sync_time>' AND BG_PRIORITY='5-Urgent'`

IBM Rational Change

Automatically migrate new IBM Rational Change CRs to Quality Center during sync

IBM Rational Change Custom Query

The string entered here must be a valid IBM Rational Change query. If no string is entered, the value will default to "(cvtype='problem')"

Example: The query string "(cvtype='problem') and (crstatus='entered') and ((product_name='freemind') or (product_name='GDIDEMO'))" will query all problems in entered state for product 'freemind' or 'GDIDEMO'

Buttons: < Back, Next >, Cancel

This dialog box provides the option to add a SQL statement that will be added to the query used to find defects in HP Quality Center to sync. This optional field can be used to be selective about which HP Quality Center defects are synchronized with IBM Rational Change. For example, you could synchronize only defects with *Urgent Priority*, or only defects submitted against a specific area of the product being tested. The text you enter must be valid SQL. You should perform at least one manual sync operation to verify that your custom query is working as expected.

Also, you can migrate newly created CRs to HP Quality Center during synchronization. Specify a valid IBM Rational Change query, and then check the box **Automatically migrate new IBM Rational Change CRs to Quality Center during sync**.

12. Click **Next**. The **IBM Rational Change and Quality Center Link Setup Page** appears.

IBM Rational Change Link Wizard for HP Quality Center Interface

IBM Rational Change and Quality Center Link Setup Page

Please Provide a name for the Link you just created.

Link Name :

Sync Time :

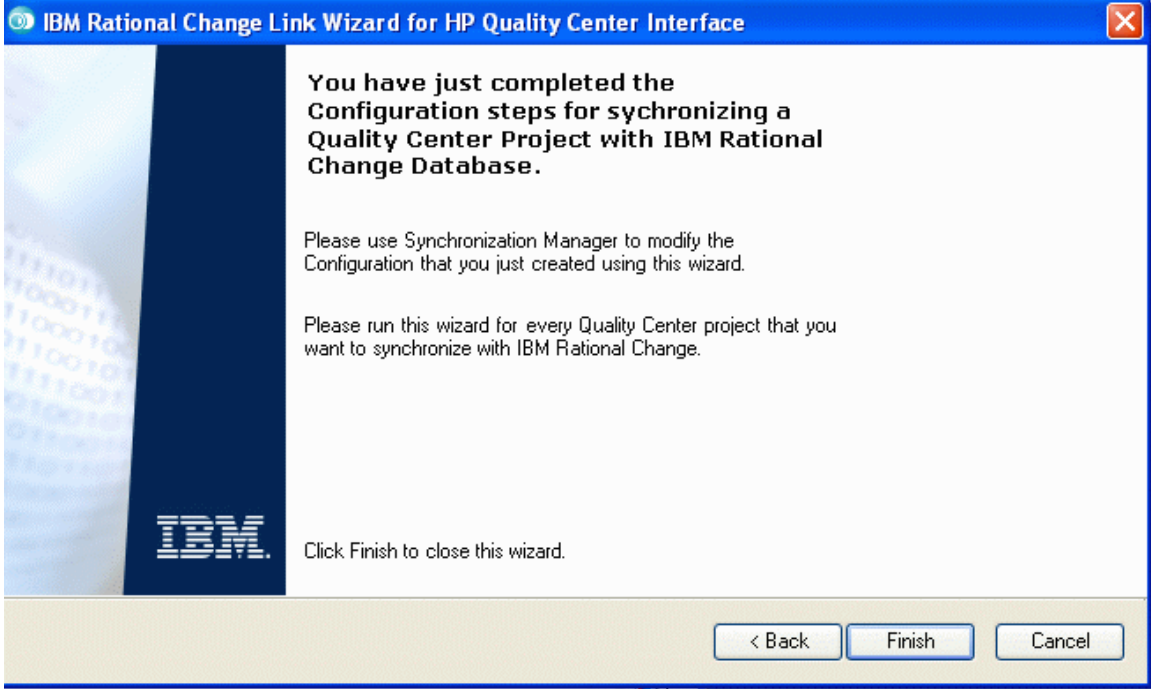
< Back Next > Cancel

13. In **Link Name**, type the name of your link. This name is displayed in IBM Rational Change for HP Quality Center Interface.

In **Sync Time**, Type a time interval to synchronize the updated defect records.

Note: Minimum allowed time interval is one minute. IBM Rational Change for HP Quality Center Interface updates the data between HP Quality Center and IBM Rational Change database based on the time interval provided in this dialog. The interval between synchronizations is between the end of one synchronization operation and the beginning of the next.

14. Click **Next**.
The completion dialog box appears.

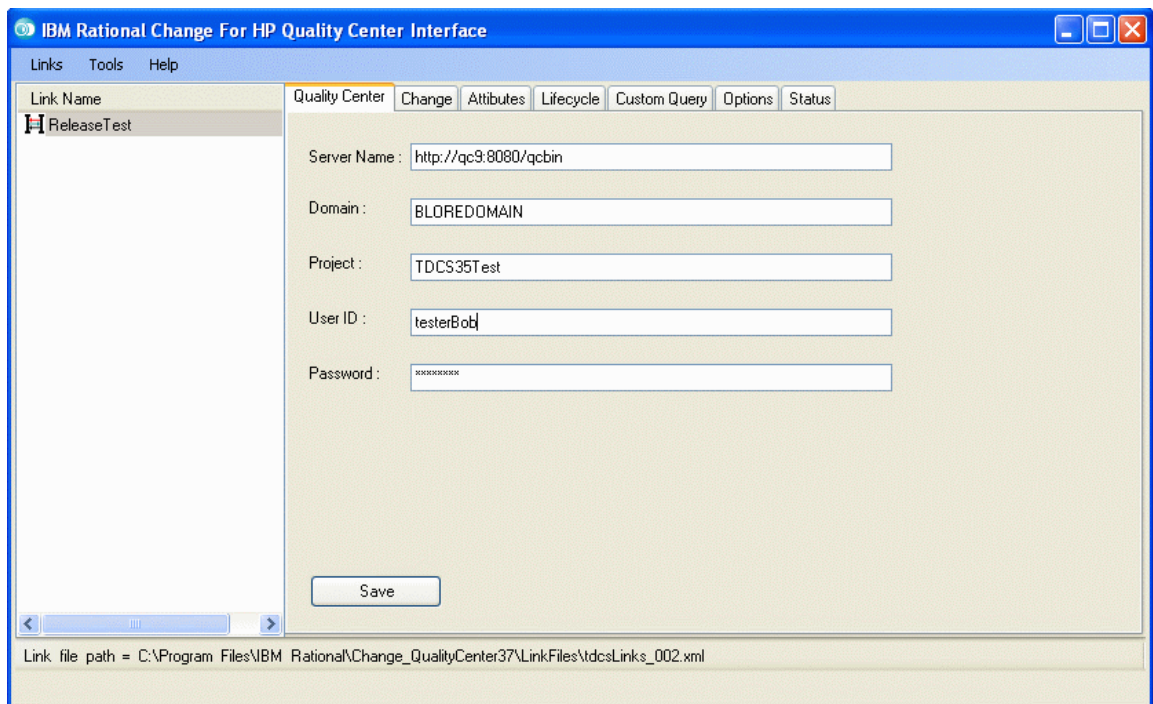


Updating links

Each synchronization link that is created using IBM Rational Change Link Wizard can be edited with in the IBM Rational Change for HP Quality Center Interface. You should not manually edit link configuration XML files due to the likelihood of introducing an error. Always use the following procedure to update the link configuration.

To edit HP Quality Center Server Settings, do the following:

1. In the IBM Rational Change for HP Quality Center Interface left pane, select a link.
2. Click **Quality Center** tab.

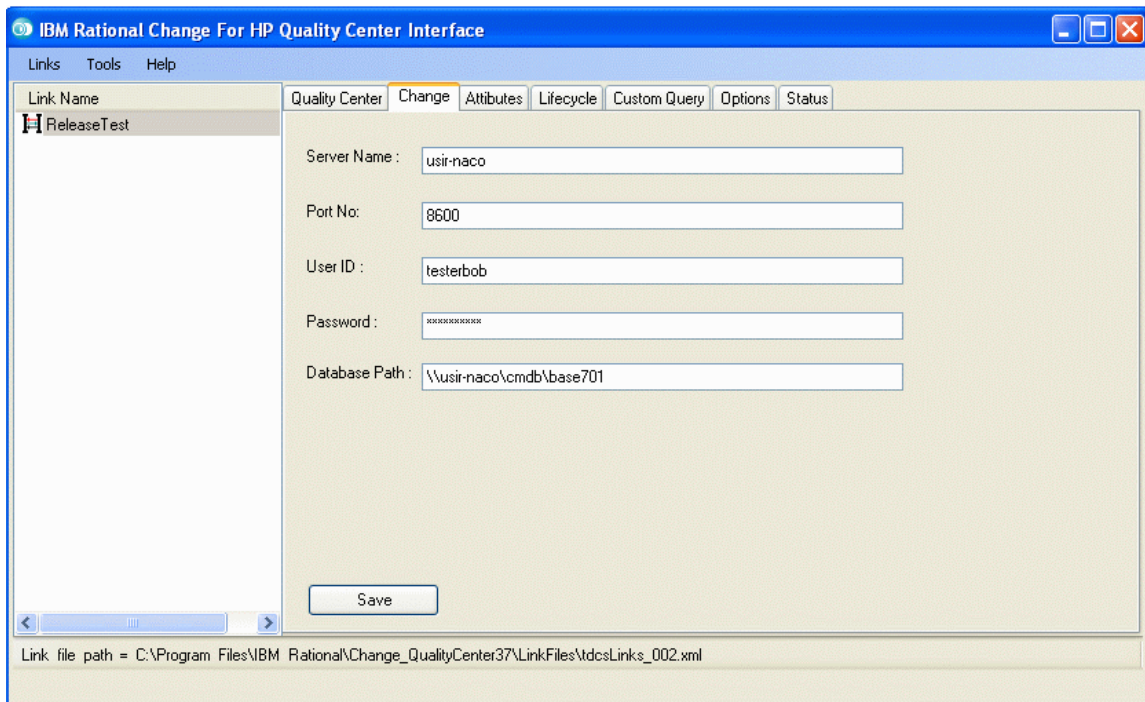


3. Update the HP Quality Center server information
4. Click **Save**, then click **OK**.

Before saving the configuration, IBM Rational Change for HP Quality Center Interface will try to validate your updates. If validation fails, you have the choice to save or discard the invalid configuration.

To edit the IBM Rational Change Server settings:

1. From the left pane of the IBM Rational Change for HP Quality Center Interface, select the link whose properties you want to edit.
2. Click the IBM Rational Change tab.
3. Update the IBM Rational Change information.
4. Click **Save**.

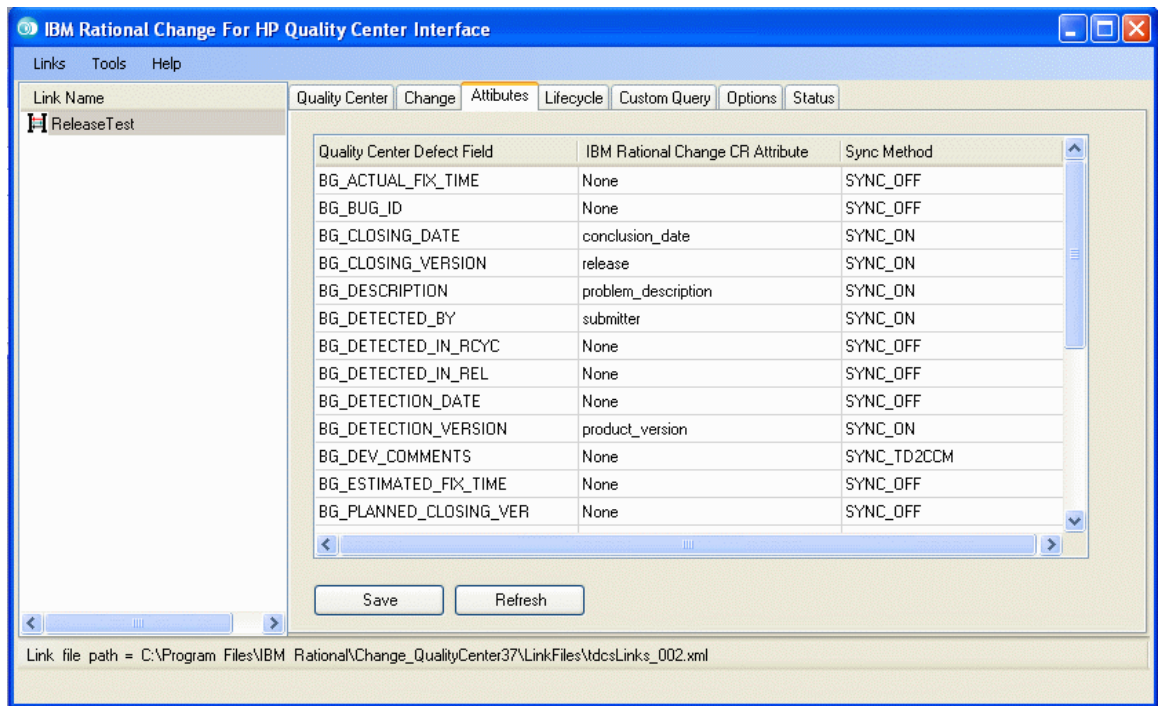


To edit attribute mapping, do the following:

1. From the left pane of the IBM Rational Change for HP Quality Center Interface, select the link whose properties you want to edit.
2. Click the **Attribute** tab.

The attribute-mapping dialog box is displayed. The mapping information displayed in this dialog is from the link configuration XML file for the selected link. The configuration file may not contain recent updates to the IBM Rational Change process, and HP Quality Center defect fields. To get the CR attributes in IBM Rational Change or the defect field in HP Quality Center server dynamically, click **Refresh**.

3. Click **Save**.



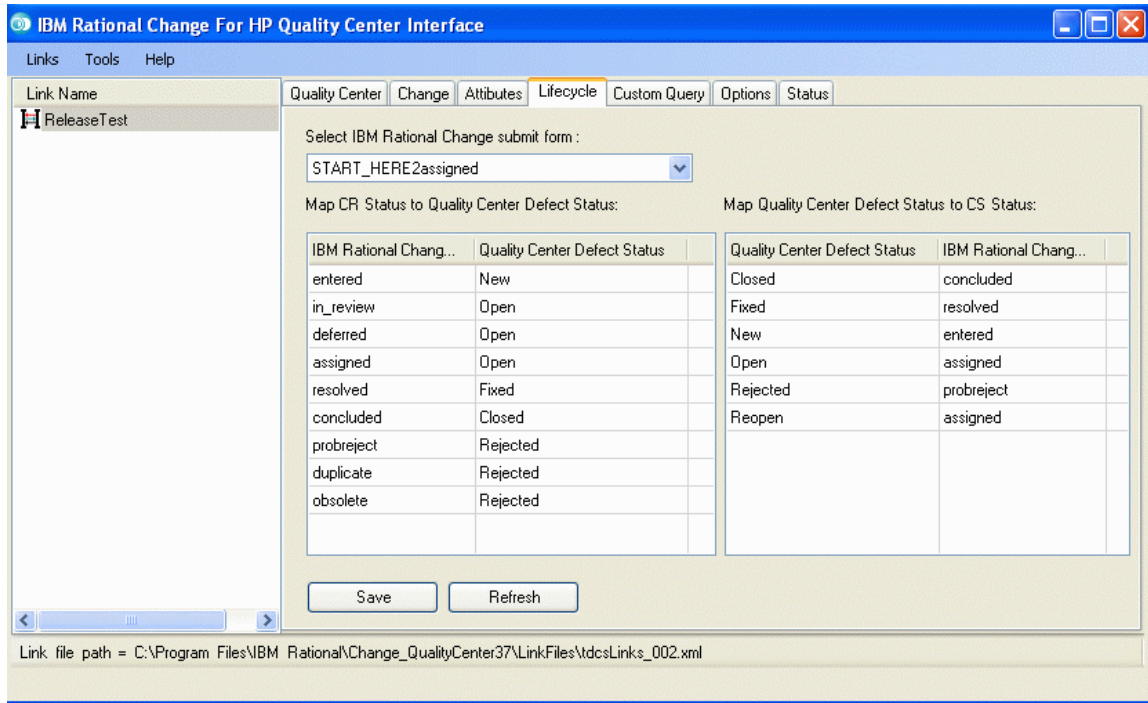
To edit the lifecycle mapping:

1. From the left pane of the IBM Rational Change for HP Quality Center Interface, select the link whose properties you want to edit.
2. Click the **Lifecycle** tab.

The status-mapping dialog box appears. The mapping information displayed in this dialog is from the link configuration XML file for the selected link.

The configuration file may not contain recent updates to IBM Rational Change process and the HP Quality Center defect status. To get the CR states from IBM Rational Change or the defect states from HP Quality Center server dynamically, click **Refresh**.

3. Click **Save**.



Note: The IBM Rational Change states that are not mapped to HP Quality Center defect status or vice versa are hidden states and are not synchronized.

Deleting links:

To manually delete a link from the IBM Rational Change for HP Quality Center Interface:

1. From the left pane of the IBM Rational Change for HP Quality Center Interface, select the link you want to delete.
2. Select **Links > Delete**.
- 3.
4. Click **Yes**.

Working with the IBM Rational Change for HP Quality Center Interface

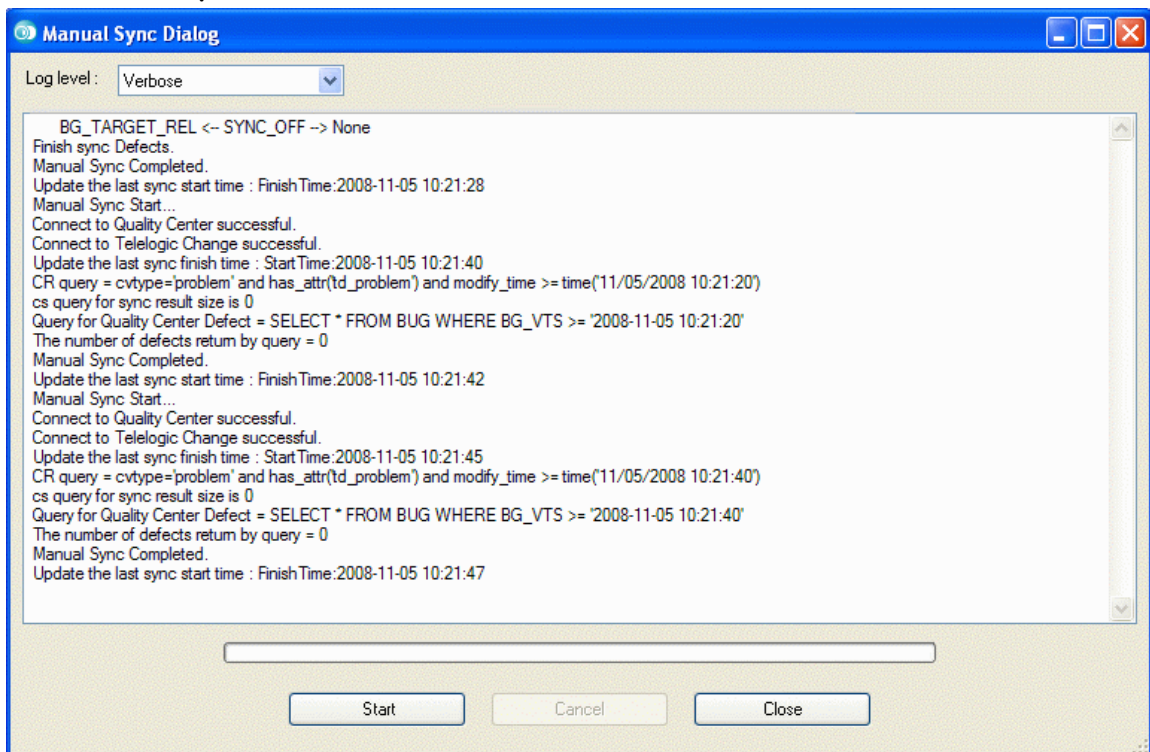
Manual synchronization operation

To manually synchronize a link from the IBM Rational Change for HP Quality Center Interface:

1. In the IBM Rational Change for HP Quality Center Interface, select a link.
2. Choose **Tools > Synchronize > link**

The **Manual Sync Dialog** box appears.

3. Select a logging level if you need more information during synchronization process. The available logging levels are **Brief**, **Verbose** and **Debug**.
4. Click start button to **start** the synchronization operation.
5. Click Cancel button to **stop** the manual synchronization operation.



Note: The detailed messages and status are logged to <your install directory>\logs\MainApplog.txt file

Synchronization service

To run the synchronization operations as a Service from the IBM Rational Change for HP Quality Center Interface:

1. In IBM Rational Change for HP Quality Center Interface, select **Tools > Start Service**.

A message appears indicating the status of service during startup. The synchronization process starts for all the configured links in parallel. Multiple IBM Rational Change databases can be synchronized with multiple HP Quality Center servers and projects simultaneously. The update frequency for each link is configured by the user in the Link Wizard while creating a new link and is modifiable from **Options** tab in IBM Rational Change for HP Quality Center Interface. The synchronization service reads the link configuration file to update itself of any changes users might have made to the link before starting the synchronization cycle for a link.

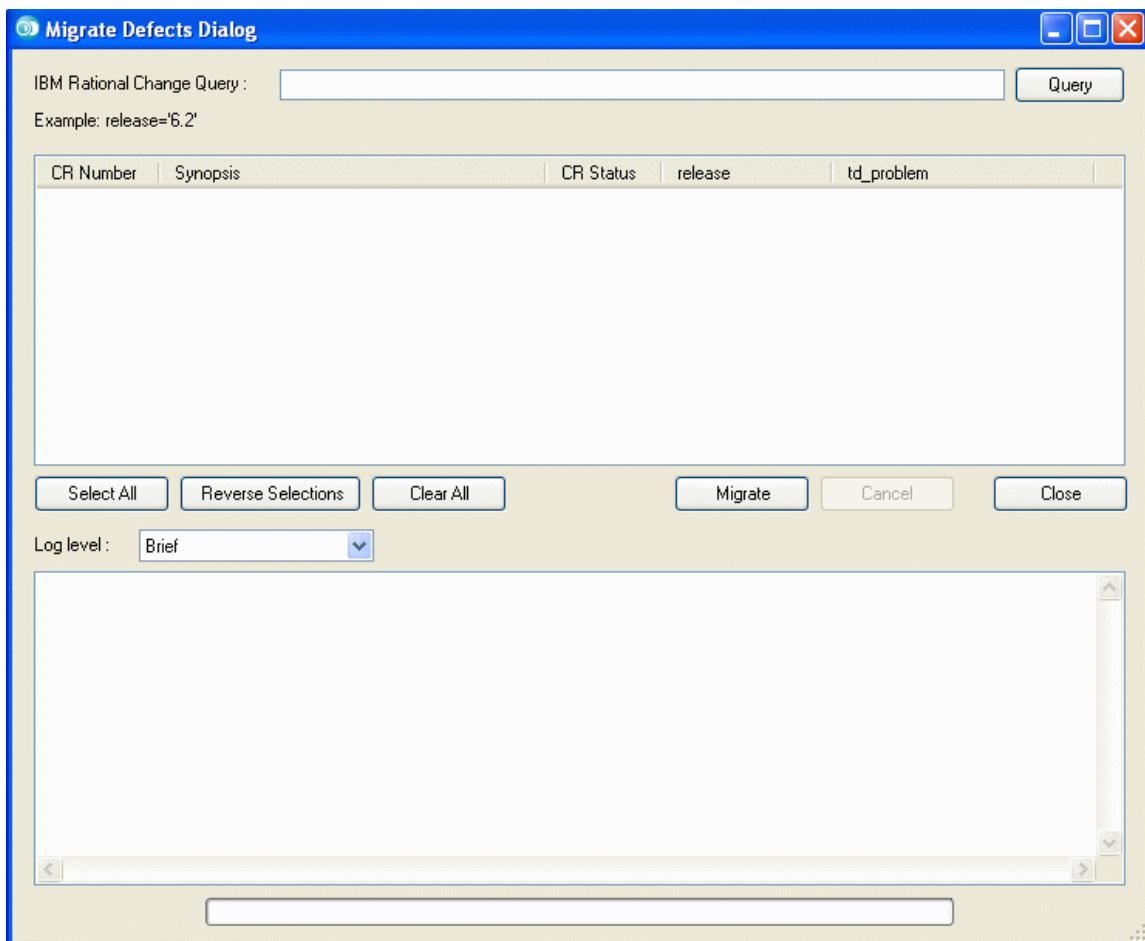
Note: There is no visual indication of status during automatic synchronization, however detailed log files for each link are available in <your install directory>\logs\

2. In IBM Rational Change Lifecycle Manager, select **Tools > Stop Service**.

Migrate a change request from IBM Rational Change to HP Quality Center Project

To migrate a change request from the IBM Rational Change database to a HP Quality Center project:

1. Select a link in the IBM Rational Change for HP Quality Center Interface, and then select **Tools > Migrate**.
2. The **Migrate Defects Dialog** dialog box appears.



3. In **IBM Rational Change Query**, provide an IBM Rational Change query.
4. Click **Query**.

The list of change requests from query result is displayed in the **Migrate Defects Dialog** dialog box.

5. Check all the CRs you want to migrate.
6. Select a logging level if you need more information during migration process. The available logging levels are **Brief**, **Verbose** and **Debug**.
7. Click **Migrate**.

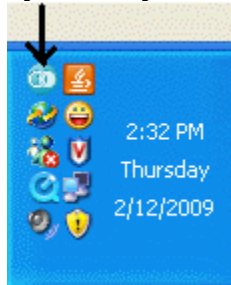
Warning: Clicking **Query** without providing a query string in the IBM Rational Change Query edit box causes IBM Rational Change for HP Quality Center Interface to select the CRs from the entire IBM Rational Change database that are not migrated or not synchronized with a HP Quality Center project. If your database is large this operation may take a while. For optimum performance, always provide a IBM Rational Change query.

Note: It is not necessary to provide a separate migration command to migrate the newly created defects in HP Quality Center project. Newly submitted defects in HP Quality Center are picked up dynamically during the Synchronization process.

Detailed messages and status is logged to <your install directory>\logs\MainApplog.txt file.

Managing the sync service with the system tray

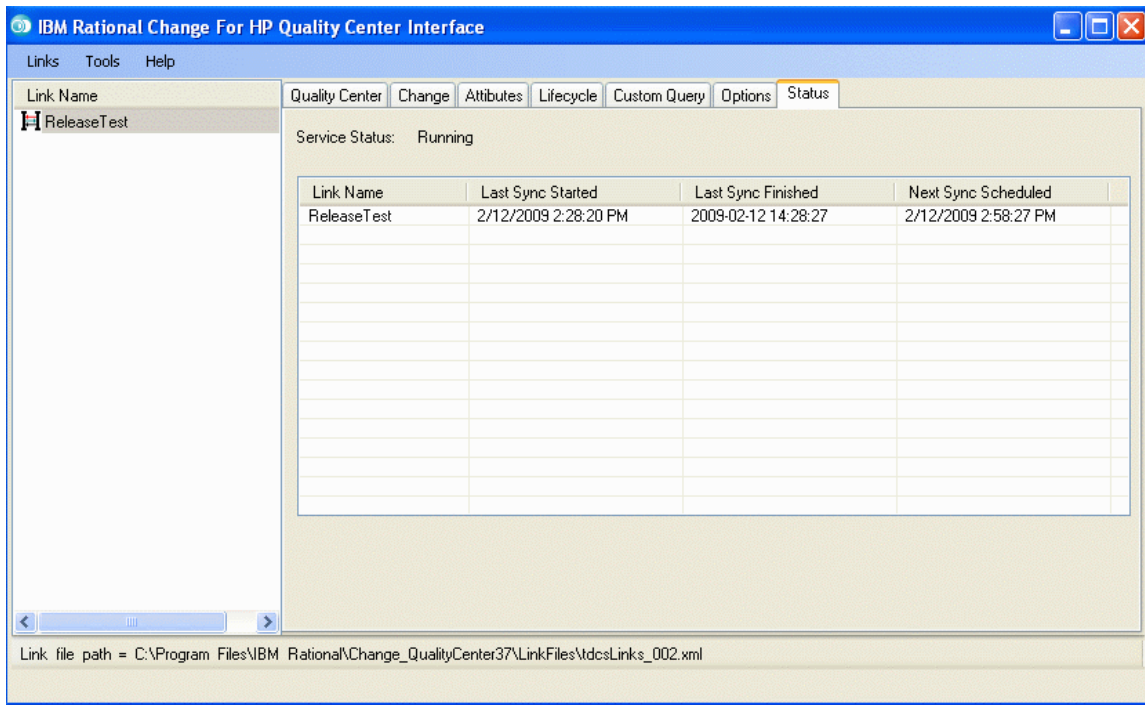
When you launch the IBM Rational Change for HP Quality Center Interface, an icon is placed in system tray. If you try to exit the IBM Rational Change for HP Quality Center Interface by clicking on System 'Close' menu or the 'X' icon at top right corner of the title bar, the IBM Rational Change for HP Quality Center Interface minimizes itself to system tray as an icon.



Double-clicking this icon activates the IBM Rational Change for HP Quality Center Interface. To start or stop the Sync service from the context menu, right-click this icon, and then select **Start Service** or **Stop Service**.

Whenever the Sync service changes its state, **Service Status Update** appears, notifying the user of the status.

Click **Status** to browse directly to the **Status** page in IBM Rational Change for HP Quality Center Interface. Use **Exit** to close the IBM Rational Change for HP Quality Center Interface.



The **Status** page displays when the synchronization was last performed for a link and when the next sync is scheduled.

Logging during Synchronization:

Your <installation directory> contains `tdcsConfig.xml`. The content of this file are shown below.

logLevel options: **Brief=0, Verbose=1, Debug =2**

logfileSizeCap option: **default =5. (5 MegaByte)**.

keepOldLogFile option: **default = 1. (To keep the history of log files), 0 for no log history.**

TimePatterns: The default date/time format used for SYNERGY query and HP Quality Centery query. You could set the time pattern to your locale.

The contents of tdcConfig.xml is shown below:

```
<?xml version="1.0" encoding="utf-8"?>
<TDCSConfig version="tdcs3.2">
  <section name="Log Settings">
    <entry name="logLevel">0</entry>
    <entry name="logFileSizeCap">5</entry>
    <entry name="keepOldLogFile">1</entry>
  </section>
  <section name="TimePatterns">
    <entry name="CMQuery">MM/dd/yyyy HH:mm:ss</entry>
    <entry name="TDQuery">yyyy-MM-dd HH:mm:ss</entry>
  </section>
</TDCSConfig>
```

tdcsConfig.xml

Appendix A: Notices

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