

Mercury Quality Center

Requirements Synchronizer for
Rational RequisitePro Add-in Guide
Version 9.0

Document Release Date: July 19, 2006

MERCURY™

Mercury Quality Center Requirements Synchronizer for Rational RequisitePro Add-in Guide,
Version 9.0

This manual, and the accompanying software and other documentation, is protected by U.S. and international copyright laws, and may be used only in accordance with the accompanying license agreement. Features of the software, and of other products and services of Mercury Interactive Corporation, may be covered by one or more of the following patents: United States: 5,511,185; 5,657,438; 5,701,139; 5,870,559; 5,958,008; 5,974,572; 6,137,782; 6,138,157; 6,144,962; 6,205,122; 6,237,006; 6,341,310; 6,360,332; 6,449,739; 6,470,383; 6,477,483; 6,549,944; 6,560,564; 6,564,342; 6,587,969; 6,631,408; 6,631,411; 6,633,912; 6,694,288; 6,738,813; 6,738,933; 6,754,701; 6,792,460 and 6,810,494. Australia: 763468 and 762554. Other patents pending. All rights reserved.

Mercury, Mercury Interactive, the Mercury logo, the Mercury Interactive logo, LoadRunner, WinRunner, SiteScope and TestDirector are trademarks of Mercury Interactive Corporation and may be registered in certain jurisdictions. The absence of a trademark from this list does not constitute a waiver of Mercury's intellectual property rights concerning that trademark.

All other company, brand and product names may be trademarks or registered trademarks of their respective holders. Mercury disclaims any responsibility for specifying which marks are owned by which companies or which organizations.

Mercury provides links to external third-party Web sites to help you find supplemental information. Site content and availability may change without notice. Mercury makes no representations or warranties whatsoever as to site content or availability.

Mercury Interactive Corporation
379 North Whisman Road
Mountain View, CA 94043
Tel: (650) 603-5200
Toll Free: (800) TEST-911
Customer Support: (877) TEST-HLP
Fax: (650) 603-5300

© 2006 Mercury Interactive Corporation, All rights reserved

If you have any comments or suggestions regarding this document, please send them by e-mail to documentation@mercury.com.

Table of Contents

Welcome	v
Using This Guide	vi
Typographical Conventions	vii
Chapter 1: Installing the Requirements Synchronizer	1
Installing the Quality Center Requirements Synchronizer	1
Starting the Synchronizer	4
Chapter 2: Building Synchronization Tasks	5
Guidelines for Working with the Synchronizer	5
What the Synchronizer Adds to Your Tools	7
Understanding Task Building	7
Synchronizing with a RequisitePro View	9
Building a Task	11
Modifying a Task	21
Removing a Task	22
Chapter 3: Working with the Synchronizer	23
Changing the Synchronization Settings	23
Running a Task Manually	26
Running the Synchronizer Service	29
Synchronization Example	31

Table of Contents

Welcome

Welcome to the Mercury Quality Center (formerly TestDirector) Requirements Synchronizer for Rational RequisitePro Add-in. This add-in supports Rational RequisitePro 2002, 2003, 2003.06.14, 2003.06.15, and 7.0 with Mercury Quality Center 9.0.

Note: To use the Synchronizer, you must have Quality Center administrator privileges.

The Synchronizer enables you to manage project requirements using the most suitable tool for your needs by organizing and synchronizing the transfer of requirements data between Quality Center and RequisitePro.

For example, if the development team uses RequisitePro and the quality assurance team uses Quality Center, the Synchronizer enables the teams to integrate their projects so that they both work with the same data. This enables the quality assurance team to use one tool to handle the testing process, while the development team uses its preferred requirements management tool.

The Synchronizer can be customized to satisfy varying user needs. This enables users to create requirements that do not yet exist in the receiving tool, update existing requirements, or remove requirements that were deleted in the other tool.

You begin working with the Synchronizer by building a *synchronization task* in the Tasks Builder. A synchronization task represents data transfer between one Quality Center project and one RequisitePro project, which may contain multiple packages and requirements.

After you build a synchronization task, you can work with your requirements in Quality Center or RequisitePro.

As required, you can synchronize your projects by performing update tasks or delete tasks. An *update task* searches for and updates new or modified attributes. A *delete task* searches for and updates or removes deleted or moved attributes.

You can run the Synchronizer manually or as a service. Running the Synchronizer as a service enables you to run your tasks automatically at predetermined time intervals.

Note: This guide explains how to use Rational RequisitePro with Quality Center. For additional information on using Quality Center, refer to the *Mercury Quality Center User's Guide*.

Using This Guide

This guide contains the following chapters:

Chapter 1 **Installing the Requirements Synchronizer**

Describes how to install the add-in on your Quality Center client machine.

Chapter 2 **Building Synchronization Tasks**

Describes how to build, modify, and delete a synchronization task.

Chapter 3 **Working with the Synchronizer**

Describes how to run a synchronization task, either manually or as a service. Also includes an example of working with the Synchronizer.

Typographical Conventions

This guide uses the following typographical conventions:

UI Elements	This style indicates the names of interface elements on which you perform actions, file names or paths, and other items that require emphasis. For example, “Click the Save button.”
<i>Arguments</i>	This style indicates method, property, or function arguments and book titles. For example, “Refer to the <i>Mercury User’s Guide</i> .”
<Replace Value>	Angle brackets enclose a part of a file path or URL address that should be replaced with an actual value. For example, < MyProduct installation folder >\bin.
Example	This style is used for examples and text that is to be typed literally. For example, “Type Hello in the edit box.”
CTRL+C	This style indicates keyboard keys. For example, “Press ENTER.”
Function_Name	This style indicates method or function names. For example, “The wait_window statement has the following parameters:”
[]	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

1

Installing the Requirements Synchronizer

This chapter describes how to install and start the Quality Center Requirements Synchronizer for Rational RequisitePro.

This chapter describes:	On page:
Installing the Quality Center Requirements Synchronizer	1
Starting the Synchronizer	4

Installing the Quality Center Requirements Synchronizer

You must install the Synchronizer on a separate, dedicated standard desktop machine that is not being used as a Quality Center or RequisitePro server.

Note: If you built synchronization tasks using the TestDirector Synchronizer, you must upgrade them to work with the Quality Center Synchronizer. In addition, if your project was created in TestDirector and then migrated to Quality Center, you must perform additional important post-installation steps. For more information, contact Mercury Customer Support.

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

To install the Requirements Synchronizer for Rational RequisitePro Add-in:

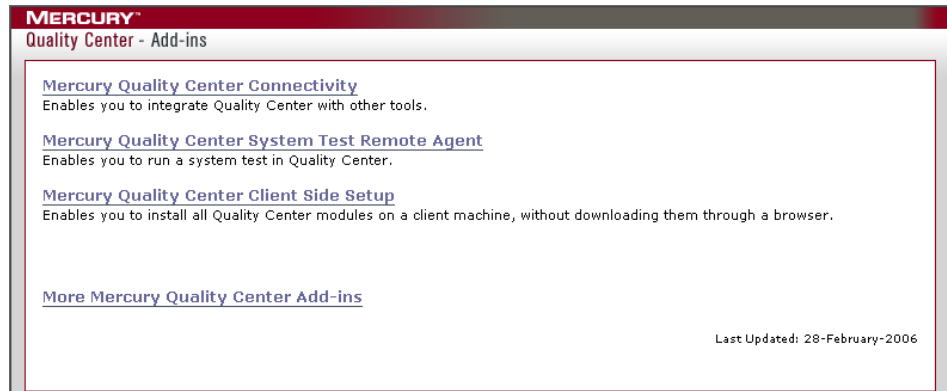
- 1** Install a RequisitePro Windows client on your Quality Center client machine. Check that both clients are communicating successfully with their servers.

Note: You must install a RequisitePro Windows client to work with the Synchronizer, even if you are working with a RequisitePro Web client.

- 2** Uninstall any previous versions of the TestDirector or Quality Center Requirements Synchronizer for Rational RequisitePro Add-in. To uninstall, choose **Start > Settings > Control Panel > Add/Remove Programs** and follow the instructions on your screen.
- 3** Open your Web browser and type your Mercury Quality Center URL: <http://<Quality Center server name>/qcbn>. The Mercury Quality Center Options window opens.



- 4 Click the **Add-ins Page** link. The Mercury Quality Center Add-ins page opens.



- 5 Click the **More Mercury Quality Center Add-ins** link. The More Mercury Quality Center Add-ins page opens.
- 6 Under **Synchronization Tool Add-ins**, click the **Requirements Synchronizer for Rational RequisitePro Add-in** link. The Quality Center Requirements Synchronizer for Rational RequisitePro Add-in page opens.
- 7 Click **Download Add-in** and install the Synchronizer on your Quality Center client machine. Follow the on-screen installation instructions.
- 8 Navigate back to the Mercury Quality Center Add-ins page and click the **Mercury Quality Center Connectivity** link. The Mercury Quality Center Connectivity Add-in page opens.
- 9 Click **Download Add-in** and install the Connectivity Add-in on your Quality Center client machine.

Starting the Synchronizer

After you install and configure the Requirements Synchronizer, you can start it from your **Start** menu. To open the Synchronizer, choose **Start > Programs > Quality Center 9.0 > Integrations > Requirements Synchronizer**.

The Requirements Synchronizer program folder contains the following items:

- ▶ **Tasks Builder.** Opens the Quality Center Synchronizer Tasks Builder, enabling you to create links between RequisitePro fields and Quality Center fields, to run a manual synchronization or to schedule automatic synchronizations.
- ▶ **User's Guide.** Opens this user's guide in PDF format.

2

Building Synchronization Tasks

You use the Quality Center Synchronizer Tasks Builder to build tasks. Each synchronization task enables you to transfer data between one Quality Center project and one Rational RequisitePro project. You can also build additional tasks to link multiple RequisitePro projects to your Quality Center project.

This chapter describes:	On page:
Guidelines for Working with the Synchronizer	5
What the Synchronizer Adds to Your Tools	7
Understanding Task Building	7
Synchronizing with a RequisitePro View	9
Building a Task	11
Modifying a Task	21
Removing a Task	22

Guidelines for Working with the Synchronizer

When working with the Synchronizer, make sure that you follow these guidelines:

- ▶ Do not use the following characters when naming a requirement in Quality Center, or when naming a project, package, or requirement in RequisitePro:
\\ ^ * " ' : ;
- ▶ The first time that you synchronize projects, you must run a full scan. This ensures that project data is identical in both tools.

- ▶ In Quality Center, if you want to move a requirement and make it a child of another requirement, make sure that you move it under a requirement of the same type. This is required because RequisitePro does not allow you to move a requirement of one type under a requirement of another type. If you do, the Synchronizer will move the requirement back when you synchronize projects.
- ▶ After you synchronize projects from RequisitePro to Quality Center, requirement names are displayed as <**Requirement Type**>; <**Requirement Name**>. Do not delete the requirement type, the semi-colon, or the space after the semi-colon from the requirement name in Quality Center.
- ▶ In Quality Center, you cannot create, rename, or move packages.
- ▶ After you synchronize projects, if you rename a package in RequisitePro, the next time you synchronize the projects a new package will be created in Quality Center. All the requirements of the same requirement type will be moved to the new package. If the original project contained one requirement type and no child packages, the original package will be removed from the Quality Center project after you run a delete task (for more information, see “Running a Task Manually” on page 26). If, however, the original package contained requirements of another type, or if it contained child packages, the original package will not be removed from Quality Center.
- ▶ After you build a task, do not modify the project login connection information. Specifically, for each linked project, do not modify the Quality Center server name, the Quality Center domain name, the Quality Center/RequisitePro project name, your user name, or password.

This is because the Synchronizer connects to each project using the login information you specified when you built the task. If you change the login information, you must delete the task using your file management application. For more information, see “Removing a Task” on page 22.

- ▶ If you define input masks in Quality Center, make sure that the data you enter in RequisitePro matches the input mask string. For more information on defining input masks in Quality Center, refer to the *Mercury Quality Center Administrator's Guide*.

What the Synchronizer Adds to Your Tools

The Synchronizer adds the following to RequisitePro and Quality Center:

- ▶ In RequisitePro, the Synchronizer adds two new fields:
 - **SYNC_TIME_STAMP.** A text field that is used to determine whether the Rational RequisitePro requirement was updated.
 - **TD_KEY.** A text field that is used to store information about the corresponding Quality Center requirement.
- ▶ In the Quality Center Requirements table, the Synchronizer reserves the first available user-defined requirement field to store information about the corresponding RequisitePro requirement. The Synchronizer assigns this field the name **RP_SYNCH_INFO**.

Note: If your tasks were built using the versions of the Synchronizer for TestDirector 7.6 or TestDirector 8.0 with Service Pack 1, the Synchronizer previously used the **RQ_USER_12** system field to store information about the corresponding RequisitePro requirement. When you run one of these tasks with the new version of the Synchronizer, the Synchronizer changes it to the **RP_SYNCH_INFO** user-defined field.

When you run a task, the Synchronizer stores information about corresponding requirements in the **TD_KEY** field in your RequisitePro project and the **RP_SYNCH_INFO** field in your Quality Center project.

Understanding Task Building

Building a new synchronization task involves the following four steps. For additional information, see “Building a Task” on page 11.

- ▶ **Set the Quality Center project information.** Connect to the Quality Center server and project.

- ▶ **Set the RequisitePro project information.** Connect to the RequisitePro project and choose to synchronize either a requirement type or a view. For more information about synchronizing a RequisitePro view, see “Synchronizing with a RequisitePro View” on page 9. If you want to synchronize a project containing multiple requirement types, you can build a task for each requirement type.

Note: For each task, you can choose one requirement type only. If applicable, you can instruct the Synchronizer to create additional RequisitePro fields to enable more convenient mappings with the Quality Center projects.

- ▶ **Set the project field mappings.** Map the fields in your Quality Center project to fields in the RequisitePro project. For each field, you can specify which tool takes precedence and overrides the value in the other tool when the projects are synchronized. If needed, you can map additional fields from the Quality Center project to the RequisitePro project.
- ▶ **Set the deletion rules.** Specify the record removal rules to be used when a delete task is performed.

Note: You can link multiple RequisitePro projects to one Quality Center project. You do this by building additional tasks in which you link individual RequisitePro projects to the same Quality Center project.

After you synchronize your projects, the Quality Center project contains all the RequisitePro projects. In Quality Center, each RequisitePro project is displayed hierarchically as a root level parent requirement. This enables you to view the parent-child relationship between requirements and to move requirements between what were originally separate RequisitePro projects.

Synchronizing with a RequisitePro View

You can synchronize your Quality Center project with a RequisitePro view instead of a requirement type. If you have already synchronized requirements between your Quality Center project and the RequisitePro view, or synchronized requirements that were previously part of the view, the Synchronizer will continue to update these requirements in subsequent synchronizations.

When working with a RequisitePro view, note the following:

- ▶ If you synchronize a RequisitePro view with a Quality Center project, then modify the query of the RequisitePro view and synchronize again, any requirements that were synchronized in the old view, that are now in the new view, are synchronized.
- ▶ If you modify a query in your RequisitePro view and rename the view, you must select the new name in the **Requirement View** box of the RequisitePro Login dialog box in order for it to be synchronized when you run a task. For more information, see “Connecting to a RequisitePro Project” (step 4) on page 16.

The following sections provide additional information for synchronizing your Quality Center project with a RequisitePro view:

- ▶ Adding Requirements
- ▶ Modifying Requirements
- ▶ Deleting Requirements

Adding Requirements

Before adding a requirement to your Quality Center project or to your RequisitePro view, consider the following:

- ▶ If you add a new requirement in your Quality Center project, it must be created under the root requirement that is mapped to the RequisitePro view. Only requirements that are part of the RequisitePro project can be synchronized.

- ▶ If you add a new requirement in your Quality Center project, it will be synchronized with the RequisitePro project. The Synchronizer is not able to determine if a requirement should be part of the RequisitePro view, so all requirements are added when you run a task.
- ▶ If you add a requirement with a child requirement in your RequisitePro project, but only the child requirement is in the view, both the parent requirement and its child are created in your Quality Center project when you synchronize.

Modifying Requirements

Before modifying a requirement in your Quality Center project or in your RequisitePro view, consider the following:

- ▶ If you modify a requirement in the RequisitePro project that is not part of the view, or does not already have a corresponding requirement in your Quality Center project, it will not be synchronized with the Quality Center project when you run a task.
- ▶ If you modify a requirement in your Quality Center project that belongs to the requirement type that the RequisitePro view is a part of, it will be synchronized when you run a task.
- ▶ If you modify a requirement type in your Quality Center project that is the same as the requirement type that the RequisitePro view is part of, it will be synchronized when you run a task.

Deleting Requirements

Before deleting a requirement from your Quality Center project or from your RequisitePro view, consider the following:

- ▶ The following applies if you synchronize your Quality Center project with a RequisitePro view and then modify the query in the RequisitePro view. If you delete a requirement in the Quality Center project and then run a delete task, the Synchronizer does not delete the corresponding requirement in the RequisitePro project while that requirement is not a part of the view.

The Synchronizer clears the **TD_KEY** field in your RequisitePro project. This means that subsequent modifications to the requirement in the RequisitePro project are not synchronized with your Quality Center project until the requirement once again becomes part of the view.

- ▶ The following applies if you delete a requirement in your Quality Center project that has a child in the RequisitePro project which is not part of the view. When you run a delete task, the child in the RequisitePro project becomes a child of the package to which the parent belonged.
- ▶ The following applies if you delete a requirement in your RequisitePro project that is not part of the view, but already has a corresponding Quality Center requirement. When you run a delete task, the requirement is deleted from your Quality Center project.

Building a Task

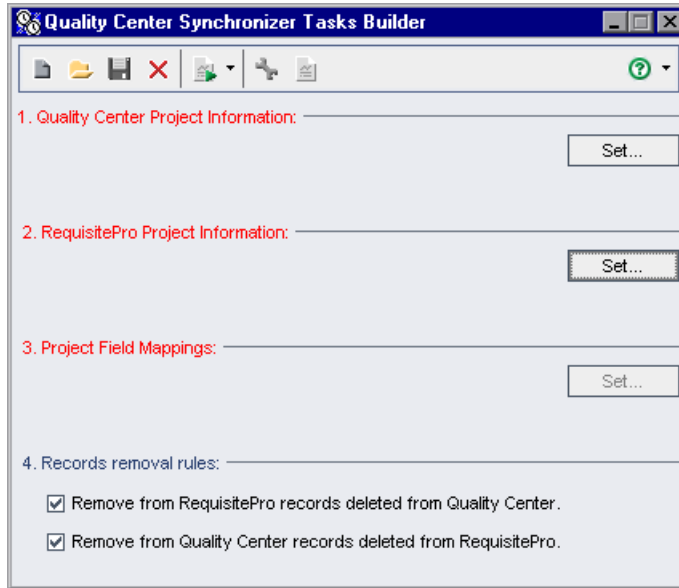
This section describes how to build a synchronization task. The procedure comprises four main steps:

- ▶ Connecting to a Quality Center Project
- ▶ Connecting to a RequisitePro Project
- ▶ Mapping Quality Center fields with RequisitePro fields
- ▶ Specifying the records removal rules

You begin each of the steps from the Tasks Builder, as described in the following procedure.

To create a new task:

- 1 Choose **Start > Programs > Quality Center 9.0 > Integrations > Requirements Synchronizer > Tasks Builder**. The Quality Center Synchronizer Tasks Builder opens.



- 2 Click the **New Task** button.
- 3 Connect to a Quality Center project. For more information, see “Connecting to a Quality Center Project” on page 14.
- 4 Connect to a RequisitePro project. For more information, see “Connecting to a RequisitePro Project” on page 15.
- 5 Map fields between your Quality Center project and your RequisitePro project. For more information, see “Mapping Fields” on page 18.

6 Under **Records removal rules** you can specify the deletion rules for synchronization:

- To instruct the Synchronizer to delete from the RequisitePro project any records that were deleted in the Quality Center project, select the **Remove from RequisitePro records deleted from Quality Center** check box.

If this option is not selected, then when the tools are synchronized, the Synchronizer recreates any records that were deleted from the Quality Center project by copying them from the relevant requirement in the RequisitePro project.

- To instruct the Synchronizer to delete from the Quality Center project any records that were deleted in the RequisitePro project, select the **Remove from Quality Center records deleted from RequisitePro** check box.

If this option is not selected, then when the tools are synchronized, the Synchronizer recreates any records that were deleted from the RequisitePro project by copying them from the relevant requirement in the Quality Center project.



7 To save the new task, click the **Save** button. In the Task Description dialog box, click **OK** to accept the name assigned to the task. By default, the task name appears as follows:

```
<QCProjectName>@<RPPProjectName>@<RPRequirementType>(<index>).tsk
```

Note: Although you can change the name of a task, it is recommended to accept the default name provided by the Synchronizer. If you do choose to change the default name, do not use the following characters: \ / : * ? " < > |

8 In Rational RequisitePro, if your project is open, choose **View > Refresh** to update it.

Connecting to a Quality Center Project

The Quality Center Project Information section of the Tasks Builder window enables you to specify the login information for connecting to your Quality Center project.

To connect to a Quality Center project:

- 1 In the Tasks Builder, under **Quality Center Project Information**, click **Set**. The Login to Quality Center dialog box opens.

The screenshot shows a dialog box titled "Login to Quality Center". It is organized into three distinct sections, each with a horizontal line above it. The first section, "Connect to Quality Center Server", contains a text input field for "Server Name" and a "Connect" button. The second section, "Authenticate User to Quality Center", contains text input fields for "User Name" and "User Password", and an "Authenticate" button. The third section, "Login to Quality Center Project", contains dropdown menus for "Domain Name" and "Project Name", and a "Login" button. A "Cancel" button is located at the bottom center of the dialog.

- 2 Log in to the Quality Center server and project. Note that the **Server Name** must be entered as: `http://<server name>/...` or `https://<server name>/...`

If the connection is successful, **Quality Center Project Information** in the Tasks Builder window changes from red to blue.

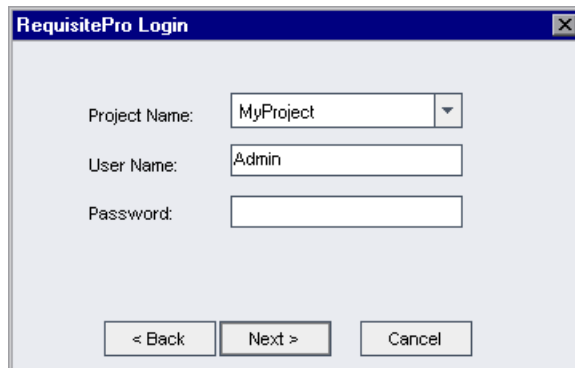
- 3 To connect to your RequisitePro project, see “Connecting to a RequisitePro Project” on page 15.

Connecting to a RequisitePro Project

The RequisitePro Project Information section of the Tasks Builder window enables you to specify the login information for connecting to your RequisitePro project. In addition, you can specify whether you want to synchronize according to a requirement type or a view.

To connect to a RequisitePro project:

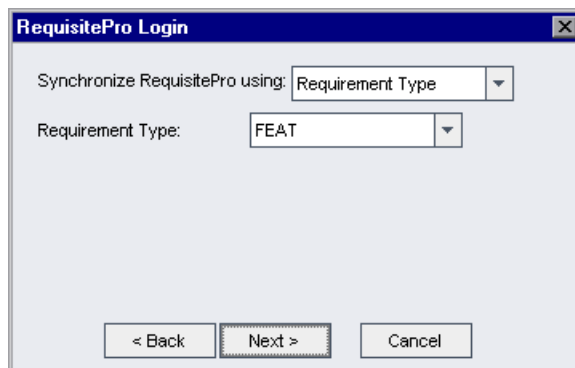
- 1 In the Tasks Builder, under **RequisitePro Project Information**, click **Set**. The RequisitePro Login dialog box opens.



The RequisitePro Login dialog box is shown with the following fields and buttons:

- Project Name: MyProject (dropdown menu)
- User Name: Admin (text field)
- Password: (empty text field)
- Buttons: < Back, Next >, Cancel

- 2 Log in to the RequisitePro project and click **Next**. If the connection is successful, the next dialog box opens.



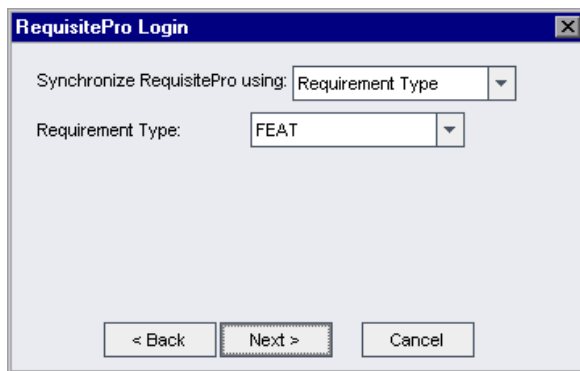
The RequisitePro Login dialog box is shown with the following fields and buttons:

- Synchronize RequisitePro using: Requirement Type (dropdown menu)
- Requirement Type: FEAT (dropdown menu)
- Buttons: < Back, Next >, Cancel

- 3** In the **Synchronize RequisitePro using** box, choose whether you want to synchronize your RequisitePro project according to Requirement Type or View:
- ▶ **Requirement Type.** Synchronizes the requirements in your Quality Center project with your RequisitePro project according to requirement type.
 - ▶ **View.** Synchronizes the requirements in your Quality Center project with a RequisitePro project view. For more information, see “Synchronizing with a RequisitePro View” on page 9. If you choose this option, go to step 5.

Click **Next**.

- 4** If you selected to synchronize according to **Requirement Type**, select a requirement type from the **Requirement Type** box.



Note: For each synchronization task, you can synchronize only one requirement type.

Click **Next**.

- 5 If you selected to synchronize according to **View** in step 3, the following dialog box opens.

In the **Requirement View** box, choose the view that you want to synchronize with your Quality Center project. The details that correspond with the view you have selected are displayed in the **View Description**, **Package** and **Row Requirement Type** boxes. Click **Next**.

- 6 If applicable, the next dialog box opens, displaying a list of recommended Quality Center fields that are not in your RequisitePro project. Adding these fields to RequisitePro maps them automatically to your Quality Center project, ensuring that the database structures contain logical field mappings.

Click **Done**. The Synchronizer adds the fields to your RequisitePro project and maps them to Quality Center fields. **RequisitePro Project Information** in the Tasks Builder window changes from red to blue.

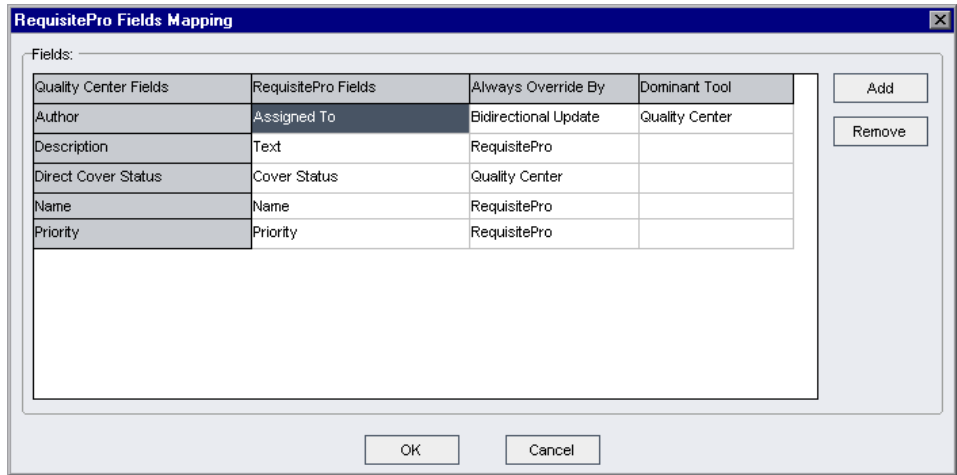
- 7 To map additional fields between your RequisitePro project and your Quality Center project, see “Mapping Fields” on page 18.

Mapping Fields

Before you can synchronize your Quality Center and RequisitePro projects, you must map the fields and specify their synchronization rules.

To map fields:

- 1 In the Tasks Builder, under **Project Field Mappings**, click **Set**. The RequisitePro Fields Mapping dialog box opens and displays the recommended field mappings.



Notes:

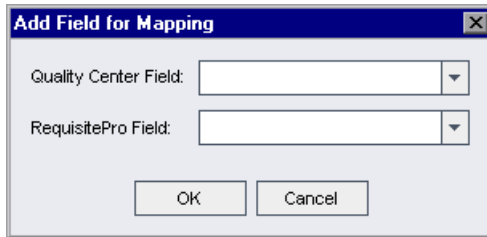
- ▶ Ensure that the lookup list of possible values is the same for fields that are mapped to each other. For example, if the **Assigned To** field in RequisitePro lists project members by user name, ensure that the field to which it is mapped in your Quality Center project, **Author**, also lists project members by user name.
 - ▶ You can map a field from one tool to another only once.
 - ▶ If you create a requirement in your Quality Center project that you want to be a part of a RequisitePro view, you need to ensure that all the fields that relate to the query are mapped between your Quality Center project and your RequisitePro project.
 - ▶ Do not map RequisitePro numeric fields (of type **Real**) to Quality Center numeric fields, as Quality Center numeric fields support integers only.
-

The mapping grid contains the following columns:

Column	Description
Quality Center Fields	The field label, as defined in Quality Center.
RequisitePro Fields	The field (also known as an <i>attribute</i>), as defined in RequisitePro, that maps to the Quality Center field in the same row.

Column	Description
<p>Always Override By</p>	<p>The dominant tool that overrides data during synchronization.</p> <p>RequisitePro specifies that when the tools are synchronized, the field in RequisitePro remains unchanged while the corresponding field in Quality Center is updated.</p> <p>Quality Center specifies that when the tools are synchronized, the field in Quality Center remains unchanged while the corresponding field in RequisitePro is updated.</p> <p>Bidirectional Update specifies that the tool that overrides is the tool in which data was updated</p>
<p>Dominant Tool</p>	<p>If you define Always Override By as Bidirectional Update, then you must specify the Dominant Tool as either RequisitePro or Quality Center. When data is changed in both tools, the Synchronizer performs an update according to the dominant tool specified.</p>

- 2 To add a new field for mapping, click **Add**. The Add Field for Mapping dialog box opens.



- 3 Select a **Quality Center Field** and a **RequisitePro Field**, and click **OK**. The Synchronizer adds the fields to the mapping grid.
- 4 To remove a field mapping, click in the row containing the mapped fields and click **Remove**. Click **Yes** to confirm.
- 5 When you have completed mapping the fields, click **OK**. In the Task Builder window, **Project Field Mappings** changes from red to blue.

Modifying a Task

You can modify an existing synchronization task.

To modify a task:

1 Choose **Start > Programs > Quality Center 9.0 > Integrations > Requirements Synchronizer > Tasks Builder**. The Quality Center Synchronizer Tasks Builder opens.



2 Click **Open**. The Open Task dialog box opens.

3 Select a synchronization task from the list and click **OK**.

4 Click the **Edit** button to modify each step in the task.

Notes:



► After you modify or delete an existing **Project Field Mapping**, click the **Synchronize Now** button and choose **Run Full Scan**.

► After you add a **Project Field Mapping**, save the task, click the **Synchronize Now** button, and choose **Run Full Scan**.

Note that all Quality Center and RequisitePro users must log off before you run a full scan task. For more information, see “Running a Task Manually” on page 26.



5 Click **Save** to save your changes.

Removing a Task

If you no longer want to run a synchronization task, you can remove it using the Synchronizer or your file management application. If you remove a task using the Synchronizer, you remove the linked requirement mappings between Quality Center and RequisitePro. If you remove a task using your file management application, you preserve the mapped links, enabling you to build new tasks using your existing mappings.

To remove a task and its linked requirement mappings:



- 1** In the Tasks Builder, click the **Delete and unlink a Task** button. The Delete Task dialog box opens.
- 2** Select a synchronization task from the list to remove and click **OK**. A confirmation dialog box opens.
- 3** Click **Yes** to confirm.

To remove a task and preserve its linked requirement mappings:

- 1** In your file management application, navigate to your tasks. By default, they are located under `<drive>:\Program Files\Common Files\Mercury Interactive\TDReqSync\Tasks`.
- 2** Delete the task file corresponding to the task that you want to remove.

3

Working with the Synchronizer

After you create a synchronization task, you can run the task manually or automatically.

This chapter describes:	On page:
Changing the Synchronization Settings	23
Running a Task Manually	26
Running the Synchronizer Service	29
Synchronization Example	31

Changing the Synchronization Settings

Each time a synchronization task runs, an HTML log file is written. You can change the settings for the log file by specifying its location, level of detail, and maximum size.

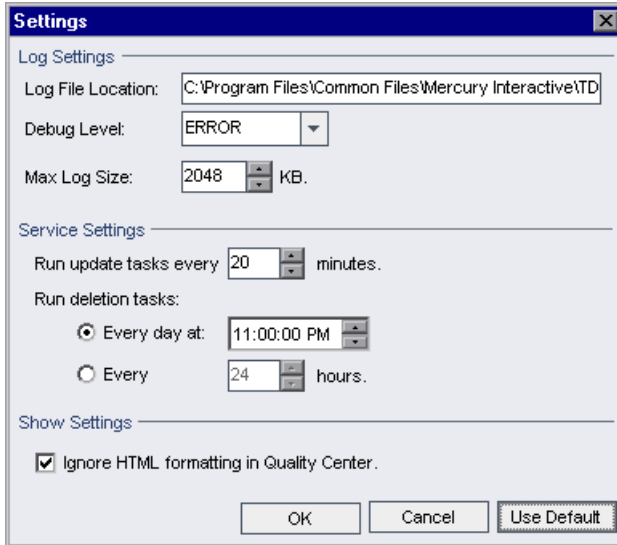
You can also specify how often update and delete tasks are run when synchronization tasks are run as a service.

The settings you define are applied to all synchronization tasks.

To change the task settings:



- 1 In the Tasks Builder, click the **Settings** button. The Settings dialog box opens.



- 2 In **Log File Location**, specify an existing folder for the log file.
- 3 In **Debug Level**, select a level of detail for the information written to the log file:
 - ▶ **NONE**. No log file is created.
 - ▶ **ERROR**. Only errors are written to the log file.
 - ▶ **DEBUG**. Every action performed by the Synchronizer is written to the log file.

Note: If you change the **Debug Level** setting, you must restart the TestDirector ReqSync Service to enable the service log to use the new setting. For more information, see “Running the Synchronizer Service” on page 29.

- 4** In **Max Log Size**, select the maximum size of a synchronization log file. It is recommended that a log file does not exceed the default, 2048 KB. If a log file exceeds the **Max Log Size**, the Synchronizer splits the file and adds a suffix to the subsequent log file(s), for example, <Log name>_Log_2.HTM. This keeps each log file a manageable size.

If you do not want the log file to split, select a **Max Log Size** of **0**.

- 5** In **Run update tasks every ... minutes**, specify the interval of update tasks in minutes.

Note: **Run update tasks every ... minutes** and **Run deletion tasks** are used by the TestDirector ReqSync Service, as described in “Running the Synchronizer Service” on page 29.

- 6** Under **Run deletion tasks**, select one of the following options:
- ▶ **Every day at.** Specifies the time each day that the synchronization of deleted items is performed. It is recommended to synchronize deleted items once a day at a time when users are not connected.
 - ▶ **Every ... hours.** Specifies that the deletion process should be run every X hours. This is the minimum time interval between the synchronization of deleted items. Note that you can prevent the delete task from running by selecting this option and entering **0** hours.

Note: Delete tasks can only be run after update tasks. Therefore, the TestDirector ReqSync Service only checks the delete interval after an update task is run.

For example, if you configure an update interval of 20 minutes and a delete interval of 1 hour, each time the update task runs, the service checks if the delete time interval has been reached. The third time that the update task runs, 60 minutes have passed. This means that the delete time interval has been reached and the delete task is then run immediately after the update task.

- 7 Under **Show Settings**, you can leave the **Ignore HTML formatting in Quality Center** check box selected, by default, or clear the check box.
 - ▶ If the check box is selected, the Synchronizer does not preserve formatted text in Quality Center memo fields. After synchronization, all formatted text is displayed in Quality Center as plain text.
 - ▶ If the check box is cleared, the Synchronizer preserves formatted text, such as bold or multi-colored text, in all Quality Center memo fields. After synchronization, all formatted text is displayed in Quality Center as formatted text. As RequisitePro does not support formatted text, formatted text is displayed in RequisitePro as plain text with HTML tags.
- 8 If you want to restore the default Synchronizer settings, click **Use Default**.
- 9 Click **OK**.

Running a Task Manually

You can run a single update task, full scan, or delete task manually. Note that you can also set up tasks to run automatically as a service, as described in “Running the Synchronizer Service” on page 29.

An *update task* identifies requirements that have been created or updated in one of the tools since the last synchronization. The Synchronizer creates or updates the relevant requirements in the other tool, according to the mapping rules specified for the task.

A *full scan* updates all the requirements according to the updated mapping rules specified for the task. You run a full scan the first time you run a synchronization task and when you add, modify, or delete a project field mapping. For more information on changing project field mappings, see “Mapping Fields” on page 18. Note that running a full scan requires that Quality Center and RequisitePro users log off.

A *delete task* identifies requirements that have been removed from one tool and deletes them from, or recreates them in, the other tool, according to the deletion rules specified for the task. A delete task also identifies new and updated requirements, as well as requirements that were moved from one

package to another in RequisitePro, or from one requirement to another in Quality Center, updating them in the new location. Running a delete task may take some time because the Synchronizer reviews every record, searching for changes.

After you run a task, the projects are synchronized according to the mapping rules and deletion rules you specified. For more information, see Chapter 2, “Building Synchronization Tasks.” After synchronization, the Quality Center project replicates the hierarchy of the RequisitePro project, ensuring that projects, packages, and requirements appear similarly in both tools.

Note: The Synchronizer can run only one synchronization task at a time. Therefore, before running a task manually, make sure that the TestDirector ReqSync Service is stopped. For more information, see “Running the Synchronizer Service” on page 29.

To run a task:



- 1** In the Quality Center Synchronizer Tasks Builder, click the **Synchronize now** arrow.
 - ▶ To run an update task, choose **Run Update Task Now**.
 - ▶ To run a full scan task, choose **Run Full Scan**.
 - ▶ To run a delete task, choose **Run Delete Task Now**.

The Run Task dialog box opens.

- 2** Select a task to run and click **OK**. The Running the Task dialog box opens. You can click the **Stop** button to stop the task.

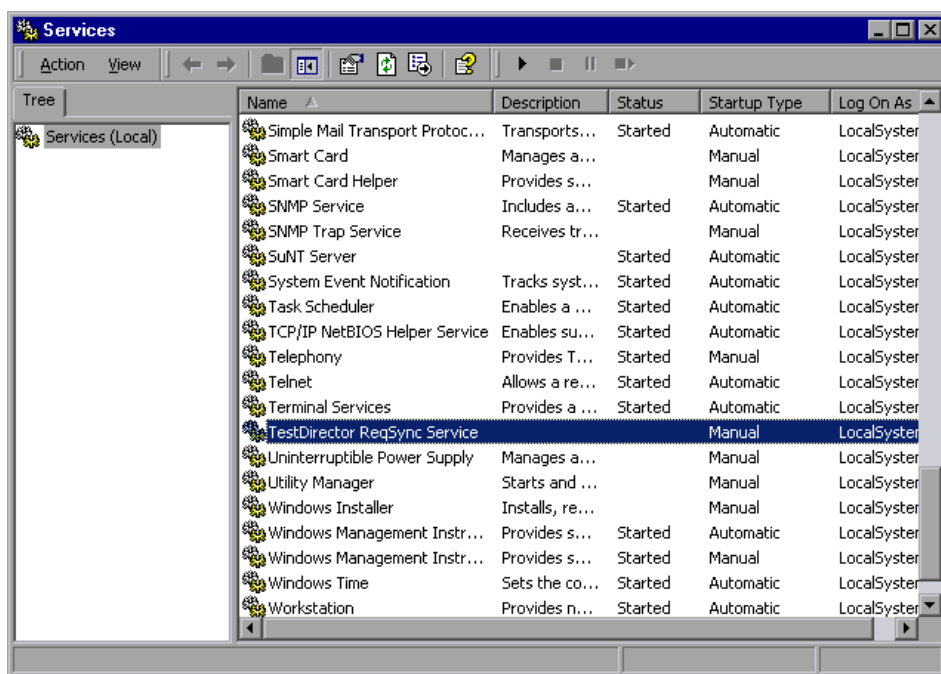
- 3** After the task is complete, you can click **View Log File** to view a color-coded HTML synchronization log file.
 - Green rows indicate general information.
 - Purple rows indicate debugging information.
 - Yellow rows indicate highlighted information.
 - Red rows indicate errors.
- 4** In the Running the Task dialog box, click **Close**.

Running the Synchronizer Service

Instead of manually specifying which tasks to run, you can instruct the Synchronizer to run as a service. The service runs in the background and scans for all available tasks created using the Tasks Builder. The tasks are then run according to the intervals you specified in the Settings dialog box (see “Changing the Synchronization Settings” on page 23).

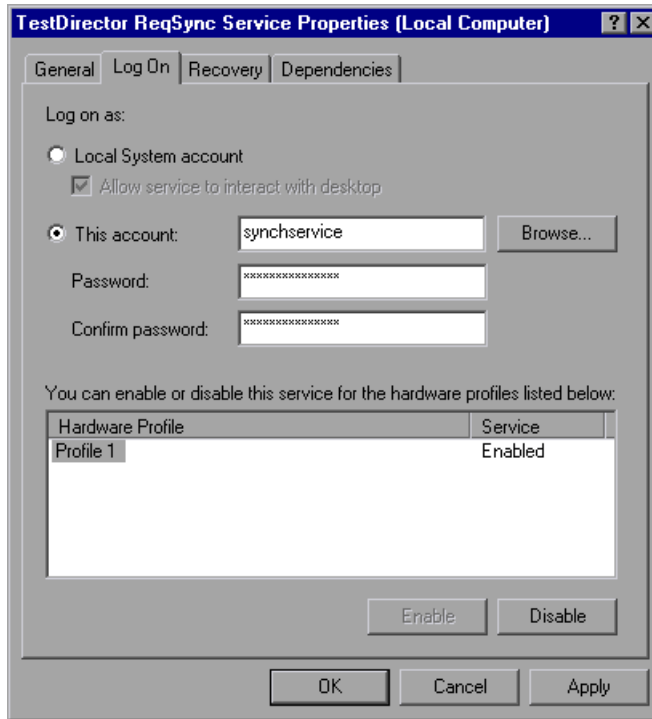
To set up the service:

- 1 Choose **Start > Settings > Control Panel > Administrative Tools**, and double-click **Services**. The Services dialog box opens.



- 2 Double-click **TestDirector ReqSync Service**. Alternatively, right-click **TestDirector ReqSync Service** and choose **Properties**. The TestDirector ReqSync Service Properties dialog box opens.

3 Click the **Log On** tab.

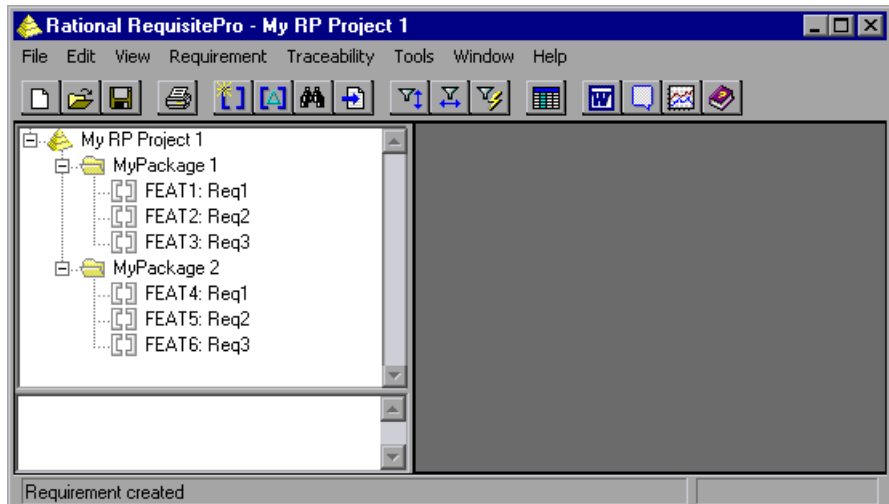


- 4 Select **This account** and click the **Browse** button to select a user account that has administrator permissions on the machine. It must also belong to the same domain.
- 5 Type and confirm the password.
- 6 Click **OK** to close the TestDirector ReqSync Service Properties dialog box.
- 7 In the Services dialog box, right-click **TestDirector ReqSync Service** and choose **Start** to start the service.
- 8 To pause or stop this service, right-click **TestDirector ReqSync Service** and choose **Pause** or **Stop**.
- 9 Close the Services dialog box.

Synchronization Example

This example illustrates how projects are updated when using the Synchronizer with Quality Center and RequisitePro projects.

This is the RequisitePro project. It contains two packages, six requirements, and one requirement type, **FEAT**.



The user synchronizes the RequisitePro project with an empty Quality Center project by running a full scan.

The Quality Center project now contains all the requirements listed in the RequisitePro project. Note that the hierarchical structure of the RequisitePro project is replicated in Quality Center.

The screenshot shows the Requirements tool interface with a menu bar (Requirements, Edit, View, Favorites, Analysis) and a toolbar. The main area displays a tree view of requirements. The root node is 'My RP Project 1' (ReqID: [RQ0001]), which is 'Not Covered'. It contains two packages: 'MyPackage 1' (ReqID: [RQ0005]) and 'MyPackage 2' (ReqID: [RQ0059]). 'MyPackage 1' has three child requirements: 'FEAT1; Req1' ([RQ0006]), 'FEAT2; Req2' ([RQ0030]), and 'FEAT3; Req3' ([RQ0058]). 'MyPackage 2' has three child requirements: 'FEAT4; Req1' ([RQ0061]), 'FEAT5; Req2' ([RQ0062]), and 'FEAT6; Req3' ([RQ0064]). All child requirements are also marked as 'Not Covered'.

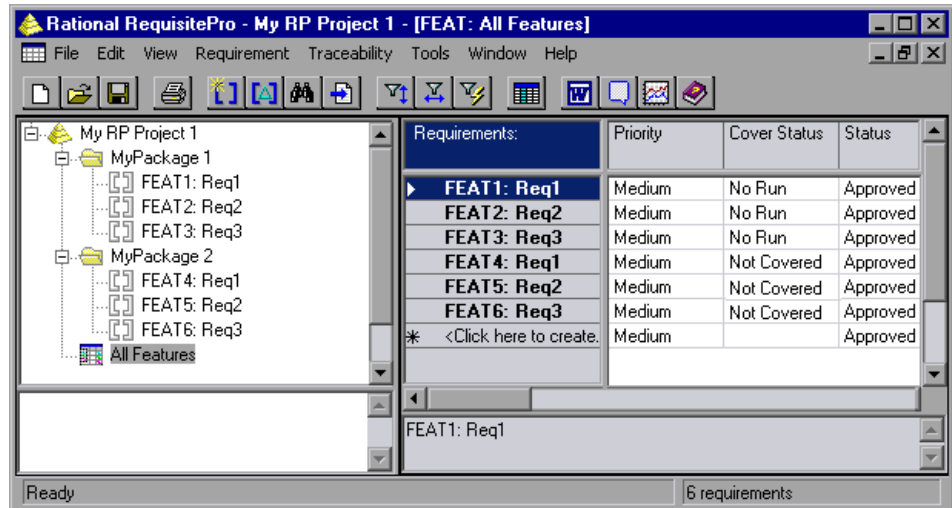
Name	Direct Cover Status	ReqID
My RP Project 1	? Not Covered	[RQ0001]
MyPackage 1	? Not Covered	[RQ0005]
FEAT1; Req1	? Not Covered	[RQ0006]
FEAT2; Req2	? Not Covered	[RQ0030]
FEAT3; Req3	? Not Covered	[RQ0058]
MyPackage 2	? Not Covered	[RQ0059]
FEAT4; Req1	? Not Covered	[RQ0061]
FEAT5; Req2	? Not Covered	[RQ0062]
FEAT6; Req3	? Not Covered	[RQ0064]

In Quality Center, the user assigns tests coverage to **MyPackage 1** and its child requirements.

The screenshot shows the same Requirements tool interface as above, but the status of 'MyPackage 1' and its children has been updated. 'MyPackage 1' (ReqID: [RQ0005]) and its three child requirements ('FEAT1; Req1' [RQ0006], 'FEAT2; Req2' [RQ0030], and 'FEAT3; Req3' [RQ0058]) are now marked as 'No Run'. 'MyPackage 2' (ReqID: [RQ0059]) and its three child requirements remain marked as 'Not Covered'.

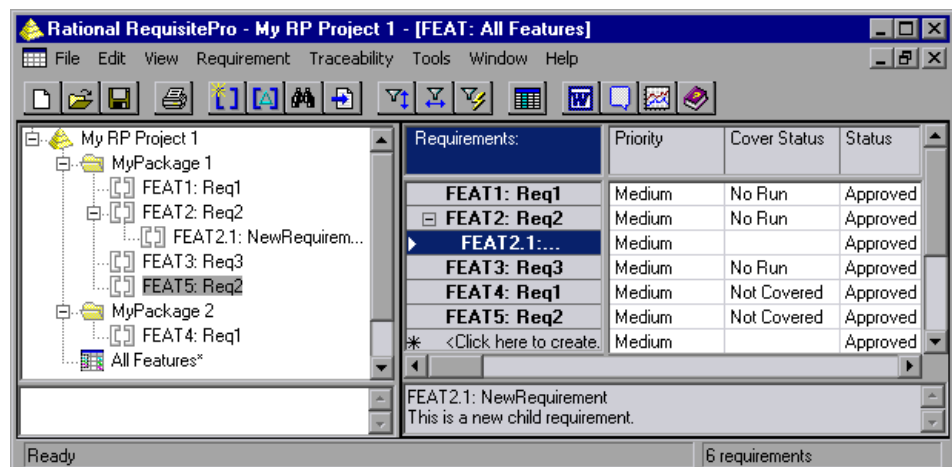
Name	Direct Cover Status	ReqID
My RP Project 1	? Not Covered	[RQ0001]
MyPackage 1	▶ No Run	[RQ0005]
FEAT1; Req1	▶ No Run	[RQ0006]
FEAT2; Req2	▶ No Run	[RQ0030]
FEAT3; Req3	▶ No Run	[RQ0058]
MyPackage 2	? Not Covered	[RQ0059]
FEAT4; Req1	? Not Covered	[RQ0061]
FEAT5; Req2	? Not Covered	[RQ0062]
FEAT6; Req3	? Not Covered	[RQ0064]

After the user runs an update task, both projects are synchronized and the **Cover Status** is updated in the RequisitePro project.



In the RequisitePro project, the user then performs the following actions:

- Moves **FEAT5; Req2** from **MyPackage 2** to **MyPackage 1**
- Deletes **FEAT6; Req3**
- Adds a child requirement and text under **FEAT2; Req2**



After the user runs a delete task:

- The Quality Center project displays **FEAT5; Req2** in its new location under **MyPackage 1**.
- **FEAT6; Req3** is removed from the project.
- **FEAT2; Req2** now has a new child requirement, **FEAT2.1; NewRequirement**, whose description is displayed in the Description tab in the lower part of the window.

