

HP Application Lifecycle Management

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Welcome to This Guide

Welcome to HP Application Lifecycle Management (ALM). ALM empowers IT to manage the core application lifecycle, from requirements through deployment, granting application teams the crucial visibility and collaboration needed for predictable, repeatable, and adaptable delivery of modern applications.

This guide describes how to use the ALM application. It provides descriptive and conceptual information, step-by-step guidance to help you work with the application, and explanations of reference-oriented material.

How This Guide is Organized

The ALM User Guide contains the following parts:

Part	Description
Part I: ALM Basics	Provides an overview of the ALM features and methodology. It also describes common ALM functionalities. In addition, it explains the different ALM editions available.
Part II: Management	Describes how to define releases and cycles for managing the application lifecycle. It also describes how to define libraries to track changes in your project, reuse entities in a project, or share entities across multiple projects. Relevant task: <ul style="list-style-type: none">➤ "How to Use Releases and Cycles in ALM" on page 154➤ "How to Use Libraries and Baselines in ALM" on page 246
Part III: Requirements	Describes how to define and manage requirements throughout the application lifecycle. Relevant task: "How to Use Requirements in ALM" on page 315
Part IV: Test Plan	Describes how to plan the testing process, from building a test plan tree to creating tests. It also, describes how to work with the VAPI-XP testing tool. Relevant task: "How to Plan Tests in ALM" on page 481
Part V: Test Lab	Describes how to create test sets, execute manual and automated tests, and review test results. Relevant task: "How to Run Tests in ALM" on page 684
Part VI: Defects	Describes how to report defects to a project and keep track of the repair process until the defects are resolved. Relevant task: "How to Track Defects in ALM" on page 831

Part	Description
Part VII: Analysis	Describes how you can analyze the application lifecycle management process, by creating graphs, standard reports, Excel reports, dashboard pages, and project documentation. Relevant task: "How to Analyze Data in ALM" on page 876
Glossary	Provides a list of terms used throughout ALM.

Documentation Library

The Documentation Library is an online help system that describes how to use ALM. You can access the Documentation Library in the following ways:

- Click **Documentation Library** in the ALM Help menu to open the Documentation Library home page. The home page provides quick links to the main help topics.
- Click **Help on this page** in the ALM Help menu to open the Documentation Library to the topic that describes the current page.

Documentation Library Guides

The Documentation Library consists of the following guides and references, available online, in PDF format, or both. PDFs can be read and printed using Adobe Reader, which can be downloaded from the Adobe Web site (<http://www.adobe.com>).

Reference	Description
Using this Documentation Library	Explains how to use the Documentation Library and how it is organized.
What's New?	Describes the newest features in the latest version of ALM. To access, select Help > What's New .
Product Feature Movies	Short movies that demonstrate the main product features. To access, select Help > Product Feature Movies .
Readme	Provides last-minute news and information about ALM.

Application Lifecycle Management Guides

Guide	Description
HP ALM User Guide	Explains how to use ALM to organize and execute all phases of the application life cycle management process. It describes how to specify releases, define requirements, plan tests, run tests, and track defects.
HP ALM Administrator Guide	Explains how to create and maintain projects using Site Administration, and how to customize projects using Project Customization.
HP ALM Tutorial	A self-paced guide teaching you how to use ALM to manage the application life cycle management process.

Guide	Description
HP ALM Installation Guide	Describes the installation and configuration processes for setting up ALM Platform.
HP Business Process Testing User Guide	Explains how to use Business Process Testing to create business process tests.

ALM Performance Center Guides

Guide	Description
HP ALM Performance Center Quick Start	A self-paced guide giving the Performance Center user a high level overview of creating and running performance tests.
HP ALM Performance Center Guide	Explains to the Performance Center user how to create, schedule, run, and monitor performance tests. Explains to the Performance Center administrator how to use Lab Management for overall lab resource management, lab settings management, and system configuration.
HP ALM Performance Center Installation Guide	Describes the installation processes for setting up Performance Center Servers, Performance Center Hosts and other Performance Center components.
HP Performance Monitoring Best Practices	Provides best practices for performance monitoring.

ALM Best Practices



Guide	Description
HP ALM Database Best Practices Guide	Provides best practices for deploying ALM on database servers.
HP ALM Upgrade Best Practices Guide	Provides methodologies for preparing and planning your ALM upgrade.
HP ALM Business Models Module Best Practices Guide	Provides best practices for working with the Business Models module.



ALM API References

Guide	Description
HP ALM Project Database Reference	Provides a complete online reference for the project database tables and fields.
HP ALM Open Test Architecture API Reference	Provides a complete online reference for the ALM COM-based API. You can use the ALM open test architecture to integrate your own configuration management, defect tracking, and home-grown testing tools with a ALM project.
HP ALM Site Administration API Reference	Provides a complete online reference for the Site Administration COM-based API. You can use the Site Administration API to enable your application to organize, manage, and maintain ALM users, projects, domains, connections, and site configuration parameters.
HP ALM REST API Reference	Provides an online reference for the ALM REST-based API. You can use the REST API to access and work with ALM data.
HP ALM Custom Test Type Guide	Provides a complete online guide for creating your own testing tool and integrating it into the ALM environment.

Topic Types

The content in this guide is organized by topics. Three main topic types are in use: **Concepts**, **Tasks**, and **Reference**. The topic types are differentiated visually using icons.

Topic Type	Description	Usage
Concepts 	Background, descriptive, or conceptual information.	Learn general information about what a feature does.
Tasks 	<p>Instructional Tasks. Step-by-step guidance to help you work with the application and accomplish your goals.</p> <p>Task steps can be with or without numbering:</p> <ul style="list-style-type: none"> ▶ Numbered steps. Tasks that are performed by following each step in consecutive order. ▶ Non-numbered steps. A list of self-contained operations that you can perform in any order. 	<ul style="list-style-type: none"> ▶ Learn about the overall workflow of a task. ▶ Follow the steps listed in a numbered task to complete a task. ▶ Perform independent operations by completing steps in a non-numbered task.
	<p>Use-case Scenario Tasks.</p> <p>Examples of how to perform a task for a specific situation.</p>	Learn how a task could be performed in a realistic scenario.

Topic Type	Description	Usage
Reference 	General Reference. Detailed lists and explanations of reference-oriented material.	Look up a specific piece of reference information relevant to a particular context.
	User Interface Reference. Specialized reference topics that describe a particular user interface in detail. Selecting Help on this page from the Help menu in the product generally open the user interface topics.	Look up specific information about what to enter or how to use one or more specific user interface elements, such as a window, dialog box, or wizard.
Troubleshooting and Limitations 	Troubleshooting and Limitations. Specialized reference topics that describe commonly encountered problems and their solutions, and list limitations of a feature or product area.	Increase your awareness of important issues before working with a feature, or if you encounter usability problems in the software.

Additional Online Resources

The following additional online resources are available from the ALM **Help** menu:

Part	Description
Troubleshooting & Knowledge Base	Opens the Troubleshooting page on the HP Software Support Web site where you can search the Self-solve knowledge base. Choose Help > Troubleshooting & Knowledge Base . The URL for this Web site is http://h20230.www2.hp.com/troubleshooting.jsp .
HP Software Support	<p>Opens the HP Software Support Web site. This site enables you to browse the Self-solve knowledge base. You can also post to and search user discussion forums, submit support requests, download patches and updated documentation, and more. Choose Help > HP Software Support. The URL for this Web site is www.hp.com/go/hpsoftwaresupport.</p> <p>Most of the support areas require that you register as an HP Passport user and sign in. Many also require a support contract.</p> <p>To find more information about access levels, go to: http://h20230.www2.hp.com/new_access_levels.jsp</p> <p>To register for an HP Passport user ID, go to: http://h20229.www2.hp.com/passport-registration.html</p>
HP Software Web site	Opens the HP Software Web site. This site provides you with the most up-to-date information on HP Software products. This includes new software releases, seminars and trade shows, customer support, and more. Choose Help > HP Software Web site . The URL for this Web site is www.hp.com/go/software .
Add-ins Page	Opens the HP Application Lifecycle Management Add-ins Page, which offers integration and synchronization solutions with HP and third-party tools.

Welcome to This Guide

Part I

ALM Basics

1

HP ALM Introduction

This chapter includes:

Concepts

- ▶ HP ALM Overview on page 23
- ▶ Application Lifecycle Management Roadmap on page 26

Concepts

HP ALM Overview

HP Application Lifecycle Management (ALM) empowers IT to manage the core application lifecycle, from requirements through deployment, granting application teams the crucial visibility and collaboration needed for predictable, repeatable, and adaptable delivery of modern applications.

Application lifecycle management is a complex process. Whether your organization is predominantly Agile or you are using both iterative and sequential methods, the aim of effective lifecycle management is greater predictability, heightened repeatability, improved quality, and a ready accommodation of change. Understanding project milestones, deliverables, resource and budget requirements and keeping track of project health, standards and quality indicators, allow delivery managers to achieve these objectives.

ALM simplifies and organizes application management by providing you systematic control over the process. It helps you create a framework and foundation for your application lifecycle management workflow in a central repository.

ALM features a system for organizing and tracking application releases, enabling you to align your business priorities and quality expectations with your project requirements, tests, and defects. ALM helps you make more informed release decisions with real-time key performance indicators (KPIs).

ALM helps you define and maintain a repository of requirements and tests. Requirements help ensure that business and testing needs are covered. Tests can then be automatically generated from these requirements to ensure the correct aspects of the application are being tested. To meet the various goals of a project, you can organize the tests in your project into unique groups. ALM provides a method for scheduling and executing tests, collecting test results, and analyzing the data.

Analyzing defects and defect trends helps you make effective “go/no-go” decisions. ALM features a system for tracking defects, enabling you to monitor defects from initial detection until resolution. It also allows you to share defects across projects, reducing risk by helping developers find, prioritize, and resolve defects sooner. A centralized defect repository also enables reporting of aggregated defect status and trends across projects.

The ability to track progress throughout the application lifecycle process is vital to predictability. ALM provides tools for analyzing each phase of the process including specific instrumentation for Agile projects (for example, burn-up and burn-down charts). You can generate interactive graphs that demonstrate a wide variety of business performance perspectives, or define reports with any cross-section of data. You can also monitor multiple business metrics, by arranging multiple graphs alongside each other in a single view.

ALM supports sharing and reuse of asset libraries across projects. Sharable libraries help you manage initiatives with multiple applications to verify that changes to one application do not negatively impact another application. It also helps to drive greater consistency and repeatability, by empowering asset reuse. Specific changes can be applied to the shared assets for each project while allowing the library to maintain its integrity.

ALM offers integration with HP testing tools (for example, QuickTest Professional and LoadRunner) as well as third-party and custom testing tools, and requirement and configuration management tools. ALM communicates with the testing tool of your choice, providing you with a complete solution to fully automated application testing.

ALM includes Performance Center functionality, enabling you to manage all aspects of a large-scale performance testing project, including resource allocation and scheduling, from a centralized location accessible through the Web. Performance Center helps streamline the testing process, reduce resource costs, and increase operating efficiency. For details, see the *HP ALM Performance Center Guide*.

The ALM solution also includes Application Governance functionality. This component provides a set of capabilities for IT organizations to manage the application development process and enable conformance to IT architectural and technical policies. Application governance gives IT a vehicle to define the application lifecycle, its stages and events, the policies that must be met, and the owners of stages. Application governance automates the key lifecycle activities, including handoffs, policy compliance checks and information flow, supporting the critical control points of the application lifecycle. For details, see the *HP ALM Application Governance Edition documentation*.

Note: ALM is available in various editions which enable a subset of ALM functionality. ALM editions are as follows:

- Quality Center Starter Edition
- Quality Center Enterprise Edition
- Performance Center Edition

For more details, see "ALM Editions" on page 139.

ALM supports you through all phases of the managing the application lifecycle. By integrating the tasks involved in application management, it enables you to better align IT with your business needs, and optimize efficiency. For details on the application lifecycle management phases, see "Application Lifecycle Management Roadmap" on page 26.

Application Lifecycle Management Roadmap

The application lifecycle management roadmap with ALM includes the following phases:



Phase	Description
Release Specifications	<p>Develop a release-cycle management plan to help you manage application releases and cycles more efficiently. You can track the progress of an application release against your plan to determine whether your release is on track.</p> <p>For task details, see "How to Use Releases and Cycles in ALM" on page 154.</p>
Requirement Specifications	<p>Define requirements to meet your business and testing needs. You can manage the requirements and conduct multi-dimensional traceability between requirements, tests and defects, across multiple releases and cycles. ALM provides real-time visibility of requirements coverage and associated defects to evaluate quality and business risk.</p> <p>For task details, see "How to Use Requirements in ALM" on page 315.</p>
Test Planning	<p>Based on the project requirements, you can build test plans and design tests. ALM provides a repository for both manual and automated tests.</p> <p>For task details on test planning, see "How to Plan Tests in ALM" on page 481.</p> <p>Performance Center: For task details, see the <i>HP ALM Performance Center Guide</i>.</p>

Phase	Description
Test Execution	<p>Create a subset of the tests in your project designed to achieve specific test goals. ALM supports sanity, functional, regression, and advanced testing. Execute scheduled tests to diagnose and resolve problems.</p> <p>For task details, see "How to Run Tests in ALM" on page 684.</p> <p>Performance Center: For task details, see the <i>HP ALM Performance Center Guide</i>.</p>
Defect Tracking	<p>Submit defects and track their repair progress. Analyzing defects and defect trends helps you make effective “go/no-go” decisions. ALM supports the entire defect lifecycle—from initial problem detection through fixing the defect and verifying the fix.</p> <p>For task details, see "How to Track Defects in ALM" on page 831.</p>

Throughout the application lifecycle, you can monitor and control strategic points by generating reports and graphs. For task details, see "How to Analyze Data in ALM" on page 876.

For an overview of ALM, see "HP ALM Overview" on page 23.

2

ALM at a Glance

This chapter includes:

Concepts

- ▶ The ALM Window on page 30
- ▶ ALM Projects on page 31
- ▶ User Privileges on page 31
- ▶ Project History Management on page 31
- ▶ Data Import from Microsoft Word and Microsoft Excel on page 32

Tasks

- ▶ How to Start ALM on page 33
- ▶ How to Reset Your Password on page 37
- ▶ How to View Administrator Messages on page 38

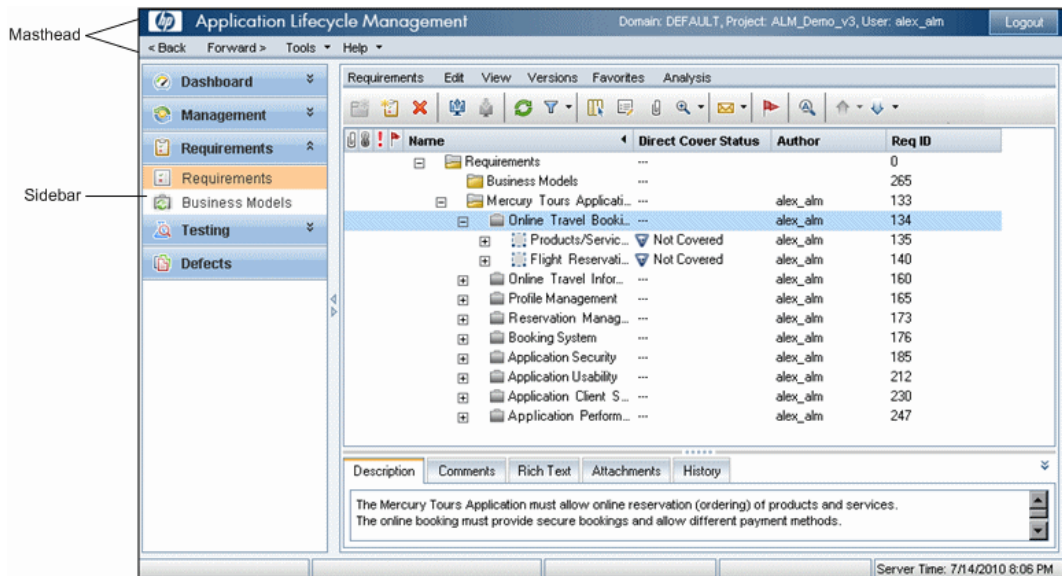
Reference

- ▶ ALM Common User Interface on page 39

Concepts

The ALM Window

When you connect to a project, the HP Application Lifecycle Management (ALM) main window opens and displays the module in which you were last working. On the upper-right side of the window, the domain, project, and your user name are displayed.



The ALM main window contains the following key elements that are available in all ALM views:

- ▶ **ALM masthead.** Contains navigation buttons, access to common tools, documentation and additional resources.
- ▶ **ALM sidebar.** Contains buttons enabling you to switch between ALM modules.

For more details, see "ALM Common Areas" on page 40.

For related task, see "How to Start ALM" on page 33.

ALM Projects

When you create an ALM project, you need to store and manage the data that was generated and collected by ALM. Each project is supported by a database that stores project information.

For more information on creating and managing ALM projects, refer to the *HP Application Lifecycle Management Administrator Guide*.

User Privileges

ALM enables you to manage user access to a project. By creating a list of authorized users and assigning each user a password and user group, you control the kinds of additions and modifications that each user makes to the project. The user group determines the privileges that the user has within a project. ALM includes a privileges and permissions mechanism that enables you to create rules for specific fields in a project.

For detailed information on the user groups available in ALM, and on assigning passwords and privileges, refer to the *HP Application Lifecycle Management Administrator Guide*.

Project History Management

When you customize your project, you can instruct ALM to preserve a log of values for the system and user fields in your project. For more information on enabling history for a field, refer to the *HP Application Lifecycle Management Administrator Guide*.

When the history data is no longer needed, you can choose to delete this data from your ALM project. For example, if you have successfully run the test sets you created, you may want to clear the test history from your project.

You can choose to clear all history data, or you can select a specific entity or field whose history you want to clear. In addition, you can choose to delete history data up to and including a specific date. ALM clears the data displayed in the History tab of the corresponding modules.

For user interface details, see "Clear History Dialog Box" on page 49.

Data Import from Microsoft Word and Microsoft Excel

You can import data from a Word document or an Excel worksheet to an ALM project.

Data Import from Word

You can import requirement or test plan data from a Word document to an ALM project. To import from Word, you must install the HP ALM Microsoft Word Add-in and the HP Quality Center Connectivity Add-in on your client machine. To install an add-in, choose **Help > Add-ins Page** to open the HP Application Lifecycle Management Add-ins page, and click the appropriate add-in link.

For more details, see the *HP ALM Microsoft Word Add-in Guide* available on the HP ALM Microsoft Word Add-in page.

Data Import from Excel

You can import requirement, test plan, or defect data from an Excel worksheet to an ALM project. To import from Excel, you must install the HP ALM Microsoft Excel Add-in and the HP Quality Center Connectivity Add-in on your client machine. To install an add-in, choose **Help > Add-ins Page** to open the HP Application Lifecycle Management Add-ins page, and click the appropriate add-in link.

For more details, see the *HP ALM Microsoft Excel Add-in Guide* available on the HP ALM Microsoft Excel Add-in page.

Tasks

How to Start ALM

This task describes how to launch ALM on your machine from your Web browser. You can work with multiple versions of ALM side-by-side on a workstation. This includes multiple ALM 11.00 clients connecting to different ALM Platform servers, and a single Quality Center 10.00 or 9.2 client.

Note: To enable ALM to work with HP testing tools as well as third-party and custom testing tools, you must log in to the client machine with administrator privileges and register ALM on client machines. For more information, refer to the *HP Application Lifecycle Management Installation Guide*.

To start ALM:

- 1 Open your Web browser and type your ALM URL
`http://<ALM Platform server name>[:port number]/qcbn`. Contact your system administrator if you do not have the correct URL.

The HP Application Lifecycle Management Options window opens.



- 2 Click the **Application Lifecycle Management** link. Each time ALM is run, it carries out a version check. If it detects a newer version, it downloads the necessary files to your machine.

Notes:

- ▶ **Windows Vista and 7:** If you do not have administrator privileges on your machine, and a Security Warning displays, click **Don't Install**. You will be redirected to the Install screen.
 - ▶ If file downloads are prohibited through your browser, you can install these files by using the **HP ALM Client MSI Generator Add-in** on the **More HP Application Lifecycle Management Add-ins** page. For more information on add-ins, refer to the *HP Application Lifecycle Management Installation Guide*.
-

- 3** Follow the on-screen instructions.
-

Note: If files are downloaded, but the Login window does not display, you must install a Microsoft Hotfix on your machine. For more information, see HP Software Self-solve knowledge base article KM905289 (<http://h20230.www2.hp.com/selfsolve/document/KM905289>).

After the ALM version has been checked and files have been updated if necessary, the ALM Login window opens.



- 4** In the **Login Name** box, type your user name.
- 5** In the **Password** box, type the password assigned to you by your site administrator. If you cannot remember your password, click the **Forgot Password** link. For more details, see "How to Reset Your Password" on page 37.
- 6** Select the **Automatically log in to my last domain and project on this machine** check box if you want ALM to automatically log in to the last project in which you were working.
- 7** Click the **Authenticate** button. ALM verifies your user name and password and determines which domains and projects you can access. If you specified automatic login, ALM opens.
- 8** If authentication fails, check that your user name and password are correct and try again.
- 9** In the **Domain** list, select a domain. By default, the last domain in which you were working is displayed.

- 10** In the **Project** list, select a project. By default, the last project in which you were working is displayed.

If the demonstration project was installed on the ALM Platform server, you can select the **ALM_Demo** project (make sure that you select **DEFAULT** in the **Domain** list). The project includes sample data to help introduce you to ALM. For more information, refer to the *HP Application Lifecycle Management Tutorial*.

- 11** Click the **Login** button. ALM opens and displays the module in which you last worked during your previous session.

The first time you run ALM, the Welcome page opens. From the Welcome page, you can directly access the ALM documentation. If you do not want to display the Welcome page each time you log in to ALM, select **Don't show this again**. To open the Welcome page at any time, choose **Help > Welcome Page**.

- 12** To exit and return to the ALM Login window, click the **Logout** button located in the upper-right corner of the window.

Alternatively, choose **Tools > Change Project** to log in to a different project.

How to Reset Your Password

When logging in to ALM, if you cannot remember your password, you can reset it and create a new one.

Note: Resetting your password is unavailable in either of the following situations:

- ▶ It is deactivated by the **PASSWORD_RESET_DISABLE** Site Configuration parameter.
- ▶ LDAP authentication is enabled.

For more information, refer to the *HP Application Lifecycle Management Administrator Guide*.

To reset your password:

- 1** In the ALM Login window, click the **Forgot Password** link. The **Forgot Password** dialog box opens.
- 2** In the **Login Name** box, type your user name. By default, the name entered in the ALM Login window is displayed.
- 3** Click **OK**. ALM sends a message to the email address assigned to your ALM user name. Click the link to set a new password.

After you set a new password, the ALM Login window opens, enabling you to log in using your new password.

How to View Administrator Messages

The site administrator can send messages to users connected to ALM projects informing them about important maintenance or other issues. For example, the site administrator may send a message warning that a project you are connected to will be disconnected.

For more details on sending messages from Site Administration, refer to the *HP Application Lifecycle Management Administrator Guide*.

To view administrator messages:

- 1** When the site administrator sends you a message, a pop-up window automatically opens on your machine displaying the message text.
- 2** If there is more than one message, use the **Previous Message** and **Next Message** buttons to view other messages.

Reference

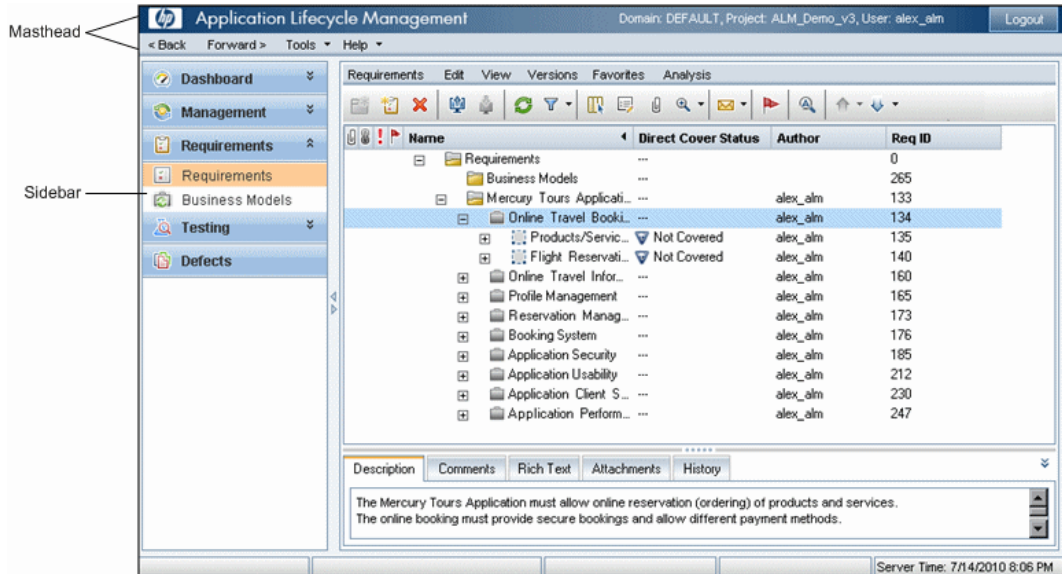
ALM Common User Interface

This section includes:

- ALM Common Areas on page 40
- ALM Fields on page 46
- ALM Icons on page 46
- User Properties Page on page 47
- Clear History Dialog Box on page 49
- Task Manager Dialog Box on page 50

ALM Common Areas



The common areas include navigation buttons, access to common tools, documentation and additional resources.



To access	The common areas are available from all ALM views.
Relevant tasks	"How to Start ALM" on page 33
See also	"The ALM Window" on page 30

Masthead

User interface elements are described below:

UI Elements (A-Z)	Description
	<p>Logout. Logs you out of your current project and returns you to the ALM Login window.</p> <p>Tip: You can change the project you are working in by choosing Tools > Change Project.</p>
	<p>Back/Forward. Enables you to navigate to your previous/next view in ALM.</p> <p>Tip: Use the Forward button after you navigate to a previous view.</p>
<p><domain, project, user></p>	<p>Details of the current domain, project, and user.</p>
<p>Help</p>	<p>Enables you to open the HP Application Lifecycle Management Documentation Library and other additional online resources. For details on the additional online resources, see "Additional Online Resources" on page 19.</p> <p>To display version information for each ALM client component, select Help > About HP Application Lifecycle Management Software.</p> <p>To display ALM patch information, select Help > About HP Application Lifecycle Management Software. Click Additional Information.</p> <p>Tip: To customize the Help menu, refer to the <i>HP Application Lifecycle Management Installation Guide</i>.</p>
<p>Tools</p>	<p>Includes commands that you can run from each of the ALM modules. For details, see "Tools Menu" on page 42.</p> <p>Tip: To customize the Tools menu, refer to the <i>HP Application Lifecycle Management Installation Guide</i>.</p>

Tools Menu

User interface elements are described below:

UI Elements (A-Z)	Description
Change Project	Enables you to log out of your current project and select one of the previously opened projects on the same machine, or select a different project from the Login window.
Clear History	Opens the Clear History dialog box, enabling you to delete history data from your project. Clearing history requires the appropriate user permissions. For details, see "Clear History Dialog Box" on page 49.
Customize	<p>Opens the Project Customization window, enabling you to customize your project. For more information, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>.</p> <p>Tip: You can change your ALM password and user details in the Project Customization window. For user interface details, see "User Properties Page" on page 47.</p>
Document Generator	Opens the Document Generator. For details, see Chapter 41, "Project Documents."
Download Standalone Applications	Performance Center: Opens the Application Download window, enabling you to download standalone applications needed for Performance Center.
Event Log	Performance Center: Displays information about all events that occur during a performance test run. For details, refer to the <i>HP ALM Performance Center Guide</i> .
New Defect	Opens the New Defect dialog box, enabling you to add a new defect. For details, see "Defect Details Dialog Box" on page 860.
Performance Center Settings	Performance Center: Enables you to configure project settings for your Performance Center project. For details, refer to the <i>HP ALM Performance Center Guide</i> .

UI Elements (A-Z)	Description
Spelling and Grammar	<p>Check Spelling. Checks the spelling for the selected text or text box. If there are no errors, a confirmation message opens. If errors are found, the Spelling dialog box opens and displays the word together with replacement suggestions.</p> <p>Spelling Options. Opens the Spelling Options dialog box, enabling you to configure the way ALM checks spelling.</p> <p>Thesaurus. Opens the Thesaurus dialog box and displays a synonym, antonym, or related word for the selected word. You can replace the selected word or look up new words.</p>
Task Manager	<p>Opens the Task Manager dialog box, enabling you to view the status and progress of asynchronous tasks run in your project. For details, see "Task Manager Dialog Box" on page 50.</p>

Sidebar Buttons

This area enables you to navigate between ALM modules.

Important information	<ul style="list-style-type: none"> ▶ ALM Editions: ALM is also available in three editions which provide subsets of ALM functionality — Quality Center Starter Edition, Quality Center Enterprise Edition, and Performance Center Edition. For details, see Chapter 7, "ALM Editions." ▶ If the sidebar is hidden, click the expand button, located on the middle left corner of the window.
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User interface elements are described below:

UI Elements (A-Z)	Description
Dashboard	<p>Includes the following modules:</p> <p>Analysis View. Enables you to create graphs, reports, and Excel reports.</p> <p>Dashboard View. Enables you to create dashboard pages, in which you can view multiple graphs in a single display.</p>
Defects	<p>Enables you to add defects, determine repair priorities, repair open defects, and analyze the data.</p>
Lab Resources	<p>Performance Center: Includes the following modules:</p> <ul style="list-style-type: none"> ▶ Timeslots. Enables you to reserve test resources for the purposes of running a performance test or for performing maintenance tasks on them. ▶ Hosts. Enables you to manage the allocation and availability of Performance Center host machines. ▶ AUT Hosts. Enables you to manage the host machines that make up the Application Under Test (AUT). ▶ Topologies. Enables you to create topologies that graphically display the logical components that make up the Application Under Test (AUT) and the relationships between them. <p>For more information, refer to the <i>HP ALM Performance Center Guide</i>.</p>
Management	<p>Includes the following modules:</p> <ul style="list-style-type: none"> ▶ Releases. Enables you to define releases and cycles for the application management process. ▶ Libraries. Enables you to define libraries to track changes in your project, reuse entities in a project, or share entities across multiple projects.

UI Elements (A-Z)	Description
Requirements	<p>Includes the following modules:</p> <ul style="list-style-type: none"> ▶ Requirements. Enables you to manage requirements in a hierarchical tree-structure. Requirements can be linked to other requirements, tests, or defects. ▶ Business Models. Enables you to import business process models, and test the quality of the models and their components. Access to this module is dependent on your ALM license.
Testing	<p>Includes the following modules:</p> <ul style="list-style-type: none"> ▶ Test Resources. Enables you to manage test resources in a hierarchical tree-structure. Test resources can be associated with tests. ▶ Business Components. Depending on your ALM license, you may also have access to the Business Components module. This module enables subject matter experts to drive the quality optimization process using Business Process Testing, the HP test automation solution. For more information, refer to the <i>HP Business Process Testing User Guide</i>. ▶ Test Plan. Enables you to develop and manage tests in a hierarchical tree-structure. Tests can be linked to requirements and defects. ▶ Test Lab. Enables you to manage and run tests. After running tests, you can analyze the results.

ALM Fields

This section lists the fields available in ALM.

Module Name (A-Z)	Description
Business Models	"Business Models Module Fields" on page 457
Defects	"Defects Module Fields" on page 855
Management	"Releases Module Fields" on page 172 "Libraries Module Fields" on page 259
Requirements	"Requirements Module Fields" on page 347
Test Lab	"Test Lab Module Fields" on page 710
Test Plan	"Test Plan Module Fields" on page 512
Test Resource	"Test Resources Module Fields" on page 639

ALM Icons

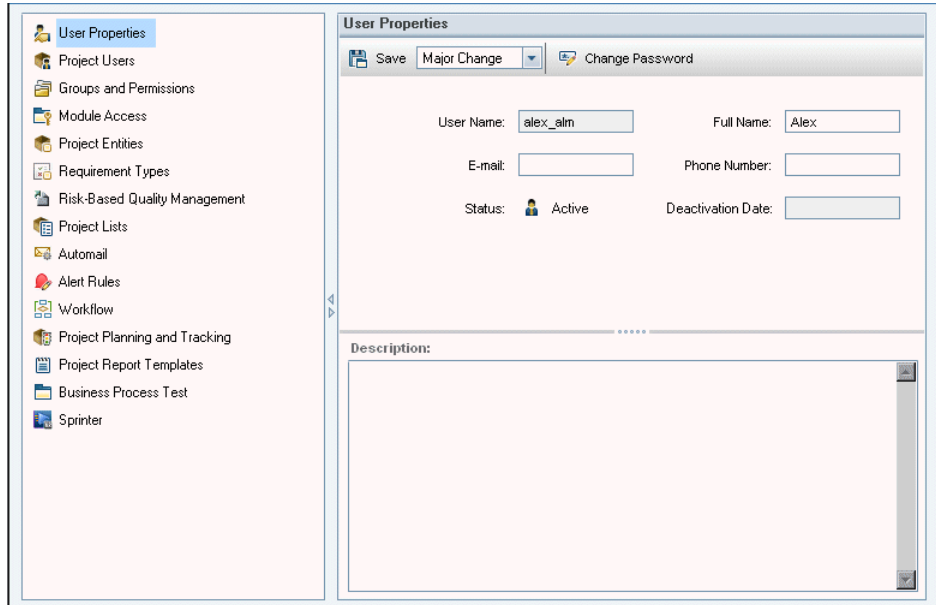
This section lists the icons available in ALM.

Module Name (A-Z)	Description
Dashboard	"Dashboard Icons" on page 891
Defects	"Defects Module Icons" on page 854
Management	"Releases Module Icons" on page 171 "Libraries Module Icons" on page 258
Requirements	"Requirements Module Icons" on page 344
Test Lab	"Test Lab Module Icons" on page 708
Test Plan	"Test Plan Module Icons" on page 510
Test Resource	"Test Resources Module Icons" on page 637

User Properties Page

This page enables you to change your user properties, including full name, password, email address, phone number, and description.

Note: For additional details on the Project Customization window, refer to the *HP Application Lifecycle Management Administrator Guide*.


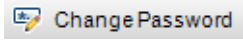

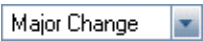


The screenshot displays the 'User Properties' page. On the left is a navigation pane with the following items: User Properties (selected), Project Users, Groups and Permissions, Module Access, Project Entities, Requirement Types, Risk-Based Quality Management, Project Lists, Automail, Alert Rules, Workflow, Project Planning and Tracking, Project Report Templates, Business Process Test, and Sprinter. The main content area is titled 'User Properties' and contains the following fields and controls:

- Buttons: Save, Major Change (dropdown), Change Password
- User Name: alex_alm
- Full Name: Alex
- E-mail: [empty text box]
- Phone Number: [empty text box]
- Status: Active (with a person icon)
- Deactivation Date: [empty text box]
- Description: [empty text area]

To access	<ol style="list-style-type: none"> 1 In the common toolbar, select Tools > Customize. 2 In the Project Customization window, click the User Properties link.
Important information	<ul style="list-style-type: none"> ▶ Email information is important because it enables you to receive email notifications and alerts directly to your mailbox. ▶ The site administrator can change and override a user's properties or password. For more information, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>.

User interface elements are described below:

UI Elements (A-Z)	Description
	<p>Return. Closes the Project Customization window, and returns to the ALM window.</p>
	<p>Change Password. Opens the Change Password for [user name] dialog box, enabling you to change your login password.</p>
	<p>Save. Saves changes to your user properties.</p>
	<p>Save drop-down list. Enables saving a customization change as a major change or a minor change. For more information, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>.</p>
<p>Deactivation Date</p>	<p>The date on which the user is scheduled to be deactivated. A deactivated user cannot log in to a ALM project.</p> <p>Note: This field is set by the site administrator and is read-only.</p>
<p>E-mail</p>	<p>Determines the email address to which notifications and alerts are delivered.</p>

UI Elements (A-Z)	Description
Full Name/ Description/ Phone Number	User details.
Status	User status is displayed as Active . Only active users can log in to ALM projects.
User Name	Your ALM login name. Note: This field is read-only.

Clear History Dialog Box

This dialog box enables you to delete history data.

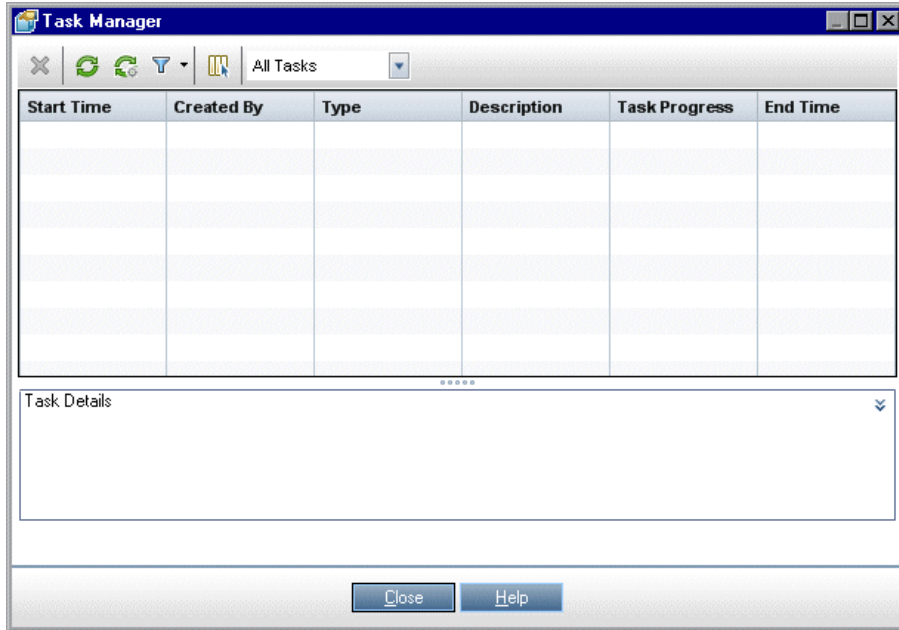
To access	On the masthead, select Tools > Clear History .
Important information	You must have the appropriate user permissions to clear history.
See also	"Project History Management" on page 31

User interface elements are described below:

UI Elements (A-Z)	Description
Entity	The entity whose history you want to delete. Note: To delete history data from all entities, select All .
Field	The field whose history you want to delete. Note: To delete history data from all fields in the selected entity, select All .
Until Date	All data up to and including the selected date is deleted.








Task Manager Dialog Box

This dialog box enables you to view the status and progress of asynchronous tasks run in your project. For example, when you create a baseline, ALM runs the task in a background process. You can view the progress of this task in the Task Manager.



To access	On the masthead, select Tools > Task Manager .
Important information	ALM clears completed tasks from the Task Manager after two days.

User interface elements are described below:

UI Elements (A-Z)	Description
	<p>Delete. Clears the currently selected tasks from the grid.</p> <p>Note:</p> <ul style="list-style-type: none"> ▶ You can clear only completed tasks. ▶ A task can be cleared only by the user that ran the task, or by a project administrator.
	<p>Refresh All. Refreshes the grid so that it displays the most up-to-date task information.</p> <p>If Auto Refresh is enabled, this button is disabled.</p>
	<p>Set Auto Refresh On/Off. When enabled, automatically refreshes the grid every 5 seconds so that it displays the most up-to-date task information.</p>
	<p>Filter/Sort. Opens the Filter dialog box, enabling you to filter and sort the tasks displayed in the grid. For more details, see "Filter Dialog Box" on page 60.</p>
	<p>Select Columns. Opens the Select Columns dialog box, enabling you to determine which fields to display in the grid and their order. For more details, see "Select Columns/Select Fields Dialog Box" on page 90.</p>
Created By	The name of the user who ran the task.
Description	A description of the task.
End Time	The time the task completed.
Filter	Displays the filter currently applied to the grid. Located directly above the grid.
Start Time	The time the task started.
Task Details	<p>Displays details of the selected task.</p> <p>Click the Show/Hide arrows   to display or hide this pane.</p>
Task Id	A unique numeric ID for the task, assigned automatically by ALM.

UI Elements (A-Z)	Description
Task Progress	The percentage of the task that is complete. When the task completes, displays the final result: Succeeded or Failed .
Task State	<p>Includes the following options:</p> <ul style="list-style-type: none"> ▶ Running. The task is in progress. ▶ Paused. The task was paused by a user. ▶ Finished. The task has completed. <p>Note: If a task is aborted by the user, the Task State value is Finished, and the Task Progress value is Failed.</p>
Type	The task type. For example, ImportBaseline .

3

ALM Common Functionality

This chapter includes:

Concepts

- ▶ ALM Common Functionality Overview on page 54

Tasks

- ▶ How to Display ALM Data on page 55
- ▶ How to Modify Attachments on page 57
- ▶ How to Search and Replace ALM Data on page 58

Reference

- ▶ ALM Common Functionality User Interface on page 59

Concepts

ALM Common Functionality Overview

HP Application Lifecycle Management (ALM) organizes and displays data in grids and trees. You can manipulate the data in various ways, such as rearranging columns, filtering, sorting, and grouping. You can also attach files to records, search for specific text in records, and view history of various entities.

Note: As ALM grids and trees vary in the type of content they display, the tasks and references described in this chapter do not always apply to all grids and trees.

For task details, see "How to Display ALM Data" on page 55, "How to Modify Attachments" on page 57, and "How to Search and Replace ALM Data" on page 58.


Tasks

How to Display ALM Data

This task describe how to manipulate ALM data.

- "Filter Records" on page 55
- "Sort Records" on page 56
- "Group Records" on page 56
- "Arrange and Resize Columns" on page 56
- "Display ALM History" on page 57

Filter Records

- To filter ALM data to display **only** those records that meet your criteria, click the **Set Filter/Sort** button . The Filter dialog box opens. In the Filter tab, assign a single condition or multiple conditions. For user interface details, see "Filter Dialog Box" on page 60

Example:

In the Test Lab module, you can define the Status filter as “Failed” and the Tester filter as “David Or Mark”. Only failed test runs performed by David or Mark are displayed.

- To further drill down your data, define a cross filter. In the Filter dialog box, click the **Cross Filter** tab. For user interface details, see "Filter Dialog Box" on page 60.

Example:

In the test plan tree, you can define the cross filter for associated test sets as “Open”. This ensures that only tests that belong to an open test set are displayed. Alternatively, you can define the associated test set filter to find tests that are not in any test set.

Sort Records

You set sorting priorities of records displayed in the ALM trees and grids. By default, records appear in ALM according to the order in which they were added. In the Filter dialog box, click the **View Order** tab. For user interface details, see "Filter Dialog Box" on page 60.

Example:

In the Test Grid, if the **Designer** column is assigned the highest sort priority, records are sorted in the ASCII sort order according to the names appearing in the Designer column. If **Test Name** is assigned the next highest priority, test records assigned the same name in the **Designer** column are then sorted in the ASCII sort order according to their test name.

Group Records

You separate grid data into groups according to specified criteria. In the Filter dialog box, click the **Group** tab. For user interface details, see "Filter Dialog Box" on page 60.

Example:

In the Defects Grid, if you select the **Assigned To** column as the highest group by priority, records are grouped according to the names appearing in the **Assigned To** column. If you select **Status** and **Severity** as the next highest priorities respectively, defects assigned the same name in the **Assigned To** column are next grouped according to their status, and then their severity.

Arrange and Resize Columns

You determine which columns are displayed in ALM and the order in which they appear. Select **View > Select Columns**. The Select Columns dialog box opens. For user interface details, see "Select Columns/Select Fields Dialog Box" on page 90.

You resize columns using the mouse. Click on the right edge of a column heading and drag to adjust the width.

Display ALM History

You view a list of changes made to ALM entities. In addition, you can view previous versions of entities stored in a particular baseline.

Click the **History** tab or button. For user interface details, see "History Tab" on page 81.

How to Modify Attachments

This task describes how to modify an ALM attachment.

When you open an attachment, ALM downloads the attachment to a local directory on your client machine and opens it in the associated application. After making changes to the attachment, you must save the attachment twice. First, save the local copy of your attachment in the application. Then upload the attachment to your ALM project.

To modify an attachment:

- 1** Navigate to the Attachments page for the selected ALM record. For user interface details, see "Attachments Page" on page 86.
- 2** Double-click the selected attachment. A local copy opens in the associated application.
- 3** Modify the attachment.
- 4** Save the changes in the application. This saves the local copy of your attachment.
- 5** Close the attachment.
- 6** In ALM, click the **Upload Selected** button to upload the local copy to your ALM project.

How to Search and Replace ALM Data

The following steps describe how to search and replace ALM data.

- "Search Records" on page 58
- "Replace Records" on page 58

Search Records

Using the Find dialog box, you can search records based on the value of a particular field in a tree or grid. You can also search a folder for a particular subfolder or record. For user interface details, see "Find Dialog Box" on page 74.

If available, you can search for keywords and variations of keywords using Text Search. Select **Edit > Text Search**. The Text Search pane opens in the lower part window. For user interface details, see "Text Search Pane" on page 78.

Replace Records

You can replace a field value for a selected record, or for all records in the tree or grid using the Replace dialog box. For user interface details, see "Replace Dialog Box" on page 76.

You can also update a field value for multiple records in a grid or a tree using the Update Selected dialog box. For user interface details, see "Update Selected Dialog Box" on page 92.

Reference

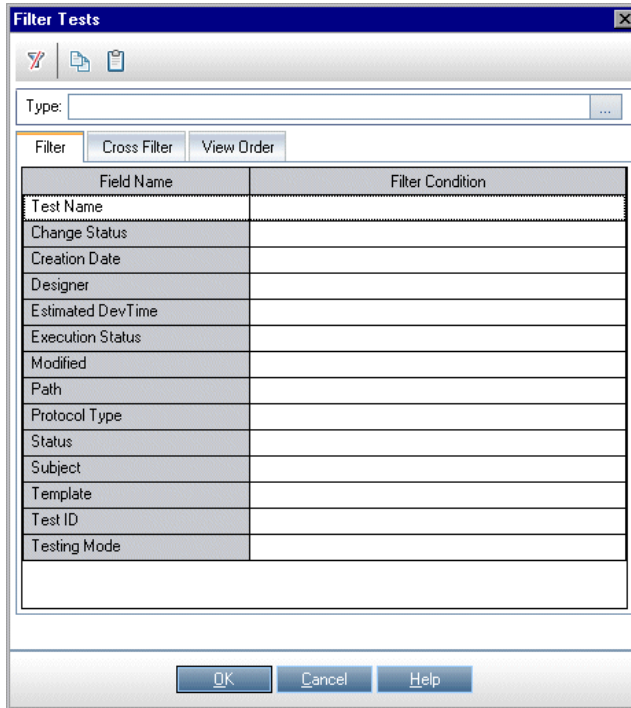
ALM Common Functionality User Interface



This section includes:

- ▶ Filter Dialog Box on page 60
- ▶ Select Filter Condition Dialog Box on page 70
- ▶ Users List Dialog Box on page 72
- ▶ Find Dialog Box on page 74
- ▶ Replace Dialog Box on page 76
- ▶ Text Search Pane on page 78
- ▶ History Tab on page 81
- ▶ Send E-mail Dialog Box on page 83
- ▶ Attachments Page on page 86
- ▶ Snapshot Dialog Box on page 89
- ▶ Select Columns/Select Fields Dialog Box on page 90
- ▶ Update Selected Dialog Box on page 92

Filter Dialog Box




This dialog box enables you to filter, sort, and group ALM data to display only those records that meet the criteria that you define.



To access	Click the appropriate Set Filter/Sort button   .
Important information	<ul style="list-style-type: none"> ▶ Tip: You can save filtering and sorting settings as a favorite view and then load it as needed. To save as a favorite view, choose Favorites > Add to Favorites. The Add Favorite dialog box opens. For details on the user interface, see "Add Favorite Dialog Box" on page 113. ▶ Quality Center Starter Edition: Not all fields and functionality are available.
Relevant tasks	"How to Display ALM Data" on page 55
See also	"ALM Common Functionality Overview" on page 54


Filter Dialog Box Common Elements

Common user interface elements are described below:

UI Elements (A-Z)	Description
	<p>Clear Filter. Clears the filter, sort, and group by settings defined in the Filter dialog box.</p>
	<p>Copy Filter Settings. Copies the filter, sort, and group by settings to the Clipboard.</p>
	<p>Paste Filter Settings. Pastes the filter, sort, and group by settings from the Clipboard to another project. You can also share the settings with another user by pasting them to an email or a text file.</p> <p>Tips:</p> <ul style="list-style-type: none"> ▶ To paste to another project, log in to the project to which you want to paste the settings, display the appropriate module, and open the Filter dialog box. Click the Paste Filter Settings button. ▶ To paste to an email or a text file, click the paste button of the target application.
<p>Hide Risk-Based Quality Management Columns</p>	<p>Hides the requirement fields related to risk-based quality management. Only fields for which no filter condition is set are hidden.</p> <p>Note: Only available in the Requirements module.</p>
<p>Requirement Type</p>	<p>Defines the filter by a selected requirement type.</p> <p>In the Requirement Type box, click the browse button. The Select Filter Condition dialog box opens. Select a requirement type and click OK. The Filter Condition tab displays the relevant field names.</p> <p>Note: Only available in the Requirements module.</p>

Filter Tab

This tab enables you to filter ALM data to display only those records that meet the criteria that you define.

<p>Important information</p>	<ul style="list-style-type: none"> ➤ If you are filtering in the requirements tree, parents of filtered entities that do not correspond to the filter are displayed in the tree with the  icon. ➤ If you are filtering in the test plan or test set tree, folders in the tree that do not correspond to the filter are not displayed in the tree. ➤ Version Control: For details on filtering data based on version control fields, see "How to Filter by Version Control Fields" on page 124.
<p>Relevant tasks</p>	<p>"How to Display ALM Data" on page 55</p>
<p>See also</p>	<p>"ALM Common Functionality Overview" on page 54</p>

User interface elements are described below:

UI Elements (A-Z)	Description
Field Condition	<p>Defines a filter condition for a field.</p> <p>Click the corresponding Filter Condition box. Click the browse button. The Select Filter Condition dialog box opens. For more details, see "Select Filter Condition Dialog Box" on page 70.</p>
Field Name	<p>Lists the fields available for filtering.</p> <p>Tip: To search for a field in the Field Name column, click a box in the Field Name column and type the first character of the field name. ALM highlights the first occurrence.</p> <p>For more details on fields see:</p> <ul style="list-style-type: none"> ➤ "Requirements Module Fields" on page 347 ➤ "Test Plan Module Fields" on page 512 ➤ "Test Resources Module Fields" on page 639 ➤ "Test Lab Module Fields" on page 710 ➤ "Defects Module Fields" on page 855 ➤ Business Process Testing: <ul style="list-style-type: none"> ➤ Business Component Module Details Fields under "Understanding the Details Tab" in the <i>HP Business Process Testing User Guide</i>. ➤ Business Component Module Parameter Fields under "Understanding the Parameters Tab".

Cross Filter Tab

This dialog box enables you to define a second filter on an associated item such as requirements, tests, test sets, or defects.

Important information	The user interface elements available in the Cross Filter tab may change depending on the ALM module.
Relevant tasks	"How to Display ALM Data" on page 55
See also	"ALM Common Functionality Overview" on page 54

User interface elements are described below:

UI Elements (A-Z)	Description
<p>Alerts</p>	<p>An alert can be one of the following:</p> <ul style="list-style-type: none"> ▶ Show defects with alerts. Filters the defects by alerts that have been triggered. This option is only available in the Defects module. ▶ Show models with alerts. Filters the business process model entities by alerts that have been triggered. This option is only available in the Business Models module. ▶ Show requirements with alerts. Filters the requirements by alerts that have been triggered. This option is only available in the Requirements module. ▶ Show test instances with alerts. Filters the test instances by alerts that have been triggered. This option is only available in the Execution Grid of the Test Lab module. ▶ Show tests with alerts. Filters the tests by alerts that have been triggered. This option is only available in the Test Plan module.
<p>Defects</p>	<p>Indicates one of the following:</p> <ul style="list-style-type: none"> ▶ Filters the requirements by defects that have been directly or indirectly-linked to the requirements. Available in the Requirements module. ▶ Filters the business process model entities by linked defects. Available in the Business Models module. ▶ Filters the tests by defects that have been directly or indirectly-linked to the tests. Available in the Test Plan module. ▶ Filters the test sets by defects that have been directly or indirectly-linked to the tests. Available in the Test Set Tree of the Test Lab module. <p>Select <no filter defined> to define a filter. The Filter dialog box opens. For more details, see "Filter Tab" on page 62.</p>

UI Elements (A-Z)	Description
Model Activities	<p>Filters models by activities that they include.</p> <p>Select <no filter defined> to define a filter. The Filter dialog box opens. For more details, see "Filter Tab" on page 62.</p>
Model Paths	<p>Filters models by paths that they include.</p> <p>Select <no filter defined> to define a filter. The Filter dialog box opens. For more details, see "Filter Tab" on page 62.</p>
Requirements	<p>Indicates one of the following:</p> <ul style="list-style-type: none"> ▶ Filters the business process model entities by linked requirements. Available in the Business Models module. ▶ Filters the tests by covered requirements. Available in the Test Plan module. ▶ Filters the test instances by tests that cover selected requirements. Available in the Execution Grid of the Test Lab module. ▶ Filters the defects by linked requirements. Available in the Defects module. <p>Select <no filter defined> to define a filter. The Filter dialog box opens. For more details, see "Filter Tab" on page 62.</p> <p>Select Tests with no requirement coverage to filter tests that do not cover any requirements. For example, this can help you identify redundant tests or tests with missing requirement coverage links. This option is only available in the Test Plan module.</p>
Requirements: Trace from	<p>Filters the requirements by traced from requirements. Available in the Requirements module.</p> <p>Select <no filter defined> to define a filter. The Filter dialog box opens. For more details, see "Filter Tab" on page 62.</p>

UI Elements (A-Z)	Description
Requirements: Trace to	<p>Filters the requirements by traced to requirements. Available in the Requirements module.</p> <p>Select <no filter defined> to define a filter. The Filter dialog box opens. For more details, see "Filter Tab" on page 62.</p>
Runs	<p>Indicates one of the following:</p> <ul style="list-style-type: none"> ▶ Filters the tests by test runs. Available in the Test Plan module. ▶ Filters the test instances by test runs. Available in the Execution Grid of the Test Lab module. <p>Select <no filter defined> to define a filter. The Filter dialog box opens. For more details, see "Filter Tab" on page 62.</p>
Test Configurations	<p>Indicates one of the following:</p> <ul style="list-style-type: none"> ▶ Filters the requirements by test configurations. Available in the Requirements module. ▶ Filters the tests by test configurations. Available in the Test Plan module. ▶ Filters the test sets by test configurations. Available in the Test Lab module. <p>Select <no filter defined> to define a filter. The Filter dialog box opens. For more details, see "Filter Tab" on page 62.</p>
Test Criteria	<p>Filters the requirements by test criteria. Available in the Requirements module.</p> <p>Select <no filter defined> to define a filter. The Filter dialog box opens. For more details, see "Filter Tab" on page 62.</p> <p>Business Process Testing: Functionality related to test criteria is available only for business process tests. For details, see the <i>HP Business Process Testing User Guide</i>.</p>





UI Elements (A-Z)	Description
Test Sets	<p>Indicates one of the following:</p> <ul style="list-style-type: none"> ▶ Filters the tests by test sets that contain the tests. Available in the Test Plan module. ▶ Filters the test instances by test sets that contain the test instances. Available in the Execution Grid of the Test Lab module. <p>Select <no filter defined> to define a filter. The Filter dialog box opens. For more details, see "Filter Tab" on page 62.</p> <p>Select Tests not in any test set to filter tests that are not part of any test set. For example, this can help you identify tests that have not been run. This option is only available in the Test Plan module.</p>
Tests	<p>Indicates one of the following:</p> <ul style="list-style-type: none"> ▶ Filters the requirements by covered tests. Available in the Requirements module. ▶ Filters the business process model entities by linked tests. Available in the Business Models module. ▶ Filters the test sets by contained tests. Available in the Test Set Tree of the Test Lab module. ▶ Filters the defects by linked tests. Available in the Defects module. <p>Select <no filter defined> to define a filter. The Filter dialog box opens. For more details, see "Filter Tab" on page 62.</p>

View Order Tab

This dialog box enables you to sort records according to the ASCII sort order.

Important information	The View Order tab considers records beginning with a space or character before considering those beginning with numbers. It then considers uppercase letters and, finally, lowercase letters.
Relevant tasks	"How to Display ALM Data" on page 55
See also	"ALM Common Functionality Overview" on page 54

User interface elements are described below:

UI Elements (A-Z)	Description
	Sets the sort priority in the Sorted Fields pane. Tip: You can also drag the field names up or down.
	Moves selected fields between Available Fields and Sorted Fields . Tip: You can also drag the field names between panes or double-click a field name to move it across to the other pane.
	Moves all fields between Available Fields and Sorted Fields .
	Sorts a selected field in the Sorted Fields pane in an ascending or descending order.
Available Fields	Displays the names of all the fields you can display.
Sorted Fields	Displays the names of the fields currently assigned a sorting priority.

Group Tab

This dialog box enables you to separate grid data into groups according to specified criteria. You can determine the information by which ALM groups records, and set the hierarchical order in which they are displayed (up to three levels). This enables you to navigate through large sets of data more easily.

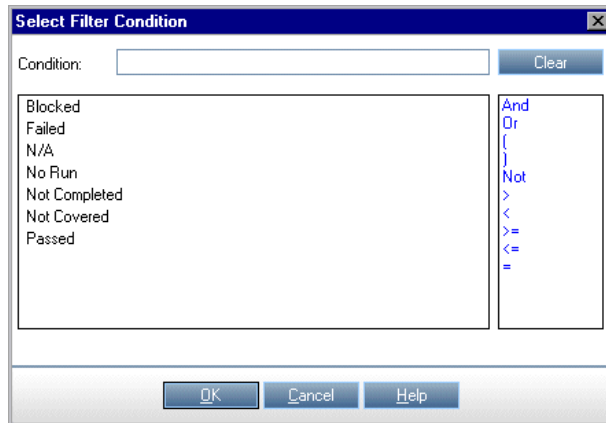
<p>Important information</p>	<ul style="list-style-type: none"> ▶ The Group tab is only available in grid views. ▶ You cannot select a group header and perform ALM actions on an entire group. To perform actions on multiple records, use CTRL or SHIFT to select records. ▶ If you group records by a field containing multiple values, the information in each value is grouped as its entire value. This value is the category for grouping. For example, a value with English and French will be grouped once as English;French, and not as part of separate English and French categories. For more information on allowing multiple values, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>. ▶ The group by list displays only system and user-defined fields associated with a User List or Lookup List type field. For more information on field types, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>.
<p>Relevant tasks</p>	<p>"How to Display ALM Data" on page 55</p>
<p>See also</p>	<p>"ALM Common Functionality Overview" on page 54</p>

User interface elements are described below:

UI Elements (A-Z)	Description
Group items by	Groups records according to the select field. Note: If you change a parent group level to (none) , its child group levels automatically change to (none) .
Then by	Groups records by additional fields. Note: If you group records by more than one field, select fields in the hierarchical order that you want them to be displayed. You cannot select a field that has already been selected.

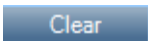
Select Filter Condition Dialog Box

This dialog box enables you to set a filter condition for a field.



To access	Use one of the following: <ul style="list-style-type: none"> ➤ Open the Filter dialog box. In the Filter tab, click a Filter Condition box. Click the drop-down arrow. ➤ In a grid view, click a grid filter box under a column name. Click the browse button.
Important information	In the Requirements module, if you select the Req Parent field, the Select Filter Condition dialog box displays the requirements tree, sorted by requirement name. If you select a requirement from the requirements tree, its full path is displayed in the Condition box. Only requirements which are descendents of this requirement are displayed when you apply the filter.
See also	"Filter Dialog Box" on page 60 "Users List Dialog Box" on page 72

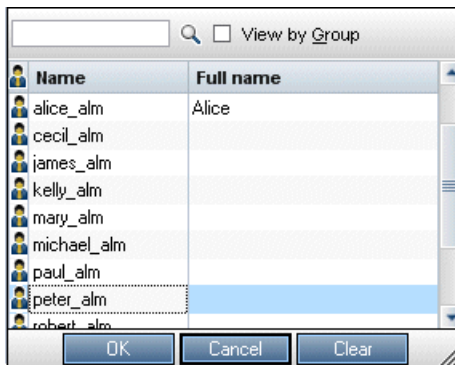
User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements (A-Z)	Description
	Clears the filter condition.
<field value pane>	<p>Displays the values that are available for defining a filter condition for the current field. Select a value to add to the Condition box.</p> <p>If you select a field with a user name value, the <condition pane> displays a user list that enables you to sort users, search for users, group users by user groups, and select users from the list or from a group tree. For details, see "Users List Dialog Box" on page 72.</p> <p>Note: Some items that appear in hierarchical lists contain sublists. These items are preceded by a folder icon. To choose an item from a sublist, double-click the folder and click the item.</p>

UI Elements (A-Z)	Description
<logical expression pane>	Displays the operators that are available for defining logical expressions.
Condition	<p>Indicates the field condition.</p> <p>Notes:</p> <ul style="list-style-type: none"> ▶ If you enter an item with more than one word, it must be enclosed in quotes. For example, to search for the test Login Boundary, in the Condition box, type the following: "login boundary" ▶ If you want to enter only part of the item, use an asterisk (*). For example, to search for all tests with the word Login, in the Condition box, type the following: *login*. To search for all tests that begin with the words Insert New in the Condition box, type the following: "insert new*" ▶ To specify an empty field, type the following: "" ▶ To specify a non-empty field, type the following: not ""


Users List Dialog Box

This dialog box enables you to choose a user name from a user list. You can sort the users list, search for users, group users by user groups, and select users from the list or from a group tree.



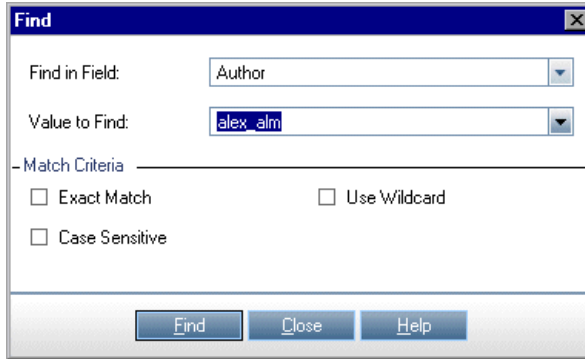
To access	In a ALM grid or tree, select a column with a user name value, and click the drop-down arrow. The Users List dialog box opens.
Important information	<ul style="list-style-type: none"> ▶ To sort the Users List in ascending or descending order by user name or full name, click the Name or Full Name column heading. Click the column heading again to reverse the sort order. ▶ When defining a condition for a user, you can specify the current user (select [CurrentUser]), or an entire user group (for example, [Developer]).
See also	"Select Filter Condition Dialog Box" on page 70


User interface elements are described below:

UI Elements (A-Z)	Description
	<p>Find. Searches users by user name or full name. Type the name of a user (or part of the name) in the Find box and click the Find button. ALM highlights the first record that contains the search string. Press F3 to find subsequent occurrences of the search string.</p> <p>Tip: You can also search incrementally by typing the first character of the user name under the Name column. You can type additional characters to narrow down the search. ALM begins searching as soon as you type the first character of the search string, and highlights the record with the first occurrence of all the characters in the search string.</p>
Full Name	The full name of the user.
Name	The ALM login name.
View by Group	Displays users by user group


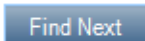
Find Dialog Box

This dialog box enables you to search for a particular record in a tree or grid. You can search records based on the value of a particular field. You can also search a folder for a particular subfolder or record. The functionality available depends on the module and view in which you are working.



<p>To access</p>	<p>Use one of the following:</p> <ul style="list-style-type: none"> ▶ Select Edit > Find ▶ In the Execution Grid, select Tests > Find ▶ In the test sets tree, select Edit > Find Folder/Test Set <p>Available from the following modules: Requirements, Business Components, Test Plan, Test Resources, Test Lab, and Defects</p>
<p>Important information</p>	<ul style="list-style-type: none"> ▶ If a filter is applied to a tree or grid, the search is restricted to the records currently displayed. ▶ Tip: If available, Text Search  is a more powerful tool that enables you to search for keywords and variations of keywords. For more details, see "Text Search Pane" on page 78.
<p>Relevant tasks</p>	<p>"How to Search and Replace ALM Data" on page 58</p>
<p>See also</p>	<p>"Replace Dialog Box" on page 76</p>

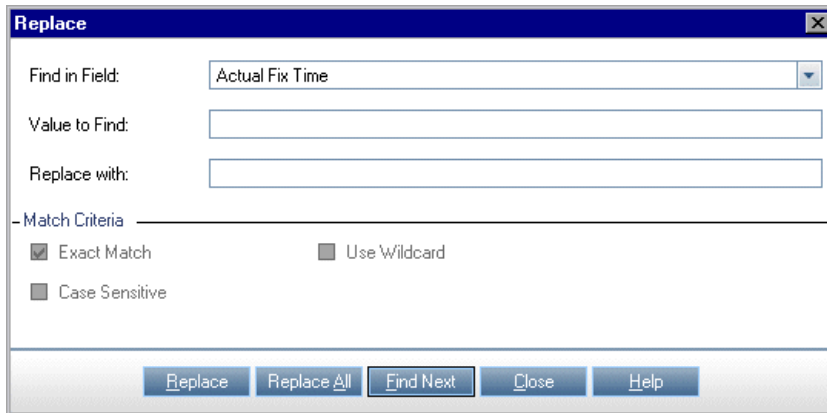
User interface elements are described below:

UI Elements (A-Z)	Description
	<p>Searches for the specified value in a tree view. If the search is successful, the Search Results dialog box opens and displays a list of possible matches. Select a result from the list and click Go To to highlight the record in the tree. If the search is unsuccessful, an information box opens.</p>
	<p>Searches for the next record in the grid that matches the specified value. If the search is successful, the matching record is highlighted in the grid. If the search is unsuccessful, an information box opens.</p>
<p>Case Sensitive</p>	<p>Instructs ALM to distinguish between uppercase and lowercase characters.</p>
<p>Exact Match</p>	<p>Finds records with values that exactly match the specified search string.</p>
<p>Find in Field</p>	<p>Indicates the field for ALM to search. Available from: Requirements module, all module grid views</p>
<p>Find in Folder</p>	<p>Displays the name of the folder selected in the tree. Available from: Component Tree, Test Plan Tree, Test Resource Tree, and Test Sets Tree.</p>
<p>Name to Find</p>	<p>The value in the Name field for which ALM searches. The search is not case sensitive. Results include records where the search string matches the value, or part of the value, of the Name field.</p>
<p>Search for</p>	<p>Instructs ALM to search for folders only, individual records only, or both folders and individual records. Available from: Component Tree, Test Plan Tree, Test Resource Tree, and Test Sets Tree</p>

UI Elements (A-Z)	Description
Use Wildcard	Enables you to use asterisk (*) characters in your search string in order to type only part of the item.
Value to Find	The field value for which ALM searches. The search is not case sensitive.




Replace Dialog Box

This dialog box enables you to find and replace field values in a tree or grid. You can replace a field value for a selected record, or for all records in the tree or grid.



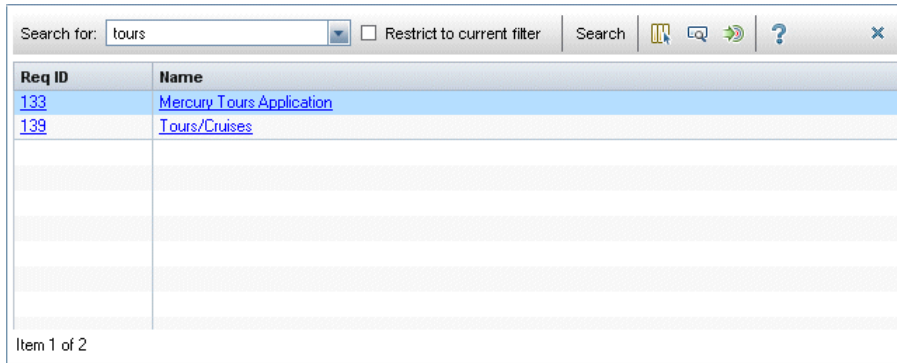
To access	Use one of the following: <ul style="list-style-type: none"> ➤ In a grid view, select Edit > Replace ➤ In the Execution Grid, select Tests > Replace
Important information	If a filter is applied to a tree or grid, the search and replace is restricted to the records currently displayed.
Relevant tasks	"How to Search and Replace ALM Data" on page 58
See also	"Find Dialog Box" on page 74 "Update Selected Dialog Box" on page 92

User interface elements are described below:

UI Elements (A-Z)	Description
	Replaces the specified field value for the selected record.
	Searches for and replaces the specified field value in all records displayed in the grid.
	Searches for the next record in the grid that matches the specified value. If the search is successful, the matching record is highlighted in the grid. If the search is unsuccessful, an information box opens.
Case Sensitive	Instructs ALM to distinguish between uppercase and lowercase characters.
Exact Match	Finds records with values that exactly match the specified search string.
Find in Field	Indicates the field for ALM to search.
Replace with	Indicates the replacement field value.
Use Wildcard	Enables you to use asterisk (*) characters in your search string in order to type only part of the item.
Value to Find	The field value for which ALM searches.




Text Search Pane

This pane enables you to search for records in predefined fields.



To access	<p>Select Edit > Text Search. The Text Search pane opens in the lower part window.</p> <p>Available from the following modules: Requirements, Business Components, Test Plan, and Defects.</p>
Important information	<ul style="list-style-type: none"> ▶ Text search is only available if it has been enabled for the project. Contact your ALM site administrator if the search option is unavailable. ▶ Searchable text fields are predefined in Project Customization. For more details, see the <i>HP Application Lifecycle Management Administrator Guide</i>. ▶ Version Control: ALM searches only checked in versions. ▶ Quality Center Starter Edition: Text search is not available.
Relevant tasks	<p>"How to Search and Replace ALM Data" on page 58</p>
See also	<p>"Find Dialog Box" on page 74</p>

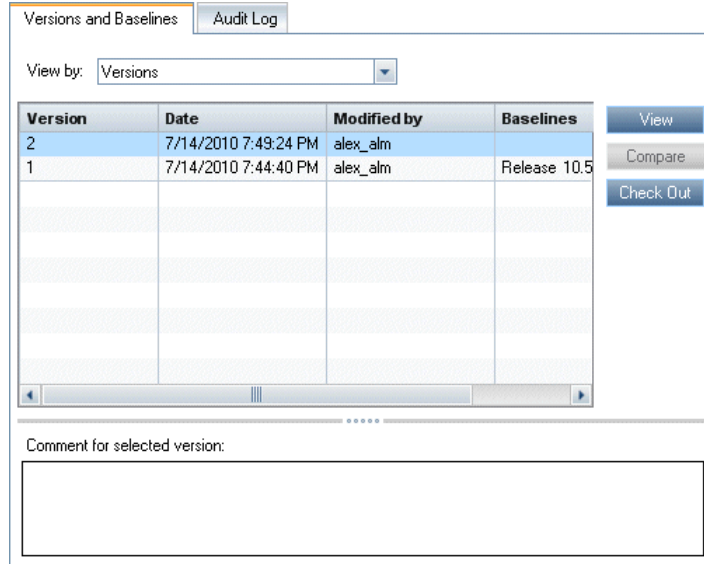
User interface elements are described below:

UI Elements (A-Z)	Description
	Select Columns. Opens the Select Columns dialog box, enabling you to determine column appearance and order. For more details, see "Select Columns/Select Fields Dialog Box" on page 90.
	Searchable Fields. Displays the list of predefined search fields set in Project Customization.
	Go to Entity. Select a record and click the button to display record details. Tip: Alternatively, select a record and click the <record ID> or <record Name> link.
<module fields>	Requirements. For details on the fields available in the Requirements module, see "Requirements Module Fields" on page 347. Test Plan. For details on the fields available in the Test Plan module, see "Test Plan Module Fields" on page 512. Defects. For details on the fields available in the Defects module, see "Defects Module Fields" on page 855. Business Process Testing: For details on the fields available in the Business Components module, see Business Component Module Details Fields under "Understanding the Details Tab" in the <i>HP Business Process Testing User Guide</i> .
In	Enables searching for text in Tests or Design Steps . Available from: Test Plan module
Item	Number of the item selected in the search results and the total number of items found.
Restrict to current filter	Indicates whether to search all records in the module or restrict the search to the filtered records.

UI Elements (A-Z)	Description
Search	Performs the text search on the predefined fields and displays the search results in order of relevance.
Search for	<p>Indicates the keywords you want to find.</p> <p>Syntax exceptions:</p> <ul style="list-style-type: none"> ▶ Text search ignores the following: articles (a, an, the); coordinate conjunctions (and, but, for, nor, or); boolean operators (and, or, not, if, or, then). ▶ The search is not case sensitive. <p>Notes:</p> <ul style="list-style-type: none"> ▶ When you enter a keyword, ALM searches the predefined fields for the keyword or variations of the keyword. For example, if you type <code>log</code>, the search will find fields containing <code>log</code>, <code>logs</code>, <code>logging</code>, and <code>logged</code>. The search will not find <code>login</code> or <code>logical</code> because these are not variations of the word. ▶ If you enter more than one keyword, the results will include all records that contain at least one of the keywords.

History Tab

This tab enables you to view a list of changes made to the currently selected entity. In addition, this tab displays a history of baselines in which the entity appears.



Versions and Baselines Audit Log

View by: Versions

Version	Date	Modified by	Baselines
2	7/14/2010 7:49:24 PM	alex_alm	
1	7/14/2010 7:44:40 PM	alex_alm	Release 10.5

View
Compare
Check Out

Comment for selected version:

To access	Click the History tab or button.
Important information	For details on preserving the history of changes made to a field, see the <i>HP Application Lifecycle Management Administrator Guide</i> .
Relevant tasks	"How to Display ALM Data" on page 55

Baselines Tab

This tab displays previous versions of entities stored in a particular baseline. For more details, see "Baselines Tab" on page 278.


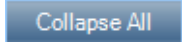
Versions and Baselines Tab

Version Control: This tab is displayed when version control is enabled for a project. For details, see "Versions and Baselines Tab - Versions View" on page 135 and "Baselines Tab" on page 278.

Audit Log Tab

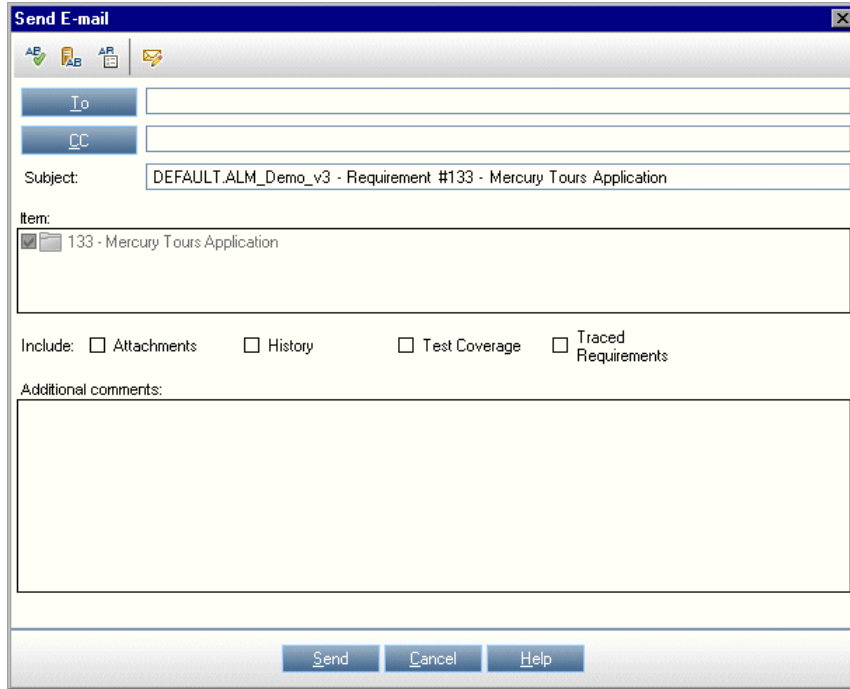
This tab displays the date and time of the change and the name of the user who made the change to the entity.

User interface elements are described below:

UI Elements (A-Z)	Description
 	Expands or collapses all changes displayed in the grid.
Field	Specifies which field changes are displayed in the grid. To view changes made to all fields, select <All>.
Field Name	The field modified during the change.
New Value	The current field value.
Old Value	The prior field value.

Send E-mail Dialog Box


This dialog box enables you to send email about an entity to other users. A link is included in the email message that enables the recipient to go directly to the entity.





The dialog box is titled "Send E-mail" and features a standard Windows-style title bar with a close button. Below the title bar is a toolbar with icons for "AE" (with a checkmark), "AP" (with a document icon), "AR" (with a document icon), and an envelope icon. The main area contains several input fields and options:



- To:** A text input field.
- CC:** A text input field.
- Subject:** A text input field containing the text "DEFAULT.ALM_Demo_v3 - Requirement #133 - Mercury Tours Application".
- Item:** A list box containing one item: "133 - Mercury Tours Application", which is selected with a checkmark.
- Include:** A group of four checkboxes: "Attachments", "History", "Test Coverage", and "Traced Requirements", all of which are currently unchecked.
- Additional comments:** A large, empty text area for entering extra information.

At the bottom of the dialog box, there are three buttons: "Send", "Cancel", and "Help".

<p>To access</p>	<p>Select one or more entities. Click the Send by E-mail arrow  and choose one of the following options:</p> <ul style="list-style-type: none"> ➤ Send by E-mail. Sends email to recipients selected from a list. ➤ Send by E-mail to <specific recipient >. Sends email to a specific recipient. For example, in the Requirements module, choose Send by E-mail to Author to send the email to the user who wrote the requirement.
<p>Important information</p>	<ul style="list-style-type: none"> ➤ By default, ALM sends email in HTML format. To send email as plain text instead, edit the MAIL_FORMAT parameter in the Site Configuration tab in Site Administration. For more details, see the <i>HP Application Lifecycle Management Administrator Guide</i>. ➤ By default, the link to the entity that is included in the email message contains the path using the default mail server host name and port number. To modify the link's path to a different mail server, edit the ENTITY_LINK_HOST and ENTITY_LINK_PORT parameters in the Site Configuration tab in Site Administration. For more details, see the <i>HP Application Lifecycle Management Administrator Guide</i>. ➤ Tip: You can automatically send the email to a specific user type. This can be any column with a user name value, including user-defined fields. Click the Send by Email arrow and choose an option.

User interface elements are described below:

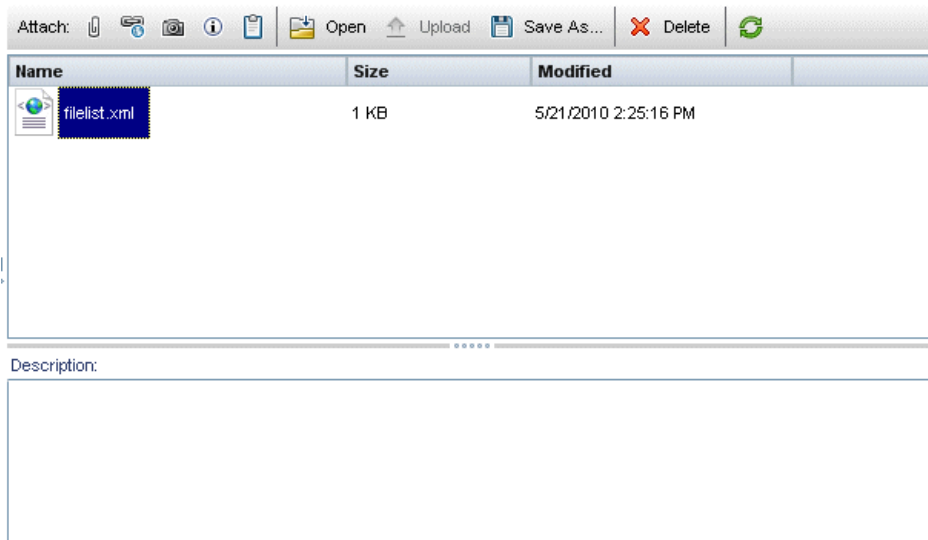
UI Elements (A-Z)	Description
	<p>Check Spelling. Checks the spelling for the selected word or text box.</p>
	<p>Spelling Options. Enables you to configure the way ALM checks spelling.</p>

UI Elements (A-Z)	Description
	Thesaurus. Displays a synonym, antonym, or related word for the selected word.
	Custom. Opens the Select Fields dialog box, enabling you to determine which fields to display in the email. For more details, see "Select Columns/Select Fields Dialog Box" on page 90.
Additional Comments	Enables you to add comments about the email. Click in the text box to display a toolbar for formatting and spell checking the text.
Include	Enables you to include the following: <ul style="list-style-type: none"> ▶ Activities (only available from the Business Models module) ▶ Attachments ▶ Design Steps (only available from the Test Plan module) ▶ History ▶ Linkage (only available from the Business Models module) ▶ Paths (only available from the Business Models module) ▶ Snapshot (only available from the Business Components module) ▶ Test Coverage (only available from the Requirements module) ▶ Traced Requirements (only available from the Requirements module) <p>Note: The Include option is not available from the Test Resources module.</p>
Item	The entity name.
Send	Sends the email to the specified distribution list.


UI Elements (A-Z)	Description
Subject	The subject for the email. Default value: The domain, project, entity ID (if applicable), and entity name are displayed.
To/CC	Indicates a valid email address or user name. Alternatively, click the To button or CC button to select users. The Select Recipients dialog box opens. Select the users or user groups to which you want to send the email.

Attachments Page



This page enables you to add and manage attachments to ALM records. You can attach a file, URL, snapshot of your application, items from the Clipboard, or system information.








Attach:






Name	Size	Modified
 filelist.xml	1 KB	5/21/2010 2:25:16 PM

Description:

To access	Use one of the following: <ul style="list-style-type: none"> ➤ Click the Attachments button  in a toolbar ➤ Click the Attachments button in a dialog box sidebar ➤ Click the Attachments tab
Important information	When you add an attachment, ALM adds the attachment icon  to the record.
Relevant tasks	"How to Modify Attachments" on page 57

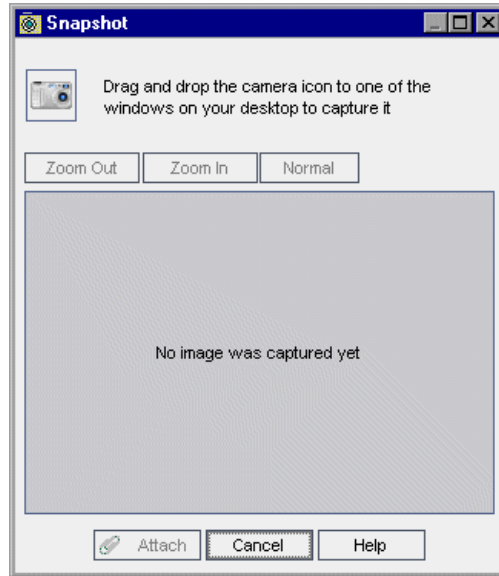
User interface elements are described below:



UI Elements (A-Z)	Description
	File. Opens the Open dialog box, enabling you to add a file attachment to an ALM record.
	URL. Opens the Attach Uniform Resource Locator (URL) dialog box, enabling you to add a URL attachment to an ALM record. This can be any valid URL scheme such as HTTP, FTP, Gopher, News, Mailto, or File.
	Snapshot. Opens the Snapshot dialog box, enabling you to add an image of your application to an ALM record. For more details, see "Snapshot Dialog Box" on page 89. Snapshot attachments are assigned a .jpg extension.
	System Info. Opens the System Information dialog box, enabling you to attach system information about your machine to an ALM record. System information attachments are assigned a .tsi extension.
	Clipboard. Attaches the Clipboard content to an ALM record. Copy a text string or an image to the Clipboard and click the Clipboard button. A text string is assigned a .txt extension. An image is assigned a .jpg extension.

UI Elements (A-Z)	Description
 Open	<p>Download and Open. Opens the selected attachment by downloading it to a local directory on your client machine and opening it in the associated application. You can view or modify an open attachment.</p>
 Upload	<p>Upload Selected. Uploads the modified attachment to your ALM project. For more details, see "How to Modify Attachments" on page 57.</p>
 Save As...	<p>Save Attachment. Saves the copy of a selected attachment to your client machine.</p>
 Delete	<p>Delete Selected. Deletes the selected attachment. To select more than one attachment, use the CTRL key.</p>
	<p>Refresh All. Refreshes the list of attachments on the page.</p>
<p>Description</p>	<p>Describes the attachment. Click in the text box to display a toolbar for formatting and spell checking the text.</p>
<p>Modified</p>	<p>The date that the attachment was last modified.</p>
<p>Name</p>	<p>The attachment name. An icon for the application associated with the attachment appears next to the name. To rename the attachment, right-click and select Rename.</p>
<p>Size</p>	<p>The size of the attachment.</p>


Snapshot Dialog Box

This dialog box enables you to capture and attach images of your application to an ALM record.



<p>To access</p>	<p>Use one of the following:</p> <ul style="list-style-type: none"> ▶ In the Attachments page, click the Snapshot button . ▶ In the Business Components module, click the Snapshot tab and then click the Snapshot button .
-------------------------	---

User interface elements are described below (unlabeled elements are shown in angle brackets):

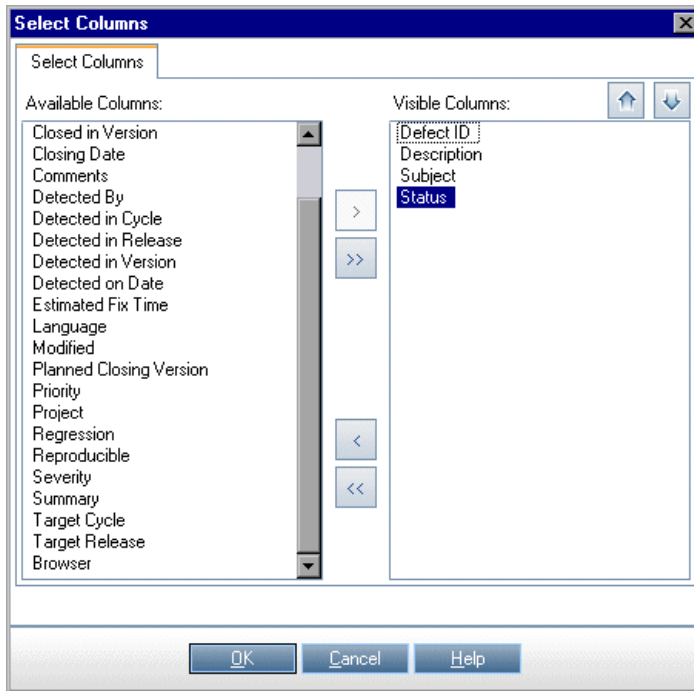
UI Elements (A-Z)	Description
	Drag the camera icon onto an object that you want to capture.
<Image area>	Displays the captured image.

UI Elements (A-Z)	Description
Attach	Adds the snapshot to the ALM record.
Normal	Restores to the original magnification level of the captured image.
Zoom In	Magnifies the captured image.
Zoom Out	Reduces the magnification level of the captured image.

Select Columns/Select Fields Dialog Box




The Select Columns dialog box enables you to specify which columns are displayed in ALM and the order in which they appear.


The Select Fields dialog box enables you to specify which fields are displayed when sending emails about entities to other users.



To access	<p>Select Columns dialog box:</p> <ul style="list-style-type: none"> ▶ Select View > Select Columns. ▶ In the Execution Grid, select Tests > Select Columns. <p>Select Fields dialog box:</p> <p>In the Send E-mail dialog box, click the Custom button.</p>
Important information	Quality Center Starter Edition: Not all fields and functionality are available.
Relevant tasks	"How to Display ALM Data" on page 55

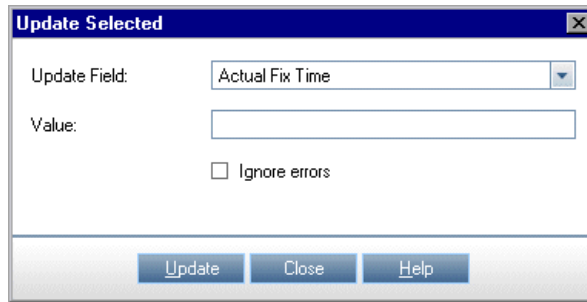
User interface elements are described below:

UI Elements (A-Z)	Description
	<p>Sets the order in which column names appear in Visible Columns.</p> <p>Tip: You can also drag the column names up or down.</p>
	<p>Moves selected fields between Available Columns and Visible Columns.</p> <p>Tip: You can also drag the field names between panes or double-click a field name to move it across to the other pane.</p>
	<p>Moves all fields between Available Columns and Visible Columns.</p>
Available Columns	Lists columns that are not currently displayed.
Hide Risk-Based Quality Management Columns	<p>Hides the requirement fields related to risk-based quality management from the Available Columns list.</p> <p>Note: Available only in the Requirements module.</p>
Requirement Type	<p>Displays the requirement fields related to a selected requirement type in the Available Columns list.</p> <p>Note: Available only in the Requirements module.</p>

UI Elements (A-Z)	Description
Type	Displays the test fields related to a selected test type in the Available Columns list. Note: Available only in the Test Plan and Test Lab modules.
Visible Columns	Lists columns that are currently displayed. Note: Columns displayed with the  icon cannot be removed from the Visible Columns list.

Update Selected Dialog Box

This dialog box enables you to update a field value for multiple records in a grid or a tree.



To access	Right-click selected multiple records and select Update Selected . Available from the following modules: Requirements, Test Plan (Test Grid only), and Defects.
Relevant tasks	"Replace Records" on page 58
See also	"Replace Dialog Box" on page 76

User interface elements are described below:

UI Elements (A-Z)	Description
Update	Indicates the number of values that were updated, and the number of instances where the values were not updated.
Update in Field	Identifies the field to be updated.
Value	The replacement value for the selected field.

4

Alerts and Flags

This chapter includes:

Concepts

- ▶ Alerts Overview on page 96
- ▶ Follow Up Flags Overview on page 98

Tasks

- ▶ How to Use Alerts on page 99

Reference

- ▶ Alerts and Flags User Interface on page 104

Concepts


Alerts Overview

When a requirement, test, or defect changes, HP Application Lifecycle Management (ALM) can alert the associated entities and notify those responsible for any associated entities. Your ALM project administrator can activate alert rules based on associations you make between requirements, tests, and defects. The alert rules in ALM are based on the following associations you can create:

- ▶ You can associate a test in the test plan tree with a requirement. This is accomplished by creating **requirements coverage** in the Test Plan module, or by creating **tests coverage** in the Requirements module. For more information, see "Requirement and Test Coverage Overview" on page 526.
- ▶ You can associate a test instance with a defect. This is performed by creating **Linked Defects** in the Test Plan module, or by adding a defect during a manual test run. For more information, see "Defect Linkage" on page 829.
- ▶ You can create **traceability links** between requirements in the Requirements module. For more information, see "Requirements Traceability Overview" on page 368.

After you establish associations in your project, you can track changes using these associations. When an entity in your project changes, ALM alerts any associated entities that may be impacted by the change. The alerts can be seen by all users. ALM also notifies the person responsible for the entity at the time of the change of any associated entities that may be impacted by the change.

In the Alerts column in a tree or grid view, Alerts flags indicate the following:

- ▶ A red alert flag  indicates that the alert is new.
- ▶ A gray alert flag indicates that the alert has already been read.

Version Control: ALM alerts associated entities only when a new version is checked in. The alert states that the version status has changed to **Checked In**. It does not indicate which fields have been modified. You can then compare the new version with the previous version. For more information on comparing versions, see "Versions and Baselines Tab - Versions View" on page 135.

Note: While the entity is checked out, changes made to non-versioned fields continue to generate regular alerts, indicating which field was changed. For more information on non-versioned fields, see "Non-versioned Fields" on page 125.

Your ALM project administrator can activate four alert rules:


Rule	Description	Entities Flagged	User Notified by Email
1	When a requirement is modified, alert the associated tests. Note: A change to the requirement can be any modification, excluding changes to the Direct Cover Status field and the risk-based quality management fields.	Tests covering the requirement.	Test designer.
2	When a defect status changes to "Fixed", alert the associated test instances.	Test instances associated with the defect.	Responsible tester for the test instance.

Rule	Description	Entities Flagged	User Notified by Email
3	When a test runs successfully (status changes to “Passed”), alert the linked defects.	Defects linked to the test run.	User assigned the defect.
4	When a requirement is modified or deleted, alert traced to requirements and child requirements.	The requirement’s child requirements and traced to requirements.	Author of the requirement.

For details on activating alert rules in Project Customization, refer to the *HP Application Lifecycle Management Administrator Guide*.

For more details on working with Alerts, see "How to Use Alerts" on page 99.

Follow Up Flags Overview

You can add a follow up flag  to a specific requirement, test, test instance, or defect to remind yourself to follow up on an issue. For example, you can set a follow up flag on a defect to remind yourself to check the status in a week.

When you add a follow up flag, ALM adds a gray flag icon to the record. When the follow up date arrives, ALM sends you email and changes the flag icon to red.

A follow up flag is specific to your user login name. Anyone else viewing the record does not see your follow up flag. You can open the follow up flag at any time to view or modify the details.

For details on the user interface, see "Flag For Follow Up Dialog Box" on page 106.

Tasks

How to Use Alerts

This task describes how to work with automatic notification alerts to keep track of changes made to your requirements, tests, and defects.

To learn more about alerts, see "Alerts Overview" on page 96.

Tip: For a use-case scenario related to this task, see "How to Work with Alerts - Use-Case Scenario" on page 100.

This task includes the following steps:


- "Prerequisites" on page 99
- "View alerts" on page 99
- "Clear alerts" on page 100

1 Prerequisites

Verify that alert rules are activated for your project. Alert rules, activated by the project administrator, instruct ALM to send email to notify those responsible when changes occur in your project. For details, refer to the *HP Application Lifecycle Management Administrator Guide*.

2 View alerts

View alerts for a single record, or for all records in a module.

View Alerts for a Record. In a tree or grid view, click the **Alerts** flag  in the Alerts column. If this column is not visible, select **View > Indicator Columns**. For user interface details on the Alerts dialog box, see "Alerts Dialog Box" on page 104.

View Alerts for a Module. To view a list of all alerts for a selected module, in the **Filter** dialog box > **Cross Filter** tab, select the **Show <entity> with alerts** option. For user interface details on the Filter dialog box, see "Filter Dialog Box" on page 60.

3 Clear alerts

Clear alerts for a single record, or for all records in a module.

Clear Alerts for a Record. For a selected record, you can clear an individual alert or all alerts in the Alerts dialog box.

- ▶ To clear a single alert, click **Clear Alert**  for the alert.
- ▶ To clear all alerts for the record, click the **Clear All** button.

For user interface details on the Alerts dialog box, see "Alerts Dialog Box" on page 104.

Clear Alerts for a Module. You can clear all the alerts associated with all the records in an ALM module.

- ▶ In the Requirement, Test Plan, or Defects module, select **Edit > Clear Alerts**.
- ▶ In the Test Lab module, select **Tests > Clear Alerts**.

Only alerts associated with records that match the current filter are cleared. In addition, you can only clear alerts that are assigned to you, or that are not assigned to any user. The user to which an alert is assigned is the user that is sent email notification when the alert is triggered. This user is listed in the Alerts dialog box for the alert. For details on alert rules and the users that are sent email notification, see "Alerts Overview" on page 96.

How to Work with Alerts - Use-Case Scenario

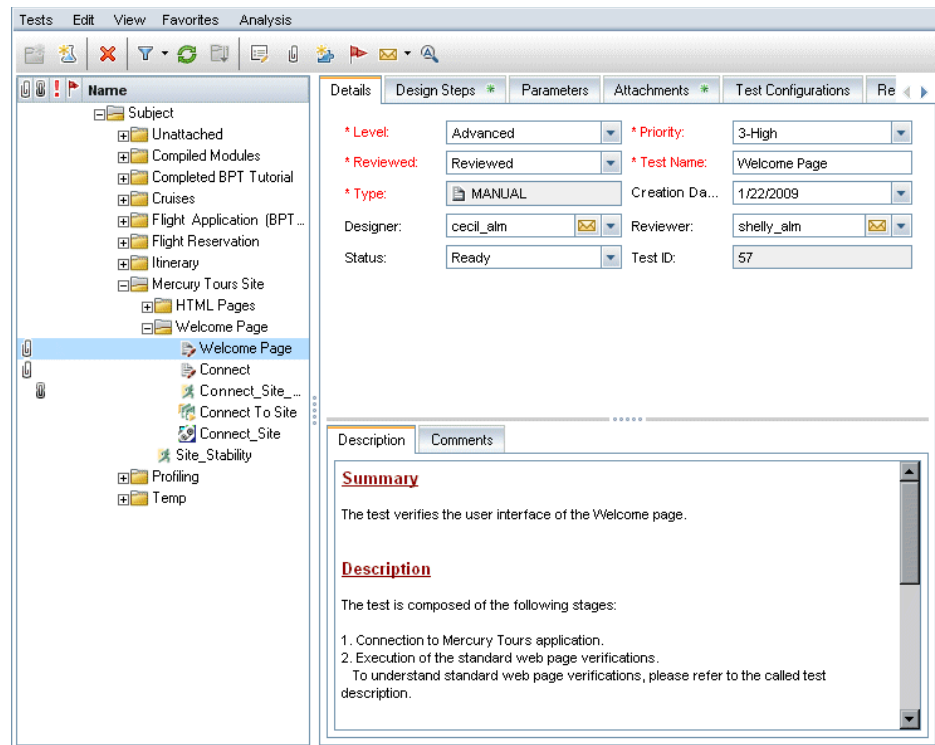
This use-case scenario provides an example of working with alerts in ALM.

Note: For a task related to this scenario, see "How to Use Alerts" on page 99.

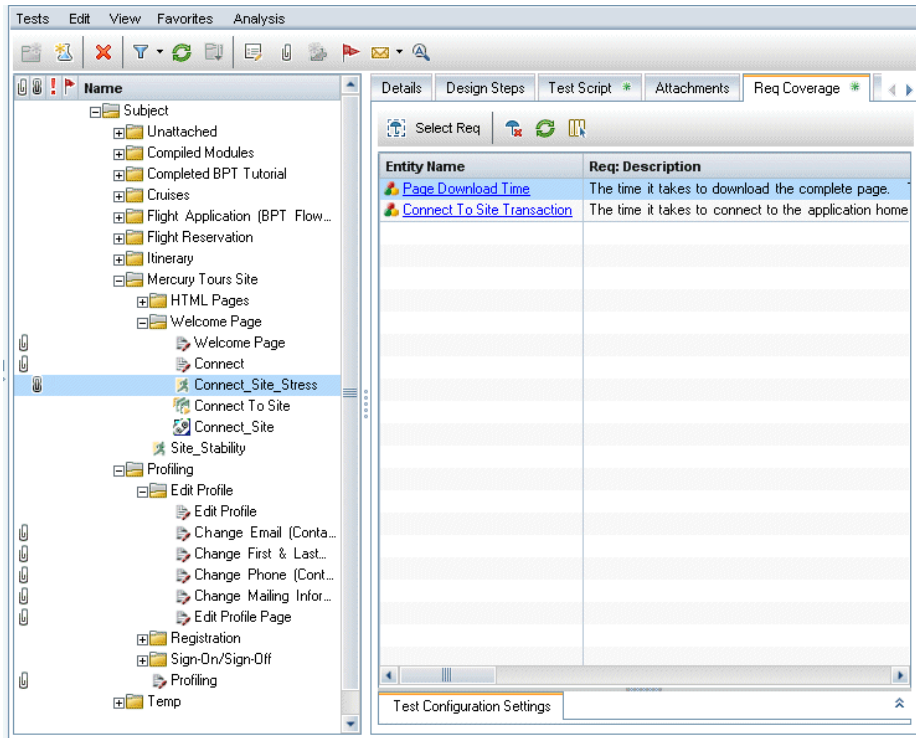
Suppose you are using the **ALM_Demo** project based on the Mercury Tours application. In Project Customization, your project administrator activates the first rule: **When a requirement is modified, alert the associated tests.** The project administrator also specifies that notifications be sent by email.

In the Requirements module, your QA manager defines the requirement **Page Download Time** (under **Application Performance**).

In the Test Plan module, the QA manager then defines a new test **Connect_Site_Stress** for this requirement (under **Mercury Tours Site > Welcome Page**). In the **Details** tab, the project administrator assigns the new test to designer Cecil.

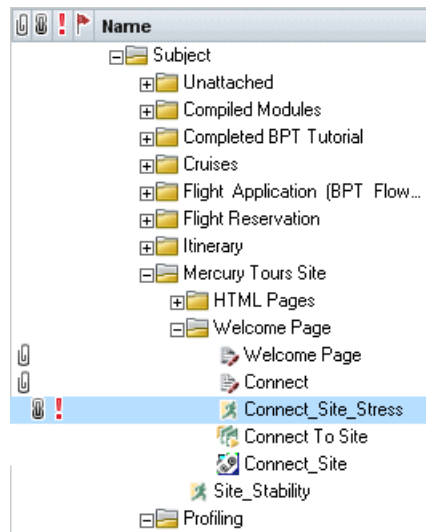


In the **Req Coverage** tab, the QA Manager links the **Connect_Site_Stress** test to the **Page Download Time** requirement.



A QA tester, Mike, reviews the requirement **Page Download Time** and decides that 10 seconds to download the page is too long. He changes the requirement description to 7 seconds. As a result, Cecil now needs to adjust his test **Connect_Site_Stress** so that it meets the changed requirements.

With the rule activated, Mike's change to the requirement causes ALM to flag the associated test. This alert can be seen by Cecil, the designer responsible for the test, and all other project users.



When clicking the Alerts flag, the Alerts dialog box opens and displays the details of the change. For user interface details, see "Alerts Dialog Box" on page 104.

In addition, Cecil (being the test's designer) receives an automatic ALM notification email message that describes the change Mike made to the **Page Download Time** requirement and recommends that Cecil check the associated test, **Connect_Site_Stress**. Cecil clicks a link to open ALM and display the specified requirement or test.

Reference

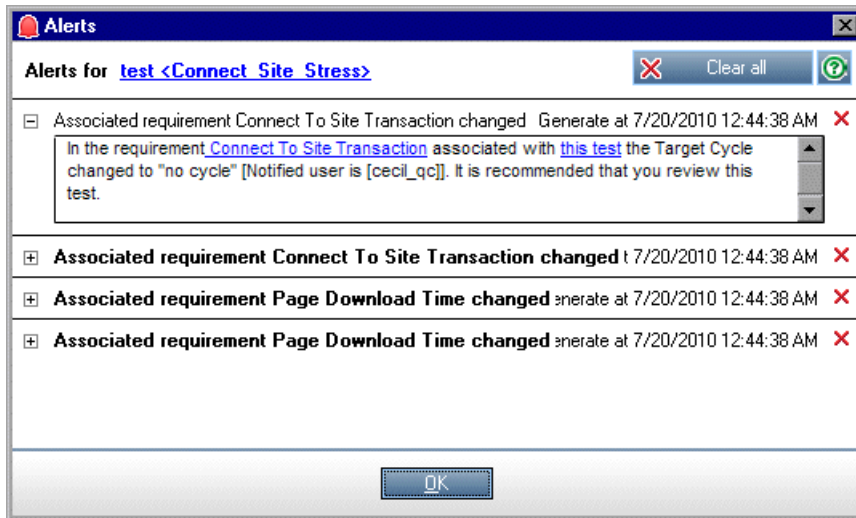
Alerts and Flags User Interface


This section includes:

- ▶ Alerts Dialog Box on page 104
- ▶ Flag For Follow Up Dialog Box on page 106

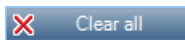

Alerts Dialog Box

This dialog box enables you to view a list of alerts for a selected record.



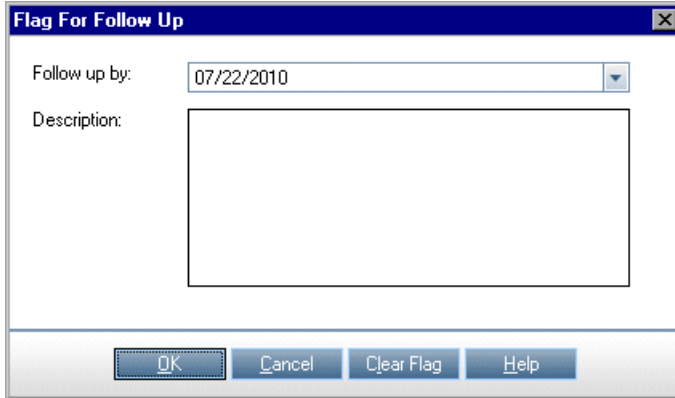
To access	<p>Use one of the following:</p> <ul style="list-style-type: none"> ▶ In a tree or grid view, click the Alerts flag  in the Alerts column. If this column is not visible, select View > Indicator Columns. ▶ Right-click the entity and select Alerts. <p>Available for:</p> <ul style="list-style-type: none"> ▶ Requirements ▶ Tests in the Test Plan module ▶ Test instances in the Execution Grid ▶ Defects
Important information	You can only clear alerts that are assigned to you, or that are not assigned to any user. The user to which an alert is assigned is the user that is sent email notification when the alert is triggered. For more details, see "Alerts Overview" on page 96.
Relevant tasks	"How to Use Alerts" on page 99
See also	"Alerts Overview" on page 96


User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements (A-Z)	Description
	Deletes all alerts for the record.
	Clear Alert. Deletes the specific alert.
<Alert details pane>	<p>Displays a list of alerts for the selected record.</p> <p>Expand an alert to view details of the change that triggered the alert.</p> <p>Click a link to highlight the item in the tree or grid.</p>
<Selected record>	Displays the type and name of the selected record. For example, "Alerts for Requirement <Travel Guides>".

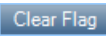
Flag For Follow Up Dialog Box

This dialog box enables you to create, view, and modify follow up flags to remind yourself to follow up on an issue.



<p>To access</p>	<p>Use one of the following:</p> <ul style="list-style-type: none"> ➤ Right-click a record and select Flag for Follow Up. ➤ To view or modify an existing flag: In a tree or grid view, click the flag icon  in the Follow Up Flag column. If this column is not visible, select View > Indicator Columns. <p>Available for:</p> <ul style="list-style-type: none"> ➤ Requirements ➤ Tests in the Test Plan module ➤ Test instances in the Execution Grid ➤ Defects
<p>See also</p>	<p>"Follow Up Flags Overview" on page 98</p>

User interface elements are described below:

UI Elements (A-Z)	Description
	Removes the follow up flag.
Description	The reminder text in the follow up email ALM sends you.
Follow up by	The date on which ALM sends you a follow up email.

5

Favorite Views

This chapter includes:

Concepts

- ▶ Favorite Views Overview on page 110

Tasks

- ▶ How to Use Favorite Views on page 111

Reference

- ▶ Favorite Views User Interface on page 113

Concepts

Favorite Views Overview

You determine the way an HP Application Lifecycle Management (ALM) window looks by selecting certain settings for it. For example, these settings may include applying a filter to grid columns, or sorting fields in a grid. You can save this view as a **favorite view** to be reloaded and used in the future.

You decide if others have accessibility to the favorite views by saving them to either a public folder or a private folder. Views in a **public** folder are accessible to all users. Views in a **private** folder are accessible only to the user who created them.

You can create subfolders to help you organize your favorite views. For example, you can create folders for different products, releases, or teams.

Consider the following when working with favorite views:

- ▶ A favorite view is unique to the module in which the view is created. For example, the Favorites menu in the Defects module contains only favorite views created for the Defects module.
- ▶ A favorite view includes the module view setting in which you create it, such as grid or tree view. For example, if you create a favorite view in the test plan tree view, and then load that favorite from the test grid view, ALM switches back to the test plan tree view.

In contrast, all Requirements module views except for the Requirements Grid view share favorite views. For example, if you create a favorite view in the Requirement Details view, loading the favorite from the Coverage Analysis view does not switch back to the Requirement Details view.

Some favorite view commands are accessible only to certain user groups. For more information on user group privileges, refer to the *HP Application Lifecycle Management Administrator Guide*.

For details on working with favorite views, see "How to Use Favorite Views" on page 111.

Tasks

How to Use Favorite Views

This task describes how to work with favorite views in an ALM project.

To learn more about favorite views, see "Favorite Views Overview" on page 110.

This task includes the following steps:

- "Add a Favorite View" on page 111
- "Load a Favorite View" on page 112
- "Update a Favorite View" on page 112
- "Organize Favorite Views" on page 112

Add a Favorite View

Arrange an ALM window to meet your needs and save it as a favorite view.

- 1** Determine the way an ALM window looks by selecting certain settings for it. For example, this can include applying a filter, or sorting fields in a grid. For task details on displaying ALM data, see "How to Display ALM Data" on page 55.
- 2** Select **Favorites > Add to Favorites**. For user interface details on the Add Favorite dialog box, see "Add Favorite Dialog Box" on page 113.

Load a Favorite View

Load an existing view in an ALM window by selecting a recently used favorite view, or by selecting a view from a private or public folder.

- ▶ **Load a recently used favorite view.** Open the **Favorites** menu and select a view.

Note: By default, ALM displays the four most recently used views on the **Favorites** menu. You can define the number of views displayed on the menu by setting the **FAVORITES_DEPTH** parameter in the Site Configuration tab in Site Administration. For more information, refer to the *HP Application Lifecycle Management Administrator Guide*.

- ▶ **Load a favorite view.** Select **Favorites > Private** or **Favorites > Public** and select a view.

Update a Favorite View

You can update the settings of an existing favorite view.

- 1** Load a favorite view from the **Favorites** menu.
- 2** Make changes to the view.
- 3** Select **Favorites > Add to Favorites**. The Add Favorite dialog box opens.
- 4** In the Favorites list, select the view name and click **OK**.
- 5** Click **OK** to overwrite the previous settings.

Organize Favorite Views

Organize your favorite views in private or public folders, or delete views no longer in use. From the menu bar, select **Favorites > Organize Favorites**. For user interface details on the Organize Favorites dialog box, see "Organize Favorites Dialog Box" on page 115.

Reference

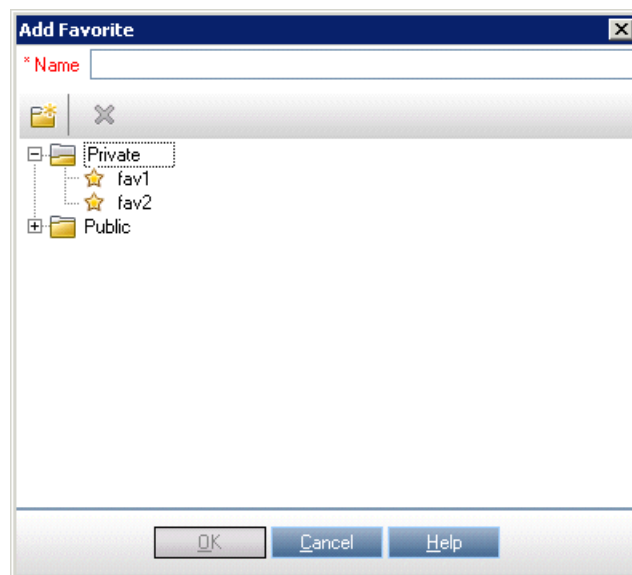
Favorite Views User Interface

This section includes:

- ▶ Add Favorite Dialog Box on page 113
- ▶ Organize Favorites Dialog Box on page 115



Add Favorite Dialog Box

This dialog box enables you to add a favorite view to your private folder or to a public folder.



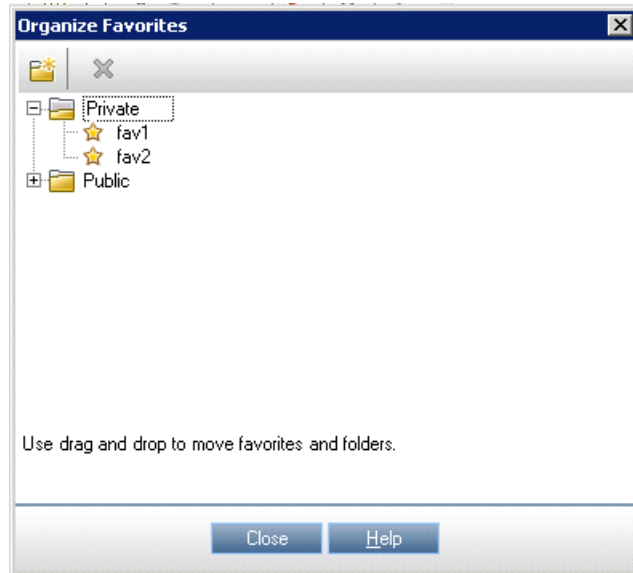
To access	From a menu bar, select Favorites > Add to Favorites . Available from the following modules: Requirements, Test Plan, Test Lab, and Defects
Relevant tasks	"How to Use Favorite Views" on page 111
See also	"Favorite Views Overview" on page 110

User interface elements are described below:

UI Elements (A-Z)	Description
	New Folder. Opens the New Favorite Folder dialog box, enabling you to add a folder under a selected folder.
	Delete. Deletes the selected favorite or folder. Deleting a favorite folder also deletes its subfolders and favorite views.
Name	The name of the favorite view.
Private	Favorite views in this folder can only be accessed by you. You cannot delete the Private folder.
Public	Favorite views in this folder can be accessed by all users of the project. You cannot delete the Public folder.



Organize Favorites Dialog Box

This dialog box enables you to organize the list of favorite views in private and public folders.



To access	From a menu bar, select Favorites > Organize Favorites . Available from the following modules: Requirements, Test Plan, Test Lab, and Defects.
Important information	Drag and drop favorite views to move them between folders.
Relevant tasks	"How to Use Favorite Views" on page 111
See also	"Favorite Views Overview" on page 110

User interface elements are described below:

UI Elements	Description
	<p>New Folder. Opens the New Favorite Folder dialog box, enabling you to add a folder under a selected folder.</p>
	<p>Delete. Deletes the selected favorite or folder. Deleting a favorite folder also deletes its favorite views and subfolders.</p>
<p>Private</p>	<p>Favorite views in this folder can only be accessed by you. You cannot delete the Private folder.</p>
<p>Public</p>	<p>Favorite views in this folder can be accessed by all users of the project. You cannot delete the Public folder.</p>
<p>Rename</p>	<p>Right-click a favorite view or folder and select Rename. You cannot rename the Private folder or the Public folder.</p>

6

Version Control

This chapter includes:

Concepts

- ▶ Version Control Overview on page 118

Tasks

- ▶ How to Use Version Control on page 120
- ▶ How to Filter by Version Control Fields on page 124

Reference

- ▶ Non-versioned Fields on page 125
- ▶ Version Control User Interface on page 126

Concepts

Version Control Overview



In a version control enabled project, you can create and manage HP Application Lifecycle Management (ALM) entities while maintaining previous versions of those entities. This includes requirements, tests, test resources, business process models, and business components.

To make changes to an entity in a version control enabled project, you must first check out the entity. When you check out an entity, ALM locks the entity, preventing other users from overwriting any changes you make. The checked out version of the entity is not visible to other users.

When you finish making changes, you check in the entity. The new version of the entity is then available to other users.

You can view all previous versions of an entity, or check out an earlier version. You can also compare two versions of an entity to view the changes between versions.

Note: To maintain usability and data integrity, ALM stores previous versions of an entity without most data related to relationships between entities. The following data is not stored for previous versions: requirements and tests coverage, requirements traceability, and defect linkage. In addition, risk data is also not stored for previous versions of an entity.

You can create and manage entities in a version control enabled project in both tree and grid views. In the tree view, an entity checked out by the current user is displayed with an open green lock icon . An entity checked out by another user is displayed with a red lock icon . Grid views contain additional version control fields, such as **Version Status**, indicating whether the entity is checked in or checked out.

For details on ALM fields not stored under version control, see "Non-versioned Fields" on page 125.

For more details on working with version control, see "How to Use Version Control" on page 120.

Examples

The following examples demonstrate when you can use version control.

► Monitor changes and compare versions.

Kelly, the product manager, finds that product development is being implemented differently than she had expected. She reviews the requirements for the product and discovers that some have changed. She compares the current requirements with the versions of the requirements that were agreed upon at the start of the release.

► Restore an earlier version.

Michael, a QA tester, receives a new build of the banking application currently being developed. He starts to update the relevant tests to meet the needs of the new release. Then the development team sends out notification of a significant problem with the build. Development rolls back to the previous build. Michael decides to check out and revert back to the versions of tests that were used for the previous build and continue testing from there.

► Lock entities for editing.

Robert, a business analyst, wants to update certain functionality for an application. To do this, he needs to update a set of requirements. He requires several days to update the requirements, and doesn't want anyone else to make any changes to the requirements while he is editing them. Robert checks out the relevant requirements, and starts to edit.

Tasks

How to Use Version Control

This task describes how to work with version control in an ALM project. Version control enables you to create and manage ALM entities while maintaining previous versions of those entities.

To learn more about version control, see "Version Control Overview" on page 118.

Note: Version control functionality is available in the following modules: Requirements, Business Models, Test Plan, and Test Resources.

This task includes the following steps:

- "Prerequisites" on page 121
- "Check out an entity" on page 121
- "Undo a checkout - optional" on page 121
- "Check in an entity" on page 122
- "View all checked out entities - optional" on page 122
- "Access version history" on page 123

1 Prerequisites

Verify that version control is enabled for your project. For details on enabling version control, refer to the *HP Application Lifecycle Management Administrator Guide*.


2 Check out an entity

To make changes to an entity in a version control enabled project, the entity must be checked out.

Use one of the following:

- ▶ **Automatic checkout.** When you start editing an entity, ALM displays the Check Out dialog box, enabling you to check out the entity.

To instruct ALM to automatically check out entities that you start editing, without displaying the Check Out dialog box, click **Don't show this again** in the Check Out dialog box.

- ▶ **Manual check out.** Select one or more entities. On the module toolbar, click **Check Out**  .

For user interface details on the Check Out dialog box, see "Check Out Dialog Box" on page 131.


3 Undo a checkout - optional

When an entity is checked out, you can undo the checkout to cancel your changes. Right-click the entity and select **Versions > Undo Check Out**. For more details on the Undo Check Out command, see "Versions Menu and Buttons" on page 126.

4 Check in an entity


When you finish making changes, check in the entity to create a new, updated version available to other users.

Use one of the following:

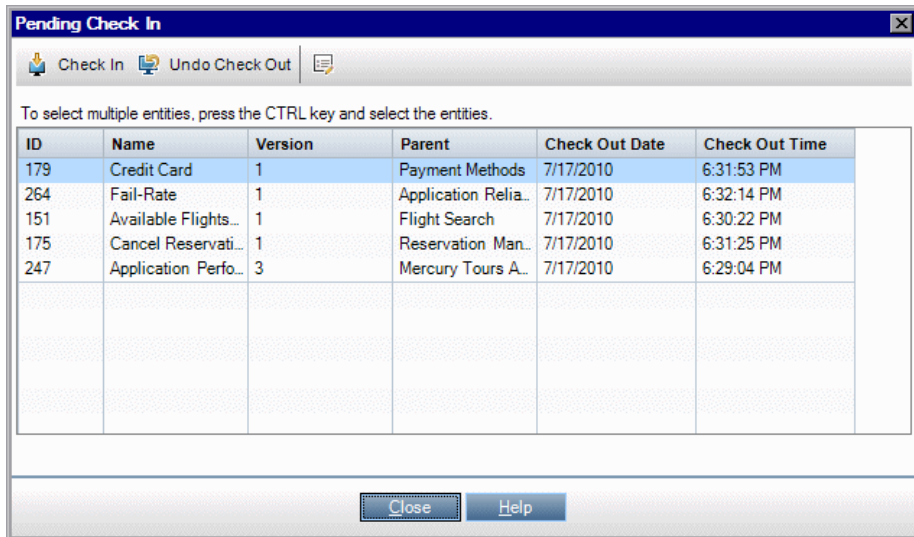
- ▶ **Check in a single entity.** Right-click the entity and select **Versions > Check In**.
- ▶ **Check in multiple entities.** Select the entities. On the module toolbar, click **Check In**  .

For user interface details on the Check In dialog box, see "Check In Dialog Box" on page 130.

5 View all checked out entities - optional

You can view all entities in the current module that you have checked out, and check in or undo the checkout for selected entities. Click the **Check In** button  in the top right corner of the ALM window. For user interface details on the Pending Check In dialog box, see "Pending Check In Dialog Box" on page 132.

Example:



6 Access version history

To view, compare, and check out previous versions of an entity, select the entity and click the **History** tab > **Versions and Baselines** tab. For user interface details, see "Versions and Baselines Tab - Versions View" on page 135.

Example:

The screenshot shows a software application window with the following components:

- Tree View (Left):** A hierarchical tree structure under the 'Name' column. The 'Flight Reservation' folder is selected and highlighted in blue. Other folders include 'Subject', 'Unattached', 'Compiled Modules', 'Completed BPT Tutorial', 'Cruises', 'Flight Application (BPT F...', 'Book Flight', 'Flight Confirmation', 'Flight Cost', 'Flight Finder', 'Select Flight', 'Itinerary', 'Mercury Tours Site', 'Profiling', and 'Temp'.
- Table (Center):** A table titled 'Versions and Baselines' with columns: 'Version', 'Date', 'Modified by', and 'Baselines'. The table contains three rows:

Version	Date	Modified by	Baselines
3	7/17/2010 7:26:42 PM	shelly_alm	
2	7/17/2010 7:25:52 PM	alex_alm	
1	2/7/2009 9:40:03 AM	alex_alm	
- Buttons (Right):** Three buttons are visible: 'View', 'Compare', and 'Check Out'.
- Comment Field (Bottom):** A text area labeled 'Comment for selected version:' with the text 'Editing after review' entered.

How to Filter by Version Control Fields

This task describes how to filter ALM data to display only checked out entities in the Requirements, Business Models, Test Plan, Test Resources, and Test Lab modules. The following table describes how to set the filter conditions:

Filter Description	Filter Conditions for the Test Plan Module	Filter Conditions for All Other Modules
Display all entities that you have checked out	Version Status=Checked Out and Version Owner=<your user name>	Version Checked Out By=<your user name>
Display all entities checked out by another user	Version Status=Checked Out and Version Owner=<other user's user name>	Version Checked Out By=<other user's user name>

For details on defining filters, see "Filter Dialog Box" on page 60.

Reference

Non-versioned Fields

When you are working with version control, changes made to some fields in ALM entities are not stored in previous versions of the entities.

Changes to the following fields are not stored under version control:

Entity	Fields
Requirements	<ul style="list-style-type: none"> ▶ Reviewed ▶ Direct Cover Status ▶ Target Release ▶ Target Cycle ▶ All RBQM fields.
Tests	Execution Status

Consider the following when working with non-versioned fields in a version control enabled project:

Action	Result
Undo a checkout	Any changes you made to non-versioned fields while the entity was checked out are not cancelled and the new values remain.
Checkout a previous version	The value of a non-versioned field is the value in the currently checked in version.
View and compare previous versions	Non-versioned fields are displayed with the value Non-versioned Field .

Version Control User Interface

This section includes:



- ▶ Versions Menu and Buttons on page 126
- ▶ Version Control Fields on page 127
- ▶ Check In Dialog Box on page 130
- ▶ Check Out Dialog Box on page 131
- ▶ Pending Check In Dialog Box on page 132
- ▶ Versions and Baselines Tab - Versions View on page 135

Versions Menu and Buttons

The Versions menu and version control toolbar buttons are available in a version control enabled project.

To access	Available from the menu bar or toolbar of the following modules: Requirements, Business Models, Business Components, Test Plan, and Test Resources.
Relevant tasks	"How to Use Version Control" on page 120
See also	"Version Control Overview" on page 118

User interface elements are described below:

UI Elements (A-Z)	Description
 Check In	Opens the Check In dialog box, enabling you to check in selected entities. For details, see "Check In Dialog Box" on page 130.
 Check Out	Opens the Check Out dialog box, enabling you to check out selected entities. For details, see "Check Out Dialog Box" on page 131.

UI Elements (A-Z)	Description
Pending Check In	Opens the Pending Check In dialog box, enabling you to view a list of all entities in the current module that you have checked out. For details, see "Pending Check In Dialog Box" on page 132.
Undo Check Out	<p>Cancels the check out of selected entities and discards changes.</p> <p>To undo checkouts for entities checked out by other users, you must have the appropriate user permissions. For more information, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>.</p> <p>When you undo a checkout, any changes you made to non-versioned fields while the entity was checked out are not cancelled and the new values remain. For details, see "Non-versioned Fields" on page 125.</p>
Warn Before Check Out	Instructs ALM to display a confirmation message before automatically checking out an entity. For details, see "Check Out Dialog Box" on page 131.

Version Control Fields

This section describes the version control fields available in the ALM modules.

To access	On the ALM sidebar, select Requirements, Business Models, Business Components, Test Plan, or Test Resources.
Relevant tasks	"How to Use Version Control" on page 120
See also	"Version Control Overview" on page 118

Requirements Module

The Requirements module displays the following additional fields if version control is enabled:

UI Elements (A-Z)	Description
Version Check Out Date	The date the version was checked out.
Version Check Out Time	The time the version was checked out.
Version Checked Out By	The name of the user who checked out the version.
Version Number	The version number.
Version Status	The status of the version (Checked Out or Checked In).

Business Models Module

The Business Models module displays the following additional fields if version control is enabled:

UI Elements (A-Z)	Description
Version Check Out Date	The date the version was checked out.
Version Check Out Time	The time the version was checked out.
Version Checked Out By	The name of the user who checked out the version.
Version Number	The version number.
Version Status	The status of the version (Checked Out or Checked In).

Test Plan Module

The Test Plan module displays the following additional fields if version control is enabled:

UI Elements (A-Z)	Description
Version Date	The date of the last action (check in or check out) performed for the version.
Version Number	The version number.
Version Owner	The name of the user who performed the last action (check in or check out).
Version Status	The status of the version (Checked Out or Checked In).
Version Time	The time of the last action (check in or check out) performed for the version.

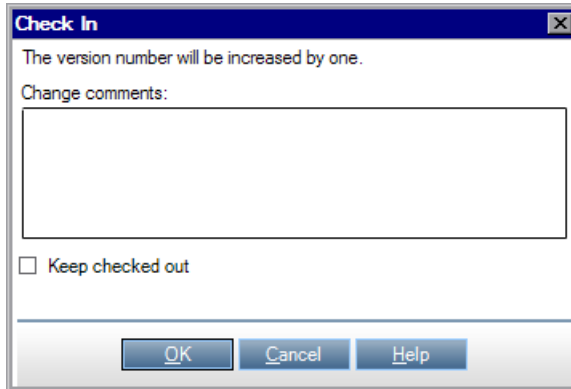
Test Resources Module

The Test Resources module displays the following additional field if version control is enabled:

UI Elements	Description
Version Number	The version number of the resource.

Check In Dialog Box

This dialog box enables you to check in one or more checked out entities in a version control enabled project. The new version is then available to other users.



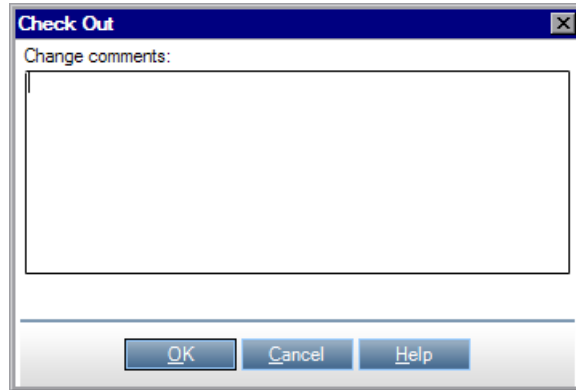
To access	Right-click an entity and select Versions > Check In . Available from the following modules: Requirements, Business Models, Business Components, Test Plan, and Test Resources.
Important information	The version number assigned to a new entity is 1. When an entity is checked in, the version number is increased by one.
Relevant tasks	"How to Use Version Control" on page 120
See also	"Version Control Overview" on page 118



User interface elements are described below:

UI Elements (A-Z)	Description
Change comments	Describes the changes that were made to this version.
Keep checked out	Stores your changes with the new version number while keeping the entity checked out.

Check Out Dialog Box

This dialog box enables you to check out one or more entities in a version control enabled project to make changes to the entities.



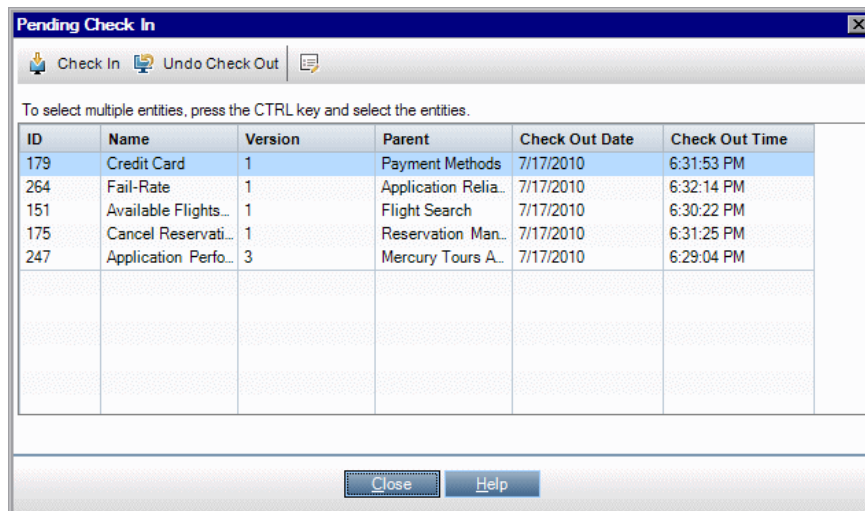
To access	<p>Use one of the following:</p> <ul style="list-style-type: none"> ▶ Select an entity and start to edit. The Check Out dialog box opens automatically. ▶ Right-click an entity and select Versions > Check Out. ▶ Select an entity and click the History tab > Versions and Baselines tab. Select a version and click Check Out. <p>Available from the following modules: Requirements, Business Models, Business Components, Test Plan, and Test Resources.</p>
Important information	<p>In the tree view, checked out entities are indicated by the following icons:</p> <ul style="list-style-type: none"> ▶ An entity checked out by the current user is displayed with an open green lock icon . ▶ An entity checked out by another user is displayed with a red lock icon .
Relevant tasks	"How to Use Version Control" on page 120
See also	"Version Control Overview" on page 118

User interface elements are described below:

UI Elements (A-Z)	Description
Change comments	Describes the reason for the checkout.
Don't show this again	Instructs ALM to automatically check out entities that you start editing, without requesting confirmation. This option is available when an entity is checked out automatically.




Pending Check In Dialog Box

This dialog box enables you to view all entities in the current module that you have checked out, and check in or undo the check out for selected entities.



To access	<p>Use one of the following:</p> <ul style="list-style-type: none"> ▶ Click the Check In button in the top right corner of the ALM window. ▶ From a module menu bar, select Versions > Pending Check In. <p>Available from the following modules: Requirements, Business Models, Business Components, Test Plan, and Test Resources.</p>
Relevant tasks	"How to Use Version Control" on page 120
See also	"Version Control Overview" on page 118

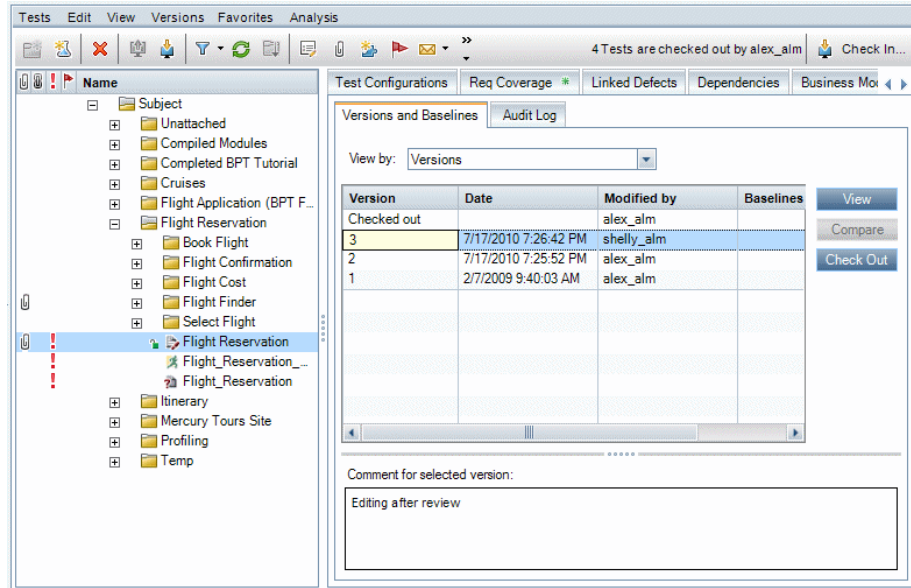
User interface elements are described below (unlabeled elements are shown in angle brackets>):

UI Elements (A-Z)	Description
 Check In	<p>Opens the Check In dialog box, enabling you to check in selected entities. For details, see "Check In Dialog Box" on page 130.</p>
 Undo Check Out	<p>Cancels the check out of selected entities and discards changes.</p> <p>When you undo a checkout, any changes you made to non-versioned fields while the entity was checked out are not cancelled and the new values remain. For details, see "Non-versioned Fields" on page 125.</p>
	<p>Details. Opens a Details dialog box, displaying details for the selected entity. Click a button on the sidebar to view additional details, such as Design Steps, Test Script and Attachments. The buttons available depend on the data available for the particular entity type.</p>

UI Elements (A-Z)	Description
<grid>	<p>Displays a list of entities that you have checked out in the current module.</p> <p>You can perform the following actions on the grid:</p> <ul style="list-style-type: none"> ▶ To select multiple entities, press the CTRL key and select the entities. ▶ To select all entities, right-click and select Select All. ▶ To rearrange columns, drag the column headers.
Check Out Date	The date the version was checked out.
Check Out Time	The time the version was checked out.
ID	The unique numeric ID for the entity, assigned automatically by ALM.
Name	The name of the checked out entity.
Parent	The name of the entity one hierarchical level above the selected entity in the tree structure.
Version	<p>The version number of the checked out entity.</p> <p>The version number assigned to a new entity is 1. When an entity is checked in, the version number is increased by one.</p>

Versions and Baselines Tab - Versions View


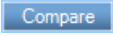

This view displays version history for a selected entity in a version control enabled project.



<p>To access</p>	<p>Click the History tab > Versions and Baselines tab. In the View by box, select Versions.</p> <p>Available from the following modules: Requirements, Business Models, Business Components, Test Plan, and Test Resources.</p>
<p>Important information</p>	<ul style="list-style-type: none"> ▶ To maintain usability and data integrity, ALM stores previous versions of an entity without most data related to relationships between entities. The following data is not stored for previous versions: requirements and tests coverage, requirements traceability, and defect linkage. In addition, risk data is also not stored for previous versions of an entity. ▶ Changes to some fields are not stored under version control. For details, see "Non-versioned Fields" on page 125.

Relevant tasks	"How to Use Version Control" on page 120
See also	<ul style="list-style-type: none"> ▶ "Version Control Overview" on page 118 ▶ "Baselines Tab" on page 278

User interface elements are described below:

UI Elements (A-Z)	Description
	Opens a Details dialog box, displaying read-only details for the selected version. Click a button on the sidebar to view additional details for the version, such as the Design Steps, Test Script and Attachments. The buttons available depend on the data stored under version control for the particular entity type.
	<p>Opens the Compare Entities dialog box, enabling you to compare two selected versions. For details, see "Compare Entities Dialog Box" on page 272.</p> <p>To compare two versions, press the CTRL key and select the versions. Then click the Compare button.</p>
	Opens the Check Out dialog box, enabling you to check out the selected version. For details, see "Check Out Dialog Box" on page 131.
Baseline	The baseline in which the version appears.
Comment for selected version	The comments typed by the user when checking in the version.
Date	The date the version was created.
Modified By	The user who created the version.

UI Elements (A-Z)	Description
Version	<p>The version number. If the entity is currently checked out, the Version column for the checked out version displays Checked out.</p> <p>The default version number for a new entity is 1.</p>
View by	<p>Enables you to select one of the following options for viewing history:</p> <ul style="list-style-type: none">▶ Versions. Displays version history for the selected entity.▶ Baselines. Displays all versions of the selected entity that are stored in a baseline. For details, see "Baselines Tab" on page 278.

7

ALM Editions

This chapter includes:

Reference

- ▶ ALM Functionality by Edition on page 140

Reference

ALM Functionality by Edition

HP Application Lifecycle Management (ALM) is also available in three editions which provide subsets of ALM functionality — HP Quality Center Starter Edition, HP Quality Center Enterprise Edition, and HP ALM Performance Center Edition.

HP ALM Edition	Description
HP ALM	Complete HP ALM functionality, providing core functionality for managing the Application Lifecycle and scalable Quality Management for mature organizations and Centers of Excellence (CoE) involved with managing enterprise releases.
HP Quality Center Starter Edition	For quality management teams managing small releases.
HP Quality Center Enterprise Edition	For quality management teams managing medium to large releases.
HP ALM Performance Center Edition	For managing all aspects of large-scale performance testing projects.

The following table indicates the availability of ALM functionality according to editions. Further information on each function is provided below.

Functionality	HP ALM	HP Quality Center Starter Edition	HP Quality Center Enterprise Edition	HP ALM Performance Center Edition
Licensing	✓	partial ✓	✓	✓
Modules	✓	some exclusions ✓	✓	some exclusions ✓
Point and Click Installation	✗	✓	✗	✗
Release Management	✓	✗	✓	✓
Project Planning and Tracking (PPT) Releases	✓	✗	✗	✗
Multiple Requirement Types	✓	✗	✓	✓
Requirement to Requirement Traceability	✓	✗	✓	✓
Risk-based Quality Management	✓	✗	✓	✓
Business Models Module	✓	✗	✓	✗
Test Resources	✓	✓	✓	partial ✓
HP Sprinter	✓	✗	✓	✗

Functionality	HP ALM	HP Quality Center Starter Edition	HP Quality Center Enterprise Edition	HP ALM Performance Center Edition
Versioning	✓	✓ single entity	✓	✓
Sharing Requirements and Tests	✓	✗	✗	✓
Sharing Defects	✓	✗	✗	✓
Cross Project Customization	✓	✗	✗	✓
Cross Project Reporting	✓	✗	✗	partial ✓
Excel Reporting	✓	✓	✓	partial ✓
Business Process Testing	✓	✓ up to five	✓	✗
Extra Options	✓	✗	✓	✗
Upgrading Editions	—	✓	✓	✓

Licensing

ALM licensing is determined according to your purchase agreement. Quality Center Starter Edition enables a maximum of five concurrent licenses to ALM modules (excluding Performance Center specific modules), an additional five licenses to the Defects module, and a maximum of five Business Process Testing licenses.

ALM Performance Center Edition enables a maximum of five concurrent licenses each to the Requirements and Defects modules.

The site administrator can monitor the license usage from Site Administration. For more details, see the *HP Application Lifecycle Management Administrator Guide*.

Modules

- ▶ ALM enables access to all modules and functionality.
- ▶ Quality Center Enterprise Edition enables access to all ALM modules, with the exclusion of Performance Center modules.
- ▶ Quality Center Starter Edition allows for access to the following modules: Requirements, Test Plan, Test Resources, Test Lab, Defects, Dashboard, and Business Process Testing (BPT).
- ▶ Performance Center Edition allows for access to the following modules: Releases, Libraries, Requirements, Test Plan, Test Resources, Test Lab, Defects, and Dashboard.

Point and Click Installation

ALM, Quality Center Enterprise Edition, and ALM Performance Center Edition require a full installation over a supported database.

Quality Center Starter Edition is installed on Windows XP or Windows 2009 with a simple point and click wizard. This includes automatic installation of a JBoss application server, JBoss web server, and SQL 2005 Express.

For more details on installation and supported environments, see the *HP Application Lifecycle Management Installation Guide*.

Release Management

You organize and track your upcoming releases in the Releases module. Quality Center Starter Edition does not support release management. If you are working with this edition, fields and commands related to cycles and releases are not available. For example, Target Cycle and Target Release are not available.

For more details on the Releases module, see "Releases and Cycles Overview" on page 152.

Project Planning and Tracking (PPT) Releases

ALM project planning and tracking (PPT) functionality enables quality assurance managers to track application readiness by defining goals for activities of an application release. PPT is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or ALM Performance Center Edition.

For more details on PPT releases, see Chapter 9, "Project Planning and Tracking (PPT) Releases."

Multiple Requirement Types

ALM includes support for multiple requirement types. Quality Center Starter Edition does not support multiple requirement types.

For more details on requirement types, see "Requirements Module Fields" on page 347.

Requirement to Requirement Traceability

ALM includes support for defining links between requirements. Quality Center Starter Edition does not support requirements traceability.

For more details on requirements traceability, see Chapter 14, "Requirements Traceability."

Risk-based Quality Management

ALM enables you to implement risk-based quality testing. In the Quality Center Starter Edition, the Risk tab is unavailable in the Requirements module. In addition, any risk related fields are not available.

For more details on risk-based quality management, see Chapter 16, "Risk-Based Quality Management."

Business Models Module

ALM and Quality Center Enterprise Edition include the Business Models module, that enables you to import business process models from standard modeling tools, and test their quality in ALM. The Business Models module is not available in Quality Center Starter Edition or ALM Performance Center Edition.

For more details on the Business Models module, see Chapter 17, "Business Process Models."

Test Resources

All editions include the Test Resources module for managing resources used by your tests. ALM Performance Center Edition supports a subset of test resource types.

For more details, see Chapter 25, "Test Resources."

HP Sprinter

ALM and Quality Center Enterprise Edition enable manual testing with HP Sprinter. Sprinter provides enhanced functionality and a variety of tools to assist in the manual testing process. Sprinter is not available for Quality Center Starter Edition or ALM Performance Center Edition.

For more details on Sprinter, see "Sprinter Overview" on page 760.

Versioning

All editions allow for single entity versioning of your ALM projects. For more details, see Chapter 6, "Version Control."

ALM, Quality Center Enterprise Edition, and ALM Performance Center Edition also include baselining of multiple entities in a library. For more details, see Chapter 10, "Libraries and Baselines."

Sharing Requirements and Tests

The ALM Libraries module enables you to create and compare baselines of requirements, tests, test resources, and business components. You can also reuse an existing set of entities by importing, synchronizing and comparing libraries across multiple projects.

- ▶ Quality Center Starter Edition: The Libraries module is unavailable.
- ▶ Quality Center Enterprise Edition: You can use the Libraries module to create and compare baselines in a project. Quality Center Enterprise Edition does not include importing, synchronizing and comparing libraries across multiple projects.

For more details on the Libraries module, see "Libraries Module Window" on page 253.

Sharing Defects

You can share and synchronize defects across multiple ALM projects using the *HP ALM Synchronizer*. Defect sharing is not available for Quality Center Starter Edition or Quality Center Enterprise Edition.

For more details, see the *HP ALM Synchronizer User Guide*, available from the HP Application Lifecycle Management Add-ins page.

Cross Project Customization

ALM includes cross project customization, enabling you to work with template projects. Cross project customization is not available for Quality Center Starter Edition or Quality Center Enterprise Edition.

For more details, see the *HP Application Lifecycle Management Administrator Guide*.

Cross Project Reporting

When you create graphs in ALM, you can combine and compare data from multiple projects. Cross project reporting is unavailable for entities specific to Performance Center only, such as hosts and timeslots. Cross project reporting is not available for Quality Center Starter Edition or Quality Center Enterprise Edition.

For more details on the ALM reports and graphs, see "Analysis View Window" on page 879.

Excel Reporting

All editions enable exporting ALM data to Excel for reporting. Excel reporting is unavailable for entities specific to Performance Center only, such as hosts and timeslots.

For more details, see Chapter 38, "Excel Reports."

Business Process Testing

Quality Center Starter Edition enables a maximum of five Business Process Testing licenses. Business Process Testing is not available for ALM Performance Center Edition.

For more information on Business Process Testing, refer to the *HP Business Process Testing User Guide*.

Extra Options

The following extra options are available with ALM and Quality Center Enterprise Edition: Service Test Management (STM) and Change Impact Testing (CIT).

Upgrading Editions

You can upgrade your HP ALM 11.00 edition to another edition. For more information on upgrading, refer to the *HP Application Lifecycle Management Installation Guide*.

Part II

Management

ALM Editions:

- ▶ The Releases module is not available for Quality Center Starter Edition.
 - ▶ Functionality related to PPT is not available for Quality Center Starter Edition and Quality Center Enterprise Edition.
 - ▶ The Libraries module is not available with Quality Center Starter Edition. Quality Center Enterprise Edition includes some Libraries module functionality.
-

8

Releases and Cycles

This chapter includes:

Concepts

- ▶ Releases and Cycles Overview on page 152

Tasks

- ▶ How to Use Releases and Cycles in ALM on page 154

Reference

- ▶ Releases and Cycles User Interface on page 163

Concepts

Releases and Cycles Overview

Quality Center Starter Edition: The Releases module is not available.

The issuing of application releases is often challenging. It requires aligning your business priorities and quality expectations with your project requirements, tests, and defects. Most applications require testing on multiple hardware platforms, multiple configurations (computers, operating systems, and browsers), and multiple application versions. Managing all aspects of an application release can be time-consuming and difficult. You begin the application management process by defining releases.

HP Application Lifecycle Management (ALM) enables you to organize and track your upcoming releases by defining releases and cycles. A **release** represents a group of changes in one or more applications that will be available for distribution at the same time. Each release can contain a number of cycles. A **cycle** is a set of development and quality assurance efforts performed to achieve a common goal based on the release timeline. Both releases and cycles have defined start and end dates.

After defining releases and cycles, you define and review requirements and assign them to releases and cycles. **Requirements** describe in detail your application needs, and are used as a basis for creating a test plan. The tests you create during the test plan phase should cover these requirements.

After assigning requirements to releases and cycles, you create test set folders and assign them to cycles. A **test set** is a group of test instances in an ALM project designed to achieve specific test goals. After assigning test set folders to a cycle, you run the test sets under these test set folders.

If an application flaw is detected while running a test set, you can submit a defect. ALM automatically creates a link between the test run, associated release and cycle, and the new defect.

A defect can be submitted to an ALM project from any module at any stage of the application management process. While reviewing and deciding which new defects need to be fixed, the defects can be assigned to the appropriate release and cycle.

Following test runs, you can review the test progress to determine how well it meets the release goals. You can also determine how many defects were resolved, and how many still remain open. The results can be analyzed at a release or at a cycle level.

You can track the progress of the application management process in real time by analyzing the releases tree and ensuring that it matches the release goals.

For related task details, see "How to Use Releases and Cycles in ALM" on page 154.

Tasks

How to Use Releases and Cycles in ALM

This task describes how to create and track releases and cycles. To learn more about releases and cycles, see "Releases and Cycles Overview" on page 152.

You can also use Project Planning and Tracking (PPT) to track your application releases. PPT helps you make more informed release decisions using real-time key performance indicators (KPIs). For task details on working with PPT, see "How to Work with PPT" on page 193.

Note:

- **Quality Center Starter Edition:** The Releases module is not available.
 - **Use-case:** For a use-case scenario related to this task, see "Work with Releases and Cycles - Use-Case Scenario" on page 157.
 - **Higher-level task:** This task is part of a higher-level task. For details, see "Application Lifecycle Management Roadmap" on page 26.
-

This task includes the following steps:

- "Define releases and cycles" on page 155
- "Assign requirements" on page 155
- "Assign and run test sets" on page 155
- "Assign defects" on page 156
- "Analyze releases and cycles" on page 156

1 Define releases and cycles

Define releases and cycles in a hierarchical releases tree.

- a Open the Releases module.** On the ALM sidebar, under **Management**, select **Releases**.
- b Create folders.** Right-click the **Releases** root folder and select **New Release Folder**. To create a sub-folder, right-click a folder and select **New Release Folder**.
- c Add releases to folders.** Right-click a folder or sub-folder and select **New Release**. Fill in fields in the New Release dialog box. For user interface details, see "New Release/Release Details Dialog Box" on page 174.
- d Add cycles to a release.** Right-click a release and select **New Cycle**. Fill in fields in the New Cycle dialog box. For user interface details, see "New Cycle/Cycle Details Dialog Box" on page 177.

2 Assign requirements

In the Requirements module, assign requirements to releases and cycles.

- **Assign to release.** Right-click a requirement and select **Assign to Release**. For user interface details on the Select Releases dialog box, see "Select Releases Dialog Box" on page 187.
- **Assign to cycle.** Right-click a requirement and select **Assign to Cycle**. For user interface details on the Select Cycles dialog box, see "Select Cycles Dialog Box" on page 185.

3 Assign and run test sets

In the Test Lab module, assign test sets folders to cycles, and then run the test sets.

- a Assign to cycles.** Right-click a test set folder and select **Assign to Cycle**. For user interface details on the Select Cycles dialog box, see "Select Cycles Dialog Box" on page 185.
- b Run tests.** For task details on running tests, see "How to Run Tests in ALM" on page 684.

4 Assign defects

Assign defects to a target release and a target cycle. For task details, see "How to Track Defects in ALM" on page 831.

5 Analyze releases and cycles

View statistics and graphs to track the progress of your releases and cycles.

a View assigned requirements and test set folders.

To view statistics on the requirements and test set folders assigned to your releases and cycles, in the Releases module, select a release or cycle and click the **Details** tab. In the **Statistics** area, view statistics on assigned requirements and test set folders. For user interface details on the Releases module window, see "Releases Module Window" on page 164.

b View coverage progress.

View statistics and graphs which provide visual indications of the current progress of your release or cycle.

- **For a release:** Select a release in the releases tree, click the **Status** tab, and then click the **Progress** tab.
- **For a cycle:** Expand a release in the releases tree, select a cycle, and click the **Progress** tab.

For user interface details, see "Progress Tab" on page 180.

c View defects.

View graphs in the Releases module displaying the number of defects submitted over the course of a release or cycle.

- **For a release:** Select a release in the releases tree, click the **Status** tab, and then click the **Quality** tab.
- **For a cycle:** Expand a release in the releases tree, select a cycle, and click the **Quality** tab.

For user interface details, see "Quality Tab" on page 183.

Work with Releases and Cycles - Use-Case Scenario

This use-case scenario describes the release management workflow.

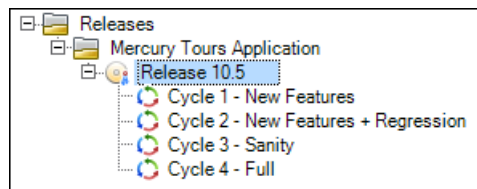
Note: For a task related to this scenario, see "How to Use Releases and Cycles in ALM" on page 154.

This scenario includes the following steps:

- "Define releases and cycles" on page 155
- "Assign Requirements" on page 158
- "Assign and Run Test Sets" on page 158
- "Assign Defects" on page 159
- "Analyze Releases and Cycles" on page 160

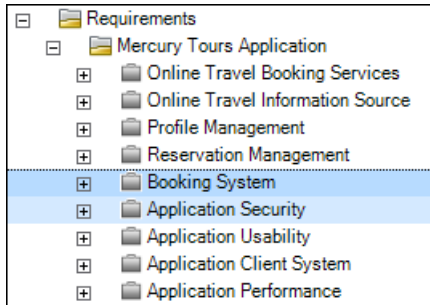
1 Define Releases and Cycles

Suppose you are developing a flight reservation application. In four months, you plan on releasing version 10.5. Your release includes four cycles. The first cycle is for testing new features. The second cycle is for regression testing. The third cycle is for sanity testing. The fourth cycle verifies the full functionality of the application. Your releases tree may be defined as follows:



2 Assign Requirements

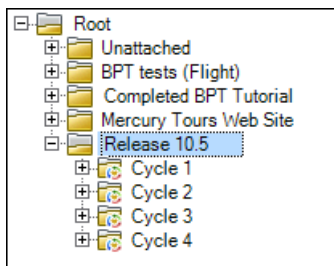
In the Requirements module, you decide which requirements need to be covered in each cycle and assign them to the relevant cycles accordingly. For example, in the requirements tree, under the **Mercury Tours Application** folder, you might assign **Booking System** and **Application Security** to the **Cycle 1 - New Features** cycle in the **Release 10.5** release.



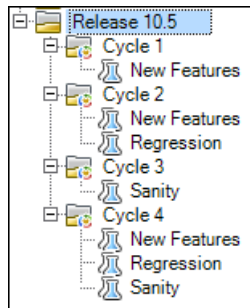
Requirements are then used as a basis for the test plan in the Test Plan module. You create tests and associate them with the assigned requirements to create coverage.

3 Assign and Run Test Sets

In the Test Lab module, you create test set folders and assign them to specific cycles. For this example, you might define the Cycle 1, Cycle 2, Cycle 3, and Cycle 4 test set subfolders:



For each assigned test set folder, you then create test sets and add tests to them, for example:



4 Assign Defects

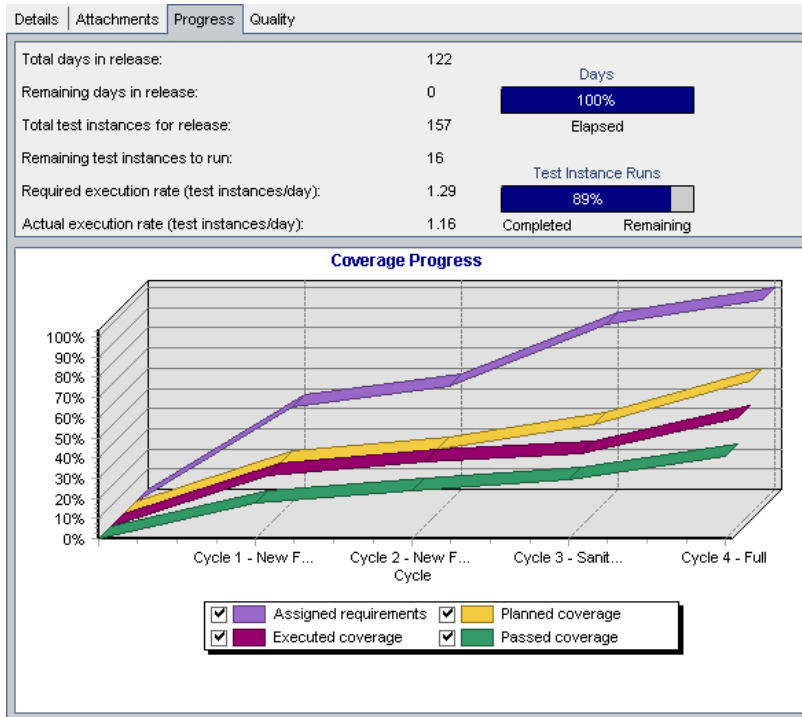
A defect is detected while running a test instance from a test set in the **Cycle 1** test set folder. When the defect is initially submitted to the project, the **Detected in Release** field is assigned to the **Release 10.5** release, and the **Detected in Cycle** field is assigned to the **Cycle 1 - New Features** cycle.

Continuing with this example, suppose this defect is planned to be fixed in the next cycle. The **Target Release** field would be assigned to **Release 10.5**, and the **Target Cycle** field would be assigned to **Cycle 2 - New Features + Regression**.

5 Analyze Releases and Cycles

After running the test sets from the assigned test set folders, you can review the progress in the Progress tab of the Releases module to determine how well it meets your release goals. This provides you with a high-level overview of the progress of your release.

The following shows the progress in the Release 10.5 example:



The top pane shows the total and remaining days in the release, total test instances for the release, actual and remaining test instances to run, and more.

The bottom pane displays the Coverage Progress graph. The curves displayed in this graph are accumulative, that is, each curve is calculated by accumulating all the release information from the beginning of the release.

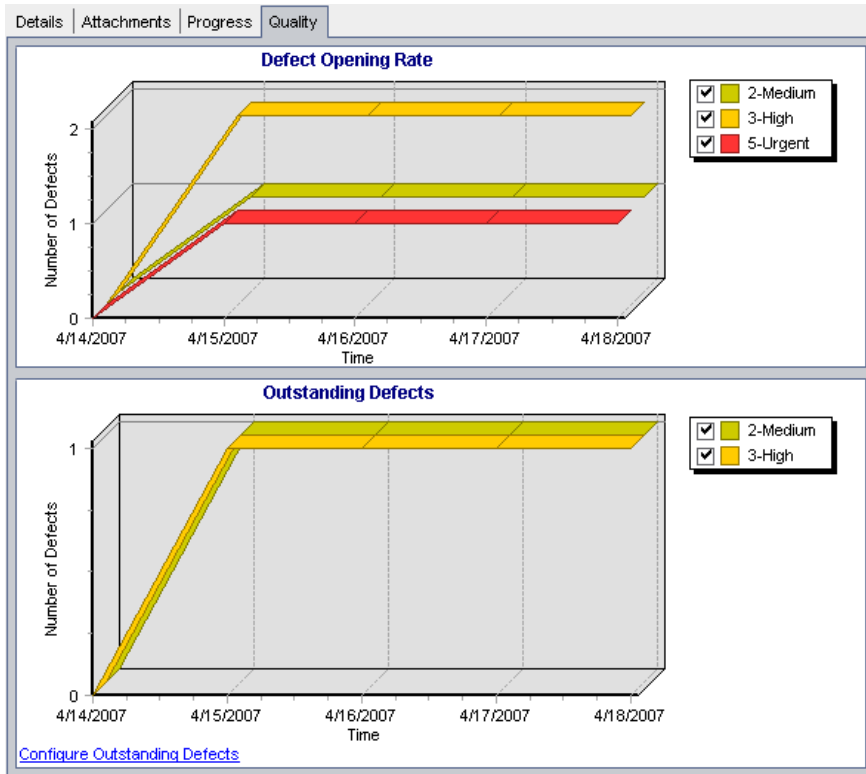
The **Assigned requirements** curve indicates the distribution of the assigned requirements within the release's cycles. In this example, the curve indicates a 100% value in the **Cycle 4 - Full** cycle.

The **Planned coverage** curve below the Assigned requirements curve indicates the percentage of requirements that are covered throughout the release. In this example only 60% of the requirements are covered in the **Cycle 4 - Full** cycle.

The **Executed coverage** curve below the Planned coverage curve indicates the percentage of tests that were run as the release progressed. In this example, the curve indicates that at **Cycle 4 - Full** only 40% of the assigned tests were run.

The **Passed coverage** curve is below the Executed coverage curve. It indicates the test runs in which the most recent status is passed. In this example, the curve indicates a 20% value in the **Cycle 4 - Full** cycle.

For each cycle, you can view the number of defects submitted and their severity in the Quality tab. Suppose that while running the **Cycle 1** test set under the **Release 10.5** test set folder, four application flaws are detected. In the Releases tree, you would select **Cycle 1 - New Features** cycle and click the Quality tab to view the number of defects opened over the course of the cycle. The defects are categorized by severity level, ranging from **1-Low** to **5-Urgent**.



In the Defect Opening Rate graph, you can see that out of the four defects detected while testing the first cycle, two defects are assigned a severity value of **3-High**, one defect is assigned **5-Urgent**, and one defect is assigned **2-Medium**.

In the Outstanding Defects graph, you can see that two out of the four defects are still outstanding. One defect is assigned **2-Medium** the other defect is assigned **3-High**.

Reference

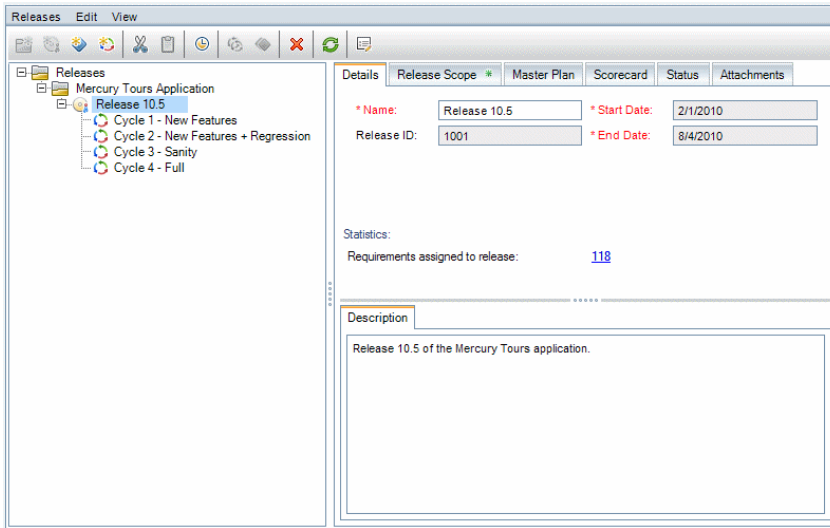
Releases and Cycles User Interface

This section includes:

- ▶ Releases Module Window on page 164
- ▶ Releases Module Menus and Buttons on page 166
- ▶ Releases Module Icons on page 171
- ▶ Releases Module Fields on page 172
- ▶ New Release/Release Details Dialog Box on page 174
- ▶ New Cycle/Cycle Details Dialog Box on page 177
- ▶ Progress Tab on page 180
- ▶ Quality Tab on page 183
- ▶ Select Cycles Dialog Box on page 185
- ▶ Select Releases Dialog Box on page 187
- ▶ Reschedule Release/Cycle/Milestone Dialog Box on page 188

Releases Module Window

This window enables you to define and track releases and cycles.



To access	On the ALM sidebar, under Management, select Releases .
Important information	Quality Center Starter Edition: The Releases module is not available.
Relevant tasks	"How to Use Releases and Cycles in ALM" on page 154
See also	"Releases and Cycles Overview" on page 152

User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements (A-Z)	Description
<Releases module common UI elements>	<ul style="list-style-type: none"> ▶ Release fields. For field definitions, see "Releases Module Fields" on page 172. ▶ Release menus and buttons. For command and button descriptions, see "Releases Module Menus and Buttons" on page 166. ▶ Release icons. For icon descriptions, see "Releases Module Icons" on page 171. ▶ ALM main menu and sidebar. For details on the Tools menu, Help menu and sidebar, see "ALM Common Areas" on page 40.
<Releases tree>	A graphical representation of your releases.
Attachments tab	Lists attachments that provide additional information about the currently selected folder, release, or cycle. For more details, see "Attachments Page" on page 86.
Description tab	Describes the currently selected folder, release, or cycle. Click in the text box to display a toolbar for formatting and spell checking the text.
Details tab	Displays details of the currently selected folder, release, or cycle. The Statistics area displays the requirements and test set folders associated with the release or cycle. For more details, see "Releases Module Fields" on page 172.
Master Plan tab	Shows the progress of a release in a Gantt chart. For more details, see "Master Plan Tab" on page 224. ALM Editions: This tab is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.



UI Elements (A-Z)	Description
Release Scope tab	Shows the release scope items of the currently selected release. For more details, see "Release Scope Tab" on page 205. ALM Editions: This tab is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.
Scorecard tab	Shows a KPI scorecard of the status of the currently selected release. For more details, see "Scorecard Tab" on page 228. ALM Editions: This tab is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.
Status tab	Includes the following tabs: <ul style="list-style-type: none"> ▶ Progress tab. Shows a high-level overview of the progress of the currently selected release or cycle. For more details, see "Progress Tab" on page 180. ▶ Quality tab. Shows the number of defects opened over the course of the currently selected release or cycle. It also shows the number of outstanding defects. For more details, see "Quality Tab" on page 183.




Releases Module Menus and Buttons





This section describes the menus and buttons available in the Releases module.




To access	On the ALM sidebar, under Management, select Releases .
Important information	Quality Center Starter Edition: The Releases module is not available.
Relevant tasks	"How to Use Releases and Cycles in ALM" on page 154
See also	<ul style="list-style-type: none"> ▶ "Releases Module Icons" on page 171 ▶ "Releases Module Window" on page 164 ▶ "Releases and Cycles Overview" on page 152

User interface elements are described below:

UI Elements (A-Z)	Menu	Description
Collapse	View	Collapses all branches in the releases tree.
 Cut/Paste	Edit	<p>Moves a selected release folder or release to a different location in the releases tree.</p> <p>Note: Moving a release folder also moves its releases and cycles. Moving a release also moves its cycles. The root folder cannot be moved.</p> <p>Tip: You can also move a release folder or a release to a new location in the releases tree by dragging it.</p>
 Delete	Edit	<p>Deletes selected release folders, releases, or cycles. Deleting a folder also deletes its releases and cycles. Deleting a release also deletes its cycles.</p> <p>Note: Deleting a release folder, release, or cycle also unassigns the associated requirements, test set folders, and defects.</p>

UI Elements (A-Z)	Menu	Description
 Details	Releases	<p>Opens the corresponding Details dialog box, enabling you to view and update details of the selected release, cycle, or milestone.</p> <p>For more details, see:</p> <ul style="list-style-type: none"> ➤ "New Release/Release Details Dialog Box" on page 174 ➤ "New Cycle/Cycle Details Dialog Box" on page 177 ➤ "Milestone Details Dialog Box" on page 226 <p>ALM Editions: Milestones are not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.</p>
 Duplicate Cycle	Edit	<p>Creates a copy of the selected cycle within the same release.</p> <p>To duplicate more than one cycle, press the CTRL key and select the cycles you want to duplicate. You can select only cycles that belong to the same release.</p>
 Duplicate Milestone	Edit	<p>Creates a copy of the selected milestone within the same release.</p> <p>To duplicate more than one milestone, press the CTRL key and select the milestones you want to duplicate. You can select only milestones that belong to the same release.</p> <p>ALM Editions: This feature is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.</p>

UI Elements (A-Z)	Menu	Description
Expand All	View	Expands all branches in the releases tree.
 New Cycle	Releases	<p>Opens the New Cycle dialog box, enabling you to add a cycle to a selected release. For more details, see "New Cycle/Cycle Details Dialog Box" on page 177.</p>
 New Milestone	Releases	<p>Opens the New Milestone dialog box, enabling you to add a milestone to a selected release. For more details, see "New Milestone Dialog Box" on page 210.</p> <p>ALM Editions: This feature is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.</p>
 New Release/ New Empty Release	Releases	<p>Opens the New Release dialog box, enabling you to add a release to a selected release folder. For more details, see "New Release/Release Details Dialog Box" on page 174.</p> <p>Note: When working with a project that is linked to a template project, the New Empty Release option is available instead of the New Release option.</p> <p>ALM Editions: New Empty Release is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.</p>
 New Release Folder	Releases	<p>Opens the New Release Folder dialog box, enabling you to add a folder under a selected folder.</p>

UI Elements (A-Z)	Menu	Description
 New Release From Template	Releases	<p>Opens the New Release from Template dialog box, enabling you create a release based on a release from a template project. For more details, see "New Release From Template Dialog Box" on page 238.</p> <p>ALM Editions: This option is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.</p> <p>Note: This option is available in a project that is linked and synchronized with a template project.</p>
Rename	Edit	<p>Renames a selected release folder, release, or cycle. You cannot rename the root folder.</p>
 Refresh All	View	<p>Refreshes the releases tree so that it displays the most up-to-date information.</p>
 Reschedule	Releases	<p>Opens the Reschedule dialog box, enabling you to reschedule the start and end date of a release, cycle, or milestone. For more details, see "Reschedule Release/Cycle/Milestone Dialog Box" on page 188.</p> <p>ALM Editions: The capability to reschedule milestones is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.</p>




UI Elements (A-Z)	Menu	Description
Show Requirements	<right-click menu>	Goes to the Requirements module and displays the requirements assigned to the selected release or cycle.
Show Test Set Folders	<right-click menu>	Goes to the Test Lab module and displays the test set folders assigned to the selected cycle.



Releases Module Icons

This section describes the icons available in the Releases module.

To access	On the ALM sidebar, under Management, select Releases .
Important information	ALM Editions: The Releases module is not available for Quality Center Starter Edition.
Relevant tasks	"How to Use Releases and Cycles in ALM" on page 154
See also	<ul style="list-style-type: none"> ▶ "Releases Module Menus and Buttons" on page 166 ▶ "Releases Module Window" on page 164 ▶ "Releases and Cycles Overview" on page 152

User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements (A-Z)	Description
	<green asterisk>. The tab is populated.
	Milestone. A milestone of a release in the releases tree. ALM Editions: This icon is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.
	Release Folder. A folder for organizing releases.

UI Elements (A-Z)	Description
	Release. A release in the releases tree.
	Cycle. A cycle of a release in the releases tree.

Releases Module Fields

The Releases module **Details** tab displays the following fields for a release or a cycle.

To access	On the ALM sidebar, under Management, select Releases .
Important information	<ul style="list-style-type: none"> ▶ The dates for the cycles must be contained within the dates for the releases. ▶ You can add user-defined fields and change the label of any of the fields in the Releases module. For more information, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>. ▶ You can use the Script Editor to restrict and dynamically change the fields and values in the Releases module. For more information, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>. ▶ For project planning and tracking (PPT) fields, see "PPT Fields" on page 203. ▶ Quality Center Starter Edition: The Releases module is not available.
Relevant tasks	"How to Use Releases and Cycles in ALM" on page 154
See also	<ul style="list-style-type: none"> ▶ "Releases Module Window" on page 164 ▶ "Releases and Cycles Overview" on page 152

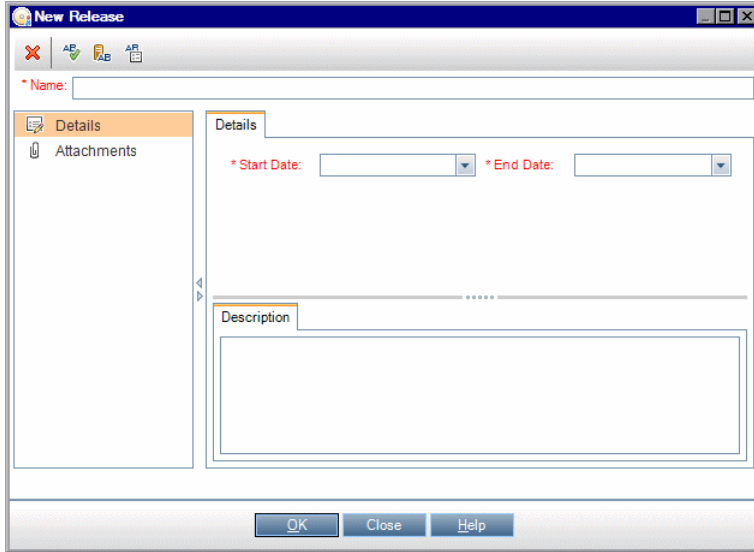
The fields are described below:

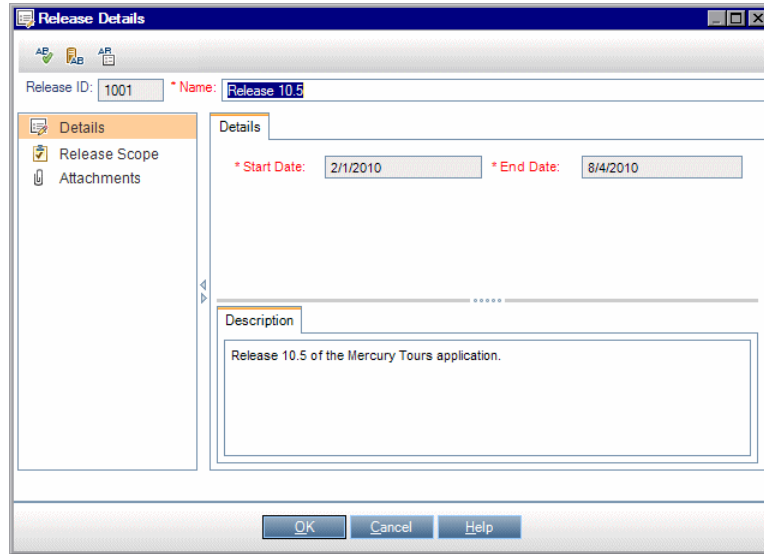
UI Elements (A-Z)	Description
Cycle ID	A unique numeric ID for the cycle, assigned automatically by ALM. The Cycle ID is read-only.
End Date	The date on which the release or cycle ends.
Name	The folder, release, or cycle name.
Release ID	A unique numeric ID for the release, assigned automatically by ALM. The Release ID is read-only.
Requirements assigned to cycle	<p>The number of requirements associated with the selected cycle.</p> <p>To view the requirements assigned to the cycle in the Requirements module, click the link displaying the number of requirements.</p>
Requirements assigned to release	<p>The number of requirements associated with the selected release.</p> <p>To view the requirements assigned to the release in the Requirements module, click the link displaying the number of requirements.</p>
Start Date	The date on which the release or cycle starts.
Test set folders assigned to cycle	<p>The number of test set folders associated with the selected cycle.</p> <p>To view the test set folders assigned to the cycle in the Test Lab module, click the link displaying the number of test set folders.</p>

New Release/Release Details Dialog Box

The New Release dialog box enables you to define a new release.





The Release Details dialog box enables you to view and update the details of the selected release.





<p>To access</p>	<ul style="list-style-type: none"> ➤ New Release dialog box: In the Releases module, right-click a release folder and select New Release. ➤ From a template based project: In the Releases module, right-click a release folder and select New Empty Release. ➤ Release Details dialog box: In the Releases module, right-click a release and select Details.
<p>Important information</p>	<p>ALM Editions: The New Release dialog box is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.</p> <p>Note: The New Empty Release option is available in a project that is linked and synchronized with a template project. For more details on linking and synchronizing template projects, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>.</p>
<p>Relevant tasks</p>	<p>"How to Use Releases and Cycles in ALM" on page 154</p>
<p>See also</p>	<p>"Releases and Cycles Overview" on page 152</p>

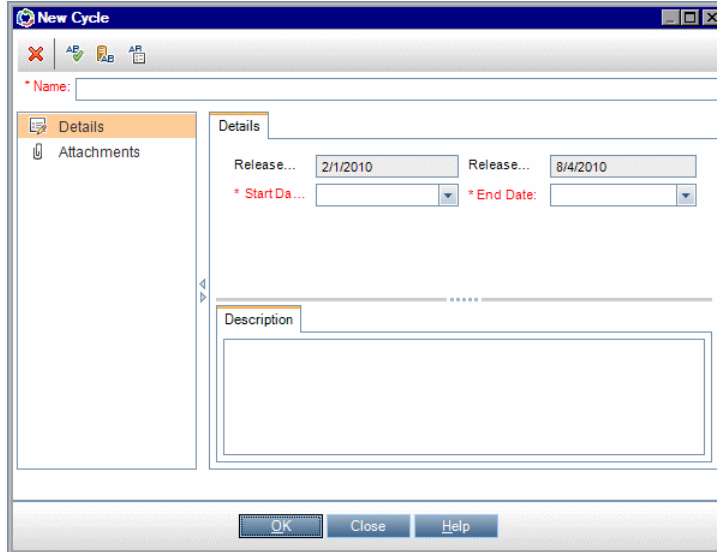
User interface elements are described below:

UI Elements (A-Z)	Description
	<p>Clear All Fields. Clears the data.</p> <p>Available from: New Release dialog box</p>
	<p>Check Spelling. Checks the spelling for the selected word or text box.</p>
	<p>Thesaurus. Displays a synonym, antonym, or related word for the selected word.</p>
	<p>Spelling Options. Enables you to configure the way ALM checks spelling.</p>
<p>Attachments</p>	<p>Enables you to add attachments that provide additional information about the new release. For more details, see "Attachments Page" on page 86.</p>
<p>Details</p>	<p>Lists release fields. Required fields are displayed in red. For details on the available release fields, see "Releases Module Fields" on page 172.</p> <p>Tip: Clicking in the Description field on this page displays a toolbar for formatting and spell checking the text.</p>
<p>Name</p>	<p>Type a name for the new release.</p>
<p>Release Scope</p>	<p>Shows the release scope items of the currently selected release. For more details, see "Release Scope Tab" on page 205.</p> <p>ALM Editions: This tab is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.</p> <p>Available from: Release Details dialog box</p>

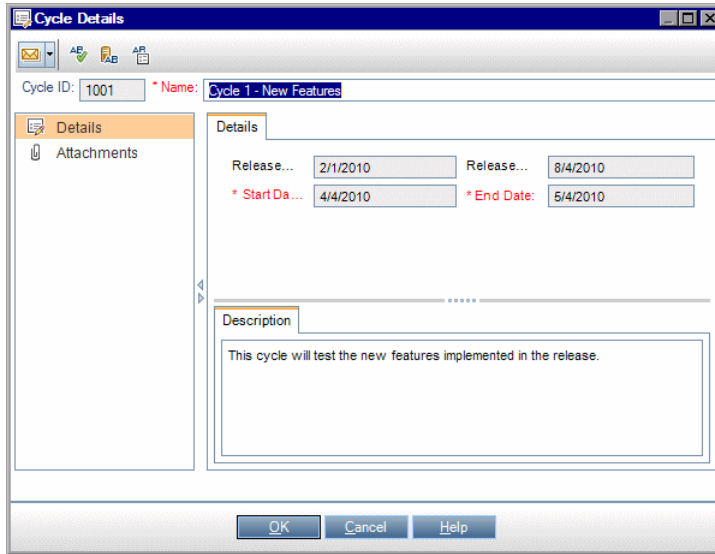
New Cycle/Cycle Details Dialog Box

The New Cycle dialog box enables you to define a new release.

The Cycle Details dialog box enables you to view and update the details of the selected release.







The screenshot shows a dialog box titled "New Cycle" with a standard Windows-style title bar. The dialog is divided into two main sections. On the left is a sidebar with a tree view containing "Details" (selected) and "Attachments". The main area is split into two tabs: "Details" and "Description". The "Details" tab contains several input fields: a text box for "* Name:" at the top; two "Release..." text boxes with values "2/1/2010" and "8/4/2010"; and two dropdown menus for "* Start Da..." and "* End Date:". The "Description" tab contains a large, empty text area. At the bottom of the dialog are three buttons: "OK", "Close", and "Help".



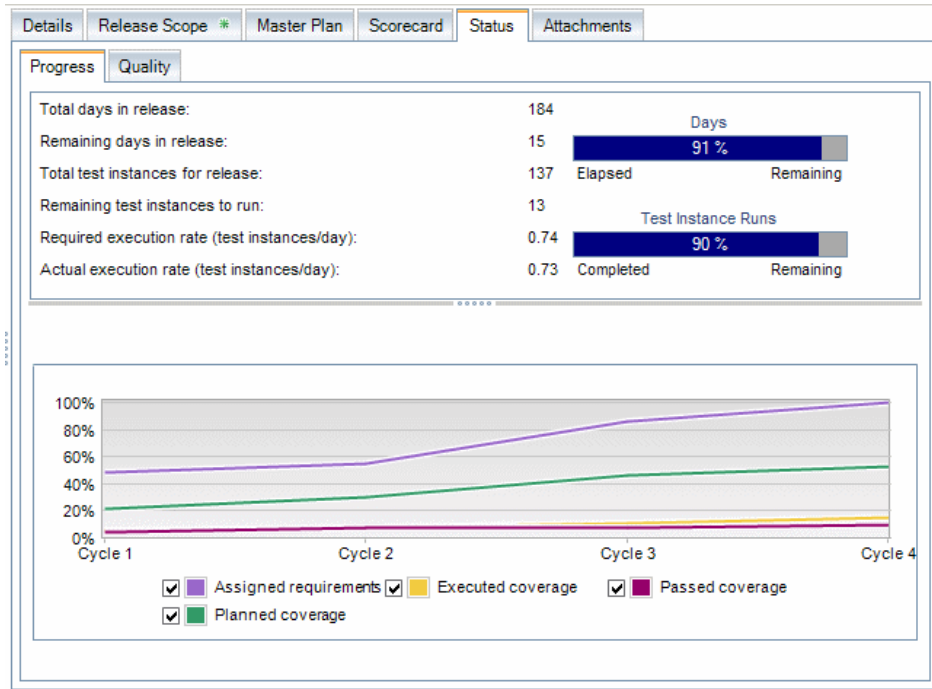
<p>To access</p>	<p>New Cycle dialog box: In the Releases module, right-click a release and select New Cycle.</p> <p>Cycle Details dialog box: In the Releases module, expand a release, right-click a cycle and select Details.</p>
<p>Important information</p>	<p>ALM Editions: Functionality related to PPT is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.</p>
<p>Relevant tasks</p>	<ul style="list-style-type: none"> ➤ "How to Use Releases and Cycles in ALM" on page 154 ➤ "How to Work with PPT" on page 193
<p>See also</p>	<ul style="list-style-type: none"> ➤ "Releases and Cycles Overview" on page 152 ➤ "PPT Releases Overview" on page 192 ➤ "Releases Module Window" on page 164


User interface elements are described below:

UI Elements (A-Z)	Description
	Clear All Fields. Clears the data. Available from: New Cycle dialog box
	Check Spelling. Checks the spelling for the selected word or text box.
	Thesaurus. Displays a synonym, antonym, or related word for the selected word.
	Spelling Options. Enables you to configure the way ALM checks spelling.
Attachments	Enables you to add attachments that provide additional information about the cycle. For more details, see "Attachments Page" on page 86.
Details	Lists cycle fields. Required fields are displayed in red. For details on the available cycle fields, see "Releases Module Fields" on page 172. Tip: Clicking in the Description field on this page displays a toolbar for formatting and spell checking the text.
Name	The name of cycle.

Progress Tab

This tab displays statistics and graphs to provide visual indications of the current progress of your release or cycle. You can view information such as elapsed and remaining days, completed and remaining test instances to run, and actual and required execution rate.



<p>To access</p>	<p>In the Releases module:</p> <ul style="list-style-type: none"> ► For a release: Select a release in the releases tree, click the Status tab, and then click the Progress tab. ► For a cycle: Expand a release, select a cycle and click the Progress tab.
<p>Important information</p>	<p>Click the Refresh All button  in the Releases module toolbar to display the most up-to-date data.</p> <p>Quality Center Starter Edition: The Releases module is not available.</p>

Relevant tasks	"How to Use Releases and Cycles in ALM" on page 154
See also	<ul style="list-style-type: none"> ➤ "Releases and Cycles Overview" on page 152 ➤ "Releases Module Window" on page 164

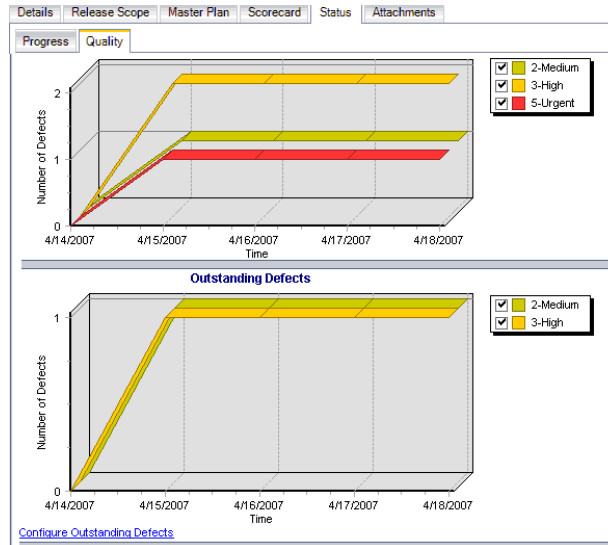
User interface elements are described below:


UI Elements (A-Z)	Description
Total days in release/cycle	The total number of days in a selected release or cycle (end date - start date).
Remaining days in release/cycle	The total number of days remaining in a selected release or cycle.
Total test instances for release/cycle	The total number of test instances included in the test set folders assigned to a selected release or cycle.
Remaining test instances to run	The total number of test instances included in the assigned test set folders of a selected release or cycle that have not yet run.
Required execution rate (test instances/day)	The average number of test instance runs required per day for the remaining days in a selected release or cycle.
Days (progress bar)	The percentage of days elapsed in a selected release or cycle.

UI Elements (A-Z)	Description
Test Instance Runs (progress bar)	The percentage of test instance runs completed in a selected release or cycle.
Coverage Progress graph	<p>Displays coverage progress for a selected release or cycle.</p> <p>Display options include:</p> <ul style="list-style-type: none"> ▶ Assigned requirements. The accumulated percentage of requirements assigned to all cycles within the selected release. This option available for releases only. ▶ Planned coverage. The accumulated percentage of tests planned for a selected cycle, or for all cycles within a selected release. ▶ Executed coverage. The accumulated percentage of tests planned for a selected cycle, or for all cycles within a selected release. ▶ Passed coverage. The accumulated percentage of tests that ran successfully in a selected cycle, or for all cycles within a selected release.

Quality Tab

This tab displays the number of defects submitted over the course of a release or cycle in graphical format. You can view the graphs at any stage of the application management process to check the progress of your release.



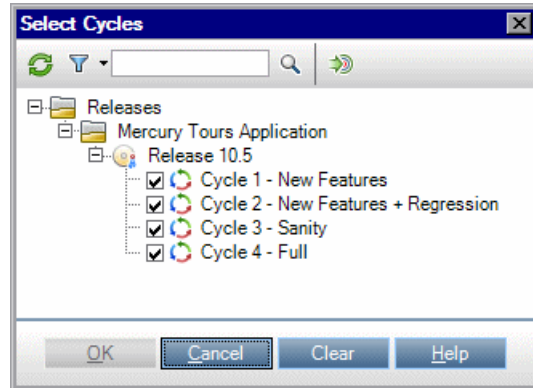
<p>To access</p>	<p>In the Releases module:</p> <ul style="list-style-type: none"> ▶ For a release: Select a release in the releases tree, click the Status tab, and then click the Quality tab. ▶ For a cycle: Expand a release, select a cycle and click the Quality tab.
<p>Important information</p>	<p>Click the Refresh All button  in the Releases module toolbar to display the most up-to-date data.</p> <p>Quality Center Starter Edition: The Releases module is not available.</p>
<p>Relevant tasks</p>	<p>"How to Use Releases and Cycles in ALM" on page 154</p>
<p>See also</p>	<p>"Releases and Cycles Overview" on page 152</p> <p>"Releases Module Window" on page 164</p>

User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements (A-Z)	Description
<Defect severity level display options>	Determine which defects are displayed in the graph based on defect severity level. The severity levels ranges from Low-1 to Urgent-5 .
Configure Outstanding Defects	Opens the Configure Outstanding Defects dialog box, enabling you to determine which defects are displayed in the graph by filtering them by their status. To display or hide defects, move statuses between the Available Defect Status and Visible Defect Status boxes.
Defect Opening Rate graph	Displays the number of defects opened over the course of the selected release or cycle. The graph displays defects whose Detected in Release or Detected in Cycle value matches the selected release or cycle. The defects are grouped according to their level of Severity . The x-axis displays the number of defects according to their severity on the last day of each cycle.
Outstanding Defects graph	Displays the number of outstanding defects for the selected release or cycle. The graph displays defects whose Target Release or Target Cycle value matches the selected release or cycle, or is empty. The defects are grouped according to their level of Severity . The x-axis displays the number of outstanding defects according to their severity on the last day of each cycle. By default, New , Open , and Reopened defects are considered outstanding.






Select Cycles Dialog Box

This dialog box enables you to assign requirements and test set folders to cycles defined in the releases tree.



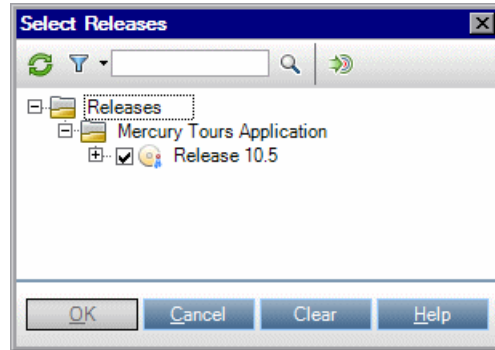
To access	Right-click a requirement in the Requirements module, or a test set folder in the Test Lab module, and select Assign to Cycle .
Important information	<ul style="list-style-type: none"> ▶ Quality Center Starter Edition: Functionality related to Release management is not available. ▶ When you assign a requirement to a cycle, the value is entered in the requirement's Target Cycle field. In addition, the cycle's release is entered in the Target Release field. ▶ When you assign a test set folder to a cycle, the test set's subfolders are automatically assigned to the same cycle.
Relevant tasks	<ul style="list-style-type: none"> ▶ "How to Use Requirements in ALM" on page 315 ▶ "How to Create Test Sets" on page 718 ▶ "How to Use Releases and Cycles in ALM" on page 154
See also	"Releases and Cycles Overview" on page 152

User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements (A-Z)	Description
	Refresh. Refreshes the releases tree so that it displays the most up-to-date information.
	Filter/Sort. Enables you to filter the data according to the criteria that you choose. For more details, see "Filter Dialog Box" on page 60.
	Find. Searches the releases tree for the value you specify in the Find box.
	Go to Entity by ID. Opens the Go to Cycle dialog box, enabling you to locate the cycle in the tree according to Cycle ID.
	Clears the assigned cycle from the requirement. Available from: Requirements module
<Find box>	Enter the name of the cycle you want to search for and click the Find button.
<Releases tree>	Displays the releases tree in the Releases module. Expand the tree and select a cycle. You can assign requirements to more than one cycle.




Select Releases Dialog Box



This dialog box enables you to assign requirements to releases defined in the releases tree.



To access	In the Requirements module, right-click a requirement and select Assign to Release .
Important information	<ul style="list-style-type: none"> ▶ Quality Center Starter Edition: Functionality related to Release management is not available. ▶ When you assign a requirement to a release, the value is entered in the requirement's Target Release field.
Relevant tasks	"How to Use Releases and Cycles in ALM" on page 154
See also	"Releases and Cycles Overview" on page 152

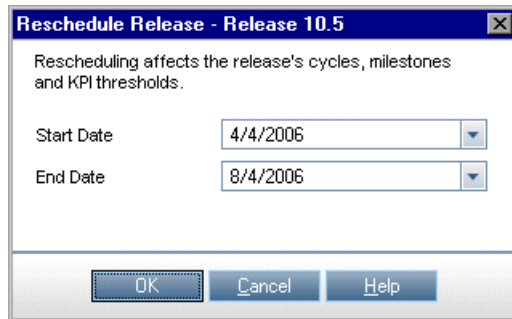
User interface elements are described below:

UI Elements (A-Z)	Description
	Refresh. Refreshes the releases tree so that it displays the most up-to-date information.
	Filter/Sort. Enables you to filter the data according to the criteria that you choose. For more details, see "Filter Dialog Box" on page 60.
	Find. Searches the releases tree for the value you specify in the Find box.

UI Elements (A-Z)	Description
	Go to Entity by ID. Opens the Go to Release dialog box, enabling you to locate the release in the tree according to Release ID.
	Clears the assigned release from the requirement.
<Find box>	Enter the name of the release you want to search for and click the Find button.
<Releases tree>	Displays the releases tree in the Releases module. Expand the tree and select one or more releases.

Reschedule Release/Cycle/Milestone Dialog Box

This dialog box enables you to reschedule the start and end date of a release, cycle, or milestone.



To access	In the Releases module, right-click a release, cycle, or milestone. Select Reschedule .
Important information	<ul style="list-style-type: none"> ▶ ALM Editions: Functionality related to PPT is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition. ▶ When rescheduling a release, the related cycles, milestones, and KPI thresholds are rescheduled accordingly. ▶ When rescheduling a milestone, the related KPI thresholds are rescheduled accordingly.
Relevant tasks	"How to Use Releases and Cycles in ALM" on page 154 "How to Work with PPT" on page 193
See also	"Releases and Cycles Overview" on page 152 "PPT Releases Overview" on page 192

User interface elements are described below:

UI Elements (A-Z)	Description
Due Date	The date on which the milestone ends. Available from: Reschedule Milestone dialog box
End Date	The date on which the release or cycle ends. Available from: Reschedule Release/Cycle dialog box
Start Date	The date on which the release, cycle, or milestone starts.

9

Project Planning and Tracking (PPT) Releases

This chapter includes:

Concepts

- ▶ PPT Releases Overview on page 192

Tasks

- ▶ How to Work with PPT on page 193

Reference

- ▶ KPI Types on page 200
- ▶ PPT User Interface on page 202

Concepts

PPT Releases Overview

Project planning and tracking (PPT) enables quality assurance managers to track application readiness by defining goals for activities of an application release.

For each release, you define release scope items. A **release scope item** refers to a subdivided section of a release, for example a new feature, a change to an existing feature, or a new theme. For each scope item you define the related requirements, tests, test sets, and defects. To measure the progress of the release scope items, you associate them with milestones. A **milestone** is a point in the time-line of a release that signifies the completion of a deliverable. It enables you to track and validate the progress of the release. A milestone can be associated with one or more release scope items.

PPT collects and analyzes the data from the defined milestones using key performance indicators (KPIs). A **KPI** is a quantifiable measure designed to track a critical performance variable over time, and measure the essential outcome of quality assurance activities. For each KPI, you define threshold levels to set warning limits.

PPT uses the KPIs to analyze a milestone's readiness data, and to show the overall health and deployment readiness of a release in the form of a scorecard. The scorecard monitors and tracks how well each milestone is being met on a daily basis. To further analyze your output, you can generate dashboard reports and graphs.

ALM Editions: Functionality related to PPT is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.

For task details, see "How to Work with PPT" on page 193.

Tasks

How to Work with PPT

This task describes how to define releases, release scopes and milestones, and how to track release scope status in the Releases module. To learn more about PPT, see "PPT Releases Overview" on page 192.

ALM Editions: Functionality related to PPT is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.

Tip: For a use-case scenario related to this task, see "How to Work with PPT - Use-Case Scenario" on page 195.

This task includes the following steps:

- "Define releases" on page 193
- "Define release scope items" on page 194
- "Define milestones" on page 194
- "Analyze progress" on page 195

1 Define releases

- a Open the Releases module.** On the ALM sidebar, under **Management**, select **Releases**. For user interface details on the Releases module, see "Releases Module Window" on page 164.
- b Create folders.** Right-click the **Releases** root folder and select **New Release Folder**. To create a sub-folder, right-click a folder and select **New Release Folder**.

- c Add releases.** Right-click a release folder and select **New Release**. For user interface details, see "New Release/Release Details Dialog Box" on page 174.

Alternatively, if you are working with a project that is linked to a template project, you can create a release by copying from the template project. Right-click a release folder and select **New Release from Template**. For user interface details, see "New Release From Template Dialog Box" on page 238.

2 Define release scope items

In the releases tree, select a release. Click the **Release Scope** tab. Add release scope items and define the related requirements, tests, test sets, and defects. For user interface details, see "Release Scope Tab" on page 205.

3 Define milestones

- a Add milestones.** In the releases tree, right-click a release and select **New Milestone**. The New Milestone dialog box opens. Define timelines for your milestone. For user interface details, see "New Milestone Dialog Box" on page 210.
- b Associate release scope items.** In the releases tree, select a milestone. Click the **Milestone Scope** tab. Associate the milestone with release scope items. For user interface details, see "Milestone Scope Tab" on page 212.
- c Associate KPIs.** Click the **KPIs** tab. Configure related KPIs and set boundaries for performance against those KPIs. For user interface details, see "KPIs Tab" on page 215.

4 Analyze progress

- **View scorecard.** In the releases tree, select a release. Click the **Scorecard** tab. View the status and progress of your defined milestones. For user interface details on the Scorecard tab, see "Scorecard Tab" on page 228.
- **View Gantt chart.** In the releases tree, select a release. Click the **Master Plan** tab. For user interface details, see "Master Plan Tab" on page 224.
- **Create PPT graphs.** For task details on how to generate graphs, see "How to Generate a PPT Graph" on page 949.



How to Work with PPT - Use-Case Scenario

This use-case scenario demonstrates how to work with PPT. For example, suppose your organization is releasing a new version of a purchase order application in 6 months. The new version includes the following enhancements: new mobile interface, additional sales reports, and enhancements to the purchase order forms. You, as quality assurance manager, must define the release scope items and milestones, and track progress and quality of the release against your defined scope items.

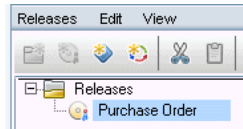
Note: For a task related to this scenario, see "How to Work with PPT" on page 193.

This scenario includes the following steps:

- "Define a release" on page 196
- "Define release scope items" on page 196
- "Define a milestone" on page 197
- "Analyze progress" on page 199

1 Define a release

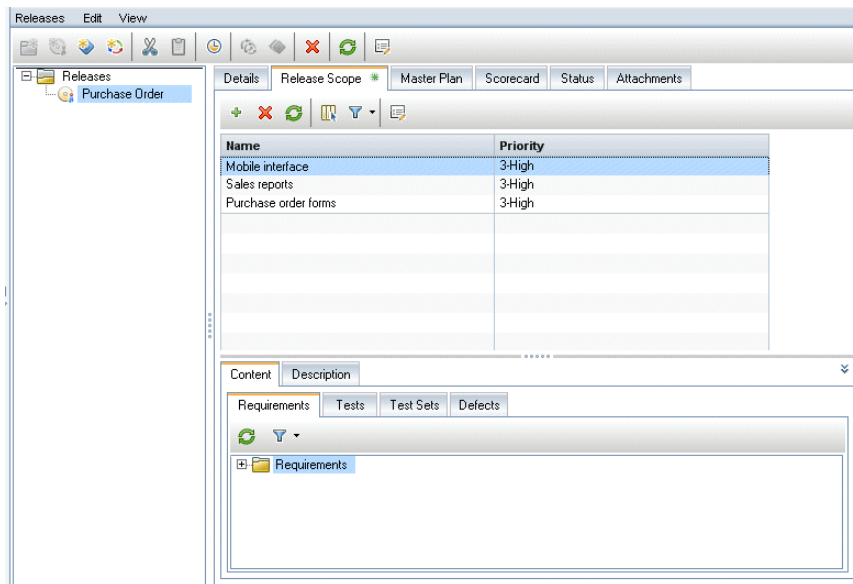
In the Release module, define the **Purchase Order** release and set the release duration to 6 months.



2 Define release scope items

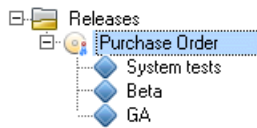
Select the **Purchase Order** release and define the following release scope items: **Mobile interface**, **Sales reports**, and **Purchase order forms**.

Under the **Content** tab, for each release scope item, determine the scope by assigning related requirements, tests, test sets, and defects.



3 Define a milestone

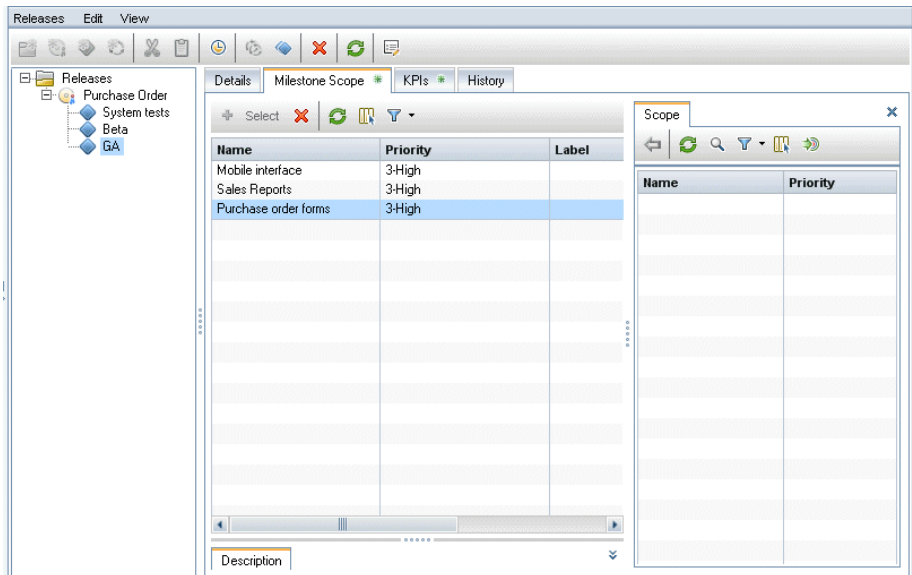
Add the following milestones to your release: **System tests**, **Beta**, and **GA**.



To measure the readiness of the **System tests** milestone, associate it with the following release scope items: **Mobile interface**, **Sales reports**, and **Purchase order forms**.

To measure the readiness of the **Beta** milestone, associate it with the following release scope items: **Sales reports** and **Purchase order forms**.

To measure the readiness of the **GA** (General Availability) milestone, associate it with the following release scope items: **Mobile interface**, **Sales reports**, and **Purchase order forms**.



For each milestone, you define related KPIs using the KPIs tab. For each milestone select the **Severe Defects** KPI. In the Threshold pane, under the **Date** column, the start and end dates of the selected milestone are displayed. Under the **OK Below** column, both values are set to **10**. The KPI state is considered acceptable when there are less than 10 defects with severity levels of **5-Urgent** or **4-Very High** out of the defects that still need to be fixed. Under **% Warning Range**, the warning limits are set to **10**. A value higher than 10 is considered critical. The Threshold Preview chart shows the threshold values with respect to the Y-axis.

The screenshot shows the 'KPIs' configuration window for 'Severe Defects'. The 'Thresholds' pane is active, displaying a table with the following data:

Date	OK Below	% Warning Range
Start: 8/1/2010	10	10
Due: 8/31/2010	10	10

To the right of the table is a 'Threshold Preview' chart. The Y-axis is labeled 'Severe Defects' and ranges from 9 to 12. The X-axis shows dates from 8/1/2010 to 8/31/2010. The chart displays three horizontal bars representing different states: OK (green, 9-10), Warning (yellow, 10-11), and Critical (red, 11-12).

The right-hand pane lists various KPI types, with 'Severe Defects' selected. Other listed types include: Authored Tests, Automated Tests, Covered Requirements, Defects Fixed per Day, Passed Requirements, Passed Tests, Rejected Defects, Reviewed Requirements, Test Instances Executed, and Tests Executed.

4 Analyze progress

After running calculations for this project. Select the **Purchase Order** release from the releases tree. Click the **Scorecard** tab. The scorecard enables you to view the scope items, the milestones, and the KPI results. For example, under the **System tests** milestone, the **Purchase order forms** release scope item indicates the number of planned severe defects is 10 and the actual value is 24.

Purchase Order Scorecard						
	System tests		Beta		GA	
	Severe Defects		Severe Defects		Severe Defects	
	Planned	Actual	Planned	Actual	Planned	Actual
Mobile interface	10	7			10	7
Purchase order forms	10	24	10	24	10	
Sales Reports	10	14	10	14	10	

* Data updated to: 7/20/2010 1:12:00 PM. KPIs are calculated at predefined hours on a daily basis. KPI calculations end when a milestone reaches its due date.

To further drill down and display the scorecard as a graph, you can click a KPI value.

Reference

KPI Types

This section describes the system defined KPI types.

Important information	<ul style="list-style-type: none">▶ You can modify system defined KPIs and add additional user-defined KPIs to your project. For more details, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>.▶ ALM Editions: Functionality related to PPT is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.
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KPI types are described below:

KPI Type (A-Z)	Description
Authored Tests	Calculates the number of tests that their planning status is set to "Ready".
Automated Tests	Calculates the percentage of automated tests.
Covered Requirements	Calculates the percentage of requirements covered by at least one test.
Defects Fixed per Day	Calculates the number of defects fixed per day.
Passed Requirements	Calculates the percentage of requirements that all their covered tests have an execution status of "Passed".
Passed Tests	Calculates the percentage of tests that their last run has an execution status of "Passed".
Rejected Defects	Calculates the percentage of rejected defects.
Reviewed Requirements	Calculates the percentage of business or functional requirements that have been reviewed.
Severe Defects	Calculates the number of defects assigned a severity level of 5-Urgent or 4-Very High out of defects with the status of New, Open or Reopened .
Test Instances Executed	Calculates the percentage of executed test instances.
Tests Executed	Calculates the percentage of executed tests.

PPT User Interface

This section includes:

- ▶ PPT Fields on page 203
- ▶ Release Scope Tab on page 205
- ▶ New Scope Item/Scope Item Details Dialog Box on page 208
- ▶ New Milestone Dialog Box on page 210
- ▶ Milestone Scope Tab on page 212
- ▶ KPIs Tab on page 215
- ▶ New KPI/KPI Details Dialog Box on page 218
- ▶ Thresholds Page on page 220
- ▶ New Threshold Value Dialog Box on page 223
- ▶ Master Plan Tab on page 224
- ▶ Milestone Details Dialog Box on page 226
- ▶ Scorecard Tab on page 228
- ▶ KPI Graph on page 230
- ▶ Breakdown Over Time Graph on page 232
- ▶ Scorecard Layout Dialog Box on page 236
- ▶ New Release From Template Dialog Box on page 238



PPT Fields

This section describes the PPT fields in the Releases module.

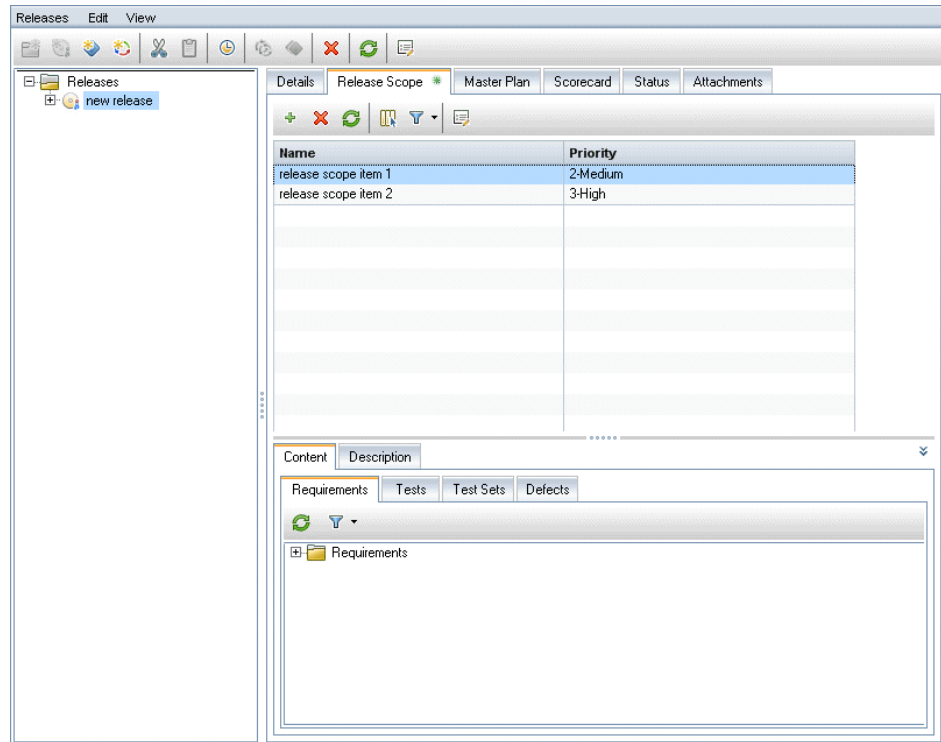
<p>Important information</p>	<ul style="list-style-type: none"> ➤ You can add user-defined fields and change the label of any of the fields in the Releases module. For more information, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>. ➤ You can use the Script Editor to restrict and dynamically change the fields and values in the Releases module. For more information, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>. ➤ ALM Editions: Functionality related to PPT is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.
<p>Relevant tasks</p>	<p>"How to Work with PPT" on page 193</p>
<p>See also</p>	<ul style="list-style-type: none"> ➤ "Release Scope Tab" on page 205 ➤ "Master Plan Tab" on page 224 ➤ "Scorecard Tab" on page 228 ➤ "PPT Releases Overview" on page 192

The fields are described below:

UI Elements (A-Z)	Description
Due Date	The date on which the milestone ends.
KPI Type	The type of KPI.
Label	The release scope item name as it is displayed in the chart of the Master Plan tab.
Milestone ID	A unique numeric ID for the milestone, assigned automatically by ALM. The Milestone ID is read-only.
Modified	The date and time the release scope item or milestone was last changed. Default value: The database server date and time
Name	The release scope item or milestone name.
Owner	The user name of the person who owns the release scope item.
Priority	The priority of the release scope item, ranging from low priority (level 1) to high priority (level 3).
Release End Date	The date on which the release ends.
Release ID	A unique numeric ID for the release, assigned automatically by ALM. The Release ID is read-only.
Release Start Date	The date on which the release starts.
Scope Item ID	A unique alphanumeric ID for the release scope item that is assigned automatically. This field cannot be modified.
Start Tracking Date	The date on which the milestone starts.








Release Scope Tab

This tab enables you to define and update release scope items.



To access	In the Releases module, select a release and click the Release Scope tab.
Important information	ALM Editions: Functionality related to PPT is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.
Relevant tasks	"How to Work with PPT" on page 193
See also	<ul style="list-style-type: none"> ➤ "PPT Releases Overview" on page 192 ➤ "Releases Module Window" on page 164

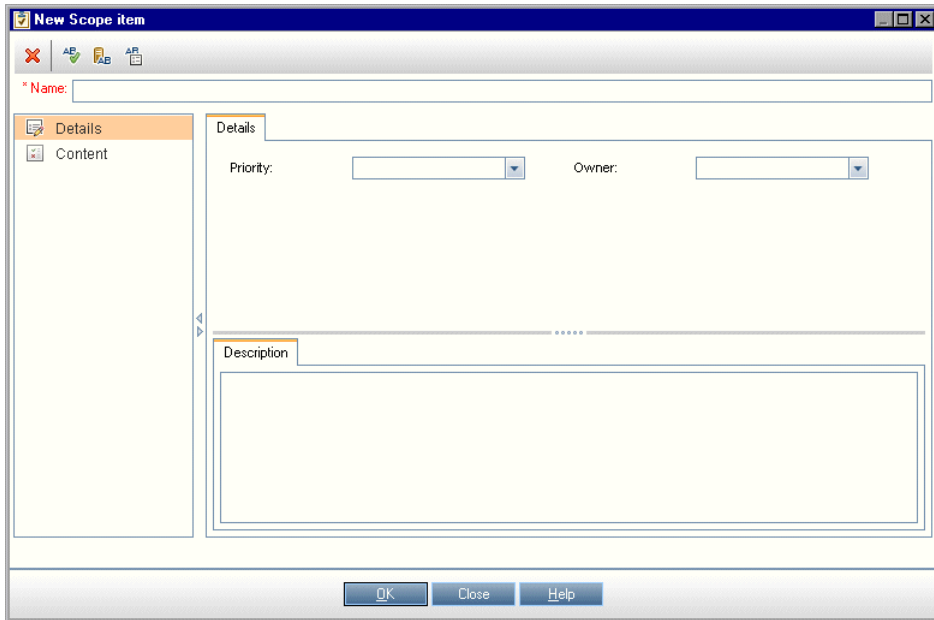
User interface elements are described below:

UI Elements	Description
	New Scope Item. Opens the New Scope Item dialog box, enabling you to define a release scope item. For more details, see "New Scope Item/Scope Item Details Dialog Box" on page 208.
	Delete. Deletes selected release scope item.
	Refresh. Refreshes the release scope grid so that it displays the most up-to-date information.
	Select Columns. Opens the Select Columns dialog box, enabling you to determine which fields to display in the release scope grid and their order. For more details, see "Select Columns/Select Fields Dialog Box" on page 90.
	Filter/Sort. Enables you to filter the data according to the criteria that you choose. For more details, see "Filter Dialog Box" on page 60.
	Scope Item Details. Opens the Scope Item Details dialog box, enabling you to display the details of the selected release scope item. For more details, see "New Scope Item/Scope Item Details Dialog Box" on page 208.
	Show/Hide. Shows/hides the Description and Content tabs.

UI Elements	Description
Content tab	<p>Enables you to select content to be included in the release scope item. It includes the following tabs:</p> <ul style="list-style-type: none"> ▶ Requirements. Displays the requirements tree. Expand the tree and select the requirements to include in the release scope item. ▶ Tests. Displays the test plan tree. Expand the tree and select the tests to include in the release scope item. To only include tests covered by the requirements selected in the Requirements tab, select Tests covering selected requirements. ▶ Test Sets. Displays the test set tree. Expand the tree and select the test sets to include in the release scope item. To only include test sets that contain tests selected in the Test tab, select Test sets containing selected tests. ▶ Defects. Displays the defects grid. Define a filter to determine the defects to be included in the release scope item.
Description tab	<p>Describes the release scope item.</p> <p>Click in the text box to display a toolbar for formatting and spell checking the text.</p>






New Scope Item/Scope Item Details Dialog Box

This dialog box enables you to define and update the release scope items.



<p>To access</p>	<p>Use one of the following:</p> <ul style="list-style-type: none"> ▶ In the Release Scope tab, right-click the release scope grid and select New Scope Item. The New Scope Item dialog box opens. ▶ In the Release Scope tab, right-click a release scope item and select Scope Item Details. The Scope Item Details dialog box opens.
<p>Important information</p>	<p>ALM Editions: Functionality related to PPT is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.</p>
<p>Relevant tasks</p>	<p>"How to Work with PPT" on page 193</p>
<p>See also</p>	<ul style="list-style-type: none"> ▶ "PPT Releases Overview" on page 192 ▶ "Releases Module Window" on page 164

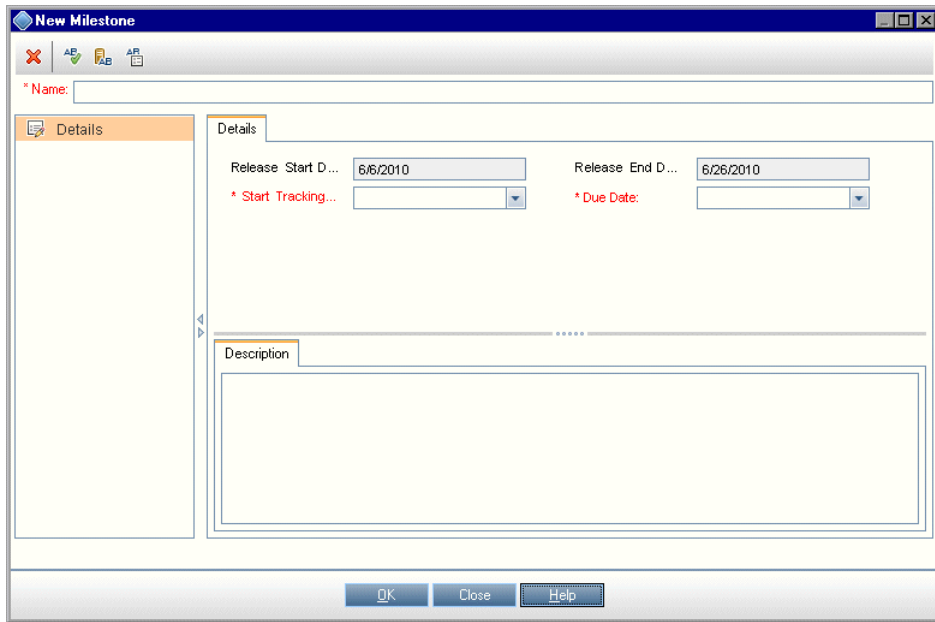
User interface elements are described below:

UI Elements (A-Z)	Description
	<p>First/Previous/Next/Last Entity. Allows you to browse through the release scope items.</p> <p>Available from: Scope Item Details dialog box</p>
	<p>Clear All Fields. Clears all the fields in the dialog box.</p> <p>Available from: New Scope Item dialog box</p>
	<p>Spell Check. Checks the spelling for the selected word or text box.</p>
	<p>Thesaurus. Displays a synonym, antonym, or related word for the selected word.</p>
	<p>Spelling Options. Enables you to configure the way ALM checks spelling.</p>
<p>Content</p>	<p>Displays the content to be included in the release scope item. It includes the following tabs:</p> <ul style="list-style-type: none"> ▶ Requirements. Displays the requirements tree. Expand the tree and select the requirements to include in the release scope item. ▶ Tests. Displays the test plan tree. Expand the tree and select the tests to include in the release scope item. To only include tests covered by the requirements selected in the Requirements tab, select Tests covering selected requirements. ▶ Test Sets. Displays the test set tree. Expand the tree and select the test sets to include in the release scope item. To only include test sets that contain tests selected in the Test tab, select Test sets containing selected tests. ▶ Defects. Displays the defects grid. Define a filter to determine the defects to be included in the release scope item.

UI Elements (A-Z)	Description
Details	Displays details of a release scope item. For details on the available fields, see "PPT Fields" on page 203.
Description	Describes the release scope item. Click in the text box to display a toolbar for formatting and spell checking the text.
Name	The release scope item name.

New Milestone Dialog Box

This dialog box enables you to define and update the milestones.







The screenshot shows a dialog box titled "New Milestone". At the top, there is a "Name:" field. Below this, there are two tabs: "Details" and "Description". The "Details" tab is active and contains the following fields:

- Release Start D...: 6/6/2010
- Release End D...: 6/26/2010
- * Start Tracking...: [dropdown menu]
- * Due Date: [dropdown menu]

The "Description" tab is visible below the details section and contains a large text area for entering the milestone description. At the bottom of the dialog box, there are three buttons: "OK", "Close", and "Help".

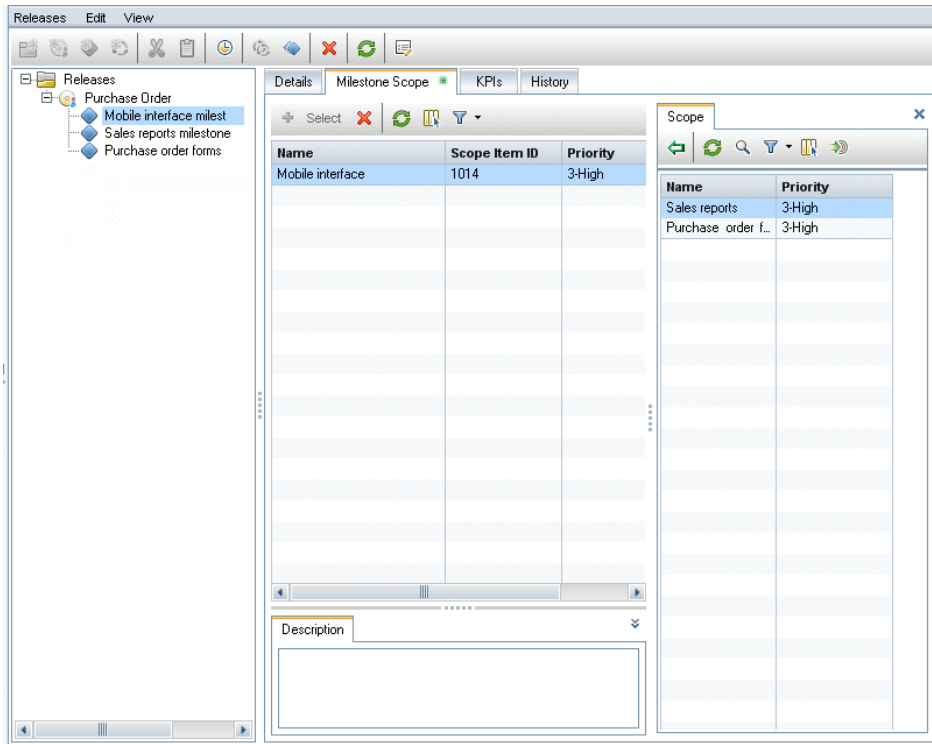
To access	In the Releases module, right-click a release and choose New Milestone . The New Milestone dialog box opens.
Important information	ALM Editions: Functionality related to PPT is not available for HP ALM Quality Center Starter Edition, HP ALM Quality Center Enterprise Edition, or HP ALM Performance Center Edition.
Relevant tasks	"How to Work with PPT" on page 193
See also	<ul style="list-style-type: none"> ➤ "PPT Releases Overview" on page 192 ➤ "Releases Module Window" on page 164

User interface elements are described below:

UI Elements (A-Z)	Description
	Clear All Fields. Clears all the fields in the dialog box. Available from: New Milestone dialog box
	Spell Check. Checks the spelling for the selected word or text box.
	Thesaurus. Displays a synonym, antonym, or related word for the selected word.
	Spelling Options. Enables you to configure the way ALM checks spelling.
Description	The description of the milestone.
Details	Displays milestone details. For details on the available fields, see "PPT Fields" on page 203.
Name	The milestone name.

Milestone Scope Tab

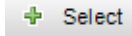




This tab enables you to associate milestones with release scope items.



To access	Select a milestone. Click the Milestone Scope tab.
Important information	ALM Editions: Functionality related to PPT is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.
Relevant tasks	"How to Work with PPT" on page 193
See also	<ul style="list-style-type: none"> ➤ "PPT Releases Overview" on page 192 ➤ "Releases Module Window" on page 164



Milestone Scope Grid





User interface elements are described below:

UI Elements (A-Z)	Description
	Select Scope Items. Opens the Scope pane, enabling you to select release scope items.
	Remove Scope Items. Removes selected scope items from the grid.
	Refresh. Refreshes the milestone scope grid so that it displays the most up-to-date information.
	Select Columns. Opens the Select Columns dialog box, enabling you to determine which fields to display in the milestone scope grid and their order. For more details, see "Select Columns/Select Fields Dialog Box" on page 90.
	Filter/Sort. Enables you to filter data according to the criteria that you choose. For more details, see "Filter Dialog Box" on page 60.

Scope Pane

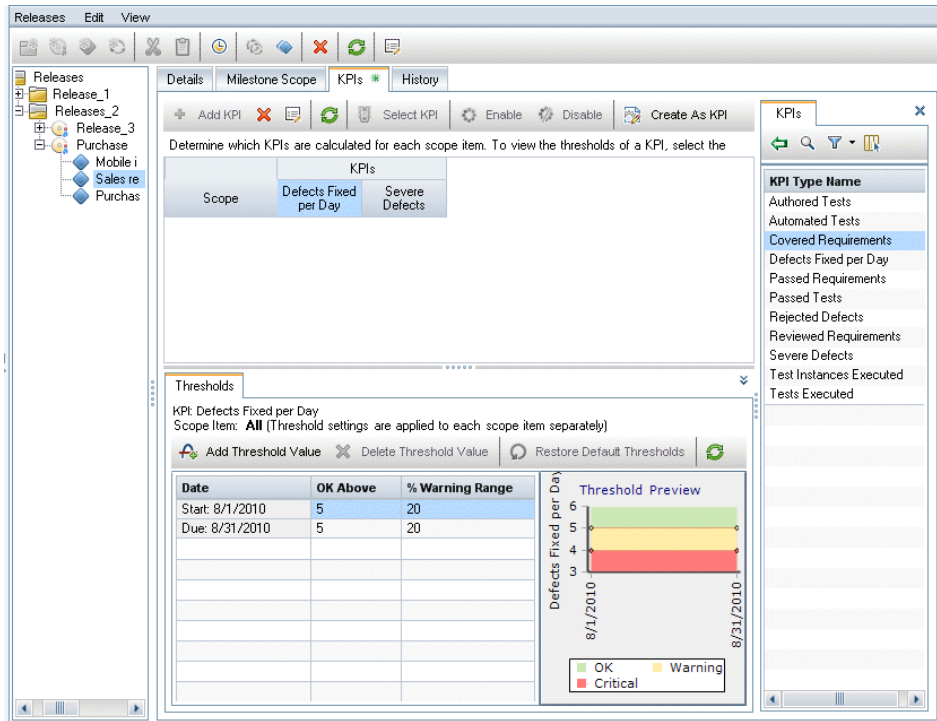
User interface elements are described below:

UI Elements (A-Z)	Description
	Add Scope Item. Adds selected release scope items to the milestone scope grid. Tip: You can also add release scope items by dragging a them from the scope item grid to the milestone scope grid.
	Refresh All. Refreshes the scope item grid.

UI Elements (A-Z)	Description
	<p>Find. Searches for a specific release scope item in the scope item grid.</p> <p>Type the name (or part of the name) of the release scope item in the Find box and click Find. If the search is successful, the release scope item is highlighted in the scope item grid.</p>
	<p>Filter/Sort. Filters and sorts the release scope items in the scope item grid. For more details, see "Filter Dialog Box" on page 60.</p>
	<p>Select Columns. Opens the Select Columns dialog box, enabling you to determine column appearance and order. For more details, see "Select Columns/Select Fields Dialog Box" on page 90.</p>
	<p>Go to Scope Item by ID. Opens the Go To Scope Item dialog box, enabling you to find a specific test by Scope Item ID.</p> <p>Note: You can only go to release scope items that are in the current filter.</p>

KPIs Tab





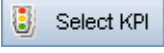

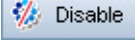
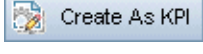

This tab enables you to define KPIs and set thresholds.



To access	Select a milestone. Click the KPIs tab.
Important information	ALM Editions: Functionality related to PPT is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.
Relevant tasks	"How to Work with PPT" on page 193
See also	<ul style="list-style-type: none"> ➤ "PPT Releases Overview" on page 192 ➤ "Releases Module Window" on page 164





Main Area

User interface elements are described below:

UI Elements (A-Z)	Description
 Add KPI	Opens the KPI pane, enabling you to select KPIs.
	Delete KPI. Removes selected KPI from the new milestone grid.
	Show KPI Details. Opens the KPI Details dialog box, enabling you to update KPIs and thresholds. For more details, see "New KPI/KPI Details Dialog Box" on page 218.
	Refresh. Refreshes the grid so that it displays the most up-to-date information.
 Select KPI	Displays thresholds for a selected KPI column.
 Enable	Includes selected KPI in the defined milestone scope.
 Disable	Excludes selected KPI from the defined milestone scope.
 Create As KPI	Opens the New KPI dialog box, enabling you to create a KPI based on a selected KPI. For more details, see "New KPI/KPI Details Dialog Box" on page 218.
	Show/Hide. Shows/hides the Thresholds pane.
Thresholds pane	Enables you to manage threshold values for selected KPIs. For more details, see "Thresholds Page" on page 220.

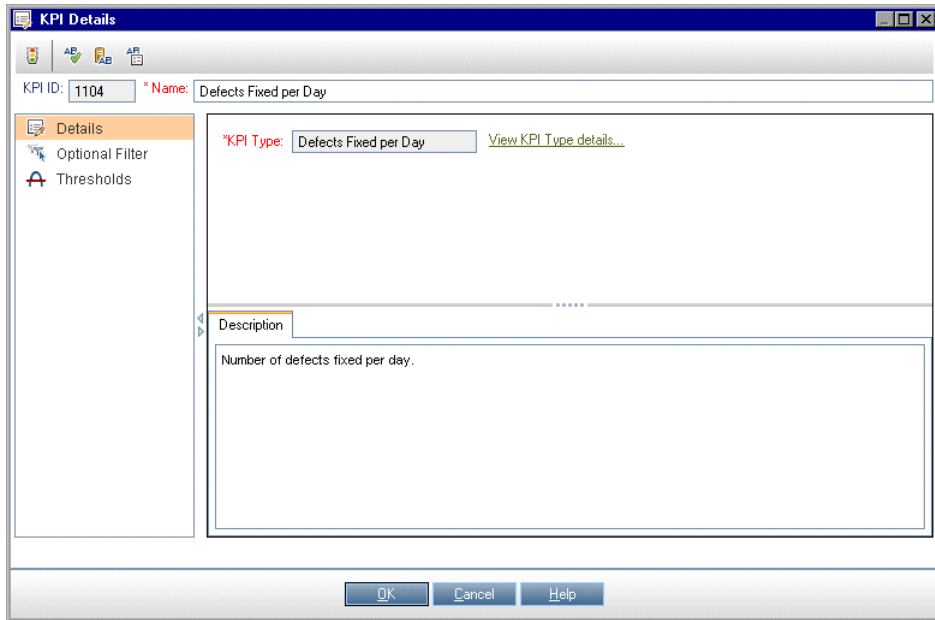
KPIs Pane


User interface elements are described below:

UI Elements (A-Z)	Description
	<p>Add KPI. Adds selected KPI to the main area in the KPI tab.</p>
	<p>Find. Searches for a specific KPI in the KPI grid. Type the name (or part of the name) of the KPI in the Find box and click Find. If the search is successful, the KPI is highlighted in the KPI grid.</p>
	<p>Filter/Sort. Filters and sorts the KPIs in the KPI grid. For more details, see "Filter Dialog Box" on page 60.</p>
	<p>Select Columns. Opens the Select Columns dialog box, enabling you to determine column appearance and order. For more details, see "Select Columns/Select Fields Dialog Box" on page 90.</p>

New KPI/KPI Details Dialog Box






This dialog box enables you to define and update KPIs.



<p>To access</p>	<p>Use one of the following:</p> <ul style="list-style-type: none"> ➤ Select a milestone. Click the KPIs tab. Click Create As KPI. The New KPI dialog box opens. ➤ Select a milestone. Click the KPIs tab. Click Show KPI Details . The KPI Details dialog box opens.
<p>Important information</p>	<p>ALM Editions: Functionality related to PPT is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.</p>
<p>Relevant tasks</p>	<p>"How to Work with PPT" on page 193</p>
<p>See also</p>	<ul style="list-style-type: none"> ➤ "KPI Types" on page 200 ➤ "PPT Releases Overview" on page 192 ➤ "Releases Module Window" on page 164

Common Elements


User interface elements are described below:

UI Elements (A-Z)	Description
	Clear all Fields. Clears all fields in the dialog box. Available from: New KPI dialog box
	Show KPI Type Definition. Opens the KPI Type Definition dialog box, enabling you to view additional information on a selected KPI.
	Spell Check. Checks the spelling for the selected word or text box.
	Thesaurus. Displays a synonym, antonym, or related word for the selected word.
	Spelling Options. Enables you to configure the way ALM checks spelling.
Name	The KPI name.

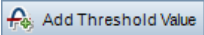
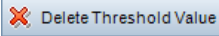
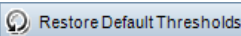

Details View

User interface elements are described below:

UI Elements (A-Z)	Description
Description	A description of the selected KPI.
KPI Type	The type of KPI. For details on the available KPI, see "KPI Types" on page 200.
View KPI Type Details	Displays details on the selected KPI.

To access	<p>Use one of the following:</p> <ul style="list-style-type: none"> ▶ Select a milestone. Click the KPIs tab. Click Create As KPI. The New KPI dialog box opens. Click Thresholds. ▶ Select a milestone. Click the KPIs tab. Click Show KPI Details . The KPI Details dialog box opens. Click Thresholds. ▶ Select a milestone. Click the KPIs tab. The Thresholds pane is displayed on the bottom.
Important information	<p>ALM Editions: Functionality related to PPT is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.</p>
Relevant tasks	<p>"How to Work with PPT" on page 193</p>
See also	<ul style="list-style-type: none"> ▶ "PPT Releases Overview" on page 192 ▶ "Releases Module Window" on page 164





User interface elements are described below:

UI Elements (A-Z)	Description
	<p>Opens the New Threshold Value dialog box, enabling you define the threshold values for a selected KPI. For more details, see "New Threshold Value Dialog Box" on page 223.</p>
	<p>Removes selected threshold value from the thresholds grid.</p>
	<p>Restores default KPI threshold.</p>
	<p>Refresh All. Refreshes the new thresholds grid so that it displays the most up-to-date information.</p>

UI Elements (A-Z)	Description
% Warning Range	The warning threshold value. A value equal to or greater than this limit but less than the OK Above threshold, indicates a warning KPI state. A value equal to or less than this limit but greater than the OK Below threshold, indicates a warning KPI state.
Date	The threshold value date.
OK Above	A value greater than this limit, indicates a good KPI state. Any value lower than this limit, indicates a bad KPI state.
OK Below	A value lower than this limit, indicates a good KPI state. Any value greater than this limit, indicates a bad KPI state.
Threshold Preview	<p>Provides a visual indicator of the status of the selected KPI using the following color-coded thresholds:</p> <ul style="list-style-type: none"> ➤ Green. Indicates a good KPI state. ➤ Yellow. Indicates an acceptable or a warning KPI state. ➤ Red. Indicates a bad KPI state.

New Threshold Value Dialog Box

This pane enables you to manage threshold values for selected KPIs.

To access	<p>Use one of the following:</p> <ul style="list-style-type: none"> ➤ Select a milestone. Click the KPIs tab. Click Create As KPI. The New KPI dialog box opens. Click Thresholds. Click Add Threshold Value . ➤ Select a milestone. Click the KPIs tab. Click Show KPI Details . The KPI Details dialog box opens. Click Thresholds. Click Add Threshold Value . ➤ Select a milestone. Click the KPIs tab. The Thresholds pane is displayed on the bottom. Click Add Threshold Value .
Important information	ALM Editions: Functionality related to PPT is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.
Relevant tasks	"How to Work with PPT" on page 193
See also	<ul style="list-style-type: none"> ➤ "PPT Releases Overview" on page 192 ➤ "Releases Module Window" on page 164

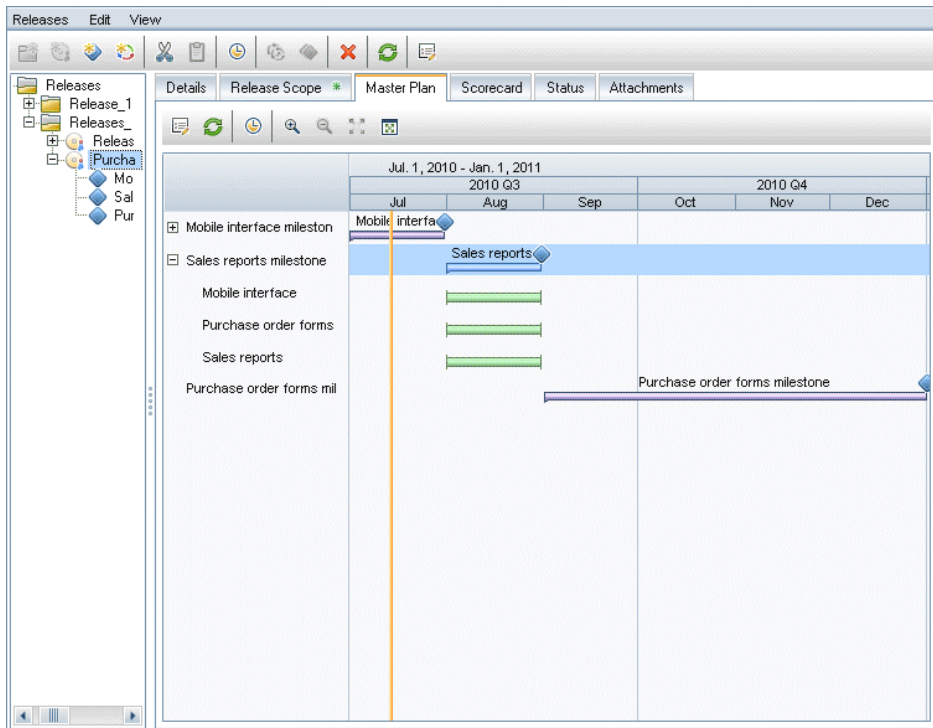
User interface elements are described below:

UI Elements (A-Z)	Description
% Warning Range	The warning threshold value. A value equal to or greater than this limit but less than the OK Above threshold, indicates a warning KPI state. A value equal to or less than this limit but greater than the OK Below threshold, indicates a warning KPI state.
Date	The threshold value date.

UI Elements (A-Z)	Description
OK Above	A value greater than this limit, indicates a good KPI state. Any value lower than this limit, indicates a bad KPI state.
OK Below	A value lower than this limit, indicates a good KPI state. Any value greater than this limit, indicates a bad KPI state.





Master Plan Tab



This tab displays the progress of a release in a Gantt chart.



To access	In the Releases module, select a release and click the Master Plan tab.
Important information	ALM Editions: Functionality related to PPT is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.
Relevant tasks	"How to Work with PPT" on page 193
See also	<ul style="list-style-type: none"> ➤ "PPT Releases Overview" on page 192 ➤ "Releases Module Window" on page 164

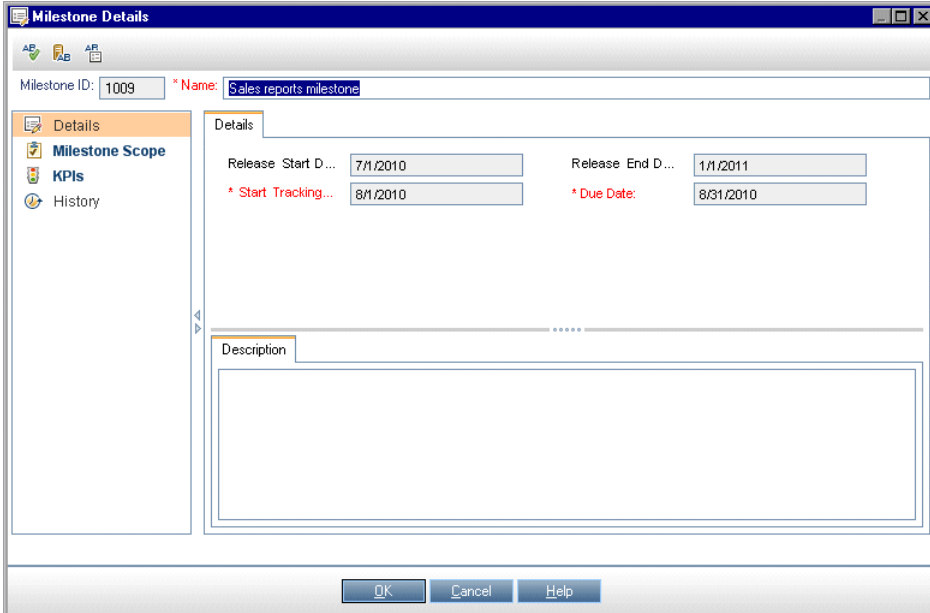
User interface elements are described below:

UI Elements	Description
	<p>Show Details. Opens the appropriate Details dialog box, depending on the selected entity. You can select the following entities: cycles, milestones, and release scope items.</p> <p>For more details on cycle details, see "New Cycle/Cycle Details Dialog Box" on page 177.</p> <p>For more details on milestone details, see "Milestone Details Dialog Box" on page 226.</p> <p>For more details on release scope item details, see "New Scope Item/Scope Item Details Dialog Box" on page 208.</p> <p>Tip: You can also double-click an entity on the chart. The appropriate Details dialog box opens.</p>
	<p>Refresh. Refreshes the chart so that it displays the most up-to-date information.</p>
	<p>Reschedule. Reschedules the start and end date of a release, cycle or milestone. For more details, see "Reschedule Release/Cycle/Milestone Dialog Box" on page 188.</p>
	<p>Zoom In/Out. Changes the magnification of the chart.</p>

UI Elements	Description
	Display Entire Release. Restores the chart to its normal size. This button is enabled when the Zoom In and Zoom Out buttons are in use.
	Full Screen View. Opens the chart in a new window and maximizes its display.

Milestone Details Dialog Box

This dialog box enables you to view and update the milestones.



Milestone Details

Milestone ID: 1009 * Name: Sales reports milestone

Details

Release Start D... 7/1/2010 Release End D... 1/1/2011




* Start Tracking... 8/1/2010 * Due Date: 8/31/2010

Description

OK Cancel Help

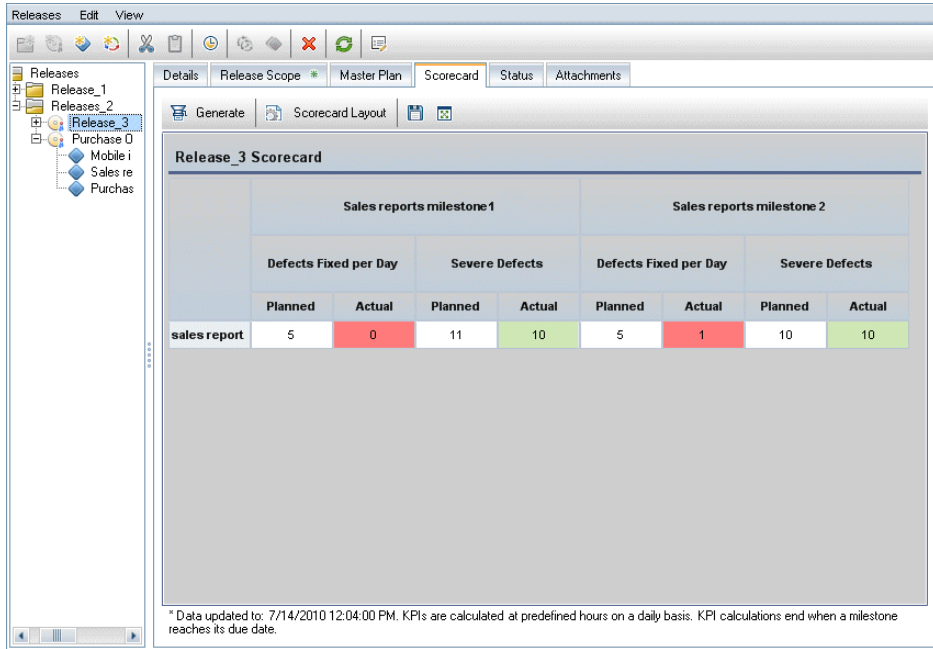
To access	In the Releases module, select a release and click the Master Plan tab. Double-click a milestone on the chart.
Important information	ALM Editions: Functionality related to PPT is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.
Relevant tasks	"How to Work with PPT" on page 193
See also	<ul style="list-style-type: none"> ➤ "PPT Releases Overview" on page 192 ➤ "Releases Module Window" on page 164

User interface elements are described below:

UI Elements (A-Z)	Description
	Spell Check. Checks the spelling for the selected word or text box.
	Thesaurus. Displays a synonym, antonym, or related word for the selected word.
	Spelling Options. Enables you to configure the way ALM checks spelling.
Description	A description for the milestone.
Details	Displays milestone details. For details on the available fields, see "PPT Fields" on page 203.
History	Enables you to view the fields modified during the change. For more details, see "History Tab" on page 81.
KPIs	Enables you to view define KPIs and set thresholds. For more details, see "KPIs Tab" on page 215.
Milestone ID	A unique numeric ID for the milestone, assigned automatically by ALM. The Milestone ID is read-only.
Milestone Scope	Enables you to view and update a release scope item. For more details, see "Milestone Scope Tab" on page 212.
Name	The milestone name.

Scorecard Tab

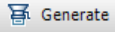



This tab displays KPI calculations to enable you to determine the status of your release milestones. Clicking KPI cells enables you to drill down and display calculations as graphs.



To access	In the Releases module, select a release and click the Scorecard tab.
Important information	<ul style="list-style-type: none"> ▶ To view progress in the Scorecard tab, you must run calculations for your project. You can schedule to run calculations automatically or manually. For more details, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>. ▶ ALM Editions: Functionality related to PPT is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.

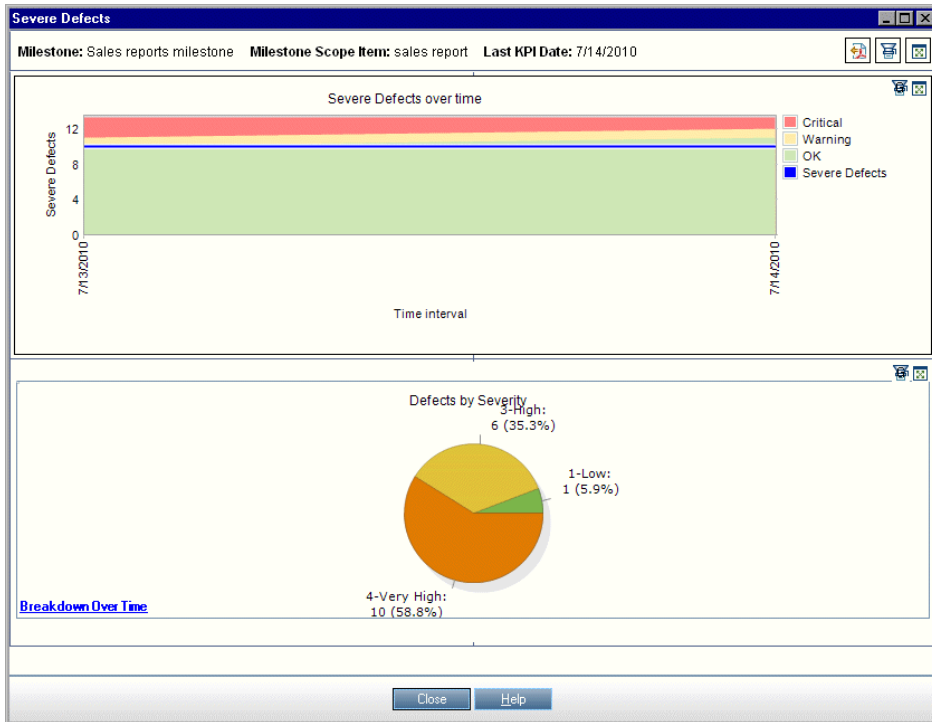
Relevant tasks	"How to Work with PPT" on page 193
See also	<ul style="list-style-type: none"> ➤ "PPT Releases Overview" on page 192 ➤ "Releases Module Window" on page 164 ➤ "View Tab – PPT Graphs" on page 955

User interface elements are described below:

UI Elements	Description
 Generate	<p>Refreshes the scorecard table, so that it displays the most up-to-date information.</p> <p>For details on the scorecard table, see "View Tab – PPT Graphs" on page 955.</p> <p>Note: KPIs are calculated at predefined hours on a daily basis. Milestones are calculated once they reach their due date.</p>
 Scorecard Layout	<p>Scorecard Layout. Opens the Scorecard Layout dialog box enabling you to configure the scorecard table. For more details, see "Scorecard Layout Dialog Box" on page 236.</p>
	<p>Save Graph Image. Saves the scorecard table as an image.</p>
	<p>Full Screen. Displays the scorecard table in full-screen mode.</p>
<KPI cell>	<p>You can perform the following actions in a KPI cell:</p> <ul style="list-style-type: none"> ➤ Click a KPI cell to display a graph representation of this cell. For more details, see "KPI Graph" on page 230. ➤ Hover over a KPI cell to view a tooltip containing the KPI's threshold values.

KPI Graph




This graph displays a scorecard calculation of a KPI cell.



<p>To access</p>	<p>In the Releases module, select a release and click the Scorecard tab. Click a KPI cell.</p>
<p>Important information</p>	<ul style="list-style-type: none"> ▶ The graph page can contain up to two additional graphs. You can customized this page and determine whether or not to display these additional graphs. For more details, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>. ▶ ALM Editions: Functionality related to PPT is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.

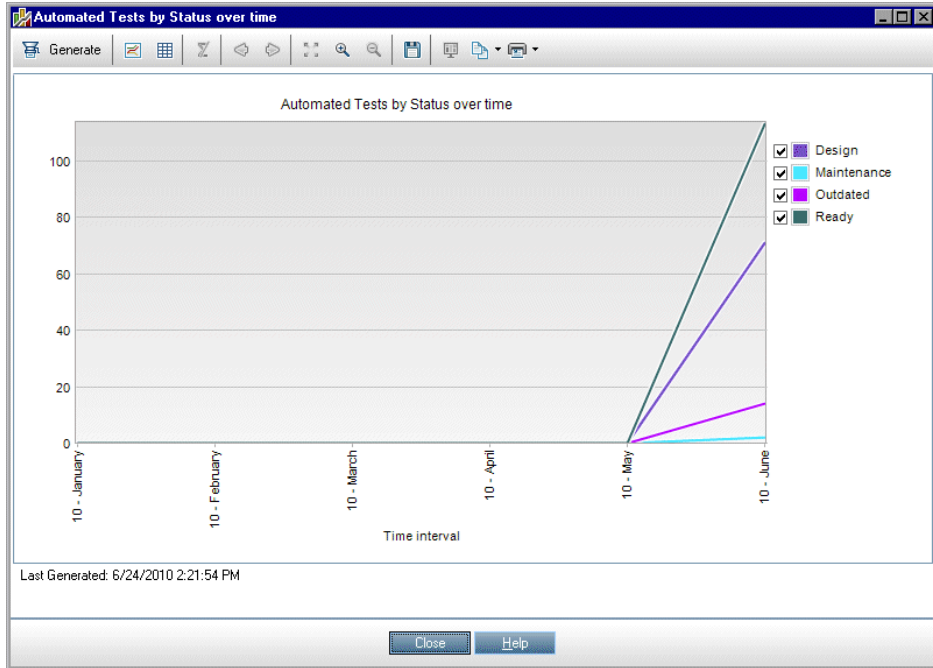
Relevant tasks	"How to Work with PPT" on page 193
See also	<ul style="list-style-type: none"> ➤ "PPT Releases Overview" on page 192 ➤ "Releases Module Window" on page 164

User interface elements are described below:

UI Elements (A-Z)	Description
	Export to PDF. The Save As dialog box opens enabling you to save the graph as a PDF.
	Generate All Graphs in Page/Generate Graph. Refreshes all the graphs on the page, or the selected graph, so that they display the most up-to-date information.
	<p>View Page in Full Screen. Displays the dashboard page in full-screen mode.</p> <p>View Graph in Full Screen. Displays the graph in full-screen mode.</p>
<graph area>	Hover over a graph segment to view a tooltip containing additional information.
Breakdown Over Time link	<p>Click to drill down to the graph's data and show specific points during a period of time. Opens a breakdown over time graph. For more details, see "Breakdown Over Time Graph" on page 232.</p> <p>Available from: graph area on the bottom of the page.</p>
Last KPI Date	Indicates when the KPI was last calculated.
Milestone	The name of the selected milestone.
Milestone Scope Item	The name of the selected milestone scope item.

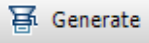

Breakdown Over Time Graph








This graph displays specific points during a period of time.





<p>To access</p>	<p>From the Releases module:</p> <ol style="list-style-type: none"> 1 Select a release and click the Scorecard tab. 2 Click a KPI cell. On the bottom of the KPI graph page, click the Breakdown Over Time link. <p>From the Dashboard module:</p> <ol style="list-style-type: none"> 1 Select Analysis View. 2 Expand the analysis tree, and select one of the following graphs: KPI Breakdown or Release Scorecard. 3 Click the View tab. 4 For a KPI Breakdown graph, click the Breakdown Over Time link. For a Release Scorecard, click a KPI cell. On the bottom of the KPI graph page, click the Breakdown Over Time link.
<p>Important information</p>	<p>ALM Editions: Functionality related to PPT is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.</p>
<p>Relevant tasks</p>	<p>"How to Work with PPT" on page 193</p>
<p>See also</p>	<ul style="list-style-type: none"> ➤ "PPT Releases Overview" on page 192 ➤ "Releases Module Window" on page 164 ➤ "KPI Graph" on page 230

User interface elements are described below:

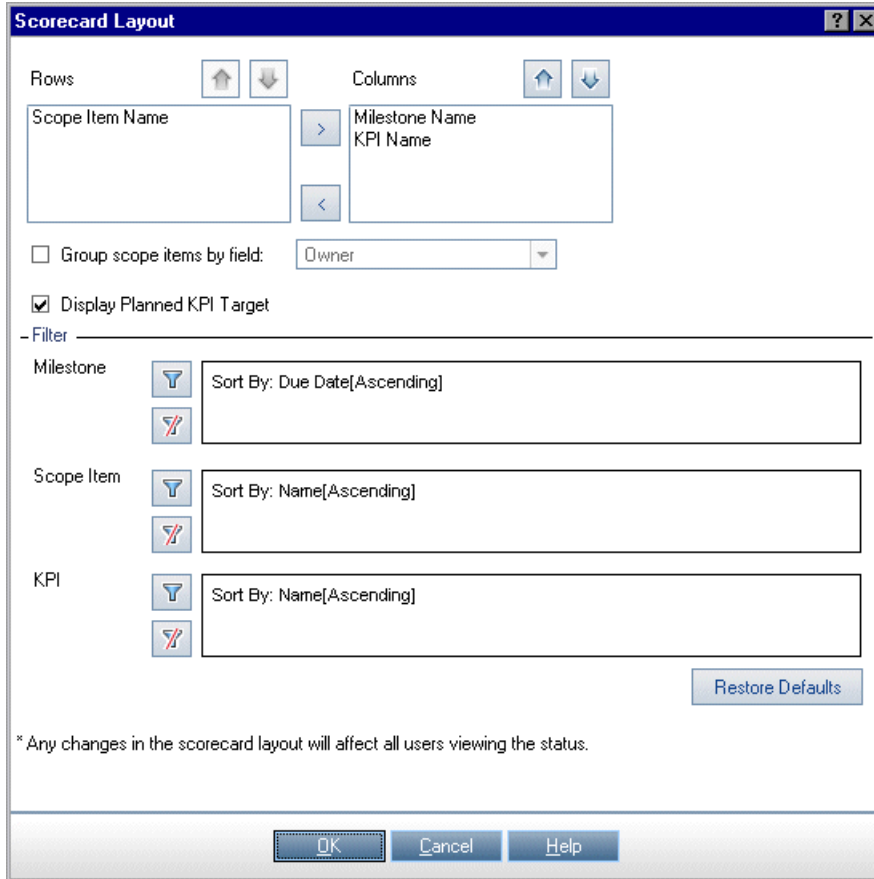
UI Elements (A-Z)	Description
	<p>Generate. Refreshes the graph so that it displays the most up-to-date information.</p>
	<p>Line Chart. Switches the chart format to a line chart.</p>

UI Elements (A-Z)	Description
	<p>Data Grid. The grid creates a matrix of the graph's x-axis and Grouped By categories. A Total row is added that displays the total of each Grouped By category.</p>
	<p>Show/Hide Total Values. Shows/hides a <total> category to the graph, representing the sum of all the other Grouped By categories.</p> <p>Tip: After showing the <total> category, click its label in the legend to hide the category.</p>
	<p>Scroll to the Left/Right. Scrolls the graph to the left or right. These buttons are enabled when the Zoom In and Zoom Out buttons are in use.</p>
	<p>Show All. Restores the graph to its normal size. This button is enabled when the Zoom In and Zoom Out buttons are in use.</p>
	<p>Zoom In/Out. Changes the magnification of the graph.</p>
	<p>Save Graph Image. When viewing a graph as a bar, pie chart, or line chart, saves the graph image. You can select from a variety of graphic file formats.</p> <p>Save Graph Data. When viewing a data grid, saves the graph data. You can save the data as an Excel spreadsheet, a Word file, an HTML document, or a text file.</p>
	<p>Set Graph Appearance. Opens the Graph Appearance dialog box, enabling you to customize the graph title, graph color, and graph display. For more details, see "Graph Appearance Dialog Box" on page 942.</p>

UI Elements (A-Z)	Description
	<p>Copy Graph to Clipboard. Includes the following options:</p> <ul style="list-style-type: none"> ▶ Copy Graph (Color). Copies the graph in color to the Clipboard. ▶ Copy Graph (Monochrome). Copies the graph in monochrome to the Clipboard. ▶ Copy Full Screen Graph (Color). Copies the graph in color to the Clipboard, enlarged to fit full screen. ▶ Copy Full Screen Graph (Monochrome). Copies the graph in monochrome to the Clipboard, enlarged to fit full screen.
	<p>Print Graph. Includes the following options:</p> <ul style="list-style-type: none"> ▶ Print Graph (Color). Prints the graph in color. This is the default button option. ▶ Print Graph (Monochrome). Prints the graph in monochrome. ▶ Print Graph and Details (Color). Prints the graph and its description in color. ▶ Print Graph and Details (Monochrome). Prints the graph and its description in monochrome.
<graph area>	Hover over a graph segment to view a tooltip containing additional information.
<legend>	Displays the chart categories and their corresponding color. Click a category to show or hide the category in the graph.

Scorecard Layout Dialog Box

This dialog box enables you to configure the scorecard table settings.



Scorecard Layout [?] [X]

Rows [↑] [↓] Columns [↑] [↓]

Scope Item Name [>] Milestone Name
KPI Name [<]

Group scope items by field: Owner [v]

Display Planned KPI Target

- Filter -

Milestone [Filter] [Refresh] Sort By: Due Date[Ascending]

Scope Item [Filter] [Refresh] Sort By: Name[Ascending]

KPI [Filter] [Refresh] Sort By: Name[Ascending]

[Restore Defaults]





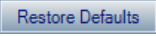
* Any changes in the scorecard layout will affect all users viewing the status.

[OK] [Cancel] [Help]

To access	In the Releases module, select a release and click the Scorecard tab. Click the Scorecard Layout button.
Important information	ALM Editions: Functionality related to PPT is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.

Relevant tasks	"How to Work with PPT" on page 193
See also	<ul style="list-style-type: none"> ➤ "PPT Releases Overview" on page 192 ➤ "Releases Module Window" on page 164

User interface elements are described below:

UI Elements (A-Z)	Description
	Sets the order in which row or column names appear in scorecard table.
	Moves selected names between Rows and Columns .
	Enables you to narrow and sort the Milestone , Scope Item , or KPI data according to your chosen criteria. For more details on filtering, see "Filter Dialog Box" on page 60.
	Clears the defined filter.
	Restores default filter definitions
Columns	Lists columns that are currently displayed in the scorecard table.
Display Planned KPI Target	Displays the acceptable threshold value for each KPI in the Planned column of the scorecard table. Note: The Planned column is displayed only when this option is enabled.
Group Scope Item by Field	Groups according to a specified scope item field.
Rows	Lists rows that are currently displayed in the scorecard table.

New Release From Template Dialog Box

This dialog box enables you to create a new release by copying from an existing release in a template project.

To access	In the Releases module, right-click a release folder and select New Release from Template > New Release from Template .
Important information	<ul style="list-style-type: none"> ▶ The following release properties are copied from the template project: description, start/end dates, cycles, milestones, KPIs, KPI thresholds, attachments, and user-defined fields. ▶ The following release properties are not copied from the template project: release scope, milestone scope, and links to ALM entities in other modules. ▶ After creating the new release, you must update the copied dates. ▶ The New Release from Template option is available in a project that is linked and synchronized with a template project. For more details on linking and synchronizing template projects, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>. ▶ ALM Editions: Functionality related to PPT is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.
Relevant tasks	"How to Work with PPT" on page 193
See also	<ul style="list-style-type: none"> ▶ "PPT Releases Overview" on page 192 ▶ "Releases Module Window" on page 164

User interface elements are described below:

UI Elements (A-Z)	Description
Template Release	Displays the releases available from the template project. Expand the tree and select a release.
Release Name	The name of the new release. Note: If the release name already exists in the Releases module, the suffix _Copy will be added to the release name.

10

Libraries and Baselines

This chapter includes:

Concepts

- ▶ Libraries Overview on page 242

Tasks

- ▶ How to Use Libraries and Baselines in ALM on page 246

Reference

- ▶ Libraries and Baselines User Interface on page 252

Concepts

Libraries Overview

Quality Center Starter Edition: The Libraries module functionality described in this chapter is not available.

In the Libraries module, you define a hierarchical libraries tree to create and manage your libraries. A **library** represents a set of entities in a project and the relationships between them. The entities in a library can include requirements, tests, test resources, and business components.

After you create a library, you can create a baseline to keep track of changes made to your project over time. A **baseline** is a snapshot of the library at a specific point in time. You can compare baselines at all stages of the application development lifecycle.

Viewing baseline history enables you to track changes made to individual entities in your library over time. As development continues, you can view and compare all versions of an entity that are stored in a baseline.

You can also import a library. Importing a library enables you to reuse and share an existing set of entities. As development continues, you can compare and synchronize libraries. For details, see "Imported Libraries Overview" on page 284. **ALM Editions:** Imported library functionality is not available for Quality Center Starter Edition or Quality Center Enterprise Edition.

Creating and managing libraries and baselines requires appropriate user permissions. For more information, refer to the *HP Application Lifecycle Management Administrator Guide*.

This section also includes:

- "Baselines Overview" on page 243
- "Pinned Test Sets" on page 244

For task details, see "How to Use Libraries and Baselines in ALM" on page 246.

Baselines Overview

After you create a library, you can create a baseline. A baseline is a snapshot of your library at a specific point in time. You can use a baseline to mark any significant milestone in the application development lifecycle. A baseline includes all the entities defined in the library, including requirements, tests, and test resources. Baselines also include:

- the relationships between the entities in the library, such as traceability and coverage
- any related entities outside of the library that the tests in the library need in order to run, such as called tests and test resources

Baselines enable you to keep track of changes made to your project over time. You can use baselines in the following ways:

- Compare baselines at all stages of the application development lifecycle. For example, you can compare two baselines in a library to assess the impact of changes made to requirements over time. You can then update the relevant tests in your project accordingly. You can also compare a baseline to the current entities in the library.
- Pin a test set to a baseline. This ensures that when you run the test set, the versions of the tests stored in a baseline you specify are run. For more details, see "Pinned Test Sets" on page 244.
- Use a baseline to share the entities in a library. This enables you to reuse the library's entities within your project, or in a different project. To import a library, the library must contain a baseline. For details on importing a library, see "Imported Libraries Overview" on page 284.
ALM Editions: Imported library functionality is not available for Quality Center Starter Edition or Quality Center Enterprise Edition.

Baseline Examples

The following examples demonstrate how you can use baselines:

► **Establish content of a release - stakeholder sign off.**

Your organization is starting development of a new version of an application. Robert, a business analyst, presents a group of requirements to the stakeholders to review. After the requirements are reviewed and approved, he creates a baseline. Stakeholders can then sign off on the agreed upon release content.

► **Monitor change.**

Kelly, a product manager, finds that product development is being implemented differently than she expected. She reviews the requirements for the product and discovers that some have changed. She compares the current requirements with the requirements in the baseline created and agreed upon at the start of the release.

► **Evaluate the impact of changes.**

Michael, a QA tester, is responsible for a large group of tests that are part of the latest application release. He is updating some of the tests in accordance with the requirements for the release. Following the latest requirements review meeting, he is notified that some of the requirements have been changed. Michael compares the current requirements with the requirements in the baseline created at the start of the release. He identifies which changes affect tests he is working on, and updates the tests to reflect the changes.

Pinned Test Sets

You can pin a test set to a baseline. When you pin a test set to a baseline, the tests that are in the test set are associated with the versions of the tests stored in a baseline you select. When you run the tests in a pinned test set, the versions of the tests stored in the specified baseline are run.

A pinned test set can include only tests that are included in the baseline. When you pin a test set to a baseline, tests that are not a part of the baseline are removed from the test set. In addition, all test runs are deleted from the test set. When you add tests to a pinned test set, you can select only tests that are included in the baseline.

You can also clear a pinned test set. If the test set includes tests that no longer exist in the Test Plan module, the tests are deleted from the test set. In addition, all test runs in the test set are deleted. The tests in the test set are then associated with the current tests in the Test Plan module.

For user interface details, see "Select Baseline Dialog Box" on page 281.

Tasks

How to Use Libraries and Baselines in ALM

This task describes how to work with libraries and baselines.

To learn more about libraries and baselines, see "Libraries Overview" on page 242.

ALM Editions: Quality Center Enterprise Edition does not include all Libraries module functionality. This module is not available with Quality Center Starter Edition.

This task includes the following steps:

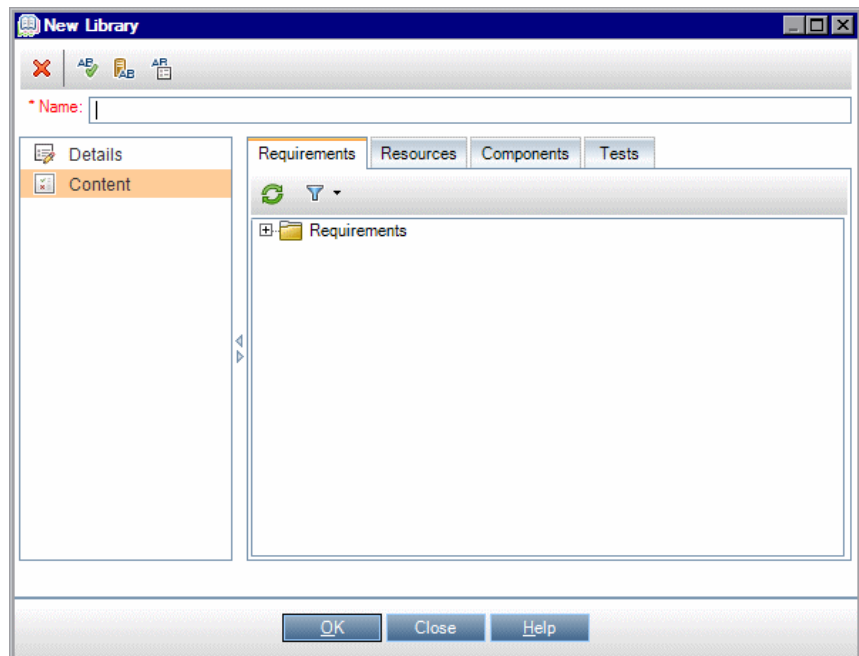
- "Create a library" on page 247
- "Create a baseline" on page 248
- "Monitor library tasks - optional" on page 249
- "Compare baselines" on page 249
- "Pin a test set to a baseline" on page 250
- "View baseline history" on page 251
- "Share a library" on page 251

1 Create a library

Define a hierarchical framework for your libraries by creating a libraries tree that can contain folders and subfolders.

- a Open the Libraries module.** On the ALM sidebar, under **Management**, select **Libraries**.
- b Create folders.** Right-click the **Libraries** root folder and select **New Folder**. To create a sub-folder, right-click a folder and select **New Folder**.
- c Add libraries to folders.** Right-click a folder and select **New Library**. In the New Library dialog box, fill in fields on the Details page. For user interface details, see "New Library/Library Details Dialog Box" on page 261.

On the **Content** page, select entities to include in the library. For user interface details, see "Content Tab" on page 263.



You can define a filter to help you select the entities that you want to include. This can be useful, for example, if you want to create a library that is not based solely on the hierarchical structure of your project.

Example:

Jim, the project manager, has a new project with a major security impact. The test plan tree in his project is organized hierarchically based on products and versions. Jim creates a library that includes the relevant test folders, and defines a filter for the library to include only security-related tests in those folders.

2 Create a baseline

Create a baseline for a library to track changes made to entities in your project over time.

- a** In the Libraries module, right-click a library and select **Create Baseline**. For user interface details, see "Create Baseline Wizard" on page 265.
- b** Click the **View Log** button in the Details tab. The Log: Create Baseline dialog box opens and displays progress.

Note: When the process is complete, view the log before refreshing the display. If you refresh the display after the baseline is created, the **View Log** button is no longer displayed, and you cannot view the log.

For user interface details on the Libraries module window, see "Libraries Module Window" on page 253.

- c** Click the **Refresh** button on the module toolbar to refresh the display. The baseline details are displayed in the Details tab. For details on the available fields in the Details tab, see "Libraries Module Fields" on page 259.

3 Monitor library tasks - optional

When you create a baseline, ALM performs the task in the background, enabling you to continue working in ALM while the process is running. You can view the status and progress of all asynchronous tasks run for the project using the Task Manager.

On the ALM masthead, select **Tools > Task Manager**. For user interface details, see "Task Manager Dialog Box" on page 50.

4 Compare baselines

Compare two baselines in a library, or compare a baseline to the current entities in the library.

- a In the Libraries module, right-click a baseline, click **Compare To**, and choose one of the following:
 - ▶ **Select Baseline.** Compares the baseline you selected with another baseline in the library. Opens the Select Baseline dialog box. Click the browse button to select a baseline from the list.
 - ▶ **Current Entities.** Compares the baseline you selected with the current entities in the library.

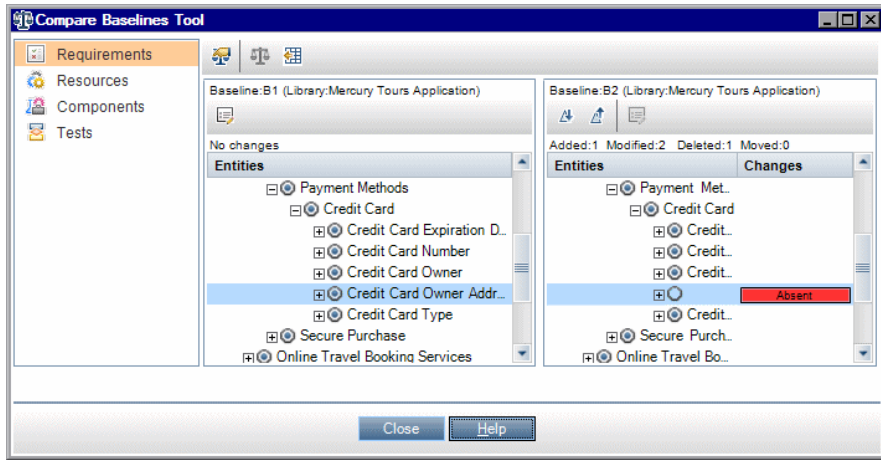
For user interface details on the Compare Baselines Tool, see "Compare Baselines Tool Dialog Box" on page 268.



- b** To save the baseline comparison results in .csv file format, click the **Export Comparison Results** button. After saving, the file opens in the default application defined for opening .csv files on your computer, such as Microsoft Excel.

Example:

Comparing two baselines that were created for the Mercury Tours Application library at different stages of development shows the following results:



5 Pin a test set to a baseline

You can pin a test set to a baseline to associate the test set with the versions of the tests stored in a baseline you select.

- ▶ In the Test Lab module, right-click a test set and select **Pin to Baseline**. For user interface details on the Select Baseline dialog box, see "Select Baseline Dialog Box" on page 281.
- ▶ To clear a pinned baseline, right-click a test set and select **Clear Pinned Baseline**.

For concept details on pinned test sets, see "Pinned Test Sets" on page 244.

6 View baseline history

View and compare all versions of an entity that are stored in a baseline.

Note: Available from the following modules: Requirements, Business Components, Test Plan, Test Resources.

- Select an entity in the tree or grid, and click **History** tab > **Baselines** tab.
- **Version Control:** Select an entity and click **History** tab > **Versions and Baselines** tab. In the **View By** box, select **Baselines**.

For user interface details on the Baselines tab, see "Baselines Tab" on page 278.

7 Share a library

Import a library to reuse an existing set of entities within a project or across multiple projects. As development continues, compare and synchronize libraries. For task details, see "How to Share Libraries" on page 289. **ALM Editions:** Imported library functionality is not available for Quality Center Starter Edition or Quality Center Enterprise Edition.

Reference

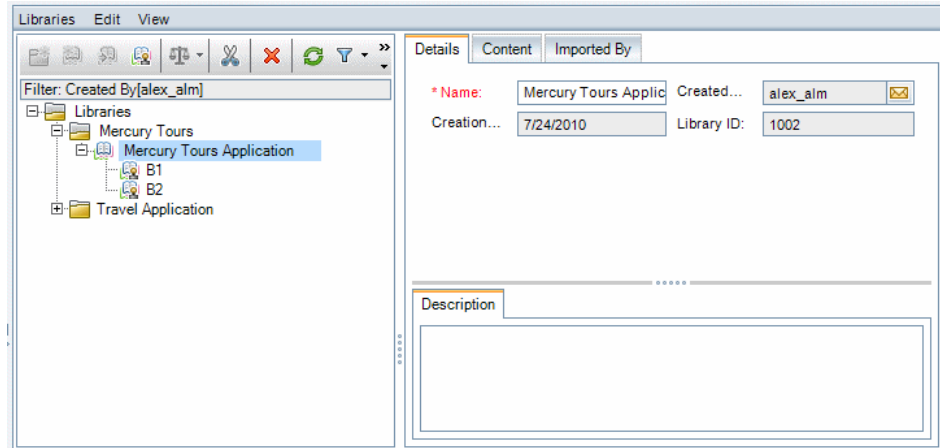
Libraries and Baselines User Interface

This section includes:

- ▶ Libraries Module Window on page 253
- ▶ Libraries Module Menus and Buttons on page 255
- ▶ Libraries Module Icons on page 258
- ▶ Libraries Module Fields on page 259
- ▶ New Library/Library Details Dialog Box on page 261
- ▶ Content Tab on page 263
- ▶ Create Baseline Wizard on page 265
- ▶ Compare Baselines Tool Dialog Box on page 268
- ▶ Compare Entities Dialog Box on page 272
- ▶ Comparison Settings Dialog Box on page 276
- ▶ Baselines Tab on page 278
- ▶ Select Baseline Dialog Box on page 281

Libraries Module Window

The Libraries module window enables you to create and manage libraries and baselines.



To access	On the ALM sidebar, under Management, select Libraries .
Important information	ALM Editions: Quality Center Enterprise Edition does not include all Libraries module functionality. This module is not available with Quality Center Starter Edition.
Relevant tasks	<ul style="list-style-type: none"> ▶ "How to Use Libraries and Baselines in ALM" on page 246 ▶ "How to Share Libraries" on page 289
See also	"Libraries Overview" on page 242

User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements (A-Z)	Description
<Libraries module common UI elements>	<ul style="list-style-type: none"> ▶ Library fields. For field definitions, see "Libraries Module Fields" on page 259. ▶ Library menus and buttons. For command and button descriptions, see "Libraries Module Menus and Buttons" on page 255. ▶ Library icons. For icon descriptions, see "Libraries Module Icons" on page 258. ▶ ALM main menu and sidebar. For details on the Tools menu, Help menu and sidebar, see "ALM Common Areas" on page 40.
<Libraries tree>	A graphical representation of your libraries.
Content tab	Displays the entities included in the selected library. For details, see "Content Tab" on page 263.
Description tab	<p>A description of the currently selected library folder, library, or baseline.</p> <p>Click in the text box to display a toolbar for formatting and spell checking the text.</p>
Details tab	Describes the library folder, library, or baseline selected in the libraries tree.
Filter	Describes the filter currently applied to the tree. Located directly above the libraries tree.



UI Elements (A-Z)	Description
Imported By tab	Displays a list of projects that have imported the selected library. This tab is visible only when the current project or other projects have imported the selected library. For more details, see "Imported By Tab" on page 301. ALM Editions: Not available for Quality Center Starter Edition or Quality Center Enterprise Edition.
Imported From tab	Displays details about the library from which the currently selected library was imported. This tab is visible only when the selected library is imported. For more details, see "Imported From Tab" on page 303. ALM Editions: Not available for Quality Center Starter Edition or Quality Center Enterprise Edition.






Libraries Module Menus and Buttons




This section describes the menus and buttons available in the Libraries module.

To access	On the ALM sidebar, under Management, select Libraries .
Important information	ALM Editions: Quality Center Enterprise Edition does not include all Libraries module functionality. This module is not available with Quality Center Starter Edition.
Relevant tasks	"How to Use Libraries and Baselines in ALM" on page 246
See also	<ul style="list-style-type: none"> ➤ "Libraries Module Icons" on page 258 ➤ "Libraries Overview" on page 242

User interface elements are described below:

UI Elements (A-Z)	Menu	Description
 Compare To	Libraries	<p>Compares the currently selected library or baseline with other libraries or baselines. Includes the following options:</p> <p>For a selected library: ALM Editions: Not available for Quality Center Starter Edition or Quality Center Enterprise Edition.</p> <ul style="list-style-type: none"> ▶ Latest Baseline Created. Compares the selected library with the most recent baseline created in the other library. ▶ Select Baseline. Opens the Select Baseline dialog box, enabling you to select a baseline in another library with which to compare. <p>For a selected baseline:</p> <ul style="list-style-type: none"> ▶ Current Entities. Compares the selected baseline with the current entities in the library. ▶ Select Baseline. Opens the Select Baseline dialog box, enabling you to select a baseline in the library with which to compare.
 Cut/Paste	Edit	<p>Moves a selected library folder or library to a different location in the libraries tree.</p> <p>Note: Moving a library folder also moves its libraries and baselines. Moving a library also moves its baselines. You cannot move a baselines or the root folder.</p> <p>Tip: You can also move a library folder or a library to a new location in the libraries tree by dragging it.</p>

UI Elements (A-Z)	Menu	Description
 Create Baseline	Libraries	Enables you to create a baseline for a selected library. For more details, see "Create Baseline Wizard" on page 265.
 Create Library	Libraries	Opens the Create Library dialog box, enabling you to add a library to a selected library folder. For more details, see "New Library/Library Details Dialog Box" on page 261.
 Delete	Edit	<p>Deletes selected library folders, libraries, or baselines.</p> <p>Note:</p> <ul style="list-style-type: none"> ▶ You cannot delete a library folder that contains libraries, or delete a library that contains baselines. ▶ Deleting a library or baseline does not delete the library's entities from your project. ▶ If you delete a baseline, you can no longer compare between the baseline's library and another library that was imported from or synchronized with the baseline. ▶ Deleting a baseline clears the baseline from pinned test sets. For more details, see "Pinned Test Sets" on page 244.
 Filter	View	Enables you to filter the libraries in the libraries tree. For more details, see "Filter Dialog Box" on page 60.
 Import Library	Libraries	<p>Opens the Import Library Wizard, enabling you to import a library under a selected library folder. For more details, see "Import Library Wizard" on page 295.</p> <p>ALM Editions: Not available for Quality Center Starter Edition or Quality Center Enterprise Edition.</p>



UI Elements (A-Z)	Menu	Description
 Library Details	Libraries	Opens the Library Details dialog box, enabling you to view and edit the details of the selected library. For details, see "Libraries Module Window" on page 253.
 New Folder	Libraries	Opens the New Library Folder dialog box, enabling you to add a folder under a selected folder.
 Refresh	View	Refreshes the libraries tree and tabs so that they display the most up-to-date information.
Rename	Edit	Renames a selected library folder, library, or baseline. You cannot rename the root folder.




Libraries Module Icons

This section describes the icons available in the Libraries module.

To access	On the ALM sidebar, under Management, select Libraries .
Important information	ALM Editions: Quality Center Enterprise Edition does not include all Libraries module functionality. This module is not available with Quality Center Starter Edition.
See also	<ul style="list-style-type: none"> ➤ "Libraries Module Menus and Buttons" on page 255 ➤ "Libraries Module Window" on page 253

User interface elements are described below:

UI Elements	Description
	< green asterisk >. The applicable tab is populated.
	Baseline. A baseline for a library in the libraries tree.

UI Elements	Description
	Imported Library. A library that was imported from the same project or from a different project.
	Library Folder. A folder for organizing libraries.
	Library. A library in the libraries tree.

Libraries Module Fields

This section describes the Libraries module fields.

To access	On the ALM sidebar, under Management, select Libraries .
Important information	<ul style="list-style-type: none"> ▶ You can add user-defined fields and change the label of any of the fields in the Details tab. You can also customize project lists. For more information, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>. ▶ You can use the Script Editor to restrict and dynamically change the fields and values in the Libraries module. For more information, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>. ▶ ALM Editions: Quality Center Enterprise Edition does not include all Libraries module functionality. This module is not available with Quality Center Starter Edition.
Relevant tasks	"How to Use Libraries and Baselines in ALM" on page 246
See also	"Libraries Overview" on page 242

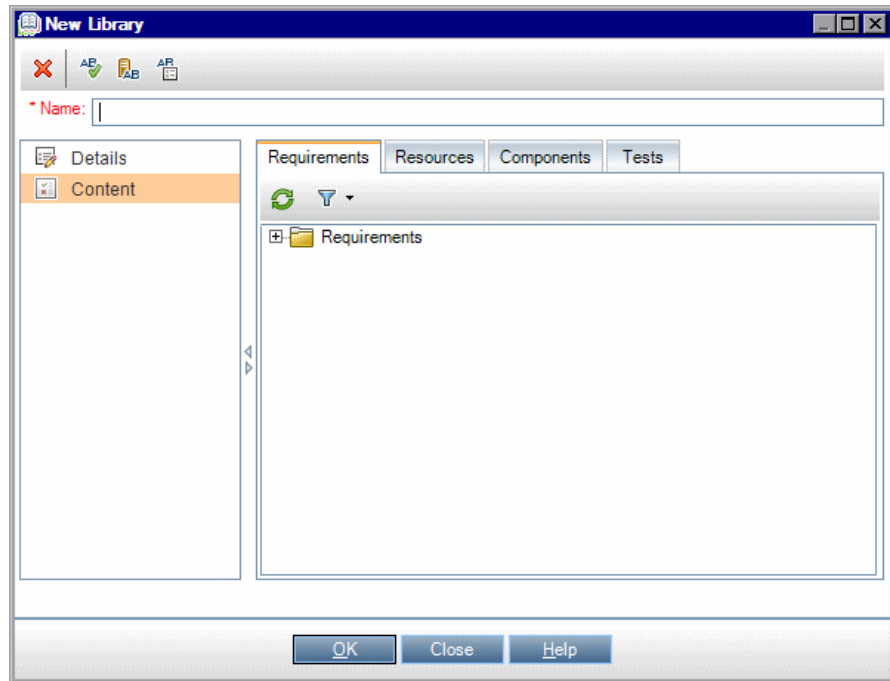
The fields are described below:

UI Elements (A-Z)	Description
Baseline ID	A unique numeric ID for the baseline that ALM assigns automatically.
Created By	The user name of the person who created the library or baseline.
Creation Date	The date on which the library or baseline was created.
Description	A description of the library folder, library, or baseline.
Library ID	A unique numeric ID for the library that ALM assigns automatically.
Modified	The date and time on which the baseline was last renamed or the description was changed.
Name	The folder, library, or baseline name.

New Library/Library Details Dialog Box





The New Library dialog box enables you to add a library to a library folder.

The Library Details dialog box enables you to view and update the details and content of a library.



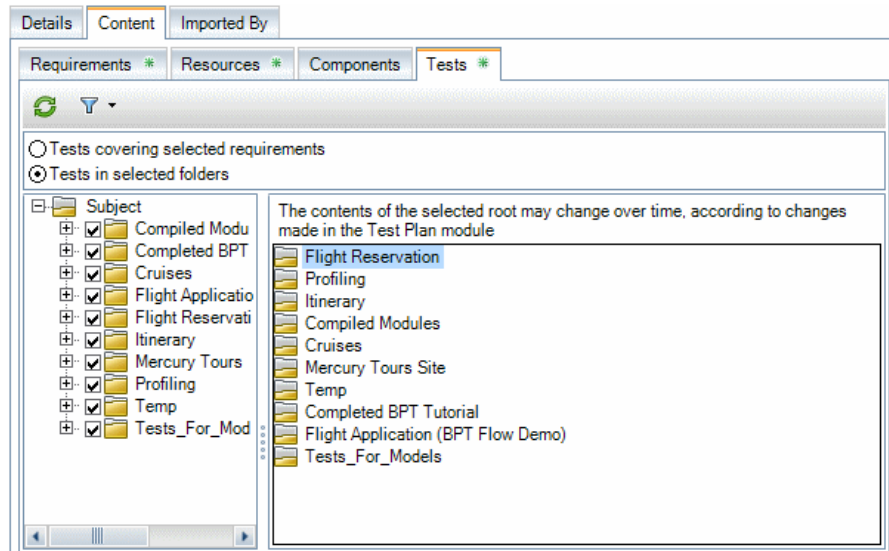
To access	New Library dialog box: In the Libraries module, right-click a library folder and select Create Library . Library Details dialog box: In the Libraries module, right-click a library and select Library Details.
Important information	Quality Center Starter Edition: This dialog box is not available.
Relevant tasks	How to Use Libraries and Baselines in ALM
See also	"Libraries Overview" on page 242

User interface elements are described below:

UI Elements (A-Z)	Description
	<p>Clear All Fields. Clears the data.</p> <p>Available from: New Library dialog box</p>
	<p>Check Spelling. Checks the spelling for the selected word or text box.</p>
	<p>Thesaurus. Displays a synonym, antonym, or related word for the selected word.</p>
	<p>Spelling Options. Enables you to configure the way ALM checks spelling.</p>
<p>Content</p>	<p>Enables you to select entities in your project to include in the library. For details, see "Content Tab" on page 263.</p>
<p>Description</p>	<p>A description of the library. Clicking inside the Description field displays a toolbar for formatting and spell checking the text.</p>
<p>Details</p>	<p>Lists library fields. Required fields are displayed in red. For details on the available library fields, see "Libraries Module Fields" on page 259.</p>
<p>Library ID</p>	<p>A unique numeric ID for the library that ALM assigns automatically.</p> <p>Available from: Library Details dialog box</p>
<p>Name</p>	<p>The name you assign to the library.</p> <p>Syntax exceptions: A library name cannot include the following characters: \ / : * ? " < > </p>



Content Tab

This tab enables you to select or view the entities included in a library.



To access	<p>Use one of the following:</p> <ul style="list-style-type: none"> ▶ In the Libraries module, select a library and click the Content tab. ▶ In the New Library dialog box or the Library Details dialog box, click Content on the sidebar.
Important information	<ul style="list-style-type: none"> ▶ When you select tests to include in a library, you do not need to select related entities that a test needs to run, such as its called tests and test resources. When you create a baseline for the library, ALM automatically includes those related entities in the baseline. ▶ Quality Center Starter Edition: This is not available.
Relevant tasks	"How to Use Libraries and Baselines in ALM" on page 246
See also	"Libraries Overview" on page 242

User interface elements are described below:

UI Elements (A-Z)	Description
	<p>Refresh. Refreshes the tab so that it displays the most up-to-date information.</p>
	<p>Filter. Enables you to filter the entities in the tree.</p> <p>The filter determines the following:</p> <ul style="list-style-type: none"> ▶ the folders and records that are displayed and available for selection in the Content tab ▶ the entities that are included when you create a baseline or import the library
<p><Left pane></p>	<p>The entity tree for the selected module. Displays the folders that are available for selection.</p> <p>Select a folder to include it in the library. Contents of the selected folder are displayed in the right pane.</p> <p>Note: In the Requirements tab, you can also select individual requirements.</p>
<p><Right pane></p>	<p>Displays the child entities of the selected folder. The contents displayed may change over time, according to changes made in the module.</p> <p>This pane is not displayed in the Requirements tab. All requirements are displayed in the tree in the left pane.</p>
<p>Components</p>	<p>Business Components module content for the library.</p>
<p>Filter</p>	<p>Describes the filter currently applied to the tree. Located directly above the libraries tree.</p>
<p>Requirements</p>	<p>Requirements module content for the library.</p>

UI Elements (A-Z)	Description
Resources	Test Resources module content for the library.
Tests	<p>Test Plan module content for the library.</p> <p>Select an option for including tests in the library:</p> <ul style="list-style-type: none"> ▶ Tests in selected folders. Enables you to select folders in the tree to include in the library. ▶ Tests covering selected requirements. Includes only the tests that cover the requirements that are selected for the library. <p>Note: Selecting this option clears any previous selection or filter defined in this tab.</p>

Create Baseline Wizard

This wizard enables you to create a baseline for a library.

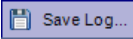
To access	In the Libraries module, right-click a library and select Create Baseline .
Wizard map	This wizard contains: Baseline Verification Page > New Baseline Page
Important information	Quality Center Starter Edition: This is not available.
Relevant tasks	"How to Use Libraries and Baselines in ALM" on page 246
See also	"Baselines Overview" on page 243

Baseline Verification Page

This wizard page enables you to view and save results of the baseline verification process.

Important information	General information about this wizard is available here: "Create Baseline Wizard" on page 265.
Wizard map	The Create Baseline Wizard contains: Baseline Verification Page > New Baseline Page
See also	"Baselines Overview" on page 243

User interface elements are described below:

UI Elements (A-Z)	Description
	Saves the Baseline Verification log in a text file. Review the log and resolve any issues, if necessary, before continuing to create the baseline.
Verification results	Displays the results of the library size verification. The process checks that the size of the library does not exceed the limit defined in Site Administration. For more information, see the <i>HP Application Lifecycle Management Administrator Guide: LIBRARY_FUSE</i> .

 **New Baseline Page**

This wizard page enables you to assign a name to the baseline.

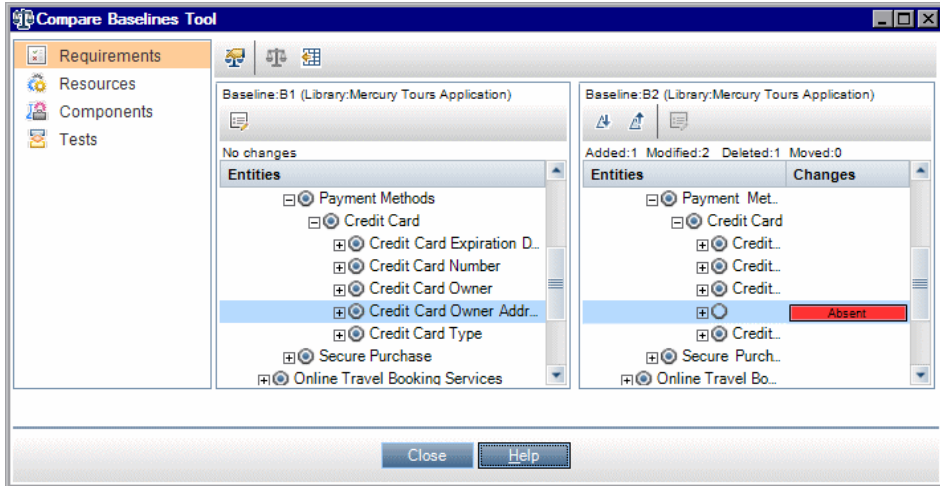
Important information	<ul style="list-style-type: none"> ▶ General information about this wizard is available here: "Create Baseline Wizard" on page 265. ▶ When you create a baseline for a library that includes tests, related entities that the tests need to run, such as their called tests and test resources, are also included in the baseline. These related entities do not need to be defined in the library. ▶ The baseline is created in a background process, and may take some time. You can continue working in ALM during baseline creation.
Wizard map	The Create Baseline Wizard contains: Baseline Verification Page > New Baseline Page
See also	"Baselines Overview" on page 243

User interface elements are described below:

UI Elements (A-Z)	Description
Baseline Name	The name you assign to the baseline.




Compare Baselines Tool Dialog Box



This dialog box enables you to compare two baselines in a library, or compare a baseline to the current entities in the library. For example, you can compare baselines at different stages of development to review and assess the impact of changes made to requirements in your project.



To access	<p>In the Libraries module, right-click a baseline, click Compare To, and choose one of the following:</p> <ul style="list-style-type: none"> ▶ Select Baseline. Compares the baseline you selected with another baseline in the library. Opens the Select Baseline dialog box. Click the browse button to select a baseline from the list. ▶ Current Entities. Compares the baseline you selected with the current entities in the library.
Important information	<ul style="list-style-type: none"> ▶ ALM does not consider changes made to Target Release and Target Cycle fields when determining whether an entity has been modified. ▶ If coverage or traceability between two entities was deleted and then added again, those entities are considered modified. ▶ If coverage ▶ Quality Center Starter Edition: This is not available.
Relevant tasks	"How to Use Libraries and Baselines in ALM" on page 246
See also	"Baselines Overview" on page 243

User interface elements are described below (unlabeled elements are shown in angle brackets>):

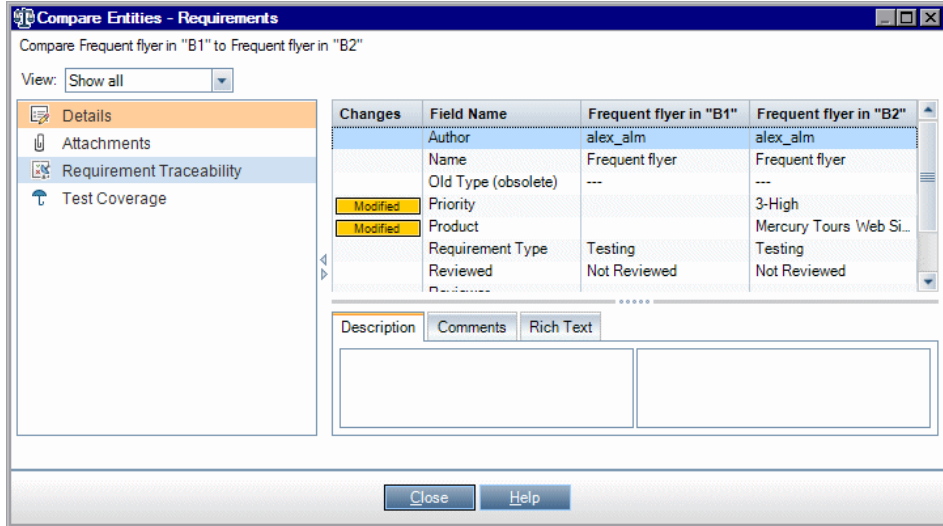
UI Elements	Description
	Comparison Settings. Opens the Comparison Settings dialog box, enabling you to define settings for comparing baselines. For more details, see "Comparison Settings Dialog Box" on page 276.
	Compare Entities. Opens a Compare Entities dialog box, enabling you to view details of the entity in each baseline. For details, see "Compare Entities Dialog Box" on page 272.
	Export Comparison Results. Enables you to save the baseline comparison results in .csv file format. After saving, the file opens in the default application defined for opening .csv files on your computer, such as Microsoft Excel.

UI Elements	Description
	<p>Details. Opens a Details dialog box, enabling you to view details of the selected entity stored in the baseline.</p> <p>Select an entity and click the Details button.</p> <p>For example, select a requirement in one of the panes. The Requirement Details dialog box opens and displays details of the requirement in the baseline.</p>
	<p>Go to Next/Previous Change. Moves to the next/previous change for the selected module.</p>
<p><Baseline identification bar></p>	<p>Located at the top of each baseline pane, indicates the name of the baseline displayed in the pane below.</p>
<p><Counter bar></p>	<p>Located above each baseline pane, displays the number of entities that were added, modified, deleted, or moved, according to change status.</p>
<p><Left pane></p>	<p>Displays entities stored in the older baseline.</p>
<p><Right pane></p>	<p>Displays entities stored in the more recently created baseline or current entities.</p>
<p><Sidebar></p>	<p>Enables you to view comparison results for entities by module. For example, select Tests to view comparison results for the Test Plan module.</p> <p>The sidebar displays only the modules that are included in the library.</p>

UI Elements	Description
Changes	<p>Indicates differences between the two baselines. Possible values include the following:</p> <ul style="list-style-type: none"> ▶ Added. The entity did not exist in the older baseline. ▶ Modified. There is a difference in the entity between the baselines. ▶ Absent. The entity does not exist in the newer baseline. ▶ Moved. The entity is in a different location in the tree structure in the newer baseline. ▶ Moved and Modified. The entity has changed and has been moved to a different location in the tree. <p>A deleted or moved entity is displayed in its original location in the tree, indicated by a placeholder. This maintains the hierarchical structure, enabling you to compare changes between baselines.</p>
Entities	<p>Displays the library's entities in the same hierarchical structure as defined in the selected module.</p>

Compare Entities Dialog Box

This page enables you to compare an entity between two baselines in a library, or between two libraries.



To access	<p>Use one of the following:</p> <ul style="list-style-type: none"> ➤ In the Compare Baselines Tool or Compare Libraries Tool dialog box, select a modified entity and click the Compare Entities button. ➤ In the History tab > Baselines tab, select two versions and click the Compare button. ➤ Version Control: In the History tab > Versions and Baselines tab, select two versions and click the Compare button. <p>Available from the following modules: Requirements, Business Components, Test Plan, Test Resources</p>
Important information	<ul style="list-style-type: none"> ➤ Changes made to Target Release and Target Cycle fields do not cause the fields to be marked as modified. ➤ Version Control: <ul style="list-style-type: none"> ➤ Compare two versions of an entity in a version control enabled project. ➤ Not all sidebar buttons are displayed. The buttons available depend on the information stored under version control. For more details, see "Version Control Overview" on page 118.
Relevant tasks	<ul style="list-style-type: none"> ➤ "How to Use Libraries and Baselines in ALM" on page 246 ➤ "How to Use Version Control" on page 120
See also	"Baselines Overview" on page 243

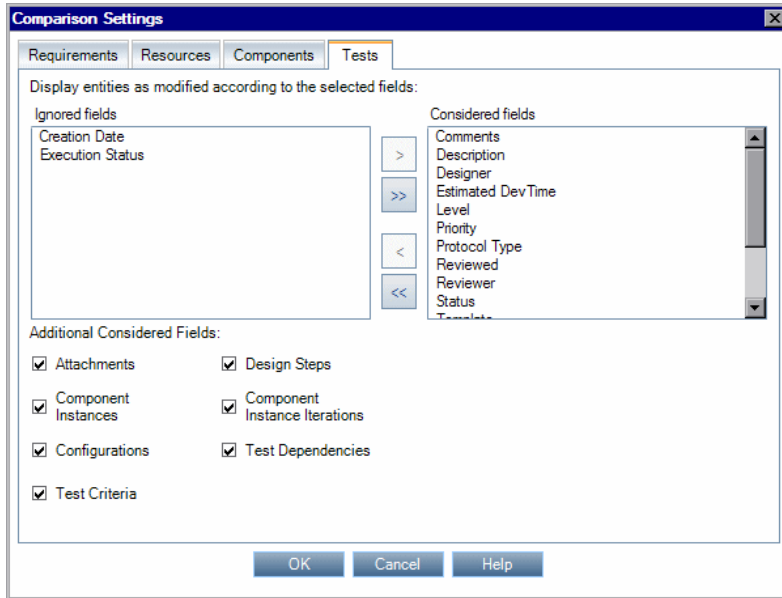
User interface elements are described below (unlabeled elements are shown in angle brackets):


UI Elements (A-Z)	Description
<Results grid>	Displays fields and the field value stored in each version of the entity. Indicates each field whose value has changed.
<Sidebar>	<p>Enables you to view additional comparison results. The buttons displayed depend on the type of entity you are comparing.</p> <p>Note: If you are comparing a QuickTest entity, the QTP Comparison button is displayed, enabling you to open the QuickTest Asset Comparison Tool. For more information on working with QuickTest, refer to the <i>HP QuickTest Professional User Guide</i>.</p>
Changes	<p>Indicates a modified field.</p> <p>Note:</p> <ul style="list-style-type: none"> ▶ Version Control: Changes to some fields are not stored under version control. For more details, see "Non-versioned Fields" on page 125. ▶ For traceability and coverage, if a linked entity is marked as both Deleted and Added, or is displayed as Missing on both sides, this can indicate that the link between the entities was deleted and then added.
Attachments tab	Enables you to compare attachments stored in each version. The Changes column indicates if an attachment has been added, deleted, or modified. You can open or save an attachment to view and compare changes.
Comments tab	Enables you to compare the contents of the Comments field stored in each version.
Description tab	Enables you to compare the contents of the Description field stored in each version.
Field Name	The name of the field.

UI Elements (A-Z)	Description
Rich Text tab	Enables you to compare rich text. Each pane in the Rich Text tab indicates if rich text has been added, deleted, or modified for the relevant entity version. You can open or save the rich text as a file to view and compare changes.
View	Enables you to select a display option for results.



Comparison Settings Dialog Box

This page enables you to define settings for comparing libraries or baselines. You can select which fields ALM considers when determining whether an entity has been modified.



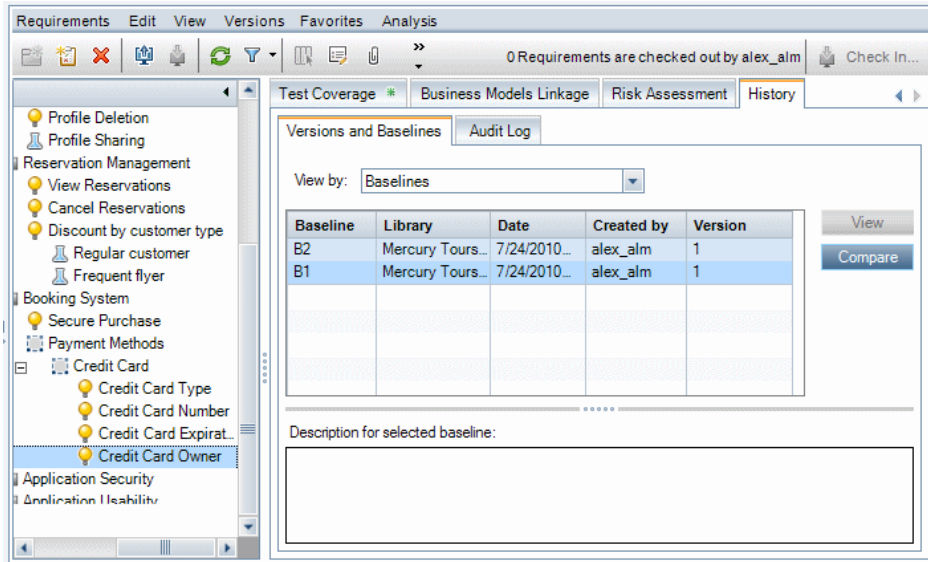
To access	In the Compare Baselines Tool or Compare Libraries Tool, click the Comparison Settings button  .
Important information	<ul style="list-style-type: none"> ➤ ALM does not consider changes made to Target Release and Target Cycle fields when determining whether an entity has been modified. ➤ Quality Center Starter Edition: This is not available.
Relevant tasks	"How to Use Libraries and Baselines in ALM" on page 246
See also	<ul style="list-style-type: none"> ➤ "Compare Baselines Tool Dialog Box" on page 268 ➤ "Compare Libraries Tool Dialog Box" on page 304

User interface elements are described below (unlabeled elements are shown in angle brackets>):

UI Elements (A-Z)	Description
	<p>Moves selected fields between Ignored Fields and Considered Fields.</p> <p>Tip: You can also drag the field names between panes or double-click a field name to move it across to the other pane.</p>
	<p>Moves all fields between Ignored Fields and Considered Fields.</p>
<Module tabs>	<p>Enable you to configure comparison settings per module. The Comparison Setting dialog box displays tabs for modules included in the library.</p>
Additional considered fields	<p>Instructs ALM to consider the entity as modified based on changes made to the selected fields.</p> <p>Note: To instruct ALM to ignore coverage, you must clear the Coverage check box in both the Requirements and Tests tabs.</p>
Considered fields	<p>ALM displays the entity as modified based on changes made to fields in this box.</p>
Ignored Fields	<p>ALM does not display the entity as modified based on changes made to fields in this box.</p>

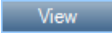

Baselines Tab

This view displays baseline history for a selected entity. You can view and compare all versions of the entity that are stored in a baseline.



<p>To access</p>	<p>Select an entity in the tree or grid, and click History tab > Baselines tab.</p> <p>Version Control: Select an entity and click History tab > Versions and Baselines tab. In the View By box, select Baselines.</p> <p>Available from the following modules: Requirements, Business Components, Test Plan, Test Resources.</p>
<p>Important information</p>	<p>Quality Center Starter Edition: This tab is not available.</p>
<p>Relevant tasks</p>	<p>"How to Use Libraries and Baselines in ALM" on page 246</p>
<p>See also</p>	<p>"Baselines Overview" on page 243</p>

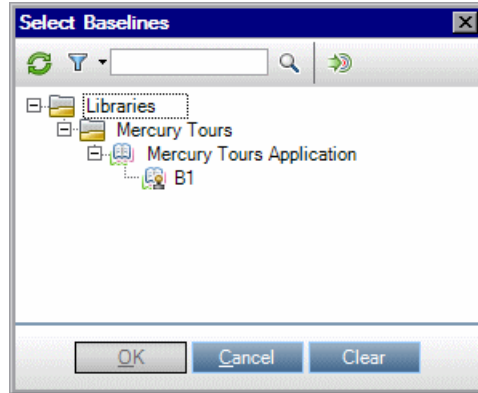
User interface elements are described below:


UI Elements (A-Z)	Description
	<p>Opens a Details dialog box, displaying read-only details for the version of the entity stored in the selected baseline. Select an option on the sidebar to view additional information, such as the Test Coverage and Attachments. The buttons displayed depend on the type of entity selected in the tree or grid.</p> <p>Note: If you are viewing information for a QuickTest test, clicking the Test Script button opens the test in a QuickTest viewer, enabling you to view the test or open the test in QuickTest. For more information, refer to the <i>HP QuickTest Professional User Guide</i>.</p>
	<p>Opens the Compare Entities dialog box, enabling you to compare two selected baseline versions. For details, see "Compare Entities Dialog Box" on page 272.</p> <p>To compare two baseline versions, press the CTRL key and select the versions. Then click the Compare button.</p>
Baseline	The name of the baseline in which the entity is stored.
Created By	The name of the user who created the baseline.
Date	The date the baseline was created.
Description for selected baseline	The descriptions typed by the user when creating the baseline.
Library	The library for which the baseline was created.

UI Elements (A-Z)	Description
Version	<p>The version number of the entity stored in the selected baseline.</p> <p>Available in version control enabled projects only.</p>
View by	<p>Enables you to select one of the following options for viewing history:</p> <ul style="list-style-type: none"> ▶ Baselines. Displays all versions of the selected entity that are stored in a baseline. ▶ Versions. Displays version history for the selected entity. For details, see "Versions and Baselines Tab - Versions View" on page 135. <p>Available in version control enabled projects only.</p>





Select Baseline Dialog Box

This dialog box enables you to pin a test set to a baseline. This associates the tests in the test set with the tests stored in a baseline that you specify. When you run a test set that is pinned to a baseline, ALM runs the versions of the tests that are stored in the specified baseline.



To access	In the Test Lab module, right-click a test set and select Pin to Baseline .
Important information	<ul style="list-style-type: none"> ▶ A pinned test set can include only tests that are included in the baseline. When you pin a test set, ALM removes tests that are not included in the baseline from the test set. ▶ A pinned test set is displayed with the pinned test set icon  in the test set tree. ▶ When you pin a test set, ALM deletes all test runs from the test set. ▶ Quality Center Starter Edition: This feature is not available.
Relevant tasks	"How to Use Libraries and Baselines in ALM" on page 246
See also	"Pinned Test Sets" on page 244

User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements (A-Z)	Description
	Refresh. Refreshes the libraries tree so that it displays the most up-to-date information.
	Filter/Sort. Enables you to filter the data according to the criteria that you choose. For more details, see "Filter Dialog Box" on page 60.
	Find. Searches the libraries tree for the value you specify in the Find box.
	Go to Entity by ID. Opens the Go to Baseline dialog box, enabling you to locate the baseline in the tree according to Baseline ID.
<Find box>	Enter the name of the library you want to search for and click the Find button.
<Libraries tree>	Enables you to select a baseline from the libraries tree.

11

Imported Libraries

This chapter includes:

Concepts

- ▶ Imported Libraries Overview on page 284

Tasks

- ▶ How to Share Libraries on page 289

Reference

- ▶ Imported Libraries User Interface on page 294

Troubleshooting and Limitations on page 309

Concepts

Imported Libraries Overview

ALM Editions: Imported libraries functionality is not available for Quality Center Starter Edition and Quality Center Enterprise Edition.

Importing a library enables you to share or reuse an existing set of entities in projects across your enterprise. You import a library by selecting a baseline in another library from which to import. You can import a library from the same project, or from a different project.

When you import a library, the library is added to your libraries tree, and the library's entities are copied to the corresponding modules in your project. If the library includes associated entities, such as requirements that have test coverage, this relationship is also copied. In addition, any related entities outside of the library that the tests in the library need in order to run are also imported, such as called tests and test resources.

You can compare associated libraries at all stages of the application development lifecycle. For example, you can compare an imported library with the source library from which it was imported. When changes are made to entities in a library, you can synchronize libraries to update the entities in an associated library.

Importing and synchronizing libraries requires appropriate user permissions. For more information, refer to the *HP Application Lifecycle Management Administrator Guide*.

Note: You can also share defects across multiple ALM projects. You share and synchronize defects using the *HP Quality Center Synchronizer*. For more information, see the *HP Quality Center Synchronizer User Guide*, available from the HP Application Lifecycle Management Add-ins Page.

This section also includes:

- "Library Synchronization Overview" on page 286
- "Library Verification" on page 288

For related task details, see "How to Share Libraries" on page 289.

Imported Library Examples

The following examples demonstrate how you can use libraries.

➤ **Reuse requirements and tests for a new release.**

While developing a new application, you create a library that includes all the entities in your project that are relevant to the application. After work is complete, you release the new application. As you are about to begin work on the next version, you can import the library, and start making adjustments to requirements and tests to meet the needs of the new version.

➤ **Create a set of requirements, tests, and resources for use by multiple applications.**

Your project contains requirements in the Requirements module that are relevant to an application you are developing. The project also contains tests in the test plan module that you developed to test those requirements. In addition, you have created relationships between the requirements and tests, such as traceability and coverage. You can create a library that represents the application. Then import this library as a self-contained component of other applications.

► **Update imported libraries with changes made in the source library.**

A library in your project includes requirements and tests for a calculator application. Multiple other projects have imported the library, and are using the application’s requirements and tests in other applications they are developing. The business analyst has revised some requirements for the calculator application. To update the imported libraries with these changes, you can synchronize the imported libraries with the source library.

► **Update a source library with developments in an imported library.**

A tester works with an imported library that contains a set of regression tests for the banking application currently in development. During testing, she develops new tests to test the added functionality in the new version of the banking application. When testing is complete, the tester wants to update the regression tests in the source library. The source library can be synchronized with the imported library to update the tests for future testing needs.

 **Library Synchronization Overview**

You can synchronize two associated libraries to update one library with changes made in another library. You can update an imported library with changes made in the source library. You can also update a source library with changes made in the imported library.

During synchronization, data from the other library’s baseline is copied to your library. The following table summarizes how the entities in your library are updated:

Event in Source Library	Event in Your Library
An entity was added.	The entity is added.
An entity was modified.	The entity is updated. If the entity was modified in both libraries, the entity in your library is overwritten. Version Control: A new version is created.

Event in Source Library	Event in Your Library
An entity was deleted.	A new folder is created and the deleted entity is moved to the new folder. The new folder is named SYNC_OBSOLETE_<library_id>_<current_date> and is located under the module's root folder.
An entity was moved.	The entity and its children are moved.

Entities in a library must not be edited during synchronization. If entities in your library are being edited by another user during the synchronization process, synchronization cannot complete successfully.

Version Control: All entities in your library must be checked in before synchronization. If an entity in your library is checked out, synchronization cannot complete successfully.

After you synchronize libraries, a baseline is automatically created for the updated library. This baseline is the basis for comparing the libraries at any point in time and should not be deleted.

For related task details, see "How to Share Libraries" on page 289.

Library Verification

When you import a library, or synchronize libraries, the library is first verified. The verification process includes the following checks:

- ▶ **Requirement type check.** Checks that your project contains the necessary requirement types. If the source library contains customized requirement types, your project must contain the same requirement types. For more information on customized requirement types, see *HP Application Lifecycle Management Administrator Guide*.
- ▶ **Entities compatibility check.** Checks that your project has the necessary extensions enabled. If the source project has an extension enabled, and the source library includes entities for that extension, your project must also have that extension enabled. For more information on extensions, see *HP Application Lifecycle Management Administrator Guide*.
- ▶ **Library size check.** Checks that the number of entities in the library does not exceed the maximum defined by the LIBRARY_FUSE configuration parameter in Site Administration. For more information, see the *HP Application Lifecycle Management Administrator Guide*: LIBRARY_FUSE.

Tasks

How to Share Libraries

This task describes how to share libraries between projects or within a project.

To learn more about sharing libraries, see "Imported Libraries Overview" on page 284.

ALM Editions: Imported libraries functionality is not available for Quality Center Starter Edition and Quality Center Enterprise Edition.

This task includes the following steps:

- "Prerequisites" on page 289
- "Import a library" on page 290
- "Compare libraries" on page 291
- "Synchronize libraries" on page 292
- "Monitor library tasks" on page 293

1 Prerequisites

- Verify that a baseline has been created for the library you want to import. For task details, see "How to Use Libraries and Baselines in ALM" on page 246.
- **Business Process Testing:** Before importing a project with application areas to another project, make sure you have connected to the destination project at least one time from within QuickTest Professional. For instructions, see the *HP QuickTest Professional User Guide*.

2 Import a library

Import an existing library to your libraries tree to reuse a set of entities in your project or from a different project.

- a In the Libraries module, right-click a library folder and select **Import Library**. For user interface details on the Import Library wizard, see "Import Library Wizard" on page 295.

Note: Business Process Testing: When importing libraries, components in the **Obsolete** and **Component Requests** folders are not included in the process.

- b Click the **View Log** button in the Details tab. The Log: Import Library dialog box opens and displays progress.

Note: When the process is complete, view the log before refreshing the display. If you refresh the display after the library is imported, the **View Log** button is no longer displayed, and you cannot view the log.

For user interface details on the Libraries module window, see "Libraries Module Window" on page 253.

- c Click the **Refresh** button on the module toolbar to refresh the display. The library details are displayed in the Details tab. For details on the available fields in the Details tab, see "Libraries Module Fields" on page 259.

3 Compare libraries

Compare libraries to review changes made to entities in your projects over time.

- a** In the libraries tree, right-click a library and select **Compare To**. Select a library with which to compare, and choose one of the following:
 - ▶ **Latest Baseline Created.** Compare the library with the most recent baseline created in the other library.
 - ▶ **Select Baseline.** Select a baseline in the other library with which to compare. Opens the Select Baseline dialog box. Click the browse button to select a baseline from the list.

Available for: a source library or an imported library.

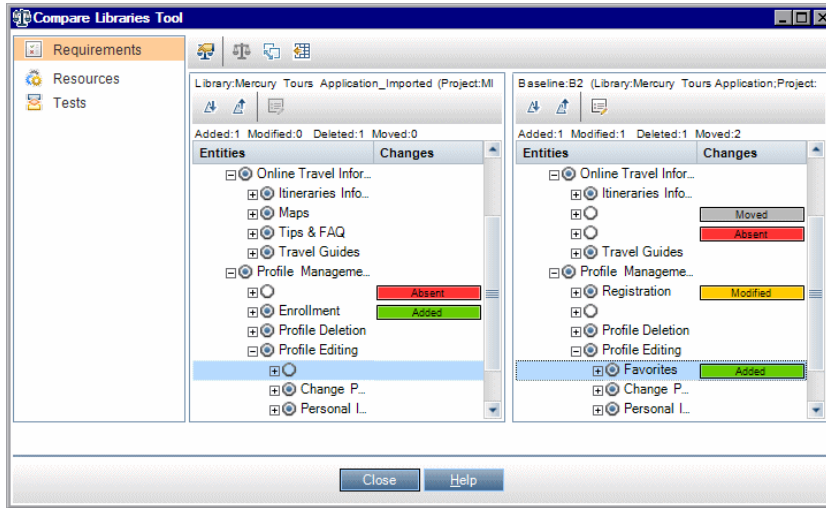
For user interface details on the Compare Libraries Tool, see "Compare Libraries Tool Dialog Box" on page 304.



- b** To save the library comparison results in .csv file format, click the **Export Comparison Results** button. After saving, the file opens in the default application defined for opening .csv files on your computer, such as Microsoft Excel.


Example:

Comparing the imported Mercury Tours Application library with the source library from which it was imported shows the following results:



4 Synchronize libraries

Synchronize libraries to update your library with changes made in another associated library. You can update an imported library with changes made in the source library. You can also update a source library with changes made in the imported library.

- a In the libraries tree, select the library that you want to update. Using the Compare Libraries Tool, compare the library by selecting a baseline in the other library with which to synchronize. For user interface details on the Compare Libraries Tool, see "Compare Libraries Tool Dialog Box" on page 304.
- b In the Compare Libraries Tool, click the **Synchronize** button . The Library Verification dialog box opens, displaying the verification results.

For user interface details on the Library Verification dialog box, see "Library Verification Dialog Box" on page 308.

For concept details on library verification, see "Library Verification" on page 288.

- c Click **Continue** to start the synchronization. The data is copied from the other library's baseline to your library.

If the baseline includes an entity type that it did not contain at the time of import, a parent folder is created in your project. For example, you imported a library containing only tests, and defined a target root folder for the Test Plan module only. Later, requirements were added to the source library. During synchronization, a new folder is created in the Requirements module in your project, under the Requirements root folder, to store the newly imported requirements.

- d Close the Compare Libraries Tool dialog box. Synchronization continues in a background process, and may take some time. You can continue working in your project during the synchronization process.
- e Click the **View Log** button in the Details tab. The Log: Synchronize Libraries dialog box opens and displays progress.

For user interface details on the Libraries module window, see "Libraries Module Window" on page 253.

- f Click the **Refresh** button on the module toolbar to refresh the display. When the process completes, the **Last Synchronization** date is updated in the Imported By or Imported From tab.

5 Monitor library tasks

When you import or synchronize libraries, these tasks are performed in the background, enabling you to continue working in your project while the processes are running. You can view the status and progress of all asynchronous tasks for the project using the Task Manager.

On the ALM masthead, select **Tools > Task Manager**. For user interface details, see "Task Manager Dialog Box" on page 50.

Reference

Imported Libraries User Interface

This section includes:

- ▶ Import Library Wizard on page 295
- ▶ Imported By Tab on page 301
- ▶ Imported From Tab on page 303
- ▶ Compare Libraries Tool Dialog Box on page 304
- ▶ Library Verification Dialog Box on page 308

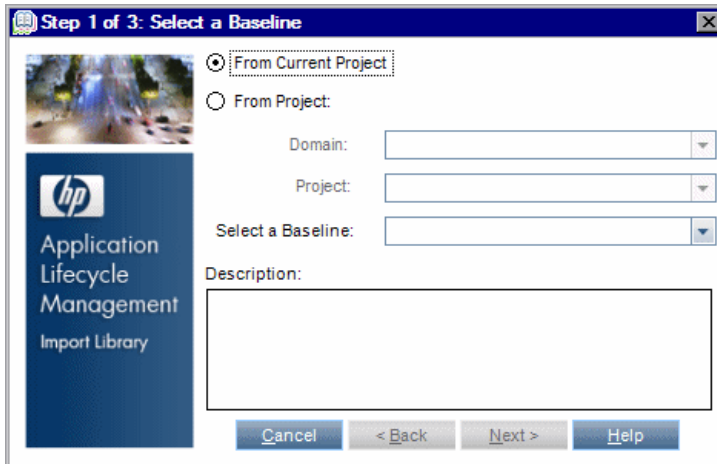
Import Library Wizard

This wizard enables you to import a library to share and reuse an existing set of entities. You import a library by selecting a baseline in another library from which to import. You can import a library from the same project or from a different project.

To access	In the Libraries module, right-click a library folder and select Import Library .
Important information	<p>After you import a library, a baseline is automatically created for the new library in your project. This baseline is the basis for comparing the libraries at any point in time and should not be deleted.</p> <p>ALM Editions: Imported libraries functionality is not available for Quality Center Starter Edition or Quality Center Enterprise Edition.</p>
Relevant tasks	"How to Share Libraries" on page 289
Wizard map	<p>This wizard contains:</p> <p>Select a Baseline Page > Library Verification Page > Select Target Root Folders Page</p>
See also	<ul style="list-style-type: none"> ➤ "Imported Libraries Overview" on page 284 ➤ "Libraries Overview" on page 242

Select a Baseline Page

This wizard page enables you to select a baseline in the library you are importing.



Important information	General information about this wizard is available here: "Import Library Wizard" on page 295.
Wizard map	The Import Library Wizard contains: Select a Baseline Page > Library Verification Page > Select Target Root Folders Page
See also	"Baselines Overview" on page 243

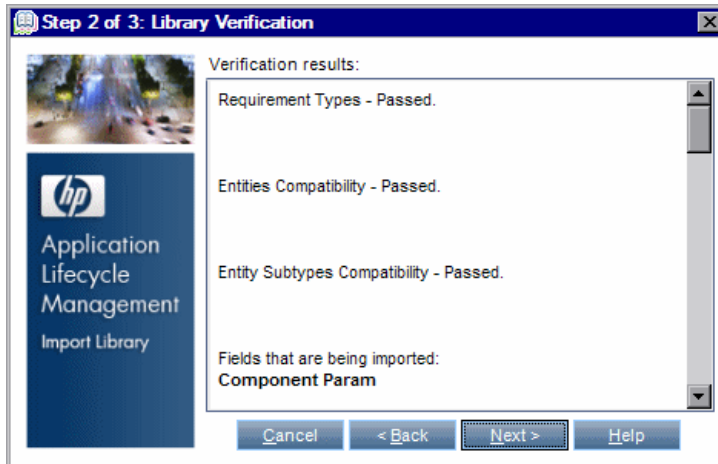
User interface elements are described below:

UI Elements (A-Z)	Description
Description	A description of the library you are importing.
Domain	The domain in which the library you are importing is located.
From Current Project	Enables you to import a library from the project in which you are working.

UI Elements (A-Z)	Description
From Project	Enables you to select a domain and project from which to import a library.
Project	The project in which the library you are importing is located.
Select a Baseline	Enables you to select a baseline from which to import the library. Click the browse button to display the libraries tree in the selected project. Only libraries that can be imported are displayed. You cannot import an imported library.

Library Verification Page

This wizard page enables you to view results of the library verification process.



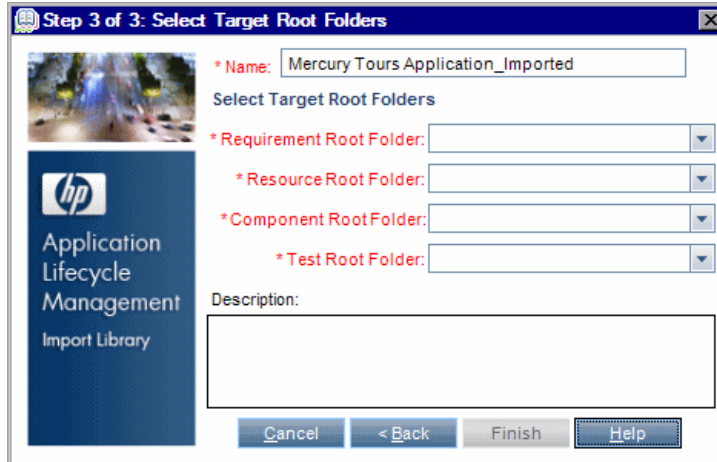
Important information	<ul style="list-style-type: none"> ➤ General information about this wizard is available here: "Import Library Wizard" on page 295. ➤ If any of the verification checks have the status Failed, you cannot proceed with the import process. Click Cancel.
Wizard map	The Import Library Wizard contains: Select a Baseline Page > Library Verification Page > Select Target Root Folders Page
See also	"Library Verification" on page 288

User interface elements are described below:

UI Elements (A-Z)	Description
Verification Results	Displays the verification results and the list of fields to be imported. The import process can continue if all verification checks have the status Passed .

Select Target Root Folders Page

This wizard page enables you to select a location in your project for each of the root folders you are importing.



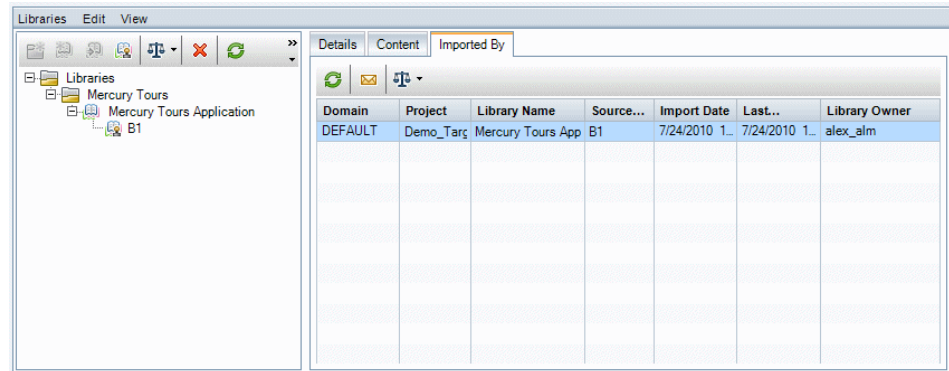
<p>Important information</p>	<ul style="list-style-type: none"> ▶ General information about this wizard is available here: "Import Library Wizard" on page 295. ▶ You cannot import a library under the same previously imported library. For more details, see "Troubleshooting and Limitations" on page 309. ▶ The library is imported in a background process, and may take some time. You can continue working in your project during the import process.
<p>Wizard map</p>	<p>The Import Library Wizard contains: Select a Baseline Page > Library Verification Page > Select Target Root Folders Page</p>

User interface elements are described below:

UI Elements (A-Z)	Description
Description	A description for the library. By default, if the source library and baseline contain descriptions, the descriptions are displayed.
Name	The name of the library. By default, the name of the library from which you are importing is displayed with the suffix _Imported .
Select Target Root Folders	<p>The location in your project for each of the imported folders. For example, in the Requirement Root Folder box, specify a location for the imported requirements. All of the requirement folders defined in the library are imported under the requirement folder you specify. Click the browse button to display the requirements tree in your project. Select a folder or create a new folder for the imported requirements.</p> <p>Note: If the library you are importing contains tests, the baseline automatically includes related entities that the tests need to run, such as test resources. In this case, the Resource Root Folder box is also displayed, enabling you to select a target folder for the imported test resources.</p>



Imported By Tab


This tab displays a list of projects that imported a selected library.



To access	Select a library in the libraries tree and click the Imported By tab. This tab is available only when the selected library has been imported.
Important information	You can rearrange columns in the grid by dragging the column headers. ALM Editions: Imported libraries functionality is not available for Quality Center Starter Edition or Quality Center Enterprise Edition.
Relevant tasks	"How to Share Libraries" on page 289

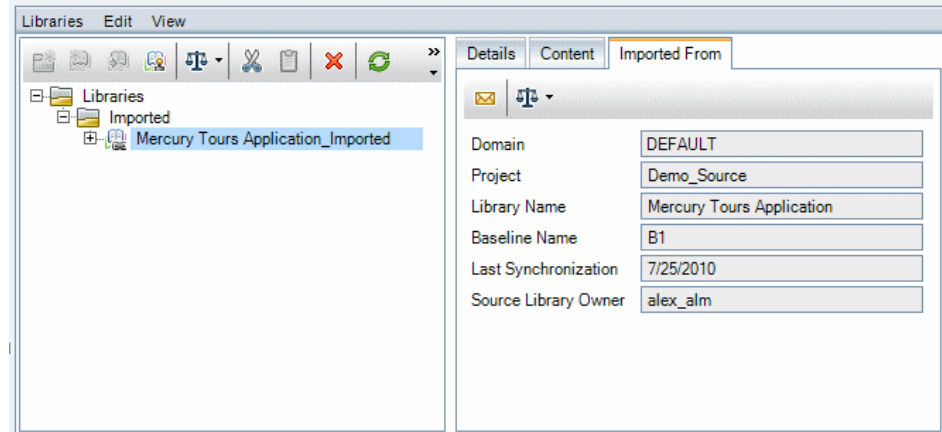
User interface elements are described below:

UI Elements (A-Z)	Description
	Refresh. Refreshes the tab so that it displays the most up-to-date information.
	Send mail. Sends an email with details about the selected library. For more details, see "Send E-mail Dialog Box" on page 83.

UI Elements (A-Z)	Description
	<p>Compare To. Compares the source library selected in the libraries tree with a library that imported the source library.</p> <p>Select an imported library in the grid and click Compare To. Select a baseline in the imported library with which to compare.</p>
Domain	The domain in which the imported library is located.
Import Date	The date the library was imported.
Last Synchronization	The date of the most recent synchronization of the imported and source libraries.
Library Name	The name of the imported library.
Library Owner	The user name of the person who imported the library.
Project	The name of the project that imported the library.
Source Baseline Name	The initial value indicates the name of the baseline in the source project from which the selected library was imported. After synchronization, indicates the name of the baseline in the source project with which the selected library was synchronized.



Imported From Tab

This tab displays details of the source library from which a selected library is imported.



To access	Select an imported library in the libraries tree and click the Imported From tab.
Important information	ALM Editions: Imported libraries functionality is not available for Quality Center Starter Edition or Quality Center Enterprise Edition.
Relevant tasks	"How to Share Libraries" on page 289

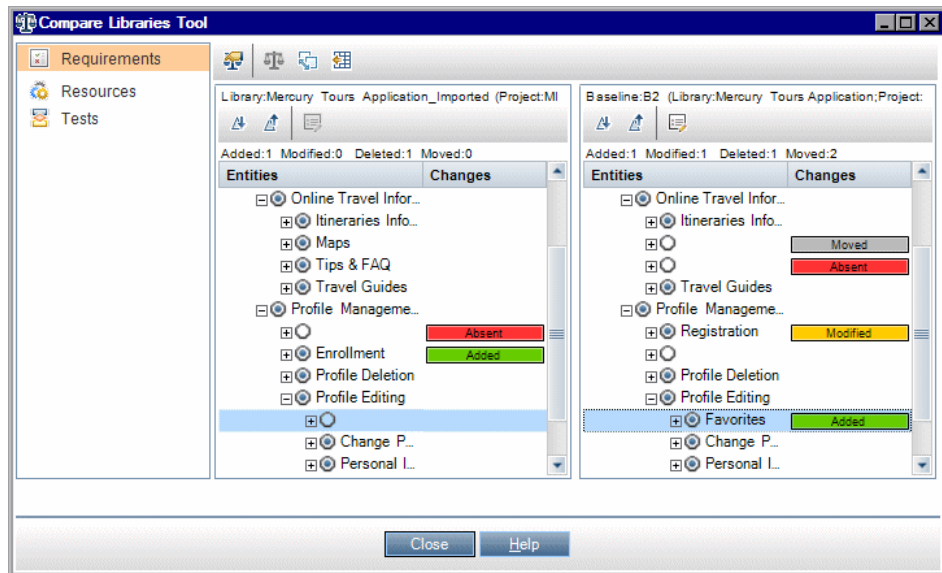
User interface elements are described below:

UI Elements (A-Z)	Description
	Send Mail to Owner. Sends an email to the source library owner. For more details, see "Send E-mail Dialog Box" on page 83.
	Compare To Source. Compares the selected library with the library from which it was imported. Select a baseline in the source library with which to compare.

UI Elements (A-Z)	Description
Baseline Name	The name of the baseline in the source project from which the project was imported.
Domain	The domain in which the source project is located.
Last Synchronization	The date of the most recent synchronization of the imported and source libraries. When the library is first imported, the value of this field is N/A .
Library Name	The name of the library in the source project.
Project	The name of the source project.
Source Library Owner	The user name of the person who created the library in the source project.



Compare Libraries Tool Dialog Box





This dialog box enables you to compare two associated libraries. You can compare an imported library with the source library from which it was imported.



To access	<p>In the libraries tree, right-click a library and select Compare To. Select a library with which to compare, and choose one of the following:</p> <ul style="list-style-type: none"> ▶ Latest Baseline Created. Compare the library with the most recent baseline created in the other library. ▶ Select Baseline. Select a baseline in the other library with which to compare. Opens the Select Baseline dialog box. Click the browse button to select a baseline from the list. <p>Available for: a source library or an imported library</p>
Important information	<ul style="list-style-type: none"> ▶ Changes made to Target Release and Target Cycle fields are not considered when determining whether an entity has been modified. ▶ If coverage or traceability between two entities was deleted and then added again, those entities are considered modified. ▶ ALM Editions: Imported libraries functionality is not available for Quality Center Starter Edition or Quality Center Enterprise Edition.
Relevant tasks	"How to Share Libraries" on page 289
See also	"Library Synchronization Overview" on page 286

User interface elements are described below (unlabeled elements are shown in angle brackets>):

UI Elements (A-Z)	Description
	Comparison Settings. Opens the Comparison Settings dialog box, enabling you to define settings for comparing libraries. For more details, see "Comparison Settings Dialog Box" on page 276.
	Compare Entities. Opens a Compare Entities dialog box, enabling you to view details of the entity in each library. For details, see "Compare Entities Dialog Box" on page 272.

UI Elements (A-Z)	Description
	<p>Synchronize. Updates your library, displayed in the left pane, with changes indicated in the baseline displayed in the right pane.</p> <p>For more details, see "Library Synchronization Overview" on page 286.</p>
	<p>Export Comparison Results. Enables you to save the library comparison results in .csv file format. After saving, the file opens in the default application defined for opening .csv files on your computer, such as Microsoft Excel.</p>
	<p>Go to Next/Previous Change. Moves to the next/previous change for the selected module.</p>
	<p>Details. Opens a Details dialog box, enabling you to view details of the selected entity.</p> <p>Select an entity and click the Details button.</p> <p>For example, select a requirement in one of the panes. The Requirement Details dialog box opens and displays details of the requirement in the selected library or baseline.</p>
<p><Identification bar></p>	<p>Located at the top of each pane, indicates the name of the library or baseline displayed in the pane below.</p>
<p><Counter bar></p>	<p>Located above each pane, displays the number of entities that were added, modified, deleted, or moved, according to change status.</p>
<p><Left pane></p>	<p>Displays the library you selected in the libraries tree.</p>
<p><Right pane></p>	<p>Displays the baseline in the library with which you are comparing.</p>
<p><Sidebar buttons></p>	<p>Enable you to view comparison results for entities by module. For example, click the Tests button to view comparison results for the Test Plan module.</p> <p>The sidebar displays only the modules that are included in the library.</p>

UI Elements (A-Z)	Description
Changes	<p>Indicates differences between the two libraries. Possible values include the following:</p> <ul style="list-style-type: none"> ▶ Added. The entity does not exist in the other library. ▶ Modified. The entity has been modified in the library. ▶ Absent. The entity does not exist in the library. ▶ Moved. The entity is in a different location in the tree structure in the library. ▶ Moved and Modified. The entity has changed and has been moved to a different location in the tree. <p>A deleted or moved entity is displayed in its original location in the tree, indicated by a placeholder. In addition, a placeholder is displayed in the tree where an entity was added in the other library. This maintains the hierarchical structure, enabling you to compare changes between the libraries.</p>
Entities	<p>Displays the library's entities in the same hierarchical structure as defined in the selected module.</p>

Library Verification Dialog Box

This dialog box enables you to view results of the library verification process when synchronizing libraries.

To access	In the Compare Libraries Tool dialog box, click the Synchronize button.
Important information	<ul style="list-style-type: none"> ▶ If any of the verification checks have the status Failed, you cannot proceed with the synchronization. Click Cancel. ▶ ALM Editions: Imported libraries functionality is not available for Quality Center Starter Edition or Quality Center Enterprise Edition.
Relevant tasks	"How to Share Libraries" on page 289
See also	"Library Verification" on page 288

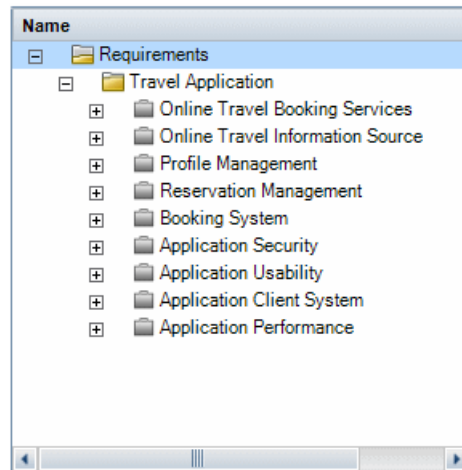
User interface elements are described below:

UI Elements (A-Z)	Description
Verification Results	Displays the verification results and the list of fields to be imported. The synchronization process can continue if all verification checks have the status Passed .
Continue	Starts the synchronization process. The data is copied from the other library's baseline to your library. Close the Compare Libraries Tool dialog box. Synchronization continues in a background process, and may take some time. To continue working in your project during the synchronization process, close the Compare Libraries Tool dialog box.

Troubleshooting and Limitations

You cannot import a library under the same previously imported library. This applies in the requirements, test plan, or test resources tree.

For example, in the requirements tree, the Travel Application folder is an imported library. If you want to import the Travel Application library again, you cannot define the Travel Application folder or any of its child folders as the root folder for the requirements in the library.



Part III

Requirements

12

Introducing Requirements

This chapter includes:

Concepts

- ▶ Introducing Requirements Overview on page 314

Tasks

- ▶ How to Use Requirements in ALM on page 315

Concepts

Introducing Requirements Overview

Requirements describe in detail what needs to be solved or achieved to meet the objectives of your application under development. Clearly and correctly defining requirements at the front end of a project provides the following advantages:

- ▶ Provides stakeholders guidelines of what the priorities are
- ▶ Sets clear expectations between stakeholders
- ▶ Cuts waste and eliminates unnecessary expenditure

The Requirements module enables you to define, manage and track requirements at all stages of the application lifecycle management.

Quality Center Starter Edition: Not all fields and functionality in the Requirements module are available.

For task details, see "How to Use Requirements in ALM" on page 315.

Tasks

How to Use Requirements in ALM

This task describes how to create and manage requirements in ALM.

To learn more about requirements, see "Introducing Requirements Overview" on page 314.

Note: This task is part of a higher-level task. For details, see "Application Lifecycle Management Roadmap" on page 26.

This task includes the following steps:

- "Prerequisites" on page 316
- "Create requirements" on page 316
- "Import business process models" on page 317
- "Trace requirements" on page 317
- "Calculate risk" on page 317
- "Create coverage" on page 317
- "Link to defects" on page 318
- "Assign to releases" on page 318
- "Analyze requirements" on page 318
- "Establish baseline" on page 318

1 Prerequisites

Determine the requirements scope by gathering information such as functional and technical specifications, marketing and business requirements documents, and stakeholders goals.

Example:

Some questions you may want to ask are:

- What is the main purpose and direction of the application?
- What are the critical constraints of the application?
- What are the major features of the application?
- What is the relative importance of each element in the application functionality?
- What are the critical or high-risk functions of the application?
- What are your business or testing priorities?
- Do your customers/end-users agree with your priorities?
- What are your overall quality goals?

2 Create requirements

Define a hierarchical framework for your requirements scope by creating a requirements tree.

Define different groups of requirements in the requirements tree. For each requirement group, you create a list of detailed requirements in the requirements tree. Each requirement in the tree can include any relevant attachments and rich text documents.

You then assign the requirement a priority level which can be taken into consideration when creating the test plan.

For task details, see "How to Create Requirements" on page 321.

3 Import business process models

If you work with business process models, you can create a framework of requirements by importing models created with standard modeling tools. The Business Models module enables you to analyze the quality of your business process models and business flows. For task details, see "How to Work with Business Process Models" on page 433.

4 Trace requirements

You can add traceability between the requirements. When analyzing the impact of a change proposed in a specific requirement, traceability shows the other requirements that the change might affect. For task details, see "How to Trace Requirements" on page 369.

To determine the completeness of the relationships between your requirements, you can generate a traceability matrix. For task details, see "How to Use the Traceability Matrix" on page 385.

5 Calculate risk

Use risk-based quality management to calculate at which level to test each requirement, based on the nature of the requirement and the resources you have available. For task details, see "How to Assess Risk" on page 406.

6 Create coverage

Create coverage between your requirements and tests to ensure that all requirements are implemented in the project. For task details, see "How to Create Coverage" on page 528.

You can also create coverage by converting requirements to tests in the test plan tree. Coverage is automatically created between the requirements and their corresponding tests. For task details, see "How to Create Requirements" on page 321.

7 Link to defects

You can link a requirement to specific defects. This is useful, for example, when coverage is created between requirements and tests. Linking defects can help you ensure compliance with your requirements and testing needs. If a requirement changes, you can immediately identify which tests and defects are affected, and who is responsible.

For user interface details, see "Linked Defects/Entities Page" on page 866.

8 Assign to releases

Assign requirements to releases or cycles defined in the releases tree in the Releases module.

- ▶ **Assign to release.** Right-click a requirement and select **Assign to Release**. For user interface details, see "Select Releases Dialog Box" on page 187.
- ▶ **Assign to cycle.** Right-click a requirement and select **Assign to Cycle**. For user interface details, see "Select Cycles Dialog Box" on page 185.

9 Analyze requirements

Review your requirements to ensure that they meet the defined requirements scope. After a requirement is approved, you change the status of a requirement from **Not Reviewed** to **Reviewed**.

To help review the requirements, you can generate reports and graphs. For task details, see "How to Analyze Data in ALM" on page 876.

10 Establish baseline

Create a baseline to sign off on or compare significant milestones in your application lifecycle. For task details, see "How to Use Libraries and Baselines in ALM" on page 246.

13

Requirements Specification

This chapter includes:

Concepts

- ▶ Requirements Specification Overview on page 320

Tasks

- ▶ How to Create Requirements on page 321

Reference

- ▶ Requirements User Interface on page 325

Concepts

Requirements Specification Overview

Requirements are recorded in the Requirements module by creating a requirements tree. The **requirements tree** is a graphical representation of your requirements specification, displaying the hierarchical relationship between different requirements. The tree includes different groups of requirements based either on requirement type or functional area.

For each requirement group, you create a list of detailed requirements in the requirements tree. Each requirement in the tree is described in detail and can include any relevant links and attachments.

After creating a requirements tree, the requirements can be used as a basis for defining tests in your test plan tree.

For task details, see "How to Create Requirements" on page 321.

Tasks

How to Create Requirements

This task describes how to define and update your requirements in the Requirements module. After you have created a requirements tree, you can use the requirements as a basis for defining the tests in your test plan tree.

To learn more about creating requirements, see "Requirements Specification Overview" on page 320.

Note: This task is part of a higher-level task. For details, see "How to Use Requirements in ALM" on page 315.

Tip: For a use-case scenario related to this task, see "How to Create Requirements - Use-Case Scenario" on page 323.

This task includes the following steps:

- "Create requirements" on page 322
- "Import requirements - optional" on page 322
- "Update requirements" on page 322
- "Convert requirements to tests - optional" on page 323

1 Create requirements

- a **Open the Requirements module.** On the ALM sidebar, under **Requirements**, select **Requirements**. In the **View** menu, select **Requirements Tree**.

For user interface details on the Requirements module, see "Requirements Module Window" on page 326.

- b **Create folders.** Right-click the **Requirements** root folder and select **New Folder**. To create a sub-folder, right-click a folder and select **New Folder**. For user interface details, see "Create New Folder Dialog Box" on page 358.
- c **Add requirements.** Right-click a requirement folder and select **New Requirement**. To create a sub-requirement, right-click a requirement and select **New Requirement**. For user interface details, see "New Requirement Dialog Box" on page 356.

2 Import requirements - optional

In addition to creating requirements directly in ALM, you can also import requirements to your ALM project from Microsoft Word, Microsoft Excel, or other third-party requirement management tools. To import requirements, you must first install the appropriate add-in. For more details on add-ins, see the *HP Application Lifecycle Management Installation Guide*.

3 Update requirements

For each requirement, you can update its details, attachments, and rich text documents. Right-click a requirement and select **Requirement Details**. The Requirement Details dialog box opens. For user interface details, see "Requirement Details Page" on page 354.

4 Convert requirements to tests - optional

To assist you in establishing a test plan tree in the Test Plan module, you can use your requirements as a basis for defining your tests. You can reuse your requirements and convert them to the following entities in your test plan tree: test subjects, tests, test steps, or step descriptions.

There are two methods you can use to create tests from requirements:

- **Convert requirements to tests.** Use this option to convert requirements to test subjects, tests, test steps, or step descriptions.

Right click a requirement or folder and select **Convert to Tests**. The Convert to Tests wizard opens. For user interface details, see "Convert to Tests Wizard" on page 359.

- **Convert requirements to tests and add them to a test set.** Use this option to convert requirements to tests in a specified subject in the test plan tree and a specified test set in the Test Lab module.

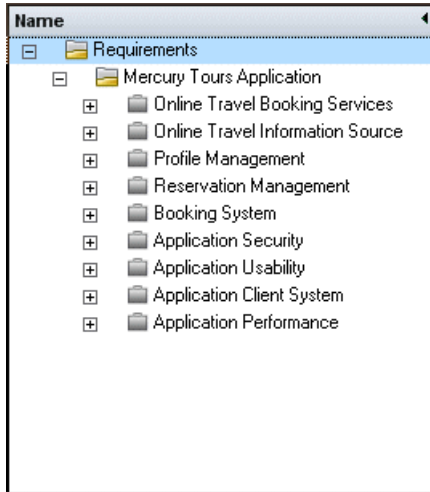
Right click a requirement select **Generate Test**. The Generate Test dialog box opens. For user interface details, see "Generate Test Dialog Box" on page 365.

How to Create Requirements - Use-Case Scenario

This use-case scenario provides an example of specifying requirements in the Requirements module.

Note: For a task related to this scenario, see "How to Create Requirements" on page 321.

The following scenario uses a project based on an application for reserving flights and vacations. You may define your major requirements as: **Online Travel Booking Services, Online Travel Information Source, Profile Management, Reservation Management, Booking System, Application Security, Application Usability, Application Client System, and Application Performance.**



For each requirement group, you create a list of detailed requirements in the requirements tree. The **Profile Management** requirement can be broken down into the following requirements:



Each requirement in the tree can include any relevant attachments and rich text documents.

Reference

Requirements User Interface

This section includes:

- Requirements Module Window on page 326
- Requirements Module Menus and Buttons on page 333
- Requirements Module Icons on page 344
- Requirements Module Fields on page 347
- Requirement Details Page on page 354
- New Requirement Dialog Box on page 356
- Create New Folder Dialog Box on page 358
- Convert to Tests Wizard on page 359
- Generate Test Dialog Box on page 365

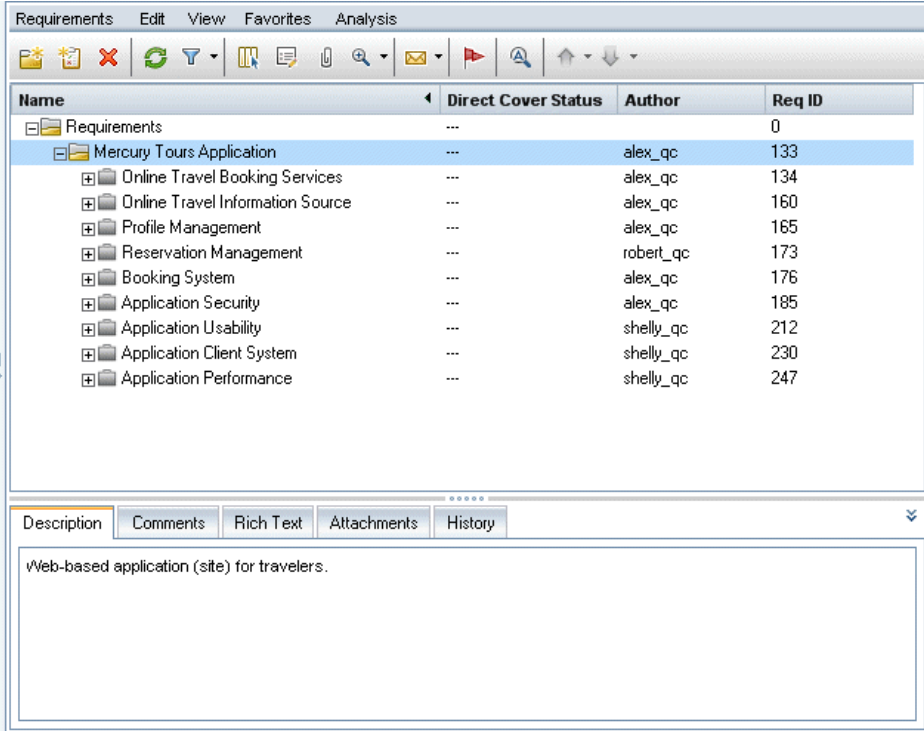
Requirements Module Window

This window enables you to define and maintain ALM requirements.

It contains the following views: Requirements Tree, Requirement Details, Requirements Grid, Coverage Analysis, and Traceability Matrix. You select a view from the **View** menu.

Requirements Tree

This view enables you to view your requirements hierarchically in a tree.



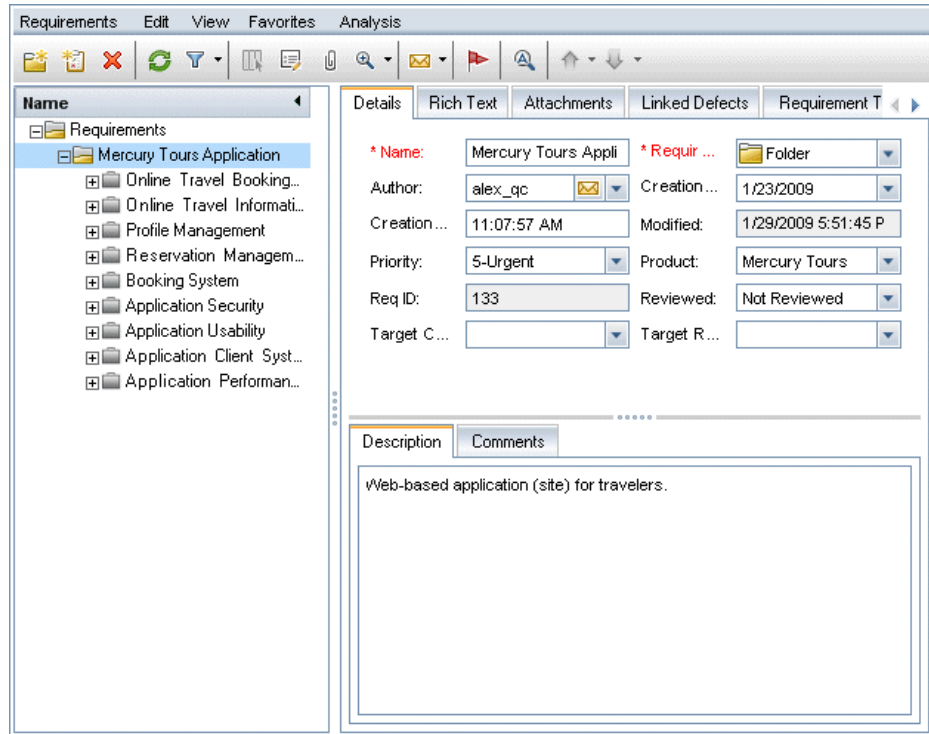
The screenshot shows the Requirements Module Window with the Requirements Tree view. The window title is "Requirements" and the menu bar includes "Edit", "View", "Favorites", and "Analysis". The toolbar contains various icons for navigation and editing. The main area displays a tree structure of requirements:

Name	Direct	Cover	Status	Author	Req ID
Requirements			...		0
Mercury Tours Application			...	alex_qc	133
Online Travel Booking Services			...	alex_qc	134
Online Travel Information Source			...	alex_qc	160
Profile Management			...	alex_qc	165
Reservation Management			...	robert_qc	173
Booking System			...	alex_qc	176
Application Security			...	alex_qc	185
Application Usability			...	shelly_qc	212
Application Client System			...	shelly_qc	230
Application Performance			...	shelly_qc	247

Below the tree, the "Description" tab is selected, showing the text: "Web-based application (site) for travelers."

Requirement Details

This view enables you to create links between requirements and other entities. It also enables you to calculate and analyze requirement risks. For more details, see "Requirement Details Page" on page 354.



The screenshot shows a software application window titled "Requirements" with a menu bar (Requirements, Edit, View, Favorites, Analysis) and a toolbar. On the left is a tree view under "Name" showing a hierarchy: Requirements > Mercury Tours Application > Online Travel Booking... > Online Travel Informati... > Profile Management > Reservation Managem... > Booking System > Application Security > Application Usability > Application Client Syst... > Application Performan... The "Mercury Tours Application" folder is expanded and selected.

The main area has tabs: Details (selected), Rich Text, Attachments, Linked Defects, Requirement T. The "Details" tab contains a form with the following fields:

* Name:	Mercury Tours Appli	* Requir ...	Folder
Author:	alex_gc	Creation ...	1/23/2009
Creation ...	11:07:57 AM	Modified:	1/29/2009 5:51:45 P
Priority:	5-Urgent	Product:	Mercury Tours
Req ID:	133	Reviewed:	Not Reviewed
Target C...		Target R...	

Below the form are two tabs: "Description" (selected) and "Comments". The "Description" tab contains the text: "Web-based application (site) for travelers."

Requirements Grid

This view enables you to view requirements in a flat non-hierarchical view. Each line in the grid displays a separate requirement.

The screenshot shows a software application window titled "Requirements" with a menu bar (Requirements, Edit, View, Favorites, Analysis) and a toolbar. The main area contains a table with the following data:

Name	Direct Cover Status	Author	Req ID
Requirements	---		0
Mercury Tours Application	---	alex_qc	133
Online Travel Booking Services	---	alex_qc	134
Products/Services On Sale	Not Covered	shelly_qc	135
Flight Tickets	Failed	shelly_qc	136
Flight Search	Failed	robert_qc	141
Search Conditions	Not Covered	shelly_qc	142
Origin And Destination	Failed	peter_qc	143
One-Way Trip	Failed	robert_qc	149
Relevant Flights	Not Completed	robert_qc	152
Names Of Passengers	Failed	robert_qc	156
Itineraries Information	Not Covered	alex_qc	161
Registration	Not Covered	robert_qc	166
Customer Identification Information	Failed	robert_qc	167
Change Password	Not Covered	robert_qc	170
View Reservations	Not Completed	robert_qc	174
Secure Purchase	Not Completed	alex_qc	177
Credit Card	Not Covered	alex_qc	179
Credit Card Type	Not Completed	robert_qc	180
Access Authorization	Not Covered	alex_qc	186
Customers vs. Site Visitors	Failed	alex_qc	187

At the bottom of the window, there are tabs for "Description", "Comments", "Rich Text", "Attachments", and "History".

Coverage Analysis

This view enables you to analyze the breakdown of child requirements according to test coverage status. For more details, see "Coverage Analysis View" on page 535.

The screenshot shows a software interface for 'Requirements' with a 'Coverage analysis' view. The interface includes a menu bar (Requirements, Edit, View, Favorites, Analysis), a toolbar with icons for adding, deleting, and refreshing, and a 'Settings...' button. A 'Legend' link is visible in the top right.

Name	Direct Cover Status	Coverage Analysis
Requirements	...	38 (red) 15 (yellow) 65 (white)
Mercury Tours Application	...	38 (red) 15 (yellow) 65 (white)
Online Travel Booking...	...	13 (red) 5 (yellow) 7 (white)
Online Travel Informati...	...	4 (white)
Profile Management	...	2 (red) 1 (yellow) 4 (white)
Reservation Managem...	...	2 (yellow)
Booking System	...	1 (red) 5 (yellow) 2 (white)
Application Security	...	3 (red) 1 (yellow) 22 (white)
Application Usability	...	14 (red) 1 (yellow) 2 (white)
Application Client Syst...	...	2 (red) 14 (white)
Application Performan...	...	3 (red) 10 (white) 4 (green)

Below the table, there are tabs for 'Description', 'Comments', 'Rich Text', 'Attachments', and 'History'. The 'Description' tab is active, showing the text: 'Web-based application (site) for travelers.'

Traceability Matrix

This view enables you to view traceability relationships between requirements and other requirements or tests in a matrix. For more details, see "Traceability Matrix View" on page 390.

The screenshot displays the Requirements Traceability Matrix interface. At the top, there is a menu bar with 'Requirements', 'Edit', 'View', 'Favorites', and 'Analysis'. Below the menu, there are several icons and a 'Show Full Path' checkbox. The main area shows a filter: 'Filter: Author[bob]; Link Filters: Number of traced from requirements[>0]'. Below the filter, it states 'Total number of traced from requirements: 4'. The main table has the following data:

Req ID	Name	Number of traced from requirements	Author
1	req1	2	bob
2	req2	1	bob
4	req4	1	bob
7	req3a	3	bob

Below the main table, there is a section titled 'Traced From Requirements' with a 'Show Full Path' checkbox. It contains a smaller table:

Req ID	Name
2	req2
3	req3

To access	On the ALM sidebar, under Requirements , select Requirements . Select a requirements view from the View menu.
Important information	Quality Center Starter Edition: Not all fields and functionality in the Requirements module are available.
Relevant tasks	"How to Create Requirements" on page 321
See also	"Requirements Specification Overview" on page 320

User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements (A-Z)	Description
<Requirements module common UI elements>	<ul style="list-style-type: none"> ▶ Requirement fields. For field definitions, see "Requirements Module Fields" on page 347. ▶ Requirement menus and buttons. For command and button descriptions, see "Requirements Module Menus and Buttons" on page 333. ▶ Requirement icons. For icon descriptions, see "Requirements Module Icons" on page 344. ▶ ALM main menu and sidebar. For details on the Tools menu, Help menu and sidebar, see "ALM Common Areas" on page 40.
<requirements tree>	<p>Located on the left side of the window, organizes and displays your requirements hierarchically.</p> <p>Available from: Requirements Tree, Requirement Details, and Coverage Analysis</p>
Attachments tab	<p>Lists attachments that provide additional information about the currently selected requirement. For more details, see "Attachments Page" on page 86.</p>
Business Models Linkage	<p>Lists the business model entities linked to the currently selected requirement. For more details, see "Business Models Linkage Tab" on page 545.</p>
Comments tab	<p>Comments about the currently selected requirement.</p> <p>Click in the text box to display a toolbar for formatting and spell checking the text.</p>
Description tab	<p>Describes the currently selected requirement.</p> <p>Click in the text box to display a toolbar for formatting and spell checking the text.</p>
Details tab	<p>Details the currently selected requirement.</p>
Filter	<p>Describes the filter currently applied to the grid or tree. Located directly above the grid filter boxes or tree.</p>

UI Elements (A-Z)	Description
History tab	Lists changes made to the currently selected requirement. For more details, see "History Tab" on page 81.
Linked Defects tab	Lists the defects linked to the currently selected requirement. For more details, see "Linked Defects/Entities Page" on page 866.
Represented Items	Lists the business process model entities represented by the selected requirement. Available from: Business Model requirements
Requirements Traceability tab	Lists the requirements linked to the currently selected requirement. For more details, see "Relationships Tab" on page 375 and "Impact Analysis Tab" on page 380.
Rich Text tab	Enables you to add, view, and edit rich text using an HTML editor from within ALM. Note: Changes you make to the rich text for a requirement are saved automatically when you move to a different requirement or a different module. For details on defining rich text templates, see the <i>HP Application Lifecycle Management Administrator Guide</i> .
Risk Analysis/Risk Assessment tab	Calculates and analyzes risk for the currently selected requirement. For more details, see "Risk Assessment Tab" on page 413 and "Risk Analysis Tab" on page 419.
Test Coverage tab	Lists the tests associated with the currently selected requirement. For more details, see "Test Coverage Page" on page 548.


Requirements Module Menus and Buttons

This section describes the menus and buttons available in the Requirements module.


To access	On the ALM sidebar, under Requirements , select Requirements .
Important information	<ul style="list-style-type: none"> ▶ Some menu commands and buttons are not available in all requirement views. ▶ Version Control: Additional menu commands and buttons are available in a version control enabled project. For details, see "Versions Menu and Buttons" on page 126. ▶ Quality Center Starter Edition: Not all commands and buttons are available.
Relevant tasks	"How to Create Requirements" on page 321
See also	"Requirements Module Icons" on page 344 "Requirements Specification Overview" on page 320


User interface elements are described below (unlabeled elements are shown in angle brackets>):



UI Elements (A-Z)	Menu	Description
Add to Favorites	Favorites	Opens the Add Favorite dialog box, enabling you to add a favorite view to your private or the public folder. For details, see "Add Favorite Dialog Box" on page 113.
Alerts	Edit	Opens the Alerts dialog box, enabling you to display alerts for the requirements. For details, see "Alerts Dialog Box" on page 104.



UI Elements (A-Z)	Menu	Description
Assign to Cycle	Requirements	Opens the Select Cycles dialog box, enabling you to assign selected requirements to cycles. For more details, see "Select Cycles Dialog Box" on page 185.
Assign to Release	Requirements	Opens the Select Releases dialog box, enabling you to assign selected requirements to releases. For more details, see "Select Releases Dialog Box" on page 187.
 Attachments	<right-click menu>	Opens the Attachments page, enabling you to add attachments to the selected requirement. For details, see "Attachments Page" on page 86.
Clear Alerts	Edit	Clears displayed alerts for the module. For more details, see "How to Use Alerts" on page 99.
Clear Follow Up Flag	Edit	Clears a follow up flag of a selected requirement. For details on follow up flags, see "Follow Up Flags Overview" on page 98.
Collapse	View	Collapses all branches in the requirements tree.
Configure Traceability Matrix	Edit	<p>Opens the Configure Traceability Matrix wizard, enabling you to set the entities displayed the matrix. For more details, see "Configure Traceability Matrix Wizard" on page 394.</p> <p>Available from: Traceability Matrix</p>





UI Elements (A-Z)	Menu	Description
Convert to Tests	Requirements	Opens the Convert to Tests wizard, enabling you to convert selected requirements to tests in a specified subject in the test plan tree. For more details, see "Convert to Tests Wizard" on page 359.
Copy/Paste	Edit	<p>Copies selected requirements within the same project or across projects. When you copy a requirement, any children of the requirement are also copied.</p> <p>Notes:</p> <ul style="list-style-type: none"> ▶ Test coverage, defect linkage, and risk-based quality management data for the requirement are not copied. ▶ To copy a requirement with traceability, you must also copy its associated traced requirements. ▶ The root folder cannot be copied within the same project. ▶ If you paste a requirement that has the same name as an existing requirement, the suffix <code>_Copy</code> is added automatically to the end of the requirement's name.
Copy URL/Paste	Edit	Copies a selected requirement and pastes its URL as a link. The requirement itself is not copied. Instead, you can paste the address into another location, such as an email or a document. Clicking the link opens ALM and takes you to the requirement. If you are not already logged in, ALM first prompts for login details.


UI Elements (A-Z)	Menu	Description
Coverage Analysis	View	Displays the Coverage Analysis view, enabling you to analyze the breakdown of child requirements according to test coverage status. For details, see "Coverage Analysis View" on page 535.
Cut/Paste	Edit	<p>Moves selected requirements to a different location in the requirements tree.</p> <p>Note: Moving a requirement to a different location in the requirements tree also moves its child requirements, tests coverage, requirement traceability links, and defects linkage. The root folder cannot be moved.</p> <p>Tip: You can also move a requirement to a new location in the requirements tree by dragging it.</p>
 Delete	Edit	<p>Deletes selected requirements. Deleting a requirement also deletes its child requirements, tests coverage, requirement traceability links, and defects linkage. You cannot delete the root folder.</p> <p>Version Control: Deleting a requirement deletes all previous versions of the requirement.</p>
Expand All	View	Expands all branches in the requirements tree.



UI Elements (A-Z)	Menu	Description
Export	Requirements	<p>Opens the Export Coverage Analysis dialog box, enabling you to save the Coverage Analysis view to a Microsoft Word document. The document displays a bar graph for each parent requirement in the requirements tree.</p> <p>Available from: Coverage Analysis</p>
Export	<right-click menu>	<p>Opens the Export All Grid Data dialog box, enabling you to export the requirements in a grid as a text file, Microsoft Excel worksheet, Microsoft Word document, or HTML document.</p> <p>Choose one of the following options:</p> <ul style="list-style-type: none"> ▶ All. Exports all requirements in the grid. ▶ Selected. Exports selected requirements in the grid. <p>Available from: Requirements Grid</p>
Export Traceability Matrix	Analysis	<p>Opens the Export Traceability Matrix dialog box, enabling you to save the Traceability Matrix view to a Microsoft Excel worksheet.</p> <p>Available from: Traceability Matrix</p>
 Filter/Sort	View	<p>Enables you to filter and sort the requirements in the requirements tree or grid. For more details, see "Filter Dialog Box" on page 60.</p>
Find	Edit	<p>Searches for a requirement in the Requirements module. For more details, see "Find Dialog Box" on page 74.</p>



UI Elements (A-Z)	Menu	Description
Find Next	Edit	Searches for the next item in the requirements grid that meet the previously defined search criteria. Available from: Requirements Grid
 Flag for Follow Up	Edit	Opens the Flag For Follow Up dialog box, enabling you to define a follow up flag for a selected requirement. For more details, see "Flag For Follow Up Dialog Box" on page 106.
Generate Test	Requirements	Opens the Generate Test dialog box, enabling you to convert selected requirements to tests in a specified subject in the test plan tree and a specified test set in the Test Lab module. For more details, see "Generate Test Dialog Box" on page 365.
Go to Requirement	Requirements	Opens the Go To Requirement dialog box, enabling you to find a specific requirement by ReqID . To display the requirement in the requirements tree, click Show in Tree . To display the requirement in the Requirement Details dialog box, click Show Details . You can only go to requirements that are in the current filter.
 Go To Requirement in Requirements Tree	<right-click menu>	Goes to the Requirements Tree view and highlights the selected requirement. Available from: Requirements Grid and Traceability Matrix


UI Elements (A-Z)	Menu	Description
Graphs	Analysis	<p>Lists the graphs you can generate for requirements data. Select a predefined graph, or launch the graph wizard.</p> <p>For details on the predefined graph types, see "Graph Types" on page 906.</p>
Grid Filters 	View	<p>Displays a grid filter box under each column name, enabling you to define a filter condition for a column.</p> <p>Type directly into the box, or click the box to display the browse button, which opens the Select Filter Condition dialog box. For more details, see "Select Filter Condition Dialog Box" on page 70.</p> <p>Available from: Requirements Grid</p>
Indicator Columns	View	<p>Displays the following columns on the left-side of the requirements window: . For more details, see "Requirements Module Icons" on page 344.</p>
Information Panel	View	<p>Displays information panel tabs on the bottom of the requirement view. For more details, see "Requirements Module Window" on page 326.</p>
Invert Selection	Edit	<p>Unselects all previously selected requirements in the grid and selects all previously unselected requirements.</p> <p>Available from: Requirements Grid</p>

UI Elements (A-Z)	Menu	Description
 Move Down  Move Up		<p>Enables you to move selected requirements in the requirements tree up or down to set their order.</p> <p>Note: The Move Up and Move Down buttons are not available if the requirements in the requirements tree are already sorted using the View Order tab in the Filter dialog box. For more details on the View Order tab, see "Filter Dialog Box" on page 60.</p> <p>Available from: Requirements Tree, Requirement Details, and Coverage Analysis</p>
 New Folder	Requirements	<p>Opens the Create New Requirement Folder dialog box, enabling you to add a folder under a selected folder. For more details, see "Create New Folder Dialog Box" on page 358.</p> <p>Available from: Requirements Tree, Requirement Details, and Coverage Analysis</p>
 New Requirement	Requirements	<p>Opens the New Requirement dialog box, enabling you to add a requirement under a selected requirement. For more details, see "New Requirement Dialog Box" on page 356.</p> <p>Available from: Requirements Tree, Requirement Details, and Coverage Analysis</p>

UI Elements (A-Z)	Menu	Description
Organize Favorites	Favorites	Opens the Organize Favorites dialog box, enabling you to organize the list of favorite views by changing properties or deleting views. For details, see "Organize Favorites Dialog Box" on page 115.
Private	Favorites	Lists the favorite views that are accessible only to the user who created them.
Public	Favorites	Lists the favorite views that are accessible to all users.
Recently used	Analysis	Displays the most recently viewed reports and graphs in the Requirements module.
 Refresh All	View	Refreshes the requirements tree or grid so that it displays the most up-to-date requirements.
Rename	Edit	Renames a selected requirement. You cannot rename the root folder. Syntax exceptions: A requirement name cannot include the following characters: \ ^ *
Replace	Edit	Replaces a requirement field value in the tree or grid. For more details, see "Replace Dialog Box" on page 76.
Reports	Analysis	Lists the predefined reports you can produce on requirements data. For details on the report types, see "Predefined Standard Reports" on page 1008.

UI Elements (A-Z)	Menu	Description
 Requirement Details	Requirements	Opens the Requirement Details dialog box, enabling you to display the details of the selected requirement. For more details, see "Requirement Details Page" on page 354.
Requirement Details	View	Displays the Requirement Details view, enabling you to create links between requirements and other entities. It also enables you to calculate and analyze requirement risks. For more details, see "Requirement Details Page" on page 354.
Requirements Grid	View	Displays the Requirements Grid view, enabling you to view requirements in a flat non-hierarchical view. Each line in the grid displays a separate requirement.
Requirements Tree	View	Displays the Requirements Tree view, enabling you to view your requirements hierarchically in a tree.
Select All	Edit	Selects all requirements in the grid. Available from: Requirements Grid
 Select Columns	View	Opens the Select Columns dialog box, enabling you to determine which fields to display in the requirements tree or grid and their order. For more details, see "Select Columns/Select Fields Dialog Box" on page 90.

UI Elements (A-Z)	Menu	Description
 Send by E-mail	Requirements	<p>Opens the Send E-mail dialog box, enabling you to send requirement email to recipients selected from a list or to the author of the requirement. For more details, see "Send E-mail Dialog Box" on page 83.</p>
Show Full Path	View	<p>Displays the path of the requirements in the requirements tree.</p> <p>Available from: Traceability Matrix</p>
Test Coverage > Show Add Criteria to Coverage	View	<p>Enables the Add Criterion Coverage dialog box. For more details, see "Add Criterion Coverage Dialog Box" on page 557.</p> <p>Available from: Requirements Tree, Requirement Details, and Coverage Analysis</p>
 Text Search	Edit	<p>Opens the text search pane in the lower part of the Requirements module window, enabling you to search for records in predefined fields. For more details, see "Text Search Pane" on page 78.</p>
Update Selected	Edit	<p>Opens the Update Selected dialog box, enabling you to update a field value for multiple selected requirements in the tree or grid. For more details, see "Update Selected Dialog Box" on page 92.</p>










UI Elements (A-Z)	Menu	Description
 Zoom	View	<p>Changes the level of detail in the requirements tree. Includes the following options:</p> <p>Zoom In. Displays the selected requirement and includes a heading with the hierarchical path of the requirement.</p> <p>Zoom Out One Level. Undoes the previous zoom in command.</p> <p>Zoom Out To Root. Enlarges to the highest hierarchical level and display the entire requirements tree.</p>
<list of recently used favorite views>	Favorites	<p>Displays the four most recently used favorite views in the Requirements module.</p> <p>You can define the number of views displayed on the menu by setting the FAVORITES_DEPTH parameter in the Site Configuration tab in Site Administration. For details, see the <i>HP Application Lifecycle Management Administrator Guide</i>.</p>










Requirements Module Icons

This section describes the icons available in the Requirements module.

To access	On the ALM sidebar, under Requirements , select Requirements .
Important information	Quality Center Starter Edition: Not all icons are available.
See also	"Requirements Module Menus and Buttons" on page 333 "Requirements Module Window" on page 326

The icons are described below:

UI Elements	Description
	<green asterisk>. The applicable tab is populated.
	<p>Alerts. Click to view alerts for the requirement.</p> <ul style="list-style-type: none"> ➤ Red alert. The alert is new. ➤ Gray alert. The alert has already been read. <p>For more details, see "Alerts Dialog Box" on page 104.</p>
	<p>Attachments. Click to view attachments for the specified requirement. For more details, see "Attachments Page" on page 86.</p>
	<p>Child. A child requirement affected by a change to a selected requirement. For more details, see "Impact Analysis Tab" on page 380.</p>
	<p>Parent. A parent requirement that affects a selected requirement. For more details, see "Impact Analysis Tab" on page 380.</p>
	<p>Trace To. A requirement that is affected by a selected requirement. For more details, see "Impact Analysis Tab" on page 380.</p>
	<p>Trace From. A requirement that affects a selected requirement. For more details, see "Impact Analysis Tab" on page 380.</p>
	<p>Recursive Relationship. The same requirement participates more than once in the relationship. For more details, see "Impact Analysis Tab" on page 380.</p>
	<p>Follow Up Flags. Click to view follow up flags for the requirement.</p> <ul style="list-style-type: none"> ➤ Gray flag. The follow up flag is new. ➤ Red flag. The follow up date has arrived. <p>For more details, see "Flag For Follow Up Dialog Box" on page 106.</p>

UI Elements	Description
	Linked Defects. Click to view linked defects for the requirement. For more details, see "Linked Defects/Entities Page" on page 866.
	Business Requirement. A business process requirement.
	Folder Requirement. A folder for organizing requirements.
	Functional Requirement. A system behavioral requirement.
	Group Requirement. A collection of related requirements.
	Testing Requirement. A testing type requirement.
	<p>Business Model Requirement. A requirement representing a business process model entity.</p> <p>Notes:</p> <ul style="list-style-type: none"> ➤ Business model requirements are created automatically for each model entity added to the Business Models module. ➤ You cannot change the requirement type of business model requirements.
	Undefined Requirement. A requirement with an undefined type.
	<p>Version Control. The requirement is checked out.</p> <ul style="list-style-type: none"> ➤ Green lock. The requirement is checked out by the current user. ➤ Red lock. The requirement is checked out by another user.

Requirements Module Fields

This section describes the Requirements module fields.

To access	On the ALM sidebar, under Requirements , select Requirements .
Important information	<ul style="list-style-type: none"> ▶ You can add user-defined fields and change the label of any of the fields in the Requirements module. You can also customize project lists. For more details, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>. ▶ You can use the Script Editor to restrict and dynamically change the fields and values in the Requirements module. For more details, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>. ▶ When you select a requirement column with a user name value (including user-defined fields), ALM displays a list with the name and full name of each user. You can search for users, sort users, group users by user group, and select users from the users list or a group tree. For more details, see "Users List Dialog Box" on page 72. ▶ Some fields are not available in all requirement views. ▶ Version Control: Additional fields are available in a version control enabled project. For details, see "Version Control Fields" on page 127. ▶ Quality Center Starter Edition: Not all fields are available.
See also	"Requirements Module Window" on page 326

The fields are described below:








UI Elements (A-Z)	Description
Author	The user name of the person who created the requirement. Default value: Login user name.
Comments	Comments about the requirement.
Coverage Analysis	Graphically displays the direct cover status of the requirement and its children. Requirements which do not match the current filter, or requirements with direct cover status "N/A" are not counted in the analysis. Note: If you set the coverage by cycle, ALM does not use the Direct Cover Status field in its calculations. Instead, it uses calculated direct cover status values based on the tests that have instances belonging to test set folders that are assigned to cycles included in the filter. In this case, requirements that do not have test coverage for any of the cycles in the filter are not counted in the analysis. For more details on setting coverage by cycle, see "Analysis Settings Dialog Box" on page 553.
Created By	The user name of the person who created the requirement link. Default value: The login user name.
Creation Date	The date on which the requirement or requirement link was created. Default value: Current database server date.
Creation Time	The time at which the requirement was created. Default value: Current database server time.
Description	A description of the requirement.

UI Elements (A-Z)	Description
Direct Cover Status	<p>The current status of the requirement, determined according to the status of the tests associated with the requirement.</p> <p>A requirement status can be one of the following:</p> <ul style="list-style-type: none"> ▶ Blocked. One or more tests covered by the requirement have an execution status of "Blocked". ▶ Not Covered. The requirement has not been linked to a test. ▶ Failed. One or more tests covered by the requirement have an execution status of "Failed", and none have an execution status of "Blocked". ▶ Not Completed. One or more tests covered by the requirement have an execution status of "Not Completed", and none have an execution status of "Blocked" or "Failed". Alternatively, tests covered by the requirement have execution statuses of "Passed" and "No Run". ▶ Passed. All the tests covered by the requirement have an execution status of "Passed". ▶ No Run. All the tests covered by the requirement have an execution status of "No Run". ▶ N/A. The current status of the requirement is not applicable. ▶ -----. The requirement does not have a direct cover status as it belongs to a requirement type that does not support coverage. <p>Default value: The status is Not Covered.</p>
Modified	<p>The date and time on which the requirement or requirement link was modified.</p> <p>Default value: The current database server date and time.</p>
Name	<p>The requirement name.</p>

UI Elements (A-Z)	Description
Old Type (obsolete) (formerly Type)	The type of requirement (obsolete). In previous versions of ALM, the type could be any value configured in the project, with typical values Change, Functional, Guideline, Quality, Standard, and System . This field is only available for requirements of undefined type.
Priority	The priority of the requirement, ranging from low priority (level 1) to urgent priority (level 5).
Product	The component of the application on which the requirement is based.
RBQM Business Impact	The calculated Business Criticality for the requirement. Possible values are A (High), B (Medium), and C (Low) . This field is only in use for assessment requirements.
RBQM Custom Business Impact	The user-defined custom Business Criticality for the requirement. Possible values are A (High), B (Medium), and C (Low) . This field is only in use for assessment requirements.
RBQM Custom Failure Probability	The user-defined custom Failure Probability for the requirement. Possible values are 1 (High), 2 (Medium), and 3 (Low) . This field is only in use for assessment requirements.
RBQM Custom Functional Complexity	The user-defined custom Functional Complexity for the requirement. Possible values are 1 (High), 2 (Medium), and 3 (Low) . This field is only in use for assessment requirements.
RBQM Custom Risk	The user-defined custom Risk for the requirement. Possible values are A (High), B (Medium), and C (Low) . This field is only in use for assessment requirements.
RBQM Custom Testing Hours	The user-defined effort required to test the requirement, measured in units defined in Project Customization. This field is only in use for assessment requirements.
RBQM Custom Testing Level	The user defined level at which to test the requirement. Possible values are 1-Full, 2-Partial, 3-Sanity, and 4-None . This field is only in use for assessment requirements.

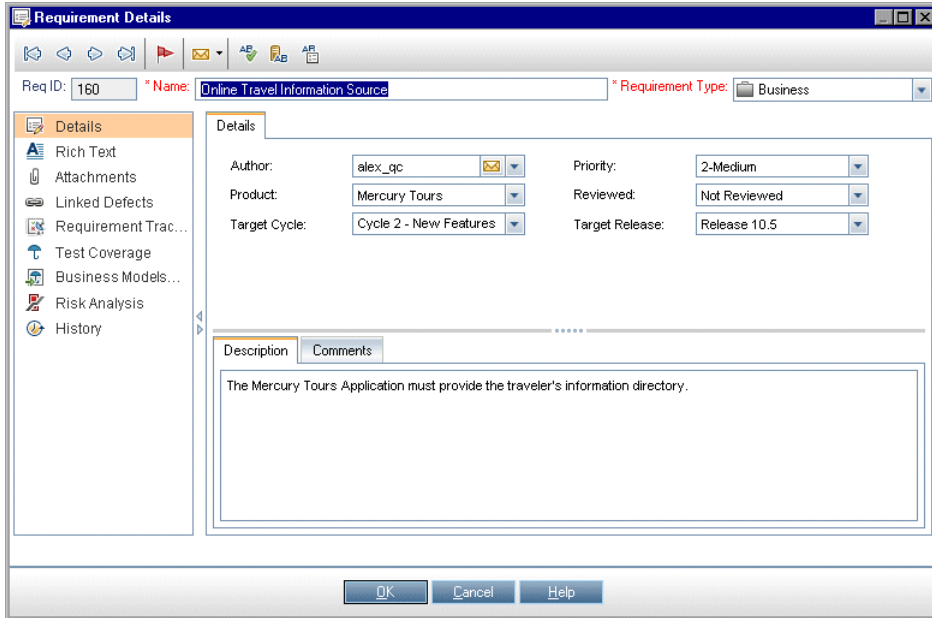
UI Elements (A-Z)	Description
RBQM Date of Last Analysis	The date a risk-based quality management analysis was last performed on the requirement. This field is only in use for analysis requirements.
RBQM Effective Business Impact	The effective Business Criticality for the requirement. Possible values are A (High) , B (Medium) , and C (Low) . This field is only in use for assessment requirements.
RBQM Effective Failure Probability	The effective Failure Probability for the requirement. Possible values are 1 (High) , 2 (Medium) , and 3 (Low) . This field is only in use for assessment requirements.
RBQM Effective Functional Complexity	The effective Functional Complexity for the requirement. Possible values are 1 (High) , 2 (Medium) , and 3 (Low) . This field is only in use for assessment requirements.
RBQM Effective Risk	The effective Risk for the requirement. Possible values are A (High) , B (Medium) , and C (Low) . This field is only in use for assessment requirements.
RBQM Estimated RnD Effort	The user-defined estimate of the effort required to develop the requirement. This field is only in use for assessment requirements.
RBQM Exclude from Analysis	Indicates whether to exclude the requirement from risk analysis. A requirement may be excluded from risk analysis if it belongs to a type for which risk assessments are not available, or if you specifically exclude it from analysis.
RBQM Failure Probability	The calculated Failure Probability for the requirement. Possible values are 1 (High) , 2 (Medium) , and 3 (Low) . This field is only in use for assessment requirements.
RBQM Functional Complexity	The calculated Functional Complexity for the requirement. Possible values are 1 (High) , 2 (Medium) , and 3 (Low) . This field is only in use for assessment requirements.
RBQM Risk	The calculated Risk for the requirement. Possible values are A (High) , B (Medium) , and C (Low) . This field is only in use for assessment requirements.

UI Elements (A-Z)	Description
RBQM Testing Hours	The calculated effort required to test the requirement, measured in units defined in Project Customization. This field is only in use for assessment requirements.
RBQM Testing Level	The calculated level at which to test the requirement. Possible values are 1-Full , 2-Partial , 3-Sanity , and 4-None . This field is only in use for assessment requirements.
RBQM Use Custom Business Impact	Indicates whether to use the user-defined Business Criticality, instead of the Business Criticality calculated by ALM. This field is only in use for assessment requirements.
RBQM Use Custom Failure Probability	Indicates whether to use the user-defined Failure Probability, instead of the Failure Probability calculated by ALM. This field is only in use for assessment requirements.
RBQM Use Custom Functional Complexity	Indicates whether to use the user-defined Functional Complexity, instead of the Functional Complexity calculated by ALM. This field is only in use for assessment requirements.
RBQM Use Custom Results	Indicates whether to use the user-defined testing effort and testing level, instead of the values calculated by ALM. This field is only in use for assessment requirements.
RBQM Use Custom Risk	Indicates whether to use the user-defined Risk, instead of the Risk calculated by ALM. This field is only in use for assessment requirements.
Req ID	A unique alphanumeric ID for the requirement that is assigned automatically. The Req ID field cannot be modified.
Req Parent	The name of the parent requirement.
Requirement Trace ID	A unique alphanumeric ID for the requirement link that is assigned automatically.

UI Elements (A-Z)	Description
Requirement Type	<p>The type of requirement.</p> <p>Default values:</p> <ul style="list-style-type: none"> ➤  Business. A business process requirement. By default, you cannot add coverage to this requirement. ➤  Folder. A folder for organizing requirements. By default, you cannot add coverage to this requirement. ➤  Functional. A system behavioral requirement. ➤  Group. A collection of related requirements. ➤  Testing. A system performance requirement. ➤  Business Model. A requirement representing a business process model entity. ➤  Undefined. An undefined requirement. <p>Note: You can customize the default types and create your own requirement types. For more details on customizing requirement types, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>.</p>
Reviewed	Indicates whether the requirement has been reviewed and approved by the person responsible.
Target Cycle	Indicates the cycle to which the requirement is assigned.
Target Release	Indicates the release to which the requirement is assigned.
Trace Comment	Displays comments about the requirement link.




Requirement Details Page

This page enables you to update the details, attachments, tests coverage, requirement traceability links, risk-based quality management settings, and defect links for any requirement. You can also view a list of changes made to any requirement.



<p>To access</p>	<p>Use one of the following:</p> <ul style="list-style-type: none"> ▶ In the Requirements module, right-click a requirement and select Requirement Details. The Requirement Details dialog box opens. ▶ Select View > Requirement Details. The Requirement Details view opens.
<p>Important information</p>	<p>Quality Center Starter Edition: Not all fields and functionality are available in Requirement Details.</p>
<p>Relevant tasks</p>	<p>"How to Create Requirements" on page 321</p>
<p>See also</p>	<p>"Requirements Specification Overview" on page 320</p>

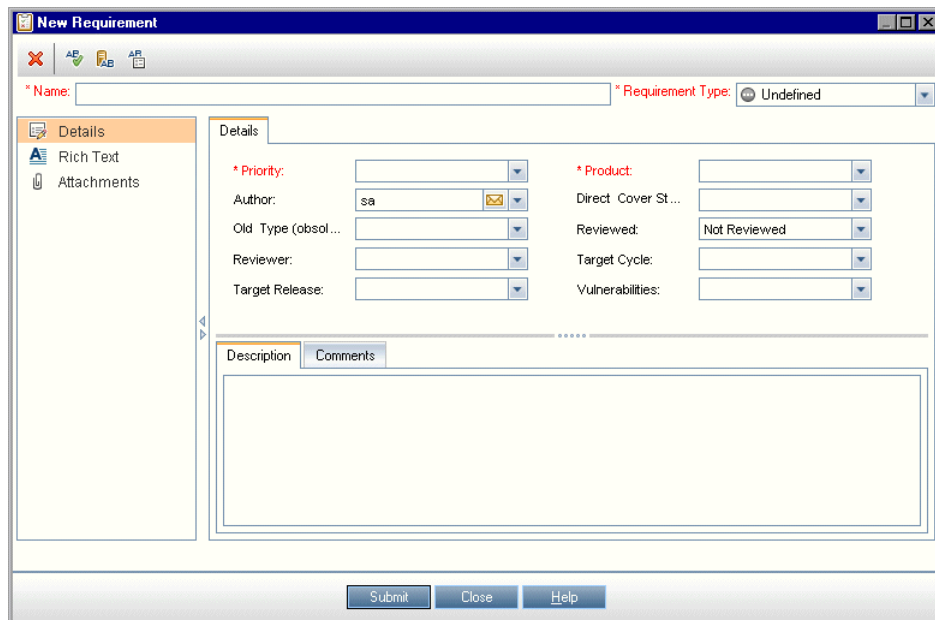
User interface elements are described below (unlabeled elements are shown in angle brackets>):

UI Elements (A-Z)	Description
	<p>First/Previous/Next/Last Entity. Allows you to browse through the requirements.</p> <p>Available from: Requirement Details dialog box</p>
	<p>Flag for Follow Up. Opens the Flag For Follow Up dialog box, enabling you to define a follow up flag for the requirement. For details, see "Flag For Follow Up Dialog Box" on page 106.</p>
	<p>Send by Email. Sends an email with the requirement details. For more details, see "Send E-mail Dialog Box" on page 83.</p>
<p>Details</p>	<p>Details the currently selected requirement. For details on the available fields, see "Requirements Module Fields" on page 347.</p>
<p>Attachments</p>	<p>Lists attachments that provide additional information about the currently selected requirement. For more details, see "Attachments Page" on page 86.</p>
<p>Business Models Linkage</p>	<p>Lists the business model entities linked to the currently selected requirement. For more details, see "Business Models Linkage Tab" on page 545.</p>
<p>History</p>	<p>Displays a list of changes made to the currently selected requirement. For more details, see "History Tab" on page 81.</p> <p>In addition, this tab displays a history of baselines in which the requirement appears. For more details, see "History Tab" on page 81.</p>
<p>Linked Defects</p>	<p>Lists the defects linked to the currently selected requirement. For more details, see "Linked Defects/Entities Page" on page 866.</p>
<p>Requirements Traceability</p>	<p>Lists the requirements linked to the currently selected requirement. For more details, see "Impact Analysis Tab" on page 380 and "Relationships Tab" on page 375.</p>

UI Elements (A-Z)	Description
Rich Text	Enables you to add, view, and edit rich text using an editor from within ALM. Note: Changes you make to the rich text for a requirement are saved automatically when you move to a different requirement or a different module.
Risk Analysis/Risk Assessment	Calculates and analyzes risk for the currently selected requirement. For more details, see "Risk Assessment Tab" on page 413 and "Risk Analysis Tab" on page 419.
Test Coverage	Lists the tests associated with the currently selected requirement. For more details, see "Test Coverage Page" on page 548.





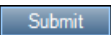
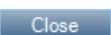
New Requirement Dialog Box

This dialog box enables you to add a new requirement to the Requirements module.



To access	In the Requirements module, right-click a requirement and select New Requirement . Available from: Requirements Tree, Requirement Details, and Coverage Analysis
Relevant tasks	"How to Create Requirements" on page 321
See also	"Requirements Specification Overview" on page 320

User interface elements are described below (unlabeled elements are shown in angle brackets>):

UI Elements (A-Z)	Description
	Clears the data.
	Spell Check. Checks the spelling for the selected word or text box.
	Spelling Options. Enables you to configure the way ALM checks spelling.
	Thesaurus. Displays a synonym, antonym, or related word for the selected word.
	Adds the new requirement to the requirements tree. The New Requirement page remains open.
	Closes the New Requirement page.
Attachments	Enables you to add attachments for the currently selected requirement. For more details, see "Attachments Page" on page 86.
Details	Required fields are displayed in red. For details on the available requirement fields, see "Requirements Module Fields" on page 347.
Requirement Name	Type a name for the new requirement. Syntax exceptions: A requirement name cannot include the following characters: \ ^ *

UI Elements (A-Z)	Description
Requirement Type	Select a requirement type. For more details on requirement types, see "Requirement Type" on page 353. Quality Center Starter Edition: This field is not available.
Rich Text	Enables you to add, view, and edit rich text using an HTML editor from within ALM. Note: Changes you make to the rich text for a requirement are saved automatically when you move to a different requirement or a different module.

Create New Folder Dialog Box

This dialog box enables you to create folders in the requirements tree.

To access	In the Requirements module, right-click a folder and select New Folder . Available from: Requirements Tree, Requirement Details, and Coverage Analysis
Important information	The Requirements root folder cannot be renamed or deleted.
Relevant tasks	"How to Create Requirements" on page 321
See also	"Requirements Specification Overview" on page 320

User interface elements are described below (unlabeled elements are shown in angle brackets>):

UI Elements (A-Z)	Description
Folder Name	Type a name for the new requirement. Syntax exceptions: A folder name cannot include the following characters: \ ^ *

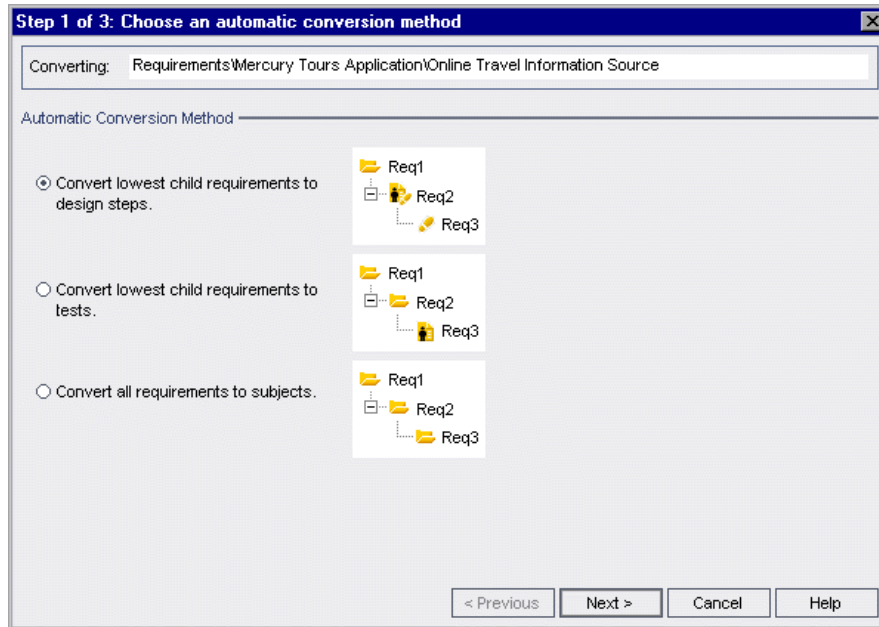
Convert to Tests Wizard

This wizard enables you to convert requirements to tests in a specified subject in the test plan tree. Coverage is automatically created between the requirements and their corresponding tests. You can convert selected requirements or all requirements in the requirements tree.

To access	In the Requirements module, right-click a requirement in the requirements tree and select Convert to Tests . To convert all requirements, right-click the root requirement folder in the requirements tree and select Convert to Tests .
Important information	<ul style="list-style-type: none"> ▶ You must have the necessary permissions to create tests. ▶ The following requirement types are set so that, by default, you cannot convert them to tests: Business, Folder, and Group. <p>To enable you to convert, you must enable test coverage for these requirement types. For more details, see the <i>HP Application Lifecycle Management Administrator Guide</i>.</p>
Wizard map	This wizard contains: Choose an Automatic Conversion Method Page > Manual Changes to the Automatic Conversion Page > Choose the Destination Subject Path Page
Relevant tasks	"How to Create Requirements" on page 321
See also	"Requirements Specification Overview" on page 320

Choose an Automatic Conversion Method Page

This wizard page enables you to choose an automatic conversion method. You can convert requirements to design steps, tests, or subjects.



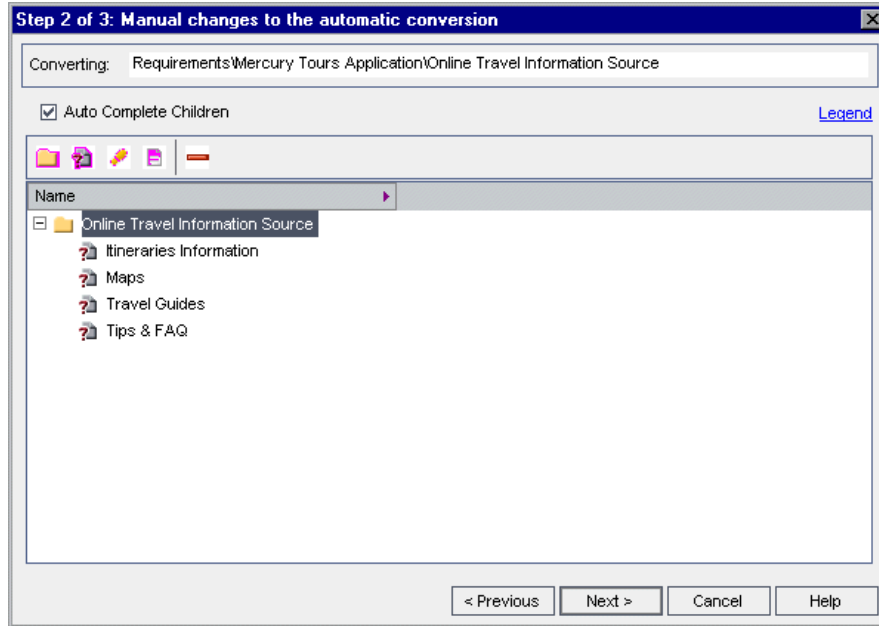
Important information	General information about this wizard is available here: "Convert to Tests Wizard" on page 359.
Wizard map	The Convert to Tests Wizard contains: Choose an Automatic Conversion Method Page > Manual Changes to the Automatic Conversion Page > Choose the Destination Subject Path Page

User interface elements are described below:

UI Elements (A-Z)	Description
Cancel	<p>If you are canceling before starting the conversion process, the wizard closes.</p> <p>If you are canceling after starting the conversion process, Click the Stop button in the progress bar.</p>
Convert all requirements to subjects	Converts all selected requirements to subjects in the Test Plan module.
Convert lowest child requirements to design steps	Converts all lowest level child requirements to design steps, the next level up to tests, and all levels above to subjects.
Convert lowest child requirements to tests	Converts all lowest level child requirements to tests and all levels above to subjects.
Converting	The path of the selected requirements.
Next	Starts the conversion process. The results are displayed in the Manual Changes to the Automatic Conversion Page.






Manual Changes to the Automatic Conversion Page

This wizard page enables you to manually set requirements to subjects in the test plan tree, tests, test steps, or step descriptions. You can also choose to exclude requirements from the conversion process.



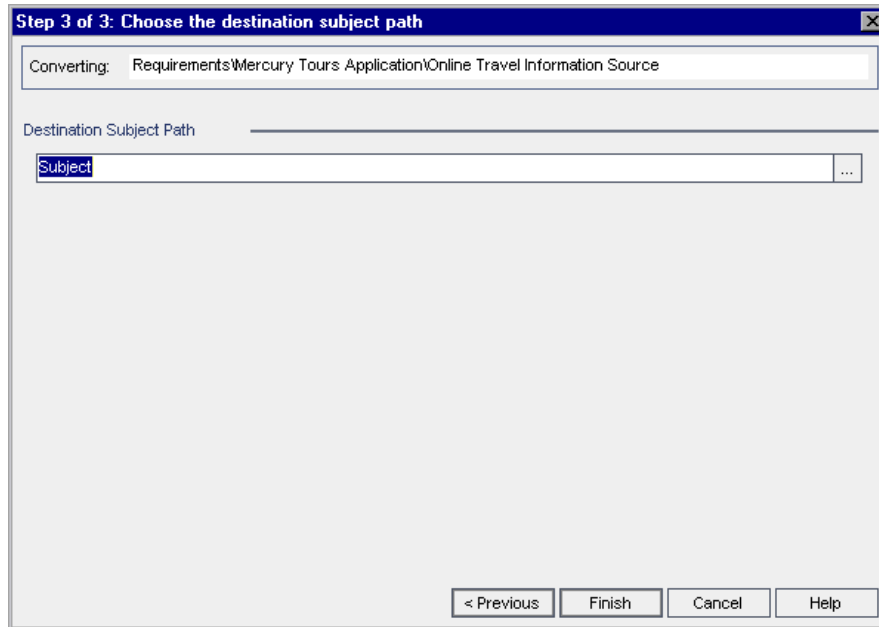
<p>Important information</p>	<ul style="list-style-type: none"> ▶ General information about this wizard is available here: "Convert to Tests Wizard" on page 359. ▶ If you are converting a single requirement, the wizard skips this page.
<p>Wizard map</p>	<p>The Convert to Tests Wizard contains:</p> <p>Choose an Automatic Conversion Method Page > Manual Changes to the Automatic Conversion Page > Choose the Destination Subject Path Page</p>

User interface elements are described below:

UI Elements (A-Z)	Description
	Convert to Subject. Changes the selected item to a subject in the test plan tree. Children can then be either subjects or tests. Subject names must be unique.
	Convert to Test. Changes the selected item to a test in the test plan tree. Children are then converted to steps. Test names must be unique.
	Convert to Step. Changes the selected item to a step in the test plan tree. Children are then converted to step descriptions.
	Convert to Description. Changes the selected item to a step description in the test plan tree. Children are then converted to indented description text.
	Exclude from Conversion. Excludes the selected item from the test plan tree.
Auto Complete Children	Changes the level of the children of the selected parent. For example, if you change the level of a parent from a subject to a test, the wizard changes the level of all the children from tests to test steps.
Converting	The path of the selected requirement.
Legend	Provides a legend for this wizard page.

Choose the Destination Subject Path Page

This wizard page enables you to define the destination subject path in the test plan tree.



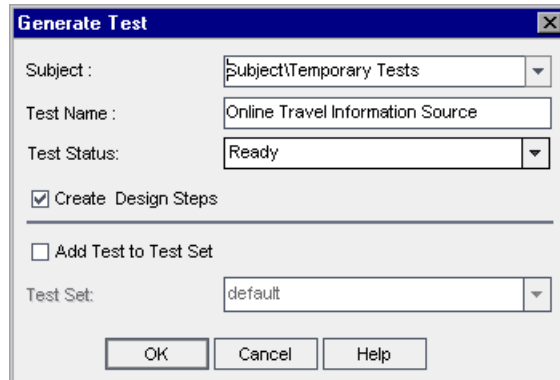
<p>Important information</p>	<ul style="list-style-type: none"> ▶ General information about this wizard is available here: "Convert to Tests Wizard" on page 359. ▶ If you are converting a single requirement, the wizard skips this page.
<p>Wizard map</p>	<p>The Convert to Tests Wizard contains:</p> <p>Choose an Automatic Conversion Method Page > Manual Changes to the Automatic Conversion Page > Choose the Destination Subject Path Page</p>

User interface elements are described below (unlabeled elements are shown in angle brackets>):

UI Elements (A-Z)	Description
Converting	The path of the selected requirements.
Destination Subject Path	Sets the destination subject path in the Test Plan module. Default value: The subject folder and tests are placed in the Subject folder of the Test Plan module.
Finish	Starts the conversion process. When the conversion process ends, click OK . The page displays errors generated while converting the requirements. Note: If you stop the conversion process, any requirements already converted are not deleted from the test plan tree. You must delete them manually.

Generate Test Dialog Box

This dialog box enables you to convert requirements to tests in specified subjects in the test plan tree. You can also specify whether or not to add the tests to specified test sets in the Test Lab module.



Generate Test

Subject :

Test Name :

Test Status:

Create Design Steps

Add Test to Test Set

Test Set:

To access	In the Requirements module, right-click a requirement and select Generate Test .
Important information	<ul style="list-style-type: none"> ▶ After converting requirements, coverage is automatically created between the requirements and their corresponding tests. ▶ The following requirement types are set so that, by default, you cannot convert them to tests: Business, Folder, and Group. <p>To enable you to convert, you must enable test coverage for these requirement types. For more details, see the <i>HP Application Lifecycle Management Administrator Guide</i>.</p>
Relevant tasks	"How to Create Requirements" on page 321
See also	"Requirements Specification Overview" on page 320

User interface elements are described below (unlabeled elements are shown in angle brackets>):

UI Elements (A-Z)	Description
Add Test to Test Set	Adds the test to a test set in the Test Lab module.
Create Design Steps	Adds a test step for each child requirement.
Subject	The subject from your test plan tree. Default value: The test is placed in the Temporary Tests folder in the Test Plan module.
Test Name	The name of the test. Default value: The same name as the requirement.
Test Set	The name of the test set.
Test Status	The planning status for the test. Default value: Design .

14

Requirements Traceability

This chapter includes:

Concepts

- ▶ Requirements Traceability Overview on page 368

Tasks

- ▶ How to Trace Requirements on page 369

Reference

- ▶ Requirements Traceability User Interface on page 375

Concepts

Requirements Traceability Overview

Requirements traceability defines a relationship between two or more requirements. When analyzing the impact of a change proposed in a specific requirement, the traceability links indicate the other requirements that the change might affect.

You can add traceability links to and from a selected requirement.

- ▶ **Trace from** links indicate requirements that affect a selected requirement.
- ▶ **Trace to** links indicate requirements that are affected by a selected requirement.

When a requirement changes, HP Application Lifecycle Management (ALM) can alert the affected requirements. For more details on alerts, see "Alerts Overview" on page 96.

Quality Center Starter Edition: Requirements traceability is not available.

For task details, see "How to Trace Requirements" on page 369.

Tasks

How to Trace Requirements

This task describes how to define traceability links between requirements, and how to view the associations and dependencies that exist between the requirements.

To learn more about tracing requirements, see "Requirements Traceability Overview" on page 368.

Tip: For a use-case scenario related to this task, see "How to Trace Requirements - Use-Case Scenario" on page 370.

This task includes the following steps:

- "Define traceability links" on page 369
- "View traceability impact" on page 370
- "View traceability impact" on page 370

1 Define traceability links

- a** In the Requirements module, select the **Requirement Details** view. Click the **Requirements Traceability** tab.
- b** To define a traceability link, select a requirement from the requirements tree.
- c** In the **Relationships** tab, click the **Add Requirement Traceability** button to display the requirements tree in the right pane. Add traceability links. For user interface details, see "Relationships Tab" on page 375.

2 View traceability impact

Click the **Impact Analysis** tab. Review the associations and dependencies that exist between the requirements. For user interface details, see "Impact Analysis Tab" on page 380.

3 Generate a traceability matrix - Optional

You can generate a traceability matrix to determine the completeness of the relationships between your requirements.

In the Requirements module, select **View > Traceability Matrix**. Configure the traceability matrix. For task details, see "How to Use the Traceability Matrix" on page 385.



How to Trace Requirements - Use-Case Scenario

This use-case scenario provides an example of tracing requirements in ALM.

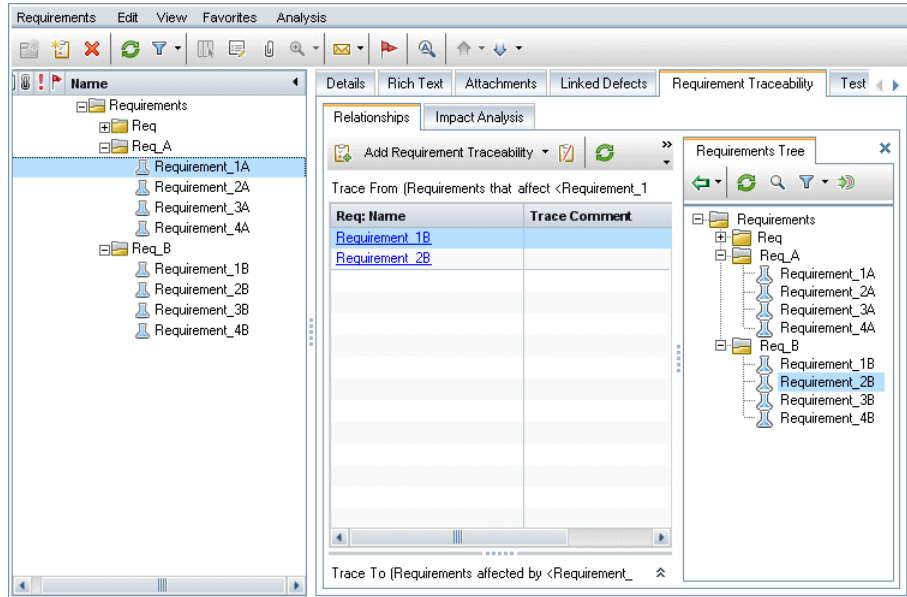
Note: For a task related to this scenario, see "How to Trace Requirements" on page 369.

This scenario includes the following steps:

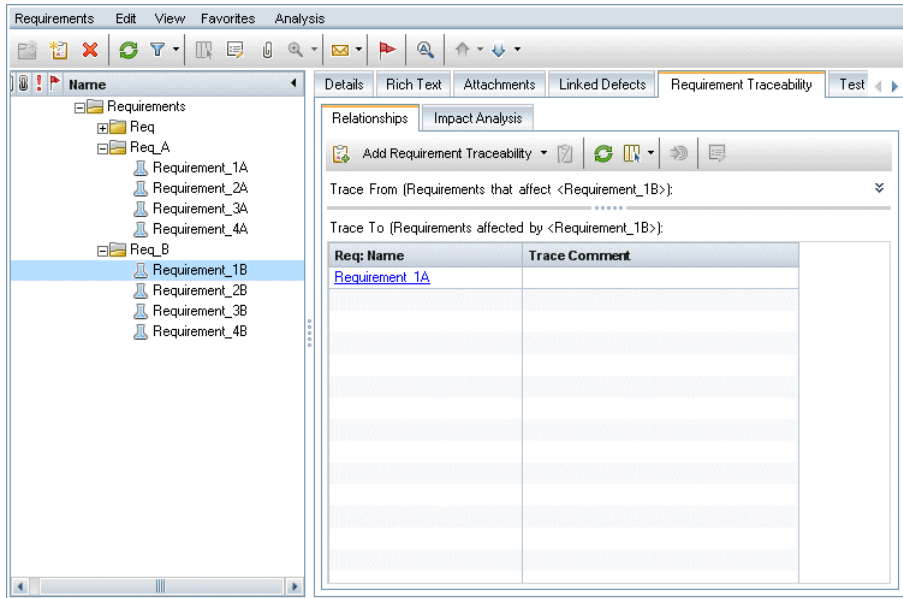
- "Define traceability links" on page 371
- "View Traceability Impact" on page 373

1 Define traceability links

In the Requirements module, select the **Requirement Details** view. Click the **Requirements Traceability** tab. To implement a relationship between the requirements, suppose Requirement_1B and Requirement_2B affect Requirement_1A. You select Requirement_1A in the requirements tree. In the Relationships tab, you add Requirement_1B and Requirement_2B to the Trace From grid.



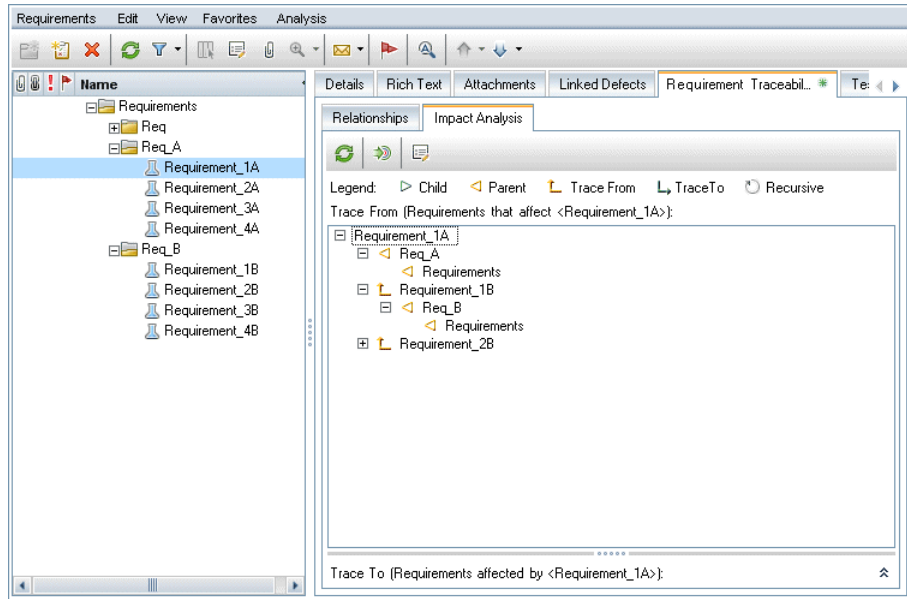
If you select Requirement_1B in the requirements tree, the Trace To grid indicates that Requirement_1B is traced to Requirement_1A.



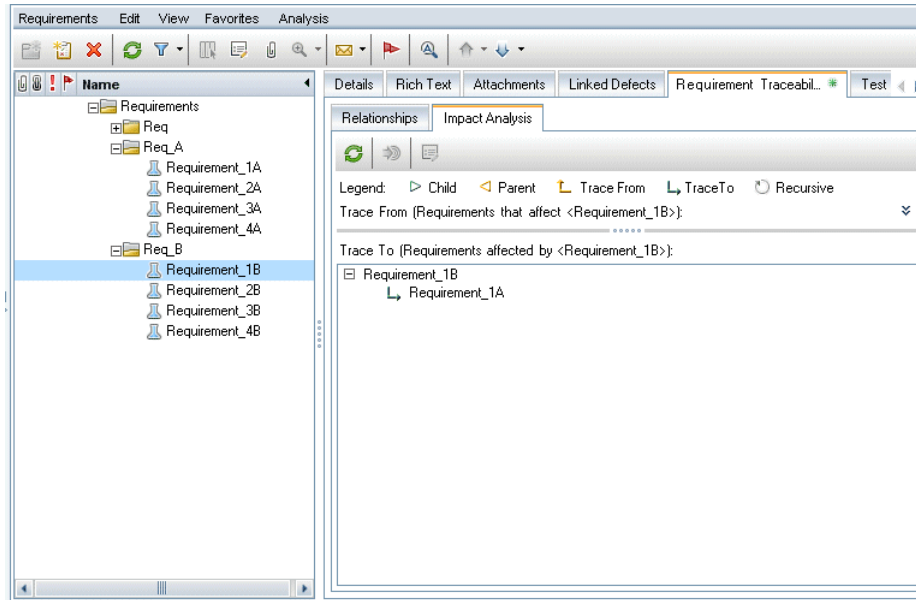
If you select Requirement_2B in the requirements tree, the Trace To grid indicates that Requirement_2B is traced to Requirement_1A.

2 View Traceability Impact

In the following Impact Analysis tab, the Trace From tree indicates that Requirement_1A is traced from Requirement_1B and Requirement_2B. Req_A is the parent requirement of Requirement_1A. Req_B is the parent requirement of Requirement_1B.



The Trace To tree displays requirements that are affected by a selected requirement. For example, the following Trace To tree indicates that Requirement_1B is traced to Requirement_1A.



Reference

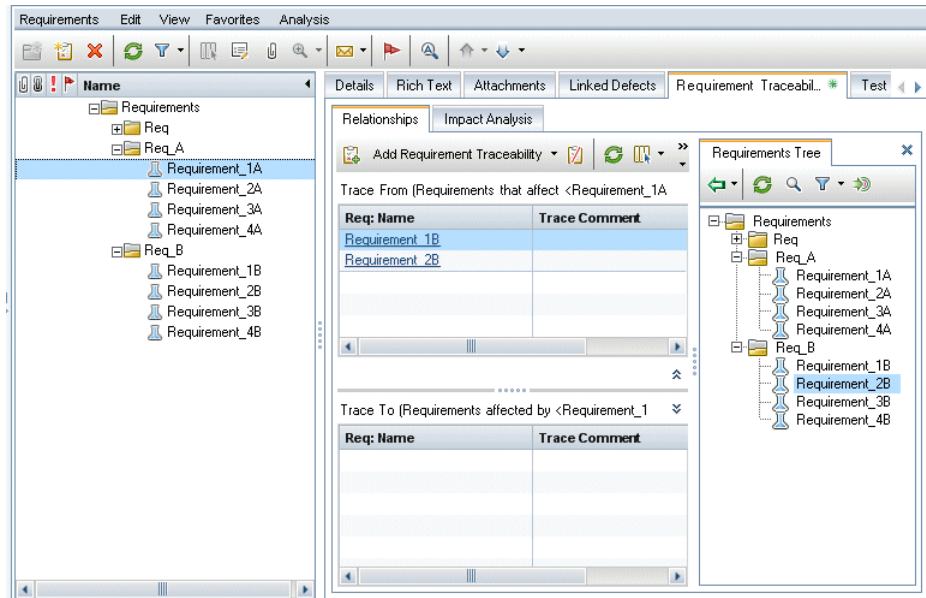
Requirements Traceability User Interface

This section includes:

- ▶ Relationships Tab on page 375
- ▶ Impact Analysis Tab on page 380

Relationships Tab




This tab enables you to define relationships between requirements. It helps you understand associations and dependencies that exist between the requirements by displaying them in a grid structure.







To access	In the Requirements module, select View > Requirement Details . Click the Requirements Traceability tab.
Important information	<ul style="list-style-type: none">▶ The Relationships tab shows the affected requirements excluding their child requirements.▶ Quality Center Starter Edition: Requirements traceability is not available.
Relevant tasks	"How to Trace Requirements" on page 369
See also	"Requirements Traceability Overview" on page 368 "Impact Analysis Tab" on page 380

Trace From/Trace To Grid

User interface elements are described below:

UI Elements (A-Z)	Description
 Add Requirement Traceability ▾	<p>Defines traceability relationships between the requirements.</p> <p>Includes the following options:</p> <ul style="list-style-type: none"> ▶ Add Requirement Traceability or From Requirements Tree. Displays the requirements tree in the right pane, enabling you to add traceability links from the requirements tree to the selected requirement. For more details, see "Requirements Tree Pane" on page 378. ▶ By ID (Trace From). Opens the Trace Existing Requirement dialog box, enabling you to add a traceability link to the Trace From grid by typing a requirement ID. ▶ By ID (Trace To). Opens the Trace Existing Requirement dialog box, enabling you to add a traceability link to the Trace To grid by typing a requirement ID.
	<p>Remove from Traceability. Removes a traceability relationship link from the Trace From or Trace To grid.</p> <p>Tip: Press the CTRL key to select multiple links.</p>
	<p>Refresh All. Refreshes the grids.</p>







UI Elements (A-Z)	Description
	<p>Select Columns. Sets column appearance and order.</p> <p>Includes the following options:</p> <ul style="list-style-type: none"> ▶ Select Column (Trace From). Opens the Select Columns dialog box, enabling you to determine which fields to display in the Trace From grid and their order. ▶ Select Column (Trace To). Opens the Select Columns dialog box, enabling you to determine which fields to display in the Trace To grid and their order. <p>For more details, see "Select Columns/Select Fields Dialog Box" on page 90.</p>
	<p>Go To Requirement. Displays a traced requirement in the requirements tree.</p>
	<p>Requirement Details. Opens the Requirement Details dialog box, enabling you to display the details of the selected requirement. For more details, see "Requirement Details Page" on page 354.</p>
	<p>Show/Hide. Shows/hides the Trace From or the Trace To pane.</p>
<requirement fields>	<p>For details on the requirement fields available from the grids, see "Requirements Module Fields" on page 347.</p>
Trace From pane	<p>Displays requirements that affect a selected requirement.</p>
Trace To pane	<p>Displays requirements that are affected by a selected requirement.</p>

Requirements Tree Pane

This pane enables you to add traceability links from the requirements tree to the selected requirement.

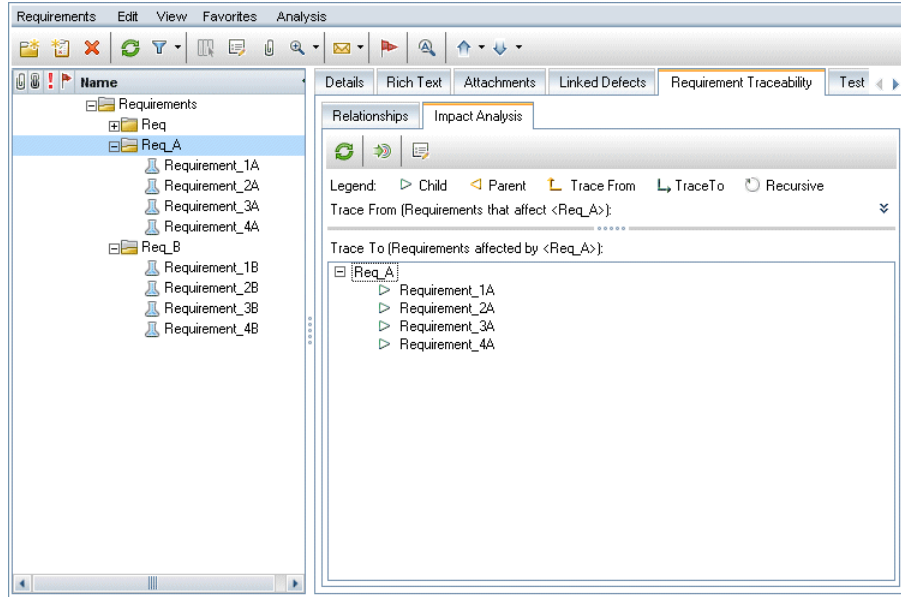
To access	<p>In the Requirements module, select the Requirement Details view. Click the Requirements Traceability tab. Click the Add Requirement Traceability button.</p>
------------------	--

User interface elements are described below:

UI Elements	Description
	<p>Add to Traceability. Adds traceability links from the requirements tree.</p> <p>Includes the following options:</p> <ul style="list-style-type: none"> ▶ Add to Traceability (Trace From). Adds selected requirements to the Trace From grid. ▶ Add to Traceability (Trace To). Adds selected requirements to the Trace To grid. <p>Tip: You can also add traceability links by dragging a requirement in the tree to the appropriate grid.</p>
	<p>Refresh All. Refreshes the requirements tree.</p>
	<p>Set Filter/Sort. Filters and sorts the requirements in the requirements tree. For more details, see "Filter Dialog Box" on page 60.</p>
	<p>Find. Searches for a specific requirement in the tree.</p> <p>Type the name (or part of the name) of the requirement in the Find box and click Find. If the search is successful, the requirement is highlighted in the tree.</p>
	<p>Go to Requirement by ID. Opens the Go To Requirement dialog box, enabling you to find a specific requirement by ReqID.</p> <p>Note: You can only go to requirements that are in the current filter.</p>
	<p>Close. Hides the requirements tree in the right pane.</p>





Impact Analysis Tab

This tab enables you to analyze the impact of requirement changes by reviewing the relationships. It helps you understand associations and dependencies that exist between the requirements by displaying them in a hierarchical tree structure.



To access	In the Requirements module, select View > Requirement Details . Click the Requirements Traceability tab and then the Impact Analysis tab.
Important information	<ul style="list-style-type: none"> ▶ The Impact Analysis tab shows the affected parent and child requirements. ▶ Quality Center Starter Edition: Requirements traceability is not available.
Relevant tasks	"How to Trace Requirements" on page 369
See also	"Requirements Traceability Overview" on page 368 "Relationships Tab" on page 375

User interface elements are described below:

UI Elements (A-Z)	Description
	Refresh All. Refreshes the tree.
	Go To Requirement. Displays a traced requirement in the requirements tree.
	Requirement Details. Opens the Requirement Details dialog box, enabling you to display the details of the selected requirement. For more details, see "Requirement Details Page" on page 354.
	Show/Hide. Shows/hides the Trace From or the Trace To pane.
Legend	Describes the relationships between the requirements. For more details on the traceability icons, see "Requirements Module Icons" on page 344.
Trace From pane	Displays requirements that affect a selected requirement.
Trace To pane	Displays requirements that are affected by a selected requirement.

15

Traceability Matrix

This chapter includes:

Concepts

- ▶ Traceability Matrix Overview on page 384

Tasks

- ▶ How to Use the Traceability Matrix on page 385

Reference

- ▶ Traceability Matrix User Interface on page 389

Concepts

Traceability Matrix Overview

The traceability matrix enables you to determine the extent of relationships between requirements and other requirements, and between requirements and tests. It helps you verify that all requirements are met, and identify changes to the scope of your requirements when they occur.

The traceability matrix lists source requirements, and their associated requirements and tests. The total number of relationships is listed for each source requirement. A low value may imply that the source requirement is not associated with enough requirements or tests. A high value may imply that the source requirement is too complex and can perhaps be simplified. A zero value indicates that no relationship exists.

For task details, see "How to Use the Traceability Matrix" on page 385.

Tasks

How to Use the Traceability Matrix

This task describes how to configure and display the traceability matrix.

To learn more about the traceability matrix, see "Traceability Matrix Overview" on page 384.

Tip: For a use-case scenario related to this task, see "How to Use the Traceability Matrix - Use-Case Scenario" on page 386.

This task includes the following steps:

- "Prerequisites" on page 385
- "Configure the traceability matrix" on page 386
- "View the traceability matrix" on page 386

1 Prerequisites

- a Define requirement traceability links.** In the Requirements module, select **View > Requirement Details**. Click the **Requirements Traceability** tab. Define traceability links between requirements. For task details, see "How to Trace Requirements" on page 369.
- b Define requirement and test coverage.** Create coverage by linking requirements to tests. You can create coverage from the Requirements or the Test Plan module. For task details, see "How to Create Coverage" on page 528.

2 Configure the traceability matrix

- a In the Requirements module, select **View > Traceability Matrix**.
- b Click the **Configure Traceability Matrix** button. The Configure Traceability Matrix wizard opens. Define the matrix. For user interface details, see "Configure Traceability Matrix Wizard" on page 394.

3 View the traceability matrix

In the Traceability Matrix view, analyze and review the traceability links between requirements, and the links between requirements and tests. For user interface details, see "Traceability Matrix View" on page 390.

How to Use the Traceability Matrix - Use-Case Scenario

This use-case scenario provides an example of how to configure the traceability matrix and how to view the results. In this scenario, you will want to identify requirements that have an impact on the specified source requirements.

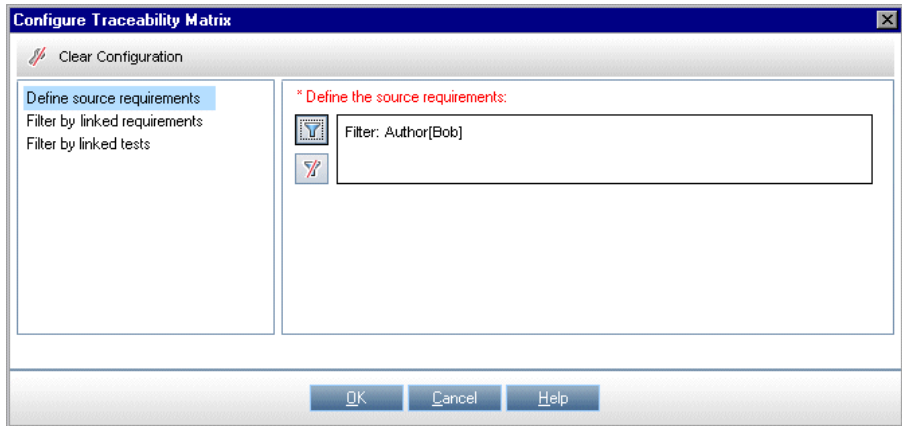
Note: For a task related to this scenario, see "How to Use the Traceability Matrix" on page 385.

This scenario includes the following steps:

- "Define the source requirements" on page 387
- "Define the linked requirements" on page 387
- "View the traceability matrix" on page 388

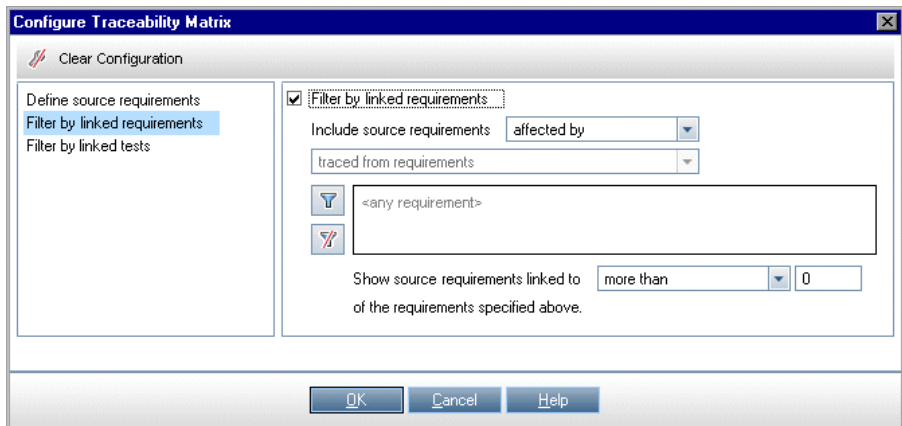
1 Define the source requirements

In the Configure Traceability Matrix, limit the matrix to requirements authored by a specific user, for example **Bob**.



2 Define the linked requirements

In **Filter by linked requirements**, identify the requirements that have an impact on the defined source requirements.



3 View the traceability matrix

The traceability matrix grid displays the source requirements and number of traced from requirements. For example, the req1 requirement is linked to two traced from requirements.

The screenshot shows a software interface with a menu bar (Requirements, Edit, View, Favorites, Analysis) and a toolbar with icons for 'Configure Traceability Matrix', 'Show Full Path', and 'Generate Traceability Matrix'. Below the toolbar, there is a filter bar with the text 'Filter: Author[bob]; Link Filters: Number of traced from requirements[>0]' and a summary 'Total number of traced from requirements: 4'. The main area contains a table with the following data:

Req ID	Name	Number of traced from requirements	Author
1	req1	2	bob
2	req2	1	bob
4	req4	1	bob
7	req3a	3	bob

Below this table is a tab labeled 'Traced From Requirements'. This tab has a sub-toolbar with 'Show Full Path' and a table with the following data:

Req ID	Name
2	req2
3	req3

The Traced From Requirements tab displays the requirements that have an impact on a specified source requirement. For example, req2 and req3 have an impact on req1.

Reference

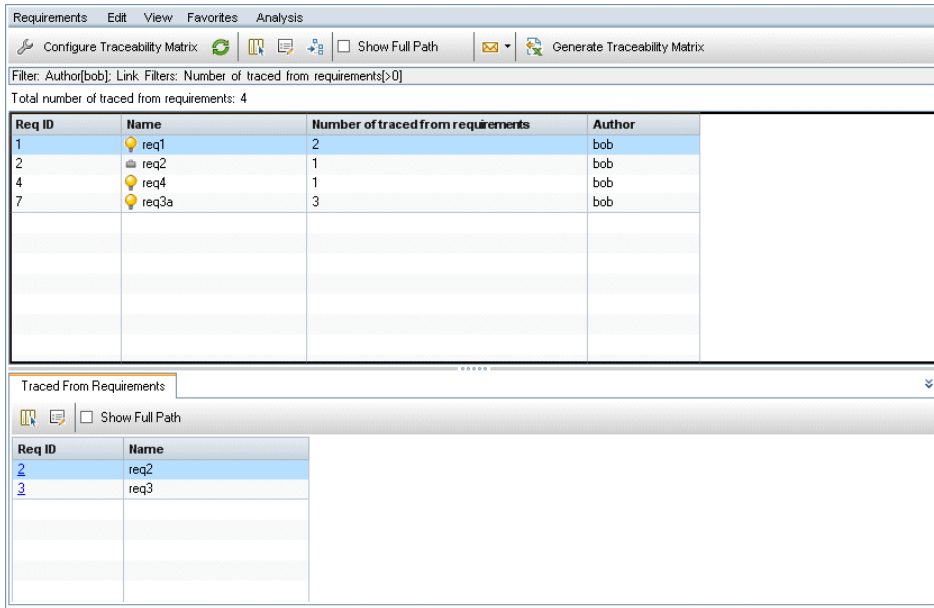
Traceability Matrix User Interface

This section includes:

- ▶ Traceability Matrix View on page 390
- ▶ Configure Traceability Matrix Wizard on page 394

Traceability Matrix View

This view enables you to analyze the traceability matrix.



Requirements Edit View Favorites Analysis

Configure Traceability Matrix Show Full Path Generate Traceability Matrix

Filter: Author[bob]; Link Filters: Number of traced from requirements{>0}

Total number of traced from requirements: 4

Req ID	Name	Number of traced from requirements	Author
1	req1	2	bob
2	req2	1	bob
4	req4	1	bob
7	req3a	3	bob

Traced From Requirements







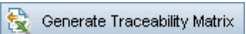

Show Full Path

Req ID	Name
2	req2
3	req3

To access	In the Requirements module, select View > Traceability Matrix .
Important information	The data displayed in the traceability matrix grid is not editable.
Relevant tasks	"How to Use the Traceability Matrix" on page 385
See also	"Traceability Matrix Overview" on page 384 "Configure Traceability Matrix Wizard" on page 394

Traceability Matrix Grid

User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements (A-Z)	Description
 Configure Traceability Matrix	Opens the Configure Traceability Matrix wizard, enabling you to define the matrix. For more details, see "Configure Traceability Matrix Wizard" on page 394.
	Refresh All. Refreshes the matrix so that it displays the most up-to-date data.
	Select Columns. Opens the Select Columns dialog box, enabling you to determine which fields to display in the matrix and their order. For more details, see "Select Columns/Select Fields Dialog Box" on page 90.
	Requirement Details. Opens the Requirement Details dialog box, enabling you to display the details of the selected requirement. For more details, see "Requirement Details Page" on page 354.
	Go To Requirement in Requirements Tree. Goes to the Requirements Tree view and highlights the selected requirement.
	Send E-mail. Opens the Send E-mail dialog box, enabling you to send requirement email to recipients selected from a list or to the author of the requirement. For more details, see "Send E-mail Dialog Box" on page 83.
 Generate Traceability Matrix	Generate Traceability Matrix. Opens the Generate Traceability Matrix dialog box, enabling you to save the Traceability Matrix view to a Microsoft Excel worksheet.
	Show/Hide. Shows/hides the lower pane of the Traceability Matrix view.
<grid fields>	For details on the requirement fields available from the grid, see "Requirements Module Fields" on page 347.
Name	The requirement name.



UI Elements (A-Z)	Description
Number of linked tests	The number of tests associated with a selected requirement.
Number of traced from requirements	The number of requirements that affect a selected requirement.
Number of traced to requirements	The number of requirements that are affected by a selected requirement.
Show Full Path	Displays the path of the requirements in the requirements tree.

Traced From Requirements Tab

This tab displays requirements that affect a selected requirement.

Important information	This tab is available when the following options are set in the Filter By Linked Requirements page of the Configure Traceability Matrix wizard: Include source requirements affected by or Include source requirements not affected by . For more details on the Filter By Linked Requirements page, see "Configure Traceability Matrix Wizard" on page 394.
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User interface elements are described below (unlabeled elements are shown in angle brackets>):

UI Elements (A-Z)	Description
	Select Columns. Opens the Select Columns dialog box, enabling you to determine which fields to display in the matrix and their order. For more details, see "Select Columns/Select Fields Dialog Box" on page 90.
	Requirement Details. Opens the Requirement Details dialog box, enabling you to display the details of the selected requirement. For more details, see "Requirement Details Page" on page 354.



UI Elements (A-Z)	Description
<grid fields>	For details on the requirement fields available from the grid, see "Requirements Module Fields" on page 347.
Show Full Path	Displays the path of the requirements in the requirements tree.

Traced To Requirements Tab

This tab displays requirements that are affected by a selected requirement.

Important information	This tab is available when the following options are set in the Filter By Linked Requirements page of the Configure Traceability Matrix wizard: Include source requirements affecting or Include source requirements not affecting . For more details on the Filter By Linked Requirements page, see "Configure Traceability Matrix Wizard" on page 394.
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User interface elements are described below (unlabeled elements are shown in angle brackets):



UI Elements (A-Z)	Description
	Select Columns. Opens the Select Columns dialog box, enabling you to determine which fields to display in the matrix and their order. For more details, see "Select Columns/Select Fields Dialog Box" on page 90.
	Requirement Details. Opens the Requirement Details dialog box, enabling you to display the details of the selected requirement. For more details, see "Requirement Details Page" on page 354.
<grid fields>	For details on the requirement fields available from the grid, see "Requirements Module Fields" on page 347.
Show Full Path	Displays the path of the requirements in the requirements tree.

Linked Tests Tab

This tab displays tests that are linked to a selected requirement.

Important information	This tab is available when the following options are set in the Filter By Linked Tests page of the Configure Traceability Matrix wizard: Include source requirements linked to or Include source requirements not linked to . For more details on the Filter By Linked Tests page, see "Configure Traceability Matrix Wizard" on page 394.
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User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements (A-Z)	Description
	Select Columns. Opens the Select Columns dialog box, enabling you to determine which fields to display in the matrix and their order. For more details, see "Select Columns/Select Fields Dialog Box" on page 90.
	Test Details. Opens the Test Details dialog box, enabling you to display the details of the selected test. For more details, see "Test Details Dialog Box" on page 515.
<grid fields>	For details on the test fields available from the grid, see "Test Plan Module Fields" on page 512.
Show Full Path	Displays the path of the tests in the test plan tree.

Configure Traceability Matrix Wizard

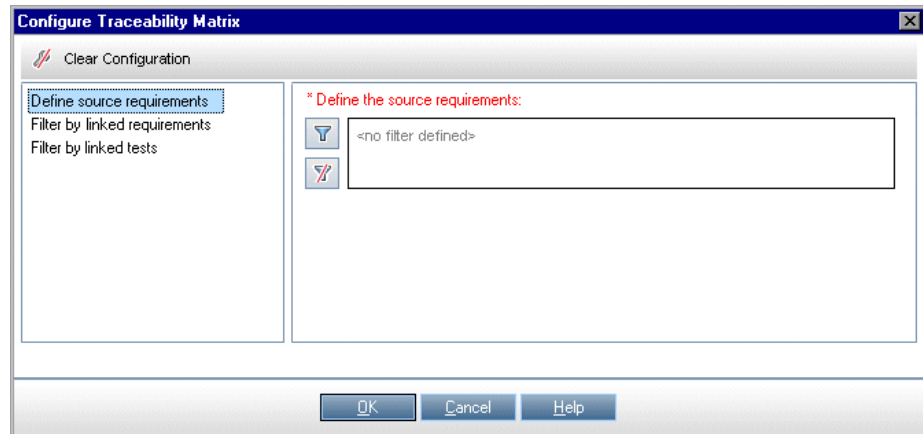
This wizard enables you configure the traceability matrix.

To access	In the Requirements module, select View > Traceability Matrix . Click the Configure Traceability Matrix button.
Wizard map	The wizard contains: Define Source Requirements Page > Filter By Linked Requirements Page > Filter By Linked Tests Page

Relevant tasks	"How to Use the Traceability Matrix" on page 385
See also	"Traceability Matrix Overview" on page 384 "Traceability Matrix View" on page 390

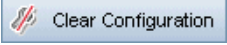


Define Source Requirements Page

This wizard page enables you to define the source requirements.



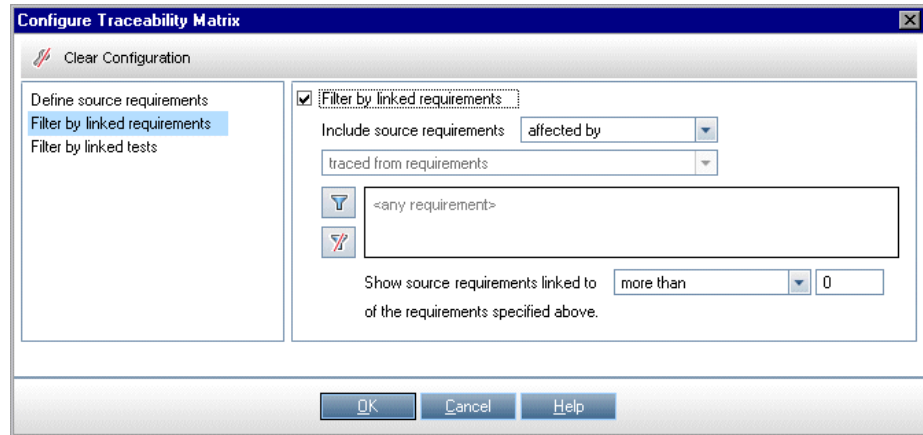
Important information	General information about this wizard is available here: "Configure Traceability Matrix Wizard" on page 394.
Wizard map	The Configure Traceability Matrix Wizard contains: Define Source Requirements Page > Filter By Linked Requirements Page > Filter By Linked Tests Page

User interface elements are described below:

UI Elements	Description
	Clears the defined configuration.
	<p>Set Filter/Sort. Filters and sorts the source requirements in the Requirements module. For more details on filtering, see "Filter Dialog Box" on page 60.</p> <p>Note: Filter settings are not applied to child requirements.</p>
	<p>Clear Filter. Clears the defined filter.</p>




Filter By Linked Requirements Page

This wizard page enables you to define the requirements linked to and from the source requirements.



Important information	General information about this wizard is available here: "Configure Traceability Matrix Wizard" on page 394.
Wizard map	The Configure Traceability Matrix Wizard contains: Define Source Requirements Page > Filter By Linked Requirements Page > Filter By Linked Tests Page

User interface elements are described below:

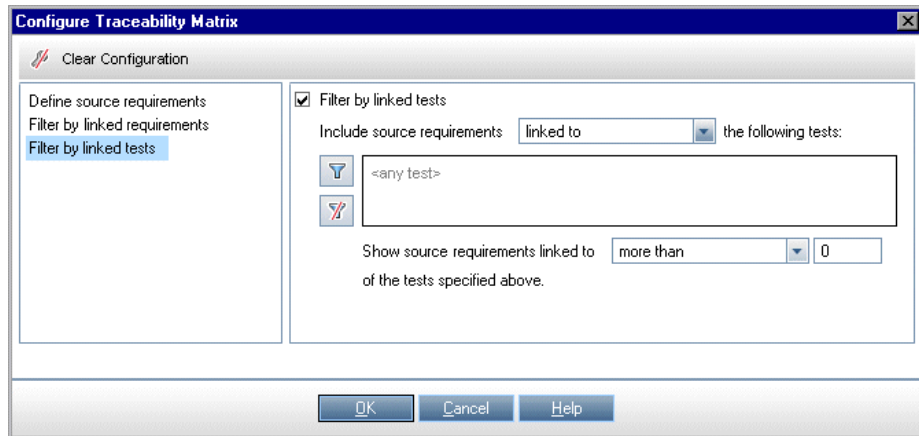
UI Elements	Description
 Clear Configuration	Clears the defined configuration.
	Set Filter/Sort. Filters and sorts the linked requirements. For more details on filtering, see "Filter Dialog Box" on page 60.
	Clear Filter. Clears the defined filter.

UI Elements	Description
Filter by linked requirements	Filters the source requirements by linked requirements.
Include source requirements affected by traced from requirements	Shows the source requirements that are impacted by the selected requirements.
Include source requirements not affected by traced from requirements	Shows the source requirements that are not impacted by the selected requirements.
Include source requirements affecting direct children and traced to requirements	Shows the source requirements that impact their child requirements and their traced to requirements.
Include source requirements affecting direct children	Shows the source requirements that impact their child requirements.
Include source requirements affecting traced to requirements	Shows the source requirements that impact their traced to requirements.
Include source requirements not affecting direct children and traced to requirements	Shows the source requirements that do not impact their child requirements and their traced to requirements.
Include source requirements not affecting direct children	Shows the source requirements that do not impact their child requirements.
Include source requirements not affecting traced to requirements	Shows the source requirements that do not impact their traced to requirements.

UI Elements	Description
Show source requirements linked to more than <number> of the requirements specified above	Shows the source requirements that are linked to more than the specified number of requirements. Note: This option is available when one of the following options is selected: Include source requirements affected by or Include source requirements affecting .
Show source requirements linked to less than <number> of the requirements specified above	Shows the source requirements that are linked to less than the specified number of requirements. Note: This option is available when one of the following options is selected: Include source requirements affected by or Include source requirements affecting .




Filter By Linked Tests Page

This wizard page enables you to define the associated tests.



Important information	General information about this wizard is available here: Configure Traceability Matrix Wizard.
Wizard map	The Configure Traceability Matrix Wizard contains: Define Source Requirements Page > Filter By Linked Requirements Page > Filter By Linked Tests Page

User interface elements are described below (unlabeled elements are shown in angle brackets>):

UI Elements	Description
	Clears the defined configuration.
	Set Filter/Sort. Filters and sorts the linked tests. For more details on filtering, see "Filter Dialog Box" on page 60.
	Clear Filter. Clears the defined filter.
Filter by linked tests	Filters the source requirements by linked tests.

UI Elements	Description
Include source requirements linked to the following tests	Shows the source requirements that are linked to the specified tests.
Include source requirements not linked to the following tests	Shows the source requirements that are not linked to the specified tests.
Show source requirements linked to less than <number> of the tests specified above	Shows the source requirements that are linked to less than the specified number of tests. Note: This option is available when the Include source requirements linked to the following tests is selected.
Show source requirements linked to more than <number> of the tests specified above	Shows the source requirements that are linked to more than the specified number of tests. Note: This option is available when the Include source requirements linked to the following tests is selected.

16

Risk-Based Quality Management

This chapter includes:

Concepts

- ▶ Risk-Based Quality Management Overview on page 404

Tasks

- ▶ How to Assess Risk on page 406

Reference

- ▶ Risk-Based Quality Management User Interface on page 413

Concepts

Risk-Based Quality Management Overview

When planning how to test your requirements, you generally do not have unlimited resources available, and are not able to fully test every requirement. You must make compromises and only partially test requirements that have low criticality to the business, or those that have only a minor risk associated with their implementation. The risk-based quality management feature enables you to calculate at which level to test each requirement, based on the nature of the requirement and the resources you have available. You can then plan your testing process based on these recommendations.

Each requirement type with risk-based quality management enabled can support either risk analysis which is referred to as an **analysis requirement**, or an individual risk assessment which is referred to as an **assessment requirement**.

- ▶ An **analysis requirement** is a requirement belonging to a type that represents higher levels in the requirements tree hierarchy, such as the **Folder** type. You perform risk analysis on an analysis requirement based on the assessment requirements under it in the requirements tree.

The risk results of multiple assessment requirements are aggregated to give an overall risk analysis which can then be used to determine testing effort and test strategy.

- ▶ An **assessment requirement** is a requirement belonging to a type that represents requirements that are children of analysis requirements and at a lower level in the requirements tree hierarchy. Assessment requirements under a particular analysis requirement form the basis for risk analysis on that analysis requirement.

For each assessment requirement under the analysis requirement, you can assign or calculate the **Risk** and **Functional Complexity**.

Risk is composed of its **Business Criticality** and **Failure Probability**. Business Criticality measures how crucial a requirement is for the business. Failure Probability indicates how likely a test based on the requirement is to fail.

Functional Complexity indicates the complexity of the requirement's implementation.

You can enable each requirement type for risk-based quality management. For more information, see the *HP Application Lifecycle Management Administrator Guide*.

You can customize default settings for risk-based quality management. For more information, see the *HP Application Lifecycle Management Administrator Guide*.

Quality Center Starter Edition: Risk-based quality management is not available.

For task details, see "How to Assess Risk" on page 406.

Tasks

How to Assess Risk

This task describes how to assess risk in ALM.

To learn more about assessing risk, see "Risk-Based Quality Management Overview" on page 404.

Tip: For a use-case scenario related to this task, see "How to Assess Risk - Use-Case Scenario" on page 408.

This task includes the following steps:

- "Assess requirements" on page 406
- "Define testing policy settings" on page 407
- "Finalize the testing policy" on page 407
- "Analyze the testing strategy" on page 408

1 Assess requirements

- a Display the Risk Assessment tab.** In the Requirements module, choose **View > Requirement Details**. In the requirements tree, under an analysis requirement, select an assessment requirement. Click the **Risk Assessment** tab. For user interface details, see "Risk Assessment Tab" on page 413.
- b Determine Risk and Functional Complexity.** Click the **Assessment Questions** tab. The following sub-tabs are displayed: **Business Criticality**, **Failure Probability**, and **Functional Complexity**. In each sub-tab, assign values to the set of criteria. For user interface details on the Assessment Questions tab, see "Risk Assessment Tab" on page 413.

You can also ignore the values calculated on the basis of the values for the criteria, and use instead a custom value. To assign values directly to each category, click the **Assessment Results** tab. For user interface details on the Assessment Results tab, see "Risk Assessment Tab" on page 413.

- c For each assessment requirement under the analysis requirement, assign or calculate the Risk and Functional Complexity.

2 Define testing policy settings

- a In the requirements tree, select the analysis requirement. Click the **Risk Analysis** tab. For user interface details, see "Risk Analysis Tab" on page 419.
- b Under **Analysis Constants**, define the initial settings for testing the analysis requirement and the assessment requirements under it. These settings include how much time to assign to a requirement of a specific Functional Complexity were you to test it fully and how long it would take you to perform partial or basic testing on a requirement. You also decide which level of testing you want to perform on requirements for each Risk and Functional Complexity.

For user interface details on the Analysis Constants pane, see "Risk Analysis Tab" on page 419.

3 Finalize the testing policy

- a **Calculate the Testing Policy.** In the Risk Analysis tab, click the **Analyze** button to calculate the Testing Level and Testing Time for each assessment requirement under the analysis requirement. The **Total required test time**, **Total allocated testing time**, and **Total required development time** are updated.

For user interface details on the Risk Analysis tab, see "Risk Analysis Tab" on page 419.

- b **Adjust the Testing Policy.** Under **Analysis Constants**, you can make adjustments to the testing policy to ensure that you have enough time to perform all the testing, and that no resources are wasted.

For user interface details on the Analysis Constants pane, see "Risk Analysis Tab" on page 419.

- c **Apply results for each assessment requirement.** Click the **Analysis and Apply to Children** button. The analysis is applied to all assessment requirements under the analysis requirement that match the current filter.

4 Analyze the testing strategy

- ▶ To generate a report detailing the testing strategy of the analysis requirement, in the Risk Analysis tab, click the **Report** button. The Generate Report dialog box opens. For user interface details, see "Generate Report Dialog Box" on page 425.
- ▶ To analyze the testing strategy for an assessment requirement, select an assessment requirement from the requirements tree, click the **Risk Assessment** tab. The results are displayed in the Assessment Results sub-tab. For user interface details, see "Risk Assessment Tab" on page 413.

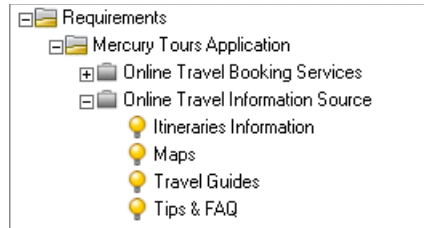


How to Assess Risk - Use-Case Scenario

This use-case scenario provides an example of assessing risk in ALM.

Note: For a task related to this scenario, see "How to Assess Risk" on page 406.

The following scenario uses a project based on an application for reserving flights and vacations. You want to plan the testing of the analysis requirement **Online Travel Information Source**, located under **Mercury Tours Application**.



You begin by assigning values to the Business Criticality criteria for the child assessment requirement **Itineraries Information**. As information on travel itineraries is for display purposes and does not involve calculation or validation, you assign the value **Display** to the criterion **Type of Process**. As incorrect information on travel itineraries could result in legal action, you assign the value **Legal** to the criterion **Impact of failure**.

You also assign the value **Very often** to the criterion **Frequency of use**, and the value **Many/High** to the criterion **Number/Significance of affected users**. ALM now calculates the Business Criticality of the requirement as **A - Critical**.

Assessment Status: **In Progress** Exclude from Analysis

Assessment Results | Assessment Questions

Business Criticality | Failure Probability | Functional Complexity

Assign values to the following criteria to assess the Business Criticality of this requirement:

Criteria	Value
Type of process	Display
Impact of failure	Legal
Frequency of use	Very often
Number/Significance of affected users	Many/ High

Description of Criterion: "Type of process"
 The type of process represented by the requirement.
 This criterion has the following possible values:
Calculation/ Validation - The feature represented by the requirement is an important calculation or validation.
Data Change - The feature represented by the requirement modifies application data.
Display - The feature represented by the requirement modifies the application display.

Calculated Business Criticality : **A-Critical**

Similarly, you determine the Failure Probability by assigning values to its criteria. ALM calculates the Failure Probability as **2 - Medium**. Next, you determine the Functional Complexity by assigning values to its criteria. ALM calculates the Functional Complexity as **1 - High**. The overall Risk Category is **A - High** and the overall Functional Complexity is **1 - High**.

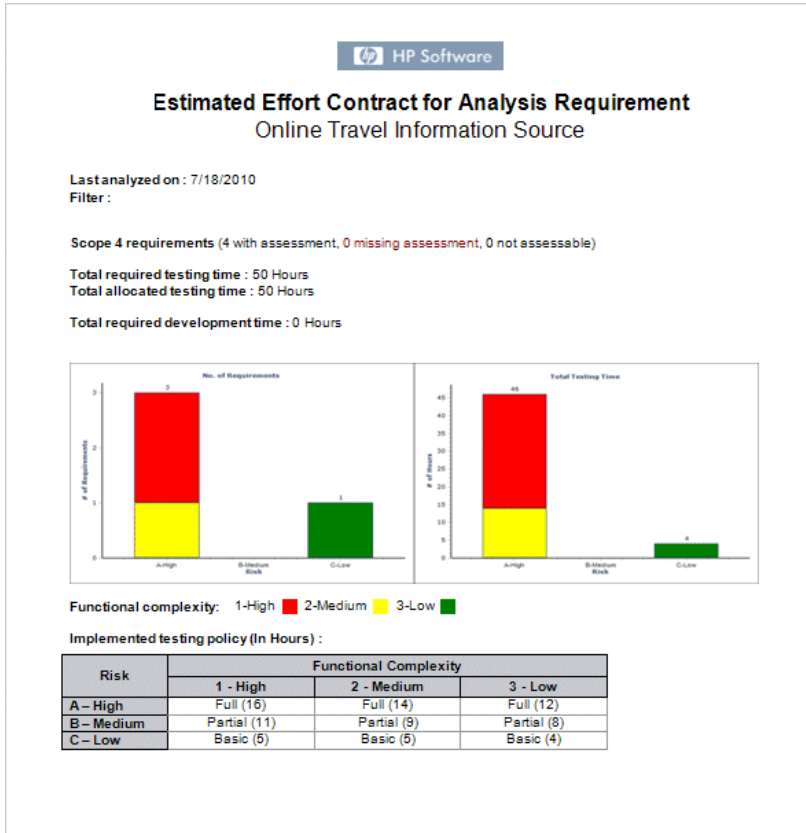
You then proceed to determine the Risk and Functional Complexity for each of the assessment requirements **Maps, Travel Guides, and Tips & FAQ**.

You are now ready to perform a risk analysis on the requirement **Online Travel Information Source**. You decide to use ALM's default testing policy and perform a risk analysis based on this policy. ALM calculates that you need 55 hours to test the requirement. However, you only have 50 hours available, which is 90% of the required resources, so need to modify the testing policy.



You change the Testing Time for requirements with Functional Complexity set to 1-High from 18 hours to 16 hours and requirements with Functional Complexity set to 2-Medium from 15 hours to 14 hours. The time needed to test the requirement is now estimated at 50 hours, which is the amount of time you have available, so you decide to accept this modified testing policy.

You now have sufficient resources to test the requirement, so you create a risk analysis report to summarize the testing strategy recommended by ALM, and give it to your organization to use as a basis for their test plan.



Reference

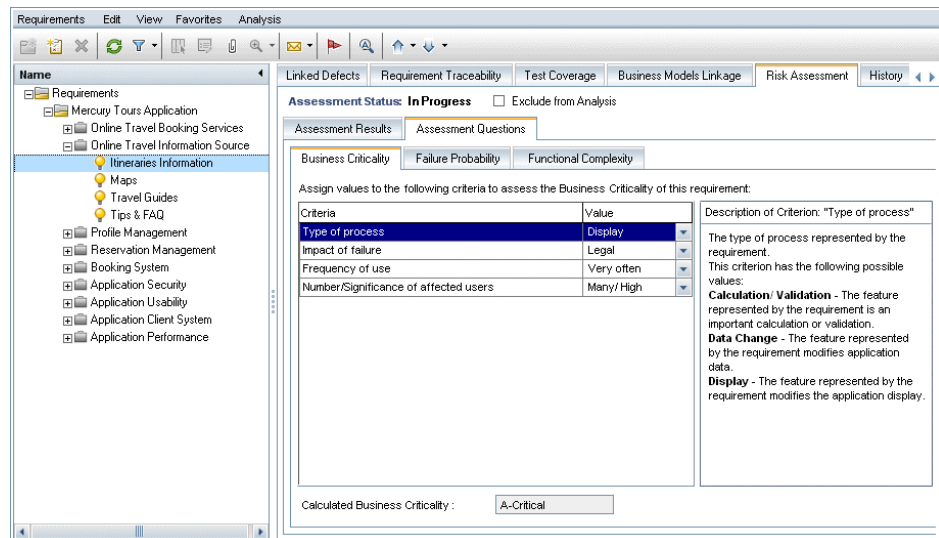
Risk-Based Quality Management User Interface

This section includes:

- Risk Assessment Tab on page 413
- Risk Analysis Tab on page 419
- Generate Report Dialog Box on page 425

Risk Assessment Tab

This tab enables you to determine the Business Criticality, Failure Probability, and Functional Complexity of a requirement by assigning them values directly or by assigning values to a set of criteria.



Requirements Edit View Favorites Analysis

Linked Defects Requirement Traceability Test Coverage Business Models Linkage Risk Assessment History

Assessment Status: **In Progress** Exclude from Analysis

Assessment Results Assessment Questions

Business Criticality Failure Probability Functional Complexity

Assign values to the following criteria to assess the Business Criticality of this requirement:

Criteria	Value	Description of Criterion: "Type of process"
Type of process	Display	The type of process represented by the requirement.
Impact of failure	Legal	This criterion has the following possible values:
Frequency of use	Very often	Calculation/ Validation - The feature represented by the requirement is an important calculation or validation.
Number/Significance of affected users	Many/ High	Data Change - The feature represented by the requirement modifies application data.
		Display - The feature represented by the requirement modifies the application display.

Calculated Business Criticality :

To access	<p>Use one of the following:</p> <ul style="list-style-type: none"> ➤ In the Requirements module, select the Requirement Details view. Select an assessment requirement and click the Risk Assessment tab. ➤ In the Requirements module, right-click an assessment requirement and select Requirement Details. The Requirement Details dialog box opens. Click the Risk Assessment button.
Important information	<ul style="list-style-type: none"> ➤ If you do not determine the Business Criticality, Failure Probability, and Functional Complexity for a requirement, ALM does not include the requirement in the risk analysis. ➤ You can customize the criteria, their possible values, and how these values determine the Business Criticality, Failure Probability, and Functional Complexity. You can also customize how the Business Criticality and Failure Probability are used to calculate the Risk. For more information, see the <i>HP Application Lifecycle Management Administrator Guide</i>. ➤ Quality Center Starter Edition: Risk-based quality management is not available.
Relevant tasks	"How to Assess Risk" on page 406
See also	<p>"Risk Analysis Tab" on page 419</p> <p>"Risk-Based Quality Management Overview" on page 404</p>

Risk Assessment Tab Common Elements

Common user interface elements are described below:

UI Elements (A-Z)	Description
Assessment Status	The current status of the assessment requirement. An assessment status can be one of the following: Not Started , In Progress , and Completed .
Exclude from Analysis	Ignores the selected assessment requirement when performing risk analysis.

Assessment Results Tab - Assessment Summary Area

This area displays the assigned or calculated values of the Risk and Functional Complexity of an assessment requirement.

Important information	The Assessment Summary area shows the Risk and Functional Complexity values calculated in the Assessment Questions tab. You can ignore these values and use instead custom values.
Relevant tasks	"How to Assess Risk" on page 406
See also	"Assessment Questions Tab" on page 418

User interface elements are described below:

UI Elements (A-Z)	Description
Business Criticality	<p>Measures how important the requirement is to your business.</p> <p>Select Use custom to ignore the calculated value and use instead a custom value. Possible values are A - Critical, B - Important, and C - Nice to Have.</p> <p>Example: A requirement affecting a minor feature that is likely to be used rarely might be assigned a Nice to Have Business Criticality, whereas a requirement that is essential to your application's functionality would probably be assigned a Critical Business Criticality.</p>
Failure Probability	<p>Measures how likely a test on the requirement is to fail.</p> <p>Select Use custom to ignore the calculated value and use instead a custom value. Possible values are 1 - High, 2 - Medium, and 3 - Low.</p> <p>Example: A requirement whose implementation involves making significant changes across most areas of your application would probably be assigned a High Failure Probability. In contrast, a requirement that involves changing an icon in your application would probably not have many associated risks, and so is likely to be assigned a Low Failure Probability.</p>

UI Elements (A-Z)	Description
<p>Functional Complexity</p>	<p>Indicates the complexity of the requirement's implementation.</p> <p>Select Use custom to ignore the calculated value and use instead a custom value. Possible values are 1 - High, 2 - Medium, and 3 - Low.</p> <p>Example: A requirement whose implementation involves making significant changes to your application to enable it to communicate with other systems probably has a high complexity and would be assigned a High Functional Complexity. In contrast, a requirement that involves no significant changes to enable your application to communicate with other systems would probably not have many associated risks, and so is likely to be assigned a Low Functional Complexity.</p>
<p>Risk</p>	<p>Calculates the risk based on the Business Criticality and Failure Probability for the requirement.</p> <p>Select Use custom to ignore the calculated value and use instead a custom value. Possible values are 1 - High, 2 - Medium, and 3 - Low.</p>

Assessment Results Tab - Testing Policy Area

This area displays the conclusions of the last analysis you performed on an analysis requirement that is a parent of the assessment requirement.

<p>Important information</p>	<p>To view and edit testing policy of an assessment requirement in the Testing Policy area, you must first perform analysis on relevant analysis requirements (parent requirements) and apply results to all assessment requirements (children requirements) in the Risk Analysis tab.</p>
<p>Relevant tasks</p>	<p>"How to Assess Risk" on page 406</p>
<p>See also</p>	<p>"Risk Analysis Tab" on page 419</p>

User interface elements are described below:

UI Elements (A-Z)	Description
Based on analysis requirement	Displays the analysis requirement on which the last analysis that included the current requirement was performed. You can click the analysis requirement's name to go to the analysis requirement in the requirements tree.
Calculated Testing Level	The level at which to test the requirement, as calculated in the last analysis that included the current requirement.
Calculated Testing Time	The time allocated to test the requirement, as calculated in the last analysis that included the current requirement.
Estimated development time (optional)	The estimated time needed to develop the requirement. ALM can then calculate the total estimated development time for an analysis requirement and its children as the sum of the estimated development times of the children. Assigning the estimated development time is optional, and does not affect the risk analysis.
Last analyzed on date	The date on which the last analysis that included the current requirement was performed.
Use these for the next calculation	<p>Overrides the calculated values in the next calculation, and instead uses custom values.</p> <p>In the Testing Level box, select the Testing Level to use for the next calculation. In the Testing Time box, type the Testing Effort to use for the next calculation. When you next perform an analysis that includes the current requirement, these values will be used instead of the calculated values.</p>

Assessment Questions Tab

This tab displays lists of criteria used to determine Business Criticality, Functional Probability, and Functional Complexity.

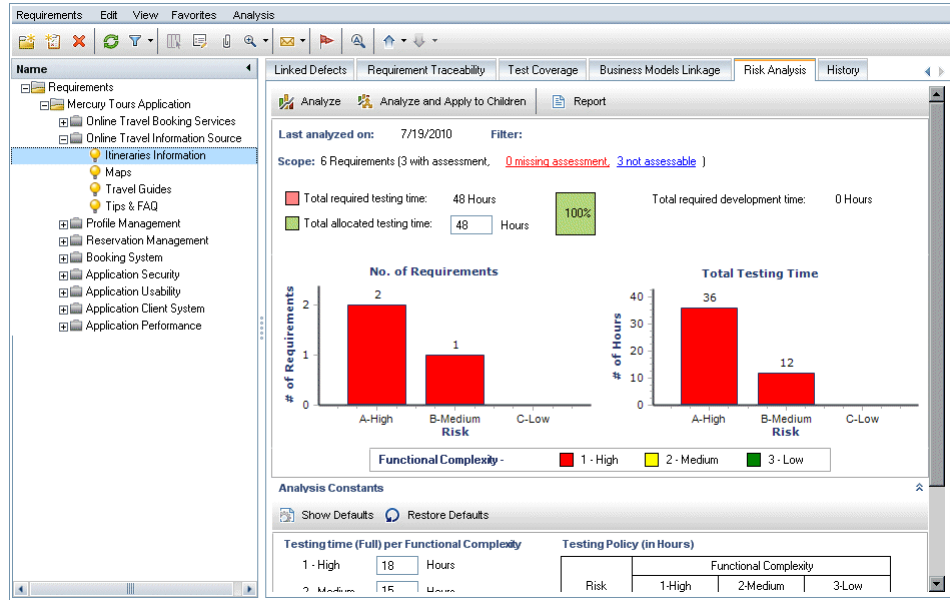
Relevant tasks	"How to Assess Risk" on page 406
See also	"Risk Analysis Tab" on page 419

User interface elements are described below:

UI Elements (A-Z)	Description
Business Criticality/ Functional Probability/ Functional Complexity tab	Each tab lists criteria to consider when assessing each category.
Calculated Business Criticality/ Calculated Functional Probability/ Calculated Functional Complexity	Updates according to the values you assigned to the criteria of the selected category. Note: You can ignore the value calculated on the basis of the values for the criteria, and use instead a custom value when performing risk analysis. In the Assessment Summary area of the Assessment Results tab, select Use custom .
Criteria	Lists the criteria to use for assessing a selected category.
Description of Criterion	Explains the selected criterion.
Value	Lists the possible values that can be assigned to each criterion.

Risk Analysis Tab

This tab enables you to define the testing policy settings and to determine the total estimated testing time for the analysis requirement and the assessment requirements under it.



The screenshot shows the 'Risk Analysis' tab in a software application. The interface includes a menu bar (Requirements, Edit, View, Favorites, Analysis), a toolbar, and a tree view on the left. The tree view shows a hierarchy of requirements, with 'Application Performance' selected. The main area displays analysis results for 6 requirements, including a 100% assessment rate and two bar charts: 'No. of Requirements' and 'Total Testing Time'.

Analysis Summary:

- Last analyzed on: 7/19/2010
- Scope: 6 Requirements (3 with assessment, 0 missing assessment, 3 not assessable)
- Total required testing time: 48 Hours
- Total allocated testing time: 48 Hours
- Total required development time: 0 Hours
- Assessment Rate: 100%

No. of Requirements by Risk Level:

Risk Level	No. of Requirements
A-High	2
B-Medium	1
C-Low	0

Total Testing Time by Risk Level:

Risk Level	Total Testing Time (Hours)
A-High	36
B-Medium	12
C-Low	0

Analysis Constants:

Testing time (Full) per Functional Complexity:

Functional Complexity	Testing Time (Hours)
1 - High	18
2 - Medium	12
3 - Low	0

Testing Policy (in Hours):

Risk	Functional Complexity		
	1-High	2-Medium	3-Low
1-High	18	12	0
2-Medium	12	0	0
3-Low	0	0	0


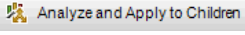

<p>To access</p>	<p>Use one of the following:</p> <ul style="list-style-type: none"> ▶ In the Requirements module, select the Requirement Details view. Select an analysis requirement and click the Risk Analysis tab. ▶ In the Requirements module, right-click an analysis requirement and select Requirement Details. The Requirement Details dialog box opens. Click the Risk Analysis button.
<p>Important information</p>	<ul style="list-style-type: none"> ▶ Make sure that you have determined the Risk and Functional Complexity Categories of all assessment requirements that are located under the analysis requirement for which you want to finalize the testing policy, and that you want to include in the risk analysis. For more details, see "Risk Assessment Tab" on page 413. ▶ You can filter the requirements tree to include only the assessment requirements you want to include in the risk analysis. For more details on filtering, see "Filter Dialog Box" on page 60. ▶ You can customize each requirement type for risk-based quality management. For more information, see the <i>HP Application Lifecycle Management Administrator Guide</i>. ▶ You can customize the testing policy used by default. For more details, see the <i>HP Application Lifecycle Management Administrator Guide</i>. ▶ Quality Center Starter Edition: Risk-based quality management is not available.
<p>Relevant tasks</p>	<p>"How to Assess Risk" on page 406</p>
<p>See also</p>	<p>"Risk Assessment Tab" on page 413 "Risk-Based Quality Management Overview" on page 404</p>

Risk Analysis - main area

This tab enables you to calculate the total estimated testing time for the analysis requirement and the assessment requirements under it. The calculation is based on the testing policy defined in the Analysis Constants pane.

<p>Important information</p>	<ul style="list-style-type: none"> ▶ If you do not want to use the default Testing Effort and Testing Level values when calculating the testing policy in this main area, make sure that you have defined custom values in the Analysis Constants pane. ▶ After calculating the testing policy in this main area, compare the total calculated testing time with the resources you have available. If the resources you have available are not sufficient to test the requirement according to the current settings, you can change the settings in the Analysis Constants pane, and perform the calculation again.
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User interface elements are described below:


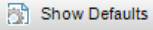

UI Elements (A-Z)	Description
	<p>Calculates the Testing Level and Testing Time for each assessment requirement under the analysis requirement that matches the current filter.</p> <p>This calculation is based on the assessment requirements' Risk Category, and the Testing Level and Testing Time values you defined for the analysis requirement.</p>
	<p>Propagates the analysis results to all assessment requirements under the analysis requirement that match the current filter.</p>
	<p>Opens the Generate Report dialog box. For more details, see "Generate Report Dialog Box" on page 425.</p>
<p>Filter</p>	<p>The filter used to determine which requirements were included in the risk analysis. For more details on filtering, see "Filter Dialog Box" on page 60.</p>

UI Elements (A-Z)	Description
Functional Complexity	A legend of the Functional Complexity values displayed in the graphs.
Last analyzed on	The date on which the risk analysis was last performed.
No. of Requirements	<p>Displays the number of sub-requirements of the analysis requirement of each Risk Category.</p> <p>To display a list of requirements included in the analysis, click a segment in the graph. The Drill Down Results dialog box opens and displays a grid with a list of requirements in the category. For more details, see "Drill Down Results Dialog Box" on page 944.</p>
Scope	<p>The number of requirements included in the risk analysis. Also provides a breakdown of which requirements were assessed, which were missing assessment, and which were not assessable.</p> <p>To display a list of requirements not included in the analysis, click the missing assessment or not assessable links. The Drill Down Results dialog box opens and displays a grid with a list of requirements in the category. For more details, see "Drill Down Results Dialog Box" on page 944.</p> <p>Tip: The missing assessment link displays the requirements for which you did not determine a category or exclude explicitly from the analysis. Verify that there are no requirements that should be assigned a category. If you do not want to include a requirement in the analysis, then exclude it from the analysis explicitly.</p>
Total allocated testing time	The total time allocated to test the requirements included in the risk analysis.
Total required development time	Displays the total time required to develop all the assessment requirements under the analysis requirement, based on the required development time you optionally estimated for each assessment requirement.

UI Elements (A-Z)	Description
Total required testing time	Displays the total calculated time required to test all the assessment requirements under the analysis requirement matching the current filter and included in the risk analysis.
Total Testing Time	<p>Displays the total calculated testing time required to test all the requirements of each Risk Category.</p> <p>To display a list of requirements included in the analysis, click a segment in the graph. The Drill Down Results dialog box opens and displays a grid with a list of requirements in the category. For more details, see "Drill Down Results Dialog Box" on page 944.</p>

Analysis Constants Pane

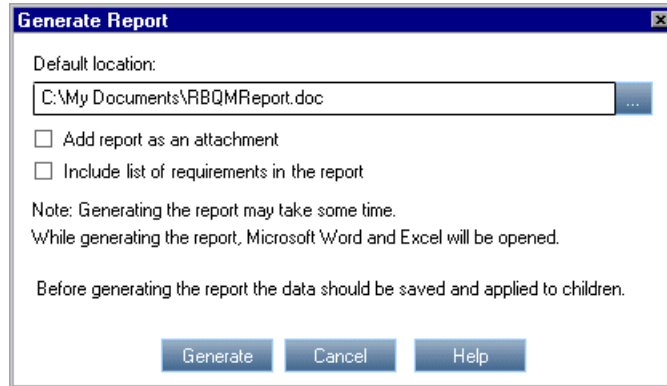
User interface elements are described below:

UI Elements (A-Z)	Description
	Show/Hide. Shows/hides the Analysis Constants pane.
	Opens the Risk-Based Quality Management Constants Defaults dialog box, enabling you to view the default constants in use.
	Assigns default values to the constants used for the current requirement.
Testing Time (full) per Functional Complexity	<p>The time needed to fully test a requirement with that Functional Complexity. For each Functional Complexity value, type the estimated testing time.</p> <p>Example: A requirement with a high Functional Complexity generally requires more testing time as it is more likely that the requirement's implementation contains defects.</p>

UI Elements (A-Z)	Description
<p>Testing Level (Full = 100%, None = 0%)</p>	<p>Defines how much Testing Time is required for a requirement as a percentage of full testing.</p> <p>In the Partial and Basic boxes, type the default Testing Time required for partial testing and basic testing of a requirement. You express this as a percentage of the effort required for full testing</p> <p>A requirement whose Testing Level is set to None is not tested at all, and the testing effort is zero.</p> <p>Example: If 20 hours are required to perform full testing on a requirement and partial testing is defined as 75% of full testing, ALM calculates that 15 hours are required to perform partial testing on the requirement.</p>
<p>Testing Policy (in Hours) grid</p>	<p>Defines the level at which to test a requirement of each Risk and Functional Complexity category.</p> <p>To define these levels, click the arrow next to the cell in the grid. Select a Testing Level from the available Testing Levels. The available Testing Levels are Full, Partial, Basic, and None. Next to each Testing Level, you can see the estimated time needed to test a requirement at that level, based on the Testing Efforts and Testing Levels you defined.</p>

Generate Report Dialog Box


This dialog box enables you to generate a report for analyzing the testing strategy for the analysis requirement and for the assessment requirements under it.



To access	<p>Use one of the following:</p> <ul style="list-style-type: none"> ▶ In the Requirements module, select the Requirement Details view. Select an analysis requirement and click the Risk Analysis tab. Click the Report button. ▶ In the Requirements module, right-click an analysis requirement and select Requirement Details. The Requirement Details dialog box opens. Click the Risk Analysis button. Click the Report button.
Important information	<ul style="list-style-type: none"> ▶ To generate a report, you must first save the analysis and apply it to all assessment requirements under the analysis requirement. For more details, see "Risk Analysis Tab" on page 419. ▶ To generate a report, Microsoft Word must be installed on your machine. ▶ The analysis results are only valid for the requirements at the time the analysis was last performed. If you subsequently modify the Risk or Functional Complexity Categories of the requirements, or the testing policy, you should re-perform the analysis. ▶ Quality Center Starter Edition: Risk-based quality management is not available.
Relevant tasks	"How to Assess Risk" on page 406
See also	<p>"Risk Analysis Tab" on page 419</p> <p>"Risk-Based Quality Management Overview" on page 404</p>

User interface elements are described below:

UI Elements (A-Z)	Description
Add report as an attachment	Adds the report as an attachment to the analysis requirement.
Default location	The location and name of the Word file to which you want the data to be exported. You can click the browse button to select a location from the Save As dialog box.

UI Elements (A-Z)	Description
	Generates the report as a Microsoft Word document.
Include list of requirements in the report	Includes a list of the requirements in the report.

17

Business Process Models

This chapter includes:

Concepts

- ▶ Business Process Models Overview on page 430

Tasks

- ▶ How to Work with Business Process Models on page 433

Reference

- ▶ Business Models Module User Interface on page 438

Concepts

Business Process Models Overview

ALM Editions: The Business Models module is not available for Quality Center Starter Edition or Performance Center Edition.

The HP Application Lifecycle Management (ALM) Business Models module addresses the need for a stronger connection between business process modeling, quality assurance management, and requirement definitions. The module integrates business process models into the application lifecycle.

Integrating business process models into ALM involves importing business process models into ALM, and linking requirements and tests to models, activities and end-to-end business flows. After executing tests, you can display quality status views on the business process model level.

To work with business process models in ALM, you must first design models with standard modeling tools, and import the models to ALM. For more details, see "Business Process Models File Import" on page 431.

In addition to the standard business process model entities, ALM enables you to perform quality testing on end-to-end business flows ("**paths**"). For more details, see "Business Process Model Paths" on page 432.

For details on working with business process models, see "How to Work with Business Process Models" on page 433.

This section also includes:

- "Business Process Models File Import" on page 431
- "Business Process Model Paths" on page 432

Business Process Models File Import

To work with business process models in ALM, you must first have created models in standard BPMN or EPC modeling tools, and exported them to files.

ALM supports the following model and file formats:

- ▶ **BPMN 1.1** models exported to **XPDL 2.0** files
- ▶ **EPC 7.1** models exported to **AML** files (**.xml** extension)

For each model that you import to ALM, business process model entities are created under the selected folder: an entity for the model as a whole, and an entity for each of the model's activities.

Note: When exporting models from Metastorm ProVision, sub-processes must be exported using the **Independent Sub-Process** option.

In addition, **representative requirements** are created automatically for the model and for each of its activities in the Requirements module.

- ▶ Representative requirements for models are created under the **Business Models** requirement folder.
- ▶ Representative requirements for activities are created under the **Activities** sub-folder. If the same activity is included in several models, the same requirement is used to represent the activity.

Representative requirements are assigned the **Business Model** requirement type.

Re-importing models

If changes are made to a model in the model authoring tool, you can apply the changes to the model in ALM by re-importing the model. ALM automatically updates the model entities, as follows:

- ▶ Activities added or deleted in the re-imported model are added or deleted in the model in ALM.

Note: Activities are identified by the GUID assigned to them by the authoring tool. A re-imported activity with a different GUID than the original activity will be re-imported as a separate activity.

- ▶ Paths are automatically updated in ALM, provided that alternative paths are found. If alternative paths cannot be found, you must assign a new path to the path entity, or delete the path entity.

Business Process Model Paths

The quality of a business process model is determined not only by its activities, but also by the business flows within the model, or paths. A **path** is an end-to-end sequence of transitions between activities in a model.

A business process model that you create with standard modeling tools does not include path definitions. As paths are important for verifying the quality of a business process, ALM enables you to define paths in your imported models.

ALM automatically analyzes all possible end-to-end paths in a model, and allows you to select those paths that are important to test.

Note: Recursive paths that repeat the same activity are not supported.

For each path you create, a representative requirement is created automatically under the **Paths** group requirement, a child of the model representative requirement.

Tasks

How to Work with Business Process Models

This task describes how to specify business process models in ALM.

To learn more about business process modeling in ALM, see "Business Process Models Overview" on page 430.

This task includes the following steps:

- "Prerequisites" on page 433
- "Import or re-import business process models" on page 434
- "Create paths" on page 434
- "Develop requirements and tests" on page 435
- "Link requirements and tests to model entities" on page 435
- "Analyze the quality of business process models" on page 437

1 Prerequisites

- a** With standard modeling tools, create business process models.
- b** Export the business process models to files.

ALM supports the following model and file formats:

- **BPMN 1.1** models exported to **XPDL 2.0** files
- **EPC 7.1** models exported to **AML** files (.xml extension)

2 Import or re-import business process models

For a related concept, see "Business Process Models File Import" on page 431.

- a Open the Business Models module.** On the ALM sidebar, under **Requirements**, select **Business Models**. In the **View** menu, select **Model Tree**.
- b Create a folder.** Right-click the **Models** root folder and select **New Folder**. To create a sub-folder, right-click a folder and select **New Folder**.
- c Open the Import Models dialog box.** Right-click a folder and select **Import Model**. For user interface details, see "Import Models Dialog Box" on page 459.
- d Select a file and models.** In the Import models dialog box, select a file to import. After the file is analyzed, select the models you want to import from the file.
- e Track import status.** Track the import status in Importing Models dialog box. When import is complete, click **OK** to close the Importing Models dialog box.

3 Create paths

For a related concept, see "Business Process Model Paths" on page 432.

- a In the Business Models module, select View > Model Tree.**
- b Open the New Path dialog box.** Right-click a business process model and select **New Path**. For user interface details, see "New Model Path/Model Path Details Dialog Box" on page 465.
- c Select a path.** In the Path drop-down list, select a path that is important to test. The activities along the path are highlighted in the model diagram, and a description of the path is displayed in the Path Description tab.

4 Develop requirements and tests

To determine the quality of business process models in ALM, you must develop requirements and tests that cover all the critical aspects of the model.

To assist you in this, ALM automatically creates a structure of business model requirements that represent the models and activities that you import, and the paths that you create.

- a** Use one of the following:
 - ▶ Use the representative requirements as a basis for developing a detailed requirements tree and adding test coverage.
 - ▶ If you have existing requirements, not related to the representative requirements, you can continue developing them. Later, link them manually to the relevant model entities.
- b** Depending on your testing strategy, create test coverage for the requirements.

For task details, see "How to Use Requirements in ALM" on page 315.

5 Link requirements and tests to model entities


For requirements and tests to be included in the quality analysis, you must link them to their respective model entities.

- ▶ If you developed your requirements under the representative requirements, the requirements and their covering tests are automatically linked to their respective model entities.
- ▶ If your requirements are not related to the representative requirements, you must link the requirements manually to their respective model entities.
- ▶ Tests that cover linked requirements are automatically linked to the same model entities. You can also manually link other tests directly to model entities.
- ▶ You cannot manually link representative requirements to model entities.


To link requirements and tests directly to model entities:

- a** In the Business Models module, select **View > Model Tree**.
- b** Select a model entity, and click the **Linkage** tab. For user interface details, see "Linkage Tab" on page 468.
- c** Click either the **Requirements** or **Tests** tab.
- d** Click **Select Requirements** or **Select Tests**, respectively.
- e** In the **Requirements Tree/Test Plan Tree** pane, right-click requirements or tests and select **Add to Linkage**. For user interface details, see "Requirements Tree and Test Plan Tree Pane" on page 472.
- f** Alternatively, create linkage to any model entity by dragging requirements and tests to entities in the model diagram.

To link model entities to tests:

In **Test Plan > Test Plan Tree** view, select a test and click the **Business Models Linkage** tab. Click **Add to Linkage**  to display the business models tree in the right pane. Link model entities to tests. For user interface details, see "Business Models Linkage Tab" on page 545.

To link model entities to requirements:

In **Requirements > Requirement Details** view, select a requirement and click the **Business Models Linkage** tab. Click **Add to Linkage**  to display the business models tree in the right pane. Link model entities to requirements. For user interface details, see "Business Models Linkage Tab" on page 545.

6 Analyze the quality of business process models

After you run tests on your model entities, generate graphs that analyze the quality of a model entity.

- a** **Open the Model Analysis view.** In the Business Models module, select **View > Model Analysis**. For user interface details, see "Model Analysis View" on page 443.
- b** **Select a model entity for the root of the analysis.** Use one of the following:
 - In the Models Map tab, select a model. The corresponding model node is highlighted in the business models tree.
 - In the business models tree, select a model entity.
- c** Click the **Quality Analysis** tab.
- d** In the **Depth** drop-down list, select the number of levels to include in the analysis.
- e** Depending on your requirements strategy, choose whether to include representative or child requirements in the analysis.
- f** Click on graph bars to drill down to records represented by the bars. For task details, see "Drill down to graph data" on page 902.

7 Generate a report of business process models

Include business process model entities in project reports. For task details, see "How to Create Project Reports" on page 961.

Reference

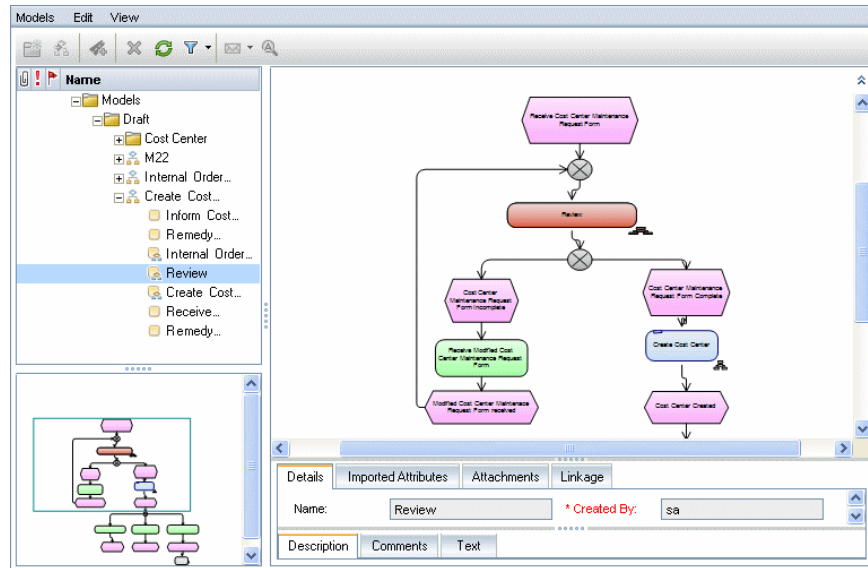
Business Models Module User Interface

This section includes:

- ▶ Business Models Module Window on page 439
- ▶ Model Analysis View on page 443
- ▶ Business Models Module Menus and Buttons on page 449
- ▶ Business Models Module Icons on page 455
- ▶ Business Models Module Fields on page 457
- ▶ Import Models Dialog Box on page 459
- ▶ Model Details/Model Activity Details Dialog Box on page 461
- ▶ New Model Path/Model Path Details Dialog Box on page 465
- ▶ Linkage Tab on page 468
- ▶ Requirements Tree and Test Plan Tree Pane on page 472
- ▶ Represented Items Tab on page 474


Business Models Module Window


This window enables you to define and maintain business process models in ALM.



To access	On the ALM sidebar, under Requirements , select Business Models .
Important information	<p>The Business Models module includes the following views:</p> <ul style="list-style-type: none"> ▶ Model Tree. Displays business process models and their elements in a hierarchical tree. ▶ Model Grid. Displays a flat list of models, activities or paths. ▶ Model Analysis. Displays an analysis of a model's testing coverage and quality. For user interface details, see "Model Analysis View" on page 443.
Relevant tasks	"How to Work with Business Process Models" on page 433
Learn more	<p>"Business Process Models Overview" on page 430</p> <p>"Business Models Module Fields" on page 457</p>

User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements (A-Z)	Description
<Business Models module common UI elements>	<ul style="list-style-type: none"> ▶ Business Model fields. For field definitions, see "Business Models Module Fields" on page 457. ▶ Business Model menus and buttons. For command and button descriptions, see "Business Models Module Menus and Buttons" on page 449. ▶ Business Model icons. For icon descriptions, see "Business Models Module Icons" on page 455. ▶ ALM main menu and sidebar. For details on the Tools menu, Help menu and sidebar, see "ALM Common Areas" on page 40.
	<p>Hides or shows the model diagram and diagram overview.</p>
<business models tree>	<p>A hierarchical representation of business process models, activities and paths. Activities and paths are displayed as children of their respective models.</p> <p>Note: The position of business process models in the tree does not necessarily reflect connections between models. Connections between models are displayed in the Model Analysis view. For more details, see "Model Analysis View" on page 443.</p>
<business process model diagram pane>	<p>Located in the upper-right side of the window, a diagram of the currently selected business process model. An activity or a path that you select in the business models tree is highlighted in the diagram.</p> <p>Tips:</p> <ul style="list-style-type: none"> ▶ Hold down the CTRL key and use the mouse wheel to zoom in and out. ▶ Select an activity in the diagram to view its details in the main window. ▶ Double-click an activity to view its details in a separate window.

UI Elements (A-Z)	Description
<business process model overview>	<p>Located in the lower-left side of the window, a reduced diagram of the currently selected business process model. The framed area of the model in the overview is magnified in the diagram pane.</p> <p>Tips:</p> <ul style="list-style-type: none"> ▶ Select an area in the overview to focus on the selected area in the diagram pane. ▶ Drag or resize the frame to change the focus of the model in the diagram pane.
<grid filters> 	<p>Displays a grid filter box under each column name, enabling you to define a filter condition for a column.</p> <p>Type directly into the box, or click the box to display the browse button, which opens the Select Filter Condition dialog box. For user interface details, see "Select Filter Condition Dialog Box" on page 70.</p> <p>Available from: Model Grid view</p>
Activities	<p>Displays a list of activities across multiple business process models.</p> <p>Tip: To group activities by business process model, select Group By Owner Model.</p> <p>Available from: Model Grid view</p>
Attachments	<p>Lists attachments that provide additional information about the currently selected business process model, activity or path. For more details, see "Attachments Page" on page 86.</p>
Comments	<p>Comments about the currently selected model entity.</p> <p>Click in the text box to display a toolbar for formatting and spell checking the text.</p>
Description	<p>Describes the currently selected model entity.</p> <p>Click in the text box to display a toolbar for formatting and spell checking the text.</p>
Details	<p>Details the currently selected model entity.</p>

UI Elements (A-Z)	Description
Filter	Describes the filter currently applied to the grid or tree. Located directly above the grid filter boxes or tree.
Group By Owner Model	<p>If selected in combination with Activities or Paths, groups the activities or paths according to the model in which they are defined.</p> <p>If this option is not selected, the activities or paths are displayed in a flat list.</p> <p>Available from: Model Grid view</p>
History	Lists changes made to the currently selected business process model. For more details, see "History Tab" on page 81.
Imported Attributes	<p>Lists field labels and values relevant to the business process model or activity, as defined in the model authoring tool.</p> <p>Note: This tab is read-only.</p>
Linkage	Contains the Requirements and Tests tabs that list entities linked to the business process model, activity, or path. For more details, see "Linkage Tab" on page 468.
Models	<p>Displays a list of business process models.</p> <p>Available from: Model Grid view</p>
Paths	<p>Displays a list of paths across multiple business process models.</p> <p>Tip: To group activities by business process model, select Group By Owner Model.</p> <p>Available from: Model Grid view</p>
Text	<p>Text displayed in an activity entity. The field is read-only.</p> <p>Available from: Model activities</p>

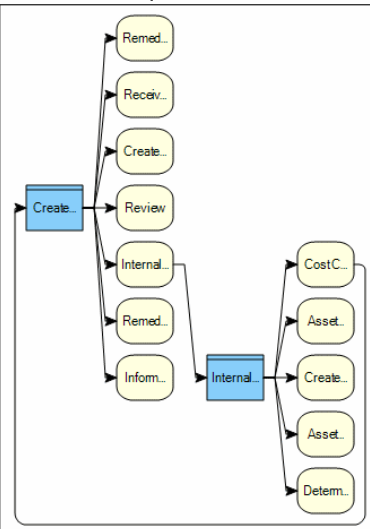
Model Analysis View

This view enables you to analyze the quality of business process models, activities, and paths.

Models Map
Quality Analysis

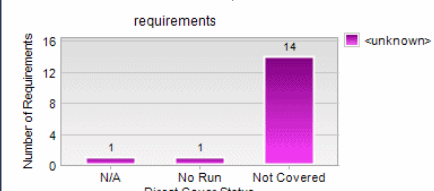
Depth: Show All Nested Levels Include requirement children Include representative requirements Generate

Entities included in the analysis:
Status: Last Generated: 11/21/2010 2:35:05 PM



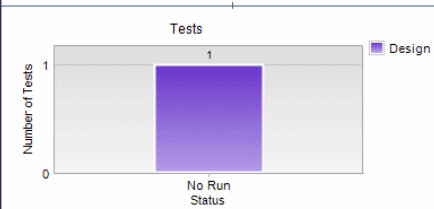
■ Model
■ Path
■ Activity

requirements




Category	Count
N/A	1
No Run Direct Cover Status	1
Not Covered	14

Tests



Status	Count
No Run Status	1

defects



Number of Defects



Priority

443

<p>To access</p>	<ol style="list-style-type: none"> 1 In the Business Models module, select View > Model Analysis. 2 Use one of the following: <ul style="list-style-type: none"> ➤ In the Models Map tab, select a model. The corresponding model entity is highlighted in the business models tree. ➤ In the business models tree, select a model entity. 3 Click the Quality Analysis tab.
<p>Important information</p>	<p>The Model Analysis view includes the following tabs:</p> <ul style="list-style-type: none"> ➤ Models Map. Displays relationships between business process models imported into ALM. ➤ Quality Analysis. Analyzes the quality of a business process model entity.
<p>Relevant tasks</p>	<p>"How to Work with Business Process Models" on page 433</p>
<p>Learn more</p>	<p>"Business Process Models Overview" on page 430</p>

Models Map Tab


User interface elements are described below (unlabeled elements are shown in angle brackets>):

UI Elements	Description
	<p>A business process model.</p> <p>Tip: Double-click a model to view model details in a separate window. For user interface details, see "Model Details/Model Activity Details Dialog Box" on page 461.</p>
	<p>Indicates that the model at the tip of the arrow is a sub-process of the model at the tail of the arrow.</p>

UI Elements	Description
-----	A bi-directional link, indicating that the model at one end of the line is a continuation of the model at the other end of the line.
<map area>	<p>Displays all the business process models imported to ALM, and the hierarchical connections between the models.</p> <p>Select a model in the map area that you want to analyze, and then click the Quality Analysis tab.</p> <p>Tip: Hold down the CTRL key and use the mouse wheel to zoom in and out of the map image.</p>

Quality Analysis Tab Toolbar

User interface elements are described below:



UI Elements (A-Z)	Description
 Generate	Refreshes the analysis graphs to include the most up-to-date information.
Depth	<p>Defines the number of hierarchical levels, from the root entity down, displayed in the entities pane. Entities displayed in the entities pane are analyzed in the analysis graphs.</p> <p>Standalone Entity. Displays the root entity alone.</p> <p>One Nested Level. Displays the root entity, and entities one level down from the current entity.</p> <p>All Nested Levels. Displays and analyzes the root entity, and all entities leading off from the root entity on all levels.</p>


UI Elements (A-Z)	Description
Include requirement children	Instructs ALM to include in the analysis all child requirements of the requirements linked to the model entities in the entities pane.
Include representative requirements	Instructs ALM to include in the analysis the representative requirements linked to the model entities in the entities pane. Tip: Use this option if representative requirements are linked to tests.

Quality Analysis Tab Entities Pane

This pane displays the business process model entities that are analyzed in the graphs pane.

User interface elements are described below (unlabeled elements are shown in angle brackets>):


UI Elements (A-Z)	Description
	A business process model entity.
	A path entity.

UI Elements (A-Z)	Description
	An activity entity.
<entities pane>	<p>Displays business process models, activities, and paths that are analyzed in the graphs pane, and hierarchical connections between them.</p> <p>Notes:</p> <ul style="list-style-type: none"> ▶ The number of hierarchical levels displayed is determined by the value in the Depth field. ▶ An activity that is included in more than one model or path is displayed in the entities pane once. <p>Tips:</p> <ul style="list-style-type: none"> ▶ To change the root entity displayed in the entities pane, select a model in the Models Map tab, or select an entity in the business models tree. ▶ Hold down the CTRL key and use the mouse wheel to zoom in and out. ▶ Double-click an entity to display entity details.

Quality Analysis Tab Graphs Pane

This pane displays graphs that analyze the quality of the entities displayed in the entities pane.

User interface elements are described below (unlabeled elements are shown in angle brackets>):

UI Elements (A-Z)	Description
	<p>View Graph in Full Screen. Opens the graph in a new window and maximizes its display. In the new window you can customize the graph view and save the graph data. For user interface details, see "View Tab – Graphs/ Graph Window" on page 916.</p>
Last Generated	<p>The date and time that the graph data was last refreshed. Click Generate to refresh the data.</p>



UI Elements (A-Z)	Description
<graph area>	<p>You can perform the following actions in the graph area:</p> <ul style="list-style-type: none"> ▶ Drill down to the graph's data by clicking on a segment in the graph. For task details, see "Drill down to graph data" on page 902. ▶ Right-click an area in the graph to change its color. ▶ Hover over a bar to view a tooltip containing the area's category, x-axis, and y-axis values.
<graph title>	<p>Click a graph title to change the graph's titles and appearance. For user interface details, see "Graph Appearance Dialog Box" on page 942.</p>
<legend>	<p>Displays the graph categories and their corresponding color.</p> <p>Tip: Right-click a category to change its color.</p>
Requirements graph	<p>Displays the coverage status of requirements linked to the model entities displayed in the entities pane.</p> <p>Note: The scope of requirements included in the graph is determined by the Include requirement children and Include representative requirements options.</p>
Tests graph	<p>Displays the execution status of tests linked to the model entities displayed in the entities pane.</p> <p>Note: The tests graph includes tests that are linked to the requirements included in the Requirements graph, and tests that are linked directly to the entities displayed in the entities pane.</p>
Defects graph	<p>Displays the severity of defects linked to the model entities displayed in the entities pane.</p> <p>Note: The defects graph includes defects linked to the requirements in the Requirements graph, and to the tests in the Tests graph.</p>




Business Models Module Menus and Buttons

This section describes the menus and buttons available in the Business Models module.



To access	On the ALM sidebar, under Requirements , select Business Models .
Important information	<ul style="list-style-type: none"> ▶ Some menu commands and buttons are not available in all model views. ▶ Version Control: Additional menu commands and buttons are available in a version control enabled project. For details, see "Versions Menu and Buttons" on page 126.
Relevant tasks	"How to Work with Business Process Models" on page 433
Learn more	"Business Models Module Icons" on page 455





User interface elements are described below:


UI Elements (A-Z)	Menu	Description
Copy URL/Paste	Edit	Copies a model entity or folder and pastes its URL as a link. The item itself is not copied. Instead, you can paste the address into another location, such as an email or a document. Clicking the link opens ALM and takes you to the item. If you are not already logged in, ALM first prompts for login details.
  Cut/Paste	Edit	Moves a business process model or folder to a different location in the tree. Activities and paths are moved together with their model. Tip: You can also move a business process model or folder by dragging it to a new location in the tree.

UI Elements (A-Z)	Menu	Description
 Delete	Edit	Deletes selected model entities or folders. You cannot delete the root folder. Note: Deleting a folder deletes all the items included in it.
Details	Models	Opens the details dialog box for the selected model entity. For more details, see "Model Details/Model Activity Details Dialog Box" on page 461.
Expand All/Collapse	View	Expands/collapses all the nodes under the selected folder.
 Filter/Sort	View	Enables you to filter and sort the models in the business models tree or grid. Any currently applied filters or sorting orders are displayed below the toolbar. For more details, see "Filter Dialog Box" on page 60.
Find	Edit	Opens the Find dialog box, enabling you to search for a model entity under the selected folder. For more details, see "Find Dialog Box" on page 74.
Fit Overview to Window	right-click menu	Adjusts the zoom level of the diagram overview so that the entire model is visible in the overview pane.
Fit to Window	right-click menu	Adjusts the zoom level of the model diagram so that the entire model is visible in the diagram pane.
 Flag for Follow Up	Edit	Opens the Flag For Follow Up dialog box, enabling you to define a follow up flag for a selected model entity. For more details, see "Flag For Follow Up Dialog Box" on page 106.

UI Elements (A-Z)	Menu	Description
Go to Model	Models	Opens the Go To Model dialog box, enabling you to find a specific model by Model ID. You can only go to models that are in the current filter.
Go to Representative Requirement	Models	Opens the requirements tree in the Requirements module, and highlights the representative requirement of the selected model entity.
Go to Requirement in Requirements Tree	right-click menu	Opens the requirements tree in the Requirements module, and highlights the selected requirement. Available from: Linkage tab > Requirements tab
Go To Sub-Model	right-click menu	Navigates to the sub-model in the business models tree that is represented by the selected activity.
Go to Test in Test Set	right-click menu	Enables you to view instances of a test in test sets in the Test Lab module. If there is only one instance of the selected test, the Test Lab module opens with the instance highlighted. If there is more than one instance of the selected test, the Select Test Set dialog box opens, and you select a test set and instance. Available from: Linkage tab > Tests tab
Go to Test in Test Tree	right-click menu	Opens the test plan tree in the Test Plan module, and highlights the selected test. Available from: Linkage tab > Tests tab

UI Elements (A-Z)	Menu	Description
 Import Model	Models	Opens the Import Models dialog box, enabling you to import or re-import business process models from a source file. For more details, see "Import Models Dialog Box" on page 459.
Indicator Columns	View	Displays indicators on the left-side of the business process model window. For more details, see "Business Models Module Icons" on page 455.
Model Analysis	View	Displays the Model Analysis view, enabling you to analyze the quality of selected business process models. For more details, see "Model Analysis View" on page 443.
Model Grid	View	Displays the Model Grid view, enabling you to view business process models, activities, or paths in a flat, non-hierarchical view.
Model Tree	View	Displays the Model Tree view, enabling you to view your business process models and elements hierarchically in a tree, and to view a diagram of the selected model.
 New Folder	Models	Opens the New Folder dialog box, enabling you to add a folder under a selected folder in the business models tree. Syntax exceptions: The folder name cannot include the following characters: \ ^ *

UI Elements (A-Z)	Menu	Description
 New Path	Models	<p>Opens the New Business Model Path dialog box, enabling you to define a sequence of transitions between activities in a model. For more details, see "New Model Path/Model Path Details Dialog Box" on page 465.</p>
 Refresh	View	<p>Refreshes the business process model view so that it displays the most up-to-date information.</p>
Rename	Edit	<p>Enables you to rename the selected business process model folder.</p>
 Select Columns		<p>Opens the Select Columns dialog box, enabling you to determine which fields are displayed in the business models grid and their order. For more details, see "Select Columns/Select Fields Dialog Box" on page 90.</p> <p>Available from: Model Grid view</p>
 Send by E-mail	Models	<p>Opens the Send E-mail dialog box, enabling you to send business process models by email to recipients selected from a list. For more details, see "Send E-mail Dialog Box" on page 83.</p>
Show Full Path	right-click menu	<p>Displays the full path of linked requirements or tests. The path is displayed in the Name column of linked requirements, and in the Test Name column of linked tests.</p> <p>Available from: Linkage tab > Tests and Requirements tabs</p>







UI Elements (A-Z)	Menu	Description
 Text Search	Edit	Opens the text search pane in the lower part of the Business Model module window, enabling you to search for records in predefined fields. For more details, see "Text Search Pane" on page 78. Available from: Model entities
Zoom In	right-click menu	Increases the zoom level of the model diagram.
Zoom Overview In	right-click menu	Increases the zoom level of the diagram overview.
Zoom Out	right-click menu	Decreases the zoom level of the model diagram.
Zoom Overview Out	right-click menu	Decreases the zoom level of the diagram overview.







Business Models Module Icons

This section describes the icons available in the Business Models module.

To access	On the ALM sidebar, under Requirements , select Business Models .
Relevant tasks	"How to Work with Business Process Models" on page 433
Learn more	"Business Models Module Menus and Buttons" on page 449 "Business Models Module Window" on page 439

The icons are described below:

UI Elements	Description
	< green asterisk >. The applicable tab is populated.
	Alerts . Click to view alerts for the model entity. <ul style="list-style-type: none"> ▶ Red alert. The alert is new. ▶ Gray alert. The alert has already been read. For more details, see "Alerts Dialog Box" on page 104.
	Attachments . Click to view attachments for the specified model entity. For more details, see "Attachments Page" on page 86.
	Follow Up Flags . Click to view follow up flags for the model entity. <ul style="list-style-type: none"> ▶ Gray flag. The follow up flag is new. ▶ Red flag. The follow up date has arrived. For more details, see "Flag For Follow Up Dialog Box" on page 106.
	Business process model folder
	Business process model

UI Elements	Description
	Re-imported business process model Available from: Import Models dialog box
	Business process model activity
	Activity that expands to a sub-model
	Business process model path
	Unresolved path
	<p>Version Control. The model entity is checked out.</p> <ul style="list-style-type: none"> ▶ Green lock. The model entity is checked out by the current user. ▶ Red lock. The model entity is checked out by another user.

Business Models Module Fields

This section describes the Business Models module fields.

To access	On the ALM sidebar, under Requirements , select Business Models .
Important information	<ul style="list-style-type: none"> ▶ You can add user-defined fields and change the label of any of the fields in the Business Models module. You can also customize project lists. For more details, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>. ▶ You can use the Script Editor to restrict and dynamically change the fields and values in the Business Models module. For more details, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>. ▶ When you select a business process model column with a user name value (including user-defined fields), ALM displays a list with the name and full name of each user. You can search for users, sort users, group users by user group, and select users from the users list or a group tree. For more details, see Users List Dialog Box. ▶ Version Control: Additional fields are available in a version control enabled project. For details, see "Version Control Fields" on page 127. ▶ Some fields are not available in all business process model views.
Relevant tasks	"How to Work with Business Process Models" on page 433
Learn more	"Business Models Module Window" on page 439

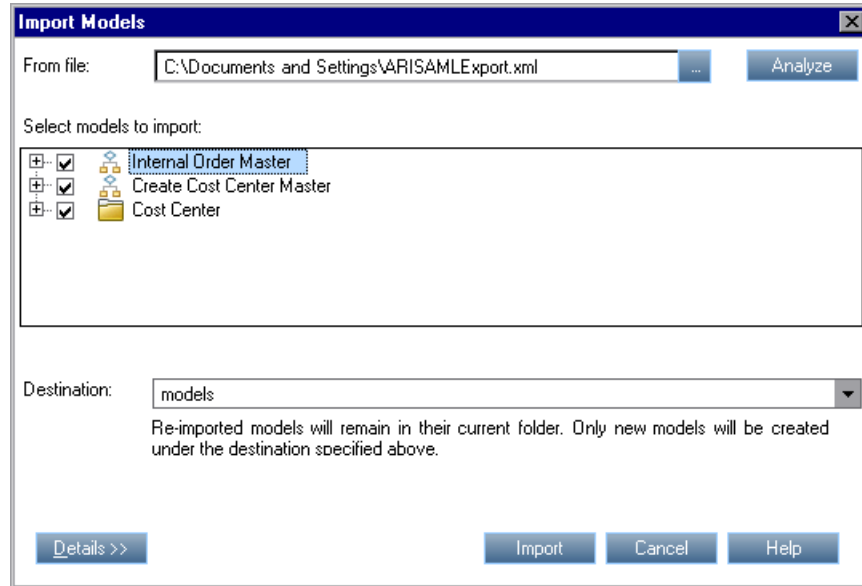
User interface elements are described below:

UI Elements (A-Z)	Description
Activity ID/Folder ID/Path ID/Model ID	A unique numeric ID for the entity that is assigned automatically. The ID field cannot be modified.
Comments	Comments on the model.

UI Elements (A-Z)	Description
Created By	Models/Activities: The user who first imported the entity. Paths: The user who created the path.
Creation Date	Models/Activities: The date and time on which the entity was first imported. Paths: The date and time on which the path was created.
Comments	Comments about the entity.
Description	A description of the entity.
GUID	A unique code identifying the model. The code helps identify the model in case of re-import.
Import Date	The date and time on which the entity was last imported.
Imported By	The user who last imported the entity.
Imported File Name	The name of the source file from which the model was last imported.
Lane	The location of an activity within a model.
Model Author	The user who created the model in the model authoring tool.
Name	The entity name.
Notation	The notation that is used to implement the model in the source file. Possible values are EPC or BPMN .
Notation Version	The version of the notation (EPC or BPMN) that is used to implement the model in the source file.
Path Description	Lists the activities included in the path.
Pool	The location of an activity within a model.
Priority	The priority of the entity.
Prototype	Possible values are As-Is or To-Be .
Status	The status of the entity.
Vendor	The modeling tool used to create the business process model.

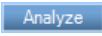
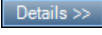
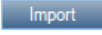
Import Models Dialog Box

This dialog box enables you to import business process models from a source file.



To access	In the Business Models module, in the Model Tree view, right-click a folder, and select Import Model .
Important information	Characters in names of imported models and activities that are illegal in ALM (for example, \ ^ *), are replaced with underscores.
Relevant tasks	"How to Work with Business Process Models" on page 433
Learn more	"Business Models Module Window" on page 439

User interface elements are described below:

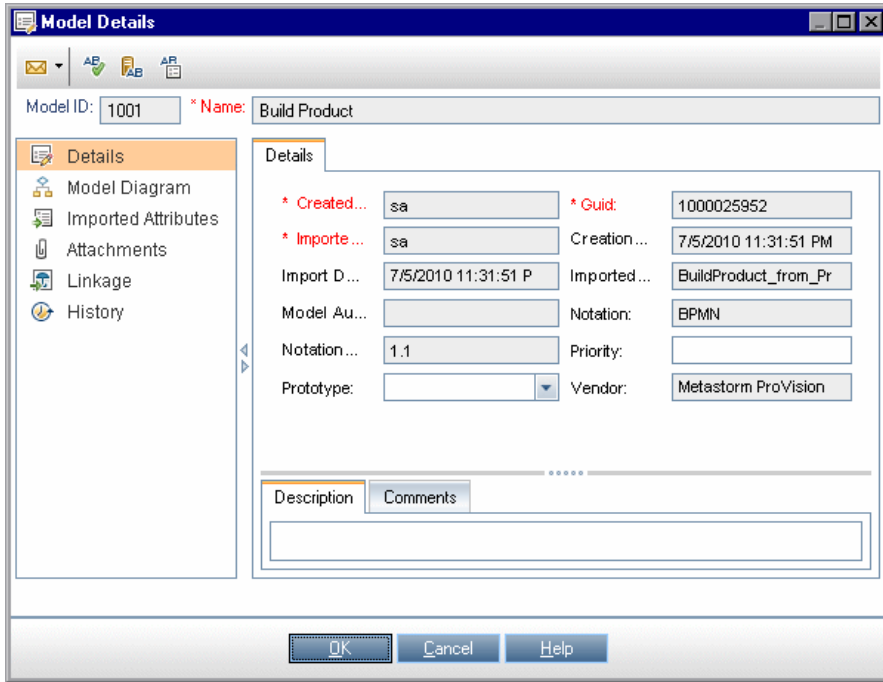
UI Elements (A-Z)	Description
	Scans the source file for business process models. The models in the file are displayed in the file content area.
	Shows/hides options for defining representative requirements.
	Imports the models selected in the Select models to import pane. The Importing Models dialog box opens, displaying the progress and status of the file import.
Select models to import	Displays the business process models contained in the source file. If you selected a file with ARIS notation, structured models are displayed hierarchically.
From file	The source file from which business process models are imported. Tip: Click the browse button to locate a file in a folder.
Destination	The folder in the business models tree under which the imported model will be added. Notes: <ul style="list-style-type: none"> ▶ You cannot import models under the root Models folder. ▶ Re-imported models remain in the original folder. Tip: Click the drop-down button to select a folder in the business models tree.

UI Elements (A-Z)	Description
Requirement destination	<p>The folder in the requirements tree under which representative requirements of the imported business process model are added.</p> <p>Notes:</p> <ul style="list-style-type: none"> ▶ You cannot select the Requirements root folder. ▶ Representative requirements of re-imported models remain in the original folder. <p>Tip: Click the drop-down button to select a folder in the requirements tree.</p> <p>Available if the Details pane is expanded.</p>
Rename requirements	<p>Instructs ALM to rename representative requirements of re-imported models. The requirements are renamed according to the new names given to the business process model and its activities.</p> <p>Available if the Details pane is expanded.</p>

Model Details/Model Activity Details Dialog Box





The Model Details dialog box enables you to view and update details of a business process model.

The Model Activity Details dialog box enables you to view and update details of a business process model activity.



To access	In the Business Model module, right-click a business process model or activity, and select Details .
Relevant tasks	"How to Work with Business Process Models" on page 433
Learn more	"Business Process Models Overview" on page 430

User interface elements are described below (unlabeled elements are shown in angle brackets):

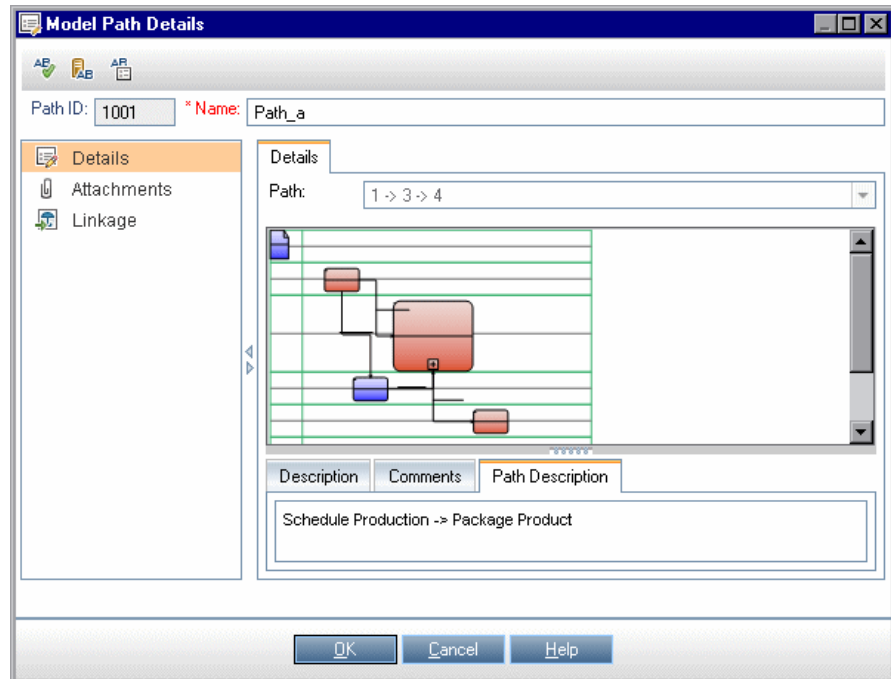
UI Elements (A-Z)	Description
	Spell Check. Checks the spelling for the selected word or text box.
	Send by E-mail. Opens the Send E-mail dialog box, enabling you to send a business process model by email to recipients selected from a list. For more details, see "Send E-mail Dialog Box" on page 83. Available from: Business Process Model Details dialog box
	Spelling Options. Enables you to configure the way ALM checks spelling.
	Thesaurus. Displays a synonym, antonym, or related word for the selected word.
<Business Models module fields>	For details on the fields available in the Business Models module, see "Business Models Module Fields" on page 457.
Attachments	Lists attachments that provide additional information about the currently selected model entity. For more details, see "Attachments Page" on page 86.
Details	Lists the relevant fields for the selected business entity. For details, see "Business Models Module Fields" on page 457.
History	Lists changes made to the currently selected business process model. For more details, see "History Tab" on page 81. Available from: Business Process Model Details dialog box
Imported Attributes	Lists field labels and values relevant to the business entity, as defined in the modeling tool.

UI Elements (A-Z)	Description
Linkage	Contains the Requirements and Tests tabs that list entities linked to the business entity. For more details, see "Linkage Tab" on page 468.
Model Diagram	<p>Business Process Model Details dialog box: Displays a diagram of the current business process model.</p> <p>Model Activity Details dialog box: Displays a diagram of the business process model in which the current activity is embedded. The current activity is highlighted in the model diagram.</p> <p>Tip: Right-click an area in the diagram, and select one of the zoom options.</p>

New Model Path/Model Path Details Dialog Box




The New Model Path dialog box enables you to define a path of transitions between activities in a business process model.

The Model Path Details dialog box enables you to view and update details of a business process model path.



<p>To access</p>	<p>New Model Path dialog box:</p> <ol style="list-style-type: none"> 1 In the Business Models module, select the Model Tree view. 2 Right-click a business process model and select New Path. <p>Model Path Details dialog box:</p> <p>In the Business Models module, right-click a path and select Details.</p>
<p>Important information</p>	<ul style="list-style-type: none"> ▶ Paths are created in the business models tree as a sub-entities of the business process model. ▶ Recursive paths that repeat the same activity are not supported.
<p>Relevant tasks</p>	<p>"How to Work with Business Process Models" on page 433</p>
<p>Learn more</p>	<p>"Business Process Model Paths" on page 432</p>

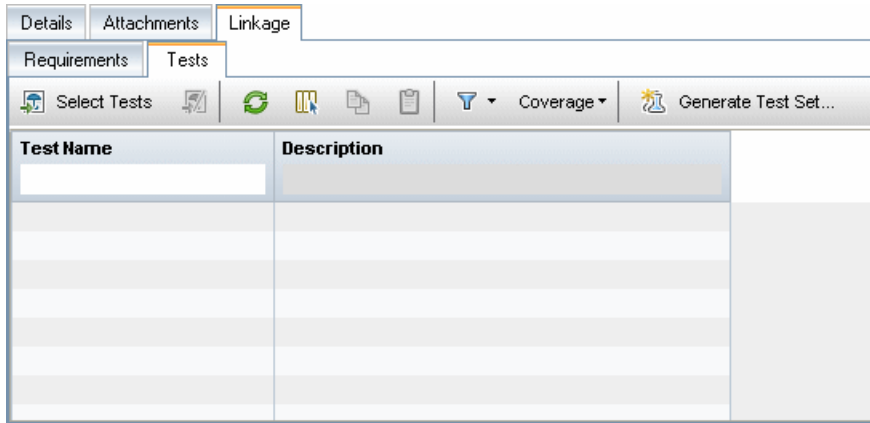
User interface elements are described below (unlabeled elements are shown in angle brackets):

<p>UI Elements (A-Z)</p>	<p>Description</p>
	<p>Spell Check. Checks the spelling for the selected word or text box.</p>
	<p>Spelling Options. Enables you to configure the way ALM checks spelling.</p>
	<p>Thesaurus. Displays a synonym, antonym, or related word for the selected word.</p>
<p><Business Models module fields></p>	<p>For details on the fields available in the Business Models module, see "Business Models Module Fields" on page 457.</p>
<p><model diagram></p>	<p>A diagram of the business process model. When you select paths in the Paths drop-down list, the activities and nodes along the path are highlighted.</p>
<p>Attachments</p>	<p>Lists attachments that provide additional information about the currently selected path. For more details, see "Attachments Page" on page 86.</p>

UI Elements (A-Z)	Description
Details	Lists the relevant fields for the selected path. For details, see "Business Models Module Fields" on page 457.
Linkage	Contains the Requirements and Tests tabs that list entities linked to the path. Available from: Model Path Details dialog box
Path	<p>New Business Model Path dialog box: A drop-down list of possible end-to-end paths in the business process model. Select a path that is important to test.</p> <p>Business Model Path Details dialog box: A notation of the current end-to-end path. The activities in the path are represented by numbers.</p> <p>Note: If the path is unresolved, select a new path from the drop-down list.</p> <p>Tip: Click the Path Description tab to view a full description of the path, including the full names of the activities in the path.</p>

Linkage Tab






This tab enables you to link requirements and tests to a model entity.



To access	Select a business process model entity, and click the Linkage tab or button.
Important information	Requirement linkage is created automatically when you convert a representative requirement to a test. Therefore, even if you have not yet added requirements linkage, it may already exist.
Relevant tasks	"How to Work with Business Process Models" on page 433







Requirements Tab


User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements	Description
 Select Requirements	<p>Enables you to select requirements to link to the currently selected model entity. Displays the following:</p> <ul style="list-style-type: none"> ▶ Requirement Tree tab ▶ Test Plan Tree tab <p>For more details, see "Requirements Tree and Test Plan Tree Pane" on page 472.</p>
	<p>Remove From Linkage. Removes selected requirements from the linkage grid.</p>
	<p>Refresh All. Refreshes the linkage grid.</p>
	<p>Select Columns. Opens the Select Columns dialog box, enabling you to determine which fields to display in the linkage grid and their order. For more details, see "Select Columns/Select Fields Dialog Box" on page 90.</p>
	<p>Copy/Paste. Copies linked requirements to another model entity. To paste the copied requirements, select a model entity, click the Linkage > Requirements tab, and click Paste.</p>
<p><linkage grid></p>	<p>For field definitions, see "Requirements Module Fields" on page 347.</p>

Tests Tab

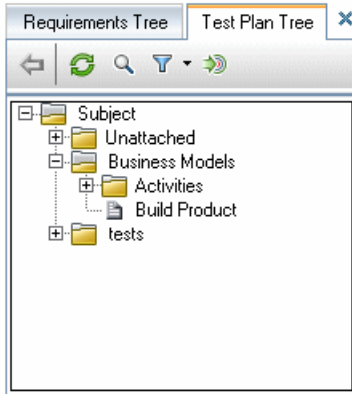
User interface elements are described below:

UI Elements	Description
	<p>Enables you to select tests to link to the currently selected model entity. Displays the following:</p> <ul style="list-style-type: none"> ➤ Requirement Tree tab ➤ Test Plan Tree tab <p>For more details, see "Requirements Tree and Test Plan Tree Pane" on page 472.</p>
	<p>Remove From Linkage. Removes selected tests from the linkage grid.</p> <p>Note: You cannot remove tests covering linked requirements.</p>
	<p>Refresh All. Refreshes the linkage grid.</p>
	<p>Select Columns. Opens the Select Columns dialog box, enabling you to determine which fields to display in the linkage grid and their order. For more details, see "Select Columns/Select Fields Dialog Box" on page 90.</p>
	<p>Copy/Paste. Copies linked tests to another model entity. To paste the copied tests, select a model entity, click the Linkage > Tests tab, and click Paste.</p>
	<p>Set Filter/Sort. Includes the following options:</p> <ul style="list-style-type: none"> ➤ Set Filter/Sort. Opens the Filter dialog box, enabling you to filter and sort tests. ➤ Clear Filter/Sort. Clears any filters or sorting that you have applied. <p>For more details, see "Filter Dialog Box" on page 60.</p>

UI Elements	Description
Coverage	<p>Select the type of linked tests displayed in the grid.</p> <ul style="list-style-type: none"> ▶ Direct Coverage. Displays tests linked directly to the model entity, or to the representative requirement. This option is always selected. ▶ Linked Requirement Coverage. Displays tests linked to requirements that are linked to the model entity. ▶ Children Requirement Coverage. Displays tests that are linked to child requirements of requirements that are linked to the model entity.
	<p>Enables you to create a test set containing the tests in the linkage grid.</p> <p>In the Select Test Set Folder dialog box, select the folder in the test sets tree under which the test set is created.</p>
<linkage grid>	<p>For field definitions, see "Test Plan Module Fields" on page 512.</p>







Requirements Tree and Test Plan Tree Pane

This pane enables you to link requirements and tests to a business process model entity.



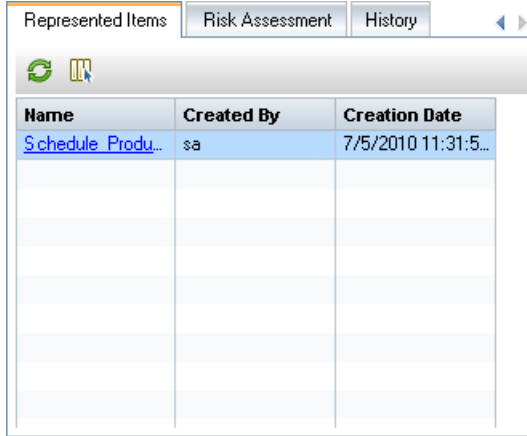
To access	<ol style="list-style-type: none"> 1 Select a business process model, activity, or path, and click the Linkage tab or button. 2 Click the Requirements or Tests tab. 3 Click the Select Requirements or Select Tests button.
Important information	In the Business Models module window, you can create linkage by dragging and dropping requirements and tests to any entity in the model diagram.
Relevant tasks	"How to Work with Business Process Models" on page 433

User interface elements are described below:

UI Elements	Description
	<p>Add to Linkage. Adds a selected requirement, test or folder to the linkage grid.</p> <p>Tip: Alternatively, create linkage to any model entity by dragging requirements and tests directly to entities in the model diagram.</p>
	<p>Refresh. Refreshes the tree to display the most up-to-date information.</p>
	<p>Find. Searches for a specific requirement or test in the tree.</p> <p>Type the name (or part of the name) of the requirement or test in the Find box and click Find. If the search is successful, the requirement or test is highlighted in the tree.</p>
	<p>Filter/Sort. Includes the following options:</p> <ul style="list-style-type: none"> ▶ Set Filter/Sort. Opens the Filter dialog box, enabling you to filter and sort tests. ▶ Clear Filter/Sort. Clears any filters or sorting that you have applied. <p>For more details, see "Filter Dialog Box" on page 60.</p>
	<p>Go to Requirement by ID. Opens the Go To Requirement dialog box, enabling you to find a specific requirement by ReqID.</p> <p>Go to Test by ID. Opens the Go To Test dialog box, enabling you to find a specific test by Test ID.</p> <p>Note: You can only go to requirements and tests that are in the current filter.</p>
	<p>Hides the Requirement Tree and Test Plan tree pane.</p>


Represented Items Tab


This tab lists business process model entities represented by the selected requirement.



To access	In the Requirements module, select a Business Model requirement, and click the Represented Items tab.
Relevant tasks	"How to Create Requirements" on page 321 "How to Work with Business Process Models" on page 433

User interface elements are described below (unlabeled elements are shown in angle brackets>):

UI Elements (A-Z)	Description
	Refresh. Refreshes the grid to display the most up-to-date information.

UI Elements (A-Z)	Description
	<p>Select Columns. Opens the Select Columns dialog box, enabling you to determine which fields to display in the requirements tree or grid and their order. For more details, see "Select Columns/Select Fields Dialog Box" on page 90.</p>
<p><business model entities grid></p>	<p>Click a link in the grid to go to the represented business process model entity in the business models tree.</p> <p>For field definitions, see "Business Models Module Fields" on page 457.</p>

Part IV

Test Plan

18

Introducing Test Planning

This chapter includes:

Concepts

- ▶ Test Plan Overview on page 480

Tasks

- ▶ How to Plan Tests in ALM on page 481

Concepts

Test Plan Overview

Developing a clear and concise test plan is fundamental to successful application testing. A good test plan enables you to assess the quality of your application at any point in the application management process.

Outline a strategy for achieving your requirements, as defined in the Requirements module. Ask yourself two basic questions:

How should you test your application?

- Which testing techniques will you use (stress tests, security tests, performance and load tests, etc.)?
- How will you handle defects (severity classification, authorization to open and close defects, etc.)?

What resources do you require?

- What resources do you require to test (personnel, hardware, etc.)?
- When will the various tasks be completed?

For example, consider a flight reservation application that lets you manage flight scheduling, passenger bookings, and ticket sales. Testing will require designing both manual and automated tests. You could assign testing personnel with programming experience the task of designing automated tests, while non-programmers could design manual tests.

Tasks

How to Plan Tests in ALM

This task describes how to work with tests in HP Application Lifecycle Management (ALM).

Note: This task is part of a higher-level task. For details, see "Application Lifecycle Management Roadmap" on page 26.

This task includes the following steps:

- "Prerequisites" on page 482
- "Create a test plan tree" on page 482
- "Create dependencies with test resources – optional" on page 482
- "Define test parameters" on page 483
- "Define test configurations" on page 483
- "Create test steps" on page 483
- "Automate tests" on page 483
- "Create requirements coverage" on page 484
- "Link a test to a defect" on page 484
- "Analyze test plan data" on page 484
- "Establish a baseline" on page 485

1 Prerequisites

A set of requirements is defined in the Requirements tree.

For task details, see "How to Use Requirements in ALM" on page 315.

Tip: You can automatically create tests based directly on your requirements in the Requirements module. For more details, see "Convert requirements to tests - optional" on page 323 in the "How to Create Requirements" task.

2 Create a test plan tree

Create a test plan tree of test subject folders and tests. For task details, see "How to Create Tests" on page 489.

3 Create dependencies with test resources – optional

You can associate tests with a set of resources that you upload to the ALM repository.

You can then view these dependencies and determine the resources that are in use. For task details, see "How to Use Test Resources" on page 628.

Business Process Testing: You can associate component steps with application area resources that you upload.

4 Define test parameters

To make tests more flexible, you can include parameters in test steps. This enables you to run the same test repeatedly and assign different values to the parameters. For task details, see "How to Use Test Parameters" on page 561.

5 Define test configurations

To run tests for different use-cases, you can define test configurations. This enables you to run the same test under different scenarios. For task details, see "How to Work with Test Configurations" on page 597.

6 Create test steps

Create test steps describing the operations to perform and their expected results. After you define the test steps, decide whether to perform the test manually or to automate it. For task details, see "How to Design Test Steps" on page 577.

7 Automate tests

After designing test steps, decide which tests to automate. Factors influencing test automation include frequency of execution, volume of data input, length of execution time, and complexity. For task details, see "How to Design Test Steps" on page 577.

System Tests. You can also create automated system tests that provide system information for a machine, capture a desktop image, or restart a machine. For task details, see "How to Create System Tests" on page 621.

8 Create requirements coverage

Link each test in the test plan tree with a requirement or requirements in the requirements tree. By defining requirements coverage for a test, you keep track of the relationship between the tests in your test plan and your original requirements. For task details, see "How to Create Coverage" on page 528.

9 Link a test to a defect

Link a test to specific defects. This is useful, for example, when a new test is created specifically for a known defect. By creating a link, you can determine if the test should be run based on the status of the defect. For user interface details, see "Linked Defects/Entities Page" on page 866.

10 Analyze test plan data

Analyze the test plan by generating reports and graphs.

Use one of the following:

- ▶ **View dynamic graphs of test subjects.** In the test plan tree, select a test subject, and click the **Live Analysis** tab. For task details on generating live analysis graphs, see "How to Generate Live Analysis Graphs" on page 1023.
- ▶ **View test plan data in a graph.** On the Test Plan module menu, select **Analysis > Graphs**. For task details on generating graphs, see "How to Generate a Graph" on page 900.
- ▶ **Create a report of test plan data.** On the Test Plan module menu, select **Analysis > Reports**. For task details on creating reports, see "How to Generate a Standard Report" on page 1003.

For details on additional analysis tools in ALM, see "How to Analyze Data in ALM" on page 876.

11 Establish a baseline

After your test plan has been reviewed and approved, you can create a baseline. A baseline provides you with a snapshot of your test plan at a specific point in time. Use a baseline to mark any significant milestone in the application lifecycle. The baseline then serves as a point of reference against which changes can be compared. For task details, see "How to Use Libraries and Baselines in ALM" on page 246.

19

Test Plan Specification

This chapter includes:

Concepts

- ▶ Test Plan Specification Overview on page 488

Tasks

- ▶ How to Create Tests on page 489

Reference

- ▶ Test Types on page 493
- ▶ Test Plan User Interface on page 494

Concepts

Test Plan Specification Overview

The typical application is too large to test as a whole. The Test Plan module enables you to divide your application according to functionality. You divide your application into units, or **subjects**, by creating a test plan tree. This is a graphical representation of your test plan, displaying your tests according to the hierarchical relationship of their functions.

After you define subjects in the tree, you decide which tests to create for each subject and add them to the tree. At this stage, you define basic information about the test, such as its name, status, and the designer. You can also attach a file, URL, application snapshot or system information to illustrate a test. Afterwards, you define the test steps. **Test steps** contain detailed instructions on how to execute a test and evaluate the results.

During the application management process, you may need to modify your test plan. You can update the test plan tree at any time.

There are a number of methods for organizing your test plan by subject. For example, you could define subjects according to:

- ▶ Application functionality—such as editing, file operations, and reporting
- ▶ Type of testing—such as functional, user interface, performance, and load

Note: Developing and editing a test plan tree requires appropriate user permissions. For more information, refer to the *HP Application Lifecycle Management Administrator Guide*.

For details on specifying tests, see "How to Create Tests" on page 489.

Tasks

How to Create Tests

This task describes how to create folders of test subjects in the test plan tree, and add tests to the test subjects.

Note: This task is part of a higher-level task. For details, see "How to Plan Tests in ALM" on page 481.

To learn more about test specification, see "Test Plan Specification Overview" on page 488.


This task includes the following steps:

- "Create test subjects" on page 489
- "Create tests in the test plan tree" on page 490
- "Create a manual template test – optional" on page 491
- "Add steps to tests" on page 492

1 Create test subjects

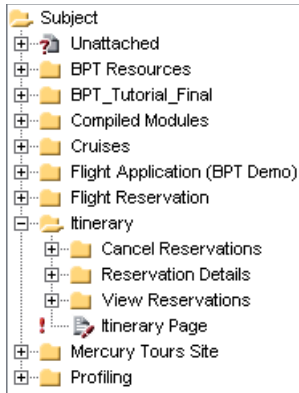
Create folders in the test plan tree. Each folder represents a **test subject** – a testing area in your application.

To create a test subject:

- a** On the ALM sidebar, under **Testing**, select **Test Plan**.
- b** Select **View > Test Plan Tree**.
- c** Select the **Subject** root folder or an existing test subject, and click **New Folder** .

Example:

To test a flight reservation application that lets you manage flight scheduling, passenger bookings, and ticket sales, you might define the following subjects for the test plan tree:



Notice how the **Itinerary** subject contains additional subject folders. These folders further categorize the tests in the test plan tree by creating additional levels of subjects. For the complete example, refer to the **ALM_Demo** project.

2 Create tests in the test plan tree

Create tests under test subject folders.

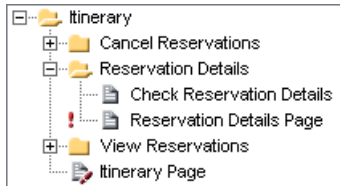
To create tests:

- a** In the Test Plan tree, right-click the folder, and select **New Test**.
- b** Fill in the fields in the New Test dialog box. For user interface details, see "New Test Dialog Box" on page 518.

Each test should have a distinct objective, such as verifying a specific function or system requirement. The tests you define should be based on the goals you set at the beginning of the application management process.

Example:

In the test plan tree shown in the previous step, you might assign tests to the **Reservation Details** subject folder as follows:

**3 Import tests – optional**

In addition to creating a test plan tree in the ALM Test Plan module, you can also import test plan data from Microsoft Word or Microsoft Excel to your ALM project. To import from Word, you must install the **HP ALM Microsoft Word Add-in** and the **HP Quality Center Connectivity Add-in**. To import from Excel, you must install the **HP ALM Microsoft Excel Add-in** and the **HP Quality Center Connectivity Add-in**. You can install the add-ins from the HP Application Lifecycle Management Add-ins page. For more information, refer to the *HP Application Lifecycle Management Installation Guide*.

4 Create a manual template test – optional

If there are common instructions that will be repeated in several tests, for example Log in to the application, you can create a manual template test of common instructions, that is then called by other manual tests.

Note: It is not essential to mark a test as a template test to be able to call it.

To create a manual template test:

- a** Create a manual test, as described in Step 2 – "Create tests in the test plan tree."
- b** Right-click the new test in the test plan tree, and select **Mark as Template Test**. The test icon changes from gray to white, indicating that it is now a template test.

5 Create a QuickTest template test – optional

The template test defines which QuickTest add-ins ALM associates with a new QuickTest test. For more details, refer to the QuickTest documentation and the relevant QuickTest add-in documentation.

In addition to the default QuickTest template test that is provided with the ALM client, you can create other QuickTest template tests.

To create a QuickTest template test:

- a** Create a QuickTest Professional test, as described in Step 2: "Create tests in the test plan tree".
- b** Right-click the new test in the test plan tree, and select **Mark as Template Test**. The test icon changes from gray to white, indicating that it is now a template test.

6 Add steps to tests

Add steps to tests, describing the actions a tester should perform to complete the tests.








For task details, see "How to Design Test Steps" on page 577.




Reference

Test Types

The following test types are available in the Test Plan module.

ALM Editions: Not all test types are available with each edition.

Test Icon	Test Type	Description
	BUSINESS-PROCESS	A business process test. For details, refer to the <i>HP Business Process Testing User Guide</i> .
	FLOW	A test comprising a collection of business components in a fixed sequence that performs a specific task. For more details, refer to the <i>HP Business Process Testing User Guide</i> .
	LR-SCENARIO	A scenario that is executed by LoadRunner, the HP load testing tool.
	MANUAL	A test that is run manually.
	PERFORMANCE-TEST	A performance test. For details, refer to the <i>HP ALM Performance Center Guide</i> .
	QAINSPPECT_TEST	A test that is executed by QAIInspect, the HP security testing tool.
	QUICKTEST_TEST	A test that is executed by QuickTest Professional, the HP functional enterprise testing tool. This test type is only available if you have installed the appropriate add-in from the HP Application Lifecycle Management Add-ins page. For more details on installing add-ins, refer to the <i>HP Application Lifecycle Management Installation Guide</i> .

Test Icon	Test Type	Description
	SERVICE-TEST	A test that is executed by Service Test, HP's tool for creating tests for GUI-less applications such as Web and REST services. For more details, refer to the <i>HP Service Test User Guide</i> .
	SYSTEM-TEST	A test that instructs ALM to provide system information, capture a desktop image, or restart a machine.
	VAPI-XP-TEST	A test that is created by Visual API-XP, the ALM open test architecture API testing tool. For more information on VAPI-XP tests, see "VAPI-XP Tests" on page 651.

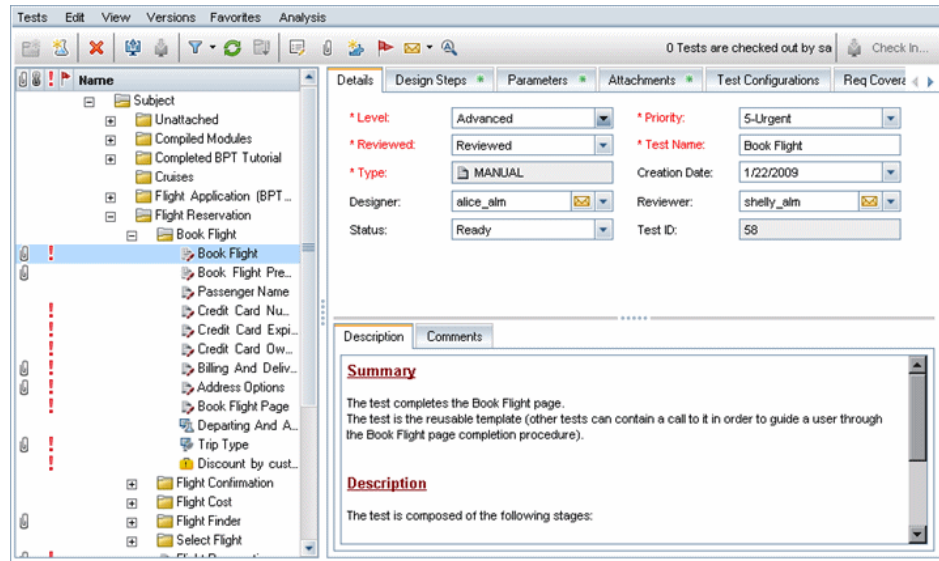
Test Plan User Interface

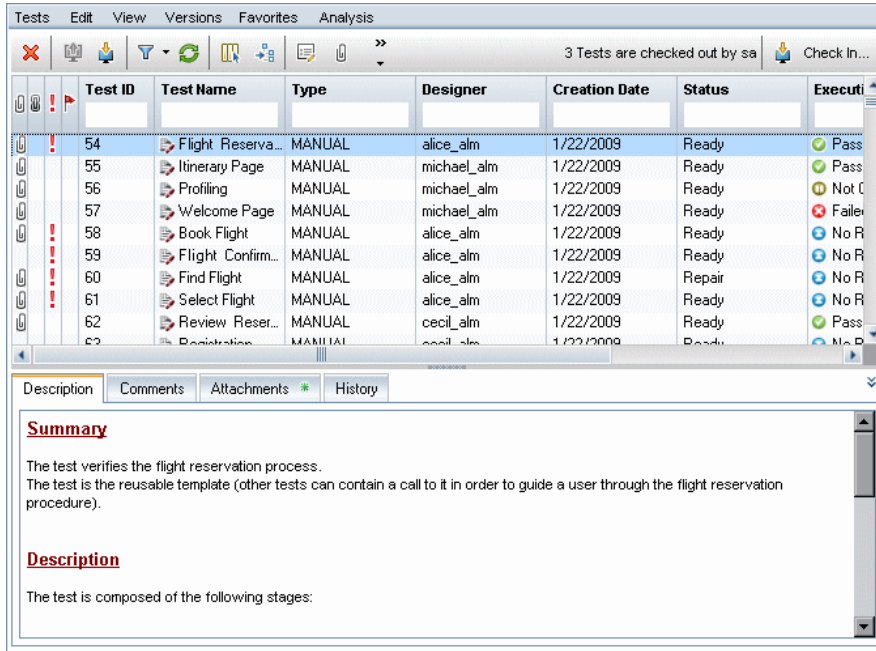
This section includes:

- ▶ Test Plan Module Window on page 495
- ▶ Test Plan Module Menus and Buttons on page 499
- ▶ Test Plan Module Icons on page 510
- ▶ Test Plan Module Fields on page 512
- ▶ Test Details Dialog Box on page 515
- ▶ New Test Dialog Box on page 518
- ▶ Sort Folders in Test Plan Tree Dialog Box on page 521
- ▶ Paste Tests/Folders to Target Project Dialog Box on page 523

Test Plan Module Window


The test plan window enables you to define and maintain ALM tests.





To access	<ol style="list-style-type: none"> 1 On the ALM sidebar, under Testing, select Test Plan. 2 In the View menu, select Test Grid or Test Plan Tree.
Important information	<p>The Test Plan window includes the following views.</p> <ul style="list-style-type: none"> ▶ Test Plan Tree. Displays test subjects and tests hierarchically in a tree. ▶ Tests Grid. Displays tests in a flat, non-hierarchical view. Each line in the grid displays a separate test. <p>Quality Center Starter Edition: Not all fields and functionality in the Test Plan module are available.</p> <p>Business Process Testing: Different tabs are displayed in this module if you are working with a business process test. For details, refer to the <i>HP Business Process Testing User Guide</i>.</p>
Relevant tasks	<p>"How to Plan Tests in ALM" on page 481</p> <p>"How to Create Tests" on page 489</p>
See also	<p>"Test Plan Module Fields" on page 512</p>

User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements (A-Z)	Description
<Test Plan module common UI elements>	<ul style="list-style-type: none"> ▶ Test Plan fields. For field definitions, see "Test Plan Module Fields" on page 512. ▶ Test Plan menus and buttons. For command and button descriptions, see "Test Plan Module Menus and Buttons" on page 499. ▶ Test Plan icons. For icon descriptions, see "Test Plan Module Icons" on page 510. ▶ ALM main menu and sidebar. For details on the Tools menu, Help menu and sidebar, see "ALM Common Areas" on page 40.
<test plan tree>	<p>Located on the left side of the window, organizes and displays your tests hierarchically.</p> <p>Note: Items in a folder are alphabetized. You cannot move items within a folder.</p>
<grid filters>	<p>Displays a grid filter box under each column name, enabling you to define a filter condition for a column.</p>  <p>Type directly into the box, or click the box to display the browse button, which opens the Select Filter Condition dialog box. For user interface details, see "Select Filter Condition Dialog Box" on page 70.</p> <p>Available from: Test Grid view</p>
Attachments tab	<p>Lists attachments that provide additional information about the currently selected test. For more details, see "Attachments Page" on page 86.</p>
Business Models Linkage	<p>Lists the business model entities linked to the currently selected test. For more details, see "Business Models Linkage Tab" on page 545.</p>
Criteria tab	<p>Display criteria of the selected business process test. For more details, see "Criteria Tab" on page 593.</p> <p>Business Process Testing: Functionality related to test criteria is available only for business process tests. For details, see the <i>HP Business Process Testing User Guide</i>.</p>

UI Elements (A-Z)	Description
Dependencies tab	Displays dependency relationships that exist between entities such as test resources and tests. For more information, see "Dependencies Tab" on page 645.
Design Steps tab	Lists the instructions on how to execute the selected test. For more details, see "Design Steps Tab/Design Step Details Dialog Box" on page 582.
Details tab	<p>Lists the test fields. For details on test fields, see "Test Plan Module Fields" on page 512.</p> <p>Tip: Clicking in the Description or Comments field in this tab displays a toolbar for formatting and spell checking the text.</p>
Filter	Describes the filter currently applied to the grid or tree. Located directly above the grid filter boxes or tree.
History tab	Lists changes made to the currently selected test. For more details, see "History Tab" on page 81.
Linked Defects tab	Lists the defects linked to the currently selected test. For more details, see "Linked Defects/Entities Page" on page 866.
Live Analysis tab	<p>Displays a graphical representation of test data related to the selected test subject folder. For more details, see "Live Analysis Tab" on page 1026.</p> <p>Available from: Test Plan Tree view</p>
Parameters tab	Lists parameters associated with the currently selected test. Parameters can be incorporated in the test's design steps. For more details, see "Parameters Tab/Parameters Dialog Box" on page 565.
Req Coverage tab	Lists the requirements that are met by the currently selected test. For more details, see "Req Coverage Tab" on page 538.
Test Configurations tab	Displays the test configurations of the selected test. For more details, see "Test Configurations Tab" on page 604.


UI Elements (A-Z)	Description
Test Design tab	Performance Center: Displays a detailed summary of the selected performance test. For more details, refer to the <i>HP ALM Performance Center Guide</i> .
Test Script tab	For automated tests, the test script that is run by the testing tool for the currently selected test. For more details, see "Test Script Tab" on page 588.


Test Plan Module Menus and Buttons

This section describes the menus and buttons available in the Test Plan module.


To access	On the ALM sidebar, under Testing , select Test Plan .
Important information	<ul style="list-style-type: none"> ➤ Some menu commands and buttons are not available in all test plan views. ➤ Version Control: Additional menu commands and buttons are available in a version control enabled project. For details, see "Versions Menu and Buttons" on page 126. ➤ Quality Center Starter Edition: Not all commands and buttons are available.
Relevant tasks	"How to Create Tests" on page 489
See also	<ul style="list-style-type: none"> ➤ "Test Plan Module Window" on page 495 ➤ "Test Plan Module Icons" on page 510



User interface elements are described below (unlabeled elements are shown in angle brackets):



UI Elements (A-Z)	Menu	Description
<list of recently used favorite views>	Favorites	Displays the four most recently used favorite views in the Test Plan module. You can define the number of views displayed on the menu by setting the FAVORITES_DEPTH parameter in the Site Configuration tab in Site Administration. For details, see the <i>HP Application Lifecycle Management Administrator Guide</i> .
Add to Favorites	Favorites	Opens the Add Favorite dialog box, enabling you to add a favorite view to your private or the public folder. For details, see "Add Favorite Dialog Box" on page 113.
Alerts	Edit	Opens the Alerts dialog box, enabling you to display alerts for the test. For details, see "Alerts Dialog Box" on page 104.
 Attachments	<toolbar>	Opens the Attachments page, enabling you to add attachments to the selected test. For details, see "Attachments Page" on page 86.
Clear Alerts	Edit	Clears displayed alerts for the module. For more details, see "How to Use Alerts" on page 99.
Clear Follow Up Flag	Edit	Clears a follow up flag of a selected test. For more details, see "Follow Up Flags Overview" on page 98. Available from: Test Grid
Collapse	View	Collapses all branches in the test plan tree.


UI Elements (A-Z)	Menu	Description
 Convert to Component	Tests	Creates components from a test or a flow. For details, refer to the <i>HP Business Process Testing User Guide</i> .
Copy URL/Paste	Edit	Copies a selected test and pastes its URL as a link. The test itself is not copied. Instead, you can paste the address into another location, such as an email or a document. Clicking the link opens ALM and takes you to the test. If you are not already logged in, ALM first prompts for login details.
Copy/Paste	Edit	<p>Copies selected tests within the same project or across projects. When you copy a test subject, any subfolders and tests of the test subject are also copied.</p> <p>Notes:</p> <ul style="list-style-type: none"> ▶ When you copy a test from one project to another, if the test contains calls to other tests, or if the tests are dependent on test resources, you can instruct ALM to copy them using one of three methods. For more details, see "Paste Tests/Folders to Target Project Dialog Box" on page 523. ▶ To copy tests across projects, both projects must use the same ALM version and patch level.




UI Elements (A-Z)	Menu	Description
Cut/Paste	Edit	<p>Moves selected tests to a different location in the test plan tree.</p> <p>Note: When moving a test subject, any subfolders and tests of the test subject are moved with it. The root folder cannot be moved.</p> <p>Tip: You can also move a test or test subject to a new location in the test plan tree by dragging it.</p>




UI Elements (A-Z)	Menu	Description
 Delete	Edit	<p>Deletes the selected test or folder in the test plan tree.</p> <p>When deleting a folder, select one of the following options:</p> <p>Delete folders only. Deletes folders and moves all related tests to the Unattached folder.</p> <p>Delete folder and tests. Deletes folders, tests, and test scripts.</p> <p>Version Control: Deleting a test deletes all previous versions of the test.</p> <p>When deleting a test, if dependencies are defined for the test, the Delete Test dialog box opens. To view the Used By entities, click Details.</p> <p>Caution:</p> <ul style="list-style-type: none"> ▶ If you choose to delete a folder and tests, all subfolders and tests under the selected folder are deleted permanently. ▶ If you delete a test, the test and test script are deleted permanently. ▶ If dependencies are defined for a test, deleting the test may impact the dependent entities. To view the dependencies before you delete, click the Dependencies tab. For more details on related entities, see "Dependencies Tab" on page 645.
Description Page	<right-click menu>	<p>Opens the Description tab.</p> <p>Available from: Test Grid</p>





UI Elements (A-Z)	Menu	Description
 Edit Test	Tests	<p>Performance Center: Opens the Performance Test Designer, enabling you to design a performance test. For details, refer to the <i>HP ALM Performance Center Guide</i></p>
Expand All	View	Expands all branches in the test plan tree.
Export	<right-click menu>	<p>Opens the Export Grid Data dialog box, enabling you to export the tests in a grid as a text file, Microsoft Excel worksheet, Microsoft Word document, or HTML document.</p> <p>Choose one of the following options:</p> <ul style="list-style-type: none"> ➤ All. Exports all tests in the grid. ➤ Selected. Exports selected tests in the grid. <p>Available from: Test Grid</p>
 Filter/Sort	View	<p>Enables you to filter and sort the tests in the test tree or grid. Any currently applied filters or sorting orders are displayed below the toolbar. For more details, see "Filter Dialog Box" on page 60.</p> <p>Note: A filter that is defined in one test plan view does not apply to the other view.</p>
Find	Edit	Opens the Find dialog box, enabling you to search for a test in the Test Plan module. For more details, see "Find Dialog Box" on page 74.
Find Next	Edit	Searches for the next item in the test grid that meets the previously defined search criteria.

UI Elements (A-Z)	Menu	Description
 Flag for Follow Up	Edit	<p>Opens the Flag For Follow Up dialog box, enabling you to define a follow up flag for a selected test. For more details, see "Flag For Follow Up Dialog Box" on page 106.</p>
Go to Test	Tests	<p>Opens the Go To Test dialog box, enabling you to find a specific test by Test ID. You can only go to tests that are in the current filter.</p>
 Go to Test in Test Plan Tree	<toolbar>	<p>Goes to the Test Plan Tree view and highlights the selected test.</p> <p>Available from: Test Grid</p>
Go to Test in Test Set	Tests	<p>Enables you to view instances of a test in test sets in the Test Lab module.</p> <p>If there is only one instance of the selected test, the Test Lab module opens with the instance highlighted.</p> <p>If there is more than one instance of the selected test, the Select Test Set dialog box opens, and you select a test set and instance.</p>
Graphs	Analysis	<p>Lists the graphs you can generate for test plan data. Select a predefined graph, or launch the graph wizard.</p> <p>For details on the predefined graph types, see "Graph Types" on page 906.</p>
History Page	<right-click menu>	<p>Opens the History tab. For more details, see "History Tab" on page 81.</p> <p>Available from: Test Grid</p>

UI Elements (A-Z)	Menu	Description
Indicator Columns	View	Displays indicators on the left-side of the test window. For more details, see "Test Plan Module Icons" on page 510. Available from: Test Grid
Invert Selection	Edit	Unselects all previously selected tests in the grid and selects all previously unselected tests. Available from: Test Grid
Live Analysis	Analysis	Lists options for displaying graphs in the Live Analysis tab. Add or delete a graph, or configure its appearance. For details on live analysis, see "Live Analysis Graphs Overview" on page 1022. Available from: Live Analysis tab
Mark as Template Test	Tests	For manual tests. Marks a test as a template test that you can then call from another test. After you mark a template test, the manual test icon changes from gray to white  . For QuickTest Professional tests. Marks a test as a template test that you will then be able to use to create other QuickTest Professional tests.
Most Recently Used	Analysis	Lists the most recently viewed reports and graphs in the Test Plan module.

UI Elements (A-Z)	Menu	Description
 New Folder	Tests	<p>Opens the New Test Folder dialog box, enabling you to add a test subject under a selected folder.</p> <p>Syntax exceptions: A folder name cannot include the following characters: \ ^ *</p> <p>Available from: Test Plan Tree</p>
 New Test	Tests	<p>Opens the Create New Test dialog box, enabling you to add a test under a selected folder. For more details, see "New Test Dialog Box" on page 518.</p> <p>Available from: Test Plan Tree</p>
Organize Favorites	Favorites	Organizes your favorite views. For details, "Organize Favorites Dialog Box" on page 115.
Private	Favorites	Lists the favorite views that are accessible only to the user who created them.
Public	Favorites	Lists the favorite views that are accessible to all users.
 Refresh All	View	Refreshes the test plan tree or grid so that it displays the most up-to-date tests.
Rename	Edit	<p>Renames a selected test or folder. You cannot rename the root folder.</p> <p>Syntax exceptions: A test name cannot include the following characters: \ / : " ? < > * % ' </p>
Replace	Edit	In the test grid, opens the Replace dialog box, enabling you to replace a test field value. For more details, see "Replace Dialog Box" on page 76.

UI Elements (A-Z)	Menu	Description
Report Selected	<right-click menu>	Displays a report of the selected tests.
Reports	Analysis	Lists the predefined reports you can produce on test plan data. For details on the report types, see "Predefined Standard Reports" on page 1008.
Req Coverage	View	Enables the Advanced Coverage dialog box. For more details, see "Add Advanced Coverage Dialog Box" on page 543.
 Run Test	Tests	Performance Center: Enables you to run the selected performance test from the Test Plan module. For more details on running performance tests, refer to the <i>HP ALM Performance Center Guide</i> .
Select All	Edit	Selects all tests in the grid. Available from: Test Grid
 Select Columns	View	Opens the Select Columns dialog box, enabling you to determine which fields to display in the test grid and their order. For more details, see "Select Columns/Select Fields Dialog Box" on page 90.
 Send by E-mail	Tests	Opens the Send E-mail dialog box, enabling you to send a test by email to recipients selected from a list, or to the test designer. For more details, see "Send E-mail Dialog Box" on page 83.
Show Details and History	<right-click menu>	Displays information panel tabs on the bottom of the test grid. Available from: Test Grid







UI Elements (A-Z)	Menu	Description
 Sort Folders	View	<p>Opens the Sort Folders in Test Plan Tree dialog box, enabling you to rearrange subfolders in a test subject folder. For more details, see "Sort Folders in Test Plan Tree Dialog Box" on page 521.</p>
 Test Details	Tests	<p>Opens the Test Details dialog box, displaying the details of the selected test. For more details, see "Test Plan Module Window" on page 495.</p>
Test Grid	View	<p>Displays the Test Grid view, enabling you to view tests in a flat, non-hierarchical view. Each line in the grid displays a separate test.</p>
Test Plan Tree	View	<p>Displays the Test Plan Tree view, enabling you to view your tests and test subject hierarchically in a tree.</p>
 Text Search	Edit	<p>Opens the text search pane in the lower part of the Test Plan module window, enabling you to search for records in predefined fields. For more details, see "Text Search Pane" on page 78.</p>
Update Selected	Edit	<p>Opens the Update Selected dialog box, enabling you to update a field value for multiple selected tests in the grid. For more details, see "Update Selected Dialog Box" on page 92.</p>
 Upload Script	Tests	<p>Performance Center: Enables you to upload VuGen scripts to ALM. For more details, refer to the <i>HP ALM Performance Center Guide</i>.</p>















Test Plan Module Icons



This section describes the icons available in the Test Plan module.

To access	On the ALM sidebar, under Testing , select Test Plan .
Important information	Quality Center Starter Edition: Not all icons are available.
Relevant tasks	How to Create Tests
See also	<ul style="list-style-type: none"> ➤ "Test Plan Module Menus and Buttons" on page 499 ➤ "Test Plan Module Window" on page 495

The icons are described below:

UI Elements	Description
	< green asterisk >. The applicable tab is populated.
	<p>Alerts. Click to view alerts for the test.</p> <ul style="list-style-type: none"> ➤ Red alert. The alert is new. ➤ Gray alert. The alert has already been read. <p>For more details, see "Alerts Dialog Box" on page 104.</p>
	<p>Attachments. Click to view attachments for the specified test. For more details, see "Attachments Page" on page 86.</p>
	<p>Follow Up Flags. Click to view follow up flags for the test.</p> <ul style="list-style-type: none"> ➤ Gray flag. The follow up flag is new. ➤ Red flag. The follow up date has arrived. <p>For more details, see "Flag For Follow Up Dialog Box" on page 106.</p>
	<p>Linked Defects. Click to view linked defects for the test. For more details, see "Linked Defects/Entities Page" on page 866.</p>
	Subject folder

UI Elements	Description
	Manual test
	Manual test that includes test steps
	Manual Template test
	Manual Template test that includes test steps
	Business process test
	Flow of business components
	LoadRunner scenario
	QuickTest Professional test
	QuickTest Professional Template test
	QuickTest Professional test that includes test steps
	QuickTest Professional Template test that includes test steps
	Visual API-XP test
	System test
	Vuser Script test

UI Elements	Description
	QAInspect test
	<p>Version Control. The test is checked out.</p> <ul style="list-style-type: none"> ➤ Green lock. The test is checked out by the current user. ➤ Red lock. The test is checked out by another user.

Test Plan Module Fields

This section describes the Test Plan module fields.

To access	On the ALM sidebar, under Testing , select Test Plan .
Important information	<ul style="list-style-type: none"> ➤ You can add user-defined fields and change the label of any of the fields in the Test Plan module. You can also customize project lists. For more details, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>. ➤ You can use the Script Editor to restrict and dynamically change the fields and values in the Test Plan module. For more details, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>. ➤ When you select a test plan column with a user name value (including user-defined fields), ALM displays a list with the name and full name of each user. You can search for users, sort users, group users by user group, and select users from the users list or a group tree. For more details, see "Users List Dialog Box" on page 72. ➤ Some fields are not available in all test plan views. ➤ Version Control: Additional fields are available in a version control enabled project. For details, see "Version Control Fields" on page 127. ➤ Quality Center Starter Edition: Not all fields are available.
See also	"Test Plan Module Window" on page 495

Test Plan Fields

UI Elements (A-Z)	Description
Comments	Displays comments about the test.
Creation Date	The date on which the test was created. By default, the creation date is set to the current ALM Platform server date. Click the down arrow to display a calendar and select a different creation date.
Description	Describes the test.
Designer	The user name of the person who designed the test.
Estimated Dev Time	The time estimated to design and develop the test.
Execution Status	<p>The execution status of the last run of an instance of the test. Execution status can be one of the following:</p> <ul style="list-style-type: none"> ▶ Blocked. One or more steps cannot run. For example, the test is running on a remote machine but cannot continue due to some environmental failure, such as network problems or hardware failure. ▶ Failed. One or more steps in the run failed, and none have the status "Blocked". ▶ N/A. The current status of the test is not applicable. ▶ No Run. No steps have been run. ▶ Not Completed. One or more steps were not completed or not run, and none have the status "Blocked" or "Failed". ▶ Passed. The run was successful.
Modified	The date and time of the last change to the test.
Path	The path of this test relative to the Tests directory in the project repository.
Status	The planning status of the test. The default status is Design.
Subject	The subject folder in the test plan tree in which the test resides.

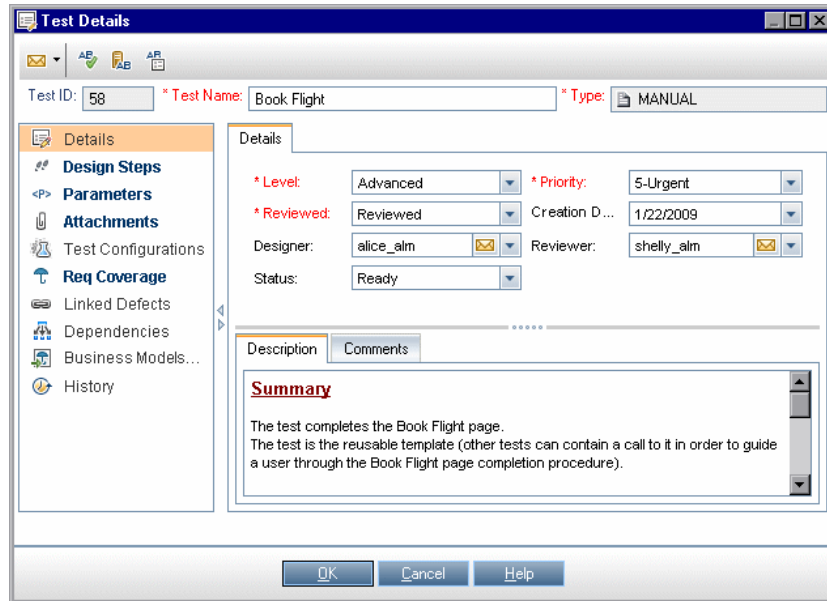
UI Elements (A-Z)	Description
Template	Indicates whether the manual test or QuickTest Professional test is a test template. The value in this column is Y if the test is a test template; N or empty otherwise. For task details, see "How to Create Tests" on page 489.
Test ID	A unique numeric ID for the test, assigned automatically by ALM. This is a read-only field.
Test Name	The name of the test.
Type	The test type of the current test. For more details, see "Test Types" on page 493.

Test Parameter Fields

UI Elements (A-Z)	Description
Default Value	A default value for the parameter. The default value helps users assign an actual value for test runs.
Description	A description of the parameter.
Modified	The date and time on which the test parameter was last modified.
Order	The position of the parameter in the set of parameters.
Parameter Name	The parameter name.
Used	Indicates whether the parameter is included in a design step.



Test Details Dialog Box



The Test Details dialog box enables you to view and update a single test.



To access	<ol style="list-style-type: none"> 1 On the ALM sidebar, under Testing, select Test Plan. 2 Right-click a test, and select Test Details.
Relevant tasks	<p>"How to Plan Tests in ALM" on page 481</p> <p>"How to Create Tests" on page 489</p>
See also	"Test Plan Module Fields" on page 512

User interface elements are described below:

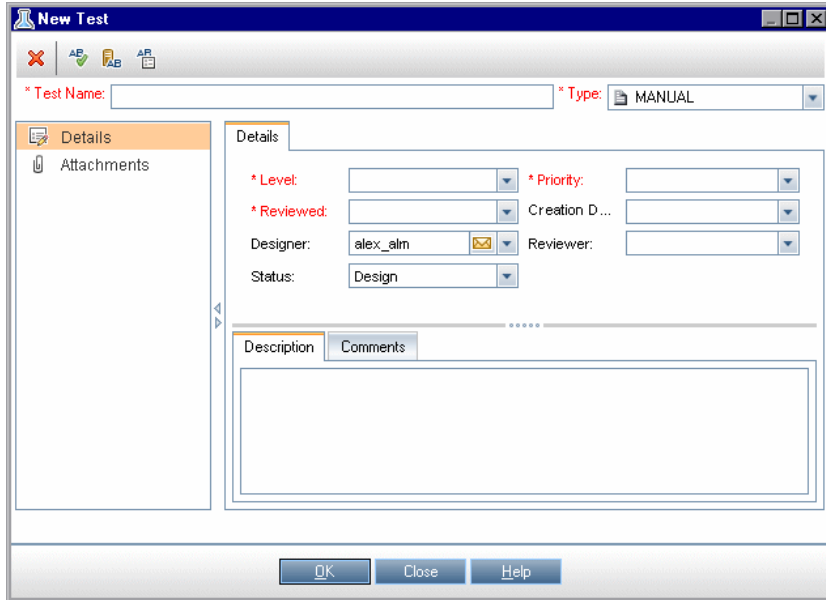
UI Elements (A-Z)	Description
	Send by Email. Sends an email with the test details. For more details, see "Send E-mail Dialog Box" on page 83.
	Spell Check. Checks the spelling for the selected word or text box.

UI Elements (A-Z)	Description
	<p>Spelling Options. Enables you to configure the way ALM checks spelling.</p>
	<p>Thesaurus. Displays a synonym, antonym, or related word for the selected word.</p>
<p>Attachments</p>	<p>Lists attachments that provide additional information about the currently selected test. For more details, see "Attachments Page" on page 86.</p>
<p>Business Models Linkage</p>	<p>Lists the business process model entities that are linked to the selected test. For more details, see "Business Models Linkage Tab" on page 545.</p>
<p>Criteria</p>	<p>Display criteria of a selected business process test. For more details, see "Criteria Tab" on page 593.</p>
<p>Dependencies</p>	<p>Displays dependency relationships that exist between entities such as test resources and tests. For more information, see "Dependencies Tab" on page 645.</p>
<p>Design Steps</p>	<p>Lists the instructions on how to execute the selected test. For more details, see "Design Steps Tab/Design Step Details Dialog Box" on page 582.</p>
<p>Details</p>	<p>Lists the test fields. For details on test fields, see "Test Plan Module Fields" on page 512.</p> <p>Tip: Clicking in the Description or Comments field in this tab displays a toolbar for formatting and spell checking the text.</p>
<p>History</p>	<p>Lists changes made to the currently selected test. For more details, see "History Tab" on page 81.</p>
<p>Linked Defects</p>	<p>Lists the defects linked to the currently selected test. For more details, see "Linked Defects/Entities Page" on page 866.</p>
<p>Parameters</p>	<p>Lists parameters associated with the currently selected test. Parameters can be incorporated in the test's design steps. For more details, see "Parameters Tab/Parameters Dialog Box" on page 565.</p>

UI Elements (A-Z)	Description
Req Coverage	Lists the requirements that are met by the currently selected test. For more details, see "Req Coverage Tab" on page 538.
Test Configurations	Displays configurations of a selected test. For more details, "Test Configurations Tab" on page 604.
Test Script	For automated tests, the test script that is run by the testing tool for the currently selected test. For more details, see "Test Script Tab" on page 588.





New Test Dialog Box

This dialog box enables you to add a new test to the test plan tree.



To access	Select a subject folder in the test plan tree, right-click and select New Test .
Important information	If you have installed the QuickTest Professional Add-in on your machine, the Create New Test dialog box includes the Template box.
Relevant tasks	"How to Create Tests" on page 489

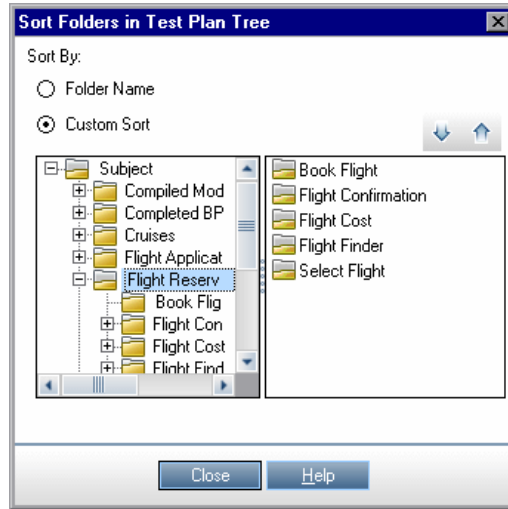
User interface elements are described below:


UI Elements (A-Z)	Description
	Clear All Fields. Clears all data in the dialog box.
	Spell Check. Checks the spelling for the selected word or text box.
	Spelling Options. Enables you to configure the way ALM checks spelling.
	Thesaurus. Displays a synonym, antonym, or related word for the selected word.
Attachments	Enables you to add attachments that provide additional information about the new test. For more details, see "Attachments Page" on page 86.
Details	Lists test fields. Required fields are displayed in red. For details on the available test fields, see "Test Plan Module Fields" on page 512. Tip: Clicking in the Description or Comments field on this page displays a toolbar for formatting and spell checking the text.

UI Elements (A-Z)	Description
Template	<p>Available if you selected QUICKTEST_TEST from the Test Type list.</p> <p>Select another QuickTest test as a template for the new test. The template test is copied to your new test, without the test results.</p> <p>To select a template test, click the browse button. The Select Tests dialog box opens. By default, only QuickTest template tests are displayed.</p> <p>Select the template test and click the Add Test button.</p> <p>Note: To set the QuickTest add-ins that ALM associates with a new QuickTest test, choose a template test that lists the appropriate add-ins. Alternatively, use the default template test provided on your ALM client. This test loads the Web and ActiveX add-ins by default. For more information, refer to the QuickTest documentation and the relevant QuickTest add-in documentation.</p>
Test Name	<p>Type a name for the new test.</p> <p>Syntax exceptions: A test name cannot include the following characters: \ / : " ? < > * % '</p>
Type	<p>Select a manual or automated test type. For considerations on whether or not to automate a test, see "Test Automation" on page 575.</p> <p>For details on test types, see "Test Types" on page 493.</p> <p>Notes:</p> <ul style="list-style-type: none"> ➤ If you select the MANUAL test type, you can design the test manually and then convert the test to an automated test type later in the Design Steps tab. ➤ If you select an automated test type, you can select a different automated testing tool later in the Design Steps tab, but you cannot convert it back to the MANUAL test type. ➤ If you select the FLOW test type, you cannot convert it to a different test type.


Sort Folders in Test Plan Tree Dialog Box

This dialog box enables you to sort folders in the test plan tree and create a custom sort according to your needs.



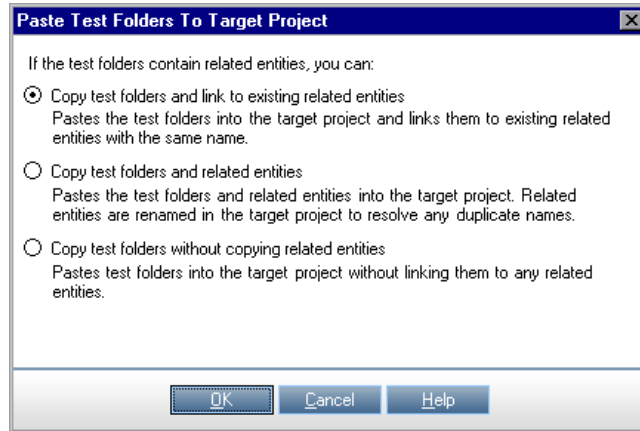
To access	<ol style="list-style-type: none"> 1 In the Test Plan module, choose View > Test Plan Tree. 2 Select a folder, and click Sort Folders .
Important information	<ul style="list-style-type: none"> ➤ You must have project administrator permissions to create a custom sort. For more information on assigning user group permissions, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>. ➤ To view the changes in the test plan tree, click Refresh.

User interface elements are described below:

UI Elements (A-Z)	Description
	<p>Move Down Item/Move Up Item. Moves the selected subfolder up or down within the parent folder.</p>
<p>Custom Sort</p>	<p>Enables you to reorder the subfolders in a selected test subject folder.</p> <p>Select a test subject folder in the left pane, and rearrange the subfolders in the right pane by dragging or using the vertical arrows.</p>
<p>Folder Name</p>	<p>Sorts the subfolders alphabetically in the selected test subject folder.</p>

Paste Tests/Folders to Target Project Dialog Box

This dialog box enables you to choose how ALM copies a test or test subject across projects.



To access	<ol style="list-style-type: none"> 1 In the test plan tree or grid, select a test or subject folder. 2 Right-click and select Copy. 3 Open another instance of ALM and log in to the project to which you want to paste the tests. 4 Right-click and select Paste.
Important information	To copy tests across projects, both projects must use the same ALM version and patch level.

User interface elements are described below:

UI Elements	Description
Copy tests/test folders and link to existing related entities	ALM copies the tests or subject folders and pastes them into the target project. The copied tests or subject folders are linked to existing test resources and called tests with the same name and path. If a related test resource or a test does not exist in the target project, ALM copies it to the target project.
Copy tests/test folders and related entities	ALM copies the tests or subject folders along with the related test resources and called tests, and pastes them into the target project. If a related test resource or a called test already exists in the target project, the copied related test resource or called test is renamed to resolve the duplicate name.
Copy tests/test folders without copying related entities	ALM copies the tests or subject folders without copying the related test resources or called tests, and pastes them into the target project. The copied items are not linked to any related entities.

20

Requirement and Test Coverage

This chapter includes:

Concepts

- ▶ Requirement and Test Coverage Overview on page 526

Tasks

- ▶ How to Create Coverage on page 528

Reference

- ▶ Requirement and Test Coverage User Interface on page 534

Concepts

Requirement and Test Coverage Overview

It is essential that the tests in your test plan meet your original requirements. To keep track of the relationship between your requirements and tests, you add links between them.

In the Test Plan module, you create requirement coverage by selecting requirements to link to a test. Requirement coverage assists you in assessing the impact of a change in the test or requirement. A test can cover more than one requirement.

Alternatively, in the Requirements module, you create test coverage by linking tests to a requirement. Test coverage assists you in assessing the impact of a change in the test or requirement. A requirement can be covered by more than one test.

Instead of covering each requirement only at the level of the test, you can cover a requirement by test configurations. A **test configuration** is a set of definitions that describe a specific use-case of a test. For example, a test configuration can specify a subset of data or a run-time environment that the test should use. Associating test configurations with requirements provide finer granularity for requirement coverage by enabling coverage by different use-cases of a test. For more details on test configurations, see "Test Configurations Overview" on page 596.

If you work with the **Business Models** module, you can link model entities to tests, either in the Test Plan module or in the Business Models module.

Business Process Testing: When creating coverage between requirements and business process tests, instead of covering each requirement only at the level of a test and/or its test configurations, you can also define coverage by a criterion. HP Application Lifecycle Management (ALM) creates a criterion for each business component and flow. You decide whether to include the criterion for calculating coverage. For more details on criteria, see the *HP Business Process Testing User Guide*.

Note: You can link requirements and tests to defects. This can help you ensure compliance with your testing needs throughout the application management process. If a requirement changes, you can immediately identify which tests and defects are affected, and who is responsible. For more details, see "Defect Linkage" on page 829.

For task details, see "How to Create Coverage" on page 528.

Tasks

How to Create Coverage

The following steps describe how to create coverage by linking requirements to tests. Instead of covering each requirement only at the level of the test, you can cover a requirement by test configurations.

You can create coverage from the Requirements or the Test Plan module. It also describes how to examine the status of your requirements by understanding the breakdown of child requirements according to test coverage.

To learn more about creating coverage, see "Requirement and Test Coverage Overview" on page 526.

Tip: For a use-case scenario related to this task, see "How to Create Coverage - Use-Case Scenario" on page 530.

Note: This task is part of a higher-level task. For details, see "How to Plan Tests in ALM" on page 481.

- "Link requirements to tests" on page 529
- "Link tests to requirements" on page 529
- "Analyze coverage" on page 530

Link requirements to tests

- a** In the Test Plan module, select the **Test Plan Tree** view.
- b** Select a test and click the **Req Coverage** tab. Click the **Select Req** button to display the requirements tree in the right pane. Add to coverage your selected requirements. For user interface details, see "Req Coverage Tab" on page 538.

Link tests to requirements

- a** In the Requirements module, select the **Requirement Details** view.
- b** Select a requirement and click the **Test Coverage** tab. Click the **Select** button to display the test plan tree in the right pane. Add to coverage your selected tests. For user interface details, see "Test Coverage Page" on page 548.

Analyze coverage

In the **Requirements** module, select **Coverage Analysis** from the **View** menu. Examine the status of your requirements and child requirements according to test coverage. For user interface details, see "Coverage Analysis View" on page 535.



How to Create Coverage - Use-Case Scenario

This use-case scenario provides an example of creating coverage in ALM.

Note: For a task related to this scenario, see "How to Create Coverage" on page 528.

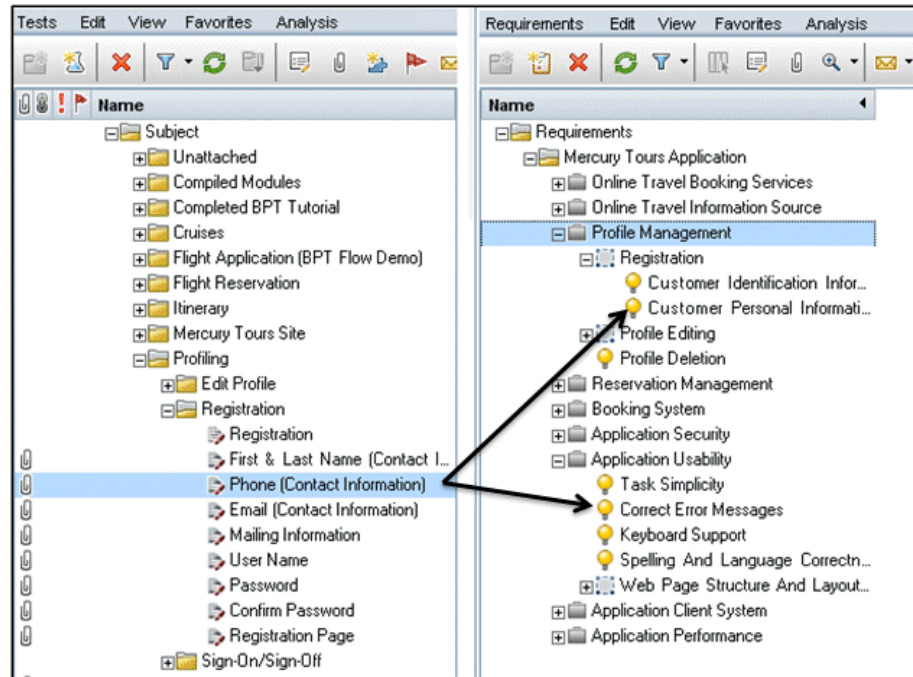
This scenario includes the following steps:

- "Link requirements to tests" on page 531
- "Link tests to requirements" on page 532
- "Analyze coverage" on page 533

Link requirements to tests

Using the **ALM_Demo** project, in the test plan tree, under **Profiling**, expand the **Registration** folder and select the **Phone (Contact Information)** test.

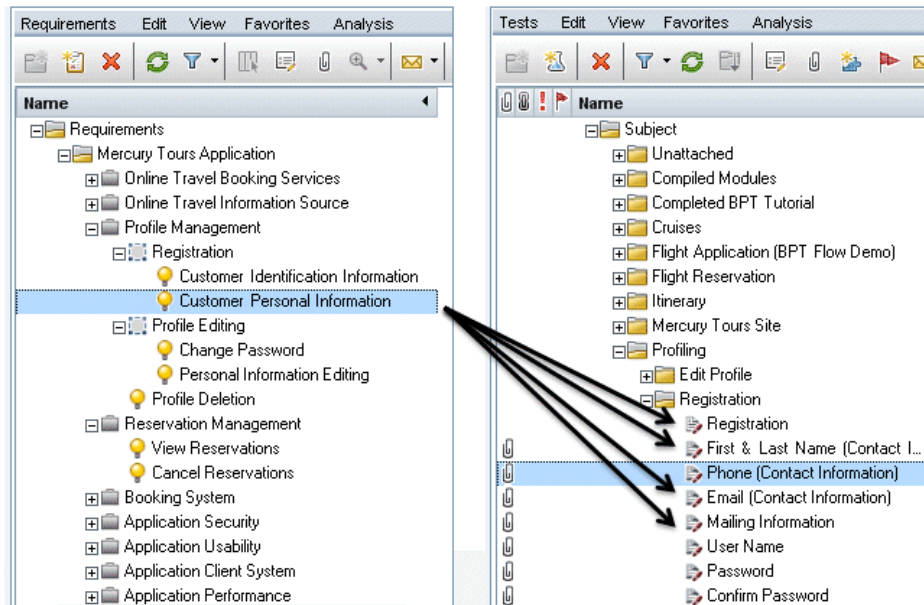
The **Phone (Contact Information)** test verifies the customer phone number in the Registration page. If you click the **Req Coverage** tab, you can see that this test covers the following requirement topics: **Customer Personal Information**, and **Correct Error Messages**.



Link tests to requirements

You can also link coverage in the **ALM_Demo** project from the other direction. In the Requirements module, go to the requirements tree. Under **Requirements**, expand the requirement topics **Mercury Tours Application**, **Profile Management**, and **Registration**, and then select the requirement **Customer Personal Information**.

The **Customer Personal Information** requirement ensures that the flight reservation system includes personal information about the customer. In the **Test Coverage** tab, you can see that this requirement is covered by the following tests: **Email (Contact Information)**, **First & Last Name (Contact Information)**, **Mailing Information**, **Phone (Contact Information)**, and **Registration**.



Analyze coverage

In the **ALM_Demo** project, select the requirement **Application Client System**, located under the requirement **Mercury Tours Application**. This requirement has twelve children, including itself. In the Coverage Analysis, you can see that two of the children have a status of Failed (one or more of the tests covered by the requirement failed). When you analyze this, you can see that three (27%) of the tests associated with this requirement failed.

The screenshot shows the Requirements Analysis tool interface. The top menu includes 'Requirements', 'Edit', 'View', 'Favorites', and 'Analysis'. Below the menu is a toolbar with icons for home, refresh, delete, and undo, along with a 'Coverage analysis' button and a 'Settings...' button. The main area is divided into two panes: a tree view on the left and a data table on the right.

The tree view shows a hierarchy of requirements:

- Requirements
 - Mercury Tours Application
 - Online Travel Booking...
 - Online Travel Informati...
 - Profile Management
 - Reservation Managem...
 - Booking System
 - Application Security
 - Application Usability
 - Application Client Syst...
 - Application Performan...

The data table shows the coverage analysis for each requirement. The columns are 'Name', 'Direct Cover Status', and 'Coverage Analysis'. The 'Coverage Analysis' column contains a bar chart with three segments: red (Failed), yellow (Warning), and green (Passed). The numbers in the bars represent the count of tests in each status.

Name	Direct Cover Status	Coverage Analysis
Requirements	...	38 (Failed), 15 (Warning), 65 (Passed)
Mercury Tours Application	...	38 (Failed), 15 (Warning), 65 (Passed)
Online Travel Booking...	...	13 (Failed), 5 (Warning), 7 (Passed)
Online Travel Informati...	...	4 (Passed)
Profile Management	...	2 (Failed), 1 (Warning), 4 (Passed)
Reservation Managem...	...	2 (Warning)
Booking System	...	1 (Failed), 5 (Warning), 2 (Passed)
Application Security	...	3 (Failed), 1 (Warning), 22 (Passed)
Application Usability	...	14 (Failed), 1 (Warning), 2 (Passed)
Application Client Syst...	...	2 (Failed), 14 (Passed)
Application Performan...	...	3 (Failed), 10 (Warning), 4 (Passed)

At the bottom, there is a 'Description' tab with the text: 'Web-based application (site) for travelers.'

Reference

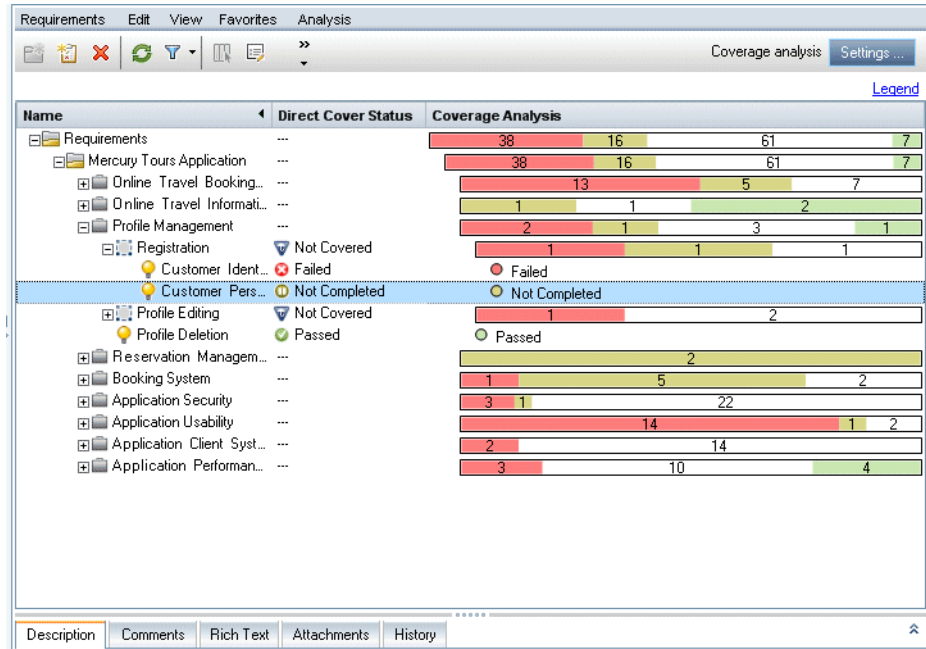
Requirement and Test Coverage User Interface

This section includes:

- ▶ Coverage Analysis View on page 535
- ▶ Req Coverage Tab on page 538
- ▶ Add Advanced Coverage Dialog Box on page 543
- ▶ Business Models Linkage Tab on page 545
- ▶ Test Coverage Page on page 548
- ▶ Analysis Settings Dialog Box on page 553
- ▶ Coverage Analysis Dialog Box on page 555
- ▶ Add Criterion Coverage Dialog Box on page 557

Coverage Analysis View



This view enables you to examine the status of your requirements by displaying the breakdown of child requirements according to test coverage. You can set the coverage analysis by cycle, enabling you to view in the analysis only the coverage of runs that are assigned to specific cycles.



To access	In the Requirements module, select Coverage Analysis from the View menu.
Important information	<ul style="list-style-type: none"> ▶ By default, coverage is available only for the following requirement types: Functional, Testing, and Undefined. ▶ Quality Center Starter Edition: Not all fields and functionality in the Coverage Analysis view are available.

Relevant tasks	"How to Create Coverage" on page 528
See also	"Requirements Module Window" on page 326

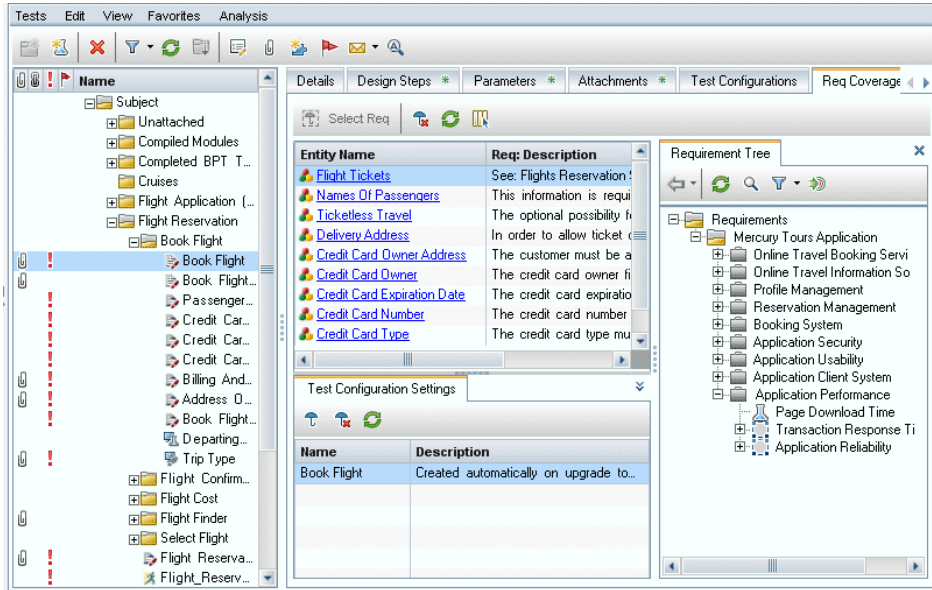
User interface elements are described below (unlabeled elements are shown in angle brackets>):

UI Elements (A-Z)	Description
	Opens the Analysis Settings dialog box, enabling you to define the coverage analysis settings. For more details, see "Analysis Settings Dialog Box" on page 553.
	Show. Displays information panel tabs on the bottom of the requirement view. For more details, see "Requirements Module Window" on page 326.

UI Elements (A-Z)	Description
<Coverage Analysis view common UI elements>	<ul style="list-style-type: none"> ▶ Coverage Analysis fields. For field definitions, see "Requirements Module Fields" on page 347. ▶ Coverage Analysis view menus and buttons. For command and button descriptions, see "Requirements Module Menus and Buttons" on page 333. ▶ Coverage Analysis icons. For icon descriptions, see "Requirements Module Icons" on page 344.
Legend	<p>Displays the color coding used to indicate the direct cover status of the requirements and their children.</p> <p>A requirement status can be one of the following:</p> <ul style="list-style-type: none"> ▶ Blocked. One or more tests covered by the requirement have an execution status of "Blocked". ▶ Failed. One or more tests covered by the requirement have an execution status of "Failed", and none have an execution status of "Blocked". ▶ No Run. All the tests covered by the requirement have an execution status of "No Run". ▶ Not Completed. One or more tests covered by the requirement have an execution status of "Not Completed", and none have an execution status of "Blocked" or "Failed". Alternatively, tests covered by the requirement have execution statuses of "Passed" and "No Run". ▶ Not Covered. The requirement has not been linked to a test. ▶ Passed. All the tests covered by the requirement have an execution status of "Passed".

Req Coverage Tab

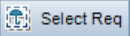


This tab enables you to view the requirements that are covered by a selected test in the test plan tree.




To access	In the Test Plan module, select the Test Plan Tree view. Select a test and click the Req Coverage tab.
Important information	<ul style="list-style-type: none"> ▶ Requirement coverage is created automatically when you convert a requirement to a test. Therefore, even if you have not yet added requirement coverage, it may already exist. For more details, see "Convert to Tests Wizard" on page 359 and "Generate Test Dialog Box" on page 365. ▶ The following requirement types are set so that, by default, you cannot add coverage to them: Business, Folder, and Group. To enable you to add coverage, you must enable test coverage for these requirement types. For more details, see the <i>HP Application Lifecycle Management Administrator Guide</i>.
Relevant tasks	"How to Create Coverage" on page 528 "How to Work with Test Configurations" on page 597
See also	"Requirement and Test Coverage Overview" on page 526 "Test Configurations Overview" on page 596

Requirement Coverage Grid





User interface elements are described below (unlabeled elements are shown in angle brackets>):



UI Elements (A-Z)	Description
 Select Req	Displays the requirements tree in the right pane, enabling you to add requirement coverage to a test. For more details, see "Requirement Tree Pane" on page 541.
	Remove Selected. Removes selected requirements from the coverage grid.
	Refresh All. Refreshes the coverage grid.

UI Elements (A-Z)	Description
	<p>Select Columns. Opens the Select Columns dialog box, enabling you to determine which fields to display in the coverage grid and their order. For more details, see "Select Columns/Select Fields Dialog Box" on page 90.</p>
<coverage grid>	<p>For field definitions, see "Requirements Module Fields" on page 347.</p>
Coverage Mode	<p>Indicates whether an entity is covered by selected test configurations or all test configurations.</p>
Coverage Type	<p>The type of coverage.</p>
Entity Name	<p>The name of the requirement.</p>
Go To Requirement in Requirements Tree	<p>Right-click a requirement in the coverage grid to go to the requirements tree in the Requirements module and highlight the selected requirement.</p>
Show Full Path	<p>Right-click a requirement in the coverage grid to display the location of the selected requirement in the requirements tree.</p>

Requirement Tree Pane

User interface elements are described below:

UI Elements	Description
	<p>Add to Coverage. Adds requirement coverage to a specified test.</p> <p>Includes the following options:</p> <ul style="list-style-type: none"> ➤ Add to Coverage (Without Children). Adds selected requirement without its child requirements to the coverage grid. Alternatively, you can double-click or drag the selected requirement to the coverage grid. When the specified test contains more than one test configuration, the Add Configuration Coverage dialog box opens and displays the available test configurations. Select the test configurations to be included in the coverage. ➤ Add to Coverage (Include Children). Adds selected requirements, including their child requirements. <p>Note: Only child requirements that match the current filter and that belong to a type that supports test coverage are added to the coverage.</p> <p>Business Process Testing: When adding requirement coverage to a business process test, the Add Advanced Coverage dialog box opens. For more details, see "Add Advanced Coverage Dialog Box" on page 543.</p>
	<p>Refresh. Refreshes the requirements tree.</p>
	<p>Set Filter. Filters and sorts the requirements in the requirements tree. For more details, see "Filter Dialog Box" on page 60.</p>
	<p>Find. Searches for a specific requirement in the tree.</p> <p>Type the name (or part of the name) of the requirement in the Find box and click Find. If the search is successful, the requirement is highlighted in the tree.</p>

UI Elements	Description
	<p>Go to Requirement by ID. Opens the Go To Requirement dialog box, enabling you to find a specific requirement by ReqID.</p> <p>Note: You can go only to requirements that are in the current filter.</p>
	<p>Close. Hides the requirements tree in the right pane.</p>

Test Configuration Settings Tab




This tab displays the test configurations associated with the requirement coverage. For more details, see "Test Configuration Settings Tab" on page 611.

Criterion Settings Tab

This tab enables you to add or remove criterion of a selected covered test.

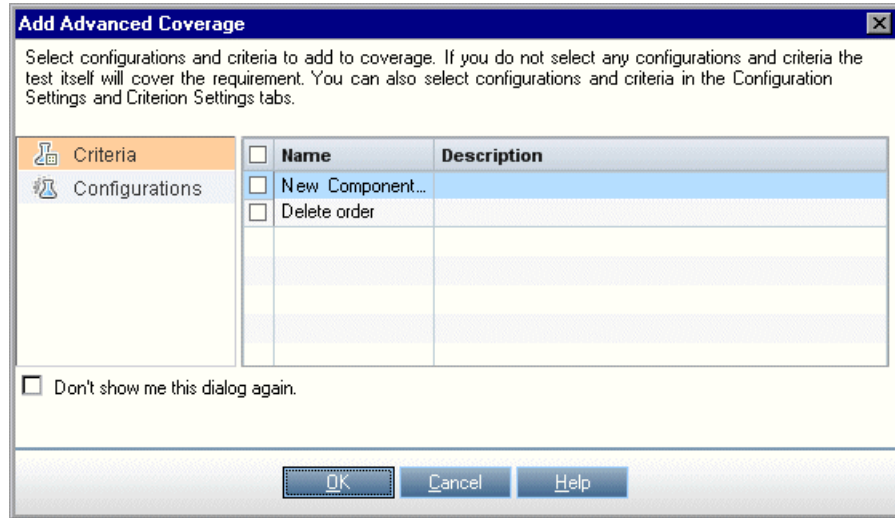
Important information	<p>Business Process Testing: Functionality related to test criteria is available only for business process tests. For details, see the <i>HP Business Process Testing User Guide</i>.</p>
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User interface elements are described below:

UI Elements	Description
	<p>Add Criteria. Opens the Add Criteria dialog box enabling you to add criteria to the criterion settings grid. For more details, see "Add Criterion Coverage Dialog Box" on page 557.</p>
	<p>Remove Criteria. Removes selected criteria from the criterion settings grid.</p> <p>Note: If the last criterion is removed, coverage reverts to test-level.</p>
	<p>Refresh. Refreshes the criterion settings grid.</p>

Add Advanced Coverage Dialog Box

This dialog box enables you to add criteria and test configurations to coverage.



To access	<ol style="list-style-type: none"> 1 In the Test Plan module, select a business process test from the test plan tree. Click the Req Coverage tab. 2 Click Select Req to display the Requirement Tree pane. 3 Select a requirement. Click Add to coverage . The Add Advanced Coverage dialog box opens.
Important information	<ul style="list-style-type: none"> ▶ Business Process Testing: This dialog box is available only for business process tests. ▶ This dialog box opens only if the selected business process test contains criteria and test configurations.
Relevant tasks	"How to Create Coverage" on page 528
See also	"Coverage Analysis View" on page 535

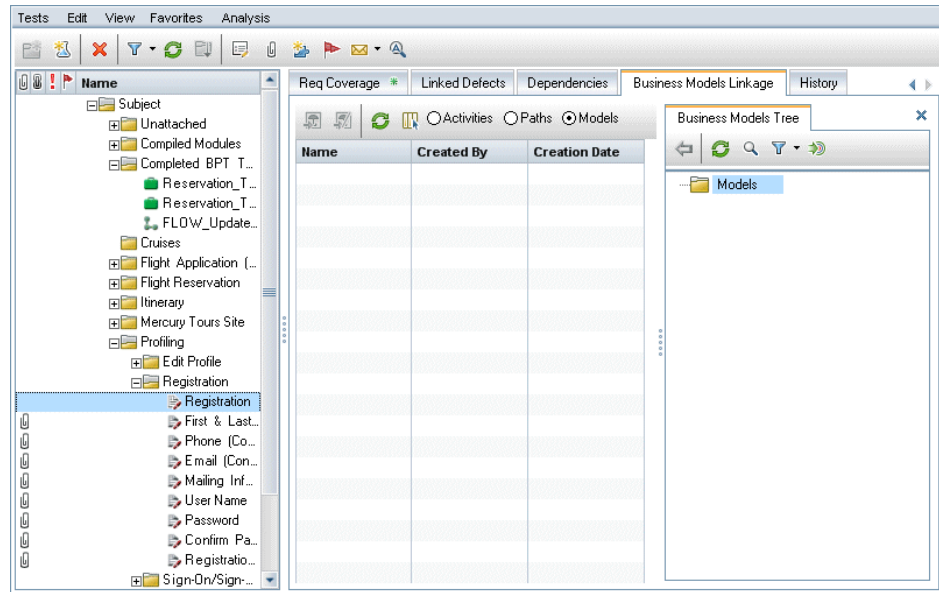
User interface elements are described below:

UI Elements (A-Z)	Description
Criteria	<p>Enables you to select criteria.</p> <p>Business Process Testing: Functionality related to test criteria is available only for business process tests. For details, see the <i>HP Business Process Testing User Guide</i>.</p>
Configurations	<p>Enables you to select test configurations. For details, see the <i>HP Business Process Testing User Guide</i>.</p>
Don't show me this dialog again	<p>Hides this dialog box.</p> <p>To reveal this dialog box, select View > Req Coverage > Show Advanced Coverage dialog.</p>

Business Models Linkage Tab

Requirements module: This tab enables you to view the business process model entities that are covered by a selected requirement in the requirements tree.

Test Plan module: This tab enables you to view the business process model entities that are covered by a selected test in the test plan tree.







<p>To access</p>	<p>In the Requirements module: Select the Requirement Details view, select a requirement, and click the Business Models Linkage tab.</p> <p>In the Test Plan module: Select the Test Plan Tree view, select a test (or a Business Process Testing flow), and click the Business Models Linkage tab.</p>
<p>Important information</p>	<p>Business model linkage to tests can be created automatically by converting representative requirements of model entities to tests.</p>

Relevant tasks	"How to Create Coverage" on page 528
See also	"Requirement and Test Coverage Overview" on page 526







Business Models Linkage Grid

User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements	Description
	Add to Linkage. Displays the business models tree in the right pane, enabling you to add business model entities to a test or requirement. For more details, see "Business Models Tree Pane" on page 547.
	Remove from Linkage. Removes selected model entities from the linkage grid.
	Refresh. Refreshes the linkage grid to display the most up-to-date information.
	Select Columns. Opens the Select Columns dialog box, enabling you to determine which fields to display in the linkage grid and their order. For more details, see "Select Columns/Select Fields Dialog Box" on page 90.
Activities	Lists the business process model activities linked to the selected requirement or test.
Paths	Lists the business process model paths linked to the selected requirement or test.
Models	Lists the business process models linked to the selected requirement or test.
<linkage grid>	Click a link in the grid to go to the model entity in the business models tree. For field definitions, see "Business Models Module Fields" on page 457.

Business Models Tree Pane

User interface elements are described below:

UI Elements	Description
	<p>Add to Linkage. Links the selected model entity to the current requirement or test.</p> <p>Tip: You can also link model entities by double-clicking a model entity, or by dragging it from the business models tree to the linkage grid.</p>
	<p>Refresh. Refreshes the business models tree.</p>
	<p>Find. Searches for a specific model entity in the tree.</p> <p>Type the name (or part of the name) of the model entity in the Find box and click Find. If the search is successful, the entity is highlighted in the tree.</p>
	<p>Filter/Sort. Filters and sorts the entities in the business models tree. For more details, see "Filter Dialog Box" on page 60.</p>
	<p>Go to Model Folder by ID. Opens the Go To Model dialog box, enabling you to find a specific model by Model ID.</p> <p>Note: You can only go to models that are in the current filter.</p>
	<p>Close. Hides the business models tree in the right pane.</p>

Test Coverage Page

This page enables you to view the tests that are covering a selected requirement in the requirements tree.

The screenshot displays the 'Test Coverage' page within a software application. The interface is divided into several sections:

- Requirements Tree (Left):** A hierarchical tree view showing the 'Requirements' structure. The 'Registration' requirement is selected and highlighted in blue.
- Table (Center):** A table listing test coverage data for the selected requirement. The table has four columns: Coverage Type, Entity Name, Coverage Status, and Coverage Mode.
- Coverage Chart (Bottom Right):** A pie chart titled 'Coverage Chart' showing the distribution of test results. The chart is divided into three segments: 2 Passed (40%), 2 Failed (40%), and 1 No Run (20%).

Coverage Type	Entity Name	Coverage Status	Coverage Mode
Test	Registration	No Run	All Configurations
Test	First & Last N...	Failed	All Configurations
Test	Phone /Contac...	Passed	All Configurations
Test	Email /Contac...	Failed	All Configurations
Test	Mailina Inform...	Passed	All Configurations







Coverage Chart Data:

Category	Count	Percentage
No Run	1	20 %
Passed	2	40 %
Failed	2	40 %

To access	<p>Use one of the following:</p> <ul style="list-style-type: none"> ▶ In the Requirements module, select the Requirement Details view. Select a requirement and click the Test Coverage tab. ▶ In the Test Coverage tab, right-click a requirement and choose Coverage Analysis. The Coverage Analysis dialog box opens. Click Show Test Coverage and click a section in the chart. The Tests Coverage dialog box opens.
Important information	<ul style="list-style-type: none"> ▶ Test coverage is created automatically when you generate a test from a requirement. Therefore, even if you have not yet added test coverage, it may already exist. For more details, see "Convert to Tests Wizard" on page 359 and "Generate Test Dialog Box" on page 365. ▶ The following requirement types are set so that, by default, you cannot add coverage to them: Business, Folder, and Group. To enable you to add coverage, you must enable test coverage for these requirement types. For more details, see the <i>HP Application Lifecycle Management Administrator Guide</i>.
Relevant tasks	"How to Create Coverage" on page 528
See also	"Requirement and Test Coverage Overview" on page 526

Test Coverage Grid

User interface elements are described below (unlabeled elements are shown in angle brackets):




UI Elements (A-Z)	Description
 Select	Select Tests. Displays the test plan tree in the right pane, enabling you to add test coverage to a requirement. For more details, see "Test Plan Tree Pane" on page 551.
	Remove From Coverage. Removes selected tests from the coverage grid.
	Refresh All. Refreshes the coverage grid.
	Set Filter/Sort. Filters and sorts the tests in the coverage grid. For more details, see "Filter Dialog Box" on page 60.
	Select Columns. Opens the Select Columns dialog box, enabling you to determine which fields to display in the coverage grid and their order. For more details, see "Select Columns/Select Fields Dialog Box" on page 90.
	Show/Hide. Shows/hides the lower pane of the Test Coverage page.
<coverage grid>	For field definitions, see "Test Plan Module Fields" on page 512.
Coverage Mode	Indicates whether the test coverage includes all the test configurations associated with a selected test, or specific test configurations. The value in this column can be Selected Configurations or All Configurations .
Coverage Type	The type of coverage.
Entity Name	The name of the test.
Coverage Status	The current execution status of the test.
Full Coverage	Shows the test coverage of all the children of the selected requirement.





UI Elements (A-Z)	Description
Go To Test in Test Lab	Right-click a test in the coverage grid to go to the Execution Grid in the Test Lab module and highlight the selected test.
Go To Test in Test Plan	Right-click a test in the coverage grid to go to the test plan tree in the Test Plan module and highlight the selected test.
Status Filter	Filters the coverage grid by status type.

Test Plan Tree Pane

This pane enables you to add tests to the requirement's test coverage. When adding tests, ALM also adds the associated test configurations displayed in the Test Configurations pane.

User interface elements are described below:

UI Elements	Description
	<p>Add to Coverage. Adds selected test including its associated test configurations to the requirement's test coverage. Alternatively, you can double-click or drag the selected test to the test coverage grid.</p> <p>Note: If you select a folder, only tests that match your current filter are added to the test coverage.</p> <p>Business Process Testing: When adding a business process test, the Add Criterion Coverage dialog box opens. For more details, see "Add Criterion Coverage Dialog Box" on page 557.</p> <p>Tip: To add selected configurations of a test to the requirement's test coverage, add coverage from the Test Configurations pane.</p>
	Refresh All. Refreshes the requirements tree.
	Set Filter/Sort. Filters and sorts the tests in the tree. For more details, see "Filter Dialog Box" on page 60.

UI Elements	Description
	<p>Find. Searches for a specific test in the tree.</p> <p>Type the name (or part of the name) of the test in the Find box and click Find. If the search is successful, the test is highlighted in the tree.</p>
	<p>Go to Test by ID. Opens the Go To Test dialog box, enabling you to find a specific test by Test ID.</p> <p>Note: You can only go to tests that are in the current filter.</p>
	<p>Close. Hides the Test Plan Tree pane.</p>
	<p>Show/Hide. Shows/hides the Test Configurations pane.</p>

Test Configurations Pane

This pane enables you to add selected test configurations to the requirement's test coverage. For more details, see "Test Configurations Pane" on page 613.

Coverage Chart tab

This tab displays a pie chart which graphically shows the run status of the tests in the coverage grid.

Test Configuration Status tab




This tab displays the status of the configurations associated with a covered test. For more details, see "Test Configuration Status Tab" on page 616.

Criterion Settings tab

This tab enables you to add or remove criterion of a selected covered test.

<p>Important information</p>	<p>Functionality related to test criteria is available only for business process tests. For details, see the <i>HP Business Process Testing User Guide</i>.</p>
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User interface elements are described below:

UI Elements	Description
	Add Criteria. Opens the Add Criteria dialog box enabling you to add criteria to the criterion settings grid. For more details, see "Add Criterion Coverage Dialog Box" on page 557.
	Remove Criteria. Removes selected criteria from the criterion settings grid.
	Refresh. Refreshes the criterion settings grid.

Analysis Settings Dialog Box

This dialog box displays the coverage status for a requirement and its children according to the current analysis settings.

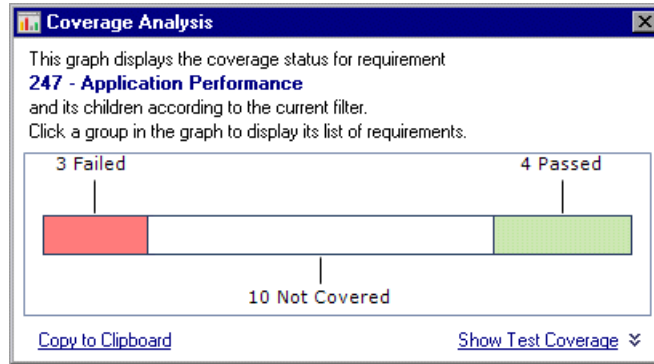
To access	In the Coverage Analysis view, click the Settings button.
Relevant tasks	"How to Create Coverage" on page 528
See also	"Coverage Analysis View" on page 535

User interface elements are described below:

UI Elements (A-Z)	Description
<p>Coverage Analysis</p>	<p>Calculated the current coverage status of the requirements based on the Direct Cover Status field values. The status is graphically displayed under the Coverage Analysis field of the Coverage Analysis view.</p> <p>For more details on the Direct Cover Status field, see "Direct Cover Status" on page 349.</p> <p>For more details on the Coverage Analysis field, see "Coverage Analysis" on page 348.</p>
<p>Execution Analysis</p>	<p>Calculated the coverage status of the requirements by selected cycles.</p> <p>In the Execution Analysis box, click the arrow button. The releases tree opens. Expand the tree and select the cycles for which you want to analyze coverage.</p> <p>The status is graphically displayed under the Coverage Analysis field of the Coverage Analysis view. For more details on the Coverage Analysis field, see "Coverage Analysis" on page 348.</p> <p>Notes:</p> <ul style="list-style-type: none"> ▶ The Execution Analysis option does not use the Direct Cover Status field in its calculations. Instead, it uses calculated direct cover status values based on the tests that have instances belonging to test set folders that are assigned to cycles included in the filter. In this case, requirements that do not have test coverage for any of the cycles in the filter are not counted in the analysis. ▶ For more details on the Direct Cover Status field, see "Direct Cover Status" on page 349. ▶ When the Execution Analysis option is selected, the Direct Cover Status field is unavailable in the Coverage Analysis view. ▶ Quality Center Starter Edition: Execution Analysis is not available.

Coverage Analysis Dialog Box

This dialog box displays the coverage status for a requirement and its children according to the current filter.



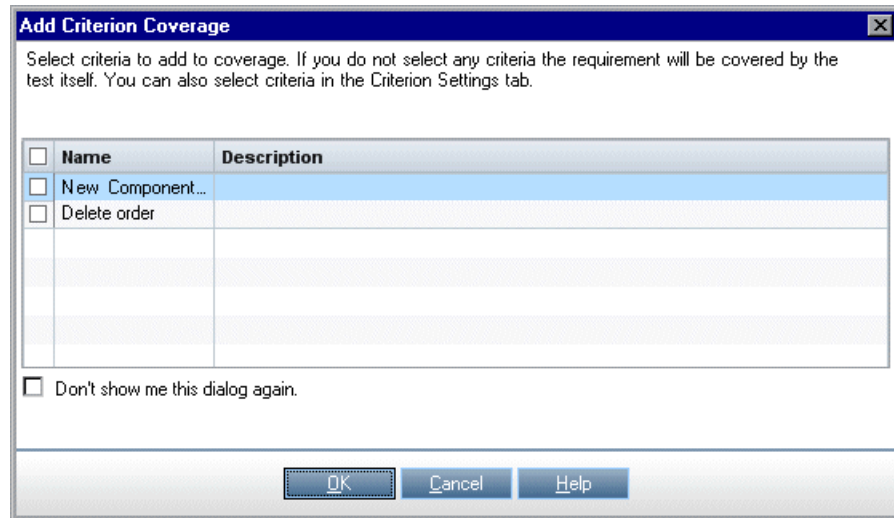
To access	In the Coverage Analysis view, right-click a requirement and choose Coverage Analysis .
Relevant tasks	"How to Create Coverage" on page 528
See also	"Coverage Analysis View" on page 535




User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements (A-Z)	Description
<graph area>	<p>Displays the coverage status for a selected requirement and its children.</p> <p>Click a section in the graph to display a list of child requirements with the selected status.</p> <p>From the list, you can select a requirement and click Go To to highlight it in the requirements tree.</p> <p>Example: Clicking the Failed area lists the requirements with the status of Failed.</p>
Copy to Clipboard	<p>Copies a snapshot of the Coverage Analysis dialog box to the Clipboard.</p>
Show Test Coverage	<p>Extends the dialog box and displays the Test Coverage Chart. This pie chart graphically displays the full test coverage for the requirement, grouped according to test status.</p> <p>Click a section in the chart to view the list of tests with the selected status that cover the requirement and its children. The Tests Coverage dialog box opens with the Status Filter set to the status of the area you selected in the chart. For more details, see "Test Coverage Page" on page 548.</p> <p>Note: If a parent requirement has several children all of which cover the same test, that test is included only once in the parent requirement's Tests Coverage Chart.</p>

Add Criterion Coverage Dialog Box

This dialog box enables you to add criteria for a test.



To access	<ol style="list-style-type: none"> 1 In the Requirements module, select a requirement from the requirements tree. Click the Test Coverage tab. Click Select  to display the Test Plan Tree pane on the right-side of the window. 2 In the Test Plan Tree pane, select a business process test and click Add to coverage . Alternatively, in the Test Configurations pane, select a test configuration of a business process test and click Add configurations to coverage . The Add Criterion Coverage dialog box opens.
Important information	<p>Business Process Testing: Functionality related to test criteria is available only for Business Process tests. For details, see the <i>HP Business Process Testing User Guide</i>.</p>
Relevant tasks	"How to Create Coverage" on page 528
See also	"Coverage Analysis View" on page 535

User interface elements are described below:

UI Elements (A-Z)	Description
Description	The description of the criterion.
Don't show me this dialog again	Hides this dialog box. To reveal this dialog box, select View > Test Coverage > Show Add Criterion Coverage .
Name	The name of the criterion.

21

Test Parameters

This chapter includes:

Concepts

- ▶ Test Parameters Overview on page 560

Tasks

- ▶ How to Use Test Parameters on page 561

Reference

- ▶ Test Parameters User Interface on page 564

Concepts

Test Parameters Overview

You can add parameters to your tests. A **test parameter** is a variable that can be assigned a value outside the test from which it is defined. Using parameters can increase the flexibility of your tests by enabling you to run the same test repeatedly with different data each time.

When working with a manual test, you can add parameters to the design steps from within the test or you can add parameters by calling them from other tests. This is useful if you have common steps you often want to perform as part of other tests. For example, you can create a template test **Login_Template** that logs a user in when you start the application. You need to call this test at the beginning of each test. In some cases, you will want to log in as a regular user while in others, you will need to log in as the project administrator.

For this purpose, you can create two parameters, <<<user name>>> and <<<password>>>, and change the values according to the type of test that is calling **Login_Template**. If the most common login is a regular user, you can set the default values for the parameters to a regular user name and password. For more information on calling manual tests, see "How to Design Test Steps" on page 577.

When working with an automated test, you can define parameters for a test script from within the test or you can load parameters from a shared test resource file. For more information on using test resources, see "How to Use Test Resources" on page 628.

For task details, see "How to Use Test Parameters" on page 561.

Tasks

How to Use Test Parameters

This task describes how to work with test parameters.

To learn more about test parameters, see "Test Parameters Overview" on page 560.

Business Process Testing/QuickTest Professional: When working with a Business Process or QuickTest test type, different options are available for working with test parameters. For more details, see the *HP Business Process Testing User Guide*, and the *HP QuickTest Professional User Guide*.

This task includes the following steps:

- "Prerequisites" on page 562
- "Define test parameters" on page 562
- "Add parameters to a design step" on page 562
- "Assign actual values to parameters" on page 562


1 Prerequisites

A manual test is defined in the test plan tree. For more details, see "How to Plan Tests in ALM" on page 481.

2 Define test parameters

In the Parameters tab, plan and define the test parameters you will use in the test design steps. For user interface details, see "New Test Parameter/Test Parameter Details Dialog Box" on page 568.

3 Add parameters to a design step

While creating design steps, click **Insert Parameter**  to add a parameter to a design step. The Parameters dialog box opens. For user interface details, see "Parameters Tab/Parameters Dialog Box" on page 565.

Alternatively, in the description or expected result of a design step, type a new or existing parameter name, using the syntax <<<parameter name>>>. If you typed a new parameter, it is automatically added to the test parameter grid.

If you apply formatting to a parameter name in a design step, you must apply the same formatting to the entire parameter name, including the <<< and >>> characters. For example, if you want to italicize the parameter <<<password>>>, you must italicize the entire string <<<password>>> and not just the word password.

4 Assign actual values to parameters

Before you run a test, ALM prompts you to assign actual values to the parameters included in the test. The **actual value** is the data that is used during the test run. You can take the parameter default values and use them as actual values.

ALM prompts you to assign actual values at three stages of designing your test. For user interface details, see "Called Test Parameters/Parameters of Test Dialog Box" on page 570.

According to your testing policy, you can assign actual values at any of these stages:

- **When you call a test with parameters.** If you assign actual values to parameters when you call a test, the values are automatically applied to each test instance that you create from the calling test.
- **When you create a test instance.** If you assign actual values to parameters when you create a test instance, the values are automatically applied to each run of the test instance. You can also assign actual values to test instances in the Execution Settings view of a test instance. see "Test Instance Details - Execution Settings View" on page 808.
- **When you run a test.** If you assign actual values to parameters for a test run, the values apply to that test run only. If you do not assign actual values at this stage, the test will run with null values.

At each of these stages, you can only assign values to parameters that have not already been assigned values.

Reference

Test Parameters User Interface

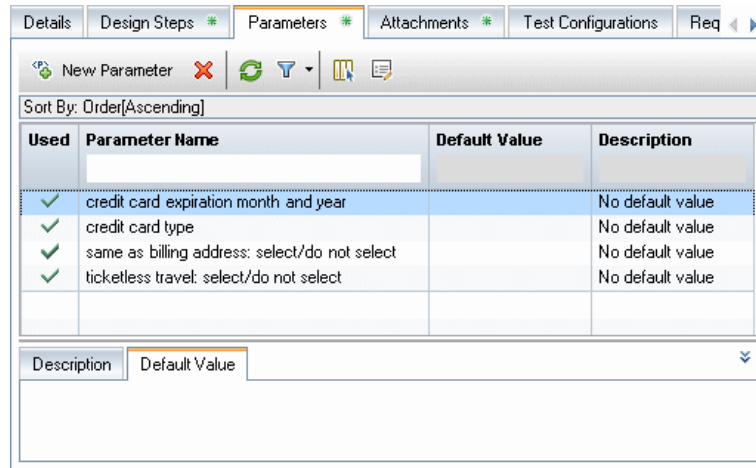
This section includes:


- ▶ Parameters Tab/Parameters Dialog Box on page 565
- ▶ New Test Parameter/Test Parameter Details Dialog Box on page 568
- ▶ Called Test Parameters/Parameters of Test Dialog Box on page 570

Parameters Tab/Parameters Dialog Box

The Parameters tab enables you to create and view test parameters.




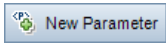


The Parameters dialog box enables you to insert test parameters in a test step.






<p>To access</p>	<p>Parameters tab: In the test plan tree, select a test, and click the Parameters tab.</p> <p>Parameters dialog box: In the test plan tree, select a test (other than a business process test or flow) and click the Design Steps tab. Double-click a design step and position the cursor in the Description or Expected Result field. Click Insert Parameter .</p>
<p>Important information</p>	<p>After you select a parameter in the Parameters dialog box, the parameter is inserted at the cursor location in the design step, using the syntax <<<parameter name>>>.</p>

Relevant tasks	<ul style="list-style-type: none"> ➤ "How to Use Test Parameters" on page 561 ➤ <i>HP Business Process Testing User Guide</i> ➤
See also	<ul style="list-style-type: none"> ➤ "Test Parameters Overview" on page 560 ➤ <i>HP Business Process Testing User Guide</i>.

User interface elements are described below (unlabeled elements are shown in angle brackets>):

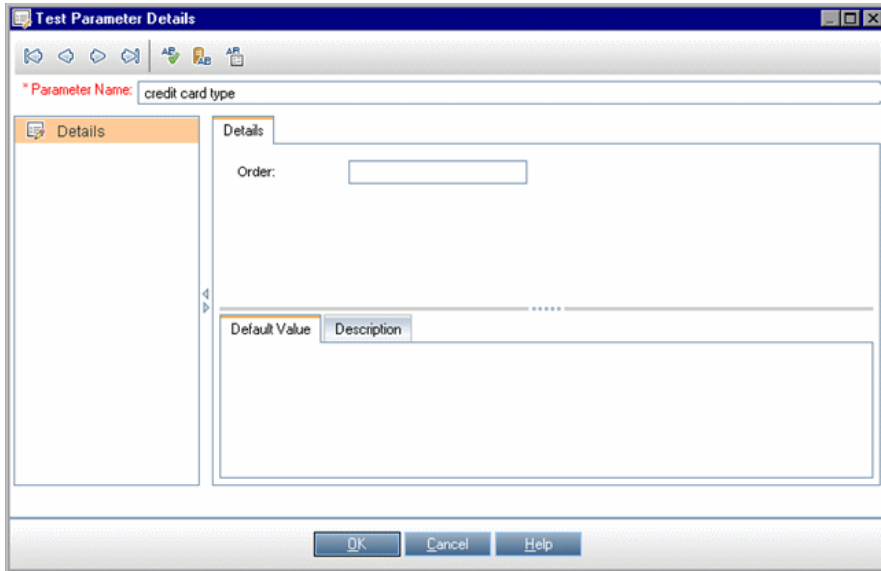
UI Elements (A-Z)	Description
	<p>Go To Resource. Goes to the test resources tree and highlights the selected resource.</p> <p>Note: This option is available only for automated test types.</p>
	<p>Resource Preview. Displays the content of the selected test resource.</p> <p>Note: This option is available only for automated test types.</p>
	<p>Opens the Map Parameters dialog box, enabling you to map the parameter names to the column names in the selected test resource file.</p> <p>Under the Mapped Value column, type the test resource column name for each parameter name.</p> <p>Available from: Automated test types</p>
	<p>New Parameter. Opens the New Test Parameter dialog box, enabling you to define a new parameter. For more details, see "New Test Parameter/Test Parameter Details Dialog Box" on page 568.</p>
	<p>Delete. Deletes the currently selected parameter. If you delete a parameter that is included in a design step, the parameter in the design step is replaced by regular text, using the syntax: <parameter name>.</p>
	<p>Refresh. Refreshes the test parameter so that it displays the most up-to-date information.</p>

UI Elements (A-Z)	Description
	Set Filter. Opens the Filter Test Parameters dialog box, enabling you to filter and sort the test parameters in the test parameter grid. Any currently applied filters or sorting orders are displayed below the toolbar. For more details, see "Filter Dialog Box" on page 60.
	Select Columns. Opens the Select Columns dialog box, enabling you to determine which fields are displayed and their order. For more details, see "Select Columns/Select Fields Dialog Box" on page 90.
	Parameter Details. Opens the Test Parameter Details dialog box, displaying the details of the selected parameter. For more details, see "New Test Parameter/Test Parameter Details Dialog Box" on page 568.
<test parameter fields>	For details on the fields available for test parameters, see "Test Plan Module Fields" on page 512.
Data Resource	Enables you to load a test resource file from the test resources tree. For more details on test resources, see "How to Use Test Resources" on page 628. Note: This option is available only for automated test types.
Default Value	The default value of the parameter.
Description	The description of the parameter.
Used	Indicates whether the parameter is included in a design step.

New Test Parameter/Test Parameter Details Dialog Box






The New Test Parameter dialog box enables you to define a test parameter.

The Test Parameter Details dialog box enables you to view and modify test parameter details.



<p>To access</p>	<p>New Test Parameter: In the test plan tree, select a test and click the Parameters tab. Click the New Parameter button. The New Test Parameter dialog box opens.</p> <p>Test Parameter Details: In the test plan tree, select a test and click the Parameters tab. Double-click a parameter.</p>
<p>Relevant tasks</p>	<p>"How to Use Test Parameters" on page 561</p>
<p>See also</p>	<p>"Test Parameters Overview" on page 560</p>

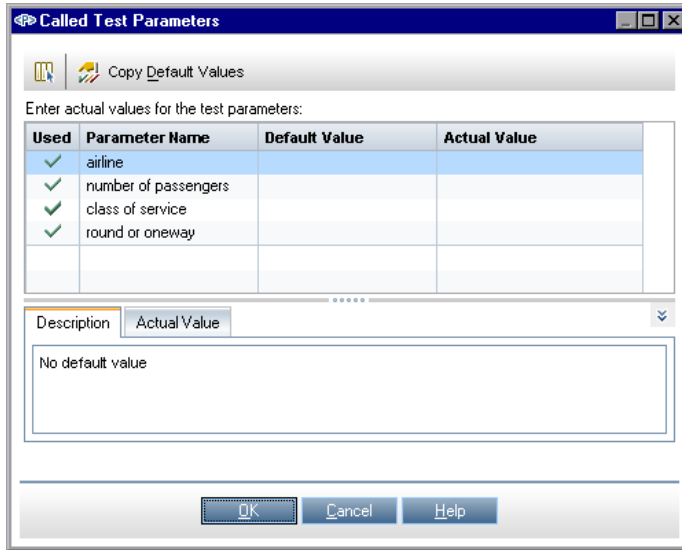
User interface elements are described below:

UI Elements (A-Z)	Description
	<p>First/Previous/Next/Last Entity. Allows you to browse through the test parameters.</p> <p>Available from: Test Parameter Details dialog box</p>
	<p>Clear All Fields. Clears all fields.</p> <p>Available from: New Test Parameter dialog box</p>
	<p>Spell Check. Checks the spelling for the selected word or text box.</p>
	<p>Thesaurus. Displays a synonym, antonym, or related word for the selected word.</p>
	<p>Spelling Options. Enables you to configure the way ALM checks spelling.</p>
<p>Default Value</p>	<p>The default value of the parameter.</p>
<p>Description</p>	<p>The description of the parameter.</p>
<p>Details tab</p>	<p>For details on the fields available for test parameters, see "Test Plan Module Fields" on page 512.</p>

Called Test Parameters/Parameters of Test Dialog Box


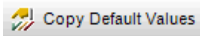
The Called Test Parameters dialog box enables you to view and assign actual values for parameters included in a called test.

The Parameters of Test dialog box enables you to assign actual values for parameters in test instances or test runs.



To access	<p>Use one of the following:</p> <ul style="list-style-type: none"> ➤ In the Test Plan module, select a test and click the Design Steps tab. Right-click a step and select Call to Test. Select a test. If the selected test includes parameters, the Called Test Parameters dialog box opens. ➤ In the Test Plan module, select a test and click the Design Steps tab. Right-click a step that contains a call to a test, and select Called Test Parameters. The Called Test Parameters dialog box opens. ➤ In the Test Lab module, run a test with parameters. The Parameters of Test dialog box prompts you to assign actual values to the parameters.
Important information	Only parameters for which you have not already assigned actual values are displayed.
Relevant tasks	"How to Use Test Parameters" on page 561
See also	"Test Parameters Overview" on page 560

User interface elements are described below:

UI Elements (A-Z)	Description
	Select Columns. Opens the Select Columns dialog box, enabling you to determine which fields are displayed in the dialog box and their order. For more details, see "Select Columns/Select Fields Dialog Box" on page 90.
	Replaces the values in the Actual Value column with values in the Default Value column for the currently selected parameters.
Actual Value	The actual value that is used for the parameter during the test run. Type the actual value in the Actual Value column or tab.
Default Value	The default value of the parameter.
Description	The description of the parameter.

UI Elements (A-Z)	Description
Parameter Name	The name of the parameter.
Used	Indicates whether the parameter is included in a design step.

22

Test Design

This chapter includes:

Concepts

- ▶ Test Design Overview on page 574
- ▶ Test Automation on page 575

Tasks

- ▶ How to Design Test Steps on page 577

Reference

- ▶ Design Steps User Interface on page 581

Concepts

Test Design Overview

After you add a test to the test plan tree, you build the test by defining design steps. For details, see "How to Design Test Steps" on page 577.

After you define the test steps, decide whether to perform the test manually or to automate it.

For manual tests you define steps, execute them on your application, and record the results of each step. Use manual tests in cases where the test requires a response by the tester. Manual tests include usability tests, onetime tests, tests that need to be run immediately, tests requiring knowledge of the application, and tests without predictable results.

For example, in the flight reservation application, tests that check if a dialog box is user-friendly require user response. Therefore, you should make these tests manual.

For automated tests, the testing expert can use the design steps as the basis for creating the detailed test script. Automated tests require that you create automated test scripts using HP testing tools, or third-party testing tools. For details on automating tests, see "Test Automation" on page 575.

As part of test design, you can include a call to another manual test. When you run the calling test, it includes the steps from the called test. This is useful if you have common steps you often want to perform as part of other tests.

For example, suppose you want to include a login step in a number of different tests. You can create a test **Login_Template** that logs in a user when you start your application. You can call this test at the beginning of each test.

Template tests can include test parameters. These are useful if you want to run the template test with different data according to the type of test that is calling it. For details on using parameters in manual tests, see "Test Parameters Overview" on page 560.

For details on designing tests, see "How to Design Test Steps" on page 577.

Test Automation

Test planning involves deciding which tests to automate. If you choose to automate a test, you can generate a test script and run the test using QuickTest Professional, LoadRunner, or Visual API-XP.

Automating a test allows unattended execution of the test at high speed. It also makes the test reusable and repeatable. For example, you automate functional, benchmark, unit, stress and load tests, as well as tests requiring detailed information about applications.

Consider the following issues when deciding whether to automate a test.

Frequency of Execution

Tests that will run with each new version of your application are good candidates for automation. These include sanity tests that check basic functionality across an entire application. Each time there is a new version of the application, you run these tests to check the stability of the new version, before proceeding to more in-depth testing.

Tests that use multiple data values for the same operation (data-driven tests) are also good candidates for automation. Running the same test manually—each time with a different set of input data—can be tedious and ineffective. By creating an automated data-driven test, you can run a single test with multiple sets of data.

Stress/Load Testing

It is also recommended that you automate tests that are run many times (stress tests) and tests that check a multi-user client/server system (load tests). For example, suppose a test must be repeated a thousand times. Running the test manually would be extremely impractical. In this case, you can create a test that runs a thousand iterations.

When Not to Automate Tests

Generally, the more user involvement a test requires, the less appropriate it is to automate. The following describes test cases that should not be automated:

- ▶ Usability tests—tests providing usage models that check how easy the application is to use.
- ▶ Tests that you only have to run once.
- ▶ Tests that you need to run immediately.
- ▶ Tests based on user intuition and knowledge of the application.
- ▶ Tests with no predictable results.

Tasks

How to Design Test Steps

After adding tests to the test plan tree, describe the detailed, step-by-step instructions the tester should perform to complete a test. Each test step includes a description of an action.

Note: This task is part of a higher-level task. For details, see "How to Plan Tests in ALM" on page 481.

To learn more about test design, see "Test Design Overview" on page 574.

This task includes the following steps:

- "Prerequisites" on page 577
- "Create test steps" on page 578
- "Call a template test – optional" on page 579
- "Generate an automated test – optional" on page 579
- "Results" on page 580

1 Prerequisites



Tests, and basic test information, are defined in the test plan tree.

For task details on creating tests, see "How to Create Tests" on page 489.

2 Create test steps

Describe the steps a tester must perform to run a test. A test step includes the actions to perform on your application, the input to enter, and the expected results.

To create test steps:

- a** In the Test Plan module, select **View > Test Plan Tree**, and select a test.
- b** Click the **Design Steps** tab.
- c** If there are existing design steps, select the step below which you want to add a new step.
- d** Click **New Step** . Fill in the fields in the Design Step Details dialog box. For user interface details, see "Design Steps Tab/Design Step Details Dialog Box" on page 582.
- e** To add a parameter to a design step, in the Design Step Details dialog box, click **Insert Parameter** . For details on working with test parameters, see "How to Use Test Parameters" on page 561.

Example:

To test the Reservation Details page in the Mercury Tours application, you might create design steps as follows:


Step Name	Description	Expected Result
Initialization	1. Register new user profile. 2. Create different flight reservations for the user. Print Flight Confirmation for each reservation created to compare the reservation details in following steps.	
Step 1: Open Itinerary	Select the Itinerary from the top menu.	The Itinerary page opens. All the flight reservations that you have created in the Initialization step should be shown.
Step 2: Compare Flight Reservation Details	Compare the flight reservation details in the Flight Confirmation page (printed in the Initialization step), to the details in the Itinerary page. Check each of the following: 1. Booking date and time. 2. Departing and returning destinations. 3. Airline and flight number. 4. Service class. 5. Number of passengers. 6. Prices and Total Airfare.	All flight reservation details must be identical on Flight Confirmation and Itinerary page.

3 Call a template test – optional

To include commonly used instructions in your test, for example Log in to the application, you can call a template test from within your test that includes common instructions.

Note: For details on creating template tests, see see "How to Create Tests" on page 489.

To call a template test:

- a** Select the test in which you want to include a template test.
- b** Click the **Design Steps** tab.
- c** If there are existing design steps, select the step below which you want to call a template test.
- d** Click **Call to Test** .
- e** In the Select Test dialog box, select the test that you want to call. For user interface details, see "Select Test Dialog Box" on page 590.

A call to the selected template test is inserted below the selected step. When you run the test, the template test's design steps are listed accordingly.


4 Generate an automated test – optional

After you have created steps for a manual test, you can generate a test script skeleton in which you can write scripts to run the test as an automated test.

Notes:

- For considerations on whether or not to automate a test, see "Test Automation" on page 575.
- For a list of automated test types, see "Test Types" on page 493.

To generate an automated test:


In the Design Steps tab, click **Generate Script**  and choose an automated test type to which to convert.

Any text that appeared in the steps of the manual test is listed as comments in the generated test script. If the manual test has parameters, they are also listed as comment text.

Example:

In the flight reservation application, you can automate a test that checks whether the login mechanism works. After adding test steps, you create a test script. Then, using QuickTest Professional, you complete the automated test script.

5 Results

The design steps that you add appear in the Design Steps tab. The first time you add design steps to a test, a footprint  appears in the test plan tree next to the test icon, indicating that steps were defined for the test.

Reference

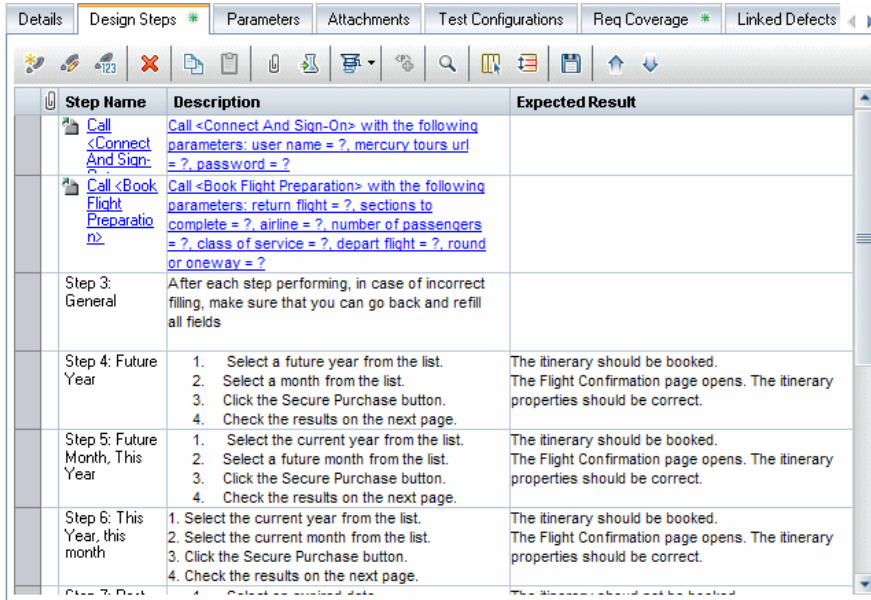
Design Steps User Interface

This section includes:

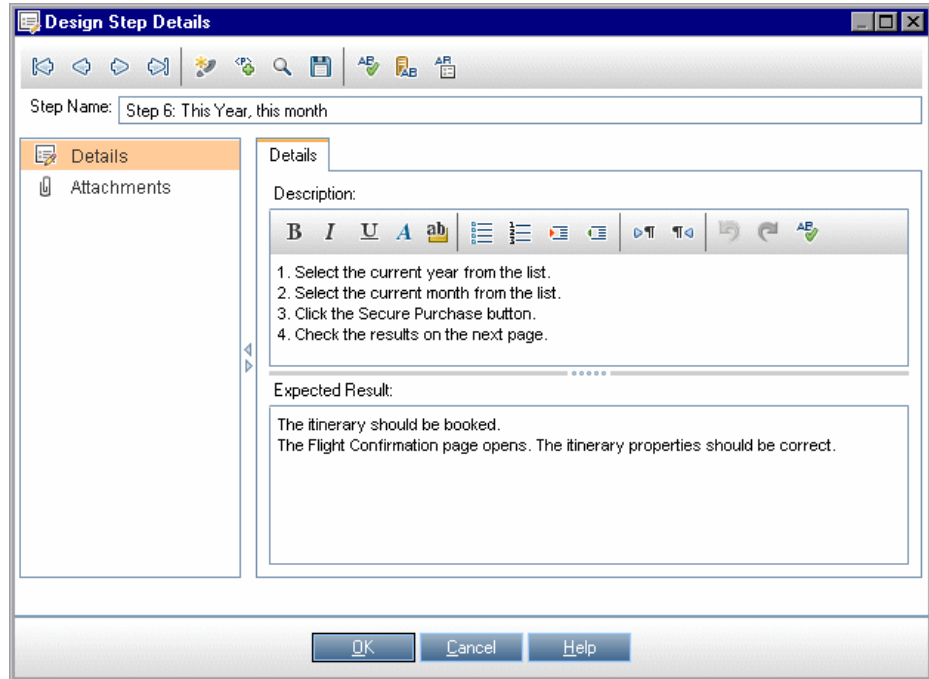
- ▶ Design Steps Tab/Design Step Details Dialog Box on page 582
- ▶ Test Script Tab on page 588
- ▶ Select Test Dialog Box on page 590
- ▶ Paste Design Steps to Target Project Dialog Box on page 592
- ▶ Criteria Tab on page 593

Design Steps Tab/Design Step Details Dialog Box

The Design Steps tab enables you to view and edit design steps for the selected test. The Design Step Details dialog box enables you to create and edit individual design steps.











Step Name	Description	Expected Result
Call <Connect And Sign-On>	Call <Connect And Sign-On> with the following parameters: user name = ?, mercury tours url = ?, password = ?	
Call <Book Flight Preparation>	Call <Book Flight Preparation> with the following parameters: return flight = ?, sections to complete = ?, airline = ?, number of passengers = ?, class of service = ?, depart flight = ?, round or oneway = ?	
Step 3: General	After each step performing, in case of incorrect filling, make sure that you can go back and refill all fields	
Step 4: Future Year	<ol style="list-style-type: none"> 1. Select a future year from the list. 2. Select a month from the list. 3. Click the Secure Purchase button. 4. Check the results on the next page. 	The itinerary should be booked. The Flight Confirmation page opens. The itinerary properties should be correct.
Step 5: Future Month, This Year	<ol style="list-style-type: none"> 1. Select the current year from the list. 2. Select a future month from the list. 3. Click the Secure Purchase button. 4. Check the results on the next page. 	The itinerary should be booked. The Flight Confirmation page opens. The itinerary properties should be correct.
Step 6: This Year, this month	<ol style="list-style-type: none"> 1. Select the current year from the list. 2. Select the current month from the list. 3. Click the Secure Purchase button. 4. Check the results on the next page. 	The itinerary should be booked. The Flight Confirmation page opens. The itinerary properties should be correct.
Step 7: Past	<ol style="list-style-type: none"> 4. Select an expired date. 	The itinerary should not be booked.











<p>To access</p>	<p>Design Steps tab: In the Test Plan module, select a test in the test plan tree, and click the Design Steps tab.</p> <p>Design Step Details dialog box: In the Test Plan module, select a test in the test plan tree, and click the Design Steps tab. Then use one of the following:</p> <ul style="list-style-type: none"> ➤ Right-click the design steps grid, or a design step, and select New Step. ➤ Right-click a design step and select Edit Step.
<p>Important information</p>	<p>If you apply formatting to a parameter name in a design step, you must apply the same formatting to the entire parameter name, including the <<< and >>> characters. For example, if you want to italicize the parameter password, you must italicize the entire string <<<password>>> and not just the word password.</p>




Relevant tasks	"How to Design Test Steps" on page 577
See also	"Test Design Overview" on page 574

User interface elements are described below (unlabeled elements are shown in angle brackets>):

UI Elements (A-Z)	Description
	Allows you to browse through design steps. Available from: Design Step Details dialog box
	Check Spelling. Checks the spelling for the selected word or text box. Available from: Design Step Details dialog box
	Spelling Options. Enables you to configure the way ALM checks spelling. Available from: Design Step Details dialog box
	Thesaurus. Displays a synonym, antonym, or related word for the selected word. Available from: Design Step Details dialog box
	New Step. Creates a new design step in the Design Step Editor dialog box. The new step is added below the selected step.
	Edit Step. Opens the selected design step in the Design Step Editor dialog box. Tip: Double-click a step to edit. Available from: Design Steps tab
	ReNUMBER Steps. Renumbers the design steps sequentially. Use this command after you rearrange steps. Available from: Design Steps tab
	Delete Selected. Deletes the selected design steps.

UI Elements (A-Z)	Description
	<p>Copy/Paste Steps. Copies the selected design steps and pastes them to another test in the same project or in another project. The copied design step is inserted above the selected step.</p> <p>When you paste design steps to another project, the Paste Design Steps to Target Project dialog box opens. For details, see "Paste Design Steps to Target Project Dialog Box" on page 592.</p> <p>Notes: Parameters included in the design step are copied to the target test.</p> <p>Available from: Design Steps tab</p>
	<p>Attachments. Opens the Attachments page, enabling you to add attachments to the selected design step. For details, see "Attachments Page" on page 86.</p> <p>After you add an attachment, the  icon displays in the Design Steps grid, next to the appropriate design step.</p> <p>Note: If you add an attachment to a design step, a copy of the attachment is made every time the test is run.</p>
	<p>Call to Test. Opens the Select Test dialog box, enabling you to call another manual test. For details, see "Select Test Dialog Box" on page 590. The call to the test is inserted as a new design step below the selected step.</p> <p>Available from: Design Steps tab</p>

UI Elements (A-Z)	Description
	<p>Generate Script. Enables you to convert the test to an automated test type that is run by the applicable automatic testing tool. For considerations on whether or not to automate a test, see "Test Automation" on page 575.</p> <p>For details on test types, see "Test Types" on page 493.</p> <p>ALM generates a test script skeleton based on the current design steps.</p> <p>The test icon next to the test you automated is replaced with the automated test icon.</p> <p>Notes:</p> <ul style="list-style-type: none"> ▶ After automating a test, you cannot convert it back to the MANUAL test type. ▶ For automated test types other than FLOW, you can use this button to select a different testing tool. <p>Available from: Design Steps tab</p>
	<p>Insert Parameter. Opens the Parameters dialog box, enabling you to insert a test parameter in the Description or Expected Result field. The parameter is inserted at the cursor position. For user interface details, see "Parameters Tab/Parameters Dialog Box" on page 565.</p>
	<p>Find Text. In the Design Steps tab, opens the Find dialog box, enabling you to find text in specific fields. For details, see "Find Dialog Box" on page 74.</p> <p>Find/Replace Text. In the Design Step Details dialog box, opens the Find & Replace dialog box, enabling you to find or replace a specified string in the selected field.</p>
	<p>Select Columns. Opens the Select Columns dialog box, enabling you to define which columns appear in the grid, and the order in which they appear. For details, see "Select Columns/Select Fields Dialog Box" on page 90.</p> <p>Available from: Design Steps tab</p>

UI Elements (A-Z)	Description
	<p>Adjust Rows Height. Adjusts the row size of the steps in a test. This enables you to view all the text in the Description or Expected Result columns if the text is long.</p> <p>Tip: To resize a single step, position the mouse in the gray sidebar on the gridline below the step. The cursor changes to a vertical arrow. Drag the gridline up or down.</p> <p>Available from: Design Steps tab</p>
	<p>Save Steps. Saves the design steps in the project. If you are typing long text, use the Save Steps button to prevent data loss.</p>
	<p>Move Down/Move Up. Moves the selected design step up or down in the design steps grid.</p> <p>Tip: Alternatively, select a design step and drag it to a new position.</p>
<design steps grid>	<p>Displays design steps that are included in the selected test.</p> <p>Available from: Design Steps tab</p>
Attachments	<p>Enables you to add attachments that provide additional information about the design step. For more details, see "Attachments Page" on page 86.</p> <p>Available from: Design Step Details dialog box</p>
Description	<p>Instructions for the tester to perform.</p> <p>Notes:</p> <ul style="list-style-type: none"> ▶ Test parameters included in the Description field are surrounded by <<< >>> brackets. ▶ Design Steps Tab: If a step is a call to another test, the Description field displays a link to the called test, and actual values of the parameters included in the called test. To edit actual values of the called test parameters, right-click the link, and choose Called Test Parameters. <p>Tip: Clicking in this field displays a toolbar for formatting and spell checking the text.</p>

UI Elements (A-Z)	Description
Details	Design step details. Required fields are displayed in red. Available from: Design Step Details dialog box
Expected Result	The expected state after the step instructions are performed. Tip: Clicking in this field displays a toolbar for formatting and spell checking the text.
Step Name	The name of the step. Default value: The sequential number of the design step. For example, Step 1 if you are adding a step to a test for the first time. Notes: <ul style="list-style-type: none"> ▶ Test parameters included in the Step Name field are surrounded by <<< >>> brackets. ▶ If a step is a call to another test, the Step Name field displays a link to the called test, and actual values of the parameters included in the called test. To edit actual values of the called test parameters, right-click the link, and choose Called Test Parameters.

Test Script Tab

This tab contains the script run by the testing tool designated for the selected test.

Available from: Automated test types

To access	In the test plan tree, select a test, and click the Test Script tab.
Important information	<ul style="list-style-type: none"> ▶ For details on the user interface for system tests, see "Test Script Tab – System Tests" on page 623. ▶ The Test Script tab is populated with elements designed by the applicable testing tool. For more details, see the documentation for the testing tool.

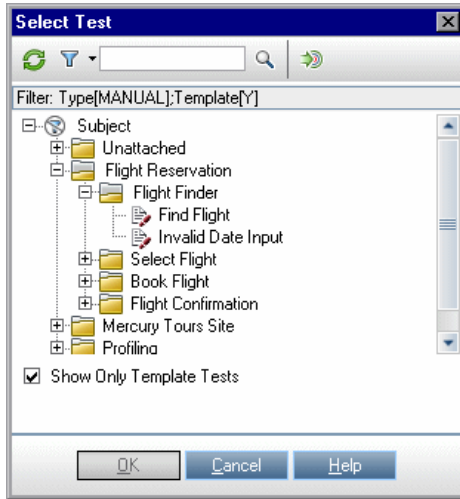
Relevant tasks	"How to Design Test Steps" on page 577
See also	"Test Automation" on page 575

User interface elements are described below:

UI Elements	Description
Launch	Displays the testing script in the applicable testing tool.





Select Test Dialog Box

This dialog box enables you to select a manual test that is called by a design step.



To access	<ol style="list-style-type: none"> 1 In the Test Plan module, select a test in the test plan tree, and click the Design Steps tab. 2 Right-click the design step below which you want to add a call to a manual test, and select Call to Test.
Important information	If the called test contains parameters, the Called Test Parameters dialog box opens, enabling you to set actual parameter values. The actual values are used by default in test instances created from the current test. For user interface details, see "Called Test Parameters/Parameters of Test Dialog Box" on page 570.
Relevant tasks	"How to Design Test Steps" on page 577
See also	"Test Design Overview" on page 574

User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements (A-Z)	Description
	Refresh. Refreshes the test tree so that it displays the most up-to-date tests.
	Filter/Sort. Opens the Filter Tests dialog box, enabling you to filter and sort the tests in the test plan tree. For details, see "Filter Dialog Box" on page 60.
	Find. Searches for a specific test in the test plan tree. Type the name of the test in the Find box and click the Find button. If the search is successful, the test is highlighted in the tree. Click the Find button again to highlight the next match.
	Go To Test By ID. Opens the Go To Test dialog box, enabling you to select a test by its ID.
<test plan tree>	Displays folders in the test plan tree that contain manual tests. If the Show only Template Tests check box is selected, only folders that contain template tests are displayed. Expand the tree to locate the test that you want to call.
Show Only Template Tests	Instructs ALM to display only template tests. To choose a test that is not a template test, clear the check box.

Paste Design Steps to Target Project Dialog Box

This dialog box enables you to select the way in which design steps are copied from a test in one project to a test in another project.

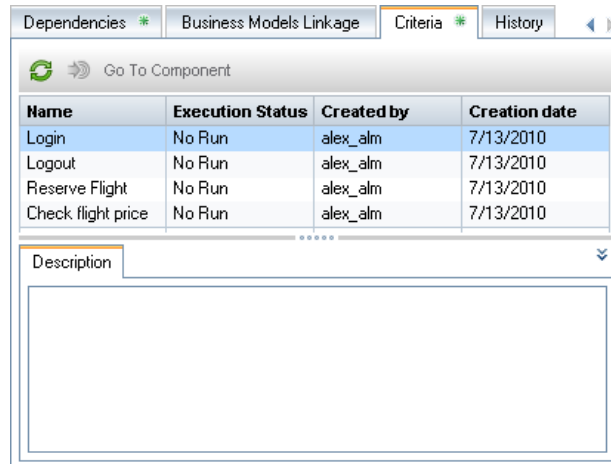
To access	<ol style="list-style-type: none"> 1 In the source project, right-click a design step and select Copy. 2 Open the target project in a separate browser window. 3 In the target project, right-click a design step below which you want to insert the copied step, and select Paste.
Important information	The source and target projects must use the same ALM version and patch level.

User interface elements are described below:

UI Elements	Description
Copy design steps and link to existing related entities	ALM copies the design steps and pastes them into the target project. The copied design steps are linked to existing tests with the same name. If a called test does not exist in the target project, ALM copies it to the target project.
Copy design steps and related entities	ALM copies the design steps and called tests and pastes them into the target project. If a called test name already exists in the target project, the copied called test is renamed to resolve the duplicate test name.
Copy design steps without copying related entities	ALM copies the design steps without copying the called tests, and pastes them into the target project. The copied design steps are not linked to any called tests.


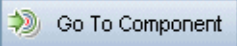
Criteria Tab

This tab enables you to view the criteria of the selected business process test.



To access	In the test plan tree, select a business process test, and click the Criteria tab.
Important information	Business Process Testing: Functionality related to test criteria is only available for business process tests. For details, see the <i>HP Business Process Testing User Guide</i> .
See also	"Requirement and Test Coverage Overview" on page 526

User interface elements are described below:

UI Elements (A-Z)	Description
	Refresh. Refreshes the criteria grid.
	Goes to the Test Script tab and highlights the selected component.
Created by	The user name of the person who created the criterion.

UI Elements (A-Z)	Description
Creation date	The date on which the criterion was created. By default, the creation date is set to the server date on which the criterion was created.
Description	The description of the criterion.
Execution Status	The current execution status of the criterion. Execution status can be one of the following: Failed, N/A, No Run, Not Completed, Passed.
Name	The name of the criterion.

23

Test Configurations

This chapter includes:

Concepts

- ▶ Test Configurations Overview on page 596

Tasks

- ▶ How to Work with Test Configurations on page 597

Reference

- ▶ Test Configurations User Interface on page 603

Concepts

Test Configurations Overview

You can run tests for different use-cases of the application you are testing. Each use-case of a test is represented by a test configuration. A **test configuration** is a set of definitions that describe a specific use-case of a test. You can associate different sets of data for each test configuration. Working with test configurations enables you to run the same test under different scenarios.

When creating a test, by default, a single test configuration is created by HP Application Lifecycle Management (ALM). This test configuration is created with the same name as the test. Using the Test Configurations tab of the Test Plan module, you can create as many additional test configurations as needed.

You associate a test configuration with data defined in the Parameters tab of the Test Plan module. You can associate different data with each test configuration.

When creating coverage, instead of covering each requirement only at the level of the test, you can link a requirement to a test configuration. Associating test configurations with requirements provides finer granularity for requirements coverage by enabling coverage by different use-cases of a test.

After creating coverage, you define a test set in the Test Lab module. A test set can include any or all of the test configurations defined for a test, or it can include test configurations based on requirement coverage. When you run a test set, the parameter values are retrieved from the data resource according to the settings defined for each test configuration.

Tasks

How to Work with Test Configurations

This task describes how to work with test configurations.

Tip: For a use-case scenario related to this task, see "How to Work with Test Configurations - Use-Case Scenario" on page 598.

This task includes the following steps:

- "Prerequisites" on page 597
- "Define test configurations" on page 598
- "Create Coverage" on page 598
- "Define test sets" on page 598
- "View test results" on page 598

1 Prerequisites

a Define requirements in the Requirements module. For task details, see "How to Create Requirements" on page 321.

b Define tests with test parameters in the Test Plan module.

For task details on creating tests, see "How to Create Tests" on page 489.

For task details on test parameters, see "How to Use Test Parameters" on page 561.

2 Define test configurations

- a In the test plan tree, select a test and click the **Test Configurations** tab.
- b Define configurations for the test. For user interface details, see "Test Configurations Tab" on page 604.

Business Process Testing: For more details on working with test configuration, see the *HP Business Process Testing User Guide*.

QuickTest Professional: For more details on working with test configuration, see the section on working with ALM in the *HP QuickTest Professional User Guide*.

3 Create Coverage

Link requirements to the test or to specific test configurations. For task details, see "How to Create Coverage" on page 528.

4 Define test sets

Create and define a test set in the Test Lab module. For task details, see "How to Create Test Sets" on page 718.

5 View test results

View the test set run results. For task details, see "How to View Test Results" on page 797.



How to Work with Test Configurations - Use-Case Scenario

This use-case scenario provides an example of how to work with test configurations in ALM.

Suppose your company is releasing a new version of a purchase order application in the upcoming months. The new version includes several new enhancements. One of the enhancements is a new purchase order form. The form must provide different solutions for Gold Card, Silver Card, and Bronze Card users.

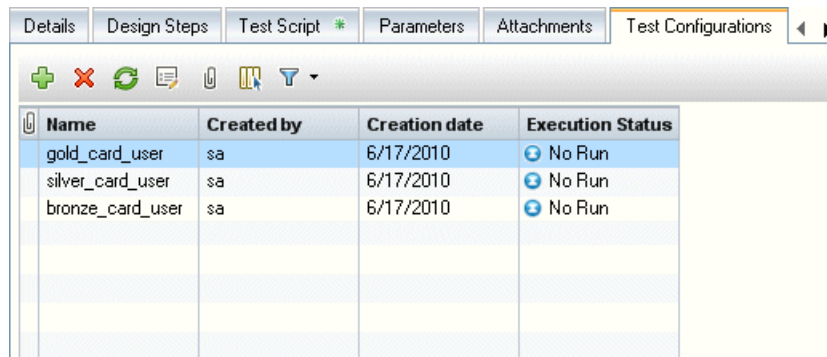
Note: For a task related to this scenario, see "How to Work with Test Configurations" on page 597.

This scenario includes the following steps:

- "Define test configurations" on page 599
- "Create coverage" on page 600
- "Define a test set" on page 601
- "View test results" on page 602

1 Define test configurations

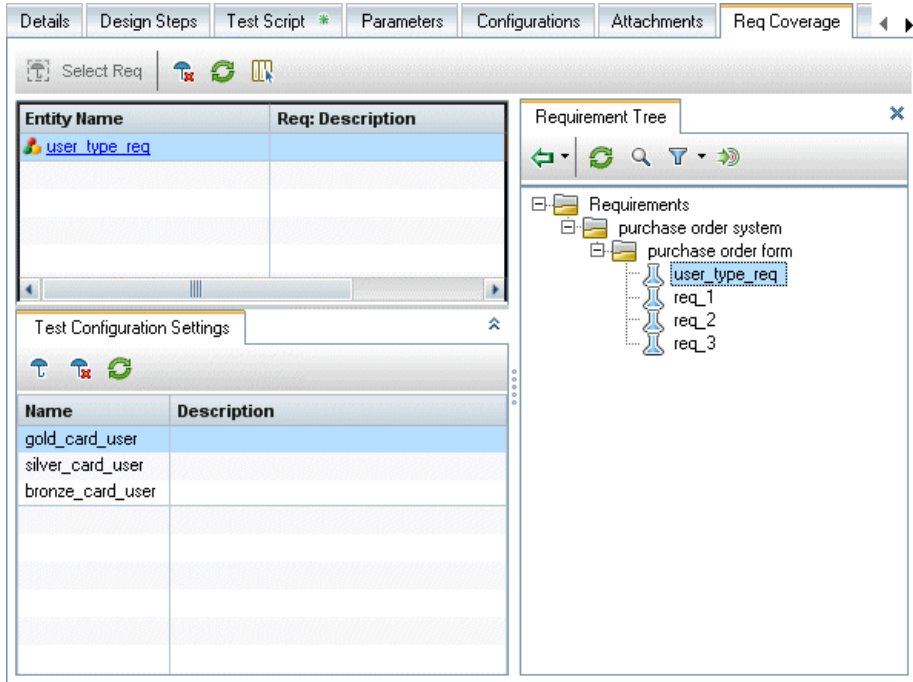
In the test plan tree, select the **user_type** test and click the **Test Configuration** tab. Rename the existing test configuration to **gold_card_user**. Define the following test configurations: **silver_card_user** and **bronze_card_user**. In the **Data** tab, for each test configuration, specify the data to be used for testing each scenario.



Name	Created by	Creation date	Execution Status
gold_card_user	sa	6/17/2010	No Run
silver_card_user	sa	6/17/2010	No Run
bronze_card_user	sa	6/17/2010	No Run

2 Create coverage

In the Req Coverage tab, create requirement coverage between the **user_type_req** requirement and the **user_type** test. Click **Add to Coverage**. The Add Configuration Coverage dialog box opens and displays the available test configurations. Add the test configurations to coverage. The Test Configuration Settings tab lists the test configurations included in the coverage.



3 Define a test set

In the Execution Grid tab of the Test Lab module, create a test set based on your coverage. Add the **user_type_req** requirement from the Requirements Tree pane. Note that the Test Coverage pane lists the tests that cover the selected requirement. The Execution Grid displays the test configurations included in the test set.

The screenshot displays the Test Lab module interface with the following components:

- Execution Grid:** A table showing test configurations. The first three rows are selected.

Name	Test: Test Name	Type
[1]gold_card_user	user_type_test	QUICKTEST_TE...
[1]silver_card_us...	user_type_test	QUICKTEST_TE...
[1]bronze_card_...	user_type_test	QUICKTEST_TE...
- Requirements Tree:** A hierarchical tree view showing requirements. The 'user_type_req' requirement is selected under the 'purchase order form' folder.
 - Requirements
 - purchase order system
 - purchase order form
 - user_type_req (selected)
 - req_1
 - req_2
 - req_3

- Test Coverage:** A pane showing the test name 'user_type_test' associated with the selected requirement.

4 View test results

After running the test set, view the results. The Test Runs tab, indicates that the test run with the **bronze_card_user** test configuration failed, and that the test run with the **gold_card_user** and **silver_card_user** test configurations passed.

Filter: Exec Date[[ThisMonth]]; Sort By: Exec Date[Descending]; Exec Time[Descending]

Run ID	Run Name	Test: Test Name	Configuration...	Status	Exec Date [ThisMonth]	Tester
3	Fast_Run_5-1...	user_type_test	bronze_card_user	Failed	6/17/2010	sa
2	Fast_Run_5-1...	user_type_test	silver_card_user	Passed	6/17/2010	sa
1	Fast_Run_5-1...	user_type_test	gold_card_user	Passed	6/17/2010	sa

Comments Report Attachments History

Reference

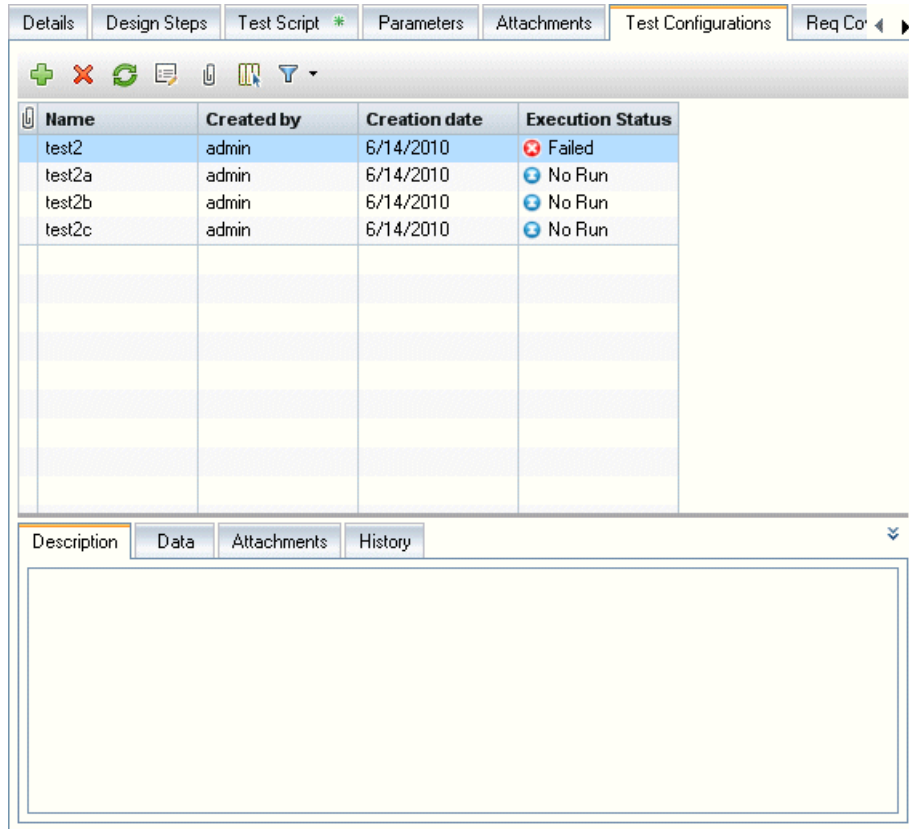
Test Configurations User Interface

This section includes:

- ▶ Test Configurations Tab on page 604
- ▶ New Test Configuration/Test Configuration Details Dialog Box on page 607
- ▶ Data Tab on page 609
- ▶ Test Configuration Settings Tab on page 611
- ▶ Test Configurations Pane on page 613
- ▶ Test Configuration Status Tab on page 616
- ▶ Generate Test Configuration Dialog Box on page 618

Test Configurations Tab








This dialog box enables you to define and update test configurations.



To access	In the test plan tree, select a test and click the Test Configurations tab.
Important information	<p>Business Process Testing: For more details on working with test configurations, see the <i>HP Business Process Testing User Guide</i>.</p> <p>QuickTest Professional: For more details on working with test configuration, see the section on working with ALM in the <i>HP QuickTest Professional User Guide</i>.</p>

Relevant tasks	"How to Work with Test Configurations" on page 597
See also	"Test Configurations Overview" on page 596

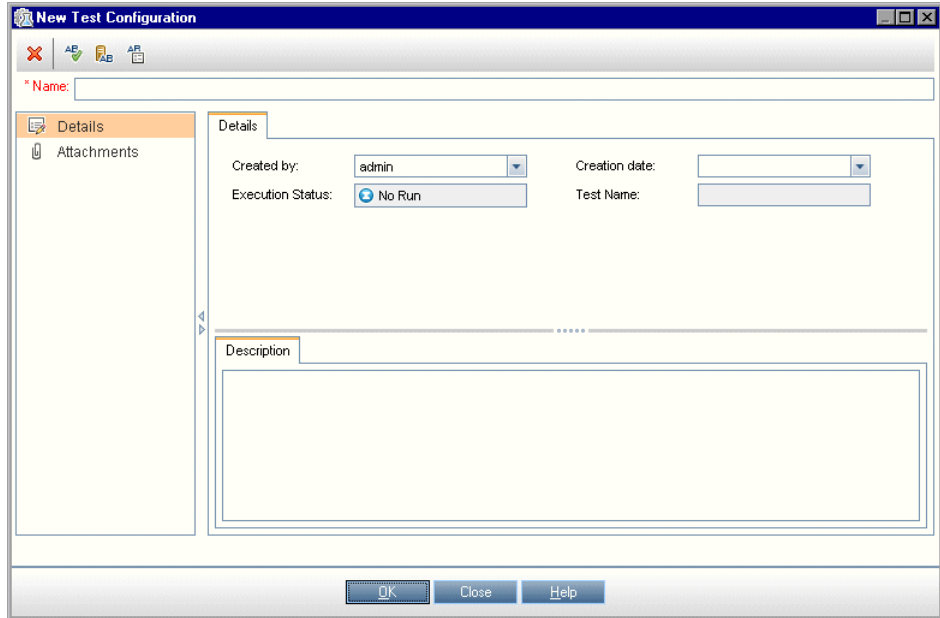
User interface elements are described below:



UI Elements (A-Z)	Description
	New Test Configuration. Opens the New Test Configuration dialog box, enabling you to define a test configuration. For more details, see "New Test Configuration/Test Configuration Details Dialog Box" on page 607.
	Delete Test Configuration. Deletes selected test configuration from the test configurations grid.
	Refresh. Refreshes the test configurations grid so that it displays the most up-to-date information.
	Test Configuration Details. Opens the Test Configuration Details dialog box, enabling you to display details of the selected test configuration. For more details, see "New Test Configuration/Test Configuration Details Dialog Box" on page 607.
	Attachments. Opens the Attachments page in the Test Configuration Details dialog box, enabling you to view attachments of the currently selected test configuration. For more details, see "Attachments Page" on page 86.
	Select Columns. Opens the Select Columns dialog box, enabling you to determine which fields are displayed and their order. For more details, see "Select Columns/Select Fields Dialog Box" on page 90.
	Set Filter. Enables you to filter and sort the test configurations in the test configurations grid. For more details, see "Filter Dialog Box" on page 60.
Attachments tab	Lists attachments that provide additional information about the currently selected test configuration. For more details, see "Attachments Page" on page 86.

UI Elements (A-Z)	Description
Created By	The user name of the person who created the test configuration.
Creation Date	The date on which the test configuration was created. By default, the creation date is set to the current ALM Platform server date.
Data tab	The data associated with the currently selected test configuration. For more details, see "Data Tab" on page 609.
Description	Describes the test configuration.
Execution Status	The execution status of the last run of a test configuration. By default, the execution status can be one of the following: Blocked, Failed, N/A, No Run, Not Completed, Passed.
ID	A unique numeric ID for the test configuration, assigned automatically by ALM.
Modified	The date and time of the last change to the test configuration.
Name	The name of the test configuration.
Test ID	A unique numeric ID for the test, assigned automatically by ALM.
Test Name	The name of the test.






New Test Configuration/Test Configuration Details Dialog Box

This dialog box enables you to define and update test parameters.



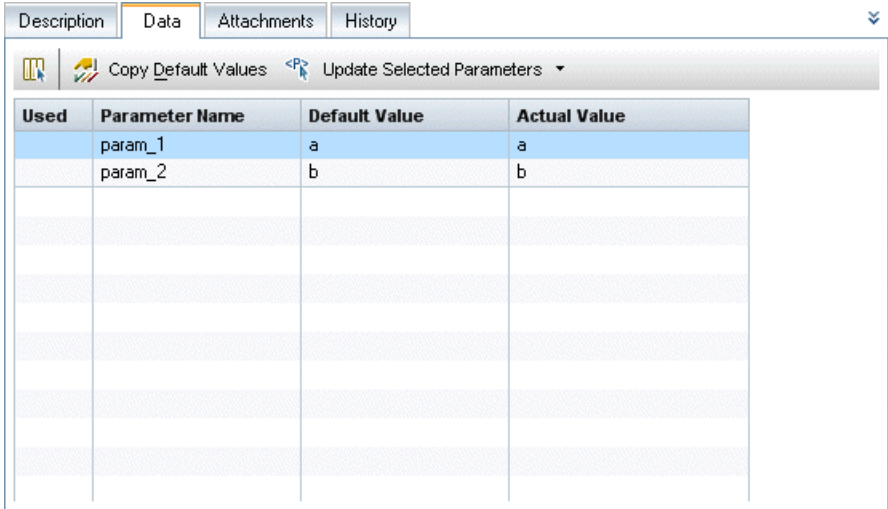
<p>To access</p>	<p>Use one of the following:</p> <ul style="list-style-type: none"> ▶ In the test plan tree, select a test and click the Test Configurations tab. Click the New Test Configuration button . The New Test Configuration dialog box opens. ▶ In the test plan tree, select a test and click the Test Configurations tab. Click the Test Configuration Details button . The Test Configuration Details dialog box opens.
<p>Relevant tasks</p>	<p>"How to Work with Test Configurations" on page 597</p>
<p>See also</p>	<p>"Test Configurations Overview" on page 596</p>


User interface elements are described below:

UI Elements (A-Z)	Description
	<p>First/Previous/Next/Last Entity. Allows you to browse through the test parameters.</p> <p>Available from: Test Configuration Details dialog box</p>
	<p>Clear All Fields. Clears all fields.</p> <p>Available from: New Test Configuration dialog box</p>
	<p>Spell Check. Checks the spelling for the selected word or text box.</p>
	<p>Thesaurus. Displays a synonym, antonym, or related word for the selected word.</p>
	<p>Spelling Options. Enables you to configure the way ALM checks spelling.</p>
<p>Attachments tab</p>	<p>Lists attachments that provide additional information about the currently selected test configuration. For more details, see "Attachments Page" on page 86.</p>
<p>Data tab</p>	<p>The data associated with the currently selected test configuration. For more details, see "Data Tab" on page 609.</p> <p>Available from: Test Configuration Details dialog box</p>
<p>Description tab</p>	<p>Describes the currently selected test configuration.</p> <p>Click in the text box to display a toolbar for formatting and spell checking the text.</p>
<p>History tab</p>	<p>Displays the date and time of the change and the name of the user who made the change to the test configuration. For more details, see "History Tab" on page 81.</p> <p>Available from: Test Configuration Details dialog box</p>
<p>Details tab</p>	<p>Details the currently selected test configuration. For details on the available fields, see "Test Configurations Tab" on page 604.</p>

Data Tab


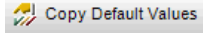

This dialog box shows the data defined for a selected test configuration.



<p>To access</p>	<p>Use one of the following:</p> <ul style="list-style-type: none"> ➤ In the test plan tree, select a test and click the Test Configurations tab. On the bottom pane, click the Data tab. ➤ In the test plan tree, select a test and click the Test Configurations tab. Click the Test Configuration Details button . The Test Configuration Details dialog box opens. Click Data.
<p>Important information</p>	<ul style="list-style-type: none"> ➤ Business Process Testing: When working with a business process test type, different options are available in the Data tab. For more details, see the <i>HP Business Process Testing User Guide</i>. ➤ QuickTest Professional: When working with a QuickTest test type, different options are available in the Data tab. For more details, see the section on working with ALM in the <i>HP QuickTest Professional User Guide</i>.

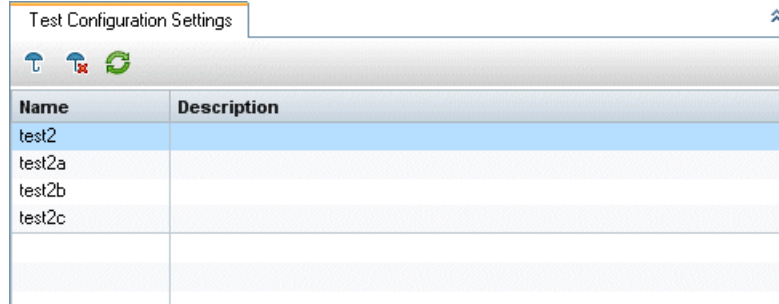
Relevant tasks	"How to Work with Test Configurations" on page 597
See also	"Test Configurations Overview" on page 596

User interface elements are described below:

UI Elements (A-Z)	Description
	Select Columns. Opens the Select Columns dialog box, enabling you to determine which fields are displayed and their order. For more details, see "Select Columns/Select Fields Dialog Box" on page 90.
	Replaces actual values with default values for the currently selected parameters.
	Enables you to update the actual value of all or selected parameters across all test instances associated with the selected test configurations in the Test Lab module.
Actual Value	The actual value that is used for the parameter during the test run.
Default Value	The default value of the parameter as defined in the test level.
Description	The description of the parameter.
Modified	The last modified date of the parameter.
Order	The position of the parameter in the set of parameters.
Parameter Name	The name of the parameter.
Used	Indicates whether the parameter is included in a design step.

Test Configuration Settings Tab




This tab displays the test configurations associated with the requirement coverage.



Name	Description
test2	
test2a	
test2b	
test2c	

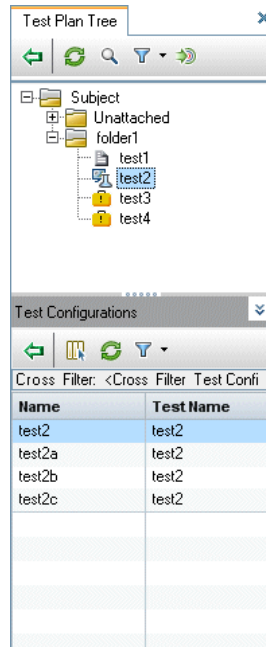
To access	<ol style="list-style-type: none"> 1 In the Test Plan module, select the Test Plan Tree view. 2 Select a test and click the Req Coverage tab. 3 Click Select Req button. 4 In the Requirements Tree pane, click Add to Coverage to add requirement coverage to a specified test. Requirement coverage is added to the requirement coverage grid. The Test Configuration Settings tab is displayed on the bottom of the Req Coverage tab.
Important information	This tab is displayed only when coverage has been created.
Relevant tasks	<p>"How to Create Coverage" on page 528</p> <p>"How to Work with Test Configurations" on page 597</p>
See also	<p>"Req Coverage Tab" on page 538</p> <p>"Test Configurations Overview" on page 596</p>

User interface elements are described below:

UI Elements	Description
	<p>Add Configuration. Opens the Add Configuration Coverage dialog box, enabling you to add configurations to the list of test configurations covering the selected requirement.</p>
	<p>Remove Configuration. Removes selected configurations from the list of test configurations covering the selected requirement.</p>
	<p>Refresh. Refreshes the test configuration grid.</p>
<p>Description</p>	<p>The description of the test configuration.</p>
<p>Name</p>	<p>The name of the test configuration.</p>

Test Configurations Pane





This pane lists the test configurations of a selected test.



<p>To access</p>	<p>From the Requirements module:</p> <ol style="list-style-type: none"> 1 Select View > Requirement Details. Select a requirement and click the Test Coverage tab. 2 Click the Select button. The Test Plan Tree and the Test Configurations panes are displayed. <p>From the Test Lab module:</p> <ol style="list-style-type: none"> 1 Select the Test Sets tab. Select a test set and click the Execution Grid tab or the Execution Flow tab. 2 Click the Select Tests button. The Test Plan Tree tab and the Test Configurations pane are displayed.
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Relevant tasks	"How to Create Coverage" on page 528 "How to Work with Test Configurations" on page 597
See also	"Test Coverage Page" on page 548 "Test Configurations Overview" on page 596






User interface elements are described below:

UI Elements	Description
	<p>Add Test Configuration to Coverage. Adds a test instance that uses the selected test configuration to the requirement's test coverage.</p> <p>Add Test Configuration to Test Set. Adds a test instance that uses the selected test configuration to the test set.</p> <p>Business Process Testing: When including a test configuration of a business process test, the Add Criterion Coverage dialog box opens. For more details, see "Add Criterion Coverage Dialog Box" on page 557.</p>
	<p>Select Columns. Opens the Select Columns dialog box, enabling you to determine which fields to display in the test configurations grid and their order. For more details, see "Select Columns/Select Fields Dialog Box" on page 90.</p>
	<p>Refresh All. Refreshes the test configurations grid.</p>
	<p>Set Filter/Sort. Filters and sorts the test configurations in the grid. For more details, see "Filter Dialog Box" on page 60.</p>
Created By	The user name of the person who created the test configuration.
Creation Date	The date on which the test was created. By default, the creation date is set to the current ALM Platform server date.
Description	A description of the test configuration.

UI Elements	Description
Execution Status	The execution status of the last run of a test configuration. By default, the execution status can be one of the following: Blocked, Failed, N/A, No Run, Not Completed, Passed.
ID	A unique numeric ID for the test configuration, assigned automatically by ALM.
Modified	The date and time of the last change to the test configuration.
Name	The test configuration name.
Test ID	A unique numeric ID for the test, assigned automatically by ALM.
Test Name	The test name.



Test Configuration Status Tab

This tab displays the status of the test configurations associated with a covered requirement.

Test Configuration Status 		
Name	Description	Status
test2		 No Run
test2a		 No Run
test2b		 No Run
test2c		 No Run

To access	<ol style="list-style-type: none"> 1 In the Requirements module, select the Requirement Details view. Select a requirement and click the Test Coverage tab. 2 Click the Select button. The Test Plan Tree and the Test Configurations panes display on the right-side of the Test Coverage tab. 3 Click Add to Coverage to add test coverage. Test coverage is added to the test coverage grid. The Test Configuration Status tab is displayed on the bottom of the Test Coverage tab.
Relevant tasks	<p>"How to Create Coverage" on page 528</p> <p>"How to Work with Test Configurations" on page 597</p>
See also	<p>"Test Coverage Page" on page 548</p> <p>"Test Configurations Overview" on page 596</p> <p>"Requirement and Test Coverage Overview" on page 526</p>

User interface elements are described below:

UI Elements	Description
	Remove Configuration. Removes selected configuration from the list of configurations used to cover the selected requirement.
	Refresh All. Refreshes the configuration status grid.
Name	The test configuration name.
Description	The description of the test configuration.
Status	<p>The current test run status of the test configuration. By default, the status can be one of the following: Blocked, Failed, N/A, No Run, Not Completed, Passed.</p> <p>Business Process Testing: To view the criteria status of a test configuration, click its status value. The Criteria Status dialog box opens.</p>

Generate Test Configuration Dialog Box

After upgrading from a previous version of Quality Center, this dialog box enables you to create a test configuration from an existing test instance.

To access	<ol style="list-style-type: none"> 1 In the Test Lab module, select the Test Sets tab. 2 Select a test set and click the Execution Grid tab. 3 In the grid, right-click a test instance and choose Generate Test Configuration.
Important information	<p>When generating a test configuration from a test instance, ALM performs the following actions:</p> <ul style="list-style-type: none"> ▶ Associates the test instance with the generated test configuration. ▶ Associates the test instance's runs with the generated test configuration. ▶ Associates the test instance's links (for example, tests, requirements) with the generated test configuration. ▶ Sets the generated test configuration status to be the same as the status of the test instance. ▶ Copies the parameter values of the test instance to the generated test configuration.
Relevant tasks	<p>"How to Create Coverage" on page 528</p> <p>"How to Work with Test Configurations" on page 597</p>
See also	<p>"Test Coverage Page" on page 548</p> <p>"Test Configurations Overview" on page 596</p>

User interface elements are described below:

UI Elements	Description
New Test Configuration Name	The name of the generated test configuration.

24

System Tests

This chapter includes:

Concepts

- ▶ System Tests Overview on page 620

Tasks

- ▶ How to Create System Tests on page 621

Reference

- ▶ System Test User Interface on page 623

Concepts

System Tests Overview

You can run a system test to retrieve a machine's system information, view a captured desktop image of a test run on a machine, or restart a machine. For example, you can run a system cleanup test that will restart the machine on which an automated test failed. You can also create a system test to retrieve information about a machine's resource usage before or after a test run.

You create a system test by adding a system test to a test subject folder, defining the test, and adding the test to a test set.

Note: To run a system test, you must install the following add-ins on the machine where the test is to be run:

- ▶ HP Quality Center System Test Remote Agent Add-in
- ▶ HP Quality Center Connectivity Add-in

For more information on HP Application Lifecycle Management (ALM) add-ins, refer to the *HP Application Lifecycle Management Installation Guide*.

When running a system test, the following steps can be created:

- ▶ **SysInfo.** Collection of system information
- ▶ **Snapshot.** Capture of desktop image
- ▶ **Reboot Start** and **Reboot Finish.** Machine restart

You can view details for each of these steps after your system test has finished running. You can also view the system information that has been retrieved—such as CPU, memory, and processes running on the machine—and an image of the machine executing the system test.

Tasks

How to Create System Tests

This task describes how to create and run a system test, that instructs ALM to provide system information for a machine, capture a desktop image, or restart a machine.

Note: This task is part of a higher-level task. For details, see "How to Plan Tests in ALM" on page 481.

This task includes the following steps:

- "Prerequisites" on page 621
- "Create a system test" on page 621
- "Configure a system test" on page 622

1 Prerequisites

Test subjects are defined in the test plan tree.

For task details on creating test subjects, see Step 1, "Create test subjects" in the How to Create Tests task.

2 Create a system test

Create a system test in a subject folder.

- a** In the Test Plan Tree view, right-click a test subject, and select **New Test**.
- b** In the New Test dialog box, select **SYSTEM-TEST** in the **Type** field.
- c** Fill in other fields in the New Test dialog box. For user interface details, see "New Test Dialog Box" on page 518.

A new test with the system test icon  is added to the test plan tree under the subject folder you selected.

3 Configure a system test

Select the operations a system test should perform.

- a Select a system test in the test plan tree.
- b Click the **Test Script** tab to configure the system test settings. For user interface details, see "Test Script Tab – System Tests" on page 623.

4 Run system tests

Run system tests in the Test Lab module. For details on running tests, see "How to Run Tests in ALM" on page 684.

Reference

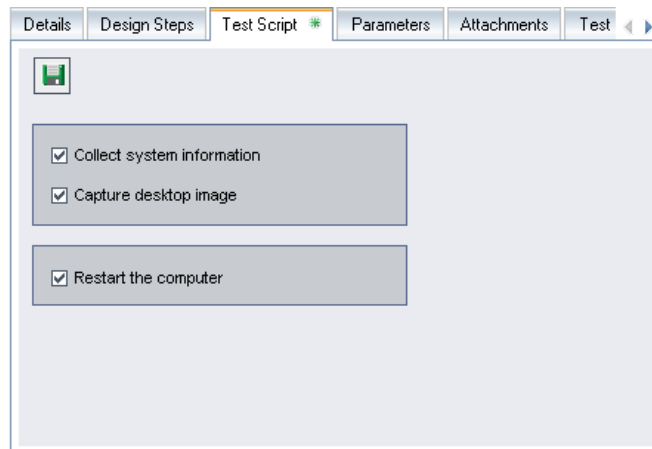
System Test User Interface

This section includes:

- ▶ Test Script Tab – System Tests on page 623


Test Script Tab – System Tests

This tab enables you to define settings for the system test.



To access	In the test plan tree, select a system test, and click the Test Script tab.
Relevant tasks	"How to Create System Tests" on page 621
See also	"System Tests Overview" on page 620

User interface elements are described below:

UI Elements (A-Z)	Description
	Saves the system test settings.
Capture desktop image	Instructs ALM to add an attachment displaying a snapshot of the machine's desktop, when the test is run.
Collect system information	Instructs ALM to collect information such as CPU, memory, and processes running on the machine when the test is run.
Restart the computer	<p>Instructs ALM to restart the machine when the test is run.</p> <p>Note:</p> <p>To use the Restart the computer option, you must enable auto login on your machine. Choose Start > Programs > HP ALM Platform System Test Agent > System Test Agent (configuration). The Auto Restart Settings dialog box opens. By default, User Name and Domain are read-only. Type your password.</p> <p>To select a different user name, reopen the Auto Restart Settings dialog box. User Name and Domain are no longer read-only. Modify the values.</p>

25

Test Resources

This chapter includes:

Concepts

- ▶ Test Resources Overview on page 626

Tasks

- ▶ How to Use Test Resources on page 628

Reference

- ▶ Test Resources User Interface on page 631

Concepts

Test Resources Overview

The Test Resources module enables you to manage resources used by your tests. You can organize your resources by defining a hierarchical **test resource tree** containing resource folders and resources. For each resource in the tree, you select and upload a set of resource files to the HP Application Lifecycle Management (ALM) repository. These files can be used by one or more tests.

You can then define dependencies between resources and tests. For more details on dependencies, see "Entity Dependencies Overview" on page 627.

For task details, see "How to Use Test Resources" on page 628.

Example

Michael, a QA tester, works with an external testing tool that stores its tests in ALM. Each test uses a shared configuration file that is common to a number of tests. He therefore wants a single point of maintenance for the configuration file, rather than saving separate copies of the file for each test.

Michael uses his testing tool to define the configuration file as a resource and define each test that uses the file as dependent on that resource. As only one copy of the resource exists in ALM, replacing the configuration file would replace it for all tests that depend on it.

After Michael defines dependencies, if he attempts to delete the resource, ALM will warn him that this may affect tests that depend on it. In addition, if he copies one of the tests that depend on the resource between projects, ALM will enable him to choose to copy the resource as well as the test.

 **Entity Dependencies Overview**

Dependencies define relationships between entities such as tests, components, and test resources. When analyzing the impact of a change proposed to a specific entity, the dependencies indicate the other entities that the change might affect. For example, you may want to view dependencies before deleting or copying an entity.

Dependency relationships are displayed in the Dependencies tab. This tab is available from the Test Plan, Business Components, and Test Resources modules. You can view the entities used by a selected entity, and the entities that a using a selected entity.

You can define dependencies between entities using other HP testing tools, for example, QuickTest Professional. For more information, refer to the *HP QuickTest Professional User Guide*.

You can also define dependencies between entities by writing your own application. For more information, refer to the *HP ALM Open Test Architecture API Reference*.

Tasks

How to Use Test Resources

This task describes how to manage test resources in the Test Resources module. Create a test resource tree, upload and download resources, and define dependencies between resources and other entities such as tests.

Note: This task is part of a higher-level task. For details, see "How to Plan Tests in ALM" on page 481.

This task includes the following steps:

- "Prerequisites" on page 628
- "Create resources" on page 628
- "Upload resource files" on page 629
- "Download resource files" on page 629
- "Define dependencies" on page 629
- "View dependencies" on page 630

1 Prerequisites

For more information on working with QuickTest resources, see the section on working with ALM in the *HP QuickTest Professional User Guide*.

2 Create resources

- a** **Open the Test Resources module.** On the ALM sidebar, under **Testing**, select **Test Resources**.
- b** **Create folders.** Right-click the **Resources** root folder and select **New Resource Folder**. To create a sub-folder, right-click a folder and select **New Resource Folder**.

- c **Add resources to folders.** Right-click a folder or sub-folder and select **New Resource**. Fill in the fields in the New Resource dialog box. For user interface details, see "New Resource/Resource Details Dialog Box" on page 647.

3 Upload resource files

You can upload files for each resource in the test resource tree to the ALM repository.

Select a resource in the test resource tree and click the **Resource Viewer** tab. For user interface details, see "Resource Viewer Tab" on page 641.

Business Process Testing: When working with application areas, launch the testing tool in the **Application Area Viewer** tab to work with the resource. For user interface details, see "Application Area Viewer Tab" on page 643.

4 Download resource files

To view and edit your test resources, you can download them to a local directory.

Select a resource in the test resource tree and click the **Resource Viewer** tab. For user interface details, see "Resource Viewer Tab" on page 641.

5 Define dependencies

You define dependencies between entities from your testing tool, for example, QuickTest Professional. For more information, refer to the *HP QuickTest Professional User Guide*.

You can also define dependencies between entities by writing your own application. For more information, refer to the *HP ALM Open Test Architecture API Reference*.

6 View dependencies

View the relationships between entities such as tests, components, and test resources. You can view the entities that depend on a selected entity, and the entities on which a selected entity depends.

Select a resource (Test Resources module), test (Test Plan module) or component (Business Components module) and click the **Dependencies** tab. For user interface details, see "Dependencies Tab" on page 645.

Reference

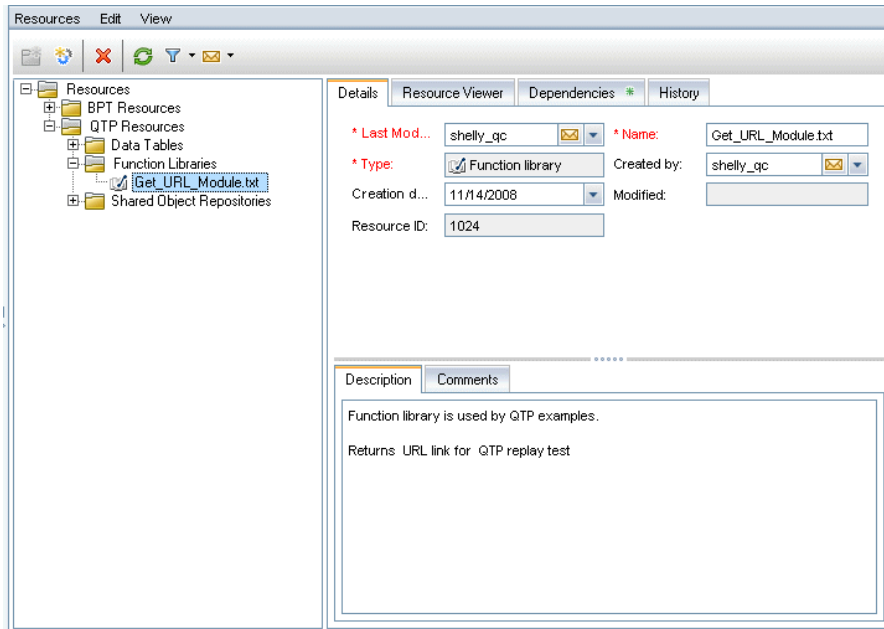
Test Resources User Interface

This section includes:

- ▶ Test Resources Module Window on page 632
- ▶ Test Resources Module Menus and Buttons on page 634
- ▶ Test Resources Module Icons on page 637
- ▶ Test Resources Module Fields on page 639
- ▶ Resource Viewer Tab on page 641
- ▶ Application Area Viewer Tab on page 643
- ▶ Dependencies Tab on page 645
- ▶ New Resource/Resource Details Dialog Box on page 647
- ▶ Paste Resources To Target Project Dialog Box on page 649

Test Resources Module Window

This window enables you to manage resources used by your tests.



To access	On the ALM sidebar, under Testing , select Test Resources .
Important information	<ul style="list-style-type: none"> ➤ QuickTest Professional: For more details on working with QuickTest resources, see the section on working with ALM in the <i>HP QuickTest Professional User Guide</i>. ➤ Business Process Testing: When an ALM project with Business Process Testing is connected to QuickTest Professional, a BPT Resources folder is created automatically in the tree. The BPT Resources folder contains all the QuickTest resources available for business components in the project. For details about Business Process Testing application areas, see the <i>HP Business Process Testing User Guide</i>. ➤ Performance Center: For more details on working with Performance Center resources, see the <i>HP ALM Performance Center Guide</i>.

Relevant tasks	"How to Use Test Resources" on page 628
See also	"Test Resources Overview" on page 626

User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements (A-Z)	Description
<Test Resources module common UI elements>	<ul style="list-style-type: none"> ▶ Test Resource fields. For field definitions, see "Test Resources Module Fields" on page 639. ▶ Test Resource menus and buttons. For command and button descriptions, see "Test Resources Module Menus and Buttons" on page 634. ▶ Test Resource icons. For icon descriptions, see "Test Resources Module Icons" on page 637. ▶ ALM main menu and sidebar. For details on the Tools menu, Help menu and sidebar, see "ALM Common Areas" on page 40.
<test resource tree>	<p>A graphical representation of your test resources.</p> <p>Note: When Sprinter is used for manual testing in your project, a Sprinter folder is added to the Resources folder. This folder contains a subfolder for each Sprinter user and is used to store user information. Caution: The Sprinter folder is managed by Sprinter only. You must not make any changes to the folder or subfolders. For more details, see the <i>HP Sprinter User Guide</i>.</p>
Dependencies tab	Displays dependency relationships that exist between entities such as test resources, components, and tests. For more information, see "Dependencies Tab" on page 645.
Details tab	Displays details of the currently selected resource folder or resource. For more details, see "Test Resources Module Fields" on page 639.

UI Elements (A-Z)	Description
History tab	<p>Displays a history of baselines in which the test resource appears. You can also compare two baseline versions.</p> <p>Version Control: You can view all previous versions of a test resource.</p> <p>For more details on the History tab, see "History Tab" on page 81.</p>
Monitors Configuration tab	<p>Performance Center: Enables you to configure Performance Center monitor profiles. For details, see the <i>HP ALM Performance Center Guide</i>.</p>
Resource Viewer tab	<p>Enables you to upload and download test resource files from the ALM repository. For more information, see "Resource Viewer Tab" on page 641.</p> <p>Note: Some resources have different viewer tabs, such as the application area resource. For details on its viewer tab, see "Application Area Viewer Tab" on page 643.</p>



Test Resources Module Menus and Buttons





This section describes the menus and buttons available in the Test Resources module.

To access	On the ALM sidebar, under Testing , select Test Resources .
Relevant tasks	"How to Use Test Resources" on page 628
See also	<ul style="list-style-type: none"> ➤ "Test Resources Module Window" on page 632 ➤ "Test Resources Module Icons" on page 637 ➤ "Test Resources Overview" on page 626

User interface elements are described below:

UI Elements (A-Z)	Menu	Description
Collapse	View	Collapses all branches in the test resource tree.
Copy URL/Paste	Edit	Copies a selected resource and pastes its URL as a link. The resource itself is not copied. Instead, you can paste the address into another location, such as an email or a document. Clicking the link opens ALM and takes you to the resource file or folder. If you are not already logged in, ALM first prompts for login details.
Copy/Paste	Edit	<p>Copies selected resources or folders within the same project or across projects.</p> <p>Notes:</p> <ul style="list-style-type: none"> ▶ When you copy a resource from one project to another, if the resource is dependent on other test resources, you can instruct ALM to copy using one of three methods. For more details, see "Paste Resources To Target Project Dialog Box" on page 649. ▶ To copy resources across projects, both projects must use the same ALM version and patch level.

UI Elements (A-Z)	Menu	Description
Cut/Paste	Edit	<p>Moves selected resources to a different location in the test resource tree.</p> <p>Note: The root folder cannot be moved.</p> <p>Tip: You can also move a resource to a new location in the test resource tree by dragging it.</p>
 Delete	Edit	<p>Deletes selected resources and folders from the test resource tree.</p> <p>If other entities depend on the resource, the Delete Resource dialog box opens. The related entities are displayed.</p> <p>Caution: If other entities depend on the resource, deleting the resource may impact these related entities. You can view related entities in the Dependencies tab. For more information, see "Dependencies Tab" on page 645.</p> <p>Version Control: Deleting a resource deletes all previous versions of the resource.</p>
Expand All	View	Expands all branches in the test resource tree.
 Filter	View	Enables you to filter the resources in the test resource tree. For more details, see "Filter Dialog Box" on page 60.
Find	Edit	Opens the Find dialog box, enabling you to search for a resource in the test resource tree. For more details, see "Find Dialog Box" on page 74.








UI Elements (A-Z)	Menu	Description
 New Resource	Resources	Opens the New Resource dialog box, enabling you to add a resource to a selected folder. For more details, see "New Resource/Resource Details Dialog Box" on page 647.
 New Resource Folder	Resources	Opens the New Resource Folder dialog box, enabling you to add a folder under a selected folder.
 Refresh All	View	Refreshes the test resource tree so that it displays the most up-to-date information.
Rename	Edit	Renames a selected resource or folder.
 Send by E-mail	Resources	Opens the Send E-mail dialog box, enabling you to send a resource by email to recipients selected from a list. For more details, see "Send E-mail Dialog Box" on page 83.



Test Resources Module Icons

This section describes the icons available in the Test Resources module.

To access	On the ALM sidebar, under Testing , select Test Resources .
Important information	ALM Editions: Not all resource types are available with each edition.
Relevant tasks	"How to Use Test Resources" on page 628
See also	<ul style="list-style-type: none"> ➤ "Test Resources Module Window" on page 632 ➤ "Test Resources Module Menus and Buttons" on page 634 ➤ "Test Resources Overview" on page 626

User interface elements are described below:

UI Elements	Description
	<p>Application area. Provides all settings and resources required to create the content of keyword-driven business components for a particular application or part of an application. For details about application areas, see the <i>HP Business Process Testing User Guide</i>.</p>
	<p>Data Table. Contains data to be used for driving the QuickTest run steps. For details about data table, see the <i>HP QuickTest Professional User Guide</i>.</p>
	<p>Environment Variables. Contains variables and corresponding values that can be accessed from QuickTest tests. For details about environment variables, see the <i>HP QuickTest Professional User Guide</i>.</p>
	<p>Function Library. Contains Visual Basic script functions, subroutines, and modules for use with QuickTest tests. For details about function libraries, see the <i>HP QuickTest Professional User Guide</i>.</p>
	<p>Recovery Scenario. Contains scenarios which include definitions of unexpected events and the operations necessary to recover the QuickTest run sessions. For details about recovery scenarios, see the <i>HP QuickTest Professional User Guide</i>.</p>
	<p>Shared Object Repository. Contains information that enables QuickTest to identify the objects in your application. QuickTest enables you to maintain the reusability of your tests by storing all the information regarding your test objects in shared object repositories. For details about shared object repositories, see the <i>HP QuickTest Professional User Guide</i>.</p>
	<p>Test Resource. A generic test resource type for use by all test types.</p>

UI Elements	Description
	Monitor Over Firewall. Contains Performance Center monitor settings for servers that are located over a firewall. For details about monitor over firewall, see the <i>HP Performance Center Guide</i> .
	Monitor Profile. Contains Performance Center monitor settings that can be saved as a monitor profile to be used by any load test in your project. For details about monitor profiles, see the <i>HP Performance Center Guide</i> .

Test Resources Module Fields

This section describes the Test Resources module fields.

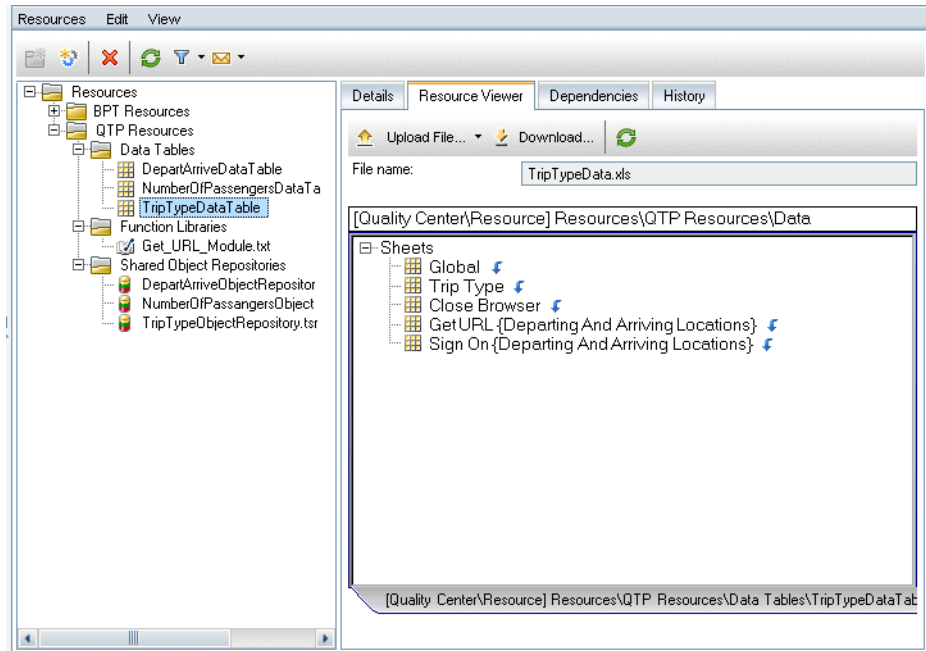
To access	On the ALM sidebar, under Testing , select Test Resources .
Important information	<ul style="list-style-type: none"> ▶ You can add user-defined fields and change the label of any of the fields in the Test Resources module. For more information, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>. ▶ You can use the Script Editor to restrict and dynamically change the fields and values in the Test Resources module. For more information, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>.
Relevant tasks	"How to Use Test Resources" on page 628
See also	<ul style="list-style-type: none"> ▶ "Test Resources Module Window" on page 632 ▶ "Test Resources Overview" on page 626

The fields are described below:

UI Elements (A-Z)	Description
Comments	Displays comments about the resource. To add a new comment, click the Add Comment button. A new section is added to the Comments box, displaying your user name and the database's current date.
Created By	The user who created the resource.
Creation Date	The date on which the resource was created. Default value: The current database server date.
Description	Describes the folder or resource. Business Process Testing: When specifying an application area resource, this field is mandatory.
File Name	The file name.
Folder ID	A unique numeric ID for the folder that is assigned by ALM. This field cannot be modified.
Name	The folder or resource name.
Modified	The date the resource was modified.
Resource ID	A unique numeric ID for the file that is assigned by ALM. This field cannot be modified.
Type	Indicates the type of resource. For details, see "Test Resources Module Icons" on page 637.
Version number	Version Control: The version number of the resource. If version control is enabled for your project, this field is displayed.

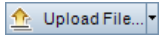
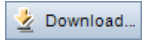

Resource Viewer Tab

This tab enables you to upload files for each resource in the test resource tree to the ALM repository. You can also download files to a local directory.



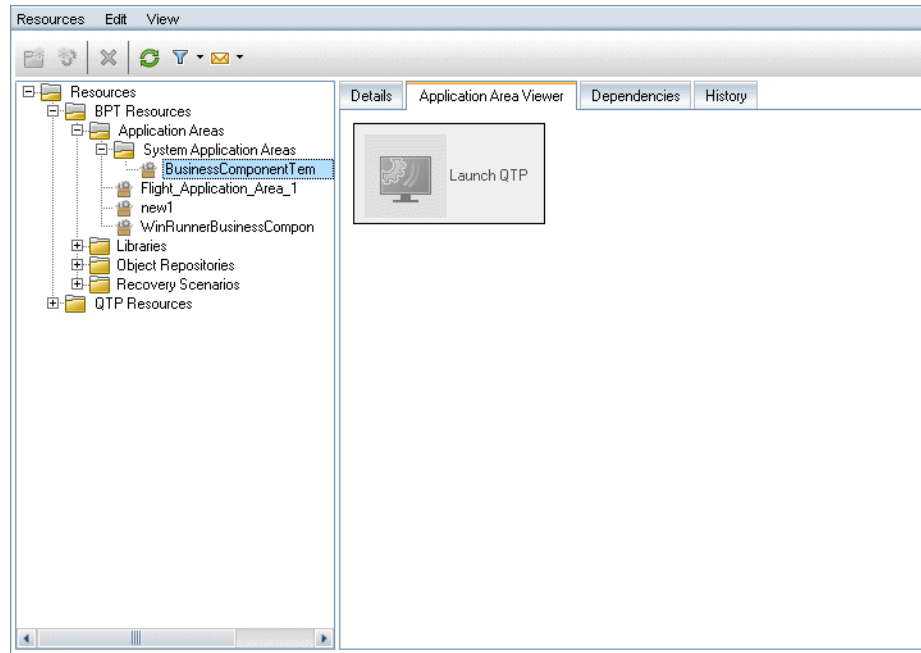
To access	In the Test Resources module, select a resource in the test resource tree and click the Resource Viewer tab.
Important information	<ul style="list-style-type: none"> ▶ To view the resource content, you must install the relevant add-in or extension. For more information on the QuickTest Professional add-in, refer to the <i>HP QuickTest Professional User Guide</i>. ▶ Some resources have different viewer tabs, such as the application area resource. For details on its viewer tab, see "Application Area Viewer Tab" on page 643.
Relevant tasks	"How to Use Test Resources" on page 628
See also	"Test Resources Overview" on page 626

User interface elements are described below:

UI Elements	Description
	<p>Upload File. Uploads the file or folder to the ALM repository. Includes the following options:</p> <ul style="list-style-type: none"> ➤ Upload File. Opens the Upload File dialog box, enabling you to select a file. ➤ Upload Folder. Opens the Browse for Folder dialog box, enabling you to select a folder. <p>To replace an uploaded file, upload again.</p>
	<p>Download. Opens the Browse for Folder dialog box, enabling you to download a selected folder.</p>
	<p>Refresh. Refreshes the tab.</p>
<p>File name</p>	<p>Resource file name.</p>

Application Area Viewer Tab

This tab enables you to launch the testing tool for the application area resource.



To access	Business Process Testing: In the Test Resources module, select an application area resource in the test resource tree and click the Application Area Viewer tab.
Important information	<ul style="list-style-type: none"> ▶ To view the resource content, you must install the relevant testing tool, add-in, or extension. For more information on the QuickTest Professional add-in, refer to the <i>HP QuickTest Professional User Guide</i>. ▶ Launching an ALM version 11.00 application area resource in QuickTest Professional version 10.00 is not supported. Instead, open the application area directly in QuickTest Professional.

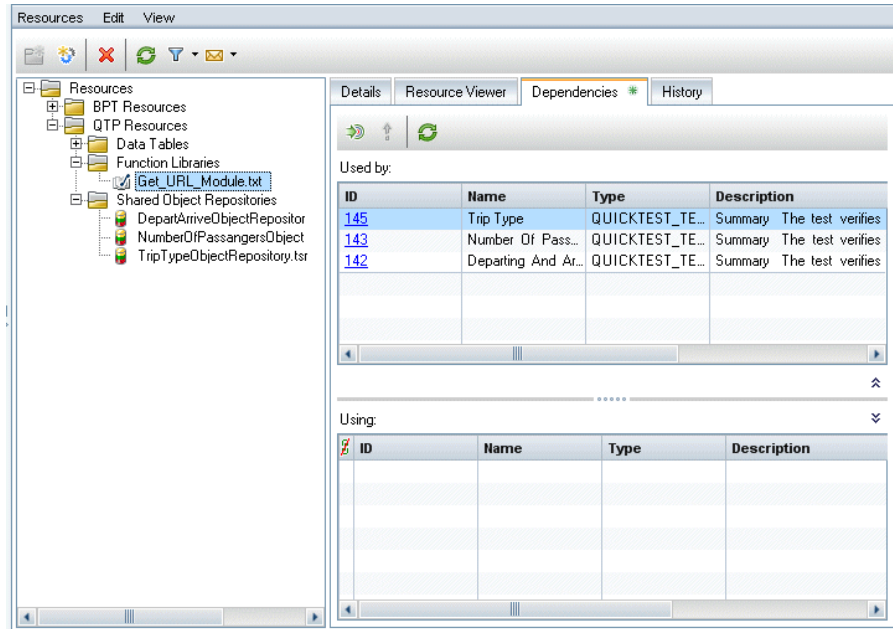
Relevant tasks	"How to Use Test Resources" on page 628
See also	"Test Resources Overview" on page 626

User interface elements are described below:

UI Elements	Description
Launch <testing tool>	<p>Launches the relevant testing tool.</p> <p>Version Control: The Launch button is disabled when attempting to open an application area from an older version or baseline. Instead, open the application area directly in QuickTest Professional.</p>






Dependencies Tab

This tab displays the relationships between entities such as tests, components, and test resources. You can view the entities that depend on a selected entity (**Used By** grid), and the entities that a selected entity depends on (**Using** grid).



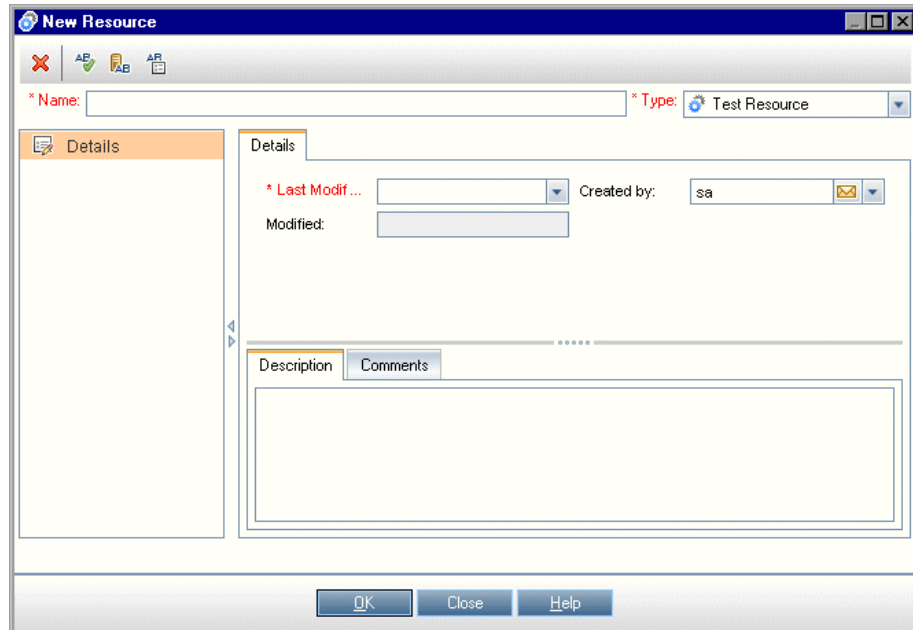
To access	Use one of the following: <ul style="list-style-type: none"> ▶ Test Resources module: Select a resource in the test resource tree and click the Dependencies tab. ▶ Test Plan module: Select a test in the test plan tree and click the Dependencies tab. ▶ Business Components module: Select a component in the component tree and click the Dependencies tab.
Relevant tasks	"How to Use Test Resources" on page 628
See also	"Entity Dependencies Overview" on page 627

User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements (A-Z)	Description
	Go To. Enables you to navigate to a selected entity.
	Show Broken Relation. Displays details of the broken relation for the selected relation in the Using grid. Select an entity in the Using grid that is marked as a broken relation and click the Show Broken Relation button.
	Refresh. Refreshes the tab.
	Broken Relation. The related entity no longer exists. Click the icon for details.
	Show/Hide arrow. Displays or hides the Used By or Using grid.
<Used by grid>	Displays entities that depend on a selected entity.
<Using grid>	Displays the related entities that a selected entity depends on.
Description	The description of the associated entity.
ID	A unique numeric ID for the associated entity. The ID is assigned automatically by ALM.
Name	The name of the associated entity.
Type	The type of the associated entity.
Owner Name	The name of entity that owns the selected entity.
Owner Type	The type of entity that owns the selected entity.






New Resource/Resource Details Dialog Box

This dialog box enables you to add and view resources.



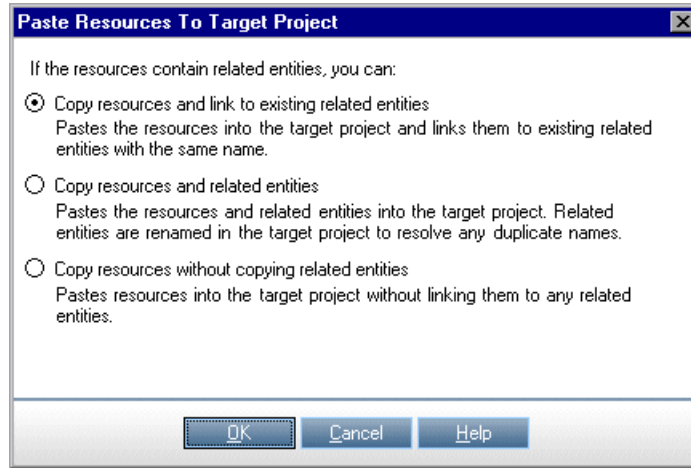
To access	<p>Use one of the following:</p> <ul style="list-style-type: none"> ▶ In the Test Resources module, right-click a resource folder and select New Resource. The New Resource dialog box opens. ▶ In the Test Resources module, click the History tab. Click Baselines or Versions and Baselines. Click the View button. The Resource Details dialog box opens.
Important information	<p>Version Control: The new resource is automatically checked out. For more information, see "Check Out Dialog Box" on page 131.</p>
Relevant tasks	<p>"How to Use Test Resources" on page 628</p>
See also	<p>"Test Resources Overview" on page 626</p>

User interface elements are described below:

UI Elements (A-Z)	Description
	<p>Clears the content in the dialog box.</p> <p>Available from: New Resource dialog box</p>
	<p>Send by Email. Sends an email with the test resource details. For more details, see "Send E-mail Dialog Box" on page 83.</p> <p>Available from: Resource Details dialog box</p>
	<p>Check Spelling. Checks the spelling for the selected word or text box.</p>
	<p>Spelling Options. Enables you to configure the way ALM checks spelling.</p>
	<p>Thesaurus. Displays a synonym, antonym, or related word for the selected word.</p>
<p>Dependencies</p>	<p>Displays the relationships between the currently selected test resource and other entities. For more details, see "Dependencies Tab" on page 645.</p>
<p>Details</p>	<p>Details of the currently selected test resource. For details on the available fields, see "Test Resources Module Fields" on page 639.</p>
<p>Name</p>	<p>The name of the resource.</p>
<p>Resource Viewer</p>	<p>Enables you to upload files for the currently selected test resource to the ALM repository. You can also download files to a local directory. For more details, see "Resource Viewer Tab" on page 641.</p>
<p>Type</p>	<p>Indicates the type of resource. For details, see "Test Resources Module Icons" on page 637.</p>

Paste Resources To Target Project Dialog Box

This dialog box enables you to choose how ALM copies test resources across projects.



<p>To access</p>	<p>Use one of the following:</p> <ul style="list-style-type: none"> ▶ In the Test Resources module, right-click a resource folder and select New Resource. The New Resource dialog box opens. ▶ In the Test Resources module, click the History tab. Click Baselines or Versions and Baselines. Click the View button. The Resource Details dialog box opens.
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User interface elements are described below:

UI Elements	Description
Copy resources and link to existing related entities	ALM copies the test resources and pastes them into the target project. The copied test resources are linked to existing entities with the same name and path. If a related entity does not exist in the target project, ALM copies it to the target project.
Copy resources and related entities	ALM copies the test resources along with the related entities, and pastes them into the target project. If an entity already exists in the target project, the copied related entity is renamed to resolve the duplicate name.
Copy resources without copying related entities	ALM copies the test resources without copying the related entities, and pastes them into the target project. The copied items are not linked to any related entities.

26

VAPI-XP Tests

This chapter includes:

Concepts

- ▶ VAPI-XP Tests Overview on page 652

Tasks

- ▶ How to Create VAPI-XP Test Scripts on page 653
- ▶ How to Edit VAPI-XP Test Scripts on page 663
- ▶ How to Use the VAPI-XP API on page 667
- ▶ How to Run VAPI-XP Tests in Debug Mode on page 672
- ▶ How to Run VAPI-XP Tests in Test Mode on page 673
- ▶ How to Debug VAPI-XP Tests Scripts Test Mode on page 674

Reference

- ▶ VAPI-XP User Interface on page 677

Concepts

VAPI-XP Tests Overview

The VAPI-XP testing tool enables you to create new testing scripts using Microsoft VBScript, Microsoft JavaScript (JScript version), PerlScript, and PythonScript, and integrate these scripts into your application management process. Using VAPI-XP test scripts, you can test COM/DCOM servers, SOAP-based Web services, Java APIs (such as Java classes and EJBs), and console applications. You can also use VAPI-XP to create a LoadRunner virtual user.

In addition, VAPI-XP is fully integrated with HP Application Lifecycle Management (ALM), enabling you to design your VAPI-XP test script to call any ALM test or test set, and execute it as part of your own script. This allows you to build a more advanced test set execution flow, in which you can filter tests in a test set during execution, based on the status or type of each test.

VAPI-XP is also fully integrated with the ALM Open Test Architecture API. All open test architecture API classes and methods can be referenced from the VAPI-XP user interface so that you can easily include them in your test script.

For task details, see:

- ▶ "How to Create VAPI-XP Test Scripts" on page 653
- ▶ "How to Edit VAPI-XP Test Scripts" on page 663
- ▶ "How to Use the VAPI-XP API" on page 667
- ▶ "How to Run VAPI-XP Tests in Debug Mode" on page 672
- ▶ "How to Run VAPI-XP Tests in Test Mode" on page 673
- ▶ "How to Debug VAPI-XP Tests Scripts Test Mode" on page 674

Tasks

How to Create VAPI-XP Test Scripts

You create a VAPI-XP test script from the test plan tree in the Test Plan module.

To learn more about VAPI-XP tests, see "VAPI-XP Tests Overview" on page 652.



Note: You can also convert a manual test to a VAPI-XP test. In the **Design Steps** tab, click the **Generate Script** button and select **VAPI-XP-TEST**. ALM creates a VAPI-XP test script that includes code for the steps that you defined. It also includes code for called tests that were part of the original manual test. For more information on manual tests, see Chapter 22, "Test Design."

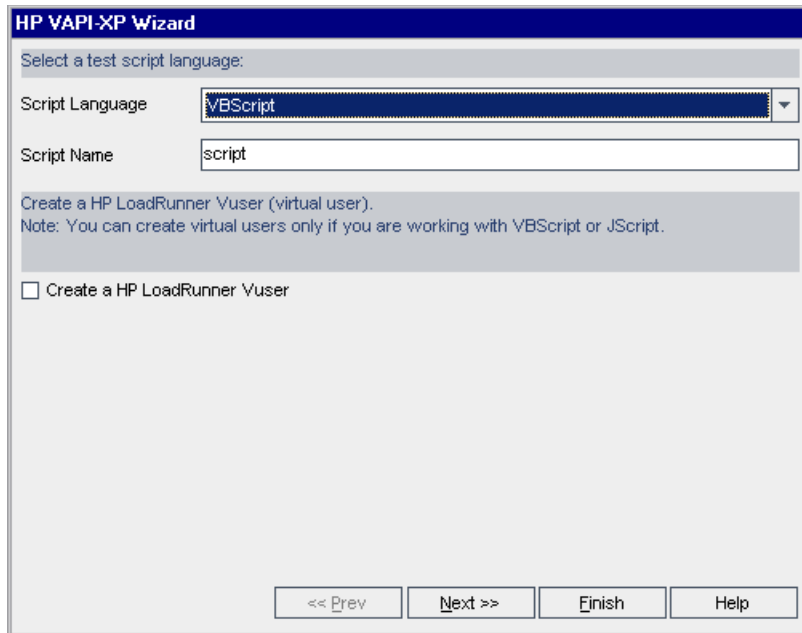
To create a VAPI-XP test script:

- 1** Choose a subject folder in the test plan tree.
- 2** Click the **New Test** button or choose **Tests > New Test**. The New Test dialog box opens.
- 3** In the **Test Type** box, select **VAPI-XP-TEST**.
- 4** In the **Test Name** box, type a name for the test. Note that a test name cannot include the following characters: \ / : " ? < > | * % ' .
- 5** Add test details in the Details tab. Click **OK**.



Note: If required test fields were defined in the Project Customization window, the Required Test Fields dialog box opens. Select values for the required fields, and click **OK**.

The HP VAPI-XP Wizard opens.



- 6 In the **Script Language** box, select a script language.

Notes:

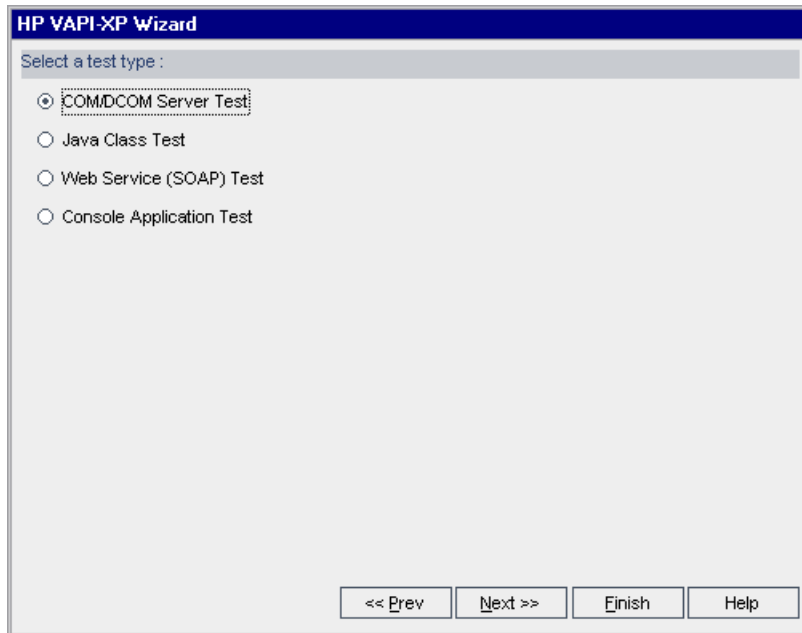
- ▶ To create a VAPI-XP test script using ActiveState's ActivePython or ActivePerl scripts, you must install the script language on your machine. From the **Help** menu in the Test Script tab, select **ActivePython Home Page** or **ActivePerl Home Page**, and follow the appropriate installation instructions.
 - ▶ Microsoft's VBScript and JScript are usually installed with Internet Explorer. If they are not installed on your machine, select **VBScript Home Page** or **JScript Home Page** from the **Help** menu in the Test Script tab, and follow the appropriate installation instructions.
-

7 In the **Script Name** box, type a name for the VAPI-XP test script.

8 If you selected VBScript or JavaScript as your test scripting language, you can select **Create HP LoadRunner Vuser** to create a LoadRunner virtual user script that can be run in the LoadRunner Controller.

Note: To run this virtual user in the Controller, you must install the latest version of the HP Quality Center Connectivity Add-in on your LoadRunner client machine. This add-in is available from the HP Application Lifecycle Management Add-ins page. For more information, refer to the *HP Application Lifecycle Management Installation Guide*.

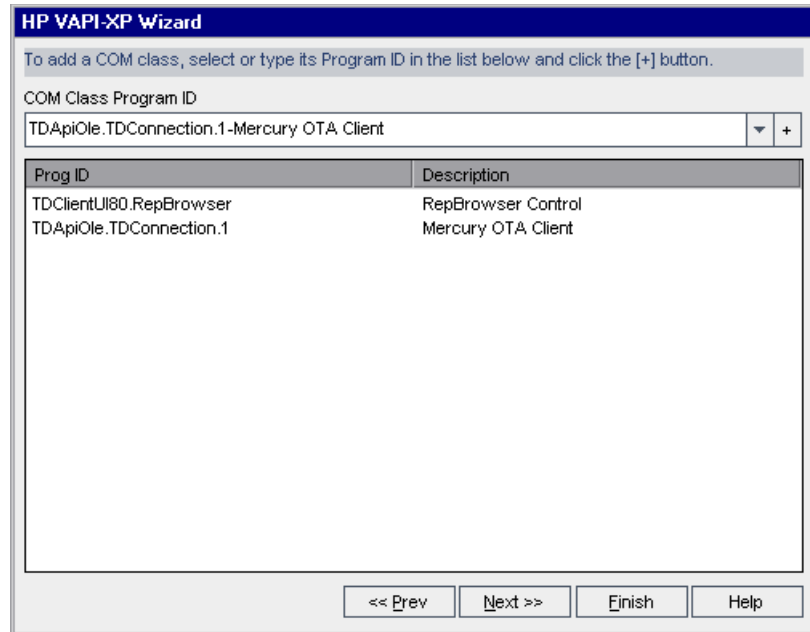
- 9 Click **Next** to continue creating the test script using the HP VAPI-XP Wizard. The following dialog box opens.



Note: In each dialog box, you can click **Finish** to close the Wizard and continue creating the test script in the Test Script tab.

- 10 Select the type of test you want to create.
- 11 Click **Next** to continue creating the test script using the HP VAPI-XP Wizard.

- If you selected **COM/DCOM Server Test**, choose the Program IDs of the COM/DCOM objects in your machine's registry that you want to test, and click the + button. Each selected COM/DCOM object and its description is displayed in the box below.



- ▶ If you selected **Java Class Test**, type the full name of the Java class that you want to test in the **Java Class Name** box, and click the + button. The Java class name you typed appears in the text box below.

HP VAPI-XP Wizard

To add a java class, enter the full java class name in the edit box below, and click the [+] button.

Java Class Name +

Java Virtual Machine _____

Note that a Bean Scripting Framework (BSF) Java package is required.

JVM Runtime

Java Compiler

Classpath

JVM Parameters

<< Prev Next >> Finish Help

Note: You can only use a Java class that has a public constructor that does not take arguments.

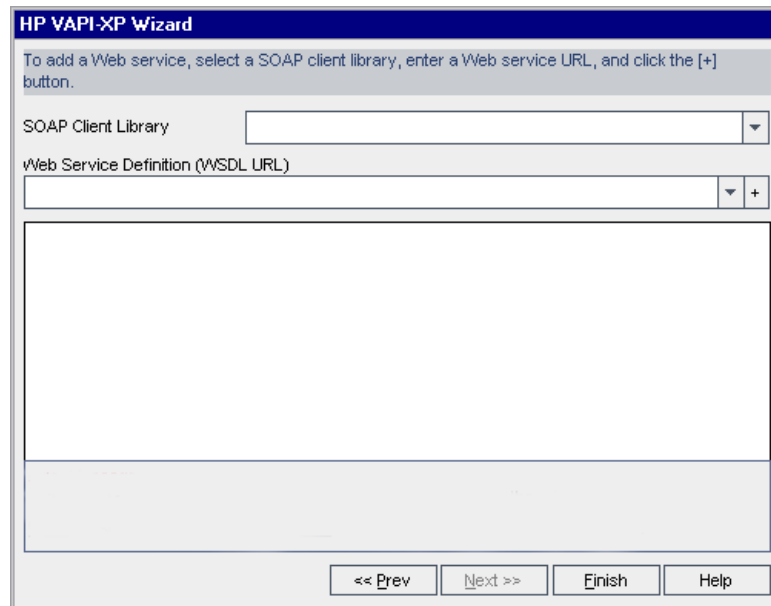
Under **Java Virtual Machine**, specify the following:

- ▶ **JVM Runtime.** The Java virtual machine runtime executable file (usually **java.exe**).
- ▶ **Java Compiler.** The executable file that recompiles the bytecode at the execution platform (usually **javac.exe**).

- **Classpath.** A list of additional (non-standard) Java libraries, separated by semi-colons (;), required to run the specified Java application. Note that if you do not specify the Java classpath, ALM uses the environment variable **CLASSPATH**.
- **JVM Parameters.** The parameters for the Java virtual machine run-time executable file.

When working with Java virtual machines, add the location of the BSF DLLs to the system path, as follows: In the Control Panel, choose **System > System Properties**, and then click the **Advanced** tab. Click the **Environment Variables** button, and in the **System Variables** area, edit the **Path** parameter by adding the path of the following DLLs: **msvcp60.dll**, **bsfactivscriptengine.dll**, and **bsfactivscriptengine_g.dll**. Click **OK**.

- If you selected **Web Service (SOAP) Test**, choose the SOAP client library from the **SOAP Client Library** list, and type or select the URL you want to test in the **Web Service Definition** box. Click the + button. The URL you typed appears in the text box below.



Note: Two SOAP client libraries are supported: Microsoft SOAP SDK and PocketSOAP. Note that even if you choose to work with PocketSOAP, you must install Microsoft SOAP SDK to parse Web services. If Microsoft SOAP SDK is not already installed on your machine, run the **SoapToolkit30.exe** file located in the **Redist** directory on your ALM installation DVD.

- ▶ If you selected **Console Application Test**, type the name of the application file you want to test in the **Application Executable File** box, and its parameters in the **Command Line Parameters** box.

Clear the **Use VAPI-XP Output instead of Standard Output** box if you do not want to replace the standard output with the VAPI-XP output window.

In the **Application Timeout** box, type the time, in milliseconds, for ALM to wait for the application to finish running. Note that if the timeout is set to **-1**, ALM waits an infinite amount of time for the application to finish running.

Click the + button. The data you entered appears in the text box below.

HP VAPI-XP Wizard

To add a console application, enter an application file name and parameters, and click the [+] button.

Console Application

Application Executable File +
ping.exe

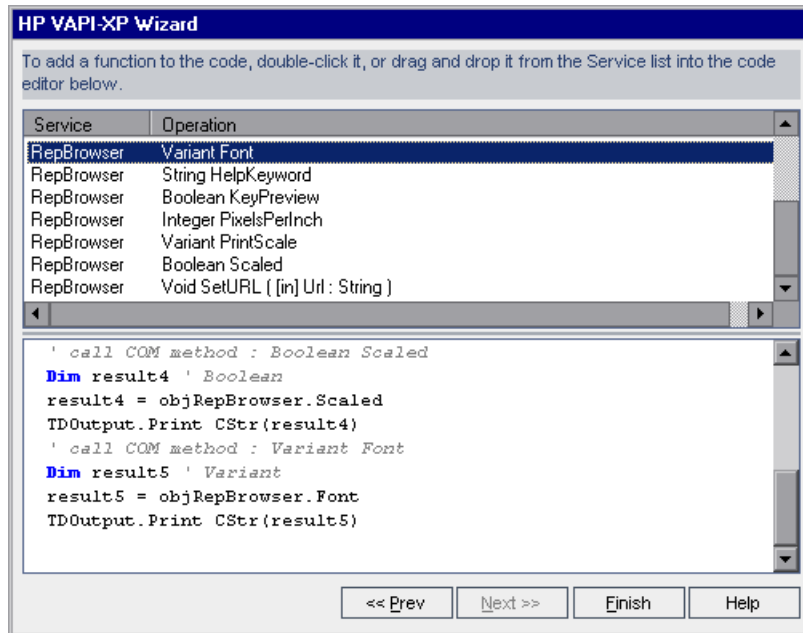
Command Line Parameters
delta

Use Vapi-XP Output instead of Standard Output.

Application Timeout (in milliseconds, -1 = INFINITE)

Application	Arguments	Timeout	Use Output
ping.exe		-1	true

- 12** Click **Next** to continue creating the test script using the HP VAPI-XP Wizard. The following dialog box opens.



- 13** In the **Service** list, select the functions you want to add to your test script. Double-click each function, or drag and drop it, to add it to your script code. The function is added to the box below the Service list.
- 14** If required, enter additional parameters or add extra code to the script in the lower pane.
- 15** Click **Finish**. The new test appears in the test plan tree under the subject folder you selected.

Note: You can choose to add details and attachments to the VAPI-XP test you created, or define requirements coverage. For information, see Chapter 19, "Test Plan Specification."

How to Edit VAPI-XP Test Scripts

After you have created a VAPI-XP test script using the HP VAPI-XP Wizard, you can edit it in the Test Script tab.

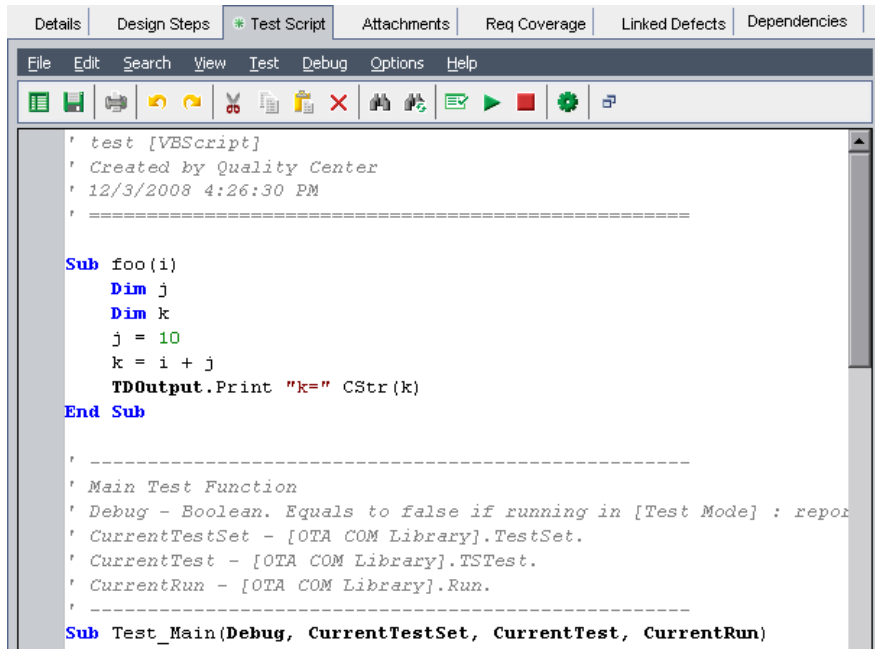
To learn more about VAPI-XP tests, see "VAPI-XP Tests Overview" on page 652.



Tip: You can display the Test Script tab in a separate window by selecting **View > Window Screen**, or clicking the **Window Screen** button.

To edit a VAPI-XP test script:

- 1 In the test plan tree, select a VAPI-XP test, and click the **Test Script** tab. The test script is displayed.



```

' test [VBScript]
' Created by Quality Center
' 12/3/2008 4:26:30 PM
' -----

Sub foo(i)
  Dim j
  Dim k
  j = 10
  k = i + j
  TOutput.Print "k=" CStr(k)
End Sub

' -----
' Main Test Function
' Debug - Boolean. Equals to false if running in [Test Mode] : report
' CurrentTestSet - [OTA COM Library].TestSet.
' CurrentTest - [OTA COM Library].TSTest.
' CurrentRun - [OTA COM Library].Run.
' -----

Sub Test_Main(Debug, CurrentTestSet, CurrentTest, CurrentRun)

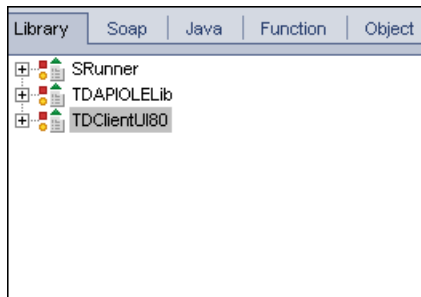
```

Note: To view or edit the properties of the test script you created, choose **Test > Properties**.

- 2 To view a list of object definitions, methods, and properties that you can add to your script, select one of the following options:
 - **Test > References > COM Library References.** Opens the References dialog box in which you can choose the COM object definitions, methods, and properties you want to view.
 - **Test > References > SOAP Web Service References.** Opens the Add Web Service Reference dialog box in which you can type the Web service object definition or method you want to view.
 - **Test > References > Java Class References.** Opens the Add Java Class Reference dialog box in which you can type the Java class object definition or method you want to view.



- 3 Select **View > Browsers**, or click the **Show/Hide Browsers** button. The following tabs are displayed.

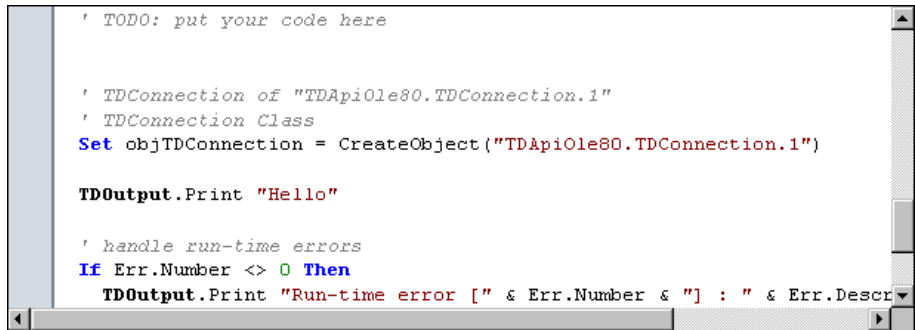


- **Library tab.** Displays a list of VAPI-XP (SRunner), ALM (TDAPIOLELib), and COM/DCOM object definitions, methods, and properties that you can add to your script. For an explanation of VAPI-XP object definitions, methods, and properties, see "How to Use the VAPI-XP API" on page 667. For an explanation of ALM object definitions, methods, and properties, refer to the *HP ALM Open Test Architecture API Reference*.

- **Soap tab.** Displays a list of Web service object definitions and methods that you can add to your script.
- **Java tab.** Displays a list of Java class object definitions and methods that you can add to your script.
- **Function tab.** Displays a list of functions contained in your script.
- **Object tab.** Displays a list of objects with defined names that you can add to your script.

Note: For a description of each object definition, method, or property, select **View > Output**, and click the **Help** tab.

- 4** To add an object definition, method, or property to the current function in your script, place the cursor in the appropriate place in your code, and double-click the object definition, method, or property in the Library, Soap, or Java tabs.



```

' TODO: put your code here

' TDConnection of "TDApiOle80.TDConnection.1"
' TDConnection Class
Set objTDConnection = CreateObject("TD&ApiOle80.TDConnection.1")

TDOutput.Print "Hello"

' handle run-time errors
If Err.Number <> 0 Then
    TDOutput.Print "Run-time error [" & Err.Number & "] : " & Err.Descri

```

- 5 To add an object with a defined name, select the object definition, method, or property in the Library, Soap, or Java tabs, and choose **Test > Add Object**. In the Add Object dialog box, type the name you want to assign to the object and click **OK**. The object is added to the Object tab.

Library		Soap	Java	Function	Object
Name	ProgID				
TDConnection	TDApiOle80.TDConnection				
TDHelper	SRunner.TDHelper				
TDInput	SRunner.TDInput				
TDOutput	SRunner.TDOutput				
ThisTest	TDApiOle80.Test				
XTools	SRunner.XTools				

To add the object to your script, double-click the object, or right-click it and select **Insert into Script**.



- 6 To check the syntax of your code, choose **Test > Check Syntax**, or click the **Syntax Check** button. Select **View > Output** to view the verification results in the **Output** tab.

Additional Editing Functions

You can also perform the following editing functions in the Test Script tab:

- ▶ To undo a previous action, click the **Undo** button. To restore an action that was undone, click the **Redo** button.



- ▶ To remove a section of code from one part of your script, and place it in another part of the script, select the section and click the **Cut** and **Paste** buttons.



- ▶ To copy a section of code from one part of your script, and place it in another part of the script, select the section and click the **Copy** and **Paste** buttons.



- ▶ To delete a section of code, select it and click the **Delete** button.



- ▶ To locate specific text within your script, click the **Find in Script** button. In the Find Text dialog box, type the text for which you want to search. Select the options, direction, scope, and origin for your search, and click **OK**.

To find another occurrence of the text within the script, choose **Search > Find Next**.



- ▶ To locate specific text within your script and replace it with different text, click the **Replace** button. In the Find Text dialog box, type the text you want to search for in the **Text to find** box. Type the text with which you want to replace this text in the **Replace with** box. Select the options, direction, scope, and origin for your search, and click **OK**. To replace all instances of the text in the script, click the **Replace All** button.

- ▶ To locate a specific line number within your script, choose **Search > Go to Line Number**. In the Go to Line Number dialog box, type the line number you want to find, and click **OK**.



- ▶ To change the editor options, such as the margins, fonts, and screen/text colors, click the **Editor** button. Set the properties you want in the Editor, Display, and Colors tabs, and click **OK**.



After you have finished editing your script, click the **Save** button to save the changes you made.

How to Use the VAPI-XP API

The VAPI-XP tool contains a built-in library of VAPI-XP object definitions that you can reference as you are creating your test script.

To learn more about VAPI-XP tests, see "VAPI-XP Tests Overview" on page 652.

Using the TDHelper Object

The TDHelper object supplies the following functions that you can use to perform ALM-related tasks.

RunTestSet

Executes the selected test set and returns the accumulated test set execution status.

```
RunTestSet([Name = "default"], [Filter = ""], [Locally = FALSE], [Host = ""],  
[HostGroup = ""])
```

Name. Test set name. Optional. Default = "default"

Filter. Test filter. Defines tests to run. If empty, instructs ALM to run all the tests in a specified test set. Optional. Default = ""

Locally. If set to TRUE, instructs ALM to run test set locally. Optional. Default = FALSE

Host. Host on which test set will be run. Optional. Default = ""

HostGroup. Host group in which test set will be run. Optional. Default = ""

RunTest

Executes the selected test and returns the test execution status.

```
RunTest(Name, Instance, TestSet, [Locally = FALSE], [Host = ""], [HostGroup = ""])
```

Name. Test name.

Instance. Test instance.

TestSet. Test set name.

Locally. If set to TRUE, instructs ALM to run test set locally. Optional. Default = FALSE

Host. Host on which test set will be run. Optional. Default = ""

HostGroup. Host group in which test set will be run. Optional. Default = ""

AddDefect

Adds a new defect to the current test, if the test is being run in debug mode. If the test is being run in test mode, a new defect is added to the current run of the test instance in the current test set. Returns a created defect object.

AddDefect([Fields], [StepKey])

Fields. Two-dimensional array—the first dimension is for the field name, and the second for the field value. Optional.

StepKey. Step ID for step related to new defect. Optional.

AddDefectUI

Adds a new defect to the current test (in debug mode) or the current run (in test mode), using the ALM New Defect dialog box.

AddDefectUI([StepKey])

StepKey. Step ID for step related to new defect. Optional.

AddStepToRun

Adds a new step to the current run. Returns a created step object.

AddStepToRun(Name, [Desc], [Expected], [Actual], [Status])

Name. Step name.

Desc. Step description. Optional.

Expected. Expected step result. Optional.

Actual. Actual step result. Optional.

Status. Step status. Optional.

DownloadAttachment

Downloads the attachment associated with a test object. Returns the local path to which the download was performed.

DownloadAttachment(Name, item)

Name. The attachment name.

item. Reference to the object with the attachment.

UploadAttachment

Uploads an attachment and associates it with a test object.

UploadAttachment(path, item)

path. The local path (fully specified file name) of the item to upload.

item. Reference to the object to which to associate the attachment.

Using the TDInput Object

The TDInput object supplies the following function that you can use to obtain an input value from an end user.

GetInput

Displays the Input dialog box, enabling you to obtain an input value from an end user.

GetInput([Caption],[Name])

Caption. Dialog box caption. Optional.

Name. Name of the input value. Optional.

Using the TDOutput Object

The TDOutput object supplies the following functions that you can use to control the VAPI-XP Output tab.

Clear Method

Clears the Output tab.

Clear

Print Method

Prints the text message to a new line in the Output tab.

Print(Msg)

HookDebug Property

Sets or removes the hook for the OutputDebugString tab API function.

HookDebug

Text Property

Gets or sets the Output tab text.

String Text

Using the XTools Object

The XTools object supplies the following functions that you can use to perform general tasks.

run

Runs command line with passed attributes.

run(Command, [Args = ""], [Timeout = -1], [UseOutput = TRUE])

Command. Application executable file.

Args. Application arguments. Optional. Default = ""

Timeout. Timeout in milliseconds. If this is -1, ALM waits an infinite amount of time for the application to finish running.

UseOutput. If TRUE, ALM replaces the standard output with the VAPI-XP output window.

WrapArray

Creates an array of variants from an array of objects. For example, if a called object returns as a method result an array of strings, none of the supported script engines is able to read the array. Calling the WrapArray function and passing the returned array as a function parameter creates an array of variants that can be understood by the scripting engine.

WrapArray (array)

array. Array to wrap.

Sleep

Suspends script execution for a specified amount of time.

Sleep(interval)

interval. Time (in milliseconds) for script execution suspension

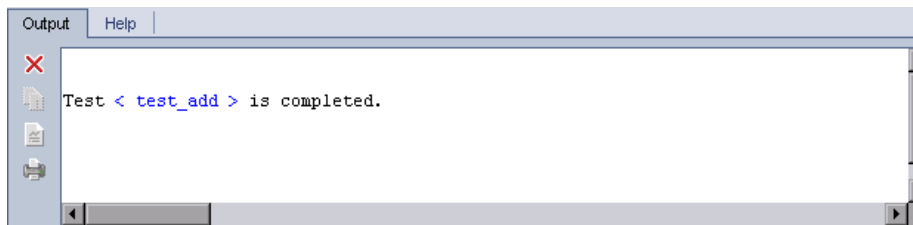
How to Run VAPI-XP Tests in Debug Mode

After you have created and edited your VAPI-XP test script, you can run it in debug mode or test mode. Running a VAPI-XP test in debug mode enables you to execute the test without including it in a test set and without creating test run data in the ALM project. It is generally recommended that you use the debug mode while you are developing your test, and the test mode once you have completed creating your test.

To learn more about VAPI-XP tests, see "VAPI-XP Tests Overview" on page 652.

To run a VAPI-XP test in debug mode:

- 1** In the Test Plan module, select a VAPI-XP test from the test plan tree, and click the **Test Script** tab.
- 2** Select **Test > Execute (Debug Mode)**, or click the **Execute Script** button. ALM begins executing the test script you selected.
- 3** Select **View > Output** to view the output generated by the test script.



➤ To clear the Output tab, click the **Clear Output** button.



➤ To copy the output text to the clipboard, select it and click the **Copy Selected Text to Clipboard** button.



► To view the test script output in a Web browser, click the **Open Output Text in Web Browser** button.



► To print the test script output, click the **Print Output** button.



4 To stop executing the VAPI-XP test before it finishes running, select **Test > Stop**, or click the **Stop** button.

How to Run VAPI-XP Tests in Test Mode

You can run your VAPI-XP test in test mode once you have added the test to a test set in the Test Lab module.

When you run a VAPI-XP test in test mode, test run data is created in the ALM project. You can run your VAPI-XP test in test mode from either the Test Plan or Test Lab module.

Note: To run VAPI-XP tests remotely, you must install the HP ALM Client Registration Add-in and the HP Quality Center Connectivity Add-in on the host machine on which the tests are executed. For more information on add-ins, refer to the *HP Application Lifecycle Management Installation Guide*.

To learn more about VAPI-XP tests, see "VAPI-XP Tests Overview" on page 652.

To run a VAPI-XP test in test mode from the Test Plan module:

- 1** Select a VAPI-XP test from the test plan tree, and click the **Test Script** tab.
- 2** Select **Test > Execute (Test Mode)**. The Select Test Set dialog box opens.
- 3** In the **Test Set** box, select the test set containing the current VAPI-XP test.
- 4** In the **Instance** box, select the test instance that you want to run.
- 5** In the **Run Name** box, type the name you want to assign to the test run.
- 6** Click **OK**. ALM begins executing the test you selected.

- 7 To view the output generated by the test script, select **View > Output**. For an explanation of the Output tab, see "How to Run VAPI-XP Tests in Debug Mode" on page 672.
- 8 To stop executing the VAPI-XP test before it finishes running, select **Test > Stop**, or click the **Stop** button.



To run a VAPI-XP test in test mode from the Test Lab module:

- 1 From the **Test Sets** list, select the test set containing the VAPI-XP test you want to run.
- 2 In the **Execution Grid**, select the test you want to run, and click the **Run** button. The Automatic Runner dialog box opens, displaying the selected test.
- 3 In the **Run on Host** column, select a host machine on which to run the VAPI-XP test, or choose **Run All Tests Locally** to run the test on your local machine.
- 4 Click the **Run** button. The VAPI-XP Test Script window opens as ALM begins executing the selected VAPI-XP test. When ALM finishes executing the test, the Automatic Runner dialog box displays the status of the test run.

How to Debug VAPI-XP Tests Scripts Test Mode

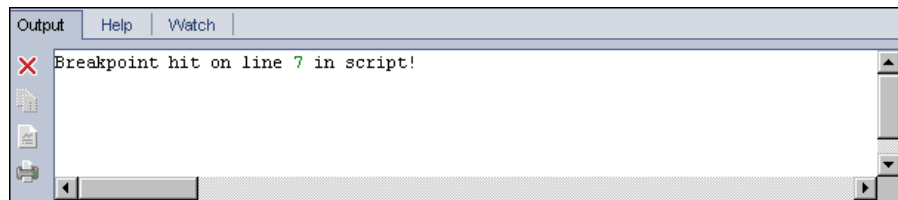
If your test run was not successfully completed, you can use VAPI-XP's Integrated Debugger to assist you in debugging your VAPI-XP test script.

Note: You cannot use the Integrated Debugger to debug PerlScript or PythonScript test scripts.

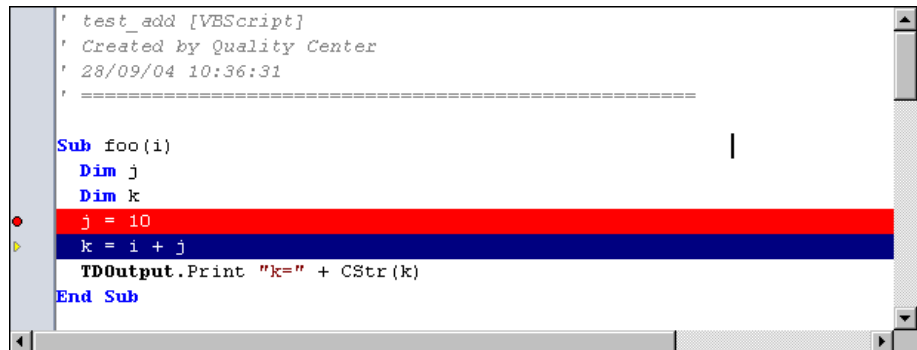
To learn more about VAPI-XP tests, see "VAPI-XP Tests Overview" on page 652.

To debug a VAPI-XP test script:

- 1 In the **Test Script** tab of the Test Plan module, select **Debug > Integrated Debugger**. Additional buttons controlling the debugging process are displayed on the toolbar.
- 2 To set a breakpoint in a script, select the line in the script where you want to set the breakpoint, and choose **Debug > Toggle Breakpoint** or click the **Toggle Breakpoint** button. Alternatively, click the gray margin next to the line in the script. The line you selected is highlighted in red.
- 3 Click the **Execute Script** button. ALM begins executing the script, stopping at the defined breakpoint. The Output tab displays the following message.



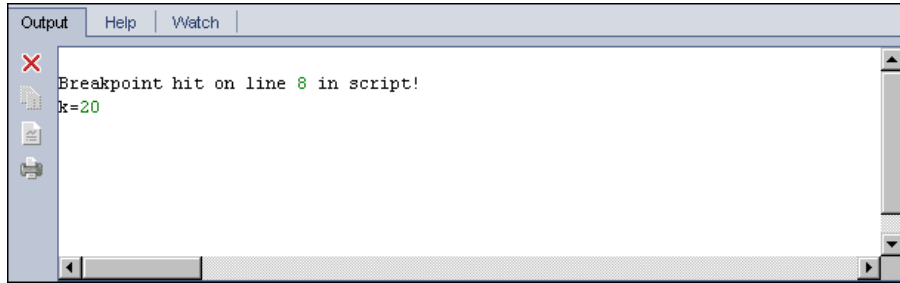
- 4 To instruct ALM to enter the script after the breakpoint, choose **Debug > Step Into** or click the **Step Into** button. The line in the script that follows the breakpoint is highlighted in blue.



- 5 To instruct ALM to step over a line in the script, click the **Step Over** button or choose **Debug > Step Over**.



- 6 To instruct ALM to execute the script, choose **Debug > Step Out** or click the **Step Out** button. The output is displayed in the **Output** tab.



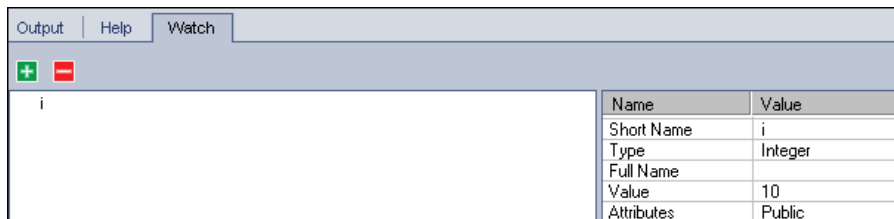
- 7 To view or edit the value of each variable in the script, choose **Debug > Variables** or click the **Show Variables** button. The Variables dialog box opens, displaying the variables available in the current script. Select a variable to view its properties.

To change a variable's value, type the new value you want to assign to it in the **Value** box and click **Update**. Click **OK** to save your changes and close the Variables dialog box.



- 8 To view information about a specific variable while debugging, choose **Debug > Watch** or click the **Show Watch Window** button to display the Watch tab.

To add a variable to the Watch tab, click **+**, type a variable name in the **Prompt** box, and click **OK**. The variable and its values are displayed in the Watch tab.



- 9 To instruct ALM to resume executing the script, choose **Debug > Resume Execution** or click the **Resume Execution** button.



- 10 Choose **Debug > Stop Debugging**, or click the **Stop Debugging** button to stop the Integrated Debugger from debugging your script.

Reference

VAPI-XP User Interface

This section includes:

- ▶ HP VAPI-XP Wizard on page 677
- ▶ Test Script Tab on page 677

HP VAPI-XP Wizard

This wizard enables you to create VAPI-XP test scripts. For more details, see "How to Create VAPI-XP Test Scripts" on page 653.

Test Script Tab

This tab enables you to view and edit your VAPI-XP test scripts. For more details, see:

- ▶ "How to Edit VAPI-XP Test Scripts" on page 663
- ▶ "How to Use the VAPI-XP API" on page 667

Part V

Test Lab

Quality Center Starter Edition: Fields and functionality related to release management and baselining are not available in the Test Lab module.

27

Introducing Test Execution

This chapter includes:

Concepts

- ▶ Test Execution Overview on page 682

Tasks

- ▶ How to Run Tests in ALM on page 684
- ▶ Work with Draft Runs on page 687

Reference

- ▶ The Test Lab Module User Interface on page 688

Concepts

Test Execution Overview

You begin test execution by creating test sets, and choosing which tests to include in each set. A **test set** contains a subset of the tests in an HP Application Lifecycle Management (ALM) project designed to achieve specific test goals. As your application changes, you run the manual and automated tests in your project in order to locate defects and assess quality.

You can run ALM tests manually or automatically:

Running Tests Manually

You can run tests manually in ALM using:

- ▶ **HP Sprinter.** Sprinter provides enhanced functionality to assist you in the manual testing process. **ALM Editions:** Sprinter functionality is not available with Quality Center Starter Edition and Performance Center Edition.
- ▶ **Manual Runner.** If you are not working with Sprinter, you can run tests manually using Manual Runner.

You can run manual and automated tests manually in ALM. When you run a test manually, you follow the test steps and perform operations on the application under test. You pass or fail each step, depending on whether the actual application results match the expected output.

Running Tests Automatically

- ▶ You run tests automatically using Automatic Runner.
- ▶ You can run manual and automated tests automatically.
- ▶ When you run an automated test automatically, ALM opens the selected testing tool automatically, runs the test on your local machine or on remote hosts, and exports the results to ALM.
- ▶ When you run a manual test automatically, ALM notifies a designated tester by email to run the test on a specified host.

Following test runs, you review and analyze test results. Your goal is to identify failed steps and determine whether a defect has been detected in your application, or if the expected results of your test need to be updated. You can validate test results regularly by viewing run data and by generating reports and graphs.

You can also set a test as a draft run to instruct ALM to ignore the run results. For details, see "Draft Runs" on page 683.

Quality Center Starter Edition: Fields and functionality related to release management and baselining are not available in the Test Lab module.

For task details, see "How to Run Tests in ALM" on page 684.

Draft Runs

Setting a test as a draft run instructs ALM to ignore the run results. When you set a test instance as a draft run, the outcome of the run does not impact the execution status of the test, the status of the test instance, or the coverage status. ALM also ignores draft runs when calculating the remaining number of test instances to run, and when displaying results in coverage, progress, and live analysis graphs.

You can designate a test run as a draft before you perform the test. You can also mark a test run as a draft by modifying the **Draft Run** field at any time after the run. When you change the **Draft Run** value for a run, ALM recalculates all relevant statistics, and updates relevant status fields. Graphs display updated results.

Draft runs enable you to try out tests while they are still in development, or after they have been modified. For example, you may want to test that each step description is formulated correctly, or try out a part of a large test script.

Setting a test run as a draft requires the appropriate user permissions. For more information, refer to the *HP Application Lifecycle Management Administrator Guide*.

For task details, see "Work with Draft Runs" on page 687.

Tasks

How to Run Tests in ALM

This task describes how to run tests in your project using the ALM Test Lab module.

Note: This task is part of a higher-level task. For details, see "Application Lifecycle Management Roadmap" on page 26.

Quality Center Starter Edition: Fields and functionality related to release management and baselining are not available in the Test Lab module.

This task includes the following steps:

- "Create test sets" on page 685
- "Schedule test runs" on page 685
- "Run tests manually" on page 685
- "Run tests automatically" on page 685
- "Run performance tests" on page 686
- "View and analyze test results" on page 686
- "Link to a defect" on page 686

1 Create test sets

Start by creating and defining test sets in the Test Lab module. After you have created test sets, you assign test set folders to cycles defined in the releases tree in the Releases module.

For task details, see "How to Create Test Sets" on page 718.

2 Schedule test runs

You can set conditions, and schedule the date and time for executing your tests. You can also set the sequence in which to execute the tests.

For task details, see "How to Schedule Test Runs" on page 747.

3 Run tests manually

You can run manual and automated tests manually, executing the test steps that you defined during test planning.

For task details, see "How to Run Tests Manually" on page 763.

4 Run tests automatically

You can select manual and automated tests in a test set to run automatically.

For task details, see "How to Run Tests Automatically" on page 780.

5 Run performance tests

Performance Center: You can run performance tests to create load on an application and test its performance. For details, refer to the *HP ALM Performance Center Guide*.

6 View and analyze test results

View test results. After you run tests, review results to determine if the actual results match the expected results of the tests. For task details on viewing test results, see "How to View Test Results" on page 797.

Analyze run data by creating graphs and reports. Use one of the following:

- ▶ **View dynamic graphs of test set folders.** In the test sets tree, select a test folder, and click the **Live Analysis** tab. For task details on generating live analysis graphs, see "How to Generate Live Analysis Graphs" on page 1023.
- ▶ **View test set data in a graph.** On the Test Lab module menu, select **Analysis > Graphs**. For task details on generating graphs, see "How to Generate a Graph" on page 900.
- ▶ **Create a report of test set data.** On the Test Lab module menu, select **Analysis > Reports**. For task details on creating reports, see "How to Generate a Standard Report" on page 1003.

For details on additional analysis tools in ALM, see "How to Analyze Data in ALM" on page 876.

7 Link to a defect

If a defect has been detected, you can create a new defect and link it to the test set, test instance, test run, or run step, or link an already-existing defect.

For user interface details, see "Linked Defects/Entities Page" on page 866.

Work with Draft Runs

This task describes how to set test runs as draft runs.

Before a test run. You can mark a test that you are running manually as a draft run before performing the test. In the Manual Runner: Run Details page, set the value of the **Draft Run** field to **Y**. For user interface details, see "Manual Runner Wizard" on page 769.

After a test run. You can mark any test run as a draft by modifying the **Draft Run** field for the run. For details on accessing run details, see "How to View Test Results" on page 797.

Reference

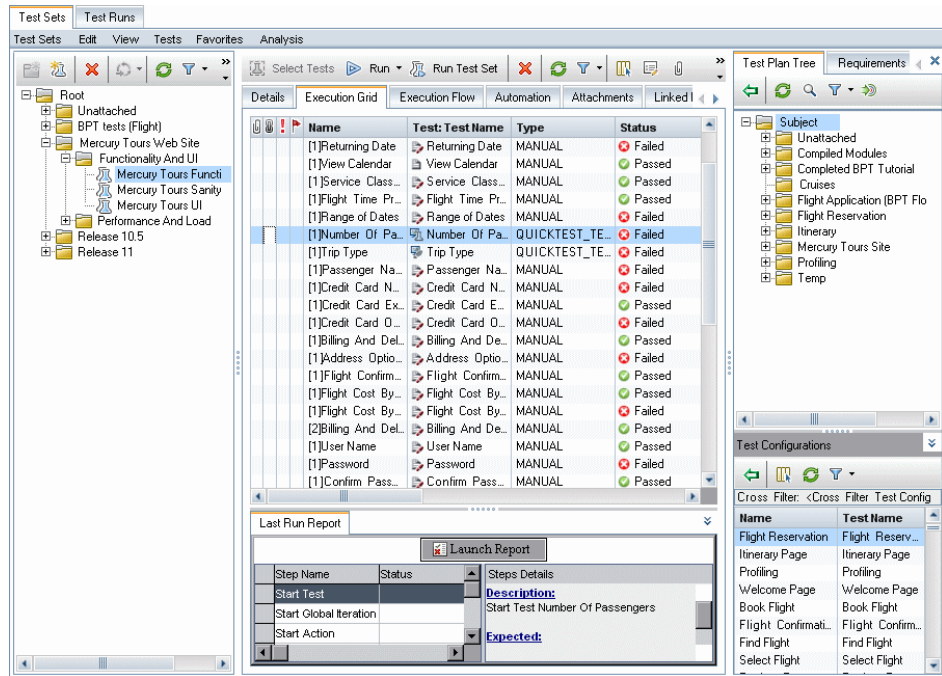
The Test Lab Module User Interface

This section includes:

- ▶ Test Lab Module Window on page 689
- ▶ Test Lab Module Menus and Buttons on page 692
- ▶ Test Lab Module Icons on page 708
- ▶ Test Lab Module Fields on page 710

Test Lab Module Window

This window enables you to create test sets and perform test runs.



To access	On the ALM sidebar, under Testing , select Test Lab .
Important information	<p>The Test Lab module contains the following tabs:</p> <ul style="list-style-type: none"> ► Test Sets. Enables you to create and modify test sets in the test sets tree. ► Test Runs. Enables you to view all test runs for your project in a grid. <p>Quality Center Starter Edition: Fields and functionality related to release management and baselining are not available in the Test Lab module.</p>
Relevant tasks	"How to Create Test Sets" on page 718
See also	"Test Execution Overview" on page 682

Test Lab Module Common Elements

User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements	Description
<Test Lab module common UI elements>	<ul style="list-style-type: none"> ▶ Test Lab fields. For field definitions, see "Test Lab Module Fields" on page 710. ▶ Test Lab menus and buttons. For command and button descriptions, see "Test Lab Module Menus and Buttons" on page 692. ▶ Test Lab icons. For icon descriptions, see "Test Lab Module Icons" on page 708. ▶ ALM main menu and sidebar. For details on the Tools menu, Help menu and sidebar, see "ALM Common Areas" on page 40.

Test Sets Tab

User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements	Description
<Test sets tree>	<p>Located on the left side of the window, organizes and displays your test sets hierarchically. A test set contains a subset of the tests in your project.</p> <p>Note: You cannot move items within a folder. When you refresh the tree view, items in a folder are alphabetized.</p>
Attachments tab	Lists attachments that provide additional information about the currently selected test set. For details, see "Attachments Page" on page 86.
Automation tab	Displays email notification rules and On Failure instructions for the currently selected test set. For details, see "Automation Tab" on page 726.
Description tab	Describes the currently selected test set or test set folder. Click in the text box to display a toolbar for formatting and spell checking the text.

UI Elements	Description
Details tab	Displays details of the currently selected test set or folder. Note: For a test set folder, click the Show button to view additional information.
Execution Flow tab	Displays test data in a diagram. Enables you to specify conditions for test execution. For details, see "Execution Flow Tab" on page 751.
Execution Grid tab	Displays test data in a grid. For details, see "Execution Grid Tab" on page 723.
Filter	Describes the filter currently applied to the tree. Located directly above the test sets tree.
History tab	Lists changes made to the currently selected test set. For details, see "History Tab" on page 81.
Linked Defects tab	Lists the defects linked to the currently selected test set. For user interface details, see "Linked Defects/Entities Page" on page 866.
Live Analysis	A graphical representation of the test data related to the currently selected test set folder. For details, see "Live Analysis Tab" on page 1026. Available from: Test set folder
Select Test Pane	Displays the Test Plan Tree tab and the Requirements Tree tab, enabling you to select tests to add to the selected test set. For details, see "Select Tests Pane" on page 732. Available from: Execution Grid, Execution Flow

Test Runs Tab





For details, see "Test Runs Tab" on page 813.


Test Lab Module Menus and Buttons

This section describes the menus and buttons available in the Test Lab module.


To access	On the ALM sidebar, under Testing, select Test Lab .
Important information	<ul style="list-style-type: none"> ➤ Some menu commands and buttons are not available in all Test Lab tabs. ➤ The Tests menu is available from the Execution Grid and Execution Flow tabs. ➤ ALM Editions: <ul style="list-style-type: none"> ➤ Quality Center Starter Edition: Fields and functionality related to release management are not available in the Test Lab module. ➤ Quality Center Starter Edition and Performance Center Edition: Sprinter functionality is not available.
Relevant tasks	"How to Run Tests in ALM" on page 684
See also	<ul style="list-style-type: none"> ➤ "Test Execution Overview" on page 682 ➤ "Test Lab Module Window" on page 689 ➤ "Test Lab Module Icons" on page 708



User interface elements are described below:




UI Elements (A-Z)	Menu	Description
		<p>Add Time Dependency to Flow. Adds a time dependency icon to the diagram.</p> <p>To create a time dependency for a test, link the arrow from the icon to a test in the Execution Flow. The default time dependency is the ALM Platform server's current date and time. For more details, see "Execution Flow Tab" on page 751.</p> <p>Available from: Execution Flow</p>
Alerts	Tests	<p>Opens the Alerts dialog box, enabling you to display alerts for the test instance. For details, see "Alerts Dialog Box" on page 104.</p> <p>Available from: Test Sets tab > Execution Grid; Test Runs tab</p>
 Arrange Layout	Tests	<p>Arranges the tests in the Execution Flow diagram in a hierarchical layout, enabling you to view relationships between different tests.</p> <p>Available from: Execution Flow</p>
 Assign to Cycle	Test Sets	<p>Enables you to assign a test set folder to a cycle. For more details, see "Select Cycles Dialog Box" on page 185.</p> <p>Available from: Test Sets tab</p>
 Attachments		<p>Opens the Attachments page inside the Test Instance Details dialog box, enabling you to add an attachment to a test instance. For details, see "Attachments Page" on page 86.</p> <p>Available from: Execution Grid</p>



UI Elements (A-Z)	Menu	Description
Clear Alerts	Tests	Clears displayed alerts for the module. For more details, see "How to Use Alerts" on page 99. Available from: Execution Grid
 Clear Assigned Cycle	Test Sets	Clears the assigned cycle from the test set folder. Available from: Test Sets tab
Clear Follow Up Flag	<ul style="list-style-type: none"> ▶ Edit (In the Test Runs tab) ▶ Tests (In the Test Sets tab > Execution Grid) 	Clears the follow up flag for a selected test instance or test run. For more details, see "Follow Up Flags Overview" on page 98.
Clear Pinned Baseline	Test Sets	Clears the baseline that is pinned to the test set. Note: <ul style="list-style-type: none"> ▶ If the test set includes tests that no longer exist in the Test Plan module, ALM deletes the tests from the test set. ▶ Deletes all test runs from the test set.
Collapse	View	Collapses the folders in the test sets tree below the selected folder. Available from: Test Sets tab


UI Elements (A-Z)	Menu	Description
Continue Manual Run	<ul style="list-style-type: none"> ▶ Test Runs (in the Test Runs tab) ▶ Tests (in the Test Sets tab > Execution Grid/Flow) 	Continues running the selected tests with the same runner that was used the first time the test was run. For more details, see "How to Run Tests Manually" on page 763.
Copy/Paste	Edit	<p>Copies selected test sets or test set folders and pastes them to another test set folder in the same project or in another project.</p> <p>When you paste test sets to another project, the Paste Test Set Folders To Target Project dialog box opens. For details, see "Paste Test Set Folders To Target Project Dialog Box" on page 743.</p> <p>Note:</p> <ul style="list-style-type: none"> ▶ When copying test sets or test set folders, test run information is not copied. ▶ To copy test sets or test set folders across projects, both projects must use the same ALM version and patch level. <p>Available from: Test Sets tab</p>
Copy to Clipboard	Tests	Copies the Execution Flow diagram to the clipboard as a bitmap.



UI Elements (A-Z)	Menu	Description
Copy URL/Paste	Edit	Copies a selected test set or test run and pastes its URL as a link. The test set or test run itself is not copied. Instead, you can paste the address into another location, such as an email or a document. Clicking on the link opens ALM and takes you to the test set or test run. If you are not already logged in, ALM first prompts for login details.
Cut/Paste	Edit	<p>Moves a selected test set or test set folder to a different location in the test sets tree.</p> <p>Tip: You can also move a test set or test set folder to a new location in the test sets tree by dragging it.</p> <p>Available from: Test Sets tab</p>
 Delete	Edit	<p>Deletes a selected test set, test set folder, or test run. You cannot delete the Root folder, the Unattached folder, or the default test set.</p> <p>When deleting a test set folder, opens the Confirm Delete Folder dialog box, enabling you to select one of the following delete options:</p> <ul style="list-style-type: none"> ➤ Delete folders only. Deletes the folder and moves all test sets to the Unattached folder. The Unattached folder contains all test sets that are no longer associated with a folder. ➤ Delete folders and test sets. Permanently deletes the folder and all its subfolders and test sets.



UI Elements (A-Z)	Menu	Description
 Details		<p>Opens the corresponding Details dialog box, enabling you to view and update details of the selected test set, test instance, or test run.</p> <p>For more details, see:</p> <ul style="list-style-type: none"> ▶ "Test Set Details Dialog Box" on page 738 ▶ "Test Instance Details Dialog Box" on page 801 ▶ "Run Details Dialog Box" on page 816
 Edit Test		<p>Performance Center: Opens the Performance Test Designer, enabling you design the selected performance test. For details, refer to the <i>HP ALM Performance Center Guide</i>.</p>
Enable Manual Test Run Confirmation	Tests	<p>Instructs ALM to display the Manual Test Run dialog box each time you run manual tests. For details, see "Manual Test Run Dialog Box" on page 767.</p> <p>Available from: Execution Grid, Execution Flow</p>
Expand All	View	<p>Expands all folders in the test sets tree below the selected folder.</p> <p>Available from: Test Sets tab</p>
Export	Edit	<p>Exports the data in the Test Runs tab as a text file, Microsoft Excel worksheet, Microsoft Word document, HTML document, or text document.</p> <p>Available from: Test Runs tab</p>



UI Elements (A-Z)	Menu	Description
Filter	View	<p>Enables you to filter and sort the runs in the test runs grid. For more details, see "Filter Dialog Box" on page 60.</p> <p>Available from: Test Runs tab</p>
Find	<ul style="list-style-type: none"> ▶ Edit (In the Test Runs tab) ▶ Tests (In the Test Sets tab > Execution Grid) 	<p>Opens the Find dialog box, enabling you to search for a test run in the test runs grid, or a test instance in the Execution Grid. For details, see "Find Dialog Box" on page 74.</p>
Find Folder/Test Set	Edit	<p>Opens the Find dialog box, enabling you to search for test sets and test set folders. For details, see "Find Dialog Box" on page 74.</p> <p>Note: If you have applied filters to the test sets tree, ALM restricts the search to the test sets currently displayed.</p> <p>Available from: Test Sets tab</p>
 Find Test in Flow		<p>Opens the Find Test Instance dialog box, enabling you to search for a test in the Execution Flow diagram.</p> <p>A successful search opens the Find Results dialog box. Click the Keep on Top button  to display the Find Results dialog box on top of all open windows.</p> <p>To display a selected window on top of the Find Results dialog box, click the Not on Top button .</p> <p>Available from: Execution Flow</p>

UI Elements (A-Z)	Menu	Description
 Fit in Window		<p>Resizes the Execution Flow diagram to fit the window.</p> <p>Click the arrow to select a magnification option. Options include:</p> <ul style="list-style-type: none"> ▶ Magnification level - 25%, 50%, 150%, 200%. ▶ Normal. Displays the diagram at 100% magnification. ▶ Fit in Window. Displays the entire diagram in the window. ▶ Custom Zoom. Opens the Custom Zoom dialog box. Type a zoom level and click Zoom. <p>Available from: Execution Flow</p>
 Flag for Follow Up	<ul style="list-style-type: none"> ▶ Edit (In the Test Runs tab) ▶ Tests (In the Test Sets tab > Execution Grid) 	<p>Opens the Flag for Follow Up dialog box, enabling you to add or modify a follow up flag for a selected test instance or test run. For more details, see "Flag For Follow Up Dialog Box" on page 106.</p>
Go to Test in Test Plan Tree	Tests	<p>Opens the Test Plan module and highlights the selected test in the test plan tree.</p> <p>Available from: Execution Grid</p> <p>Tip: You can also right-click a test in the Execution Grid or Execution Flow, and select Go to Test in Test Plan Tree.</p>


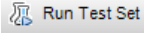
UI Elements (A-Z)	Menu	Description
Go to Test Set	Test Sets	<p>Opens the Go to Test Set dialog box, enabling you to type a Test Set ID to find a specific test set in the test sets tree.</p> <p>To locate the Test Set ID for a test set, select the test set in the test sets tree and click the Details tab.</p>
Graphs	Analysis	<p>Lists the graphs you can generate for test lab data. Select a predefined graph, or launch the graph wizard.</p> <p>For details on the predefined graph types, see "Graph Types" on page 906.</p>
Grid Filters	<ul style="list-style-type: none"> ▶ View (In the Test Runs tab) ▶ Tests (In the Test Sets tab > Execution Grid) 	<p>Displays a grid filter box under each column name, enabling you to define a filter condition for a column.</p> <p>Type directly into the box, or click the box to display the browse button, which opens the Select Filter Condition dialog box. For more details, see "Select Filter Condition Dialog Box" on page 70.</p>
Host Manager	Test Sets	<p>Opens the Host Manager dialog box, enabling you to define hosts for remote test execution. For details, see "Host Manager Dialog Box" on page 788.</p>
Indicator Columns	Tests	<p>Displays the following columns on the left-side of the Execution Grid and test runs grid: . For more details, see "Test Lab Module Icons" on page 708.</p>



UI Elements (A-Z)	Menu	Description
Last Run Report	Tests	<p>Opens the Last Run Report pane, displaying results of the last test run for the selected test.</p> <p>You can also click the Show arrow to display the Last Run Report pane.</p> <p>Performance Center: Opens the Last Run Results pane. For details, refer to the <i>HP ALM Performance Center Guide</i>.</p> <p>Available from: Execution Grid</p>
Live Analysis	Analysis	<p>Lists options for displaying graphs in the Live Analysis tab. Add or delete a graph, or configure its appearance.</p> <p>For details on live analysis, see "Live Analysis Graphs Overview" on page 1022.</p> <p>Available from: Test Sets > Live Analysis tab</p>
Most Recently Used	Analysis	<p>Displays the reports and graphs most recently viewed in the Test Lab module.</p>
 New Folder	Test Sets	<p>Opens the New Test Set Folder dialog box, enabling you to add a folder under a selected folder.</p> <p>Syntax exceptions: A test set folder name cannot include the following characters: \ ^ *</p>
 New Test Set	Test Sets	<p>Opens the New Test Set dialog box, enabling you to add a test set to a selected folder. For details, see "New Test Set Dialog Box" on page 730.</p>




UI Elements (A-Z)	Menu	Description
 Order Test Instances	Tests	<p>Opens the Order Test Instances dialog box, enabling you to change the execution order of the tests in the Execution Grid or Execution Flow. For more details, see "Order Test Instances Dialog Box" on page 791.</p> <p>Available from: Execution Grid, Execution Flow</p>
Pin to Baseline	Test Sets	<p>Opens the Select Baseline dialog box, enabling you to pin the test set to a baseline. For more details, see "Select Baseline Dialog Box" on page 281.</p>
Purge Runs	Test Sets, Test Runs	<p>Opens the Purge Runs wizard, enabling you to delete old test run results in your project. For details, see "Purge Runs Wizard" on page 821.</p>
 Refresh/Refresh All	View	<p>Refreshes the view to display the most up-to-date information.</p>
Remove all Execution Conditions	Tests	<p>Enables you to delete all execution conditions and time dependencies in a selected test set.</p> <p>If your test set includes both execution conditions and time dependencies, opens the Remove All Execution Conditions dialog box.</p> <p>If your test set includes only execution conditions or time dependencies, a confirm dialog box opens.</p> <p>Available from: Execution Flow</p>


UI Elements (A-Z)	Menu	Description
Remove Execution Condition	<right-click menu>	Enables you to delete an execution condition for a selected condition arrow. Available from: Execution Flow
Remove Test's Execution Conditions	<right-click menu>	Enables you to delete all execution conditions for a selected test instance. Available from: Execution Flow
 Remove Test Instances from Test Set	Tests	Removes the selected test instances from the test set. Available from: Execution Grid, Execution Flow
Remove Time Dependency	<right-click menu>	Right-click a Time Dependency  icon connected to a test and choose Remove Time Dependency to remove the specified time dependency. Available from: Execution Flow
Rename	Edit	Enables you to rename a test set or a test set folder. You cannot rename the Root folder, the Unattached folder, or the default test set. Available from: Test Sets tab
Replace	<ul style="list-style-type: none"> ▶ Edit (In the Test Runs tab) ▶ Tests (In the Test Sets tab > Execution Grid) 	Opens the Replace dialog box, enabling you to replace a field value in the grid. For details, see "Replace Dialog Box" on page 76.

UI Elements (A-Z)	Menu	Description
Reports	Analysis	Lists the predefined reports you can produce on test lab data. For details on the report types, see "Predefined Standard Reports" on page 1008.
Reset Test Set	Test Sets	<p>Opens the Confirm Reset Test Set dialog box, enabling you to change the status of all the tests in the test set to No Run.</p> <p>You can also instruct ALM to delete all the test run results in the test set.</p>
Run	Tests	<p>If you select a manual test: Opens one of the following to run the test:</p> <ul style="list-style-type: none"> ▶ If Sprinter is installed on your local machine, Sprinter opens. For details, see "Sprinter Overview" on page 760. ALM Editions: Sprinter functionality is not available with Quality Center Starter Edition and Performance Center Edition. ▶ If Sprinter is not installed, the Manual Runner dialog box opens. For details, see "Manual Runner Wizard" on page 769. <p>If you select two or more manual tests: Opens the Manual Test Run dialog box. For details, see "Manual Test Run Dialog Box" on page 767.</p> <p>If you select automated tests: Opens the Automatic Runner dialog box. For details, see "Automatic Runner Dialog Box" on page 785.</p> <p>Available from: Execution Grid, Execution Flow</p>

UI Elements (A-Z)	Menu	Description
Run Manually	Tests	<p>Runs a manual or automated test manually from the Manual Runner dialog box. For details, see "Manual Runner Wizard" on page 769.</p> <p>Available from: Execution Grid, Execution Flow</p>
Run...(Sprinter)	Tests	<p>Opens Sprinter to run the selected tests. For details, see "Sprinter Overview" on page 760.</p> <p>ALM Editions: Sprinter functionality is not available with Quality Center Starter Edition and Performance Center Edition.</p> <p>Available from: Execution Grid</p>
 Run Test	<right-click menu>	<p>Performance Center: Enables you to run a selected performance test. For more details on running performance tests, refer to the <i>HP ALM Performance Center Guide</i>.</p>
 Run Test Set Run Test Set	Test Sets	<p>If the test set includes one or more automated tests, opens the Automatic Runner dialog box to run the currently selected test set. For details, see "Automatic Runner Dialog Box" on page 785.</p> <p>If the test set includes manual tests only, opens the Manual Test Run dialog box. For details, see "Manual Test Run Dialog Box" on page 767.</p>

UI Elements (A-Z)	Menu	Description
 Select Columns	<ul style="list-style-type: none"> ▶ View (In the Test Runs tab) ▶ Tests (In the Test Sets tab > Execution Grid) 	<p>Opens the Select Columns dialog box, enabling you to determine which columns to display and set the order in which the columns are displayed. For more details, see "Select Columns/Select Fields Dialog Box" on page 90.</p> <p>Available from: Test Runs tab, Execution Grid</p>
 Select Tests	<p>Test Sets</p>	<p>Enables you to select tests to add to the currently selected test set. Displays the following:</p> <ul style="list-style-type: none"> ▶ Test Plan Tree tab. ▶ Requirements Tree tab. <p>For more details, see "Select Tests Pane" on page 732.</p> <p>Available from: Execution Grid, Execution Flow</p>
Send by Email	<p>Test Runs</p>	<p>Opens the Send E-mail dialog box, enabling you to send a test run by email to recipients selected from a list, or to the tester. For more details, see "Send E-mail Dialog Box" on page 83.</p>

UI Elements (A-Z)	Menu	Description
 Set Filter/Sort	View	<p>Enables you to set filter and sort options for the test sets tree or Execution Grid.</p> <p>Includes the following options:</p> <ul style="list-style-type: none"> ▶ Set Filter/Sort. Opens the Filter dialog box, enabling you to filter and sort tests. ▶ Clear Filter/Sort. Clears any filters or sorting that you have applied. <p>For more details, see "Filter Dialog Box" on page 60.</p> <p>Available from: Test Sets tab</p>
Show Full Test Names	Tests	<p>Displays full test names in the Execution Flow diagram. By default, long names are truncated.</p> <p>Available from: Execution Flow</p>
 Test Instance Details	Tests	<p>Opens the Test Instance Details dialog box, enabling you to view and update details of the selected test instance. For more details, see "Test Instance Details Dialog Box" on page 801.</p> <p>Available from: Execution Grid</p>
 Test Set Details	Test Sets	<p>Opens the Test Set Details dialog box, enabling you to view and update details of the selected test set. For more details, see "Test Set Details Dialog Box" on page 738.</p>
Text Search	Edit	<p>Opens the text search pane in the lower part of the Test Lab module window, enabling you to search for records in predefined fields. For more details, see "Text Search Pane" on page 78.</p> <p>Available from: Test Runs tab</p>









UI Elements (A-Z)	Menu	Description
View	Tests	Lists options for selecting tests in the Execution Grid. Options include: <ul style="list-style-type: none"> ▶ Select All. ▶ Deselect All. ▶ Invert Selection.
 Zoom	Tests	Changes the magnification level of the Execution Flow. Options include: <p>Zoom In. Increases the magnification level so that you can view a section of the Execution Flow more closely.</p> <p>Zoom Out. Decreases the magnification level so that you can view more of the Execution Flow.</p> <p>Available from: Execution Flow</p>



Test Lab Module Icons

This section describes the icons displayed in the Test Lab module.

To access	On the ALM sidebar, under Testing, select Test Lab .
Important information	Quality Center Starter Edition: Fields and functionality related to release management are not available in the Test Lab module.
See also	<ul style="list-style-type: none"> ▶ "Test Lab Module Menus and Buttons" on page 692 ▶ "Test Lab Module Window" on page 689

User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements	Description
	<green asterisk>. The applicable tab is populated.
	<p>Alerts. Click to view alerts for the test instance or test run.</p> <ul style="list-style-type: none"> ▶ Red alert. The alert is new. ▶ Gray alert. The alert has already been read. <p>For more details, see "Alerts Dialog Box" on page 104.</p>
	<p>Attachments. Click to view attachments for the specified test instance or test run. For more details, see "Attachments Page" on page 86.</p>
	<p>Follow Up Flags. Click to view follow up flags for the test instance or test run.</p> <ul style="list-style-type: none"> ▶ Gray flag. The follow up flag is new. ▶ Red flag. The follow up date has arrived. <p>For more details, see "Flag For Follow Up Dialog Box" on page 106.</p>
	<p>Linked Defects. Click to view linked defects for the test instance or test run. For user interface details, see "Linked Defects/Entities Page" on page 866.</p>
	<p>Test Set Folder. A folder for organizing test sets.</p>
	<p>Assigned Test Set Folder. A test set folder that is assigned to a cycle.</p>
	<p>Test Set. A test set in the test sets tree.</p>

UI Elements	Description
	Pinned Test Set. A test set that is pinned to a baseline. For concept details, see "Pinned Test Sets" on page 244.
	Time Dependency. Click to modify the time dependency conditions of a test instance. For more details, see "Time Dependency Page" on page 756.

Test Lab Module Fields


This section describes the Test Lab module fields.

To access	On the ALM sidebar, under Testing, select Test Lab .
Important information	<ul style="list-style-type: none"> ▶ The Test Lab module displays test planning and test execution fields. Names of test planning fields displayed in the Test Lab module have the prefix Test: added. For more details on test planning fields, see "Test Plan Module Fields" on page 512. ▶ You can add user-defined fields and change the label of any of the fields in the Execution Grid. You can also customize project lists. For more information, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>. ▶ You can use the Script Editor to restrict and dynamically change the fields and values in the Execution Grid. For details, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>. ▶ When you select an Execution Grid column with a user name value, ALM displays a list with the name and full name of each user. You can search for users, sort users, group users by user group, and select users from the users list or a group tree. For more information, see "Users List Dialog Box" on page 72. ▶ Quality Center Starter Edition: Fields and functionality related to release management are not available in the Test Lab module.
See also	"Test Lab Module Window" on page 689

The fields are described below:

UI Elements (A-Z)	Description
Assigned to cycle	The cycle to which the selected test set folder is assigned.
Baseline	The baseline to which the test set is pinned. Quality Center Starter Edition: Not available.
Close Date	The planned closing date for the test set.
Cycle start date	The date on which the cycle to which the selected test set folder is assigned starts.
Cycle end date	The date on which the cycle to which the selected test set folder is assigned ends.
Draft Run	Indicates that the selected test run is a draft run. For more details, see "Draft Runs" on page 683. Default value: N
Duration	The length of time that a test run continued.
Exec Date	The date on which the test was last executed.
Exec Time	The date on which the test step was last executed.
Host	The name of the machine on which a test was executed.
Iterations Status	Business Process Testing: The statuses of the test iterations. The color represents a status and the number represents the number of iterations with that status. Legend: <ul style="list-style-type: none"> ➤ Passed. Green ➤ Failed. Red ➤ Blocked (and user-defined). White ➤ Not Completed. Purple ➤ No Run. Orange ➤ N/A. Yellow
ITG Request Id	The IT Governance request ID. Note: This field is relevant only when integrating with an IT Governance tool.

UI Elements (A-Z)	Description
Modified	The date and time of the last change to the test in the Execution Grid.
Open Date	The planned opening date for the test set. Default: The current database server date when the test set is created.
Operating System	The operating system running on the host machine on which a test was executed. Default value: The operating system on your ALM client machine.
OS Build Number	The build number of the operating system running on the host machine on which a test was executed. Default value: The operating system build number on your ALM client machine.
OS Service Pack	The operating system service pack installed on the host machine on which a test was executed. Default value: The operating system service pack on your ALM client machine.
Planned Exec Date	The date on which it was planned to execute the test.
Planned Exec Time	The time at which it was planned to execute the test.
Planned Host Name	The name or IP address of the machine to run the test.
Remaining days in cycle	The total number of days remaining in the cycle to which the selected test set folder is assigned.
Remaining test instances to run	The total number of test instances in the selected test set folder that have not yet run.
Responsible Tester	The user name of the person responsible for running the test. When you run a manual test automatically from the Automatic Runner dialog box, ALM notifies this user by email to run the test.
Run ID	A unique numeric ID for the run, assigned automatically by ALM.

UI Elements (A-Z)	Description
Run Name	<p>The name of the test run. Fast_run indicates that ALM created this run when a user changed the Status field of the test instance manually without running the test.</p> <p>The icon displayed indicates one of the following:</p> <ul style="list-style-type: none"> ▶ The test type. For details, see "Test Types" on page 493. ▶ A manual test run with Sprinter . For details on Sprinter, see "Sprinter Overview" on page 760.
State	<p>Indicates progress of a test run. Possible values are: Initializing, Running, Stopping, Run Failure, Finished. This is a read-only field.</p>
Status (for a test set)	<p>In the Details tab of a test set, indicates the status of the test set. Options include: Open, Closed.</p>
Status (for a test instance or run)	<p>Execution status can be one of the following:</p> <ul style="list-style-type: none"> ▶ Blocked. One or more steps cannot run. For example, the test is running on a remote machine but cannot continue due to some environmental failure, such as network problems or hardware failure. ▶ Failed. One or more steps in the run failed, and none have the status "Blocked". ▶ N/A. The current status of the test is not applicable. ▶ No Run. No steps have been run. ▶ Not Completed. One or more steps were not completed or not run, and none have the status "Blocked" or "Failed". ▶ Passed. The run was successful.

UI Elements (A-Z)	Description
Status (for a run step)	Execution status can be one of the following: <ul style="list-style-type: none"> ➤ Blocked. The step cannot run. For example, the test is running on a remote machine but cannot continue due to some environmental failure, such as network problems or hardware failure. ➤ Failed. The step failed. ➤ N/A. The current status of the step is not applicable. ➤ No Run. The step has not been run. ➤ Not Completed. The step was not completed. ➤ Passed. The step was successful.
Target Cycle	The cycle to which the test is assigned.
Test	The name of the test in the Test Plan module associated with the selected test run.
Test Instance	The name of the test instance associated with the selected test run.
Test Set	The name of the test set associated with the selected test run.
Test Set ID	A unique numeric ID for the test set, assigned automatically by ALM.
Tester	The user name of the person who last executed the test.
Time	The time at which the test was last executed.
Total test instances	The total number of test instances in the selected test set folder.
Type	The test type of the test. For more details, see "Test Types" on page 493. This is a read-only field.

28

Test Set Specification

This chapter includes:

Concepts

- ▶ Test Set Specification Overview on page 716

Tasks

- ▶ How to Create Test Sets on page 718

Reference

- ▶ Test Sets User Interface on page 722

Concepts

Test Set Specification Overview

After you design tests in the Test Plan module, you can organize test execution by creating test sets in the Test Lab module. A **test set** contains a subset of the tests in your project designed to achieve specific test goals. Test sets can include both manual and automated tests.

When defining a test set, ALM adds instances of your selected tests to the test set. Each test instance contains a defined test configuration. A **test configuration** enables you to run the same test under different scenarios. For more details on test configurations, see "Test Configurations Overview" on page 596.

A **test sets tree** enables you to organize your application management process by grouping test sets in folders and organizing them in different hierarchical levels.

To decide which test sets to create, consider the goals you defined at the beginning of the application management process. Consider issues such as the current state of the application and the addition or modification of new features.

Following are examples of general categories of test sets you can create:

Test Set	Description
Sanity	Checks the entire application at a basic level—focusing on breadth, rather than depth—to verify that the application is functional and stable. This set includes fundamental tests that contain positive checks, validating that the application is functioning properly. For example, in the Mercury Tours application, you could test whether the application opens, and enables you to log in.
Regression	Tests the system in a more in-depth manner than a sanity set. This set can include both positive and negative checks. Negative tests attempt to fail an application to demonstrate that the application is not functioning properly.
Advanced	Tests both breadth and depth. This set covers the entire application, and also tests the application's advanced options. You can run this set when there is ample time for testing.
Function	Tests a subsystem of an application. This could be a single feature or a group of features. For example, in the Mercury Tours application, a function set could test all activities related to booking a flight.

After you have created test sets, you assign test set folders to cycles defined in the releases tree in the Releases module. A cycle represents a development and QA cycle based on the project timeline.

Quality Center Starter Edition: Fields and functionality related to release management and baselining are not available in the Test Lab module.

For details on working with test sets, see "How to Create Test Sets" on page 718.

Tasks

How to Create Test Sets

This task describes how to create and define test sets in the Test Lab module.

To learn more about test sets, see "Test Set Specification Overview" on page 716.

Note: This task is part of a higher-level task. For details, see "How to Run Tests in ALM" on page 684.

Quality Center Starter Edition: Fields and functionality related to release management and baselining are not available in the Test Lab module.

This task includes the following steps:

- "Define test sets" on page 719
- "Assign test set folders to cycles" on page 720
- "Add tests to test sets" on page 720
- "Set notification rules" on page 720
- "Set On Failure rules" on page 720
- "Pin a test set to a baseline - optional" on page 721

1 Define test sets

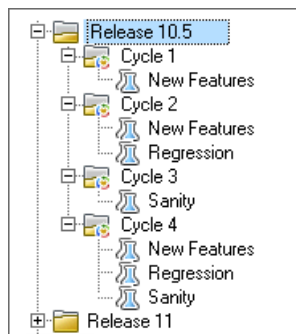
Define a hierarchical framework for your test sets by creating a test sets tree that can contain folders and subfolders.

- a Open the Test Lab module.** On the ALM sidebar, under **Testing**, select **Test Lab**.
- b Create folders.** Right-click the **Root** folder and select **New Folder**. To create a sub-folder, right-click a folder and select **New Folder**.
- c Add test sets to folders.** Right-click a folder and select **New Test Set**. For user interface details, see "New Test Set Dialog Box" on page 730.

Example:

Suppose you want to test new features added to Release 10.5 of the Mercury Tours application. Release 10.5 consists of four cycles, and you want to test the new features for the release in Cycle 1, Cycle 2, and Cycle 4. Because the tests you need to run to test the new features are the same for each of these cycles, you want to use the same test set as a basis for testing new features in each of the cycles.

In the test sets tree, you can create the folder **Release 10.5** for the release. Under this folder, you create the folder **Cycle 1** for the first cycle of the release. In the **Cycle 1** folder, you create a test set **New Features** containing the tests necessary to test new features for the release. After you create this test set and add its tests, you can copy and paste the **Cycle 1** folder and use it as a basis for the other cycles that test new features.



2 Assign test set folders to cycles

Assign test set folders to cycles defined in the releases tree in the Releases module.

Right-click a test set folder and select **Assign to Cycle**. For user interface details on the Select Cycles dialog box, see "Select Cycles Dialog Box" on page 185.

3 Add tests to test sets

You can add manual and automated tests to a test set.

In the Test Lab module > Test Sets tab, select a test set and click the **Execution Grid** tab or the **Execution Flow** tab. Then click the **Select Tests** button. For user interface details on the Select Tests pane, see "Select Tests Pane" on page 732.

4 Set notification rules

Set test set notification rules to instruct ALM to send email to a specified user if selected events occur for a test set.

You set notification rules in the **Automation** tab, **Notification** area. For user interface details, see "Automation Tab" on page 726.

5 Set On Failure rules

Set On Failure rules which instruct ALM in the event that an automated test in the test set fails.

You set notification rules in the **Automation** tab, **On Automatic Test Failure** area. For user interface details, see "Automation Tab" on page 726.

6 Pin a test set to a baseline - optional

You can pin a test set to a baseline to associate the test set with the versions of the tests stored in a baseline you select.

- ▶ In the Test Lab module, right-click a test set and select **Pin to Baseline**. For user interface details on the Select Baseline dialog box, see "Select Baseline Dialog Box" on page 281.
- ▶ To clear a pinned baseline, right-click a test set and select **Clear Pinned Baseline**.

For concept details on pinned test sets, see "Pinned Test Sets" on page 244.

Reference

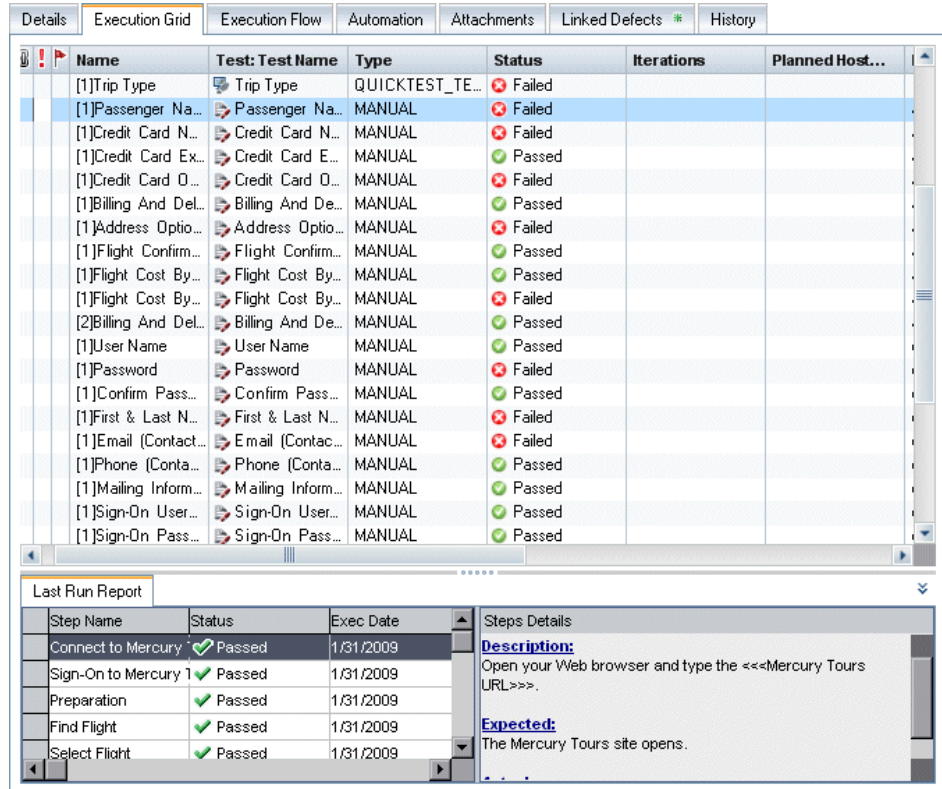
Test Sets User Interface

This section includes:

- ▶ Execution Grid Tab on page 723
- ▶ Automation Tab on page 726
- ▶ New Test Set Dialog Box on page 730
- ▶ Select Tests Pane on page 732
- ▶ Test Set Details Dialog Box on page 738
- ▶ On Test Failure Dialog Box on page 740
- ▶ Paste Test Set Folders To Target Project Dialog Box on page 743

Execution Grid Tab

This tab displays test instance data in a grid. Each line in the grid displays a separate record. You can run and view tests in the Execution Grid.




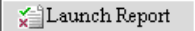
Name	Test: Test Name	Type	Status	Iterations	Planned Host...
[1]Trip Type	Trip Type	QUICKTEST_TE...	Failed		
[1]Passenger Na...	Passenger Na...	MANUAL	Failed		
[1]Credit Card N...	Credit Card N...	MANUAL	Failed		
[1]Credit Card Ex...	Credit Card E...	MANUAL	Passed		
[1]Credit Card O...	Credit Card O...	MANUAL	Failed		
[1]Billing And Del...	Billing And De...	MANUAL	Passed		
[1]Address Optio...	Address Optio...	MANUAL	Failed		
[1]Flight Confirm...	Flight Confirm...	MANUAL	Passed		
[1]Flight Cost By...	Flight Cost By...	MANUAL	Passed		
[1]Flight Cost By...	Flight Cost By...	MANUAL	Failed		
[2]Billing And Del...	Billing And De...	MANUAL	Passed		
[1]User Name	User Name	MANUAL	Passed		
[1]Password	Password	MANUAL	Failed		
[1]Confirm Pass...	Confirm Pass...	MANUAL	Passed		
[1]First & Last N...	First & Last N...	MANUAL	Failed		
[1]Email (Contact...	Email (Contac...	MANUAL	Failed		
[1]Phone (Conta...	Phone (Conta...	MANUAL	Passed		
[1]Mailing Inform...	Mailing Inform...	MANUAL	Passed		
[1]Sign-On User...	Sign-On User...	MANUAL	Passed		
[1]Sign-On Pass...	Sign-On Pass...	MANUAL	Passed		

Step Name	Status	Exec Date	Steps Details
Connect to Mercury	Passed	1/31/2009	
Sign-On to Mercury 1	Passed	1/31/2009	Description: Open your Web browser and type the <<<Mercury Tours URL>>>.
Preparation	Passed	1/31/2009	Expected: The Mercury Tours site opens.
Find Flight	Passed	1/31/2009	
Select Flight	Passed	1/31/2009	

To access	In the Test Lab module > Test Sets tab, select a test set and click the Execution Grid tab.
Relevant tasks	"How to Create Test Sets" on page 718 "How to Run Tests in ALM" on page 684
See also	<ul style="list-style-type: none"> ➤ "Test Set Specification Overview" on page 716 ➤ "Test Execution Overview" on page 682 ➤ "Test Lab Module Window" on page 689

User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements	Description
<Test Lab module common UI elements>	<ul style="list-style-type: none"> ▶ Test Lab fields. For field definitions, see "Test Lab Module Fields" on page 710. ▶ Test Lab menus and buttons. For command and button descriptions, see "Test Lab Module Menus and Buttons" on page 692. ▶ Test Lab icons. For icon descriptions, see "Test Lab Module Icons" on page 708. ▶ ALM main menu and sidebar. For details on the Tools menu, Help menu and sidebar, see "ALM Common Areas" on page 40.
<Indicator columns>	<p>Indicates that the specified test instance has attachments, linked defects, alerts, and follow up flags. For more details, see "Test Lab Module Icons" on page 708.</p> <p>To display these columns, select Tests > Indicator Columns.</p>
<Select Tests pane>	<p>Displays the Test Plan Tree tab and the Requirements Tree tab, enabling you to select tests to add to the selected test set. For details, see "Select Tests Pane" on page 732.</p>
Criterion Results	<p>Displays the statuses of the criteria for the last run of the selected business process test instance using a certain configuration.</p> <p>To display this tab, select Tests > Last Run Result or click the Show arrow.</p> <p>Note: Functionality related to test criteria is available only for business process tests. For details, see the <i>HP Business Process Testing User Guide</i>.</p>

UI Elements	Description
Filter	Describes the filter currently applied to the grid. Located directly above the grid.
Last Run Report pane	<p>Displays the results of the last test run for the selected test instance. To display this pane, select Tests > Last Run Report or click the Show arrow.</p> <p>For a test run with Sprinter, also displays the Launch Sprinter Results Viewer button, which opens and displays the report in the Sprinter Results Viewer. For details, click the help button within the viewer.</p> <p>ALM Editions: Sprinter functionality is not available with Quality Center Starter Edition and Performance Center Edition.</p> <p>For automated test instances, also includes one of the following:</p> <ul style="list-style-type: none"> ▶  LR Analysis Opens and displays the results in LoadRunner Analysis. Available for the LR-SCENARIO test type. ▶  Launch Report Opens and displays the report in QuickTest Professional. Available for the QUICKTEST_TEST test type. <p>The Launch Report button is enabled only if you have installed the QuickTest Professional Add-in from the HP Application Lifecycle Management Add-ins page. For more details on installing add-ins, refer to the <i>HP Application Lifecycle Management Installation Guide</i>.</p> <ul style="list-style-type: none"> ▶ Collected System Info link. Opens the System Information dialog box. Displays the collected system information, such as CPU, memory, and processes running on the machine when the test is run. Available for the SYSTEM-TEST test type. ▶ Captured Desktop Image. Opens the captured image of the machine executing the system test. Available for the SYSTEM-TEST test type.

Automation Tab

This tab enables you to set test set notification rules and On Failure rules to instruct ALM when selected events occur for a test set run from the Automatic Runner.

Details
Execution Grid
Execution Flow
Automation
Attachments
Linked Defects #
History

- On Automatic Test Failure

Rerun test

Maximum test reruns:

Cleanup test before rerun:

On final failure:

Maximum test set reruns:

Settings per test...

- Notification

Send email in the event of:

Any test in the Automatic Runner finishes with status "Failed"

Environmental failure (network problems, hardware failure, etc.)

All tests in the Automatic Runner that were run have finished

To...

- Execution Summary

Send summary of results after test set execution

Select Fields...

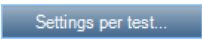
To...

To access	In the Test Lab module > Test Sets tab, select a test set and click the Automation tab.
Relevant tasks	"How to Create Test Sets" on page 718
See also	<ul style="list-style-type: none"> ➤ "Test Set Specification Overview" on page 716 ➤ "Test Lab Module Window" on page 689

On Automatic Test Failure Area

You can set On Failure rules for a test set which instruct ALM in the event that an automated test in the test set fails.

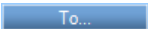
User interface elements are described below:

UI Elements (A-Z)	Description
	Opens the On Test Failure dialog box, enabling you to change the default failure rules for a specific test in the test set. For details, see "On Test Failure Dialog Box" on page 740.
Maximum test set reruns	The number of times a test set should be rerun on final failure of any test in the test set.
On final failure	Specifies the action for ALM to take on the final failure of any test in the test set. Includes the following options: <ul style="list-style-type: none"> ▶ Do nothing. ▶ Stop the test set. ▶ Rerun the test set. Runs the test set again up to the maximum number of times as specified in the Maximum test set reruns box.
Rerun test	Instructs ALM to rerun an automated test if it fails. If selected, the following options are available: <ul style="list-style-type: none"> ▶ Maximum test reruns. Specifies the number of times an automated test should be rerun upon failure. ▶ Cleanup test before rerun. Runs a cleanup test before each test rerun. Click the down arrow to select a cleanup test.

Notification Area

You can instruct ALM to send email to a specified user if certain selected events occur.



User interface elements are described below:

UI Elements	Description
<Message area>	The text for the email ALM sends to the specified user.
Send email in the event of	<p>Notifies a specified user if any of the selected events occur. Includes the following options:</p> <ul style="list-style-type: none"> ▶ Any test in the Automatic Runner finishes with status "Failed". ▶ Environmental failure (network problems, hardware failure, etc.). Environmental failure could include, for example, function calls not returning, access violations, version incompatibility between application components, a missing DLL, inadequate permissions, and many other reasons. ▶ All tests in the Automatic Runner that were run have finished.
	<p>The user who should receive the email.</p> <p>Enter a valid email address or user name. Alternatively, click the To button to select users. The Select Recipients dialog box opens. Select the users or user groups to which you want to send the email.</p>

Execution Summary Area

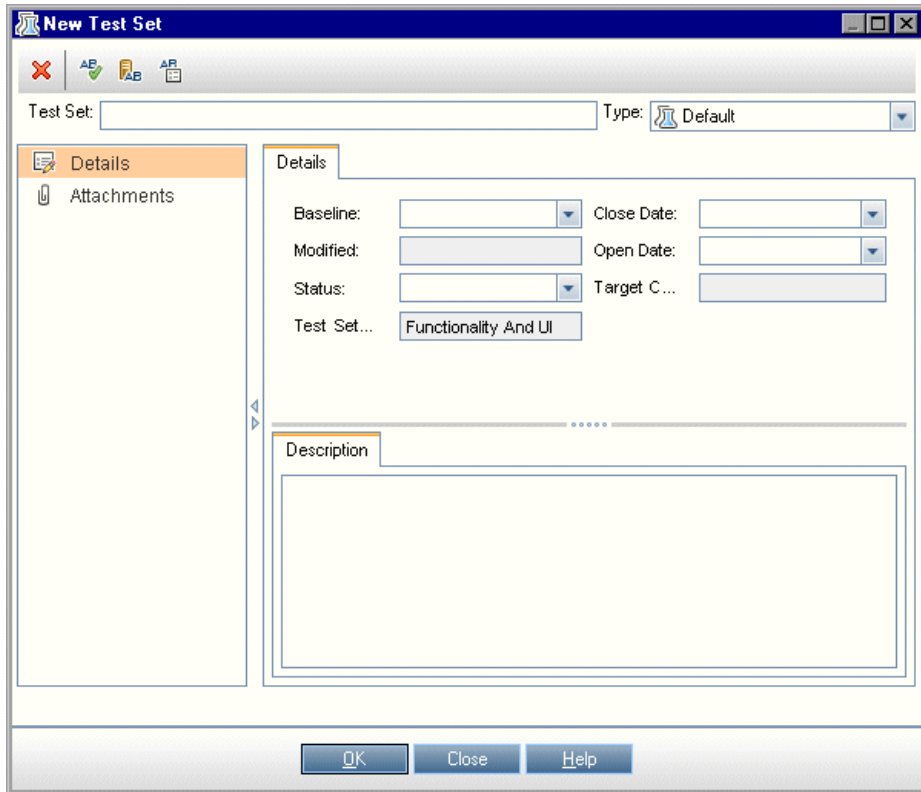
You can instruct ALM to send a summary of test results in an email to specified users when test set execution completes.

User interface elements are described below:

UI Elements	Description
	Opens the Select Columns dialog box, enabling you to specify which test run fields are displayed in the execution summary.
	Enter a valid email address or user name. Alternatively, click the To button to select users.
Send summary of results after test set execution	Sends a summary report of test results in an email to specified users after test set execution is complete.

New Test Set Dialog Box

This page enables you to add a test set to a test set folder.



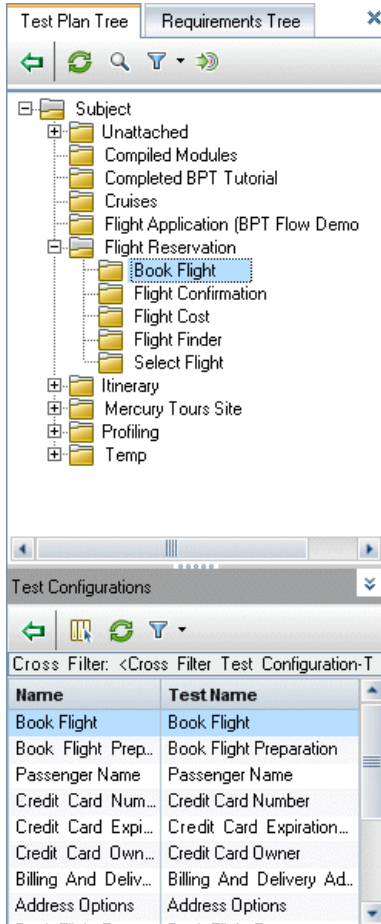
To access	In the Test Lab module > Test Sets tab, right-click a test set folder and select New Test Set .
Important information	You cannot add test sets directly to the Root folder. You must first add a folder under the Root folder.
Relevant tasks	"How to Create Test Sets" on page 718
See also	<ul style="list-style-type: none"> ➤ "Test Set Specification Overview" on page 716 ➤ "Test Lab Module Window" on page 689

User interface elements are described below:

UI Elements (A-Z)	Description
Attachments	Enables you to add attachments that provide additional information about the test set. For more details, see "Attachments Page" on page 86.
Details	Lists test set fields. Required fields are displayed in red. For details on the available fields, see "Test Lab Module Fields" on page 710. Tip: Clicking in the Description field on this page displays a toolbar for formatting and spell checking the text.
Name	The name you assign to the new test set. Syntax exceptions: A test set name cannot include the following characters: \ ^ , " *
Test Set Folder	Displays the preselected folder name.
Type	The test set type. By default, the test set type is Default and the field is read-only. Performance Center: Select Performance to create a test set for performance tests. For more details on performance testing, refer to the <i>HP ALM Performance Center Guide</i> .

Select Tests Pane

This pane enables you to select tests for inclusion in a test set. ALM adds instances of the selected tests to the test set. Each instance contains a defined test configuration.









To access	In the Test Lab module > Test Sets tab, select a test set and click the Execution Grid tab or the Execution Flow tab. Then click the Select Tests button.
Important information	<ul style="list-style-type: none"> ▶ You can include instances of the same test in different test sets or add more than one instance to the same test set. ▶ If you are adding a folder to the test set, only tests that match the current filter in the Test Plan Tree tab or Requirements Tree tab are added. ▶ Performance Center: You can view and add performance tests to a Performance test set type only. For more details, see "New Test Set Dialog Box" on page 730.
Relevant tasks	"How to Create Test Sets" on page 718
See also	<ul style="list-style-type: none"> ▶ "Test Set Specification Overview" on page 716 ▶ "Test Lab Module Window" on page 689 ▶ "Test Configurations Overview" on page 596

Test Plan Tree Tab

Displays the test plan tree, enabling you to select tests to add to the test set.

User interface elements are described below:




UI Elements	Description
	<p>Add Tests to Test Set. Adds an instance of the selected test including its associated test configurations to the test set.</p> <p>Note: If any of the tests you are adding are already in the test set, the Create Instance dialog box opens. It displays the test configurations that already exist in the test set and how many instances there are. Select the test configurations you still want to add to the test set and click Create.</p> <p>Tip:</p> <ul style="list-style-type: none"> ▶ You can also add tests by double-clicking or dragging a folder or test in the tree to the Execution Grid or Execution Flow. ▶ To add selected configurations of a test to the test set, select the test configurations from the Test Configurations pane. For more details, see "Test Configurations Pane" on page 613.
	<p>Refresh All. Refreshes the tree to display the most up to date information.</p>
	<p>Set Filter/Sort. Includes the following options:</p> <ul style="list-style-type: none"> ▶ Set Filter/Sort. Opens the Filter dialog box, enabling you to filter and sort tests. ▶ Clear Filter/Sort. Clears any filters or sorting that you have applied. <p>For more details, see "Filter Dialog Box" on page 60.</p>
	<p>Find. Searches for a specific test in the tree.</p>





UI Elements	Description
	<p>Go to Test by ID. Opens the Go to Test dialog box, enabling you to locate the test in the tree according to Test ID.</p>
	<p>Show/Hide. Shows/hides the Test Configurations pane.</p>
<p>Filter</p>	<p>Describes the filter currently applied to the tree. Located directly above the tree.</p>
<p>Test Configurations pane</p>	<p>Enables you to add selected test configurations to the test set. For more details, see "Test Configurations Pane" on page 613.</p>

Requirements Tree Tab

Displays the requirements tree, enabling you to select tests covering requirements to add to the test set.

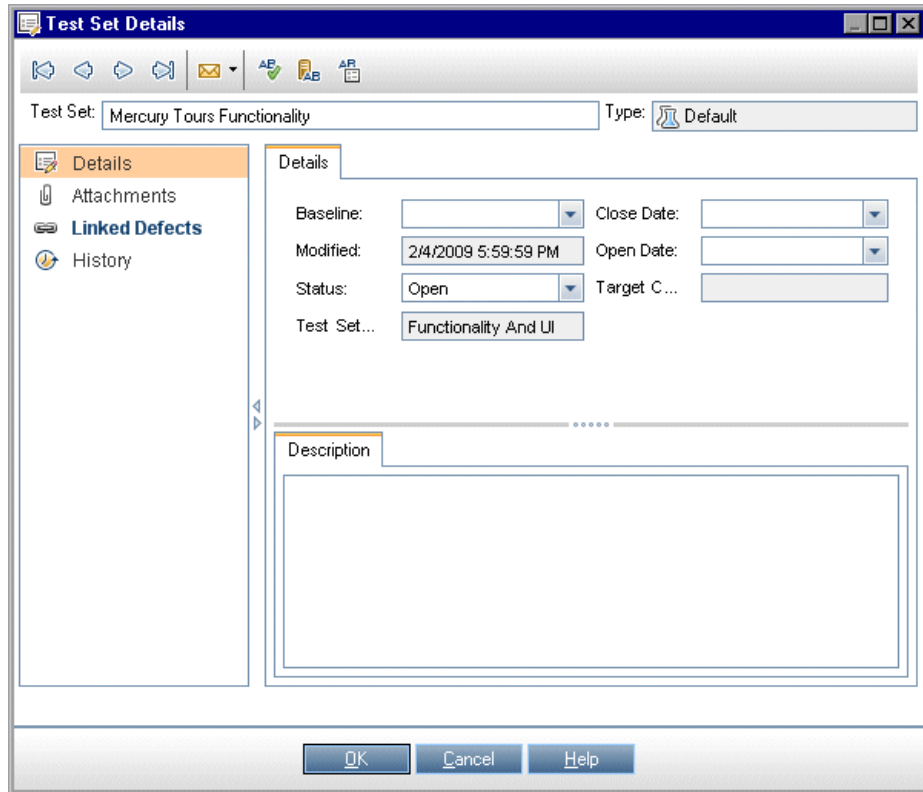
User interface elements are described below:


UI Elements	Description
	<p>Includes the following options:</p> <ul style="list-style-type: none"> ▶ Add Tests Covering Requirement. Adds all tests that cover a selected requirement. The associated test configurations are added to the test set. ▶ Add Tests Covering Requirement and Children. Adds all tests that cover a selected requirement and its children. The associated test configurations are added to the test set. <p>Note: If any of the tests you are adding are already in the test set, the Create Instance dialog box opens. It displays the test configurations that already exist in the test set and how many instances there are. Select the test configurations you still want to add to the test set and click Create.</p> <p>Tip:</p> <ul style="list-style-type: none"> ▶ You can also add tests by double-clicking or dragging a folder or requirement in the tree to the Execution Grid or Execution Flow. ▶ To add selected tests that cover a selected requirement to the test set, select a test from the Test Coverage pane.
	<p>Refresh All. Refreshes the tree to display the most up to date information.</p>
	<p>Set Filter/Sort. Includes the following options:</p> <ul style="list-style-type: none"> ▶ Set Filter/Sort. Opens the Filter dialog box, enabling you to filter and sort tests. ▶ Clear Filter/Sort. Clears any filters or sorting that you have applied. <p>For more details, see "Filter Dialog Box" on page 60.</p>

UI Elements	Description
	Find. Searches for a specific test in the tree.
	Go to Requirement by ID. Opens the Go to Requirement dialog box, enabling you to locate the requirement in the tree according to Requirement ID.
	Show/Hide. Shows/hides the Test Coverage pane.
Filter	Describes the filter currently applied to the tree. Located directly above the tree.
Test Coverage pane	Enables you to add selected tests that cover a selected requirement to the test set. Select a test and click Add Test  . The associated test configurations are added to the test set.

Test Set Details Dialog Box

This dialog box enables you to view and update details of a test set.



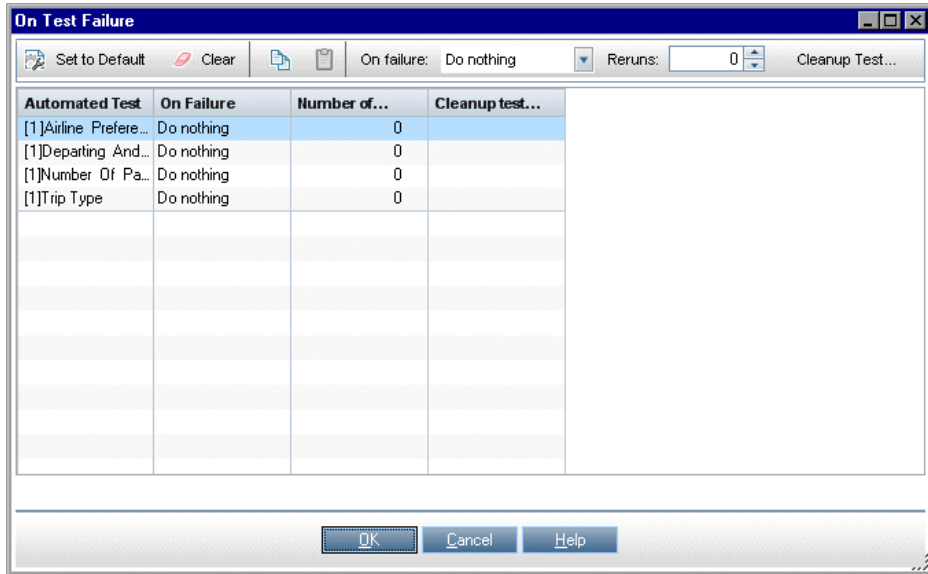
To access	In the Test Lab module > Test Sets tab, select a test set in the test sets tree and click the Test Set Details button  .
Relevant tasks	"How to Create Test Sets" on page 718
See also	"Test Lab Module Window" on page 689

User interface elements are described below (unlabeled elements are shown in angle brackets>):

UI Elements (A-Z)	Description
Attachments	Lists attachments that provide additional information about the currently selected test set. For details, see "Attachments Page" on page 86.
Details	Displays details of the currently selected test set. Required fields are displayed in red. For details on available fields, see "Test Lab Module Fields" on page 710.
History	Lists changes made to the currently selected test set. For details, see "History Tab" on page 81.
Linked Defects	Lists the defects linked to the currently selected test set. For details, see "Linked Defects/Entities Page" on page 866.

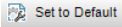


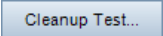
On Test Failure Dialog Box

This dialog box enables you to change the default failure rules for specific tests in a test set. These rules instruct ALM in the event that an automated test in the test set fails.



To access	In the Automation tab, click the Settings per test button.
Important information	This dialog box displays only automated tests in the test set.
Relevant tasks	"How to Create Test Sets" on page 718
See also	"Automation Tab" on page 726

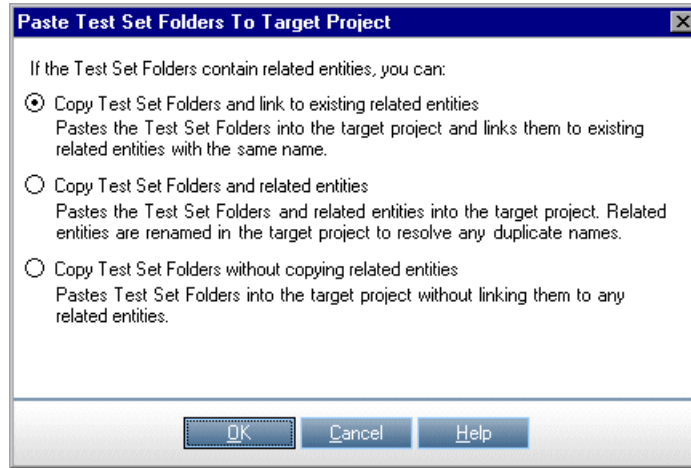
User interface elements are described below:

UI Elements (A-Z)	Description
	Resets the default failure rules according to the settings of a selected test. The default failure rules are defined in the Automation tab.
	Clears the settings for a selected test.
	<p>Copy/Paste Settings. Copies the settings from one test to another.</p> <p>Select a test and click the Copy Settings button. Select another test and click the Paste Settings button.</p>
	<p>Cleanup Test. Opens the Select Test dialog box, enabling you to select a cleanup test. ALM runs the cleanup test before each rerun of the selected test.</p> <p>Select one or more tests in the grid and click the Cleanup Test button.</p> <p>To select a cleanup test for a specific test in the test set, you can also click the down arrow in the Cleanup Test Before Rerun column.</p>
Automated Test	The Automated Test column displays all automated tests in the selected test set.

UI Elements (A-Z)	Description
<p>On Failure</p>	<p>Specifies the action for ALM to take when a test fails. Options include:</p> <ul style="list-style-type: none"> ➤ Do nothing. ➤ Stop the test set. ➤ Rerun the test. Runs the test again up to the maximum number of times, as specified in the Reruns column. <p>Select one or more tests in the grid and then select an option from the On Failure drop-down list on the toolbar.</p> <p>To select an option for a specific test, you can also click the down arrow in the On Failure column.</p>
<p>Reruns</p>	<p>Specifies the number of times an automated test should be rerun upon failure.</p> <p>Select one or more tests in the grid and select a number in the Reruns box on the toolbar.</p> <p>To specify the number of reruns for a specific test, you can also select the number from the Number of Reruns column.</p>

Paste Test Set Folders To Target Project Dialog Box

This dialog box enables you to select the way in which test sets are copied from one project to another project.



To access	In the Automation tab, click the Settings per test button.
To access	<ol style="list-style-type: none"> 1 In the source project, right-click a test set or a test set folder and select Copy. 2 Open the target project in a separate browser window. 3 In the target project, right-click a test set folder below which you want to insert the copied test set or test set folder, and select Paste.
Important information	<ul style="list-style-type: none"> ▶ Test run information is not copied. ▶ The source and target projects must use the same ALM version and patch level.
See also	"Test Lab Module Window" on page 689

User interface elements are described below:

UI Elements (A-Z)	Description
Copy Test Set Folders and link to existing related entities	ALM copies the test sets or test set folders and pastes them into the target project. The copied test sets or test set folders are linked to existing test resources and called tests with the same name and path. If a related test resource or a test does not exist in the target project, ALM copies it to the target project.
Copy Test Set Folders and related entities	ALM copies the test sets or test set folders along with the related test resources and called tests, and pastes them into the target project. If a related test resource or a called test already exists in the target project, the copied related test resource or called test is renamed to resolve the duplicate name.
Copy Test Set Folders without copying related entities	ALM copies the test sets or test set folders without copying the related test resources or called tests, and pastes them into the target project. The copied items are not linked to any related entities.

29

Test Run Schedules

This chapter includes:

Concepts

- ▶ Test Run Schedules Overview on page 746

Tasks

- ▶ How to Schedule Test Runs on page 747

Reference

- ▶ Test Run Schedules User Interface on page 750

Concepts

Test Run Schedules Overview

You can control the execution of test instances in a test set. Using the Execution Flow tab of the Test Lab module, you can specify a date and time, and set conditions for executing a test instance. A **condition** is based on the results of another specified test instance in the Execution Flow. By setting conditions, you can instruct the Test Lab module to postpone execution of the current test instance until the other specified test instance has either finished running or passed. You can also set the sequence in which to execute the test instances.

For task details, see "How to Schedule Test Runs" on page 747.

Tasks

How to Schedule Test Runs

This task describes how to schedule test runs in the Execution Flow tab.

To learn more about scheduling test run, see "Test Run Schedules Overview" on page 746.

Note: This task is part of a higher-level task. For details, see "How to Run Tests in ALM" on page 684.

This task includes the following steps:

- "Display a test set" on page 747
- "Schedule a test run" on page 747
- "View the execution flow diagram" on page 748

1 Display a test set

In the Test Lab module, select a test set from the test lab tree. Click the **Execution Flow** tab. For user interface details, see "Execution Flow Tab" on page 751.

2 Schedule a test run

- a** In the Execution Flow tab, right-click a test instance and choose **Test Run Schedule**. The Run Schedule dialog box opens.
- b** In the Execution Conditions tab, specify the execution conditions for the test instance. For user interface details, see "Execution Condition Page" on page 753.

- c In the Run Schedule dialog box, click the **Time Dependency** tab. Specify the date and time for running each test instance. For user interface details, see "Time Dependency Page" on page 756.

Example:

You can determine that **test_2** will run only if **test_1** passed, and **test_3** will run only if **test_2** passed. **test_1** is scheduled to run at 9:00 AM.

3 View the execution flow diagram

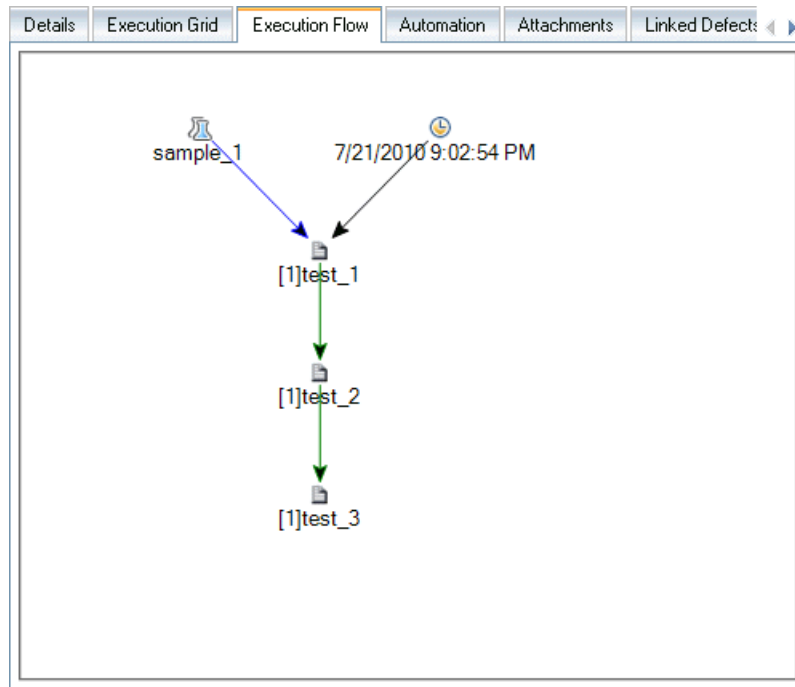
You can change the way the Execution Flow is displayed. This includes zooming in and out of the diagram, rearranging the tests in a hierarchical layout, refreshing the diagram, and displaying full test names in the diagram. You can also copy the diagram to the Clipboard.

For user interface details on the menus and buttons available in the Execution Flow tab, see "Test Lab Module Menus and Buttons" on page 692.

For user interface details on the various elements in the Execution Flow diagram, see "Execution Flow Tab" on page 751.

Example:

The scheduled test run is displayed in the Execution Flow tab.



Reference

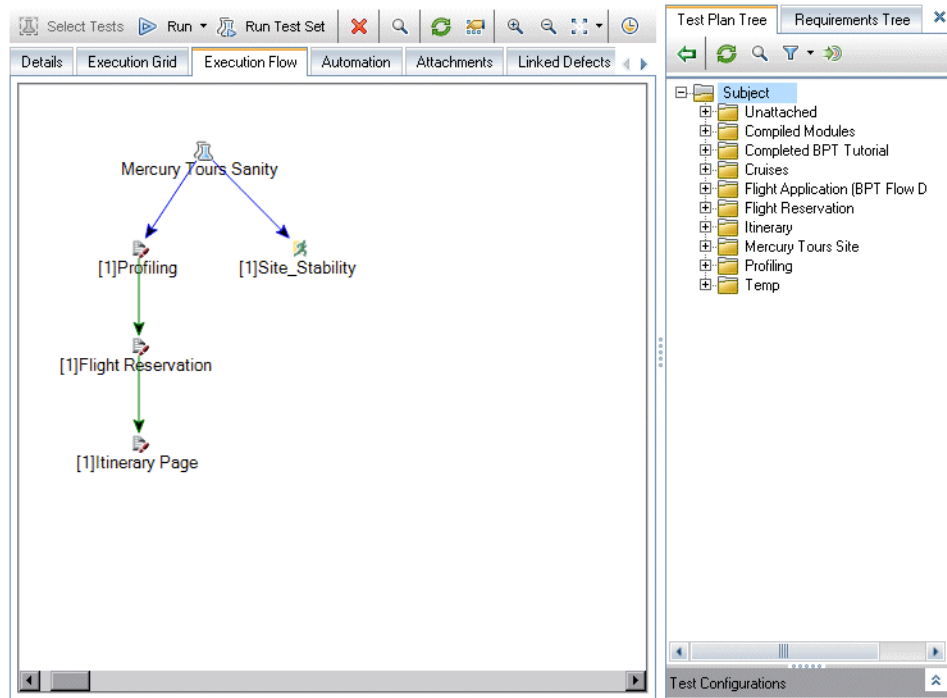
Test Run Schedules User Interface

This section includes:

- ▶ Execution Flow Tab on page 751
- ▶ Execution Condition Page on page 753
- ▶ Time Dependency Page on page 756





Execution Flow Tab

This tab displays test data in a diagram. You use the Execution Flow to control the way your test instances are executed. You can specify when and under what conditions you want a test to be executed.



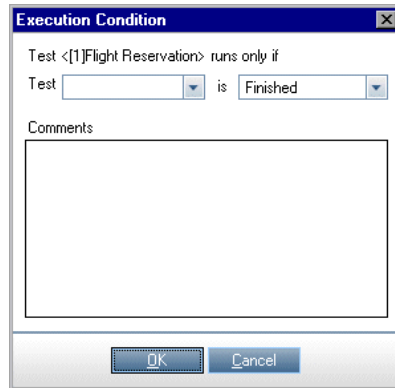
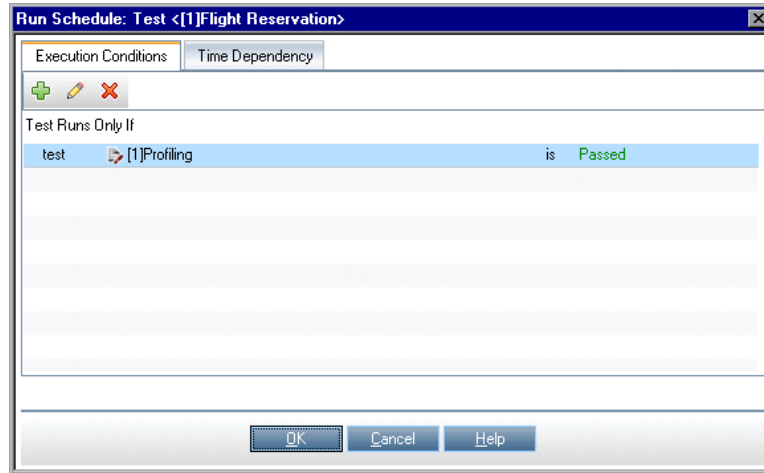
To access	In the Test Lab module, click the Test Sets tab. Select a test set and click the Execution Flow tab.
Relevant tasks	<ul style="list-style-type: none"> ➤ "How to Schedule Test Runs" on page 747 ➤ "How to Run Tests in ALM" on page 684
See also	<ul style="list-style-type: none"> ➤ "Test Run Schedules Overview" on page 746 ➤ "Test Execution Overview" on page 682 ➤ "Test Lab Module Window" on page 689

User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements	Description
<Test Lab module menus and buttons>	For details on the menu options and toolbar buttons available in the Test Lab module, see "Test Lab Module Menus and Buttons" on page 692.
<Test Lab module icons>	For details on the icons available in the Test Lab module, see "Test Lab Module Icons" on page 708.
<Execution Flow diagram area>	<p>Displays the test instances with conditions in a diagram.</p> <ul style="list-style-type: none"> ▶ A blue line  arrow indicates that the test instance is to be executed after the previous test instance, with no conditions. ▶ A green line  arrow indicates that the test instance is to be executed only if the previous test instance has status Passed. ▶ A black line  arrow indicates that the test instance is to be executed only if the previous test instance has finished running. ▶ When a test instance is time-dependent, a Time Dependency  icon is added to the diagram.
<Select Tests pane>	Displays the Test Plan Tree tab and the Requirements Tree tab, enabling you to select tests to add to the selected test set. For details, see "Select Tests Pane" on page 732.




Execution Condition Page

This page enables you to specify under what conditions you want a test instance to be executed.



<p>To access</p>	<p>Use one of the following in the Execution Flow tab:</p> <ul style="list-style-type: none"> ▶ Right-click a test instance and choose Test Run Schedule. The Run Schedule dialog box opens and displays the Execution Conditions tab. ▶ Right-click a condition arrow and choose Execution Condition. The Execution Condition dialog box opens.
<p>Important information</p>	<p>Tip: You can also add a condition directly in the Execution Flow. Click a test icon (not the test name) and drag the arrow to another test. By default, the condition is set to Finished. To change the condition, double-click the condition arrow and select Passed.</p>
<p>Relevant tasks</p>	<p>"How to Schedule Test Runs" on page 747</p>
<p>See also</p>	<ul style="list-style-type: none"> ▶ "Time Dependency Page" on page 756 ▶ "Test Run Schedules Overview" on page 746

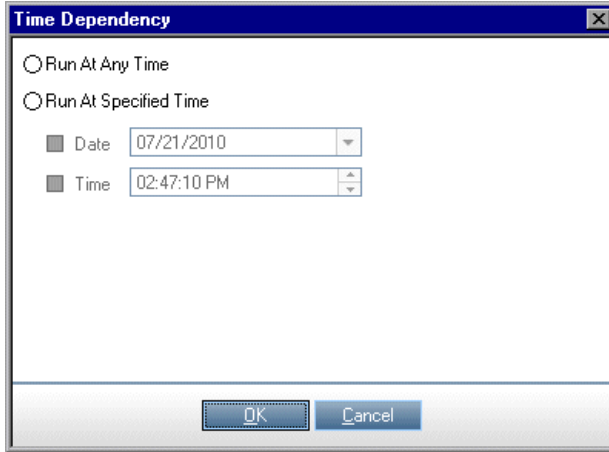
User interface elements are described below:



UI Elements (A-Z)	Description.
	<p>New Execution Condition. Opens the New Execution Condition dialog box, enabling you to define a new execution condition.</p> <p>Available from: The Run Schedule dialog box > Execution Conditions tab.</p>
	<p>Edit Execution Condition. Opens the Execution Condition dialog box, enabling you to edit an execution condition.</p> <p>Available from: The Run Schedule dialog box > Execution Conditions tab.</p>
	<p>Delete Execution Condition. Deletes a selected execution condition.</p> <p>Available from: The Run Schedule dialog box > Execution Conditions tab.</p>

UI Elements (A-Z)	Description.
Comments	<p>Comments regarding the condition.</p> <p>Click in the text box to display a toolbar for formatting and spell checking the text.</p> <p>Available from: The Execution Condition dialog box.</p>
is	<p>Specifies the execution condition. It includes the following options:</p> <p>Finished. Executes the current test instance only after the specified test instance has finished executing.</p> <p>Passed. Executes the current test instance only if the specified test instance has finished executing and has passed.</p>
Test	The test instance on which you want the current test to be dependent.
Test runs only if	The execution conditions of the specified test instance.

Time Dependency Page

This page enables you to specify when you want a test instance to be executed.



<p>To access</p>	<p>Use one of the following in the Execution Flow tab:</p> <ul style="list-style-type: none"> ▶ Right-click a test instance and choose Test Run Schedule. Click the Time Dependency tab. ▶ Right-click the Time Dependency  icon connected to a test instance. The Time Dependency dialog box opens.
<p>Important information</p>	<ul style="list-style-type: none"> ▶ Tip: You can schedule the test run date and time by clicking the Add Time Dependency To Flow  button, and linking the arrow from the icon to a test instance. Double-click the icon to set the time in the Time Dependency dialog box. ▶ The default time dependency is the ALM Platform server's current date and time.
<p>Relevant tasks</p>	<p>"How to Schedule Test Runs" on page 747</p>
<p>See also</p>	<ul style="list-style-type: none"> ▶ "Execution Condition Page" on page 753 ▶ "Test Run Schedules Overview" on page 746

User interface elements are described below:

UI Elements (A-Z)	Description.
Run at any time	The test instance runs at a non-specific time.
Run at specified time	The test instance runs at a specific time. You can specify the following: <ul style="list-style-type: none">▶ Date. Indicates the date for running the test instance.▶ Time. Indicates the time for running the test instance.

30

Manual Test Execution

This chapter includes:

Concepts

- ▶ Manual Test Execution Overview on page 760
- ▶ Sprinter Overview on page 760

Tasks

- ▶ How to Run Tests Manually on page 763

Reference

- ▶ Manual Test Execution User Interface on page 767

Concepts

Manual Test Execution Overview

When you run tests manually, you follow the test steps and perform operations on the application under test. You pass or fail each step, depending on whether the actual application results match the expected output. You can run both manual and automated tests manually.

You can execute tests more than once in the same set. Each execution is considered a new test run. You can also resume a manual test run that was paused during execution.

If you decide to modify test steps during a test run, you can choose to save the modifications in the original test and in the test instance. Alternatively, you can save them for the current test run only.

After test execution is complete, you can view a summary of results for all test runs, and view more detailed results for each test instance.

You run tests manually in ALM using HP Sprinter, HP's solution for manual testing. For details, see "Sprinter Overview" on page 760.

If you are not working with Sprinter, you run tests manually using Manual Runner.

For task details, see "How to Run Tests Manually" on page 763.

Sprinter Overview

You run tests manually from HP Application Lifecycle Management (ALM) using HP Sprinter. Sprinter provides advanced functionality and tools to assist you in the manual testing process. Sprinter is fully integrated with ALM, enabling you to get the maximum benefit from both solutions.

Note:

- ▶ **ALM Editions:** Sprinter functionality is not available with Quality Center Starter Edition or Performance Center Edition.
 - ▶ If you are not working with Sprinter, you can run tests manually with the Manual Runner.
-

Manual testing often requires that you leave your testing application to accomplish tasks related to your test. For example, you may need to use graphic software to take a screen capture of your application, you may want to record a movie of the application during the test, and you need to switch to your defect tracking software to report defects.

Sprinter addresses these needs of the manual testing process, and enables you to accomplish these tasks without disrupting your test flow. With Sprinter, you can also perform many of the repetitive and tedious tasks of manual testing automatically. Sprinter includes many tools to help you detect and submit defects. These features ensure that you can perform all the tasks necessary for your manual test with minimum interruptions to your testing work.

With Sprinter you can:

- ▶ create and annotate screen captures
- ▶ capture movies of your run
- ▶ record and run macros on your test application
- ▶ automatically enter data into fields in your application
- ▶ automatically include the list of your steps or user actions in any defect you submit
- ▶ replicate your user actions on multiple machines with different configurations

All this functionality is available from within Sprinter, and can be used without interrupting the flow of your manual test.

For full details on installing and working with Sprinter, refer to the *HP Sprinter Readme* and the *HP Sprinter User Guide*, available on the HP Application Lifecycle Management Add-ins page (select **Help > Add-ins Page**).

For details on customizing ALM default settings for Sprinter, see the *HP Application Lifecycle Management Administrator Guide*.

To run tests manually in ALM using Sprinter, see "How to Run Tests Manually" on page 763.

Tasks

How to Run Tests Manually

This task describes how to run tests manually. You can run both manual and automated tests manually.

To learn more about running tests manually, see "Manual Test Execution Overview" on page 760.

Note:

- ▶ This task is part of a higher-level task. For details, see "How to Run Tests in ALM" on page 684.
- ▶ **ALM Editions:** Sprinter functionality described in this section is not available with Quality Center Starter Edition or Performance Center Edition.

This task includes the following steps:

- ▶ "Prerequisites" on page 764
- ▶ "Run tests with Sprinter" on page 764
- ▶ "Edit test steps during a test run" on page 765
- ▶ "Resume a manual test run" on page 766

1 Prerequisites

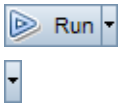
For enhanced functionality and a variety of tools to assist in the manual testing process, run tests with HP Sprinter. To learn more about Sprinter, see "Sprinter Overview" on page 760.

To run tests with Sprinter, you must install Sprinter on your client machine. To download and install Sprinter, select **Help > Add-ins Page** to open the HP Application Lifecycle Management Add-ins page, and click the HP Sprinter add-in link.

2 Run tests with Sprinter

If Sprinter is installed on your computer, you can run tests manually with Sprinter from the Test Lab module.

In the Test Lab module > Test Sets tab, select a test set and click the **Execution Grid** tab or **Execution Flow** tab.



- ▶ To run a single manual test, select the test and click the **Run** button.
- ▶ To run two or more manual tests, select the tests. Click the drop-down arrow next to the **Run** button and select **Run...(Sprinter)**.

For details on working with Sprinter, refer to the *HP Sprinter User Guide*, available on the HP Application Lifecycle Management Add-ins page.

3 Run tests from the Manual Runner dialog box

If you are not working with Sprinter, you can also run tests manually from the Manual Runner dialog box.



- a** In the Test Lab module > Test Sets tab, select a test set and click the **Execution Grid** tab or **Execution Flow** tab. Select the tests, click the drop-down arrow next to the **Run** button, and select **Run Manually**. For user interface details on the Manual Runner wizard, see "Manual Runner Wizard" on page 769.
- b** Open the application being tested and execute the test steps. Follow the instructions detailed in the test step descriptions.
- c** Compare the actual results with the expected results. When performing the steps, decide whether the application responds according to the expected results.

- d Assign a pass or fail status to each step, depending on whether or not the expected results match the actual results.
- e If a step fails, explain how the application actually responded. A test fails if one or more steps fail.

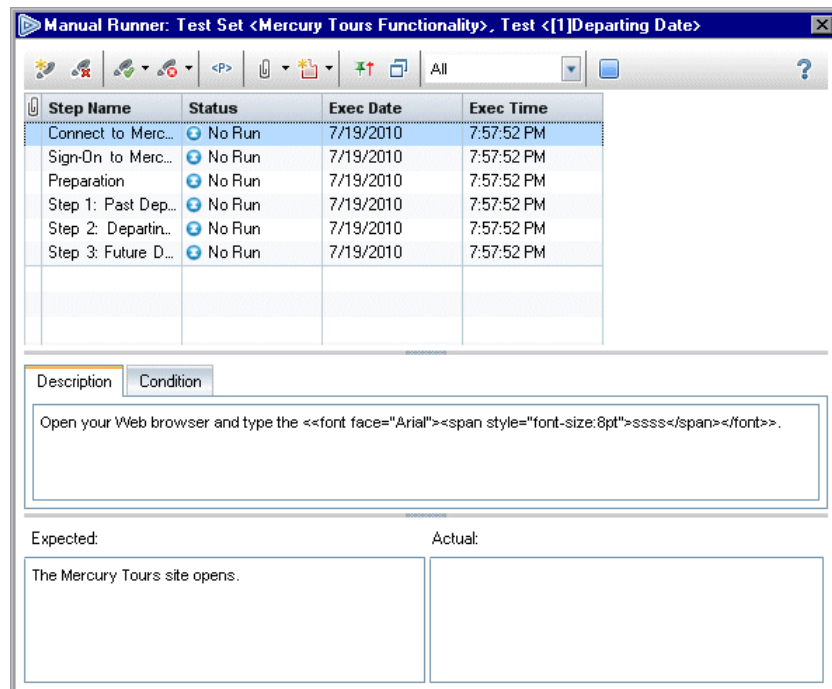
4 Edit test steps during a test run

While executing a test using the Manual Runner, you can add, delete, or modify test steps. After you finish executing the test, you can save your design steps with the changes you make.

Edit test steps during a manual run from the **Manual Runner: Step Details** page. For user interface details, see "Manual Runner: Step Details Page" on page 773.

Example:

You can conveniently read and review each step, and also add, delete, or modify test steps.



5 Resume a manual test run

If a manual test run was paused during execution, you can continue the run at a later stage. This continues the run using the same runner that was used the first time the test was run (Sprinter or the Manual Runner).

Use one of the following:

- ▶ In the Execution Grid tab or Execution Flow tab, select the test you want to resume running, and select **Tests > Continue Manual Run**. Alternatively, click the **Run** arrow and choose **Continue Manual Run**.

Note: This continues the last run of the selected test. If you want to resume running a previous run, click the **Test Instance Details** button, click **Runs** on the sidebar, and select the test run you want to resume. Click the **Continue Manual Run** button.

- ▶ In the Test Lab > Test Runs tab, select the test run you want to resume and click the **Continue Manual Run** button.

6 Results

After test execution is complete, you can view a summary of test results in the Test Lab module:

- ▶ **Test Sets tab.** The updated status for each test run is displayed in the Execution Grid. Results for each test step appear in the **Last Run Report** pane. You can view more detailed results in the Test Instance Details dialog box.
- ▶ **Test Runs tab.** The updated status for each test run in the project is displayed.

For more details on viewing test results, see "How to View Test Results" on page 797.

Reference

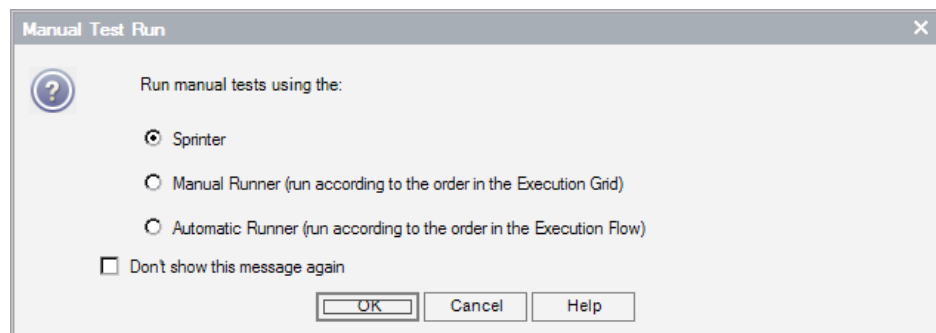
Manual Test Execution User Interface

This section includes:

- ▶ Manual Test Run Dialog Box on page 767
- ▶ Manual Runner Wizard on page 769

Manual Test Run Dialog Box

This dialog box enables you to select whether to run tests using Sprinter, the Manual Runner, or the Automatic Runner.



To access	In the Test Lab module > Test Sets tab, select a test set and use one of the following: <ul style="list-style-type: none"> ▶ To run an entire test set that contains only manual tests, click the Run Test Set button. ▶ In the Execution Grid tab or Execution Flow tab, select two or more manual tests and click the Run button.
Relevant tasks	"How to Run Tests Manually" on page 763
See also	"Manual Test Execution Overview" on page 760

User interface elements are described below:

UI Elements	Description
Sprinter	<p>Opens Sprinter and runs the selected tests manually according to the order displayed in the Execution Grid. For details on Sprinter, see the "Sprinter Overview" on page 760.</p> <p>This option is displayed only if Sprinter is installed on your computer. ALM Editions: Sprinter functionality is not available with Quality Center Starter Edition or Performance Center Edition.</p>
Manual Runner	<p>Runs the selected tests manually from the Manual Runner dialog box according to the order displayed in the Execution Grid. For more details on the Manual Runner, see "Manual Runner Wizard" on page 769.</p>
Automatic Runner	<p>Runs the selected tests automatically according to conditions defined in the Execution Flow. For more details on running tests automatically, see "Automatic Runner Dialog Box" on page 785.</p>
Don't show this message again	<p>Instructs ALM to run manual tests without first displaying this dialog box. To enable, select Tests > Enable Manual Test Run Confirmation.</p>

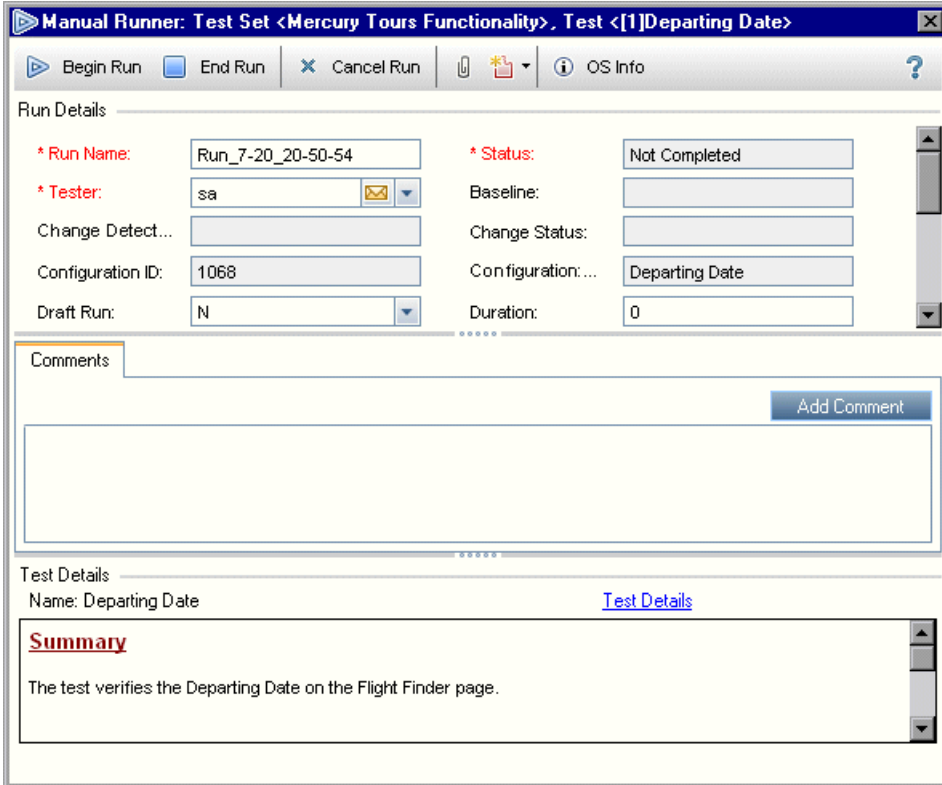
Manual Runner Wizard

This wizard enables you to run tests manually. You can run both manual and automated tests manually.

To access	In the Test Lab module > Test Sets tab, select a test set and click the Execution Grid tab or Execution Flow tab. Select one or more tests and select Tests > Run Manually .
Relevant tasks	"How to Run Tests in ALM" on page 684
Wizard map	This wizard contains: Manual Runner: Run Details Page > Manual Runner: Step Details Page
See also	<ul style="list-style-type: none"> ➤ "Test Execution Overview" on page 682 ➤ "Manual Test Execution Overview" on page 760


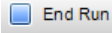
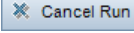


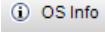
Manual Runner: Run Details Page

This wizard page enables you to review run details and run tests manually.



<p>Important information</p>	<ul style="list-style-type: none"> ▶ General information about this wizard is available here: "Manual Runner Wizard" on page 769. ▶ You can run a test instance as a draft run using the Draft Run field. For more details, see "Draft Runs" on page 683.
<p>Wizard map</p>	<p>The Manual Runner Wizard contains:</p> <p>Manual Runner: Run Details Page > Manual Runner: Step Details Page</p>
<p>See also</p>	<p>"Manual Test Execution Overview" on page 760</p>





User interface elements are described below:







UI Elements (A-Z)	Description
	<p>Starts the test run.</p> <p>If the test you are running has parameters that have not been assigned actual values, the Parameters of Test dialog box opens. Assign actual values for the parameters. For details, see "Called Test Parameters/Parameters of Test Dialog Box" on page 570.</p>
	<p>Ends the test run. ALM saves the test run.</p>
	<p>Cancels the test run.</p> <p>To cancel the run completely without saving, click No to confirm.</p>
	<p>Attach to Run. Opens the Attachment page, enabling you to view and add attachments to the test run. For details, see "Attachments Page" on page 86.</p>
	<p>New Defect. Opens the New Defect dialog box, enabling you to add a defect to the test run. For details, see "New Defect Dialog Box" on page 858. ALM automatically creates a link between the test run and the new defect. For details, see "Defect Linkage" on page 829.</p> <p>To view linked defects for a selected test run, click the New Defect arrow and select Linked Defects.</p>
	<p>Operating System Information. Opens the Operating System Information dialog box. You can edit the following:</p> <ul style="list-style-type: none"> ▶ Operating System. The operating system on the machine where you perform your test steps. By default, the operating system on your ALM client machine is displayed. ▶ OS Service Pack. The operating system service pack. ▶ OS Build Number. The operating system build number.

UI Elements (A-Z)	Description
Comments tab	Comments for the current test run. Click Add Comment to add a comment.
Run Details	Displays information about the test run. Required fields are displayed in red. For details on the available fields, see "Test Lab Module Fields" on page 710.
Test Details	Opens the Test Details dialog box, enabling you to view and update details about the test. For more details, see "Test Plan Module Window" on page 495.

<p>Important information</p>	<ul style="list-style-type: none"> ▶ General information about this wizard is available here: "Manual Runner Wizard" on page 769. ▶ If you modify test steps during a test run, you can choose to save the modifications in the original test in the Test Plan module and in the test instance in the Test Lab module. Alternatively, you can save them for the current test run only. ▶ The Test Lab module enables you to update changes made to called tests in the current test run only. The called tests are not affected. For more information on called tests, see "Design Steps Tab/Design Step Details Dialog Box" on page 582. ▶ If you are running a business process test, refer to the <i>HP Business Process Testing User Guide</i>.
<p>Wizard map</p>	<p>The Manual Runner Wizard contains: Manual Runner: Run Details Page > Manual Runner: Step Details Page</p>
<p>See also</p>	<p>"Manual Test Execution Overview" on page 760</p>

User interface elements are described below (unlabeled elements are shown in angle brackets>):

UI Elements (A-Z)	Description
	<p>Add Step. A new step with a default step name is added to the test. You can type details about the new step in the Description box.</p>
	<p>Delete Selected. Deletes the selected steps.</p>
	<p>Pass Selected. Changes the status of selected test steps to Passed. To pass all test steps at once, click the Pass Selected arrow and select Pass All.</p>
	<p>Fail Selected. Changes the status of selected test steps to Failed. To fail all test steps at once, click the Fail Selected arrow and select Fail All.</p>

UI Elements (A-Z)	Description
	<p>Show Parameters. Opens the Parameters of Test Run dialog box, enabling you to view the values of test parameters. For details, see "Parameters Tab/Parameters Dialog Box" on page 565.</p>
	<p>Attach to Step. Opens the Attachment page, enabling you to view and add attachments to the test step. For details, see "Attachments Page" on page 86.</p> <p>To add attachments to the entire test run, click the Attachments arrow and select Attach to Run.</p>
	<p>New Defect. Opens the New Defect dialog box, enabling you to add a defect to the step. ALM automatically creates a link between the test step and the new defect. For details, see "New Defect Dialog Box" on page 858 and "Defect Linkage" on page 829.</p> <p>To view linked defects for a selected test step, click the New Defect arrow and select Linked Defects.</p>
	<p>Keep on Top. Displays the Manual Runner: Step Details dialog box on top of all open windows.</p> <p>To display selected windows on top of the Manual Runner: Step Details dialog box, click the Not on Top button.</p>
	<p>Compact View. Opens the compact view display of this dialog box, enabling you to conveniently read each test step and record the results.</p> <p>To return to the steps grid, click the Back to Steps Grid button.</p>
	<p>End Run. Ends the run.</p> <p>If you added, deleted, or modified test steps during the run, a confirmation box opens. Select one of the following:</p> <ul style="list-style-type: none"> ➤ Yes. Saves your changes and updates the test in the Test Plan and Test Lab modules. ➤ No. Saves your changes in the current test run only.

UI Elements (A-Z)	Description
<Filter by>	Filters the steps in the test according to the Status column.
<Grid fields>	View or edit details about the test steps. For details on the available fields, see "Test Lab Module Fields" on page 710.
Actual	The actual result of the selected test step.
Description	A description of the selected test step.
Expected	The expected result of the selected test step.

31

Automatic Test Execution

This chapter includes:

Concepts

- ▶ Automatic Test Execution Overview on page 778

Tasks

- ▶ How to Run Tests Automatically on page 780

Reference

- ▶ Automatic Test Execution User Interface on page 784

Concepts

Automatic Test Execution Overview

You can run tests automatically, directly from HP Application Lifecycle Management (ALM). You can choose to run tests on your machine or on remote hosts. A **host** is any machine connected to your network on which a testing tool has already been installed.

You can choose to run all of the tests in a test set, or specific tests, including both automated and manual tests.

When you run an automated test, ALM opens the selected testing tool automatically, runs the test on your local machine or on remote hosts, and exports the results to ALM.

When you run a manual test from the Automatic Runner dialog box, ALM notifies a designated tester by email to run the test on a specified host.

You can also run an automated system test to provide system information, capture a desktop image, or restart a machine. For details on system tests, see "System Tests Overview" on page 620.

For task details, see "How to Run Tests Automatically" on page 780.

QuickTest Professional Test Execution

When running QuickTest Professional tests, consider the following:

- ▶ To enable ALM to run QuickTest Professional tests on a remote host, open the relevant application on the remote host and select the required option. For more information, refer to the *HP QuickTest Professional User Guide*.
- ▶ Before running a QuickTest test, ALM loads the QuickTest add-ins that are associated with the selected test. You must ensure that you run the test on a machine on which the required QuickTest add-ins are installed. For more information on working with add-ins and associated add-in lists in QuickTest, refer to the QuickTest Professional documentation and the relevant QuickTest add-in documentation.
- ▶ When you run QuickTest Professional tests from the Test Lab module, they are automatically run in **Fast** mode. They cannot be run in **Normal** mode.
- ▶ By default, ALM closes QuickTest Professional at the end of a test set run. This ensures that the QuickTest license is released at that point and made available for other QuickTest users. To keep QuickTest open after a test set run, you can edit the **SUPPORT_TESTSET_END** parameter in the Site Configuration tab in Site Administration. For details, see the *HP Application Lifecycle Management Administrator Guide*.

Tasks

How to Run Tests Automatically

This task describes how to run manual and automated tests automatically.

To learn more about running tests automatically, see "Automatic Test Execution Overview" on page 778.

Note: This task is part of a higher-level task. For details, see "How to Run Tests in ALM" on page 684.

This task includes the following steps:

- "Prerequisites" on page 781
- "Schedule and order test execution" on page 781
- "Run a test concurrently on multiple hosts" on page 782
- "Run tests" on page 782
- "View the execution log" on page 783
- "Results" on page 783

1 Prerequisites

Before running tests automatically, you must set up host computers for the remote execution of automated tests, and assign testers for the execution of manual tests.

- ▶ **Set up hosts for remote test execution.** In the Test Lab module, Test Sets tab, select **Test Sets > Host Manager**. For user interface details, see "Host Manager Dialog Box" on page 788.
- ▶ **Designate testers for running manual tests.** When you run a manual test automatically, ALM notifies a designated tester by email to run the test. This notification can be sent only if you have designated a tester for the test with a valid email address.

To designate a tester, locate the test in the Execution Grid tab, and select a user in the **Responsible Tester** column.

2 Schedule and order test execution

You can decide how and when tests are run:

Scheduling. You can specify the date and time, and set conditions for executing your tests. For task details, see "How to Schedule Test Runs" on page 747.

Ordering. You can set the order in which you want your tests to be executed, using the Order Test Instances dialog box. Use one of the following:

- ▶ In the Execution Flow, press the CTRL key and select two or more tests. Right-click a test and select **Order Test Instances**.
- ▶ In the Execution Grid, select **Tests > Order Test Instances**.

For user interface details on the Order Test Instances dialog box, see "Order Test Instances Dialog Box" on page 791.

3 Run a test concurrently on multiple hosts

To run the same test concurrently on multiple remote hosts, add multiple instances of the test to your test set. For user interface details on adding test instances to test sets, see "Select Tests Pane" on page 732.

4 Run tests

Run manual and automated tests automatically on your machine or on remote hosts using the Automatic Runner.

In the Test Lab module > Test Sets tab, use one of the following:

- ▶ Select a test set that includes one or more automated tests and click the **Run Test Set** button.
- ▶ To run selected tests, select a test set and click the **Execution Grid** tab or **Execution Flow** tab. Select one or more tests and click the **Run** button.
- ▶ To run only manual tests, select the tests and click the **Run** button. In the Manual Test Run dialog box, select **Automatic Runner** and click **OK**.

For user interface details on the Automatic Runner, see "Automatic Runner Dialog Box" on page 785.

5 View the execution log

You can view details about the automatic test execution after execution is complete. In the Automatic Runner dialog box, select **Run > View Execution Log**. For user interface details, see "Execution Log Dialog Box" on page 793.

6 Results

After the test execution is complete, you can view a summary of test results in the Test Lab module:

- ▶ **Test Sets tab.** The updated status for each test run is displayed in the Execution Grid. Results for each test step appear in the Last Run Result pane. You can view more detailed results in the Test Instance Details dialog box.
- ▶ **Test Runs tab.** The updated status for each test run in the project is displayed

For more details on viewing test results, see "How to View Test Results" on page 797.

Reference

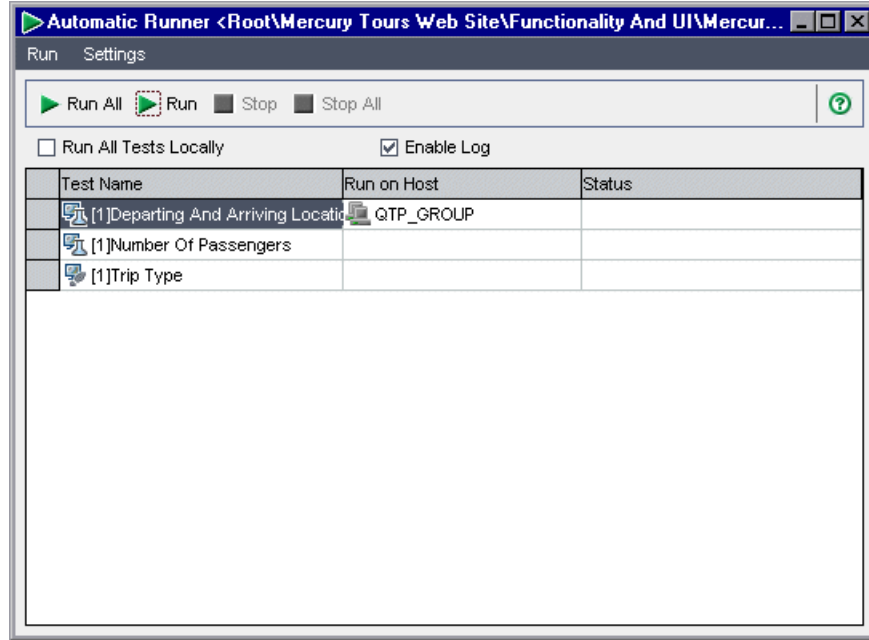
Automatic Test Execution User Interface

This section includes:

- ▶ Automatic Runner Dialog Box on page 785
- ▶ Host Manager Dialog Box on page 788
- ▶ Order Test Instances Dialog Box on page 791
- ▶ Execution Log Dialog Box on page 793

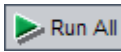

Automatic Runner Dialog Box


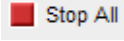
This dialog box enables you to run tests automatically. You can run an entire test set or specific tests, including both automated and manual tests.



<p>To access</p>	<p>In the Test Lab module > Test Sets tab, use one of the following:</p> <ul style="list-style-type: none"> ➤ Select a test set that includes one or more automated tests and click the Run Test Set button. ➤ To run selected tests, select a test set and click the Execution Grid tab or Execution Flow tab. Select one or more tests and click the Run button. ➤ To run only manual tests, select the tests and click the Run button. In the Manual Test Run dialog box, select Automatic Runner and click OK.
<p>Important information</p>	<ul style="list-style-type: none"> ➤ For an automated test, ALM opens the selected testing tool automatically and runs the test. Test execution commences only when the selected host becomes available to run tests. ➤ For a manual test, ALM notifies a designated tester by email to run the test. This notification can be sent only if you designate a tester for the test in the Responsible Tester field in the Execution Grid. ➤ To run several test sets concurrently on multiple remote hosts, open a new Automatic Runner dialog box instance for each test set. ➤ For additional considerations when running QuickTest Professional tests, see "QuickTest Professional Test Execution" on page 779.
<p>Relevant tasks</p>	<p>"How to Run Tests in ALM" on page 684</p>
<p>See also</p>	<ul style="list-style-type: none"> ➤ "Test Execution Overview" on page 682 ➤ "Automatic Test Execution Overview" on page 778 ➤ "Test Lab Module Window" on page 689

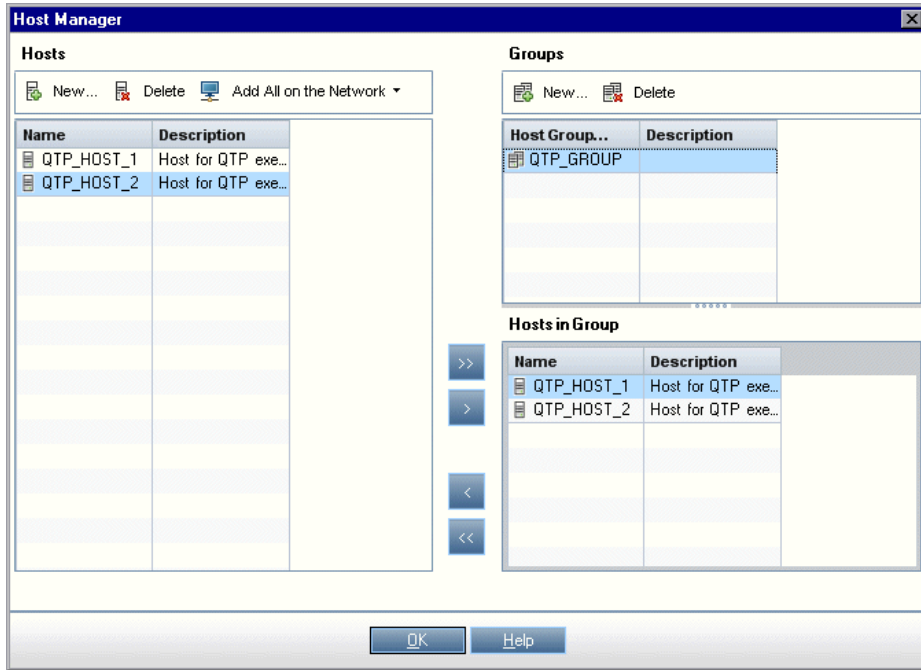
User interface elements are described below:

UI Elements (A-Z)	Description
	<p>Run All Tests. Runs all the tests in the Automatic Runner dialog box.</p>
	<p>Run Selected Tests. Runs the selected tests.</p>

UI Elements (A-Z)	Description
	Stop the Run. Terminates text execution before it completes.
	Stop All Runs. Terminates all tests that are running in the Automatic Runner dialog box.
Deselect All	Clears selection of all tests in the Automatic Runner dialog box. Available from: Run menu
Enable Log	Creates an execution log file during the test run. To view the execution log after text execution, select Run > View Execution Log . For more details, see "Execution Log Dialog Box" on page 793.
Invert Selection	Selects or clears the selection of all tests in the Automatic Runner dialog box. Available from: Run menu
Run All Tests Locally	Executes all tests on your local machine.
Run on Host	The host machine designated to remotely run the test. To execute tests remotely, select a host machine for each test. You must first clear the Run All Tests Locally check box. Click the Run on Host grid box, and click the browse button. The Select Host dialog box opens. Under <Any Host> , select a host or host group to run the test. If you select a host group, ALM runs the test on the first available host in the group, not on every host in the group.
Run Selected	Runs selected tests in the Automatic Runner dialog box. Available from: Run menu
Select All	Selects all tests in the Automatic Runner dialog box. Available from: Run menu
Status	Displays text execution progress.
Test Name	The name of the test to be run.



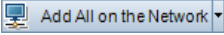




Host Manager Dialog Box

This dialog box enables you to create a list of available hosts for remote test execution. You can also organize hosts into groups to be used for a specific project.



To access	In the Test Lab module, Test Sets tab, select Test Sets > Host Manager .
Important information	If you specify a host group for remote test execution, ALM runs the test on the first available host, and not on every host in the host group.
Relevant tasks	"How to Run Tests Automatically" on page 780
See also	"Automatic Test Execution Overview" on page 778

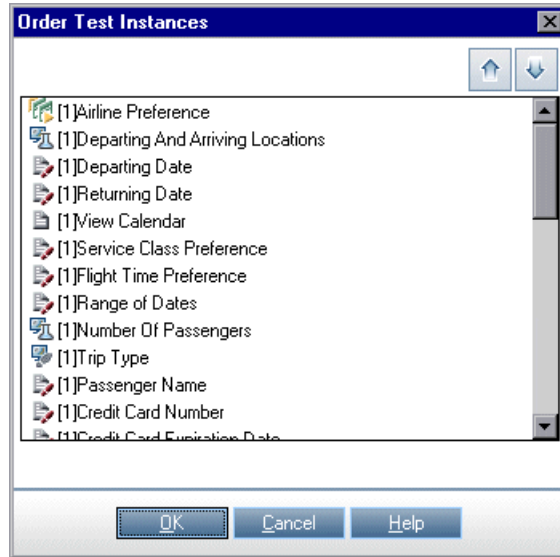
User interface elements are described below:

UI Elements (A-Z)	Description
	New Host. Opens the New Host dialog box, enabling you to add a host to the Hosts list.
	Delete Host. Deletes a selected host from the Hosts list.
	<p>Add All on the Network. Includes the following options:</p> <ul style="list-style-type: none"> ▶ Add All on the Network. ALM scans the Network Neighborhood directory and inserts each host found into the Hosts list. ▶ Synchronize Hosts in the Project with Hosts on Net. Synchronizes the hosts in the Hosts list with the hosts in the Network Neighborhood directory. ALM adds hosts found in the Network Neighborhood directory and deletes hosts that were not found in the Network Neighborhood directory.
	New Host Group. Opens the New Host Group dialog box, enabling you to create a new host group.
	Delete Host Group. Deletes a selected group from the Groups list.
	<p>Adds hosts to a host group.</p> <p>Select a group from the Groups list. Then select a host from the Hosts list. To select multiple hosts, press the CTRL key and select the hosts. Click the Add Host to Host Group button.</p> <p>To add all hosts to a host group, select a group from the Groups list and click the Add All Hosts to Host Group button.</p>
	<p>Removes a host from a host group.</p> <p>Select a group from the Groups list. Then select a host from the Hosts in Group list and click the Remove Host From Host Group button.</p> <p>To remove all hosts from a host group, select a group from the Groups list and click the Remove All Hosts to Host Group button.</p>

UI Elements (A-Z)	Description
Description	A description of the selected host or group.
Groups	The host groups for the project.
Hosts	The available hosts for the project.
Hosts in Group	The hosts included in the selected group.
Name	The name of the host.


Order Test Instances Dialog Box

This dialog box enables you to change the execution order of the tests in the Execution Grid or Execution Flow.



<p>To access</p>	<p>In the Test Lab module, Test Sets tab, use one of the following:</p> <ul style="list-style-type: none"> ▶ In the Execution Flow, press the CTRL key and select two or more tests. Right-click a test and select Order Test Instances. ▶ In the Execution Grid, select Tests > Order Test Instances.
<p>Important information</p>	<ul style="list-style-type: none"> ▶ When determining the order for running tests, ALM first checks the Execution Flow. The order you define in the Execution Grid is only used if there are no conditions set in the Execution Flow. ▶ In the Execution Grid, ALM runs the tests according to the specified order, grouped by host type. For example, if you have your tests ordered as test1, test2, and test3, ALM runs test1 and test3 first if they are set to run on the same host, followed by test2 on a different host.
<p>Relevant tasks</p>	<p>"How to Run Tests Automatically" on page 780</p>
<p>See also</p>	<p>"Test Execution Overview" on page 682</p>

User interface elements are described below (unlabeled elements are shown in angle brackets>):


<p>UI Elements</p>	<p>Description</p>
	<p>Move Selected Up/Down. Enables you to set the execution order by moving the selected test up or down in the list.</p>
<p><Test pane></p>	<p>In the Execution Grid, displays the tests in the selected test set.</p> <p>In the Execution Flow, displays the tests that you selected.</p> <p>Select a test from the list and click the up or down arrow to change the position of the test in the sequence. Alternatively, you can drag the tests up or down.</p>

Execution Log Dialog Box

This dialog box enables you to view details about tests executed by the Automatic Runner.

To access	In the Automatic Runner dialog box, select Run > View Execution Log .
Important information	You can view the Execution Log only if you selected Enable Log in the Automatic Runner dialog box before you executed the test.
Relevant tasks	"How to Run Tests Automatically" on page 780
See also	"Automatic Runner Dialog Box" on page 785

User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements (A-Z)	Description
	Refreshes the details of a selected test.
<Test details pane>	Displays execution details of the test selected in the Test box, including name, date and time of run, and remote host.
<Results pane>	Displays a description of the run. May indicate cause of run failure.
Database	The project in which the executed tests are located.
Delete	Deletes the execution log. Available from: Log menu
Exit	Closes the Execution Log dialog box. Available from: Log menu
Host	Filters the tests displayed by the selected host. To filter, select a host and click the Refresh button.

UI Elements (A-Z)	Description
Open	Enables you to select another execution log to display. Available from: Log menu
Test	The test for which execution details are displayed.
Test Set	The test set in which the executed tests are located.
User name	The user who ran the tests.

32

Test Results

This chapter includes:

Concepts

- ▶ Test Results Overview on page 796

Tasks

- ▶ How to View Test Results on page 797

Reference

- ▶ Test Results User Interface on page 800

Concepts

Test Results Overview

After running tests, you can view the results in HP Application Lifecycle Management (ALM). Manual test results consist of the overall pass/fail status of a test instance and the pass/fail status of each step in a test instance. The results available for automatic tests vary depending on the test type. These results help you determine whether a defect was detected in your application. In some cases, you may decide that a step failed because the expected results are no longer valid and need to be updated.

Following the execution of manual, automated, and system tests, you can view results and general test information for a test instance. You can view test run details, compare the results of the most recent test run with previous runs, manage attachments, view and edit test run configuration information, manage linked defects, and view a history of test run changes.

You can also view and compare the results of all runs in your project displayed in a grid. You can then filter the grid to display only those runs that meet the criteria that you define.

In addition, you can analyze the progress of a test set or of overall test execution in your project by periodically generating execution reports and graphs. For details, see "How to Analyze Data in ALM" on page 876.

For related task details, see "How to View Test Results" on page 797.

Tasks

How to View Test Results

This task describes how to view test results.

To learn more about test results, see "Test Results Overview" on page 796.

Note: This task is part of a higher-level task. For details, see "How to Run Tests in ALM" on page 684.

This task includes the following steps:

- "View results for a test set" on page 797
- "View results for all project runs" on page 798
- "View and edit execution settings for a test instance" on page 798
- "Manage linked defects" on page 799
- "Purge test runs - optional" on page 799

1 View results for a test set

After running tests, you can analyze the test results to determine which test instances in a test set failed, and which steps caused the failure.

- a** In the Test Lab module > Test Sets tab, select a test set and click the **Execution Grid** tab.

Select a test and view results in the **Last Run Report** pane.

For a test run with Sprinter, click the **Launch Sprinter Results Viewer** button to open and display the report in the Sprinter Results Viewer. For details, click the help button within the viewer.

For user interface details on the Execution Grid tab, see "Execution Grid Tab" on page 723.

- b** In the Execution Grid, double-click a test instance to view detailed run results. For user interface details on the Test Instance Details dialog box, see "Test Instance Details Dialog Box" on page 801.

2 View results for all project runs

You can view all the runs in your project displayed in a grid.

- a** In the Test Lab module, click the **Test Runs** tab. For user interface details, see "Test Runs Tab" on page 813.

Filter and sort the grid to display only those runs that meet your criteria. For example, you can define filters to display:

- tests that are currently running
- failed runs
- runs executed this month

For user interface details on filtering data, see "Filter Dialog Box" on page 60.

- b** Double-click a run to view detailed run results. For user interface details on the Run Details dialog box, see "Run Details Dialog Box" on page 816.

3 View and edit execution settings for a test instance

You can view or set the test parameter values for a manual or automated test instance. You can also view and edit the On Failure rules for an automated test instance.

- a** In the Execution Grid or the Execution Flow, right-click a test and select **Test Instance Details**.
- b** In the Test Instance Details dialog box, click **Execution Settings** on the sidebar. For user interface details on the Execution Settings view, see "Test Instance Details - Execution Settings View" on page 808.

4 Manage linked defects

You can view, add, and remove defect links for test instances, test runs, and test run steps. In the Test Instance Details dialog box, the Run Details dialog box, or the Run Step Details dialog box, click the **Linked Defects** button on the sidebar.

For user interface details on linking defects, see "Linked Defects/Entities Page" on page 866.

For user interface details on the Test Instance Details dialog box, see "Test Instance Details Dialog Box" on page 801.

For user interface details on the Run Details dialog box, see "Run Details Dialog Box" on page 816.

For user interface details on the Run Step Details dialog box, see "Run Step Details Dialog Box" on page 819.

5 Purge test runs - optional

You can delete old test runs from test sets in your project. The Purge Runs wizard enables you to select one or more test sets from which to delete old runs.

Use one of the following:

- In the Test Sets tab, select **Test Sets > Purge Runs**.
- In the Test Runs tab, select **Test Runs > Purge Runs**.

For user interface details on the Purge Runs wizard, see "Purge Runs Wizard" on page 821.

Reference

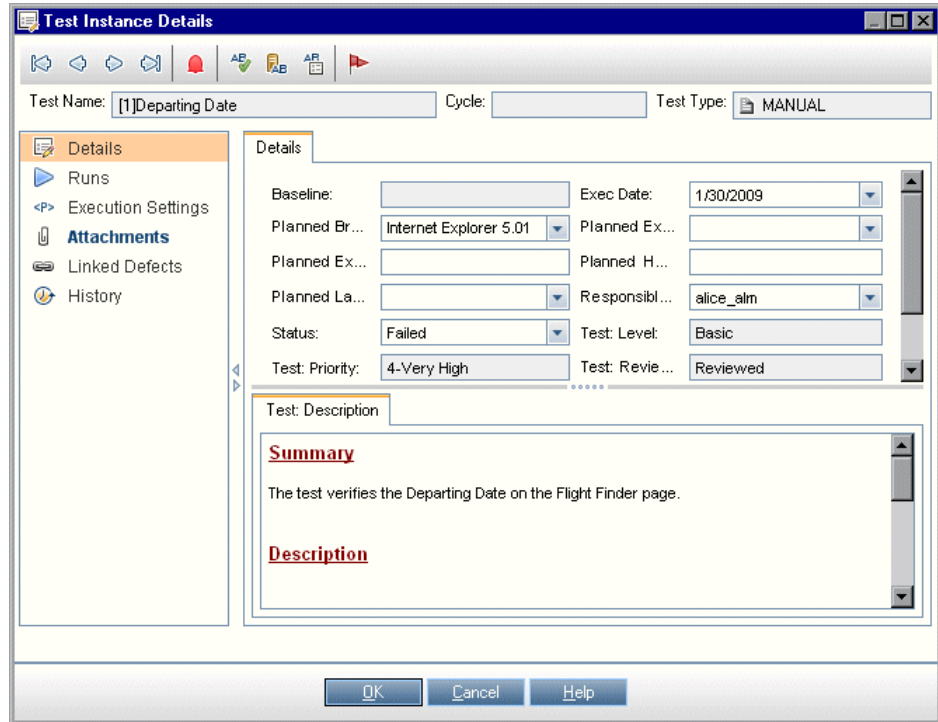
Test Results User Interface

This section includes:

- ▶ Test Instance Details Dialog Box on page 801
- ▶ Test Runs Tab on page 813
- ▶ Run Details Dialog Box on page 816
- ▶ Run Step Details Dialog Box on page 819
- ▶ Purge Runs Wizard on page 821

Test Instance Details Dialog Box







This dialog box enables you to view run details and results for a test instance. You can also view and set test run configuration information.



To access	In the Execution Grid or the Execution Flow, right-click a test and select Test Instance Details .
Important information	<ul style="list-style-type: none"> ▶ If you edit the test information, the changes you make are reflected in the Execution Grid. ▶ You can change the label of any of the fields in the Details tab. You can also add user-defined fields to the Details tab. For more information, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>.

Relevant tasks	"How to View Test Results" on page 797
See also	<ul style="list-style-type: none"> ➤ "Test Lab Module Fields" on page 710 ➤ "Test Results Overview" on page 796 ➤ "System Tests Overview" on page 620

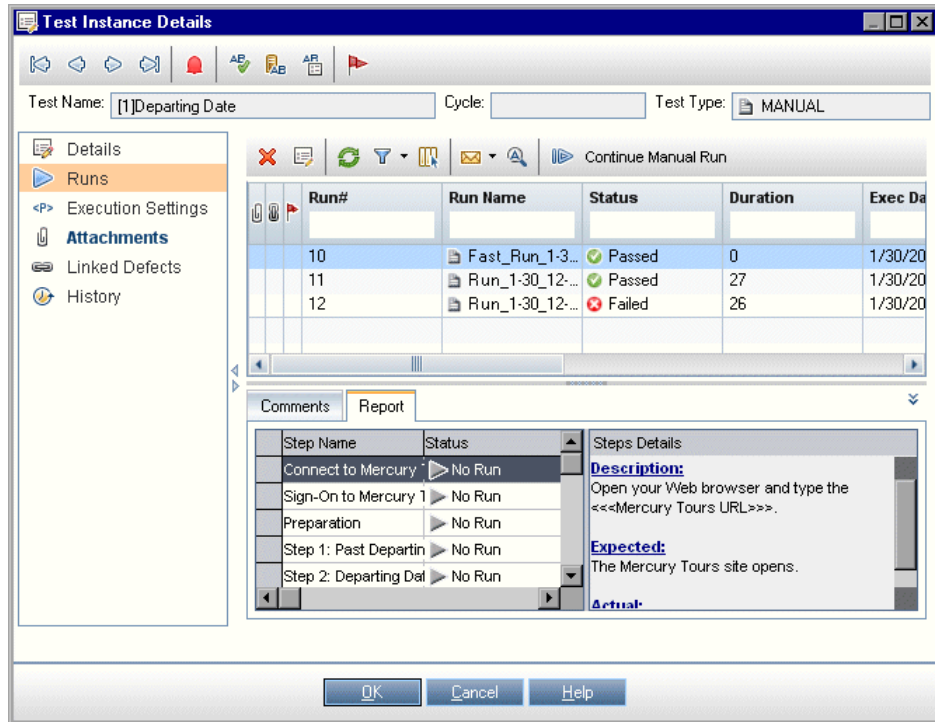
User interface elements are described below:

UI Elements (A-Z)	Description
	<p>First/Previous Next/Last Entity. Allows you to browse through the test instances in the Execution Grid.</p> <p>Note: This element is available only when you open the Test Instance Details dialog box from the Execution Grid.</p>
	<p>Flag for Follow Up. Opens the Flag Follow Up dialog box, enabling you to define a follow up flag for the test instance. For more details, see "Flag For Follow Up Dialog Box" on page 106.</p>
	<p>Alerts. Opens the Alerts dialog box, enabling you to display alerts for the test instance. For details, see "Alerts Dialog Box" on page 104.</p>
	<p>Spell Check. Checks the spelling for the selected word or text box.</p>
	<p>Spelling Options. Enables you to configure the way ALM checks spelling.</p>
	<p>Thesaurus. Displays a synonym, antonym, or related word for the selected word.</p>
Attachments	<p>Lists attachments that provide additional information about the currently selected test instance. For more details, see "Attachments Page" on page 86.</p>
Details	<p>Displays run details of a test instance. For details on the available fields, see "Test Lab Module Fields" on page 710.</p>
Execution Settings	<p>Displays run configuration information for the test instance. For details, see "Test Instance Details - Execution Settings View" on page 808.</p>

UI Elements (A-Z)	Description
History	Lists changes made to the currently selected test instance. For more details, see "History Tab" on page 81.
Linked Defects	Lists the defects linked to the currently selected test instance. You can view, add, and remove defect links. For more details, see "Linked Defects/Entities Page" on page 866.
Runs	Displays the results of all runs for the test instance. For details, see "Test Instance Details - Runs View" on page 804. Double-click a run in the grid to view detailed results for the run.

Test Instance Details - Runs View








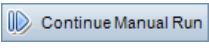
This view enables you to compare the results of a test run with the results of previous runs. You can view run details and step results for all the runs of a selected test instance.




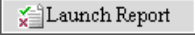
To access	In the Test Instance Details dialog box, click the Runs button on the sidebar.
Important information	Default filter: By default, the grid is filtered to show test runs from the current calendar month only, in reverse chronological order (most recent first). To clear this filter, clear the value ThisMonth from the Exec Date field. For more details on filtering, see the "Select Filter Condition Dialog Box" on page 70.

Relevant tasks	"How to View Test Results" on page 797
See also	"Test Instance Details Dialog Box" on page 801

User interface elements are described below (unlabeled elements are shown in angle brackets>):

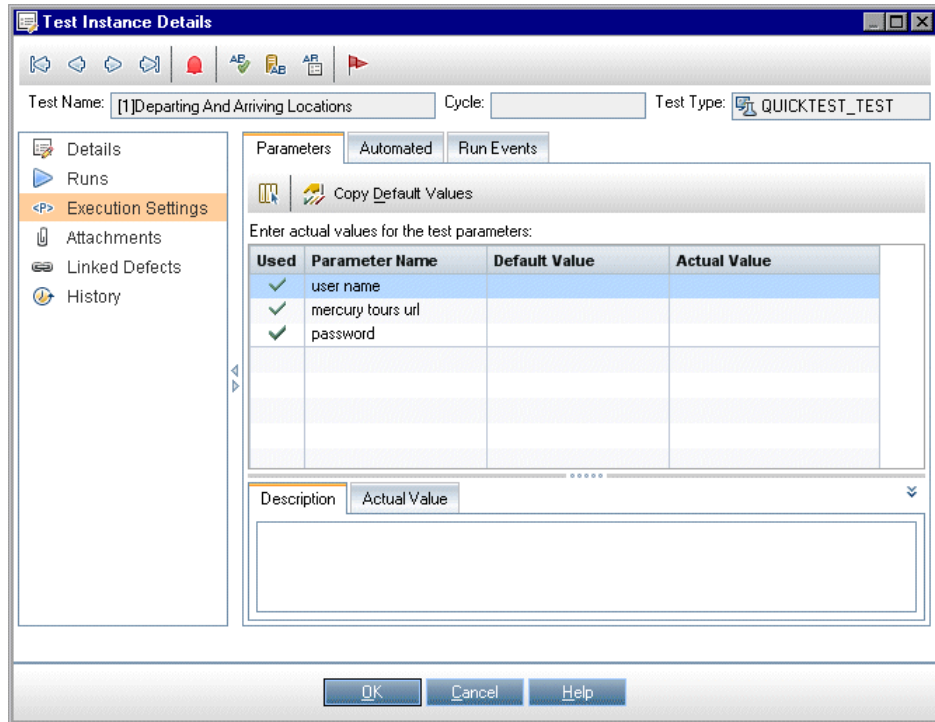
UI Elements (A-Z)	Description
	Delete. Deletes the selected runs from the grid.
	Details. Opens the Run Details dialog box, enabling you to view and edit additional details for the selected run. For more details, see "Run Details Dialog Box" on page 816.
	Refresh. Refreshes the grid so that it displays the most up-to-date runs based on the filters you have selected.
	Filter. Enables you to filter, sort, or group the run records. For more details, see "Filter Dialog Box" on page 60.
	Select Columns. Opens the Select Columns dialog box, enabling you to determine which columns to display and set the order in which the columns are displayed. For more details, see "Select Columns/Select Fields Dialog Box" on page 90.
	Send by Email. Opens the Send E-mail dialog box, enabling you to send a selected test run by email to recipients selected from a list, or to the tester. For more details, see "Send E-mail Dialog Box" on page 83.
	Text Search. Opens the text search pane in the lower part of the dialog box, enabling you to search for records in predefined fields. For more details, see "Text Search Pane" on page 78.
	Continue Manual Run. Resumes a manual test run. For more details, see "How to Run Tests Manually" on page 763.

UI Elements (A-Z)	Description
<Grid filter box>	<p>Located below the column names. Displays the filter that is currently applied to a column. If the filter box is empty, no filter is currently applied to the column.</p> <p>Type directly into the box, or click the box to display the Browse button, which opens the Select Filter Condition dialog box. For more details, see "Select Filter Condition Dialog Box" on page 70.</p>
Comments	Comments about the currently selected run.
Criterion Results	<p>Displays the statuses of the criteria for the last run of the selected business process test instance using a certain configuration.</p> <p>Business Process Testing: Functionality related to test criteria is available only for business process tests. For details, see the <i>HP Business Process Testing User Guide</i>.</p>

UI Elements (A-Z)	Description
Filter	Describes the filter currently applied to the grid. Located directly above the grid.
Report	<p>Displays results and test step details of the selected run. For automated test instances, also includes one of the following:</p> <ul style="list-style-type: none"> ▶  LR Analysis Opens and displays the results in LoadRunner Analysis. Available for the LR-SCENARIO test type. ▶  Launch Report Opens and displays the report in QuickTest Professional. Available for the QUICKTEST_TEST test type. <p>The Launch Report button is only enabled if you have installed the QuickTest Professional Add-in from the HP Application Lifecycle Management Add-ins page. For more details on installing add-ins, refer to the <i>HP Application Lifecycle Management Installation Guide</i>.</p> <ul style="list-style-type: none"> ▶ Collected System Info link. Opens the System Information dialog box. Displays the collected system information, such as CPU, memory, and processes running on the machine when the test is run. Available for the SYSTEM-TEST test type. ▶ Captured Desktop Image. Opens the captured image of the machine executing the system test. Available for the SYSTEM-TEST test type.

Test Instance Details - Execution Settings View

This view enables you to view or set the test parameter values for a manual test instance or an automated test instance. You can also view and edit the On Failure rules for an automated test instance.



To access	In the Test Instance Details dialog box, click the Execution Settings button on the sidebar.
Important information	<p>The Execution Settings view can display the following tabs:</p> <ul style="list-style-type: none"> ➤ "Parameters Tab" on page 809 ➤ "Automated Tab" on page 810 ➤ "Run Events Tab" on page 810 ➤ Business Process Testing: "Test Iterations Tab" on page 811


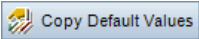
Relevant tasks	"How to View Test Results" on page 797
See also	"Test Instance Details Dialog Box" on page 801

Parameters Tab

This tab enables you to view or set actual parameter values for manual test instances. The Parameters tab shows all the test parameters that are used in the test steps, including parameters of called tests that have not already been assigned actual values. Actual values that you assign for parameters in the test instance are used for all test runs of the test instance.

See also	"Test Parameters Overview" on page 560
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User interface elements are described below:

UI Elements (A-Z)	Description
	Select Columns. Opens the Select Columns dialog box, enabling you to determine which columns to display and set the order in which the columns are displayed. For more details, see "Select Columns/Select Fields Dialog Box" on page 90.
	Uses a parameter's default value as its actual value. Select a parameter and click the Copy Default Values button.
Actual Value	The value that is used for the parameter during the test run. To add or modify the actual value, type the value in the Actual Value column.
Default Value	The default value of the selected parameter.
Description	A description of the parameter.
Parameter Name	The parameter name.
Used	Indicates whether the parameter is included in a design step of the selected test instance.

Automated Tab

This tab enables you to set parameter values and other configuration options for automated test instances.

User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements (A-Z)	Description
<Automated test configuration options>	You may be able to set additional configuration options, depending on the type of automated test you are running. For details, refer to the user guide for your automated test.
Parameter Value	Displays the value of each parameter. Under Value , you can edit parameter values. Your changes are implemented in the next test run.

Run Events Tab

This tab enables you to view and edit the On Failure rules for an automated test instance.

Important information	If you change the failure rules, your changes are implemented in the next test run.
See also	To set default On Failure rules for a test set, see "Automation Tab" on page 726.

User interface elements are described below:

UI Elements (A-Z)	Description
Cleanup test before rerun	The cleanup test ALM runs before each rerun of the selected test.

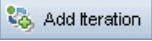

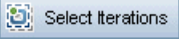
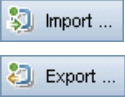
UI Elements (A-Z)	Description
Maximum test reruns	Specifies the number of times an automated test should be rerun upon failure.
On failure	Specifies the action for ALM to take when a test run fails. Options include: <ul style="list-style-type: none"> ▶ Do nothing. ▶ Stop the test set. ▶ Rerun the test. Runs the test again up to the maximum number of times, as specified in the Maximum test reruns box.

Test Iterations Tab

This tab enables you to view and edit the run-time values for each parameter of each iteration of a business process test instance.

Important information	This tab is available for Business Process Testing only.
See also	For details, see the <i>HP Business Process Testing User Guide</i> .

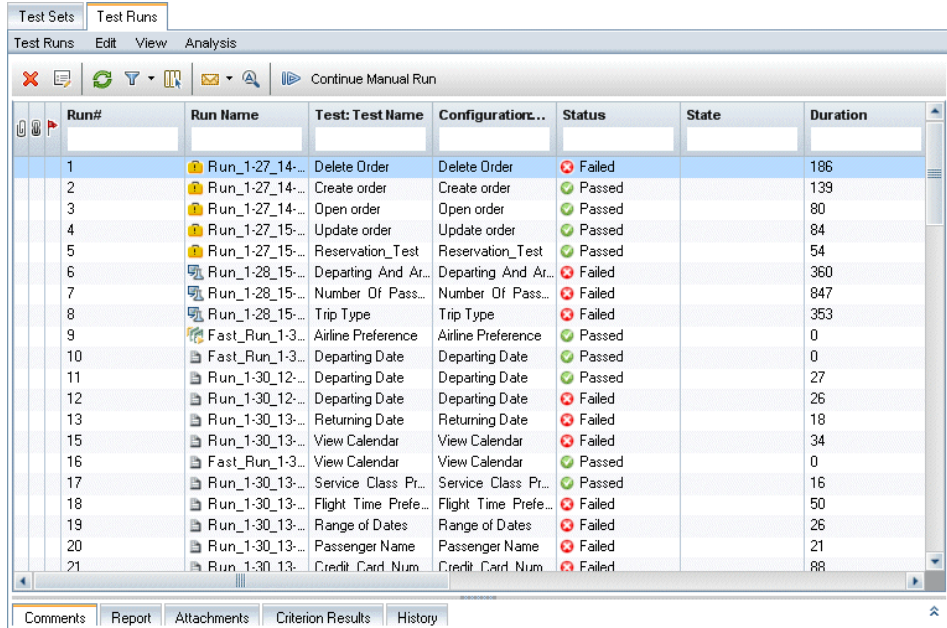
User interface elements are described below:

UI Elements (A-Z)	Description
	Add Iteration. Adds an iteration for the entity (component, group, test, or flow).
	Delete Iteration. Deletes the selected iteration for the entity (component, group, test, or flow).
	Select Iterations. Opens the Select Iterations dialog box, which enables you to select which of the defined iterations you want to run during the test run. You can specify one, all, or a range of iterations.
	Import/Export. Enables you to import component parameter values for iterations from a .csv (comma separated value) file, and to save component parameter values to a .csv file.

UI Elements (A-Z)	Description
<run-time values>	<p>The run-time value of the input parameter. You can modify the run-time value by clicking the arrow in the relevant cell, which opens the Set Value dialog box.</p> <p>If no run-time value is specified, the default value for that parameter is used. If no default value is specified, no value is displayed and the entity may not run correctly.</p> <p>Run-time values are saved and compared as strings, but can be specified according to different value types.</p> <p>Test or flow parameters (parameters whose values are to be taken from the business process test or flow), are shown in { } brackets. This instructs ALM to treat the parameter as a parameter and not as a fixed value.</p>
<parameter columns>	<p>Displays the names for each parameter in the displayed iteration.</p>
Iteration # columns/ rows	<p>Displays the current run-time values for each parameter in each iteration.</p>
Parameter Description	<p>The description for the parameter and its original source entity (business component, test, or flow).</p> <p>Parameter descriptions are initially entered in the module in which they were created (the Business Components module or the Test Plan module), or in QuickTest for automated components.</p>
Value columns	<p>Displays the run-time value for each parameter in the displayed iteration.</p>

Test Runs Tab

This tab enables you to view all test runs for your project in a grid.

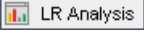
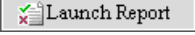


Run#	Run Name	Test: Test Name	Configurati...	Status	State	Duration
1	Run_1-27_14-...	Delete Order	Delete Order	Failed		186
2	Run_1-27_14-...	Create order	Create order	Passed		139
3	Run_1-27_14-...	Open order	Open order	Passed		80
4	Run_1-27_15-...	Update order	Update order	Passed		84
5	Run_1-27_15-...	Reservation_Test	Reservation_Test	Passed		54
6	Run_1-28_15-...	Departing And Ar...	Departing And Ar...	Failed		360
7	Run_1-28_15-...	Number Of Pass...	Number Of Pass...	Failed		847
8	Run_1-28_15-...	Trip Type	Trip Type	Failed		353
9	Fast_Run_1-3-...	Airline Preference	Airline Preference	Passed		0
10	Fast_Run_1-3-...	Departing Date	Departing Date	Passed		0
11	Run_1-30_12-...	Departing Date	Departing Date	Passed		27
12	Run_1-30_12-...	Departing Date	Departing Date	Failed		26
13	Run_1-30_13-...	Returning Date	Returning Date	Failed		18
15	Run_1-30_13-...	View Calendar	View Calendar	Failed		34
16	Fast_Run_1-3-...	View Calendar	View Calendar	Passed		0
17	Run_1-30_13-...	Service Class Pr...	Service Class Pr...	Passed		16
18	Run_1-30_13-...	Flight Time Pefe...	Flight Time Pefe...	Failed		50
19	Run_1-30_13-...	Range of Dates	Range of Dates	Failed		26
20	Run_1-30_13-...	Passenger Name	Passenger Name	Failed		21
21	Run_1-30_13-...	Credit Card Num	Credit Card Num	Failed		88

To access	On the ALM sidebar, under Testing, select Test Lab . Then click the Test Runs tab.
Important information	<ul style="list-style-type: none"> ▶ Quality Center Starter Edition: Fields and functionality related to release management and baselining are not available in the Test Lab module. ▶ Default filter: By default, the grid is filtered to show test runs from the current calendar month only, in reverse chronological order (most recent first). To clear this filter, clear the value ThisMonth from the Exec Date field. For more details on filtering, see the "Select Filter Condition Dialog Box" on page 70.
Relevant tasks	"How to View Test Results" on page 797
See also	"Test Results Overview" on page 796

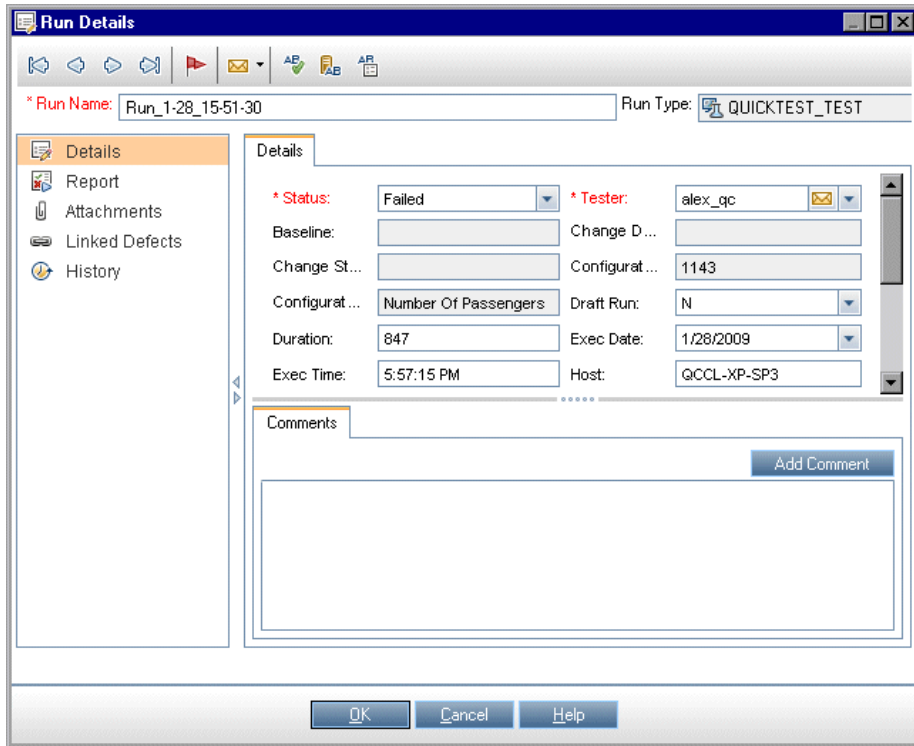
User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements	Description
<Test Lab module common UI elements>	<ul style="list-style-type: none"> ▶ Test Lab fields. For field definitions, see "Test Lab Module Fields" on page 710. ▶ Test Lab menus and buttons. For command and button descriptions, see "Test Lab Module Menus and Buttons" on page 692. ▶ Test Lab icons. For icon descriptions, see "Test Lab Module Icons" on page 708. ▶ ALM main menu and sidebar. For details on the Tools menu, Help menu and sidebar, see "ALM Common Areas" on page 40.
<Grid filters>	<p>Displays a grid filter box under each column name, enabling you to define a filter condition for a column.</p> <p>Type directly into the box, or click the box to display the browse button, which opens the Select Filter Condition dialog box. For more details, see "Select Filter Condition Dialog Box" on page 70.</p>
⌵ ⌶	<p>Show/Hide. Displays or hides additional tabs in the lower pane of the window.</p>
Attachments	<p>Lists attachments that provide additional information about the currently selected run. For details, see "Attachments Page" on page 86.</p>
Comments	<p>Comments about the currently selected run.</p> <p>Click in the text box to display a toolbar for formatting and spell checking the text.</p>
Criterion Results	<p>Displays the results of the last test criteria run for the selected business process test.</p> <p>Business Process Testing: Functionality related to test criteria is available only for business process tests. For details, see the <i>HP Business Process Testing User Guide</i>.</p>
Filter	<p>Describes the filter currently applied to the grid. Located directly above the grid.</p>

UI Elements	Description
History	Lists changes made to the currently selected run. For details, see "History Tab" on page 81.
Report	<p>Displays results and test step details of the selected run.</p> <p>For a test run with Sprinter, also displays the Launch Sprinter Results Viewer button, which opens and displays the report in the Sprinter Results Viewer. For details, click the help button within the viewer.</p> <p>ALM Editions: Sprinter functionality is not available with Quality Center Starter Edition and Performance Center Edition.</p> <p>For automated test instances, also includes one of the following:</p> <ul style="list-style-type: none"> ▶  LR Analysis Opens and displays the results in LoadRunner Analysis. Available for the LR-SCENARIO test type. ▶  Launch Report Opens and displays the report in QuickTest Professional. Available for the QUICKTEST_TEST test type. <p>The Launch Report button is only enabled if you have installed the QuickTest Professional Add-in from the HP Application Lifecycle Management Add-ins page. For more details on installing add-ins, refer to the <i>HP Application Lifecycle Management Installation Guide</i>.</p> <ul style="list-style-type: none"> ▶ Collected System Info link. Opens the System Information dialog box. Displays the collected system information, such as CPU, memory, and processes running on the machine when the test is run. Available for the SYSTEM-TEST test type. ▶ Captured Desktop Image. Opens the captured image of the machine executing the system test. Available for the SYSTEM-TEST test type.







Run Details Dialog Box

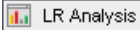
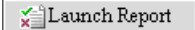
This dialog box displays test and step details for a test run.



<p>To access</p>	<p>In the Test Lab module, use one of the following:</p> <ul style="list-style-type: none"> ▶ Test Sets tab: In the Test Instance Details dialog box - Runs view, right-click a run and select Details. ▶ Test Runs tab: Right-click a run and select Details.
<p>Important information</p>	<p>The buttons and options available may vary according to test type or runner.</p>
<p>Relevant tasks</p>	<p>"How to View Test Results" on page 797</p>
<p>See also</p>	<ul style="list-style-type: none"> ▶ "Test Lab Module Fields" on page 710 ▶ "Test Results Overview" on page 796

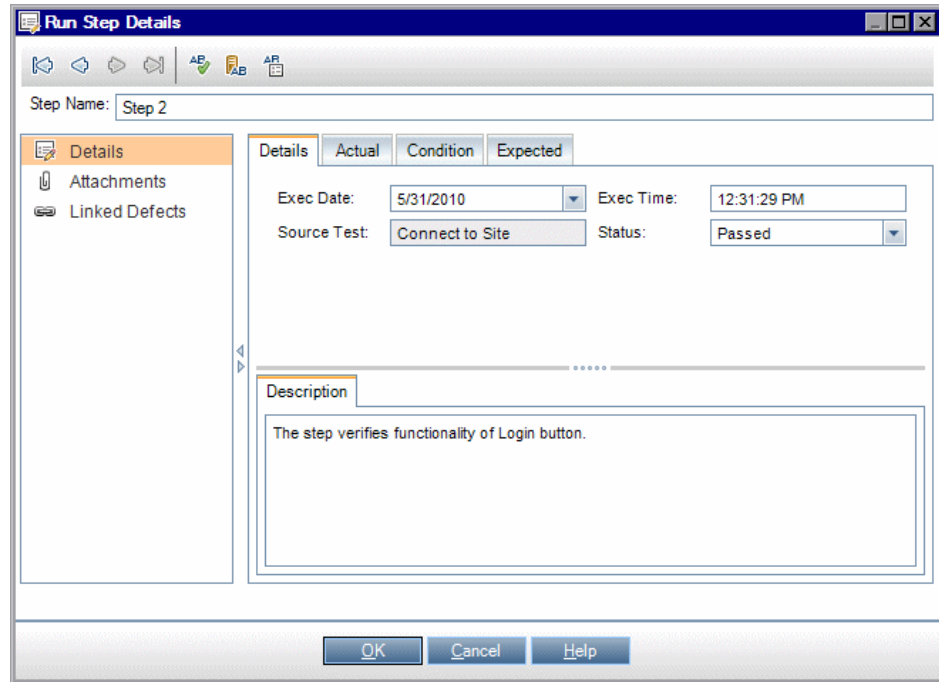
User interface elements are described below:


UI Elements (A-Z)	Description
	First/Previous Next/Last Entity. Allows you to browse through the runs in the grid.
	Flag for Follow Up. Opens the Flag for Follow Up dialog box, enabling you to define a follow up flag for the run. For more details, see "Flag For Follow Up Dialog Box" on page 106.
	Send by Email. Opens the Send E-mail dialog box, enabling you to send a run by email to recipients selected from a list. For more details, see "Send E-mail Dialog Box" on page 83.
	Spell Check. Checks the spelling for the selected word or text box.
	Spelling Options. Enables you to configure the way ALM checks spelling.
	Thesaurus. Displays a synonym, antonym, or related word for the selected word.
Attachments	Lists attachments that provide additional information about the run. For details, see "Attachments Page" on page 86.
Criterion Results	Displays the results of the last test criteria run for the selected business process test. Business Process Testing: Functionality related to test criteria is available only for business process tests. For details, see the <i>HP Business Process Testing User Guide</i> .
Details	Displays details of the run. For details on the available fields, see "Test Lab Module Fields" on page 710. Click in the Comments box to display a toolbar for formatting and spell checking the text.
History	Displays a list of changes made to the run. For more details, see "History Tab" on page 81.

UI Elements (A-Z)	Description
Linked Defects	Lists the defects linked to the run. You can view, add, and remove defect links. For more details, see "Linked Defects/Entities Page" on page 866.
Parameters	Displays the manual test parameters that are used in the test steps. For details on the available fields, see "Test Lab Module Fields" on page 710 and "Test Plan Module Fields" on page 512.
Report	<p>Displays results and test step details of the run.</p> <p>For automated test instances, also includes one of the following:</p> <ul style="list-style-type: none"> ▶  LR Analysis Opens and displays the results in LoadRunner Analysis. Available for the LR-SCENARIO test type. ▶  Launch Report Opens and displays the report in QuickTest Professional. Available for the QUICKTEST_TEST test type. <p>The Launch Report button is only enabled if you have installed the QuickTest Professional Add-in from the HP Application Lifecycle Management Add-ins page. For more details on installing add-ins, refer to the <i>HP Application Lifecycle Management Installation Guide</i>.</p> <ul style="list-style-type: none"> ▶ Collected System Info link. Opens the System Information dialog box. Displays the collected system information, such as CPU, memory, and processes running on the machine when the test is run. Available for the SYSTEM-TEST test type. ▶ Captured Desktop Image. Opens the captured image of the machine executing the system test. Available for the SYSTEM-TEST test type.
Steps	<p>Displays test step details and results for the run. Double-click a step in the grid to view detailed results for the step. For more details, see "Run Step Details Dialog Box" on page 819.</p> <p>Note: Not available for runs of all test types or runners.</p>





Run Step Details Dialog Box

This dialog box displays test step details for the run.



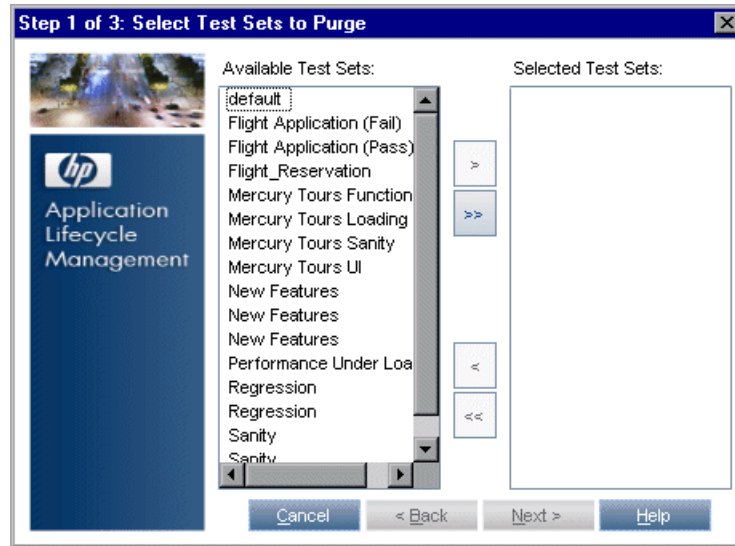
To access	In the Run Details dialog box - Steps view, select a step and click the Details button  .
Important information	This dialog box is not available for runs of all test types or runners.
Relevant tasks	"How to View Test Results" on page 797
See also	<ul style="list-style-type: none"> ➤ "Test Lab Module Fields" on page 710 ➤ "Test Results Overview" on page 796

User interface elements are described below:

UI Elements (A-Z)	Description
	<p>First/Previous Next/Last Entity. Allows you to browse through the steps in the run.</p>
	<p>Spell Check. Checks the spelling for the selected word or text box.</p>
	<p>Spelling Options. Enables you to configure the way ALM checks spelling.</p>
	<p>Thesaurus. Displays a synonym, antonym, or related word for the selected word.</p>
<p>Attachments</p>	<p>Lists attachments that provide additional information about the step. For details, see "Attachments Page" on page 86.</p>
<p>Details</p>	<p>Displays details of the step. For details on the available fields, see "Test Lab Module Fields" on page 710.</p> <p>Click in the Description box to display a toolbar for formatting and spell checking the text.</p> <p>Click the other tabs to view additional details of the step, such as expected and actual results.</p>
<p>Linked Defects</p>	<p>Lists the defects linked to the step. You can view, add, and remove defect links. For more details, see "Linked Defects/Entities Page" on page 866.</p>

Purge Runs Wizard

This wizard enables you to delete old test run results in your project.



To access	In the Test Lab module, use one of the following: <ul style="list-style-type: none"> ▶ In the Test Sets tab, select Test Sets > Purge Runs. ▶ In the Test Runs tab, select Test Runs > Purge Runs.
Relevant tasks	"How to Create Test Sets" on page 718
Wizard map	This wizard contains: Select Test Sets to Purge Page > Choose Type of Purge Page > Confirm Purge Request Page
See also	<ul style="list-style-type: none"> ▶ "Test Results Overview" on page 796 ▶ "Test Lab Module Window" on page 689

Select Test Sets to Purge Page

This wizard page enables you to select test sets to purge.

Important information	General information about this wizard is available here: "Purge Runs Wizard" on page 821.
Wizard map	The Purge Runs Wizard contains: Select Test Sets to Purge Page > Choose Type of Purge Page > Confirm Purge Request Page
See also	"Test Results Overview" on page 796

User interface elements are described below:

UI Elements (A-Z)	Description
> <	Moves selected test sets between Available Test Sets and Selected Test Sets . Tip: You can also drag the test set names between panes or double-click a test sets name to move it across to the other pane.
>> <<	Moves all test sets between Available Test Sets and Selected Test Sets .
Available Test Sets	Lists all test sets in your project that are not currently selected to purge.
Selected Test Sets	Lists the test sets that you have selected to purge.

Choose Type of Purge Page

This wizard page enables you to select the purge type and define the purge conditions.

Important information	General information about this wizard is available here: "Purge Runs Wizard" on page 821.
Wizard map	The Purge Runs Wizard contains: Select Test Sets to Purge Page > Choose Type of Purge Page > Confirm Purge Request Page
See also	"Test Results Overview" on page 796

User interface elements are described below:

UI Elements (A-Z)	Description
Delete	Includes the following options: Runs. Deletes test run results. Run Steps Only. Deletes run steps but keeps the overall run details.
From runs older than	The period of time before which you want to delete the selected run data.
Number of runs per test to keep	The number of test run results to keep for each test.
Purge draft runs only	Purges only runs marked as Draft Run . For details on draft runs, see "Draft Runs" on page 683.

Confirm Purge Request Page

This wizard page enables you to review a summary of your request and confirm the purge.

Important information	General information about this wizard is available here: "Purge Runs Wizard" on page 821.
Wizard map	The Purge Runs Wizard contains: Select Test Sets to Purge Page > Choose Type of Purge Page > Confirm Purge Request Page
See also	"Test Results Overview" on page 796

User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements	Description
<Request details area>	Summarizes the deletions you chose to make.
Finish	Deletes the test run results according to your selections.

Part VI

Defects

33

Defect Tracking

This chapter includes:

Concepts

- ▶ Defect Tracking Overview on page 828

Tasks

- ▶ How to Track Defects in ALM on page 831
- ▶ How to Search for Defects on page 840
- ▶ How to Link Defects to ALM Entities or to Other Defects on page 841

Reference

- ▶ Defects User Interface on page 845

Concepts

Defect Tracking Overview

Locating and repairing application defects efficiently is essential to the development process. Using the HP Application Lifecycle Management (ALM) Defects module, you can report design flaws in your application and track data derived from defect records during all stages of the application management process.

You use the Defects module to:

- ▶ Create application defects for an ALM project.
- ▶ Track defects until application developers and testers determine that the defects are resolved.

Defect records inform members of the application development and quality assurance teams of new defects discovered by other members. As you monitor the progress of defect repair, you update the information in your ALM project.

You can share defects across multiple ALM projects. You share and synchronize defects using the *HP Quality Center Synchronizer*. For more information, see the *HP Quality Center Synchronizer User Guide*, available from the HP Application Lifecycle Management Adds-ins Page.

ALM Editions: Sharing defects across multiple ALM projects is not available for Quality Center Starter Edition or Quality Center Enterprise Edition.

This section also includes "Defect Linkage" on page 829.

For task details about working with defects, see "How to Track Defects in ALM" on page 831.

Defect Linkage

You can link a defect to the following ALM entities: requirements, business, tests, test sets, business process tests, flows, test instances, runs, run steps, and other defects.

Examples of when defect linkage is useful include:

- A new test is created specifically for a defect. By creating a link between the test and the defect, you can determine if the test should be run based on the status of the defect.
- During a manual test run, if you add a defect, ALM automatically creates a link between the test run and the new defect.

You can link defects directly to other defects or entities. When you add a defect link to an entity, ALM adds a direct link to the entity and indirect links to related entities.

Indirect linkage is a one-directional flow; ALM indirectly links higher-level related entities only.

The diagram below shows the indirect links that ALM creates if a defect is linked to a run step.



Example:

If you link a defect to a run:

- ▶ The defect is indirectly linked to the run, the run's test instance, the test set, and the test.
- ▶ If the corresponding test is covered by a requirement, an indirect link is also added to the requirement.
- ▶ The defect is not indirectly linked to the run's steps, because the run steps are lower-level related entities.

Note: Only direct links to defects from an entity can be deleted.

To learn more about defects, see "Defect Tracking Overview" on page 828.

Tasks

How to Track Defects in ALM

This task describes how to track application defects during the development process.

To learn more about defects, see "Defect Tracking Overview" on page 828.


Tip: For a use-case scenario related to this task, see "Track Defects - Use-Case Scenario" on page 833.

Note: This task is part of a higher-level task. For details, see "Application Lifecycle Management Roadmap" on page 26.

This task includes the following steps:

- "Create defects" on page 832
- "Import defects - optional" on page 832
- "Search for defects" on page 832
- "Link defects and other entities" on page 832
- "Assign, repair, and update defects" on page 832
- "Analyze defects" on page 833

1 Create defects

- a On the ALM sidebar, select **Defects**.
- b Click the  **New Defect...** button in the Defects grid toolbar. Fill in the fields in the New Defect dialog box. For user interface details on the New Defect dialog box, see "New Defect Dialog Box" on page 858.

2 Import defects - optional

In addition to creating defects directly in ALM, you can also import defects to your ALM project from Microsoft Word or Microsoft Excel. To import defects, you must first install the appropriate add-in. For details on add-ins, see the *HP Application Lifecycle Management Installation Guide*.

3 Link defects and other entities

You can link defects to requirements, tests, test sets, test instances, runs, run steps, and other defects.

For task details, see "How to Link Defects to ALM Entities or to Other Defects" on page 841.

4 Search for defects

In the Defects module, you can search for defects from:

- ▶ The Defects grid, for example, to find defects related to a specific issue, or to modify a specific defect.
- ▶ In the New Defect dialog box, for example, to avoid creating duplicate defects.

For task details, see "How to Search for Defects" on page 840.

5 Assign, repair, and update defects

Periodically review defects in the project, decide which ones to fix, and modify defect statuses, target releases, target cycles, and other fields accordingly.

In the Defects module, double-click a defect in the Defects grid. Fill in the fields in the Defect Details dialog box. For user interface details on the Defect Details dialog box, see the "Defect Details Dialog Box" on page 860.

Among other tasks, you can:

- Change the status of defects that are candidates to be fixed to **Open**, and assign the defects to members of the development team.
- In the **Target Release** field, assign the open defects to the release that is targeted to be fixed. In the **Target Cycle** field, assign the defects to the cycle that is targeted to be closed.
- Fix the open defects. This involves identifying the cause of the defects, modifying and rebuilding the application and rerunning your tests. For example, if a defect does not recur, you can assign the defect the status **Closed**. If a defect is detected again, you can reassign the defect the status **Open**. When a defect is repaired, you can assign it the status **Fixed**.

6 Analyze defects

Analyze defect data by generating reports and graphs.

Use one of the following:

- **View defect data in a graph.** On the Defects module menu, select **Analysis > Graphs**. For task details on generating graphs, see "How to Generate a Graph" on page 900.
- **Create a report of defect data.** On the Defects module menu, select **Analysis > Reports**. For task details on creating reports, see "How to Generate a Standard Report" on page 1003.

For task details on additional analysis tools in ALM, see "How to Analyze Data in ALM" on page 876.

Track Defects - Use-Case Scenario

This use-case scenario describes the defect tracking workflow.

Note: For a task related to this scenario, see "How to Track Defects in ALM" on page 831.

This scenario includes the following steps:

- "Create defects" on page 832
- "Search for duplicate defects" on page 836
- "Link defects and other entities" on page 832
- "Assign and repair defects while testing new application builds" on page 837
- "Analyze defects" on page 838

1 Create defects

Suppose you are developing a flight reservation application. In four months, you plan on releasing version 10.5. Your release includes four cycles: Cycle 1, Cycle 2, Cycle 3, and Cycle 4. Throughout the development process, you need to track and fix defects for each cycle.

Defects, when created, automatically are assigned a unique defect ID and the status **New**.

Tip:

- When a defect is first detected in your application, you generally know only basic information about the defect, such as the defect summary, description, category, and severity. You can edit the defect as you continue tracking the defect.
 - You can associate a defect with the cycle and release in which it was detected. For task details on releases and cycles, see "How to Use Releases and Cycles in ALM" on page 154.
 - While keeping your defect summary short, try to use relevant and specific keywords to facilitate efficient searches later. For example, a summary whose text is **Empty password problem** might not be specific enough to produce meaningful results when searching; **User profile is registered when Password is empty** could produce better search results.
-

After running the **Password** test in the **Mercury Tours Functionality** test set, you discover that a user profile was registered even though no password was supplied. You might supply the following basic information when creating the new defect.

New Defect

* Summary: User profile is registered when Password is empty

Details

Assigned To: Browser:

Category: Defect Detected By: Lecil_alm

Detected in... Detected on... 10/24/2005

Estimated Fi... Language:

* Severity: 5-Urgent Actual Fix Ti...

Closed in Ve... Closing Date:

Description:

Test Set: Mercury Tours Functionality
 Test: [1]Password
 Run: Run_10_25_11-44-37
 Step: Step 5: Empty

Description:
 1. Skip the Password and Confirm Password fields.
 2. Click the Submit button.
 3. Check the results on the next page.

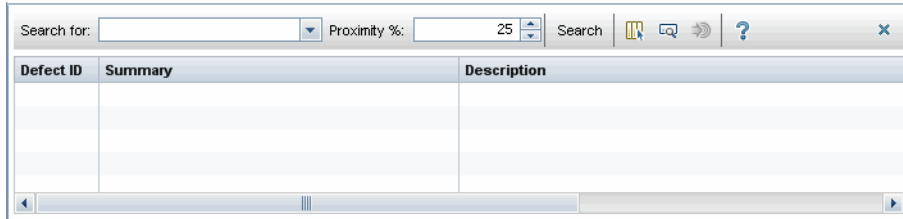
Submit Close Help

You can assign the **Detected in Release** field to the **Release 10.5** release, and the **Detected in Cycle** field to the **Cycle 1** cycle, and click **Submit**.

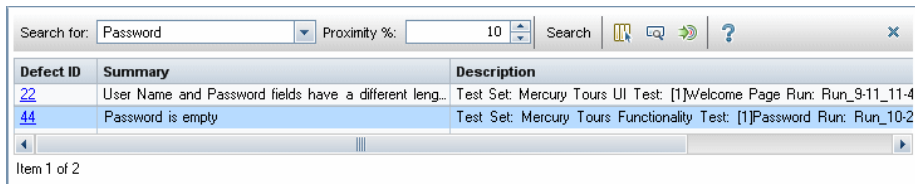
2 Search for duplicate defects

Suppose several QA testers test the same application. To avoid duplicate defects, it is good practise to search for similar defects.

From the Defects grid, click the **Find Similar Defects**  button and choose **Find Similar Text**. The Similar Defects pane opens.



Suppose you want to search for the word **Password** to see all defects related to password issues. If you limit your results to 10 percent, the search may return the following results:



Defect ID	Summary	Description
22	User Name and Password fields have a different leng..	Test Set: Mercury Tours UI Test: [1]Welcome Page Run: Run_9-11_11-4
44	Password is empty	Test Set: Mercury Tours Functionality Test: [1]Password Run: Run_10-2

Item 1 of 2

Note: If you limit your results to 100 percent, the search is likely to return no results because there is no 100% match for the single word **Password**.

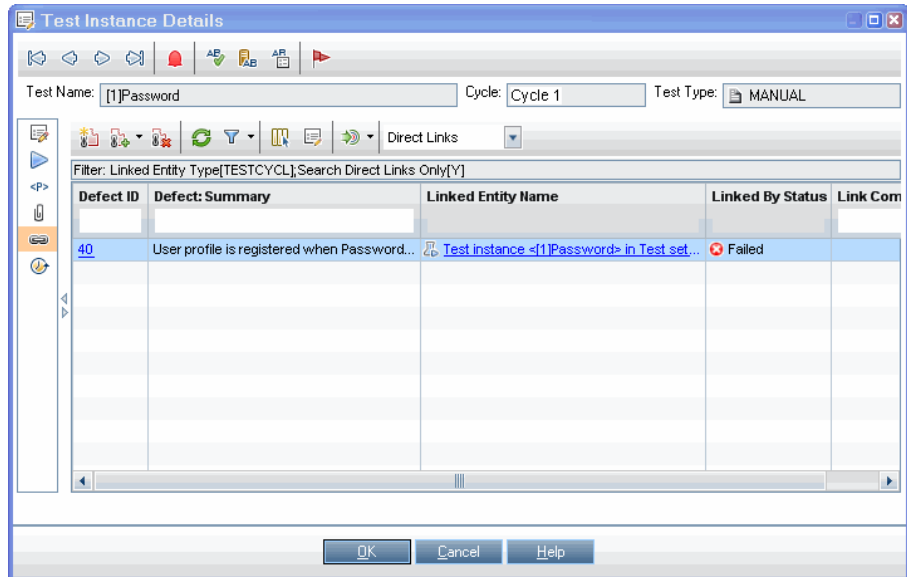
In this case, there is no duplicate defect among the similar defects listed.

If duplicate defects did appear in the project, you could change their status to either **Closed** or **Rejected**, or delete them from the project in the Defects grid.

3 Link defects and other entities

Suppose you would like to link the defect to the test instance in which the defect was discovered.

The following example demonstrates how, in the Test Lab module, you can link a defect using the Linked Defects tab in the Test Instance Details dialog box.



4 Assign and repair defects while testing new application builds

The following demonstrates a possible workflow for assigning, repairing, and tracking defects.

A quality assurance manager or project manager reviews a defect, determines a repair priority, changes the defect's status to **Open**, and assigns it to a member of the development team.

If the defect is planned to be fixed in the next cycle, the manager assigns the **Target Release** field and the **Target Cycle** field, for example, to **Release 10.5** and **Cycle 2** respectively.

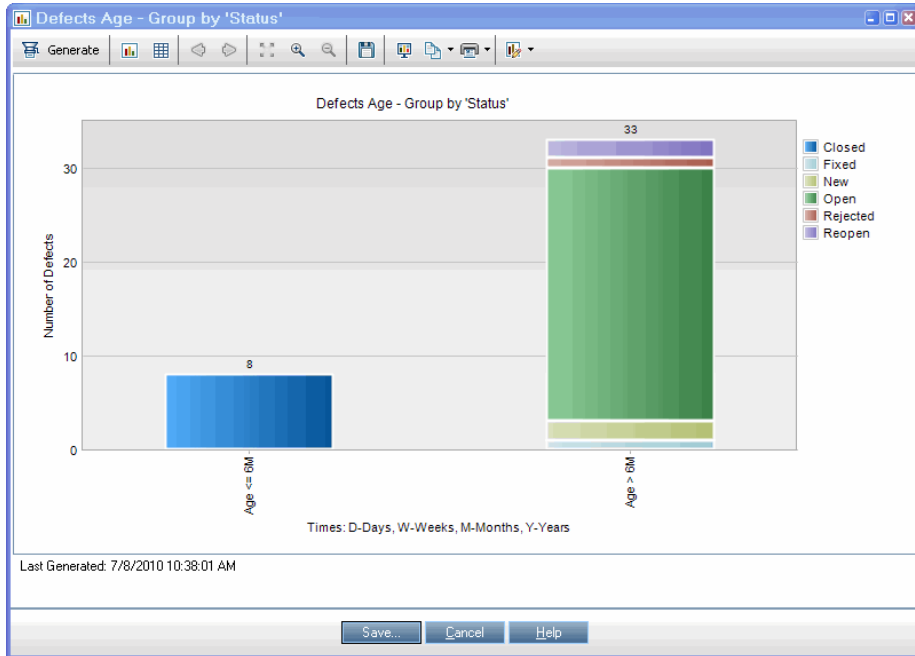
A developer repairs the defect in a new application build and updates the defect status to **Fixed**. The developer retests the application, making sure that the defect does not recur. The quality assurance manager or project manager determines that the defect is actually repaired and assigns it the status **Closed**.

At any point in the process, the managers or the developers can add comments and send emails regarding the defect.

5 Analyze defects

Using various reports and graphs available in the Defects module, you can analyze the defects and their rate of repair.

The following graph shows a summary of defects by age:



The following report lists the defects that the current user, in this case, **peter_alm**, has open.

Defects Report

Filter: Status["Open" OR "Reopen"];Assigned To[[CurrentUser]]; Sort By: Priority [Descending];Defect ID[Ascending]

Defect ID (17) - The itinerary is booked when Credit Card Number field contains illegal values

Defect ID: 17	Summary: The itinerary is booked when Credit Card Number field contains illegal values
Status: Open	Detected By: alice_alm (Alice)
Severity: 4-Very High	Assigned To: peter_alm ()
Priority: 4-Very High	

Description:

Test Set: Mercury Tours Functionality
 Test: [1]Credit Card Number
 Run: Run_9-10_10-43-47
 Step: Step 2: Zero

Description:
 1. Type 16 digits in the Credit Card Number field. All digits must be 0 (zero).
 2. Click the Secure Purchase button.
 3. Check the results on the next page.

Last Generated: 7/8/2010 10:44:33 AM

Buttons: Save... Cancel Help

How to Search for Defects


The following steps describe how to search for defects.

- "Search for defects when creating a new defect" on page 840
- "Search for defects from the Defects grid" on page 841


Search for defects when creating a new defect

When creating a new defect, you can search for similar defects, for example, to avoid creating duplicate defects.

To search for defects similar to the defect you are creating:

- 1** From the New Defect dialog box, enter descriptive information in the **Summary** and **Description** fields.
- 2** Click the **Find Similar Defects**  button and choose **Find Similar Defects**. The Similar Defects dialog box opens, listing defects similar to the current defect.

To search for defects similar to a text string:


- 1** From the New Defect dialog box, click the **Find Similar Defects**  button and choose **Find Similar Text**. The Similar Defects dialog box opens.
- 2** Enter a text string in the **Search for** field in the toolbar.
- 3** Specify a percentage in the **Proximity %** field. To narrow the search, specify a higher percentage. To broaden the search, specify a lower percentage.
- 4** Click the **Search** button in the toolbar. The defects that match the text string are listed.

For user interface details, see "Similar Defects Dialog Box/Pane" on page 863.


Search for defects from the Defects grid

You can search for defects at any time from the Defects grid, for example, to find defects related to a specific issue, or to modify a specific defect.

To search for defects similar to the defect currently selected in the grid:

From the Defects grid, click the **Find Similar Defects**  button and choose **Find Similar Defects**. The Similar Defects pane opens, listing defects similar to the current defect.

To search for defects similar to a text string:

- 1** From the Defects grid, click the **Find Similar Defects**  button and choose **Find Similar Text**. The Similar Defects pane opens.
- 2** Enter a text string in the **Search for** field in the toolbar.
- 3** Specify a percentage in the **Proximity %** field. To narrow the search, specify a higher percentage. To broaden the search, specify a lower percentage.
- 4** Click the **Search** button in the toolbar. The defects that match the text string are listed.

For user interface details, see "Similar Defects Dialog Box/Pane" on page 863.

How to Link Defects to ALM Entities or to Other Defects

The following steps describe how to link defects to ALM entities (requirements, tests, test sets, test instances, runs, run steps and other defects):

- "Access the Linked Defects tab or dialog box" on page 842
- "Link the defect" on page 843
- "View Results" on page 844

1 Access the Linked Defects tab or dialog box

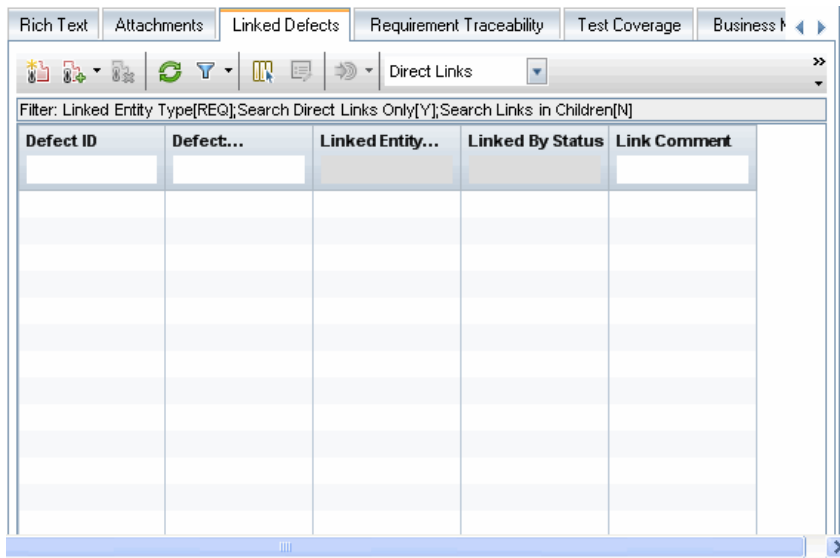
You can link a defect to another defect, or to other ALM entities, from different modules.

To access the relevant module:

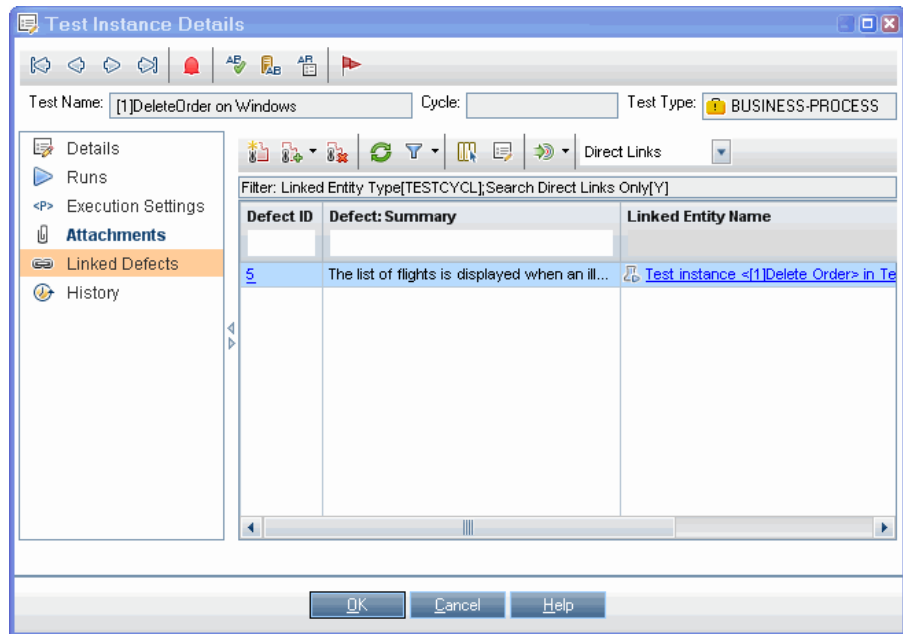
- ▶ **To link a defect to a defect:** From the Defects module’s Linked Entities side bar entry, click the **Defects** tab.
- ▶ **To link a defect to any other ALM entity:** Access the Linked Defects tab or dialog box from the module for the entity that you want to link to the defect.

Examples:

This example demonstrates the location of the Linked Defects tab from the Requirements module Requirement Details view.





This example demonstrates the location of the Linked Defects sidebar entry from the Test Instance Details dialog box.



For access information and user interface details, see the "Linked Defects/Entities Page" on page 866.

2 Link the defect


Do one of the following:


- **Add new defect:** Create the defect to which to link by selecting the **Add and Link Defect**  button on the toolbar.
- **Select existing defect:** Select the defect to which to link by choosing one of the following from the **Link Existing Defect**  button on the toolbar:
 - **By ID.** Entering a defect ID.
 - **Select.** Choosing from a list of existing defects.

For user interface details, see the "Linked Defects/Entities Page" on page 866.

3 View Results

You can view the linked entity from the corresponding defect, and you can view the linked defect from the corresponding entity.

In grid views, when an entity is linked to a defect, ALM adds the **Linked Defects**  icon to the entity.

	Name	Direct Cover Status	Author	Req ID
	Requirements	---		0
	Mercury Tours Application	---	alex_qc	133
	Online Travel Booking Services	---	alex_qc	134
	Products/Services On Sale	▼ Not Covered	shelly_qc	135
	Flight Tickets	⊗ Failed	shelly_qc	136
	Flight Search	⊗ Failed	robert_qc	141
	Search Conditions	▼ Not Covered	shelly_qc	142
	Origin And Destination	⊗ Failed	peter_qc	143
	One-Way Trip	⊗ Failed	robert_qc	149

Reference

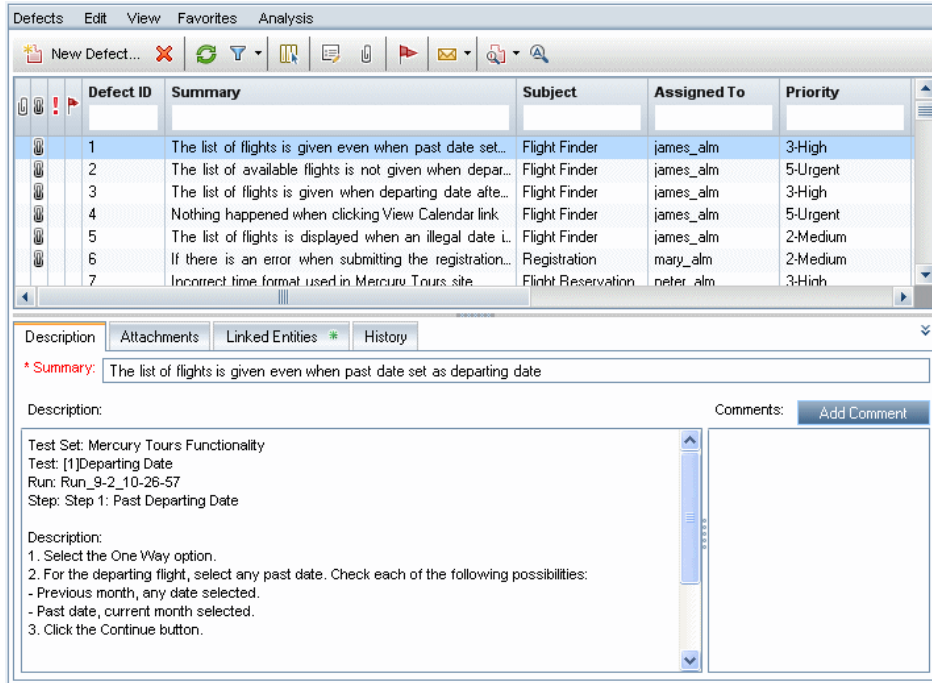
Defects User Interface

This section includes:

- ▶ Defects Module Window on page 846
- ▶ Defects Module Menus and Buttons on page 848
- ▶ Defects Module Icons on page 854
- ▶ Defects Module Fields on page 855
- ▶ New Defect Dialog Box on page 858
- ▶ Defect Details Dialog Box on page 860
- ▶ Similar Defects Dialog Box/Pane on page 863
- ▶ Linked Defects/Entities Page on page 866

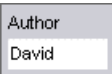

Defects Module Window

This window enables you to define and maintain ALM defects. ALM organizes and displays defect data in the Defects grid.



To access	On the ALM sidebar, select Defects .
Important information	Quality Center Starter Edition: Not all release management fields and functionality are available in the Defects module.
Relevant tasks	"How to Track Defects in ALM" on page 831
See also	"Defect Tracking Overview" on page 828

User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements (A-Z)	Description
<Defects module common UI elements>	<ul style="list-style-type: none"> ▶ Defect fields. For field definitions, see "Defects Module Fields" on page 855. ▶ Defect menus and buttons. For command and button descriptions, see "Defects Module Menus and Buttons" on page 848. ▶ Defect icons. For icon descriptions, see "Defects Module Icons" on page 854. ▶ ALM main menu and sidebar. For details on the Tools menu, Help menu and sidebar, see "ALM Common Areas" on page 40.
<grid filters> 	<p>Displays a grid filter box under each column name, enabling you to define a filter condition for a column.</p> <p>Type directly into the box, or click the box to display the browse button, which opens the Select Filter Condition dialog box. For user interface details, see "Select Filter Condition Dialog Box" on page 70.</p>
<similar defects pane>	<p>Enables you to check for similar defects from the Defects grid. For user interface details, see "Similar Defects Dialog Box/Pane" on page 863.</p> <p>Available: After selecting the Find Similar Defects  button in the Defects grid.</p>
Attachments tab	<p>Lists attachments that provide additional information about the currently selected defect. For user interface details, see "Attachments Page" on page 86.</p>
Description tab	<p>Describes the currently selected defect.</p> <p>Click in the Description or Comments text boxes in this tab to display a toolbar for formatting and spell checking the text.</p>
Filter	<p>Describes the filter currently applied to the grid. Located directly under the toolbar.</p>

UI Elements (A-Z)	Description
History tab	Lists changes made to the currently selected defect. For user interface details, see "History Tab" on page 81.
Linked Entities tab	Lists the defects and other entities linked to the currently selected defect. For user interface details, see "Linked Defects/Entities Page" on page 866.




Defects Module Menus and Buttons



This section describes the menus and buttons available in the Defects module.





To access	On the ALM sidebar, select Defects .
Important information	Quality Center Starter Edition: Not all menus and buttons are available.
Relevant tasks	"How to Track Defects in ALM" on page 831
See also	<ul style="list-style-type: none"> ➤ "Defects Module Icons" on page 854 ➤ "Defect Tracking Overview" on page 828

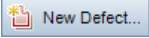

User interface elements are described below:




UI Elements (A-Z)	Menu	Description
Add to Favorites	Favorites	Opens the Add Favorite dialog box, enabling you to add a favorite view to your private or the public folder. For user interface details, see "Add Favorite Dialog Box" on page 113.
Alerts	Edit	Opens the Alerts dialog box, enabling you to display alerts for the defect. For user interface details, see "Alerts Dialog Box" on page 104.

UI Elements (A-Z)	Menu	Description
 Attachments		<p>Opens the Attachments page, enabling you to view attachments for, and add attachments to, the selected defect. For user interface details, see "Attachments Page" on page 86.</p>
Clear Alerts	Edit	<p>Clears displayed alerts for the module. For user interface details, see "How to Use Alerts" on page 99.</p>
Clear Follow Up Flag	Edit	<p>Clears a follow up flag of a selected defect. For concept details, see "Follow Up Flags Overview" on page 98.</p>
Copy URL/Paste	Edit	<p>Copies a selected defect and pastes its URL as a link. The defect itself is not copied. Instead, you can paste the address into another location, such as an email or a document. Clicking the link opens ALM and takes you to the defect. If you are not already logged in, ALM first prompts for login details.</p>
Copy/Paste	Edit	<p>Copies selected defects within the same project or across projects.</p> <p>Note: To copy defects across projects, both projects must use the same ALM version and patch level.</p>
 Defect Details	Defects	<p>Opens the Defect Details dialog box, displaying the details of the selected defect. For user interface details, see "Defect Details Dialog Box" on page 860.</p>
 Delete	Edit	<p>Deletes the selected defect. When you delete a defect, ALM does not reuse the Defect ID.</p>

UI Elements (A-Z)	Menu	Description
Export	Defects	<p>Opens the Export Grid Data dialog box, enabling you to export the defects in a grid as a text file, Microsoft Excel worksheet, Microsoft Word document, or HTML document.</p> <p>Choose one of the following options:</p> <ul style="list-style-type: none"> ➤ All. Exports all defects in the grid. ➤ Selected. Exports selected defects in the grid.
 Filter/Sort	View	<p>Enables you to filter and sort the defects in the grid. Any currently applied filters or sorting orders are displayed below the toolbar. For user interface details, see "Filter Dialog Box" on page 60.</p>
Find	Edit	<p>Opens the Find dialog box, enabling you to search for a defect in the Defects module. For user interface details, see "Find Dialog Box" on page 74.</p>
Find Next	Edit	<p>Searches for the next item in the Defects grid that meets the previously-defined search criteria.</p>
 Find Similar Defects	Edit	<p>Search keywords in the Summary and Description fields for defects similar to the selected defect. Similar defects are displayed according to the percentage of similarity in the pane at the bottom of the window. For user interface details, see the "Similar Defects Dialog Box/Pane" on page 863.</p>

UI Elements (A-Z)	Menu	Description
 Find Similar Text	Edit	Search keywords in the Summary and Description fields for defects similar to a text string. For user interface details, see the "Similar Defects Dialog Box/Pane" on page 863.
 Flag for Follow Up	Edit	Opens the Flag For Follow Up dialog box, enabling you to define a follow up flag for the selected defect. For user interface details, see "Flag For Follow Up Dialog Box" on page 106.
 Go to Defect	Defects	Opens the Go To Defect dialog box, enabling you to find a specific defect by Defect ID .
Graphs	Analysis	Lists the graphs you can generate for defects data. Select a predefined graph, or launch the graph wizard. For details on the predefined graph types, see "Graph Types" on page 906.
Grid Filters 	View	<p>Displays a grid filter box under each column name, enabling you to define a filter condition for a column.</p> <p>Type directly into the box, or click the box to display the browse button, which opens the Select Filter Condition dialog box. For more details, see "Select Filter Condition Dialog Box" on page 70.</p>
Indicator Columns	View	Display indicators on the left-side of the Defects grid. For user interface details, see "Defects Module Icons" on page 854.

UI Elements (A-Z)	Menu	Description
Information Panel	View	Displays information panel tabs on the bottom of the Defects grid. For more details, see "Defects Module Window" on page 846.
Invert Selection	Edit	Unselects all previously selected defects in the grid and selects all previously unselected defects.
Most Recently Used	Analysis	Lists the most recently viewed reports and graphs in the Defects module.
 New Defect	Defects	Opens the Create New Defect dialog box, enabling you to add a defect. For user interface details, see "New Defect Dialog Box" on page 858.
Organize Favorites	Favorites	Organizes your favorite views. For user interface details, "Organize Favorites Dialog Box" on page 115.
Private	Favorites	Lists the favorite views that are accessible only to the user who created them.
Public	Favorites	Lists the favorite views that are accessible to all users.
 Refresh All	View	Refreshes the Defects grid so that it displays the most up-to-date defects based on the filters you have selected.
Replace	Edit	Opens the Replace dialog box, enabling you to replace a field value. For user interface details, see "Replace Dialog Box" on page 76.
Report Selected	Analysis > Reports	Displays a report of the selected defects.






UI Elements (A-Z)	Menu	Description
Reports	Analysis	Lists the predefined reports you can produce on defects data. For details on the report types, see "Predefined Standard Reports" on page 1008.
Select All	Edit	Selects all defects in the grid.
 Select Columns	View	Opens the Select Columns dialog box, enabling you to determine which fields to display in the grid and their order. For user interface details, see "Select Columns/Select Fields Dialog Box" on page 90.
 Send by E-mail	Defects	Opens the Send E-mail dialog box, enabling you to send a defect by email to recipients selected from a list. For user interface details, see "Send E-mail Dialog Box" on page 83.
Standard Defect Report	Analysis > Reports	Lists the defects that appear in the Defects grid. For details, see Chapter 39, "Standard Reports."
 Text Search	Edit	Opens the text search pane in the lower part of the Defects module window, enabling you to search for records in predefined fields. For user interface details, see "Text Search Pane" on page 78.
Update Selected	Edit	Opens the Update Selected dialog box, enabling you to update a field value for multiple selected defects in the grid. For user interface details, see "Update Selected Dialog Box" on page 92.

Defects Module Icons

This section describes the icons available in the Defects module.

To access	On the ALM sidebar, select Defects .
Important information	Quality Center Starter Edition: Not all icons are available.
Relevant tasks	"How to Track Defects in ALM" on page 831
See also	<ul style="list-style-type: none"> ➤ "Defect Tracking Overview" on page 828 ➤ "Defects Module Menus and Buttons" on page 848 ➤ "Defects Module Fields" on page 855

The icons are described below:

UI Elements (A-Z)	Description
	< green asterisk >. The applicable tab is populated.
	<p>Alerts. Click to view alerts for the defect.</p> <ul style="list-style-type: none"> ➤ Red alert. The alert is new. ➤ Gray alert. The alert has already been read. <p>For user interface details, see "Alerts Dialog Box" on page 104.</p>
	<p>Attachments. Click to view attachments for the specified defect. For user interface details, see "Attachments Page" on page 86.</p>
	<p>Follow Up Flags. Click to view follow up flags for the defect.</p> <ul style="list-style-type: none"> ➤ Gray flag. The follow up flag is new. ➤ Red flag. The follow up date has arrived. <p>For user interface details, see "Flag For Follow Up Dialog Box" on page 106.</p>
	<p>Linked Entities. Click to view linked entities for the defect in the Defect Details dialog box. For user interface details, see "Linked Defects/Entities Page" on page 866.</p>

Defects Module Fields

This section describes the Defects module fields.

To access	On the ALM sidebar, select Defects .
Important information	<ul style="list-style-type: none"> ▶ You can add user-defined fields and change the label of any of the fields in the Defects module. You can also customize project lists. For details, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>. ▶ You can use the Script Editor to restrict and dynamically change the fields and values in the Defects module. For details, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>. ▶ When you select a defects column with a user name value (including user-defined fields), ALM displays a list with the name and full name of each user. You can search for users, sort users, group users by user group, and select users from the users list or a group tree. For user interface details, see "Users List Dialog Box" on page 72. ▶ Quality Center Starter Edition: Not all release management fields are available.
Relevant tasks	"How to Track Defects in ALM" on page 831
See also	<ul style="list-style-type: none"> ▶ "Defect Tracking Overview" on page 828 ▶ "Defects Module Menus and Buttons" on page 848 ▶ "Defects Module Window" on page 846

User interface elements are described below:

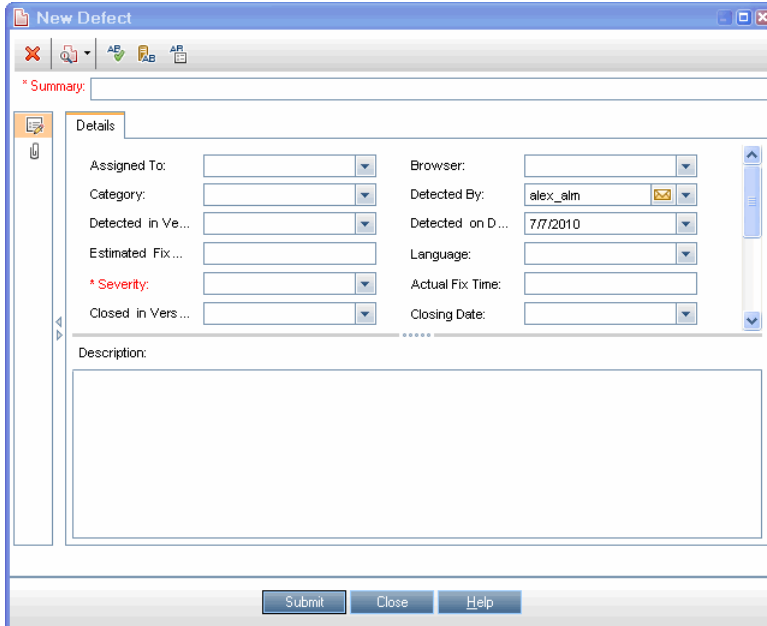
UI Elements (A-Z)	Description
Actual Fix Time	The actual number of days needed to fix the defect. If this field is left blank, ALM automatically calculates the Actual Fix Time as Closing Date–Detected on Date .
Assigned To	The user name of the person who is assigned to fix the defect.


UI Elements (A-Z)	Description
Closed in Version	The application version in which the defect was closed.
Closing Date	The date on which the defect was closed.
Comments	Comments about the defect.
Defect ID	A unique numeric ID for the defect, assigned automatically by ALM. The Defect ID is read-only.
Description	Describes the defect in detail.
Detected By	The user name of the person who submitted the defect.
Detected in Cycle	The cycle in which the defect was detected. When assigning a defect to a cycle in the Detected in Cycle field, ALM automatically assigns its release to the Detected in Release field.
Detected in Release	The release in which the defect was detected.
Detected in Version	The application version in which the defect was detected.
Detected on Date	The date on which the defect was detected. Default: The current database server date.
Estimated Fix Time	The estimated number of days required for fixing the defect.
Modified	The date and time when this defect was last changed.
Planned Closing Version	The version in which the defect is planned to be fixed.
Priority	The priority of the defect, ranging from low priority (level 1) to urgent priority (level 5).
Project	The name of the project where the defect occurs.
Reproducible	Whether the defect can be recreated under the same conditions by which it was detected. Default: Y
Severity	The severity of the defect, ranging from low (level 1) to urgent (level 5).

UI Elements (A-Z)	Description
Status	The current status of the defect. Defect status can be one of the following: Closed, Fixed, New, Open, Rejected, Reopen . Default: New
Subject	The subject folder.
Summary	A brief summary of the defect.
Target Cycle	The cycle in which the defect is targeted to be fixed. When assigning a defect to a cycle in the Target Cycle field, ALM automatically assigns its release to the Target Release field.
Target Release	The release in which the defect is targeted to be closed.






New Defect Dialog Box

The New Defect dialog box enables you to create defects.



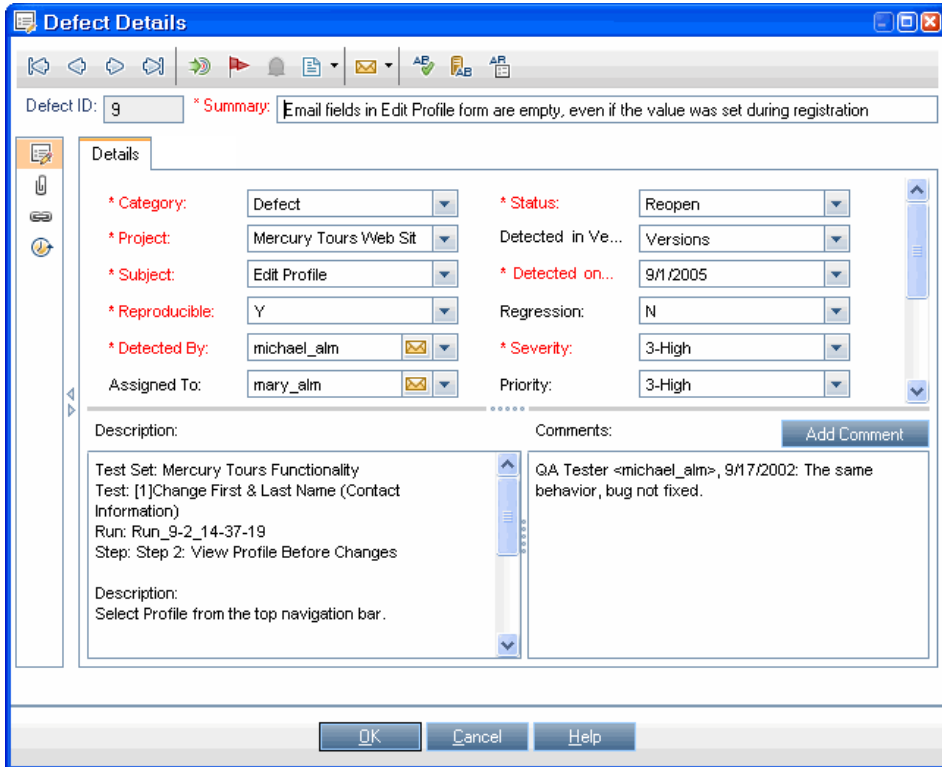
<p>To access</p>	<p>Use one of the following:</p> <ul style="list-style-type: none"> ▶ From the Defects module, click the New Defect  New Defect... button. ▶ From any module, choose Tools > New Defect.
<p>Important information</p>	<p>Quality Center Starter Edition: Not all fields and functionality are available.</p>
<p>Relevant tasks</p>	<p>"How to Track Defects in ALM" on page 831</p>
<p>See also</p>	<p>"Defect Tracking Overview" on page 828</p>

User interface elements are described below:

UI Elements (A-Z)	Description
	Clear All Fields. Clears the data.
	Find Similar. Opens the Similar Defects dialog box, enabling you to find: <ul style="list-style-type: none"> ▶ Defects similar to the new defect. ▶ Defects similar to a text string. For user interface details, see "Similar Defects Dialog Box/ Pane" on page 863.
	Check Spelling. Checks the spelling for the selected word or text box.
	Thesaurus. Displays a synonym, antonym, or related word for the selected word.
	Spelling Options. Enables you to configure the way ALM checks spelling.
Attachments	Enables you to add attachments that provide additional information about the new defect. For user interface details, see "Attachments Page" on page 86.
Details	Lists the defect fields. For details on defect fields, see "Defects Module Fields" on page 855.










Defect Details Dialog Box

This dialog box enables you to update defect details, add attachments, view defect history, and link to other defects. You can also view other entities that are linked to the defect.



To access	Right-click a defect in the Defects grid and choose Defect Details .
Important information	Quality Center Starter Edition: Not all fields and functionality are available.
Relevant tasks	"How to Track Defects in ALM" on page 831
See also	<ul style="list-style-type: none"> ➤ "Defect Tracking Overview" on page 828 ➤ "Defects Module Fields" on page 855

User interface elements are described below:

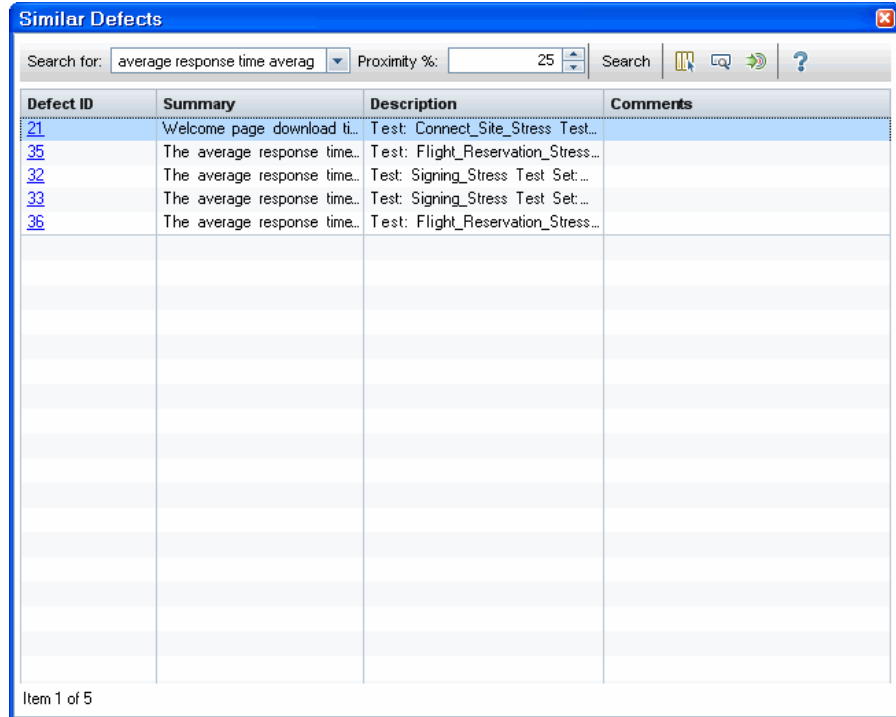
UI Elements (A-Z)	Description
	First/Previous/Next/Last Entity. Allows you to browse through the defects.
	Go to Defect. Opens the Go To Defect dialog box, enabling you to find a specific defect by Defect ID . You can only go to defects that are in the current filter.
	Flag for Follow Up. Opens the Flag For Follow Up dialog box, enabling you to define a follow up flag for selected defects. For user interface details, see "Flag For Follow Up Dialog Box" on page 106.
	Alerts. Opens the Alerts dialog box, enabling you to display alerts for the defect. For user interface details, see "Alerts Dialog Box" on page 104. This UI element is available when the selected defect has an alert associated with it.
	Standard Defect Report. Select one of the following reports: ➤ Execution Report. Displays detailed information about the linked test run. Only available if the defect is linked to a test run. ➤ Standard Defect Report. A standard defect report for the selected defect.
	Send by E-mail. Opens the Send E-mail dialog box, enabling you to send a defect by email to recipients selected from a list. For user interface details, see "Send E-mail Dialog Box" on page 83.
	Spell Check. Checks the spelling for the selected word or text box.
	Spelling Options. Enables you to configure the way ALM checks spelling.
	Thesaurus. Displays a synonym, antonym, or related word for the selected word.

UI Elements (A-Z)	Description
Add Comment	Adds a new comment. A new section is added to the Comments area, displaying your user name and the database's current date.
Attachments	Lists attachments that provide additional information about the currently selected defect. For user interface details, see "Attachments Page" on page 86.
Details	Lists the defect fields. For details on defect fields, see "Defects Module Fields" on page 855.
History	Lists changes made to the currently selected defect. For user interface details, see "History Tab" on page 81.
Linked Entities	Lists the entities linked to the currently selected defect. For user interface details, see "Linked Defects/Entities Page" on page 866.

Similar Defects Dialog Box/Pane

The Similar Defects dialog box enables you to check for similar defects before submitting a new defect. The Similar Defects pane enables you to check for similar defects at any time from the Defects grid.

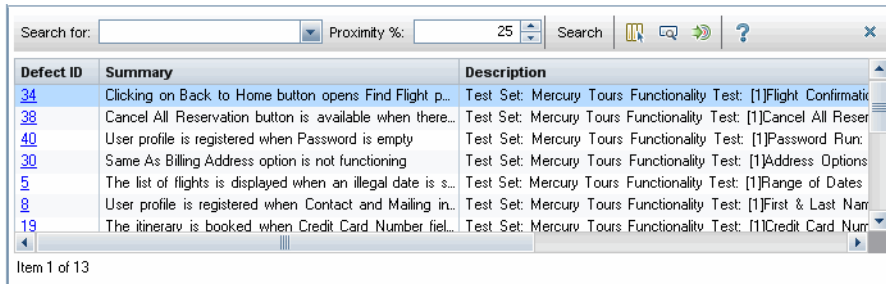
Similar Defects Dialog Box




Defect ID	Summary	Description	Comments
21	Welcome page download ti...	Test: Connect_Site_Stress Test...	
35	The average response time...	Test: Flight_Reservation_Stress...	
32	The average response time...	Test: Signing_Stress Test Set:...	
33	The average response time...	Test: Signing_Stress Test Set:...	
36	The average response time...	Test: Flight_Reservation_Stress...	


Item 1 of 5

Similar Defects Pane



<p>To access</p>	<p>In the Defects grid or the New Defect dialog box, right-click a defect and click the Find Similar Defects  button.</p> <p>Select either Find Similar Defects or Find Similar Text.</p>
<p>Important information</p>	<ul style="list-style-type: none"> ▶ Checking for similar defects is done by comparing a selected defect with other defects in your project or by comparing defects to a text string. ▶ To see which fields ALM uses to search, see the Searchable Fields UI element. The searchable fields cannot be modified. ▶ When performing a Find Similar operation, results are displayed with the most likely candidates on top. If no similar defects are found, a message is displayed.
<p>See also</p>	<p>"Defect Tracking Overview" on page 828</p>
<p>Relevant tasks</p>	<p>"How to Search for Defects" on page 840</p>

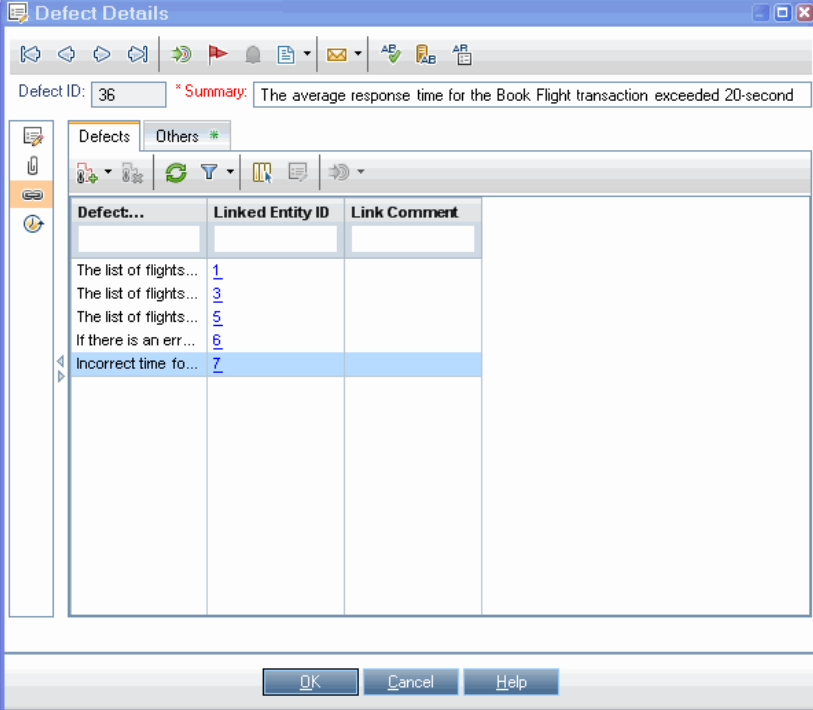
User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements	Description
Search for:	Text string to find. Letter case does not affect the results. The following are ignored: <ul style="list-style-type: none"> ➤ articles (a, an, the); ➤ coordinate conjunctions (and, but, for, nor, or); ➤ boolean operators (and, or, not, if, then); ➤ wildcards (?, *, [])
Proximity %	When searching for similar text, ALM limits the results of defects found to those with a minimum similarity according to this percentage. Default: ALM returns defects with a similarity of at least 25 percent.
Search	Start search.
	Select columns. Opens the Select Columns dialog box, enabling you to determine which fields to display in the grid and their order. For user interface details, see "Select Columns/Select Fields Dialog Box" on page 90.
Searchable Fields	The fields used to find similar defects. Read-only.
Go To	Locates the selected defect in the Defects grid.
<defects>	List of similar defects. The fields available in the Defects module. See "Defects Module Fields" on page 855.

Linked Defects/Entities Page

This page enables you to define and maintain links to defects from defects and other entities.

Linked Defects Tab



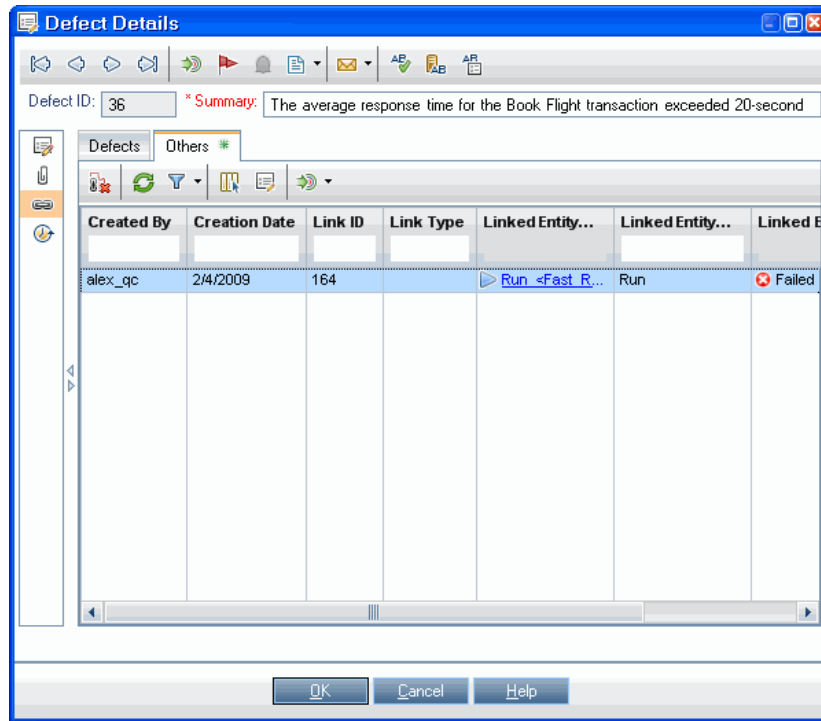
Defect ID: 36 * Summary: The average response time for the Book Flight transaction exceeded 20-second

Defects Others *

Defect...	Linked Entity ID	Link Comment
The list of flights...	1	
The list of flights...	3	
The list of flights...	5	
If there is an err...	6	
Incorrect time fo...	7	

OK Cancel Help







Linked Entities Tab





<p>To access</p>	<p>Use one of the following:</p> <ul style="list-style-type: none"> ▶ From the Defects module: On the Defect Details dialog box sidebar, select Linked Entities. Click the Defects tab. ▶ From other modules and dialog boxes: Click Linked Defects on the sidebar or the Linked Defects tab.
<p>Important information</p>	<ul style="list-style-type: none"> ▶ You can link defects to the following ALM entities: requirements, business, tests, test sets, business process tests, flows, test instances, runs, run steps, and other defects. ▶ From within the Defects module, you can link to other defects. ▶ To link a defect to other ALM entities, go to the module or Details dialog box for that entity.

Relevant tasks	"How to Link Defects to ALM Entities or to Other Defects" on page 841
See also	"Defect Tracking Overview" on page 828

User interface elements are described below (unlabeled elements are shown in angle brackets>):

UI Elements (A-Z)	Description
	<p>Add and Link Defect. Opens the New Defect dialog box, enabling you to add a defect link by submitting a new defect. For user interface details, see "New Defect Dialog Box" on page 858.</p> <p>Available from: All modules except the Defects module.</p>
	<p>Link Existing Defect. Enables you to add a link to an existing defect:</p> <ul style="list-style-type: none"> ▶ By ID. In the Link Existing Defect dialog box, select a defect by typing the defect ID. ▶ Select. In the Defects to Link dialog box, choose a defect from the grid.
	<p>Remove Link. Removes the selected defect's link.</p>
	<p>Refresh All. Refreshes the list of linked defects or entities so that it displays the most up-to-date defects based on the filters you have selected.</p>
	<p>Filter/Sort. Enables you to filter and sort the list of linked defects and entities. Any currently applied filters or sorting orders are displayed below the toolbar. For user interface details, see "Filter Dialog Box" on page 60.</p>
	<p>Select Columns. Opens the Select Columns dialog box, enabling you to determine which fields to display in the grid and their order. For user interface details, see "Select Columns/Select Fields Dialog Box" on page 90.</p>

UI Elements (A-Z)	Description
	Defect Details. Opens the Defect Details dialog box, displaying the details of the selected defect. For user interface details, see "Defect Details Dialog Box" on page 860.
	Go To. Click the Go To button and choose: <ul style="list-style-type: none"> ▶ Go To Defect. Go to the linked defect. ▶ Go To 'Linked By' Entity. Open the relevant module and highlights the linked entity.
<defects>	A list of defects linked to the current defect.
<Defects module fields>	For user interface details, see "Defects Module Fields" on page 855.
<Grid filters>	Displays a grid filter box under each column name, enabling you to define a filter condition for a column. Type directly into the box, or click the box to display the browse button, which opens the Select Filter Condition dialog box. For user interface details, see "Select Filter Condition Dialog Box" on page 70.
Created By	The user name of the person who created the link.
Creation Date	The date on which the link was created.
Direct Links/All Links	Select an option: <ul style="list-style-type: none"> ▶ Direct links. Displays direct links only. ▶ All links. Displays all links. For information about direct and indirect links, see "Defect Tracking Overview" on page 828. Available from: All modules except the Defects module.
Filter:	Describes the filters currently applied to the grid. Located directly above the grid filter boxes.
Link Comment	Enables you to add comments about the link.
Link Entity Type	The linked entity type (for example: step, test, test set).
Link ID	A unique numeric ID for the link, assigned automatically by ALM. The Link ID is read-only.

UI Elements (A-Z)	Description
Link Type	A value of the Link Type customized list. For more information on lists, refer to the <i>HP Application Lifecycle Management Administrator Guide</i> .
Linked By Status	The current status of the linked entity.
Linked Entity ID	A unique numeric ID for the linked entity, assigned automatically by ALM. The Linked Entity ID is read-only.
Linked Entity Name	The linked entity name. For example, the requirement name.
Others	A list of other entities linked to the current defect.
Show Links for	<p>Determines which links to display:</p> <ul style="list-style-type: none"> ▶ Current Req Links. Defect links added to the current requirement only. ▶ Including Children's Links. Defect links added to the current requirement and its children. <p>Available from: Requirements module</p>

Part VII

Analysis

34

Introducing Analysis

This chapter includes:

Concepts

- ▶ Analysis Overview on page 874

Tasks

- ▶ How to Analyze Data in ALM on page 876

Reference

- ▶ Dashboard User Interface on page 878

Concepts

Analysis Overview

HP Application Lifecycle Management (ALM) provides you with analysis tools enabling you to analyze and display ALM data in various formats.

Dashboard Modules

In the Dashboard modules, you analyze ALM data by creating graphs, standard reports, and Excel reports. You can also create dashboard pages that display multiple graphs side-by-side.

Dashboard contains two modules: The Analysis View module and the Dashboard View module.

The **Analysis View** module contains the analysis tree in which you organize all of your analysis items. Analysis items can be any of the following analysis types: graphs, project reports, Excel reports, and standard reports.

The **Dashboard View** module contains the dashboard tree in which you organize dashboard pages. In **dashboard pages** you arrange multiple graphs that you created in the analysis tree, and display them in a single view.

Additional Analysis Tools

- ▶ **Live Analysis graphs.** Enables you to create and display a dynamic graphic representation of data related to test plans and test sets. For more details, see Chapter 40, "Live Analysis Graphs."
- ▶ **Document Generator.** Enables you to create a Microsoft Word document containing a project's requirements, test plans, test set folders, and defect tracking data. For more details, see Chapter 41, "Project Documents."

For task details, see "How to Analyze Data in ALM" on page 876.

Note: Run step information of runs executed in Sprinter are not included in any of the reporting tools.

Tasks

How to Analyze Data in ALM

This task describes how to analyze data in ALM using various analysis tools.

To learn more about data analysis, see "Analysis Overview" on page 874.

Note: This task is part of a higher-level task. For details, see "Application Lifecycle Management Roadmap" on page 26.

This task includes the following steps:

- "Generate a graph" on page 876
- "Generate a dashboard page" on page 877
- "Generate a project report" on page 877
- "Generate an Excel report" on page 877
- "Manage analysis items and dashboard pages" on page 877
- "Generate a Live Analysis graph" on page 877
- "Generate a project document" on page 877

Generate a graph

- View selected data in a graph format. For task details, see "How to Generate a Graph" on page 900.
- View selected Project Planning and Tracking data in a graph format. For task details, see "How to Generate a PPT Graph" on page 949.

Generate a dashboard page

Group together selected graphs and view them in a single display.

For task details, see "How to Generate a Dashboard Page" on page 904.

Generate a project report

Produce a project report of selected data.

For task details, see "How to Create Project Reports" on page 961.

Generate an Excel report

Extract data from the project database with SQL queries, and format the data in Microsoft Excel.

For task details, see "How to Generate an Excel Report" on page 980.

Manage analysis items and dashboard pages

Organize analysis items and dashboard pages in the analysis and dashboard trees. Create folders, move, copy, rename, and delete items.

For user interface details, see "Analysis View Menus and Buttons" on page 884.

Generate a Live Analysis graph

Live Analysis graphs enable you to create and display dynamic graphs related to test plan subjects and test sets.

For task details, see "How to Generate Live Analysis Graphs" on page 1023.

Generate a project document

Project Documents enable you to create a Microsoft Word document containing selected project data.

For task details, see "How to Generate a Project Document" on page 1035.

Reference

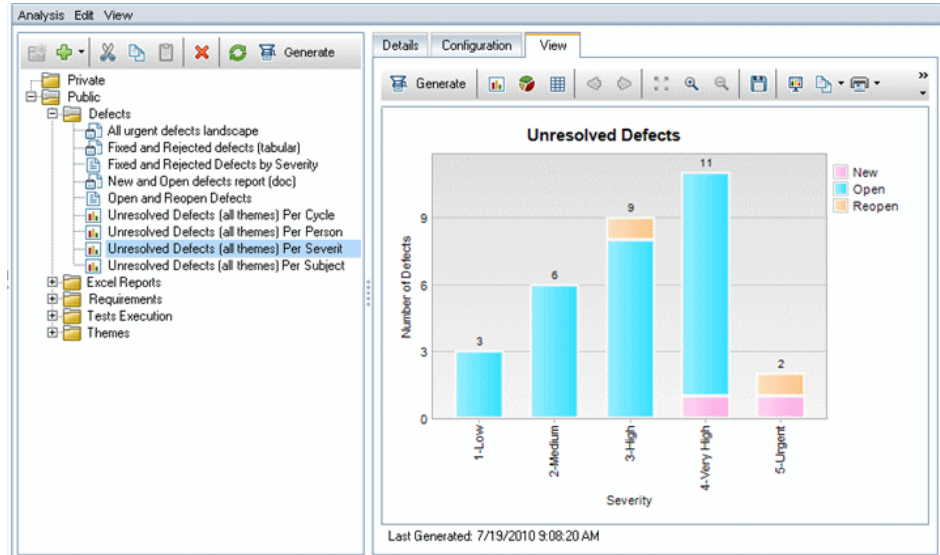
Dashboard User Interface

This section includes:

- ▶ Analysis View Window on page 879
- ▶ Dashboard View Window on page 882
- ▶ Analysis View Menus and Buttons on page 884
- ▶ Dashboard View Menus and Buttons on page 889
- ▶ Dashboard Icons on page 891
- ▶ Details Tab on page 893
- ▶ Share Analysis Item Dialog Box on page 895

Analysis View Window

This window enables you to create, manage and view analysis items. Analysis items include graphs, project reports, Excel reports and standard reports.



To access	On the ALM sidebar, under Dashboard , select Analysis View .
Relevant tasks	"How to Analyze Data in ALM" on page 876
See also	"Analysis Overview" on page 874

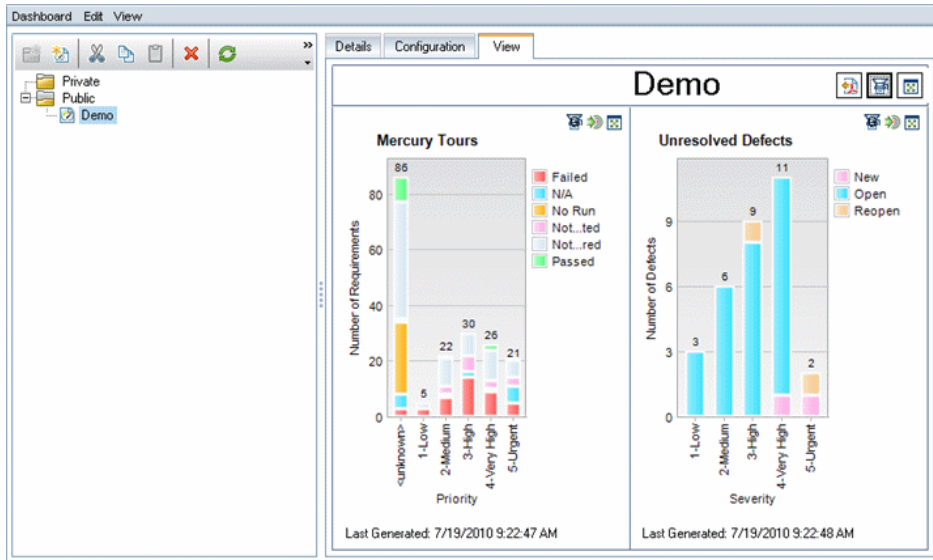
User interface elements are described below:

UI Elements (A-Z)	Description
<Analysis View common UI elements>	<ul style="list-style-type: none"> ▶ Analysis View menus and buttons. For command and button descriptions, see "Analysis View Menus and Buttons" on page 884. ▶ Dashboard icons. For icon descriptions, see "Dashboard Icons" on page 891. ▶ ALM main menu and sidebar. For details on the Tools menu, Help menu and sidebar, see "ALM Common Areas" on page 40.
<analysis tree>	<p>Organizes analysis items under public and private root folders.</p> <ul style="list-style-type: none"> ▶ Analysis items that you create in a public folder are accessible to all users. ▶ Analysis items that you create in a private folder are accessible only to the user that created them. <p>Notes:</p> <ul style="list-style-type: none"> ▶ Analysis items in public folders may show different results for different users, depending on the data hiding definitions for the user group. For more information on data permissions, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>. ▶ You cannot move items within a folder. When you refresh the tree view, folder items are alphabetized.
Details tab	<p>Displays details of the selected analysis item or folder. For more details, see "Details Tab" on page 893.</p>

UI Elements (A-Z)	Description
Configuration tab	<p>Enables you to configure the selected analysis item. For user interface details, see:</p> <ul style="list-style-type: none"> ▶ Graphs: "Configuration Tab – Graphs" on page 912 ▶ Project reports: "Configuration Tab – Project Reports" on page 967 ▶ Excel reports: "Configuration Tab – Excel Reports" on page 984 ▶ Standard reports: "Configuration Tab – Standard Reports" on page 1013
View tab	<p>Displays the selected graph or standard report. For user interface details, see:</p> <ul style="list-style-type: none"> ▶ Graphs: "View Tab – Graphs/Graph Window" on page 916 ▶ Standard reports: "View Tab – Standard Reports/Report Window" on page 1017 <p>Note: Project reports and Excel reports are viewed in external applications, such as Microsoft Excel and Word.</p>

Dashboard View Window

This window enables you to create, manage and view dashboard pages.



To access	On the ALM sidebar, under Dashboard , select Dashboard View .
Relevant tasks	"How to Generate a Dashboard Page" on page 904
See also	"Analysis Overview" on page 874

User interface elements are described below:


UI Elements (A-Z)	Description
<Dashboard View common UI elements>	<ul style="list-style-type: none"> ▶ Dashboard View menus and buttons. For command and button descriptions, see "Dashboard View Menus and Buttons" on page 889. ▶ Dashboard icons. For icon descriptions, see "Dashboard Icons" on page 891. ▶ ALM main menu and sidebar. For details on the Tools menu, Help menu and sidebar, see "ALM Common Areas" on page 40.
<dashboard tree>	<p>Organizes dashboard pages under public and private root folders.</p> <ul style="list-style-type: none"> ▶ Dashboard pages that you create in a public folder are accessible to all users. ▶ Dashboard pages that you create in a private folder are accessible only to the user that created them. ▶ Public dashboard pages can include only public graphs. <p>Notes:</p> <ul style="list-style-type: none"> ▶ Dashboard pages in public folders may show different results for different users, depending on the data hiding definitions for the user group. For more information on data permissions, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>. ▶ You cannot move dashboard pages within a folder. When you refresh the tree view, dashboard pages in a folder are alphabetized.
Configuration tab	Enables you to configure the selected dashboard page. For user interface details, see "Configuration Tab – Dashboard Pages" on page 922.
Details tab	Displays details of the selected dashboard page or folder. For more details, see "Details Tab" on page 893.
View tab	Displays the selected dashboard page. For user interface details, see "View Tab – Dashboard Pages" on page 925.



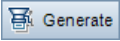
Analysis View Menus and Buttons



This section describes the menus and buttons available in the Analysis View module.

To access	On the ALM sidebar, under Dashboard , select Analysis View .
Relevant tasks	"How to Analyze Data in ALM" on page 876
See also	<ul style="list-style-type: none"> ➤ "Dashboard Icons" on page 891 ➤ "Analysis View Window" on page 879


User interface elements are described below:

UI Elements (A-Z)	Menu	Description
Copy URL/Paste	Edit	Copies a selected analysis item or folder and pastes its URL as a link. The item itself is not copied. Instead, you can paste the address into another location, such as an email or a document. Clicking the link opens ALM and takes you to the item. If you are not already logged in, ALM first prompts for login details.
 Copy/Paste	Edit	Copies selected analysis items or folders within the same project or across projects.

UI Elements (A-Z)	Menu	Description
 Cut/Paste	Edit	<p>Moves selected analysis items or folders to a different location in the tree.</p> <p>When you move an analysis item from a public folder to a private folder, it is removed from public dashboard pages in which it is included.</p> <p>Tip: You can also move an analysis item by dragging it to a new location in the tree.</p>
 Delete	Edit	<p>Deletes selected analysis items or folders. You cannot delete the root folders.</p> <p>Notes:</p> <ul style="list-style-type: none"> ▶ Deleting a folder deletes all the items included in it. ▶ Deleting a graph removes it from dashboard pages that contain it.
Expand/Collapse	View	Expands/collapses all the nodes under the selected folder.
Export Excel Report Definition	Edit	Enables you to export the selected Excel report definition to an XML file. You can then import the Excel report definition to another project.
 Generate	Analysis	<p>Generates the selected analysis item.</p> <p>Graphs and Standard Reports: The results are displayed in the View tab. If the View tab is already selected, the analysis item is refreshed with the most up-to-date data.</p> <p>Project Reports and Excel Reports: The results are displayed in an external application.</p>

UI Elements (A-Z)	Menu	Description
Graph Wizard	Analysis	Opens the graph wizard, enabling you to create and configure a graph. For more details, see "Graph Wizard" on page 927.
Import Excel Report Definition	Edit	Enables you to import an Excel report definition that was previously exported to an XML file. The report definition is added to the selected analysis tree folder.
New Excel Report	Analysis	Opens the New Excel Report dialog box, enabling you to create a new Excel report in the analysis tree. For more details, see "New Excel Report Dialog Box" on page 998.
 New Folder	Analysis	<p>Opens the New Folder dialog box, enabling you to add a folder under a selected folder in the analysis tree.</p> <p>Folders you create under the Private root folder are available to the owner only. Folders you create under the Public root folder are available to all users.</p> <p>Syntax exceptions: The folder name cannot include the following characters: \ ^ *</p>
New Graph	Analysis	Opens the New Graph dialog box, enabling you to create a new graph in the analysis tree. For more details, see "New Graph Dialog Box" on page 935.
 New Item	Toolbar	Enables you to launch the graph wizard, or add a new graph, project report, Excel report, or standard report to the analysis tree.

UI Elements (A-Z)	Menu	Description
New Project Report	Analysis	Opens the New Project Report dialog box, enabling you to create a new project report in the analysis tree. For more details, see "New Project Report Dialog Box" on page 972.
New Release Analysis > Release Scorecard	Analysis	Opens the New Graph dialog box, enabling you to create a new Release Scorecard graph in the analysis tree. For more details, see "New Graph Dialog Box" on page 935. ALM Editions: Functionality related to PPT is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.
New Release Analysis > KPI Over Time Graph	Analysis	Opens the New Graph dialog box, enabling you to create a new KPI Progress graph in the analysis tree. For more details, see "New Graph Dialog Box" on page 935. ALM Editions: Functionality related to PPT is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.
New Release Analysis > KPI Breakdown Graph	Analysis	Opens the New Graph dialog box, enabling you to create a new KPI Breakdown graph in the analysis tree. For more details, see "New Graph Dialog Box" on page 935. ALM Editions: Functionality related to PPT is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.


UI Elements (A-Z)	Menu	Description
New Release Analysis > KPI Breakdown Over Time Graph	Analysis	<p>Opens the New Graph dialog box, enabling you to create a new KPI Breakdown Progress graph in the analysis tree. For more details, see "New Graph Dialog Box" on page 935.</p> <p>ALM Editions: Functionality related to PPT is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.</p>
New Standard Report	Analysis	<p>Opens the New Standard Report dialog box, enabling you to create a new standard report in the analysis tree. For more details, see "New Standard Report Dialog Box" on page 1019.</p>
 Refresh	View	<p>Refreshes the analysis tree so that it displays the most up-to-date information.</p>
Rename	Edit	<p>Enables you to rename the selected analysis item or folder.</p>
Share Analysis Item	Edit	<p>Enables others to view the selected graph outside ALM. For more details, see "Share Analysis Item Dialog Box" on page 895.</p> <p>Available from: Graphs</p>



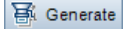
Dashboard View Menus and Buttons




This section describes the menus and buttons available in the Dashboard View module.

To access	On the ALM sidebar, under Dashboard , select Dashboard View .
Relevant tasks	"How to Generate a Dashboard Page" on page 904
See also	<ul style="list-style-type: none"> ➤ "Dashboard Icons" on page 891 ➤ "Dashboard View Window" on page 882

User interface elements are described below:

UI Elements (A-Z)	Menu	Description
Copy URL/Paste	Edit	Copies a selected dashboard page or folder and pastes its URL as a link. The item itself is not copied. Instead, you can paste the address into another location, such as an email or a document. Clicking the link opens ALM and takes you to the item. If you are not already logged in, ALM first prompts for login details.
 Copy/Paste	Edit	<p>Copies selected dashboard pages or folders within the same project or across projects.</p> <p>When you paste a dashboard page, you choose how ALM copies the graphs included in the dashboard page.</p>

UI Elements (A-Z)	Menu	Description
 Cut/Paste	Edit	<p>Moves selected dashboard pages or folders to a different location in the tree.</p> <p>When you move a dashboard page from a private folder to a public folder, ALM removes any private graphs from the dashboard page.</p> <p>Tip: You can also move a dashboard page by dragging it to a new location in the tree.</p>
 Delete	Edit	<p>Deletes selected dashboard pages or folders. You cannot delete the root folders.</p> <p>Note: Deleting a folder deletes all the items included in it.</p>
Expand/Collapse	View	<p>Expands/collapses all the nodes under the selected folder.</p>
Export	Dashboard	<p>Saves the selected dashboard page as a PDF file, enabling you to print the dashboard page.</p> <p>The following options are available:</p> <p>Dashboard Page Layout. The dashboard page is saved in its original format.</p> <p>One Item Per Page Layout. Each graph on the dashboard page is saved on a separate page.</p> <p>Available from: View tab</p>
	Dashboard	<p>Generates the selected dashboard page, and displays it in the View tab.</p> <p>If the View tab is already selected, the dashboard page is refreshed with the most up-to-date data.</p>











UI Elements (A-Z)	Menu	Description
 New Folder	Dashboard	Opens the New Folder dialog box, enabling you to add a folder under a selected folder in the dashboard tree. Folders you create under the Private root folder are available to the owner only. Folders you create under the Public root folder are available to all users. Syntax exceptions: The folder name cannot include the following characters: \ ^ *
 New Page	Dashboard	Opens the New Dashboard Page dialog box, enabling you to create a new dashboard page. For more details, see "New Dashboard Page Dialog Box" on page 937.
 Refresh	View	Refreshes the dashboard tree so that it displays the most up-to-date information.
Rename	Edit	Enables you to rename the selected dashboard page or folder.

Dashboard Icons

This section describes the icons displayed in the Dashboard modules.

To access	On the ALM sidebar, under Dashboard , select Analysis View or Dashboard View .
Relevant tasks	"How to Analyze Data in ALM" on page 876

User interface elements are described below:

UI Elements	Description
	Analysis Folder. A folder for organizing analysis items or dashboard pages.
	Dashboard Page. A dashboard page in the dashboard tree.
	Excel Report. An Excel report in the analysis tree.
	Graph. A graph in the analysis tree.
	KPI Breakdown Graph. A project planning and tracking (PPT) graph in the analysis tree.
	KPI Breakdown Progress Graph. A project planning and tracking (PPT) graph in the analysis tree.
	KPI Progress Graph. A project planning and tracking (PPT) graph in the analysis tree.
	Project Report. A project report in the analysis tree.
	Release Scorecard Graph. A project planning and tracking (PPT) graph in the analysis tree.
	Standard Report. A standard report in the analysis tree.

Details Tab

This tab displays details of the selected analysis item, dashboard page, or folder.

Details
Configuration
View

Entity:	<input type="text" value="Unspecified Entity"/>	Type:	<input type="text" value="Project Report"/>
Sub Type:	<input type="text" value="Project Report"/>	* Name:	<input type="text" value="Requirements with Traced"/>
Modified:	<input type="text" value="7/18/2010 1:32:09 AM"/>	Modified By:	<input type="text" value="sa"/>
Owner:	<input type="text" value="alice_alm"/>		

Description

Project report options

1. **Created by user templates are used for the requirements and Requirements traced from reports**
 - Not default table color is used
 - Not default list of fields
 - Rich Text is included
2. **Attachments are embedded to text**
3. **Table of content is included by default**

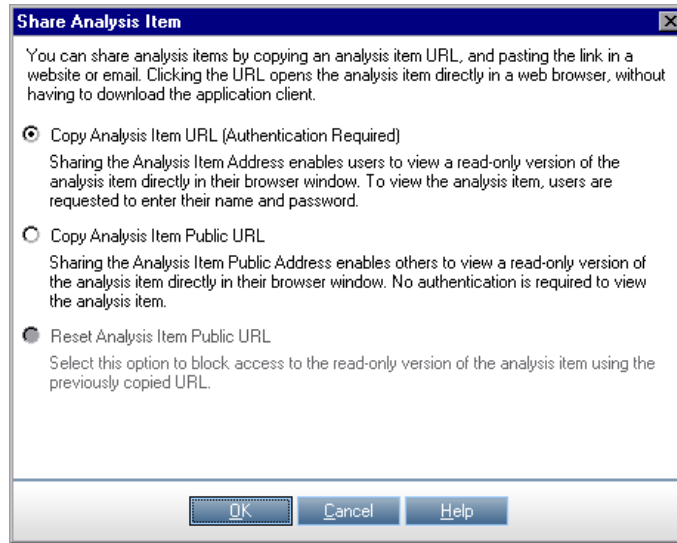
To access	On the ALM sidebar, under Dashboard , select Analysis View or Dashboard View , and select an item or folder.
Important information	<ul style="list-style-type: none"> ▶ You can edit the Name and Title fields. Other fields in this dialog box are read-only. ▶ Clicking in the Description field in this tab displays a toolbar for formatting and spell checking the text.
Relevant tasks	"How to Analyze Data in ALM" on page 876
See also	"Analysis View Window" on page 879

User interface elements are described below:

UI Elements (A-Z)	Description
Entity	The data set sampled by the analysis item. Available from: Analysis items
Modified	The date and time on which the analysis item or dashboard page was last modified.
Modified By	The user who last modified the analysis item or dashboard page.
Name	The tree display name of the analysis item, dashboard page, or folder. In graphs, the default title displayed above the graph.
Owner/Page Owner	The user that created the analysis item, dashboard page, or folder. Permissions to modify public items may be limited to the owner only.
Sub Type	The type of graph or standard report.
Title	The title displayed in the header of the dashboard page. Available from: Dashboard pages
Type	The analysis item type. Available from: Analysis items

Share Analysis Item Dialog Box

This dialog box enables you to share a graph for viewing outside ALM client.



To access	In the analysis tree, right-click a graph, and select Share Analysis Item .
Relevant tasks	"How to Generate a Graph" on page 900
See also	"Analysis View Window" on page 879

User interface elements are described below:

UI Elements	Description
Copy Analysis Item URL (Authentication Required)	Copies a URL of the selected graph to the clipboard. You are required to enter a ALM user name and password to view the graph.

UI Elements	Description
Copy Analysis Item Public URL	Copies a URL of the selected graph to the clipboard. No authentication is required to view the graph.
Reset Analysis Item Public URL	If you previously selected Copy Analysis Item Public URL , selecting this option blocks access to the public read-only version of the selected graph.

35

Graphs and Dashboard Pages

This chapter includes:

Concepts

- ▶ Graphs and Dashboard Pages Overview on page 898

Tasks

- ▶ How to Generate a Graph on page 900
- ▶ How to Generate a Dashboard Page on page 904

Reference

- ▶ Graph Types on page 906
- ▶ Graphs and Dashboard Pages User Interface on page 911

Concepts

Graphs and Dashboard Pages Overview

HP Application Lifecycle Management (ALM) graphs help you analyze and view the relationships between different types of data. You can create graphs for data in the Requirements, Test Plan, Test Lab, Defects, and Business Components modules.

There are three options for creating graphs:

Predefined Graphs. While working in one of the modules listed above, choose from a list of predefined graphs to quickly analyze data related to that module. Predefined graphs display data from the existing module filter. You can save predefined graphs in the Analysis View module for future reference.

Analysis View Graphs. Create and customize graphs in the Analysis View module, relating to data in any of the above modules. Creating graphs in the Analysis View module enables you to filter the data, set various configurations, and organize the graphs in folders.

Graph Wizard. The graph wizard guides you through the stages of creating and configuring a graph. You can launch the graph wizard from either any of the above modules, or from the Analysis View module.

In each module you can use several graph types. For more information on available graph types, see "Graph Types" on page 906.

When viewing graphs, you can drill down to the records represented by each bar or segment.

After you have created graphs in the Analysis View module, you can select and arrange multiple graphs, and view them side-by-side in a **dashboard page**.

You can create graphs that include data from multiple ALM projects.

ALM Editions: Cross-project graphs are not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or for Performance Center Edition.

For related tasks, see "How to Generate a Graph" on page 900 and "How to Generate a Dashboard Page" on page 904.

Tasks

How to Generate a Graph

This task describes how to analyze data in ALM using graphs.

- "Launch the Graph Wizard" on page 900
- "Create a predefined graph" on page 901
- "Create a graph in Analysis View" on page 901
- "Configure a graph" on page 901
- "View a graph" on page 901
- "Edit graph categories" on page 902
- "Drill down to graph data" on page 902
- "Share a graph outside ALM" on page 903
- "Create a dashboard page" on page 903

1 Launch the Graph Wizard

The Graph Wizard guides you through the steps involved in creating a graph and configuring its settings. You launch the graph wizard either from the Analysis View module, or while working in one of the other ALM modules.

In the Analysis View module. On the ALM sidebar, under **Dashboard**, select **Analysis View**, right-click a folder, and select **Graph Wizard**.

In other modules. In the Requirements, Business Components, Test Plan, Test Lab, or Defects module, select **Analysis > Graphs > Graph Wizard**.

For user interface details, see "Graph Wizard" on page 927.

2 Create a predefined graph

While working in the Requirements, Business Components, Test Plan, Test Lab, or Defects module, generate an impromptu graph to analyze the module data.

In any of the above modules, select **Analysis > Graphs** and select one of the predefined graphs. For user interface details, see "View Tab – Graphs/ Graph Window" on page 916.

3 Create a graph in Analysis View

Create a graph in the Analysis View module.

- a Open the Analysis View module.** On the ALM sidebar, under **Dashboard**, select **Analysis View**.
- b Add a folder to the analysis tree.** Right-click a folder under the Private or Public root folder, and select **New Folder**.
- c Create a new graph.** Right-click a folder, and select **New Graph**. Fill in the fields in the New Graph dialog box. For user interface details, see "New Graph Dialog Box" on page 935.

4 Configure a graph

Configure graph settings, such as data filtering, grouping, and x-axis values.

Click the **Configuration** tab. For user interface details, see "Configuration Tab – Graphs" on page 912.

Available from: Analysis View module

5 View a graph


Use one of the following:

- **In the Analysis View module.** Click the **View** tab.
- **In other modules.** On the module menu, select **Analysis > Most Recently Used** and select a recently used graph. The selected graph opens in the Analysis View module.

For user interface details, see "View Tab – Graphs/Graph Window" on page 916.

6 Edit graph categories

You can group together values in the grouped-by or x-axis field, and display the combined data as a single category.

- a** In the View tab or graph window, click the **Edit Categories** arrow , and select one of the available options.
- b** Create or change existing categories. For user interface details, see "Edit Categories Dialog Box" on page 940.

Example:

Suppose the **Priority** field is selected in the graph **Grouped By** field, and the **Priority** field has five values: Low, Medium, High, Very High, and Urgent. You might combine the values Medium and High into a category Important, and the values Very High and Urgent into a category Critical. The graph would then display data divided into three categories: Low, Important, and Critical.

7 Drill down to graph data

In bar and pie charts, you can drill down to the records represented by a selected bar or segment, and view details of individual records.

ALM Editions: Cross-project graphs are not supported in Quality Center Starter Edition or Quality Center Enterprise Edition.

- a** In the View tab or graph window, click a segment or bar in the graph.
- b** If the segment or bar represents records from multiple projects, the Project Selection dialog box opens. Select a project.

- c** If you selected to view data from another project, or if the segment or bar represents records from only another project, the project opens in a separate browser window. If applicable, you are prompted to log in. The records are displayed in the relevant ALM module.
- d** If the segment or bar represents records from only the current project, or if you selected to view data from the current project, the records are displayed in the Drill Down Results dialog box. For user interface details, see "Drill Down Results Dialog Box" on page 944.

8 Share a graph outside ALM

Allow ALM users or others to view read-only versions of graphs outside ALM.

- a** In the analysis tree, right-click a graph, and select **Share Analysis Item**.
- b** In the Share Analysis Item dialog box, select a share option. For details of the options, see "Share Analysis Item Dialog Box" on page 895.

A URL of the selected graph is copied to the clipboard.

- c** Paste the URL in a website or email.
- d** Click the URL to open a read-only version of the graph in a web browser. Each time you access the graph, it displays the most up-to-date information.

Available from: Analysis View module

9 Create a dashboard page

View several graphs together in a dashboard page. For task details, see "How to Generate a Dashboard Page" on page 904.

How to Generate a Dashboard Page

This task describes how to generate a dashboard page in which you can arrange multiple graphs in a single view.

This task includes the following steps:

- "Prerequisites" on page 904
- "Create a dashboard page" on page 904
- "Configure a dashboard page" on page 904
- "View a dashboard page" on page 905

1 Prerequisites

Graphs are defined in the Analysis View module. For task details on how to create graphs, see "How to Generate a Graph" on page 900.

2 Create a dashboard page

Add a dashboard page to a folder in the dashboard tree.

- a Open the Dashboard View module.** On the ALM sidebar, under **Dashboard**, select **Dashboard View**.
- b Add a folder to the dashboard tree.** Right-click a folder under the Private or Public root folder, and select **New Folder**.
- c Create a new dashboard page.** Right-click a folder, and select **New Page**. Type a name for the dashboard page. For user interface details, see "New Dashboard Page Dialog Box" on page 937.
- d Click the Details tab,** and add a description of the dashboard page. For user interface details, see "Details Tab" on page 893.

3 Configure a dashboard page

Arrange the graphs you want to include on a dashboard page.

In the Dashboard View module, select a dashboard page, and click the **Configuration** tab. For user interface details, see "Configuration Tab – Dashboard Pages" on page 922.

4 View a dashboard page

Generate and view dashboard pages.

In the Dashboard View module, select a dashboard page, and click the **View** tab. For user interface details, see "View Tab – Dashboard Pages" on page 925.

Reference

Graph Types

ALM enables you to generate graphs for requirements, tests, test instances, test runs, defects, and business components. For each entity, different graph types are available.

This section includes:

- "Requirements Graphs" on page 907
- "Test Plan Graphs" on page 908
- "Test Lab Graphs" on page 909
- "Defects Graphs" on page 910
- "Business Component Module Graphs" on page 911

Requirements Graphs

You can generate the following graphs for requirements:

Graph	Description
Requirements Coverage Graph	<p>Shows how many requirements are currently in an ALM project, according to their test coverage status.</p> <p>Notes:</p> <ul style="list-style-type: none">▶ Available from the Requirements module only.▶ The Coverage Graph is a specific type of the Requirements Summary Graph. If you select a different x-axis value, a regular Summary Graph is displayed.
Requirements Progress Graph	<p>Shows how many requirements accumulated in an ALM project at specific points during a period of time.</p> <p>Specify the time interval displayed along the x-axis, and the requirement information by which ALM groups the data. Specify whether you want to view the number of requirements or the change in the number of requirements.</p>
Requirements Summary Graph	<p>Shows how many requirements are currently in an ALM project.</p> <p>Specify the type of data displayed along the x-axis, and the requirement information by which ALM groups the data.</p>
Requirements Trend Graph	<p>Shows the history of changes to specific requirement fields in an ALM project, for each time interval displayed.</p> <p>Specify the field for which you want to view the number of changes, and the time period for which you want to view data.</p> <p>Each status change is only recorded once for the purpose of this graph. For example, if a field was changed from Not Completed to Passed to Not Completed, the Not Completed status change will only be recorded once in this graph.</p>

Test Plan Graphs

You can generate the following graphs for tests:

Graph	Description
Test Plan Progress Graph	<p>Shows how many tests accumulated in an ALM project at specific points during a period of time.</p> <p>Specify the time interval displayed along the x-axis and the test plan information by which ALM groups the data. Specify whether you want to view the number of tests or the change in the number of tests.</p>
Test Plan Summary Graph	<p>Shows how many tests are currently in an ALM project.</p> <p>Specify the type of data displayed along the x-axis, and the test plan information by which ALM groups the data.</p>
Test Plan Trend Graph	<p>Shows the history of changes to specific Test Plan fields in an ALM project, for each time interval displayed.</p> <p>Specify the field for which you want to view the number of changes, and the time period for which you want to view data.</p> <p>Each status change is only recorded once for the purpose of this graph. For example, if a field was changed from Ready to Repair to Ready, the Ready status change will only be recorded once in this graph.</p>

Test Lab Graphs

You can generate the following graphs for test instances and runs:

Test Set Graphs

Graph	Description
Test Set Progress Graph	<p>Shows how many tests accumulated in test sets at specific points during a period of time.</p> <p>Specify the time interval displayed along the x-axis, and the test information by which ALM groups the data.</p> <p>Specify whether you want to view the number of tests or the change in the number of tests.</p> <p>Note: If you create the graph in the Test Lab module, you can choose whether to include only the current test set or all test sets.</p>
Test Set Summary Graph	<p>Shows how many tests in an ALM project belong to test sets.</p> <p>Specify the type of data displayed along the x-axis, and the test plan and test in test set information by which ALM groups the data.</p> <p>Note: If you create the graph in the Test Lab module, you can choose whether to include only the current test set or all test sets.</p>

Test Run Graphs

Graph	Description
Test Run Summary Graph	Shows the status of runs in the project, grouped by Tester.

Defects Graphs

You can generate the following graphs for defects:

Graph	Description
Defects Age Graph	<p>Shows the lifetime of defects in an ALM project. The lifetime of a defect begins when it is reported, and ends when it is closed.</p> <p>Specify the defect information by which ALM groups the data, and the data displayed along the y-axis. Specify the time interval that you want to use to divide the data.</p> <p>The age of a Closed defect is the difference between the date on which it was reported and the date on which it was closed. After a defect is closed, its age remains static.</p>
Defects Progress Graph	<p>Shows the accumulation of defects in an ALM project, or the estimated/actual amount of time taken to fix these defects, at specific points during a period of time.</p> <p>Specify the time interval displayed along the x-axis, the defect information by which ALM groups the data, and the data displayed along the y-axis. Specify whether you want to view the number of defects or the change in the number of defects.</p>
Defects Summary Graph	<p>Shows a summary of the number of defects in an ALM project, or the estimated/actual amount of time taken to fix these defects.</p> <p>Specify the type of data displayed along the x-axis, the type of data displayed along the y-axis, and the defect information by which ALM groups the data.</p>
Defects Trend Graph	<p>Shows the history of changes to specific defect fields in an ALM project, for each time interval displayed.</p> <p>Specify the field for which you want to view the number of changes, and the time period for which you want to view data. Each priority change is only recorded once for the purpose of this graph. For example, if a field was changed from Urgent to Very High to Urgent, the Urgent priority change will only be recorded once in this graph.</p>

Business Component Module Graphs

For a list of quick graphs available from the Business Components module, see the *HP Business Process Testing User Guide*.

Graphs and Dashboard Pages User Interface

This section includes:

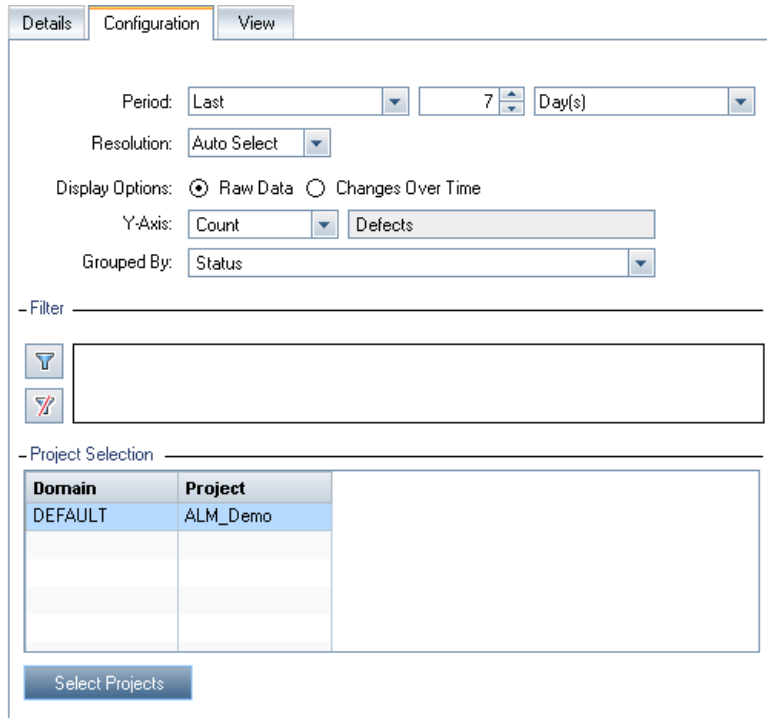
- Configuration Tab – Graphs on page 912
- View Tab – Graphs/Graph Window on page 916
- Configuration Tab – Dashboard Pages on page 922
- View Tab – Dashboard Pages on page 925
- Graph Wizard on page 927
- New Graph Dialog Box on page 935
- New Dashboard Page Dialog Box on page 937
- Select Projects Dialog Box on page 938
- Edit Categories Dialog Box on page 940
- Graph Appearance Dialog Box on page 942
- Drill Down Results Dialog Box on page 944

Configuration Tab – Graphs

This tab enables you to select data to be included in a graph, and set graph display options.

You can include multiple projects in the graph data.

ALM Editions: Cross-project graphs are not supported in Quality Center Starter Edition or Quality Center Enterprise Edition.



Details Configuration View

Period: Last 7 Day(s)

Resolution: Auto Select

Display Options: Raw Data Changes Over Time

Y-Axis: Count Defects

Grouped By: Status

- Filter

- Project Selection



Domain	Project
DEFAULT	ALM_Demo

Select Projects

To access	<ol style="list-style-type: none"> 1 On the ALM sidebar, under Dashboard, select Analysis View. 2 Expand the analysis tree, and select a graph. 3 Click the Configuration tab.
Important information	The available configuration options depend on the graph type.

Relevant tasks	<ul style="list-style-type: none"> ➤ "How to Generate a Graph" on page 900 ➤ "How to Analyze Data in ALM" on page 876
See also	<ul style="list-style-type: none"> ➤ "Graphs and Dashboard Pages Overview" on page 898 ➤ "Analysis View Window" on page 879

User interface elements are described below:

UI Elements (A-Z)	Description
	<p>Set/Clear Filter. Enables you to filter the data according to the criteria you choose. For details, see "Select Filter Condition Dialog Box" on page 70.</p> <p>The current filter is displayed in the filter box.</p>
	<p>Opens the Select Projects dialog box, enabling you to change the list of projects in the Cross Project Selection grid. For details, see "Select Projects Dialog Box" on page 938.</p>
Age Grouping	<p>You can group all defects older than a certain period (for example, older than six months) in one column, and all defects more recent than that period in a second column. Alternatively, you can group the defects by all available periods.</p> <ul style="list-style-type: none"> ➤ Select a period to group the defects in two columns. ➤ Select No grouping to view all of the available periods.
Display Options	<ul style="list-style-type: none"> ➤ Select Raw Data to view the number of requirements, tests, or defects over the period of time you selected. ➤ Select Changes over Time to view the change in the number of requirements, tests, or defects over the period of time you selected. Each record begins at 0. <p>Available from: Requirements graphs</p>
Grouped By	<p>Select a field to determine the information by which ALM groups data in the graph. You can group the data only by string or list fields.</p> <p>Tip: For cross-project graphs, select QC Projects to group the data by project.</p>

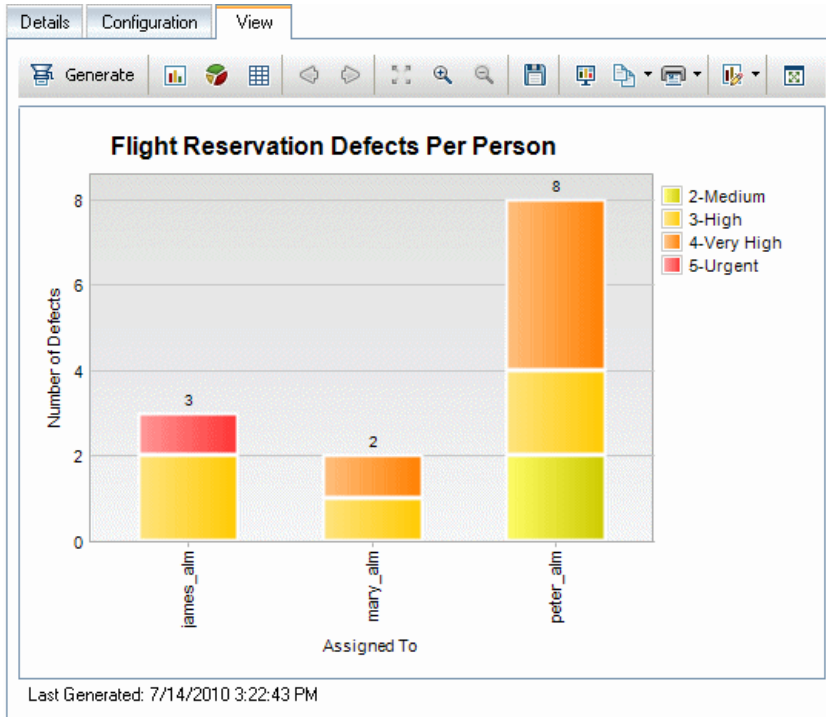
UI Elements (A-Z)	Description
Period	<p>In progress and trend graphs, the time period covered by the graph. Select a time period from the drop-down list:</p> <p>Custom. A time period between any two dates. Set the start and end dates.</p> <p>Week/Month/Quarter/Year. A fixed time period any time in the past. Use the arrows to jump to the next or previous period, or set the start or end date of the period in the drop-down calendars.</p> <p>Last. A time period ending at the current date. Select a time unit (day, week, month, quarter, or year) and set the number of time units you want to cover in the graph.</p> <p>All days. Includes all time periods from the beginning of the project until the current date.</p>
Project Selection	<p>Projects included in the graph.</p> <p>To change the list of projects included in the graph, click the Select Projects button.</p> <p>Notes:</p> <ul style="list-style-type: none"> ▶ Every time you add or remove projects in your graph, ALM updates the fields in the Filter dialog box and the drop-down lists of the following boxes: X-Axis, Y-Axis and Grouped By. The lists contain only fields that are identical in all the selected projects. Identical fields are fields that have the same field name, label and data type. For more information on customizing fields, see the <i>HP Application Lifecycle Management Administrator Guide</i>. ▶ If you defined a filter condition using a field that becomes unavailable, that condition is removed. ▶ If you selected a field in the X-Axis, Y-Axis and Grouped By boxes that becomes unavailable, the first field in the drop-down list is selected.
Resolution	<p>In progress and trend graphs, the time interval at which data is grouped on the x-axis.</p>

UI Elements (A-Z)	Description
Show full path	In summary graphs, if you select Subject or Plan: Subject in the X-Axis field, instructs ALM to display the full path of the test subject folder.
Show 'Not Covered' parents	In Requirements graphs, choose whether to include parent requirements with a Not Covered status.
X-Axis	<p>In summary graphs, the information displayed along the x-axis of the graph.</p> <p>Tip: In cross-project graphs, select QC Projects to display the data by project.</p>
Y-Axis	<p>In Defects graphs, select the data that displays on the y-axis.</p> <ul style="list-style-type: none"> ▶ Select Count to display the total number of items (for example, a count of open defects). ▶ Select Sum of and choose a numerical field. For example, choose Estimated Fix Time to display the estimated time required for fixing the defects. Choose Actual Fix Time to display the actual time spent on fixing the defects.

View Tab – Graphs/Graph Window





The **View tab** enables you to view saved graphs in the Analysis View module, and analyze the graph data.








The **graph window** in the Requirements, Business Components, Test Plan, Test Lab and Defects modules enables you to view predefined graphs to analyze data during your work in those modules.








To access	<p>View tab: Use one of the following:</p> <ul style="list-style-type: none"> ▶ In the Analysis View module, select a graph, and click the View tab. ▶ In the Requirements, Test Plan, Test Lab, Defects, or Business Components module, choose Analysis > Recently Used, and select a graph. <p>Graph window: In the Requirements, Test Plan, Test Lab, Defects, or Business Components module, choose Analysis > Graphs, and select a graph type.</p>
Relevant tasks	<ul style="list-style-type: none"> ▶ "How to Generate a Graph" on page 900 ▶ "How to Analyze Data in ALM" on page 876
See also	<ul style="list-style-type: none"> ▶ "Graphs and Dashboard Pages Overview" on page 898 ▶ "Analysis View Window" on page 879

User interface elements are described below (unlabeled elements are shown in angle brackets>):

UI Elements	Description
 Generate	<p>Generate. Refreshes the graph so that it displays the most up-to-date information.</p>
	<p>Bar Chart. In summary, trend and age graphs, switches the chart format to a bar chart.</p>
	<p>Pie Chart. In summary graphs, switches the chart format to a pie chart.</p> <p>In pie charts, the x-axis categories are displayed as pie segments. The y-axis quantities are represented by the size of the segments.</p> <p>Note: Pie charts do not display the Grouped By field.</p>
	<p>Line Chart. In progress graphs, switches the chart format to a line chart.</p>

UI Elements	Description
	<p>Data Grid. The grid creates a matrix of the graph's x-axis and Grouped By categories. A Total row is added that displays the total of each Grouped By category. Available in all graph types.</p>
	<p>Show/Hide Total Values. In progress graphs, shows/hides a <total> category to the graph, representing the sum of all the other Grouped By categories.</p> <p>Tip: After showing the <total> category, click its label in the legend to hide the category.</p>
	<p>Scroll to the Left/Right. Scrolls the graph to the left or right. These buttons are enabled when the Zoom In and Zoom Out buttons are in use.</p>
	<p>Show All. Restores the graph to its normal size. This button is enabled when the Zoom In and Zoom Out buttons are in use.</p>
	<p>Zoom In/Out. Changes the magnification of the graph.</p>
	<p>Save Graph Image. When viewing a graph as a bar, pie chart, or line chart, saves the graph image. You can select from a variety of graphic file formats.</p> <p>Save Graph Data. When viewing a data grid, saves the graph data. You can save the data as an Excel spreadsheet, a Word file, an HTML document, or a text file.</p>
	<p>Set Graph Appearance. Opens the Graph Appearance dialog box, enabling you to customize the graph title, graph color, and graph display. For more details, see "Graph Appearance Dialog Box" on page 942.</p>

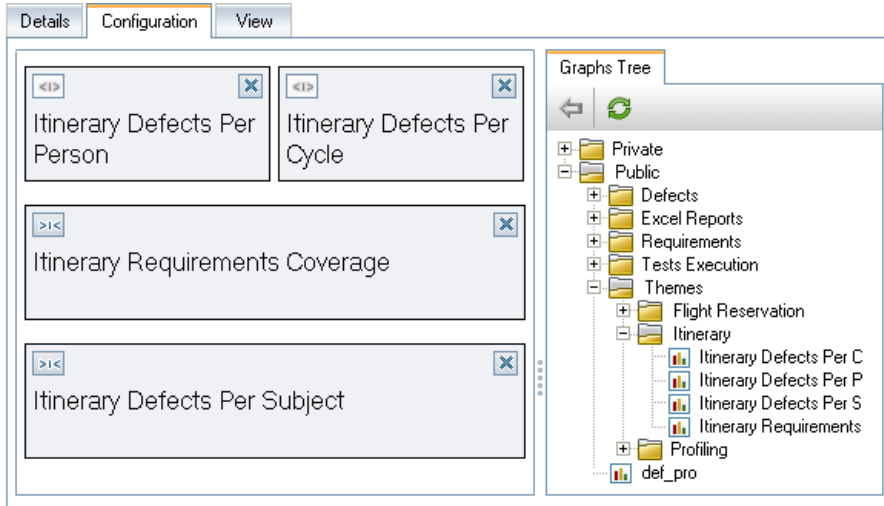
UI Elements	Description
	<p>Copy Graph to Clipboard. Includes the following options:</p> <ul style="list-style-type: none"> ▶ Copy Graph (Color). Copies the graph in color to the Clipboard. ▶ Copy Graph (Monochrome). Copies the graph in monochrome to the Clipboard. ▶ Copy Full Screen Graph (Color). Copies the graph in color to the Clipboard, enlarged to fit full screen. ▶ Copy Full Screen Graph (Monochrome). Copies the graph in monochrome to the Clipboard, enlarged to fit full screen.
	<p>Print Graph. Includes the following options:</p> <ul style="list-style-type: none"> ▶ Print Graph (Color). Prints the graph in color. This is the default button option. ▶ Print Graph (Monochrome). Prints the graph in monochrome. ▶ Print Graph and Details (Color). Prints the graph and its description in color. ▶ Print Graph and Details (Monochrome). Prints the graph and its description in monochrome.

UI Elements	Description
	<p>Edit Categories. Enables you to combine X-Axis and Grouped By field values into categories. The following options are available:</p> <ul style="list-style-type: none"> ▶ Edit X-Axis Categories. Opens the Edit X Axis Categories dialog box, enabling you to display combined x-axis values as a single category in the graph. This option is available only for summary graphs and Requirements Coverage graphs. This is the default button option. For details, see "Edit Categories Dialog Box" on page 940. ▶ Reset X-Axis Categories. Removes combined categories of x-axis values, and resets the graph display. ▶ Edit Group by Categories. Opens the Edit 'Group By' Categories dialog box, enabling you to display combined grouped-by values as a single category in the graph. For details, see "Edit Categories Dialog Box" on page 940. ▶ Reset Group by Categories. Removes combined categories of grouped-by values, and resets the graph display. <p>For more details, see "Edit Categories Dialog Box" on page 940.</p>
	<p>Full Screen. Opens the graph in a new window and maximizes its display.</p> <p>Note: The toolbar remains visible in full-screen mode.</p> <p>Tip: To return to the standard view, click the Close button in the top-right corner of the window.</p> <p>Available from: View tab</p>
	<p>In the graph window, opens the New Graph dialog box, enabling you to save the graph to a folder in the Analysis View module.</p> <p>Available from: Graph window</p>

UI Elements	Description
<graph area>	<p>You can perform the following actions in the graph area:</p> <ul style="list-style-type: none"> ▶ In bar or pie charts, to further analyze the data, drill down to the graph's data by clicking on a segment in the graph. ▶ Right-click an area in the chart to change its color. ▶ Hover over a bar or segment to view a tooltip containing the area's category, x-axis, and y-axis values.
<graph title>	<p>Click a graph title to change the graph's titles and appearance. For user interface details, see "Graph Appearance Dialog Box" on page 942.</p>
<legend>	<p>In line or bar charts, displays the chart categories and their corresponding color.</p> <p>You can perform the following actions in the legend box:</p> <ul style="list-style-type: none"> ▶ In progress and trend graphs, click a category checkbox to show or hide the category in the graph. ▶ Right-click a category to change its color.





Configuration Tab – Dashboard Pages

This tab enables you to design a dashboard page by selecting and arranging graphs on the page.



To access	<ol style="list-style-type: none"> 1 On the ALM sidebar, under Dashboard, select Dashboard View. 2 Expand the dashboard tree, and select a dashboard page. 3 Click the Configuration tab.
Important information	In public dashboard pages you can include only public graphs.
Relevant tasks	<ul style="list-style-type: none"> ▶ "How to Generate a Dashboard Page" on page 904 ▶ "How to Analyze Data in ALM" on page 876
See also	<ul style="list-style-type: none"> ▶ "Graphs and Dashboard Pages Overview" on page 898 ▶ "Analysis View Window" on page 879

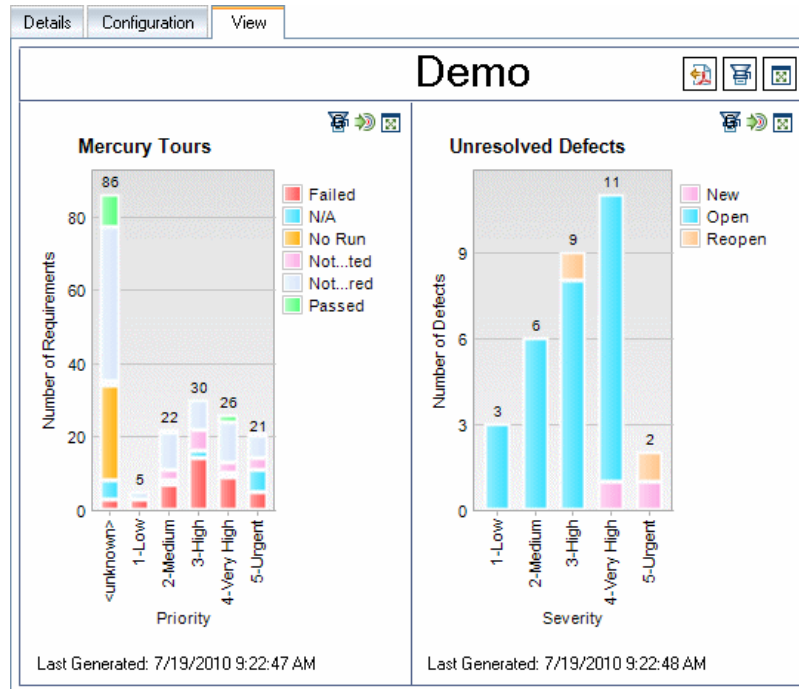
User interface elements are described below (unlabeled elements are shown in angle brackets>):

UI Elements	Description
	Add Graph to Dashboard Page. Adds the selected graph to the configuration pane. A placeholder representing the graph is created in the next vacant row.
	Refresh. Refreshes the graph tree so that it includes the most up-to-date information.
	<p>Expand. Maximizes the size of the graph to cover a whole row.</p> <p>Contract. Reduces the size of the graph to cover half a row.</p>
	Remove. Removes the graph from the dashboard page.

UI Elements	Description
<configuration pane>	<p>Contains placeholders representing graphs selected for the current dashboard page.</p> <p>Rearrange the graphs on the page:</p> <ul style="list-style-type: none"> ▶ Drag the placeholders to new positions. ▶ Expand or reduce the placeholders. <p>Note: The maximum number of graphs that a dashboard page can display is limited by the DASHBOARD_PAGE_ITEM_LIMIT site parameter. For more information, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>.</p>
<Graphs Tree pane>	<p>This pane displays graphs in the analysis tree.</p> <p>Expand the tree and drag graphs to the configuration pane.</p>

View Tab – Dashboard Pages





This tab enables you to view a dashboard page, and drill down to the graph data.



To access	<ol style="list-style-type: none"> 1 On the ALM sidebar, under Dashboard, select Dashboard View. 2 Expand the dashboard tree, and select a dashboard page. 3 Click the View tab.
Important information	The View tab displays two rows of the dashboard page. Use the vertical scroll bar to scroll up or down the dashboard page.

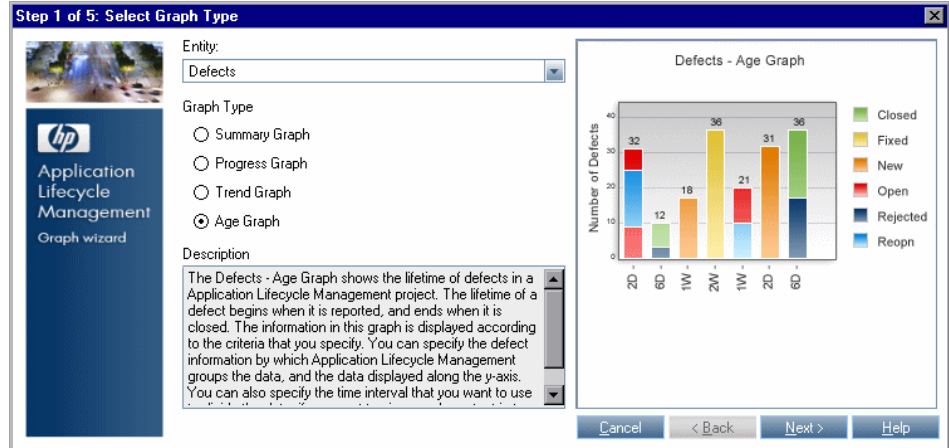
Relevant tasks	<ul style="list-style-type: none"> ➤ "How to Generate a Dashboard Page" on page 904 ➤ "How to Analyze Data in ALM" on page 876
See also	<ul style="list-style-type: none"> ➤ "Graphs and Dashboard Pages Overview" on page 898 ➤ "Analysis View Window" on page 879

User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements	Description
	Export to PDF. Enables you to save the dashboard page as a PDF file.
	Generate All Graphs in Page/Generate Graph. Refreshes all the graphs on the page, or the selected graph, so that they display the most up-to-date information. ALM updates the Last Generated time and date.
	Go To Graph in Analysis Tree. Navigates to the selected graph in the analysis tree, enabling you to configure the graph data, or change the graph viewing settings.
	<p>View Page in Full Screen. Displays the dashboard page in full-screen mode.</p> <p>View Graph in Full Screen. Displays the graph in full-screen mode. You can use the toolbar buttons to adjust the graph's display, save or print the graph. The adjustments you make to the graph's display are reset when you regenerate the graph. For more details on viewing the graph, see "View Tab – Graphs/Graph Window" on page 916.</p> <p>Tip: To return to the standard view, click the Close button, located in the upper-right corner of the page.</p>
<chart area>	In bar or pie charts, drill down to the graph's data by clicking on a segment in the graph.
<legend>	In bar or pie charts, displays the chart categories and their corresponding color.

Graph Wizard

This wizard enables you to create and configure a new graph in the Analysis View module.



To access	<p>Use one of the following:</p> <ul style="list-style-type: none"> ➤ On the menu of the Requirements, Test Plan, Test Lab, or Defects module, select Analysis > Graphs > Graph Wizard. ➤ On the ALM sidebar, under Dashboard, select Analysis View, and select Analysis > Graph Wizard.
Relevant tasks	<ul style="list-style-type: none"> ➤ "How to Generate a Graph" on page 900 ➤ "How to Analyze Data in ALM" on page 876
Wizard map	<p>This wizard contains:</p> <p>Select Graph Type Page > Select Projects Page > (Select Test Set Option Page) > Select Filter Page > Select Graph Attributes Page > (Select Coverage Page) > Select Name and Folder Page</p>
See also	<ul style="list-style-type: none"> ➤ "Graphs and Dashboard Pages Overview" on page 898 ➤ "Analysis View Window" on page 879

 **Select Graph Type Page**

This wizard page enables you to set the graph entity and type.

Important information	General information about this wizard is available here: "Graph Wizard" on page 927.
Wizard map	The Graph Wizard contains: Select Graph Type Page > Select Projects Page > (Select Test Set Option Page) > Select Filter Page > Select Graph Attributes Page > (Select Coverage Page) > Select Name and Folder Page

User interface elements are described below:


UI Elements	Description
Entity	The ALM entity covered by the graph. Note: Applicable only if you launched the graph wizard from the Analysis View module.
Graph Type	The type of graph that you want to create. The available types of graph depend on the graph. For a description of the available graph types, see "Graph Types" on page 906.
Description	Describes the selected entity/graph type.

Select Projects Page

This wizard page enables you to select the projects that are included in the graph.

Important information	<ul style="list-style-type: none">▶ General information about this wizard is available here: "Graph Wizard" on page 927.▶ ALM Editions: Not available in Quality Center Starter Edition or Quality Center Enterprise Edition.
Wizard map	The Graph Wizard contains: Select Graph Type Page > Select Projects Page > (Select Test Set Option Page) > Select Filter Page > Select Graph Attributes Page > (Select Coverage Page) > Select Name and Folder Page

User interface elements are described below:

UI Elements	Description
Use Current Project	Includes only the current project in the graph.
Use Selected Projects	Includes the projects listed in the project grid in the graph. To change the selection of the projects, click the Select button.
	Opens the Select Projects dialog box, enabling you to change the projects in the projects grid. For details, see "Select Projects Dialog Box" on page 938.

 **Select Test Set Option Page**

This wizard page enables you to choose which test sets are included in the graph.

Important information	General information about this wizard is available here: "Graph Wizard" on page 927. Available from: Test Lab module
Wizard map	The Graph Wizard contains: Select Graph Type Page > Select Projects Page > (Select Test Set Option Page) > Select Filter Page > Select Graph Attributes Page > (Select Coverage Page) > Select Name and Folder Page

User interface elements are described below:

UI Elements	Description
Show Current Test Set	Includes only the current test set in the graph.
Show all Test Sets	Includes all test sets in the graph.

Select Filter Page

This wizard page enables you to set the filter that is applied to the graph data.

Important information	<ul style="list-style-type: none">▶ General information about this wizard is available here: "Graph Wizard" on page 927.▶ If your graph includes multiple projects, you can filter using only fields that are in all the selected projects. ALM Editions: Including multiple projects in graphs is not available for Quality Center Starter Edition or Quality Center Enterprise Edition.
Wizard map	The Graph Wizard contains: Select Graph Type Page > Select Projects Page > (Select Test Set Option Page) > Select Filter Page > Select Graph Attributes Page > (Select Coverage Page) > Select Name and Folder Page

User interface elements are described below:

UI Elements	Description
Use current filter	Available if you launched the graph wizard from the Requirements, Test Plan, Test Lab, or Defects modules. Uses the current filter applied to the data.
Do not use a filter	Includes all records of the selected entity.
Define a new filter	Enables you to define a new filter or cross-filter. Click the Filter button to open the Filter dialog box, and define the filter. For user interface details, see "Select Filter Condition Dialog Box" on page 70.

Select Graph Attributes Page

This wizard page enables you to set the **Group By** and **X-Axis** attributes in the graph.

Important information	General information about this wizard is available here: "Graph Wizard" on page 927.
Wizard map	The Graph Wizard contains: Select Graph Type Page > Select Projects Page > (Select Test Set Option Page) > Select Filter Page > Select Graph Attributes Page > (Select Coverage Page) > Select Name and Folder Page

User interface elements are described below:

UI Elements	Description
Group By field	<p>The field by which you want data to be grouped in the graph. For progress and trend graphs, you can only select a field for which history is enabled. For more information on enabling history for a field, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>.</p> <p>If your graph includes multiple projects, you can only select from fields that are in all the selected projects. To group the data by project, select the QC Project value. ALM Editions: Including multiple projects in graphs is not available for Quality Center Starter Edition or Quality Center Enterprise Edition.</p>
X-axis field	<p>If you are creating a summary graph, the field that you want to use for the x-axis.</p> <p>If your graph includes multiple projects, you can only select from fields that are in all the selected projects. To list the projects along the x-axis, select the QC Project value. ALM Editions: Including multiple projects in graphs is not available for Quality Center Starter Edition or Quality Center Enterprise Edition.</p>

Select Coverage Page

This wizard page enables you to choose whether to display requirements with no coverage.

Important information	<ul style="list-style-type: none">▶ General information about this wizard is available here: "Graph Wizard" on page 927.▶ For details on requirements coverage, see "Requirement and Test Coverage Overview" on page 526. <p>Available from: Requirements graphs.</p>
Wizard map	The Graph Wizard contains: Select Graph Type Page > Select Projects Page > (Select Test Set Option Page) > Select Filter Page > Select Graph Attributes Page > (Select Coverage Page) > Select Name and Folder Page

User interface elements are described below:

UI Elements	Description
Do not show 'Not Covered' Parents	Excludes parent requirements with a 'Not Covered' status from the graph.
Show 'Not Covered' Parents	Includes all requirements in the graph.

Select Name and Folder Page

This wizard page enables you to set the graph name and folder.

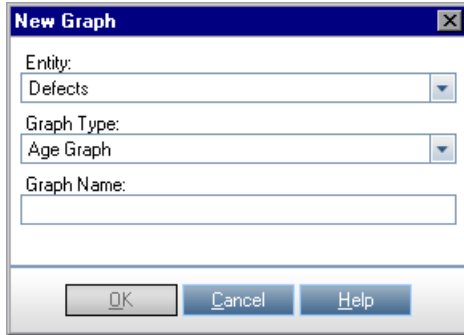
Important information	General information about this wizard is available here: "Graph Wizard" on page 927.
Wizard map	The Graph Wizard contains: Select Graph Type Page > Select Projects Page > (Select Test Set Option Page) > Select Filter Page > Select Graph Attributes Page > (Select Coverage Page) > Select Name and Folder Page

User interface elements are described below:

UI Elements	Description
Graph Name	The graph's display name in the analysis tree. By default, the Graph Name is displayed as the graph's title.
Destination Folder	The folder in the analysis tree under which the graph will be placed. To create a new folder, select the parent folder and click the New Folder button. Note: Graphs you create under private folders are available to the owner only. Graphs you create under public folders are available to all users.

New Graph Dialog Box

This dialog box enables you to add a new graph to the analysis tree.



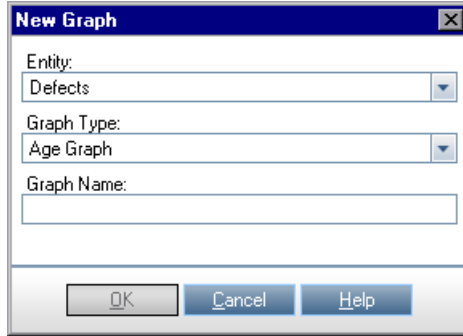
To access	<ol style="list-style-type: none">1 On the ALM sidebar, under Dashboard, select Analysis View.2 Right-click the folder under which you want to add a graph, and select New Graph.
Important information	Graphs you create under private folders are available to the owner only. Graphs you create under public folders are available to all users.
Relevant tasks	<ul style="list-style-type: none">➤ "How to Generate a Graph" on page 900➤ "How to Generate a PPT Graph" on page 949➤ "How to Analyze Data in ALM" on page 876
See also	<ul style="list-style-type: none">➤ "Graphs and Dashboard Pages Overview" on page 898➤ "PPT Graphs Overview" on page 948➤ "Analysis View Window" on page 879

User interface elements are described below:

UI Elements	Description
Entity	The ALM entity covered by the graph. Note: This field is not available for the project planning and tracking (PPT) graph type.
Graph Name	The graph's display name in the analysis tree. By default, the Graph Name is used as the graph's title.
Graph Type	The type of graph you want to create. For details, see "Graph Types" on page 906. Note: This field is not available for the project planning and tracking (PPT) graph type.

New Dashboard Page Dialog Box

This dialog box enables you to add a new dashboard page to the dashboard tree.



To access	<ol style="list-style-type: none">1 On the ALM sidebar, under Dashboard, select Dashboard View.2 Right-click the folder under which you want to add a page, and select New Page.
Important information	Dashboard pages you create under private folders are available to the owner only. Dashboard pages you create under public folders are available to all users.
Relevant tasks	"How to Generate a Dashboard Page" on page 904
See also	"Graphs and Dashboard Pages Overview" on page 898

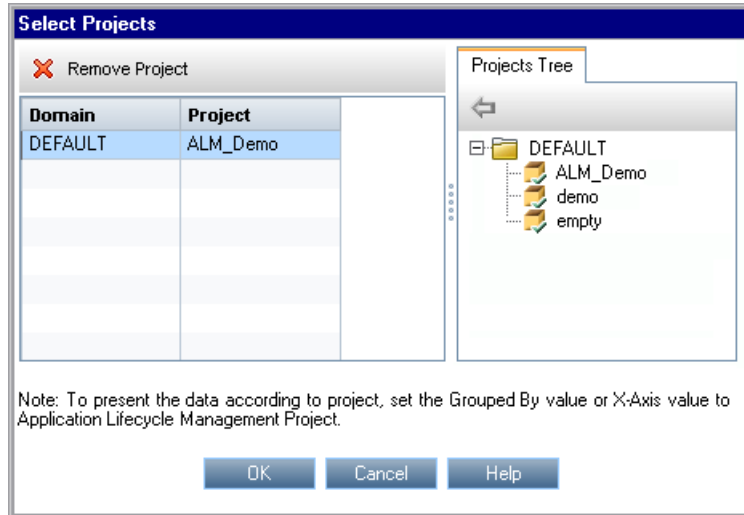
User interface elements are described below:

UI Elements	Description
Dashboard Page Name	The dashboard page display name in the dashboard tree. By default, the Dashboard Page Name is displayed as the dashboard page's title. Syntax exceptions: A dashboard page name cannot include the following characters: \ ^ *

Select Projects Dialog Box

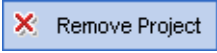

This dialog box enables you to select projects that are included in cross-project graphs.

ALM Editions: This dialog box is not available for Quality Center Starter Edition or Quality Center Enterprise Edition.



<p>To access</p>	<p>In the graph wizard: Proceed to the Select Projects dialog box, and click the Select button.</p> <p>In the graph Configuration tab: Click the Select Projects button.</p>
<p>Important information</p>	<ul style="list-style-type: none"> ▶ You can select only projects in which you are listed as a user. ▶ You can change the maximum number of projects that ALM allows you to include in a graph, by setting the PROJECT_SELECTION_MAX_PROJECTS site parameter. For more information, refer to the <i>HP Application Lifecycle Management Administrator Guide</i>
<p>Relevant tasks</p>	<p>"How to Generate a Graph" on page 900</p>

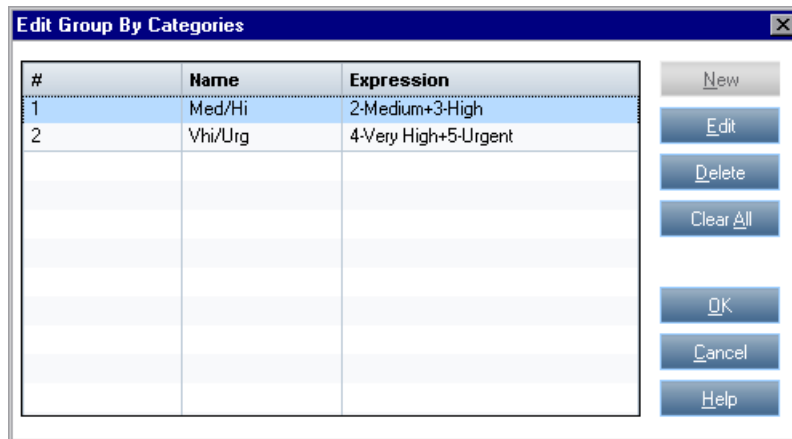
User interface elements are described below:


UI Elements (A-Z)	Description
 A blue rectangular button with a red 'X' icon on the left and the text 'Remove Project' to its right.	Removes the selected project from the grid. Note: You cannot remove a project if it is the only project in the grid.
 A square button with a green arrow pointing to the right and a blue border.	Add. Adds the selected project or domain to the grid. If you selected a domain, all the domain's projects are added to the grid. Tip: Drag or double-click a project or domain to add it to the grid.
Domain/Project	A list of projects and their domains selected to be included in the graph.
Projects Tree	A list of domains and projects in which you are listed as a user.

Edit Categories Dialog Box


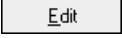

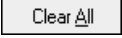
The Edit Group By Categories dialog box enables you to group together values of the field selected in the **Grouped By** field, and display the combined data as one category.

The Edit X Axis Categories dialog box enables you to group together values of the field selected in the **X-axis** field, and display the combined data as one category.



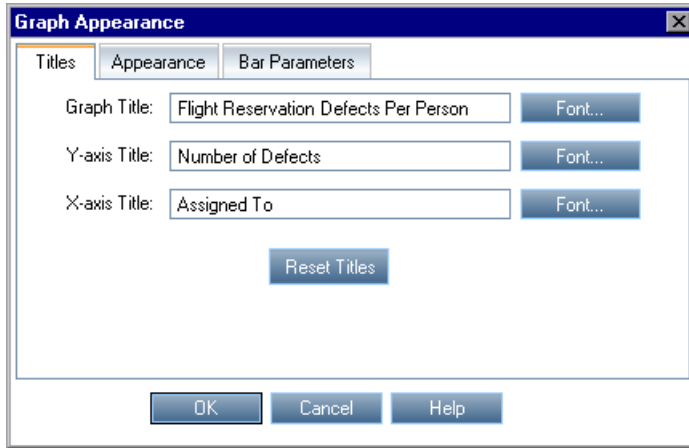
To access	On the View tab or graph window toolbar, click Edit Categories  .
Important information	The Edit X Axis Categories dialog box is available only for summary graphs and Requirements Coverage graphs.
Relevant tasks	"How to Generate a Graph" on page 900


User interface elements are described below:

UI Elements	Description
	<p>Opens the New Category dialog box, enabling you to create a new category.</p> <p>In the Category Name box, type a name for the category.</p> <p>To choose which field values are included in the category, select field values and click the arrow buttons (> and <) to move them between Available groups and Groups in new category. Click the double arrow buttons (>> and <<) to move all the field values from one list to the other. You can also drag field values between lists. You cannot include a field value in more than one category.</p>
	<p>Opens the Edit Category dialog box, enabling you to edit the selected category.</p>
	<p>Deletes the selected category.</p>
	<p>Deletes all categories.</p>

Graph Appearance Dialog Box

This dialog box enables you to change a graph's titles and appearance. For a bar chart, you can specify the display parameters for the bars. For a line chart, you can specify the display parameters for the lines.



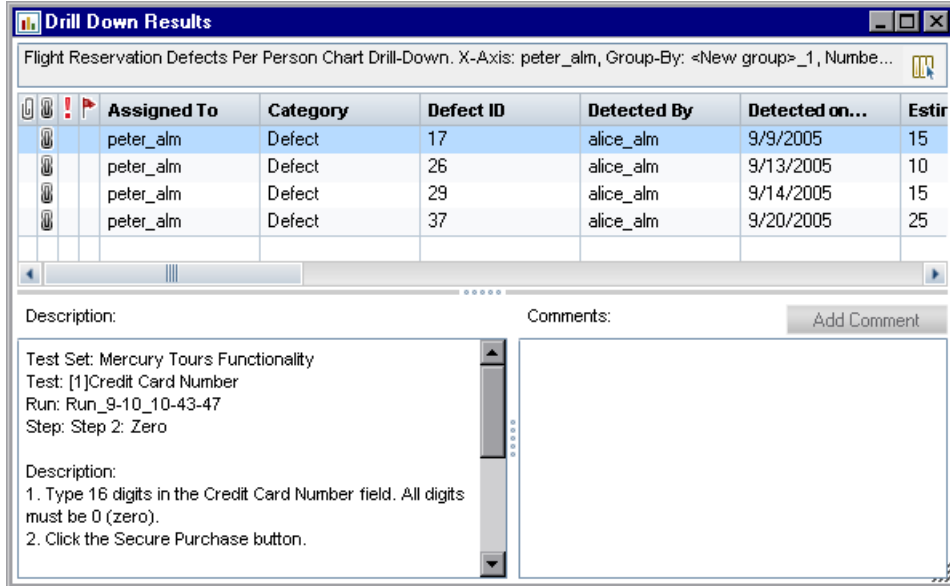
To access	On the View tab or graph window toolbar, click Set Graph Appearance  or click the graph title.
Relevant tasks	"How to Generate a Graph" on page 900 "How to Generate Live Analysis Graphs" on page 1023

User interface elements are described below:

UI Elements (A-Z)	Description
Appearance tab	Enables you to set the default format of your graph, modify the orientation of the labels at the base of the graph (for a bar chart and a line chart only), determine the format in which dates are displayed on the x-axis, display the graph with a 3D effect, or change the colors of the various components in your graph.
Bar Parameters tab	In bar charts, enables you to specify whether you want the values for each bar to be displayed. You can also adjust the bar width. If you specify that the values of each bar are to be displayed, you can change the data that is displayed for each bar, or its position relative to the bar.
Line Parameters tab	In line charts, enables you to specify whether you want the line frame to be displayed.
Titles tab	Enables you to change the titles of the graph, the y-axis, or the x-axis. Font. Enables you to change a title's font or color. Reset Titles. Enables you to restore the original titles. Note: For a pie chart, you can only change the title of the graph.


Drill Down Results Dialog Box

This dialog box enables you to view the records that constitute a graph bar or segment.



To access	Click a bar or segment on the graph.
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User interface elements are described below (unlabeled elements are shown in angle brackets>):

UI Elements	Description
	Select Columns. Opens the Select Columns dialog box, enabling you to determine which fields to display in the data grid, and their order. For more details, see "Select Columns/Select Fields Dialog Box" on page 90.
<Segment parameters>	Located above the data grid, displays parameters of the selected graph area, and the number of records displayed.

UI Elements	Description
<Data grid>	<p>A list of the records that are included in the selected graph area.</p> <p>To open a particular record, double-click a record. The <Module> Details dialog box opens, enabling you to view or edit the record. Use the navigation buttons to browse through the drill down results.</p>
Export	Right-click a record in the data grid to export the record to an html or text file.

36

Project Planning and Tracking (PPT) Graphs

This chapter includes:

Concepts

- ▶ PPT Graphs Overview on page 948

Tasks

- ▶ How to Generate a PPT Graph on page 949

Reference

- ▶ PPT Graphs User Interface on page 951

Concepts

PPT Graphs Overview

When working with PPT, you can create and customize graphs in the Analysis View module, relating to KPI data in the Releases module. Creating graphs in the Analysis View module enables you to filter the data, set various configurations, and organize the graphs in folders.

When viewing graphs, you can drill down to the records represented by each bar or segment.

After you have created graphs in the Analysis View module, you can select and arrange multiple graphs, and view them side-by-side in a **dashboard page**.

ALM Editions: Functionality related to PPT is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.

For related tasks, see "How to Generate a PPT Graph" on page 949 and "How to Generate a Dashboard Page" on page 904.

Tasks

How to Generate a PPT Graph

This task describes how to generate PPT data in ALM using graphs.

ALM Editions: Functionality related to PPT is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.

This task includes the following steps:

- "Prerequisites" on page 950
- "Create a graph in Analysis View" on page 950
- "Configure a graph" on page 950
- "View a graph" on page 950
- "Create a dashboard page" on page 950

1 Prerequisites

Under **Management**, select **Releases**. Define a release, release scope items, milestones, and KPIs. For task details, see "How to Work with PPT" on page 193.

2 Create a graph in Analysis View

Create a graph in the Analysis View module.

- a Open the Analysis View module.** On the ALM sidebar, under **Dashboard**, select **Analysis View**.
- b Add a folder to the analysis tree.** Right-click a folder under the Private or Public root folder, and select **New Folder**.
- c Create a new graph.** Right-click a folder. Select **New Release Analysis** and choose a PPT graph. The New Graph dialog box opens. For user interface details, see "New Graph Dialog Box" on page 935.

3 Configure a graph

In the Analysis View module, select a graph, and click the **Configuration** tab. For user interface details, see "Configuration Tab – PPT Graphs" on page 952.

4 View a graph

In the Analysis View module, select a graph in the analysis tree, and click the **View** tab. For user interface details, see "View Tab – PPT Graphs" on page 955.

5 Create a dashboard page

View several graphs together in a dashboard page. For task details, see "How to Generate a Dashboard Page" on page 904.

Reference

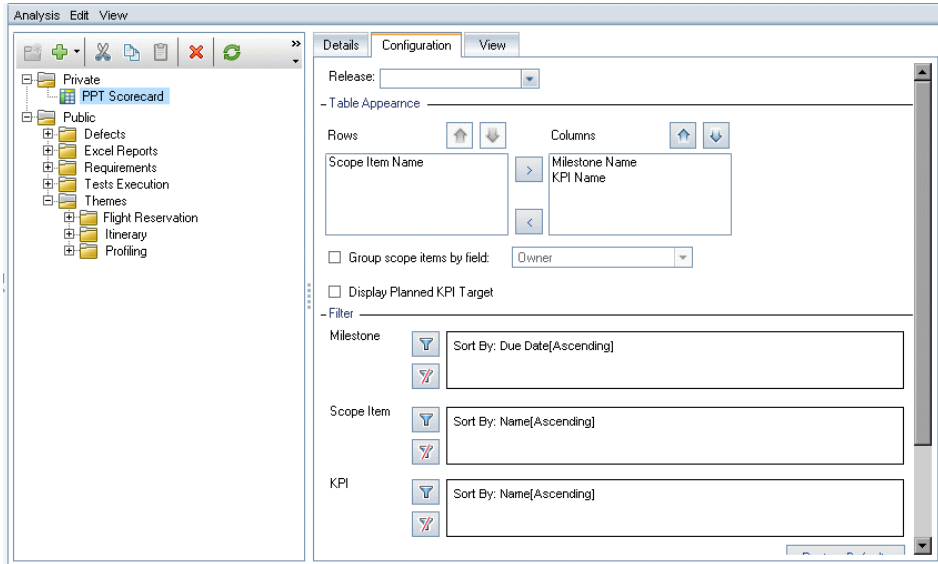
PPT Graphs User Interface

This section includes (in alphabetical order):

- ▶ Configuration Tab – PPT Graphs on page 952
- ▶ View Tab – PPT Graphs on page 955

Configuration Tab – PPT Graphs

This tab enables you to select project planning and tracking (PPT) data to be included in a graph, and set graph display options.



<p>To access</p>	<ol style="list-style-type: none"> 1 On the ALM sidebar, under Dashboard, select Analysis View. 2 Expand the analysis tree, and select a PPT graph. 3 Click the Configuration tab.
<p>Important information</p>	<ul style="list-style-type: none"> ➤ The available configuration options depend on the graph type. ➤ ALM Editions: Functionality related to PPT is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.

Relevant tasks	<ul style="list-style-type: none"> ➤ "How to Generate a PPT Graph" on page 949 ➤ "How to Analyze Data in ALM" on page 876
See also	<ul style="list-style-type: none"> ➤ "PPT Graphs Overview" on page 948 ➤ "PPT Releases Overview" on page 192 ➤ "Analysis View Window" on page 879

Configuring KPI Graphs






Important information	Some fields are not available in all graphs.
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User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements (A-Z)	Description
Release	The release name.
Milestone	The milestone name.
Scope Item	The scope item name.
KPI	The KPI name.
Breakdown	Select a field to determine the information by which ALM groups data in the graph.
Show Last Result	Displays data results based on last run date.
Data updated to	Displays data results based on selected date.
Period	The time period for which you want to view data.
Resolution	The time resolution of the data. Possible values are day , week , month , year , auto select (the server determines the optimal time resolution).
Aggregation Function	The aggregation function used in grouping the data by time resolution. Possible values are last , average , max , and min .

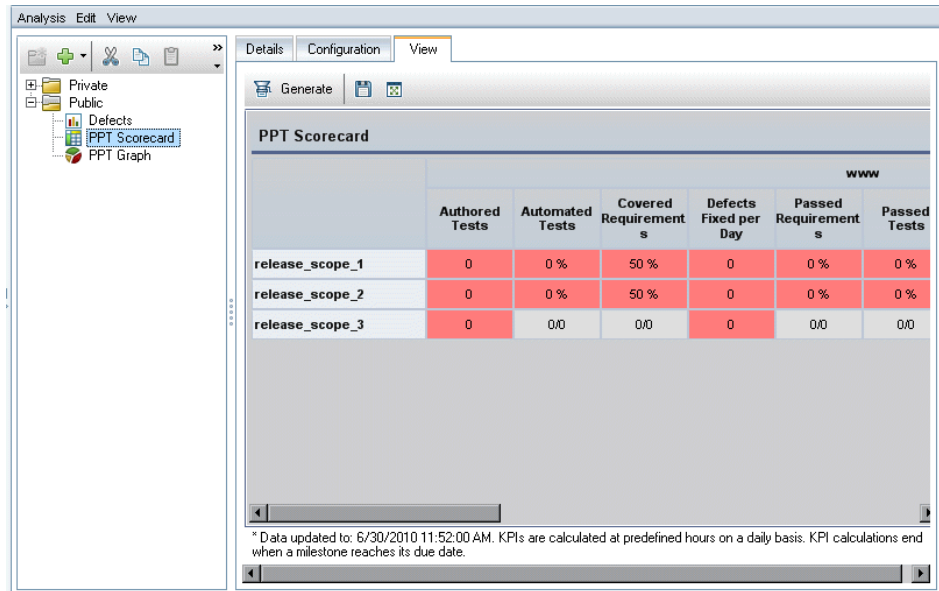
Configuring Scorecard Graph

User interface elements are described below (unlabeled elements are shown in angle brackets>):

UI Elements (A-Z)	Description
	Sets the order in which row or column names appear in scorecard table.
	Moves selected fields between Rows and Columns .
	Set Filter/Sort. Enables you to narrow and sort the Milestone , Scope Item , or KPI data according to your chosen criteria. For more details on filtering, see "Filter Dialog Box" on page 60.
	Clear Filter. Clears the defined filter.
	Restores default filter definitions
Columns	Lists columns that are currently displayed in the scorecard table.
Display Planned KPI Target	Displays the acceptable threshold value for each KPI in the Planned column of the scorecard table. Note: The Planned column is displayed only when this option is enabled.
Group Scope Item by Field	Groups according to a specified scope item field.
Release	The release name.
Rows	Lists rows that are currently displayed in the scorecard table.
Show Last Results	Displays data results based on last run date.
Data Update to	Displays data results based on selected date.










View Tab – PPT Graphs





This tab enables you to view project planning and tracking (PPT) graphs.




To access	<ol style="list-style-type: none"> 1 On the ALM sidebar, under Dashboard, select Analysis View. 2 Expand the analysis tree, and select a PPT graph. 3 Click the View tab.
Important information	<ul style="list-style-type: none"> ➤ The available view options depend on the graph type. ➤ ALM Editions: Functionality related to PPT is not available for Quality Center Starter Edition, Quality Center Enterprise Edition, or Performance Center Edition.
Relevant tasks	<ul style="list-style-type: none"> ➤ "How to Generate a PPT Graph" on page 949 ➤ "How to Analyze Data in ALM" on page 876
See also	<ul style="list-style-type: none"> ➤ "PPT Graphs Overview" on page 948 ➤ "PPT Releases Overview" on page 192 ➤ "Analysis View Window" on page 879

User interface elements are described below (unlabeled elements are shown in angle brackets>):

UI Elements (A-Z)	Description
 Generate	Generate. Refreshes the graph so that it displays the most up-to-date information.
	Bar Chart. Switches the chart format to a bar chart.
	Pie Chart. Switches the chart format to a pie chart. In pie charts, the x-axis categories are displayed as pie segments. The y-axis quantities are represented by the size of the segments. Note: Pie charts do not display the Grouped By field.
	Line Chart. Switches the chart format to a line chart.
	Data Grid. The grid creates a matrix of the graph's x-axis and Grouped By categories. A Total row is added that displays the total of each Grouped By category.
	Show/Hide Total Values. Shows/hides a <total> category to the graph, representing the sum of all the other Grouped By categories. Tip: After showing the <total> category, click its label in the legend to hide the category.
	Scroll to the Left/Right. Scrolls the graph to the left or right. These buttons are enabled when the Zoom In and Zoom Out buttons are in use.
	Show All. Restores the graph to its normal size. This button is enabled when the Zoom In and Zoom Out buttons are in use.
	Zoom In/Out. Changes the magnification of the graph.

UI Elements (A-Z)	Description
	<p>Save Graph Image. Saves the graph image. You can select from a variety of graphic file formats.</p> <p>Save Graph Data. When viewing a data grid, saves the graph data. You can save the data as an Excel spreadsheet, a Word file, an HTML document, or a text file.</p>
	<p>Set Graph Appearance. Opens the Graph Appearance dialog box, enabling you to customize the graph title, graph color, and graph display. For more details, see "Graph Appearance Dialog Box" on page 942.</p>
	<p>Copy Graph to Clipboard. Includes the following options:</p> <ul style="list-style-type: none"> ▶ Copy Graph (Color). Copies the graph in color to the Clipboard. ▶ Copy Graph (Monochrome). Copies the graph in monochrome to the Clipboard. ▶ Copy Full Screen Graph (Color). Copies the graph in color to the Clipboard, enlarged to fit full screen. ▶ Copy Full Screen Graph (Monochrome). Copies the graph in monochrome to the Clipboard, enlarged to fit full screen.
	<p>Print Graph. Includes the following options:</p> <ul style="list-style-type: none"> ▶ Print Graph (Color). Prints the graph in color. This is the default button option. ▶ Print Graph (Monochrome). Prints the graph in monochrome. ▶ Print Graph and Details (Color). Prints the graph and its description in color. ▶ Print Graph and Details (Monochrome). Prints the graph and its description in monochrome.

UI Elements (A-Z)	Description
	<p>Full Screen. Opens the graph in a new window and maximizes its display.</p> <p>Note: The toolbar remains visible in full-screen mode.</p> <p>Tip: To return to the standard view, click the Close button in the top-right corner of the window.</p> <p>Available from: View tab</p>
<graph area>	<p>You can perform the following actions in the graph area:</p> <ul style="list-style-type: none"> ▶ Right-click an area in the chart to change its color. ▶ Hover over a graph segment to view a tooltip containing additional information. ▶ Click the Break Over Time link to drill down to the graph's data and show specific points during a period of time. Opens a breakdown over time graph. For more details, see "Breakdown Over Time Graph" on page 232.
<KPI cell>	<p>You can perform the following actions in a KPI cell:</p> <ul style="list-style-type: none"> ▶ Click a KPI cell to display a graph representation of this cell. For more details, see "KPI Graph" on page 230. ▶ Hover over a KPI cell to view a tooltip containing the KPI's threshold values. <p>Available from: View tab - Release Scorecard</p>
<legend>	<p>Displays the chart categories and their corresponding color. Click a category to show or hide the category in the graph.</p>

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Project Reports

This chapter includes:

Concepts

- ▶ Project Reports Overview on page 960

Tasks

- ▶ How to Create Project Reports on page 961
- ▶ How to Create a Custom Report Template on page 965

Reference

- ▶ Project Reports User Interface on page 966

Concepts

Project Reports Overview

Project reports enable you to design and generate comprehensive reports containing information from your HP Application Lifecycle Management (ALM) project.

In a project report, you define sections and sub-sections, each listing records of a specified ALM entity. You can choose to display data of a selected baseline.

To each report section you assign a template, that determines the fields and layout of the section. You also assign document and style templates that determine the overall report appearance.

Note: Report templates are managed in Project Customization. For more details, refer to the *HP Application Lifecycle Management Administrator Guide*.

You can generate project reports in HTML or Microsoft Word.

For details on creating project reports, see "How to Create Project Reports" on page 961.

Note: You can also create reports using standard reports, or the Document Generator. For more details, see "Standard Reports Overview" on page 1002, and "Project Documents Overview" on page 1034.

Tasks

How to Create Project Reports

This task describes how to create project reports.

To learn more about project reports, see "Project Reports Overview" on page 960.

This task includes the following steps:

- "Create a project report" on page 961
- "Define sections" on page 961
- "Configure document-level settings" on page 962
- "Configure sections" on page 963
- "Preview a template report" on page 963
- "Generate a template report" on page 964

1 Create a project report

- a Open the Analysis View module.** On the ALM sidebar, under **Dashboard**, select **Analysis View**.
- b Add a folder to the analysis tree.** Right-click a folder under the Private or Public root folder, and select **New Folder**.
- c Create a new project report.** Right-click a folder, and select **New Project Report**. Fill in the New Project Report dialog box.

2 Define sections

- a Select a project report.** In the Analysis View module, select a project report, and click the **Configuration** tab.
- b Add a section.** Right-click the **Document** root node, and select **Add Report Section**. Select an ALM entity to include in the report.


- c Add a sub-section.** If a section is assigned a full-page template, you can add a sub-section of related information. For example, add a sub-section of defects linked to requirements, or a sub-section of defect attachments.

Each section can have multiple sub-sections and, where applicable, you can add further sub-sections to sub-sections.

Right-click a section in the report tree, and select **Add Report Section**.

3 Configure document-level settings

At the **Document** root level, you assign templates and define settings that apply to the overall design and content of the project report.

- a** In the Configuration tab, select the **Document** root node. For user interface details, see "Configuration Tab – Project Reports" on page 967.
- b** Set the document output format.
- c** Assign document, style and history templates, or keep the default templates. For details on the template types, see "About Project Report Templates" on page 367.
- d** Click **Edit Document Field Values**  to type values for custom fields in areas such as the title page, headers and footers, as defined in the document template.
- e** To create a baseline report, select **Select a Baseline**, and select a baseline.
- f** Select **Embed Text and Image Attachments**, to embed text and image attachments in the report. Otherwise, links to text and image attachments are inserted in the report, that open the files in a separate window.

Note: To display attachments, you must add attachment sub-sections to the report.

- g** Select **Auto-Update Table of Contents** to instruct ALM to update table of contents entries in the report output.

Note: To display a table of contents, the document template must include a **TOC** field.

4 Configure sections

- a** In the Configuration tab, select a section or sub-section in the report tree. For user interface details, see "Configuration Tab – Project Reports" on page 967.
- b** Optionally, rename the section title.
- c** Assign a project template.

Note: Depending on your user group permissions, you can assign a custom template. For details on creating a custom template, see "How to Create a Custom Report Template" on page 965.

- d** Define a data filter, where applicable, to define the records that are included in the section.
- e** For top-level sections that include entities that are listed hierarchically (for example, requirements, tests), select whether records are ordered hierarchically in the report.

5 Preview a template report

Click **Preview** to display a preview of your report.

A preview contains up to five records of each section in the report. The preview is displayed in the output format you selected for the **Document** root node.

6 Generate a template report

Click **Generate**. The report is saved and opened in the file format you selected in the **Output Format** field.

Example:

1 Models

1.1 Model ID : 1001 - Internal Order Master

Field Label	Field Value	Field Label	Field Value
Created By:	sa	Imported File Name:	ARISAMLExport.xml
Creation Date:	6/20/2010 3:50:25 PM	Model Author:	is38972
Guid:	92fb8120-6888-11dd-53ac-005056a61fbb	Model ID:	1001
Import Date:	6/20/2010 3:50:25 PM	Name:	Internal Order Master
Imported By:	sa	Prototype	

Description

Comments

1.1.1 Model Activities

1.1.1.1 Activity ID : 1005 - Determine Which Internal Order Type fulfill the needed

Field Label	Field Value	Field Label	Field Value
Created By:	sa	Imported By:	sa
Creation Date:	6/20/2010 3:50:27 PM	Activity ID:	1005
Guid of referenced model:		Name:	Determine Which Internal Order Type fulfill the needed
Import Date:	6/20/2010 3:50:27 PM		

Description



Comments

How to Create a Custom Report Template


This task describes how to create a custom template for your personal use. Depending on your user group permissions, you can assign custom templates to report sections and sub-sections.

- "Create a copy of an existing report template" on page 965
- "Create a new custom report template" on page 965

Create a copy of an existing report template

- 1** Click the **Download Template** button  next to the project or custom template that you want to modify. A copy of the template is saved on your computer file system, and opens in Microsoft Word.
- 2** Modify the template in Microsoft Word using commands in the **Template Creator** tab. For details on the **Template Creator** tab, refer to the *HP Application Lifecycle Management Administrator Guide*.
- 3** Save and close the template file.
- 4** To assign the new custom template to a report section, select a report section. Then select **Custom Template** or click **Upload Custom Template** , and select the template file.

Create a new custom report template

- 1** In the report tree, select a report section for which you want to create a custom template.
- 2** Click **Template Creator**. Microsoft Word opens with the **Template Creator** tab. Design a new template file for the selected report section. For details on working with the **Template Creator**, refer to the *HP Application Lifecycle Management Administrator Guide*.
- 3** Save and close the template file.
- 4** To assign the new custom template to a report section, select a report section. Then select **Custom Template** or click **Upload Custom Template** , and select the template file.

Reference

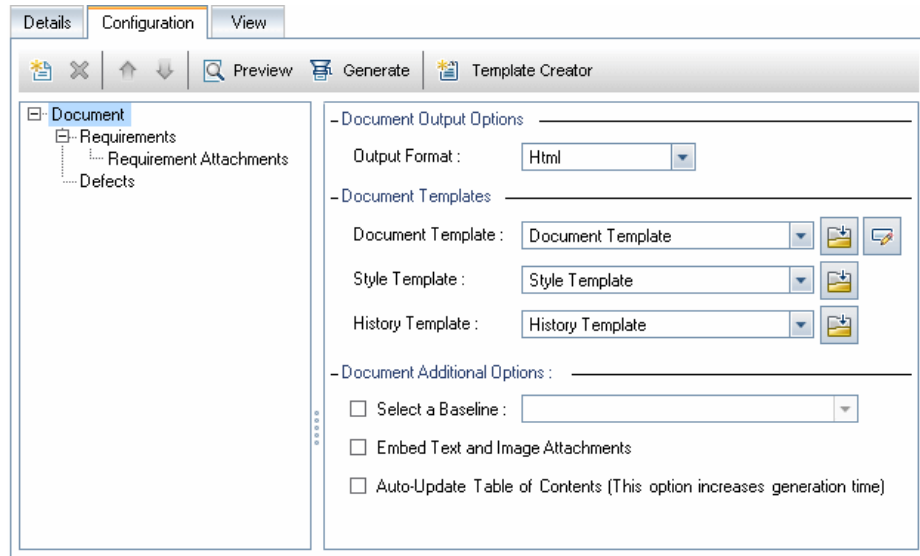
Project Reports User Interface

This section includes:

- ▶ Configuration Tab – Project Reports on page 967
- ▶ New Project Report Dialog Box on page 972
- ▶ Add Report Section Dialog Box on page 973
- ▶ Edit Document Template Field Values Dialog Box on page 974





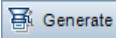

Configuration Tab – Project Reports




This tab enables you to define document-level settings, and configure report sections.



To access	<ol style="list-style-type: none"> 1 On the ALM sidebar, under Dashboard, select Analysis View. 2 Expand the analysis tree, and select a project report. 3 Click the Configuration tab.
Important information	The available configuration options depend on the selected section in the report tree.
Relevant tasks	<ul style="list-style-type: none"> ➤ "How to Create Project Reports" on page 961 ➤ "How to Analyze Data in ALM" on page 876
See also	<ul style="list-style-type: none"> ➤ "Project Reports Overview" on page 960 ➤ "Analysis View Window" on page 879

User interface elements are described below (unlabeled elements are shown in angle brackets>):

UI Elements (A-Z)	Description
	<p>Add Report Section. Opens the Add Report Section dialog box, enabling you to add a section to the report. For user interface details, see "New Project Report Dialog Box" on page 972.</p> <p>Notes:</p> <ul style="list-style-type: none"> ▶ You can add a sub-section only to sections that are assigned full-page templates. ▶ Where applicable, you can add additional layers of sub-sections to sub-sections. ▶ At each level you can include multiple sub-sections.
	<p>Delete Report Section. Deletes the selected section.</p> <p>Note: When you delete a section, all its sub-sections are deleted too.</p>
	<p>Download <Type> Template. Opens the Download Report Template file dialog box, enabling you to view and edit a copy of the selected template file.</p> <p>In report sections, you can assign the edited template as a custom template.</p>
	<p>Edit Document Field Values. Opens the Edit Document Template Field Values dialog box, enabling you to type values for fields in areas such as the title page, headers and footers, as defined in the document template. For user interface details, see "Edit Document Template Field Values Dialog Box" on page 974.</p> <p>Available from: Document root node</p>
	<p>Generates the report in the selected report output format.</p>
	<p>Generates a preview of the report that includes the first five records of each of the report sections.</p> <p>The preview is generated in the selected report output format.</p>

UI Elements (A-Z)	Description
	<p>Opens Microsoft Word with the Template Creator tab, enabling you to design a custom template file.</p> <p>After creating a custom template, assign it to a report section in the Custom Template field.</p> <p>Note: To enable the Template Creator, you must first allow macros in Microsoft Word. In Word, click the Office Button, and then click Word Options. Select Trust Center > Trust Center Settings > Macro Settings. Select Enable all macros.</p>
	<p>Upload Custom Template. Opens the Upload Custom Template file dialog box, enabling you to change the custom template file assigned to the currently selected section of the report.</p> <p>Available from: Section nodes</p>
	<p>Set Filter/Sort. Enables you to filter and sort the data according to the criteria you choose. For details, see "Select Filter Condition Dialog Box" on page 70.</p> <p>Clear Filter. Clears all filters and sorting priorities. The current filter is displayed in the filter box.</p> <p>Available from: Section nodes</p>
<report section tree>	<p>Displays the sections and sub-sections included in the report. The Document root node contains settings that apply to the overall report design and content.</p>
Auto-Update Table of Contents	<p>Instructs ALM to update table of contents entries in the report output.</p> <p>Notes:</p> <ul style="list-style-type: none"> ➤ To display a table of contents, the document template must include a TOC field. ➤ If this option is not selected, if you selected the Doc or Docx output format, you can manually update the table of contents in Microsoft Word after the report is generated.

UI Elements (A-Z)	Description
Document Output Options	<p>The file format in which the report is generated. Select one of the following:</p> <p>HTML. To view the report in a Web browser.</p> <p>Docx. To view the report in Microsoft Word 2007.</p> <p>Doc. To view the report in Microsoft Word 2003.</p> <p>Available from: Document root node</p>
Document Templates	<p>Templates assigned to the report, that affect the overall appearance of the report.</p> <p>Document Template. Defines fields on the title page, headers and footers, page orientation, and other document layout settings.</p> <p>Style Template. Defines formatting (for example, tables, headings, and paragraph) applied to Microsoft Word styles. The Style template styles override styles defined in the templates used in the report sections.</p> <p>History Template. Defines the style in which history information is displayed in report sections.</p> <p>Available from: Document root node</p>
Embed Text and Image Attachments	<p>Embeds plain text and image attachments in the report.</p> <p>If this option is not selected, links to plain text and image attachments are inserted in the report, that open the files in a separate window.</p> <p>Other attachment types (for example, document or video files) are always displayed as links.</p> <p>Note: To display attachments, you must add attachment sub-sections to the report.</p> <p>Available from: Document root node</p>
Keep Hierarchical	<p>Instructs ALM to list records in hierarchical order in the report.</p> <p>Available from: Top-level sections that contain entities that are listed hierarchically in ALM (for example, requirements, test folders).</p>

UI Elements (A-Z)	Description
Report Section Details	<p>Name. The name of the section title in the report.</p> <p>Entity. The ALM entity that is included in the section.</p> <p>Relationship Type. Describes the relationship between the entity in the selected section and the entity in the parent section.</p> <p>Available from: Section nodes</p>
Select a Baseline	<p>Select this option to generate a report of a selected baseline data.</p> <p>Clear this option to include current data in your report.</p> <p>Note: You can create a baseline report only if all sections and sub-sections of the report support baselines.</p> <p>Available from: Document root node</p>
Template Details	<p>The template assigned to the currently selected section of the report. Select one of the following:</p> <p>Project Template. A template managed in Project Customization.</p> <p>Custom Template. A template designed specifically for the current report.</p> <p>A template can be either in a full-page or tabular layout. You can only add sub-sections to sections that are assigned full-page templates. For more details on report templates, refer to <i>HP Application Lifecycle Management Administrator Guide</i>.</p> <p>Available from: Section nodes</p>

New Project Report Dialog Box

This dialog box enables you to add a new project report to the analysis tree.

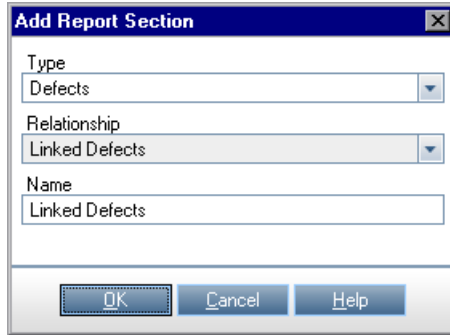
To access	<ol style="list-style-type: none"> 1 On the ALM sidebar, under Dashboard, select Analysis View. 2 Right-click the folder under which you want to add a report, and select New Project Report.
Important information	Reports you create under private folders are available to the owner only. Reports you create under public folders are available to all users.
Relevant tasks	<ul style="list-style-type: none"> ➤ "How to Create Project Reports" on page 961 ➤ "How to Analyze Data in ALM" on page 876
See also	<ul style="list-style-type: none"> ➤ "Project Reports Overview" on page 960 ➤ "Analysis View Window" on page 879

User interface elements are described below:

UI Elements	Description
Template Report Name	The report's display name in the analysis tree and in the report title.

Add Report Section Dialog Box

This dialog box enables you to add a new section to a project report.




To access	In a project report, right-click the root node or a section node, and select Add Report Section .
Important information	You can add a sub-section only to sections that are assigned a full-page template.
Relevant tasks	<ul style="list-style-type: none"> ➤ "How to Create Project Reports" on page 961 ➤ "How to Analyze Data in ALM" on page 876
See also	<ul style="list-style-type: none"> ➤ "Project Reports Overview" on page 960 ➤ "Analysis View Window" on page 879

User interface elements are described below:

UI Elements	Description
Type	The entity that is included in the new section. For sub-sections, the available types depend on the entity in the parent section.
Relationship	Describes the relationship between the entity in the new section and the entity in the parent section. Available from: Section nodes
Name	The name of the new section. This field is used as the section title in the report.

Edit Document Template Field Values Dialog Box

This dialog box enables you to type actual values for custom merge fields as defined in the assigned document template.

To access	In a template report, select the Document root node, and click Edit Document Field Values  .
Relevant tasks	"How to Create Project Reports" on page 961
See also	<ul style="list-style-type: none"> ➤ "Project Reports Overview" on page 960 ➤ "Analysis View Window" on page 879

User interface elements are described below:

UI Elements	Description
Field Names	A list of the custom merge fields defined in the assigned document template.
Field Value	The text that is displayed in the report in place of the selected field.

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Excel Reports

This chapter includes:

Concepts

- ▶ Excel Reports Overview on page 976

Tasks

- ▶ How to Generate an Excel Report on page 980

Reference

- ▶ Excel Reports User Interface on page 983

Concepts

Excel Reports Overview

Performance Center Edition: Excel reports are not available for Performance Center entities.

You can export HP Application Lifecycle Management (ALM) data to Microsoft Excel. This enables you to analyze your data using any of the capabilities available in Excel. An Excel report consists of a set of data defined by SQL queries on the project database. You can also run a Visual Basic script on the extracted data to process and analyze the data.

For example, create a pivot table to summarize Defects module data, such as to display in tabular format the number of defects assigned to different users with different statuses.

Count of STATUS	STATUS ▼			
ASSIGNED TO ▼	Closed	Open	Reopen	Grand Total
james_qc	3	6	1	10
mary_qc		13	1	14
peter_qc	5	9		14
Grand Total	8	28	2	38

You can also create a report with parameters. This enables you to create a more flexible report that you only need to create once but can be used in a number of different contexts.

Caution: Users who belong to groups that have data-hiding filters, are able to access the restricted data through Excel reports. To overcome this, you can exclude user groups from performing Excel report tasks. For more information on user groups and permissions, refer to the *HP Application Lifecycle Management Administrator Guide*.

For task details, see "How to Generate an Excel Report" on page 980.

This section also includes:

- ▶ "Protecting the Database" on page 977
- ▶ "Parameters in SQL Queries" on page 978
- ▶ "Guidelines for Creating a Post-Processing Script" on page 979

For task details, see "How to Generate an Excel Report" on page 980.



Protecting the Database

To ensure the integrity of the database, you should run only queries that extract data from the project database. You should not run queries that alter the project database by adding, modifying, or deleting database records.

By default, to ensure that your queries are valid and do not alter the project database, ALM checks that the following conditions are fulfilled:

- ▶ The query starts with the command **SELECT**.
- ▶ The query contains only one SQL statement.

- ▶ The query does not contain any of the following commands (except in comments): **INSERT, DELETE, UPDATE, DROP, CREATE, COMMIT, ROLLBACK, ALTER, EXEC, EXECUTE, MERGE, GRANT, REVOKE, SET, INTO,** or **TRUNCATE.**

You can customize whether this verification is performed, and how it is performed, using the **SQL_QUERY_VALIDATION_ENABLED** and **SQL_QUERY_VALIDATION_BLACK_LIST** parameters in Site Administration. For more information, see the *HP Application Lifecycle Management Administrator Guide*.

Parameters in SQL Queries

You can include parameters in the SQL queries for your Excel reports. For each query parameter, you can assign a default value. When you generate the report, you are prompted to enter the value of the parameter, or confirm the default value. Alternatively, you can choose to always use the default value, without being prompted by ALM each time you generate the report.

For example, suppose you want to create a report that displays a graph of the number of requirements added to your project over a period of time. You might want to run the report several times, each time for a different period of time. You can avoid the need to create multiple reports by creating a single report with query parameters for the start date and end date of the period. Each time you generate the report, you are prompted to enter the start and end dates for the period.

You first add query parameters to the parameters list. You can add global parameters that are accessible to all queries in a report, or you can add parameters that can only be used in particular queries. After you add parameters to the parameters list, you insert parameters into the query.

Caution:

- ▶ You cannot use parameters for SQL identifiers, such as a table name or a column name.
 - ▶ Parameter values cannot include an SQL statement.
-

Guidelines for Creating a Post-Processing Script

When writing a post-processing script, consider the following guidelines:

- ▶ Your post-processing script must contain a sub-procedure named **QC_PostProcessing**. This procedure serves as the entry point to your script. This procedure cannot return a value and cannot take any arguments.
- ▶ Before you can work with the report data in Excel, you must first define the range containing the report data. You define this range in two steps:
 - ▶ You first define the worksheet containing the report data by creating a worksheet object containing the data. For example, if the worksheet is named Query1, you can use the statement `Set MainWorksheet = ActiveWorkbook.Worksheets("Query1")`.
 - ▶ After you define the worksheet containing the report data, you define the range containing the data by creating a range object containing the data. For example, you if defined the worksheet object with name MainWorksheet, you can use the statement `Set DataRange = MainWorksheet.UsedRange`.

After you define this range, you can manipulate the data contained in it using Visual Basic code.

- ▶ Before you run a post-processing script, you must configure your Microsoft Excel security settings so that Excel can run the script.

Office 2007: In Excel, click the Microsoft Office Button, and then click **Excel Options**. Select **Trust Center > Trust Center Settings > Macro Settings**. Select **Trust access to the VBA project object model**. Close Excel.

Caution: Enabling macros in Excel allows access to core Microsoft Visual Basic objects, methods and properties, and represents a potential security hazard.

Tasks

How to Generate an Excel Report

This task describes how to analyze data in ALM using Excel reports.

Tip: The ALM Demo Project contains sample Excel reports. You can use the SQL queries and post-processing scripts in those reports as a basis for developing your own queries and scripts.

To learn more about Excel reports, see "Excel Reports Overview" on page 976.

This task includes the following steps:

- "Prerequisites" on page 981
- "Add an Excel report to the analysis tree" on page 981
- "Create an SQL query" on page 981
- "Create a post-processing script" on page 982
- "Generate an Excel report" on page 982

1 Prerequisites

To verify supported versions of Microsoft Excel, refer to the *HP Application Lifecycle Management Installation Guide*.

2 Add an Excel report to the analysis tree

Add an Excel report to a folder in the analysis tree.

- a Open the Analysis View module.** On the ALM sidebar, under **Dashboard**, select **Analysis View**.
- b Add a folder to the analysis tree.** Right-click a folder under the Private or Public root folder, and select **New Folder**.
- c Create a new Excel report.** Right-click a folder, and select **New Excel Report**. Enter a name for the Excel report in the New Excel Report dialog box.

3 Create an SQL query

Define the project data that you want to include in the report. You define this data by creating SQL queries. You can create multiple queries in an Excel report. When you generate the report, the results of each query are displayed in separate Excel worksheets.

- a Open the Query Builder.** In the Configuration tab, click the **Query** tab, and click **Query Builder**. For user interface details, see "Excel Report Query Builder Dialog Box" on page 989.
- b Write an SQL query.** Type a query in the SQL editor.
- c Add ALM entities to an SQL query.** Select ALM entities in the Entities pane.
- d Define parameters in an SQL query.** Use parameters in SQL queries to modify the results of an Excel report, based on parameter values that you enter. In the Query Builder dialog box, use the buttons in the Query Parameters tab.

4 Create a post-processing script

You can create a Visual Basic script to run after the data is exported to Excel. You use this script to manipulate the data in Excel.

For example, you can present requirements data in Excel as a pivot table, you could perform calculations on defects data to calculate the average time an open defect takes to be fixed, or you could create a graph based on exported data.

In the Configuration tab, click the **Post-processing** tab. Write a Visual Basic script. For user interface details, see "Post-processing Tab" on page 994.

5 Generate an Excel report

Generating an Excel report extracts the data you specified in the SQL queries from the project database, saves the data in an Excel workbook, and runs the post-processing script.

- a** In the Configuration tab, click the **Generation Settings** tab. Set options for running an Excel report. For user interface details, see "Generation Settings Tab" on page 996.
- b** Click **Generate**.

Reference

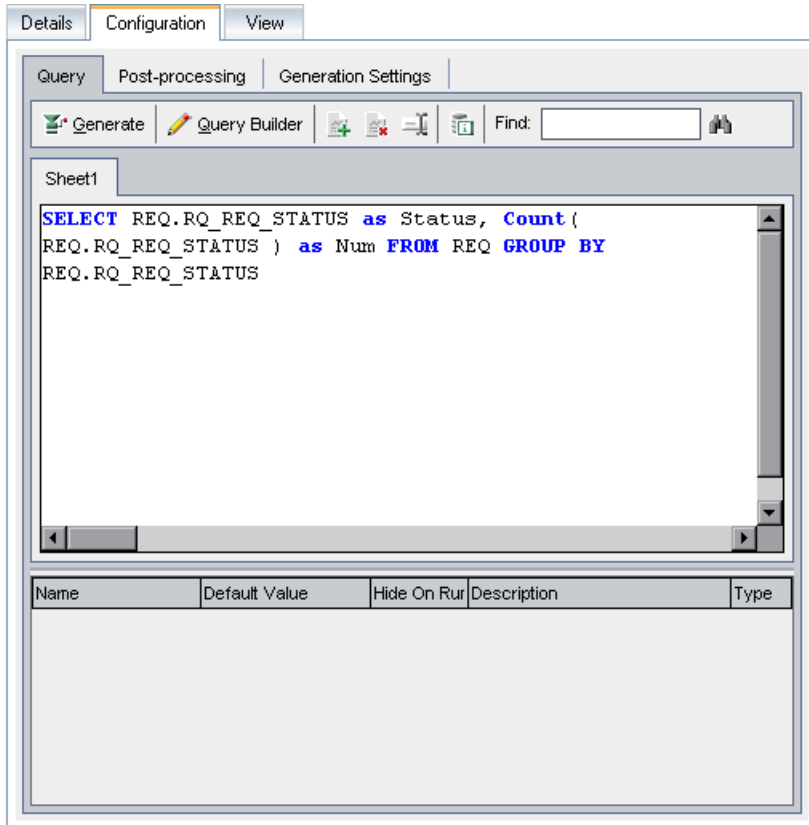
Excel Reports User Interface

This section includes:

- ▶ Configuration Tab – Excel Reports on page 984
- ▶ Query Tab on page 986
- ▶ Excel Report Query Builder Dialog Box on page 989
- ▶ Post-processing Tab on page 994
- ▶ Generation Settings Tab on page 996
- ▶ New Excel Report Dialog Box on page 998
- ▶ New Query Parameter/Edit Query Parameter Dialog Box on page 999

Configuration Tab – Excel Reports

This tab contains tabs that enable you to configure Excel reports.



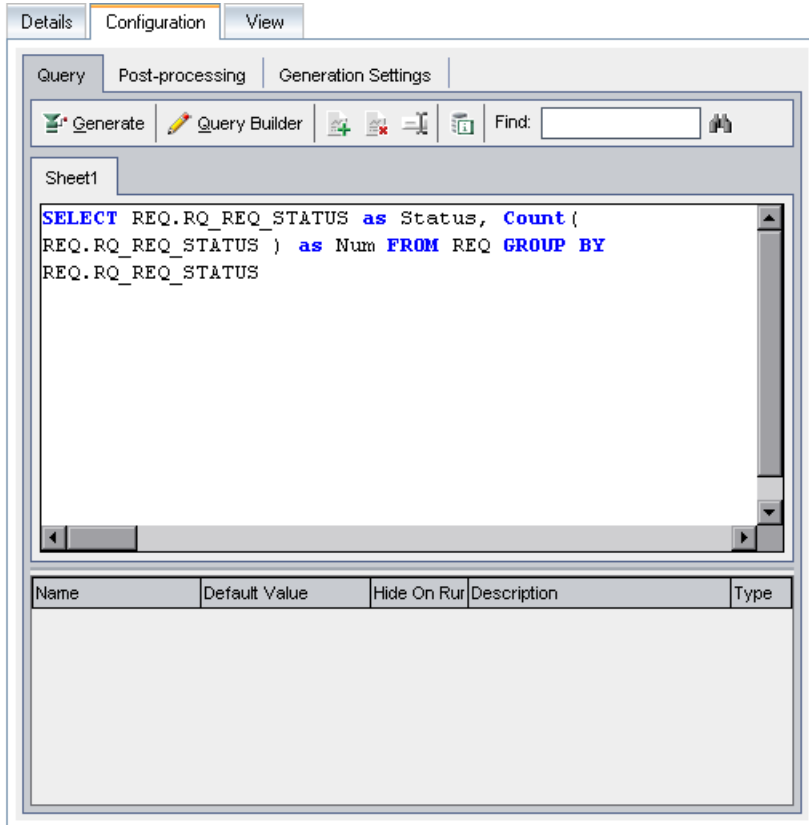
<p>To access</p>	<ol style="list-style-type: none"> 1 On the ALM sidebar, under Dashboard, select Analysis View. 2 Expand the analysis tree, and select an Excel report. 3 Click the Configuration tab.
<p>Relevant tasks</p>	<ul style="list-style-type: none"> ➤ "How to Generate an Excel Report" on page 980 ➤ "How to Analyze Data in ALM" on page 876
<p>See also</p>	<ul style="list-style-type: none"> ➤ "Excel Reports Overview" on page 976 ➤ "Analysis View Window" on page 879

User interface elements are described below:

UI Elements (A-Z)	Description
Generation Settings tab	Enables you to set options for running the Excel report. For more details, see "Generation Settings Tab" on page 996.
Post-processing tab	Enables you to write a Visual Basic script that runs in Excel after the report data is exported to Excel. For more details, see "Post-processing Tab" on page 994.
Query tab	Enables you to write an SQL query that defines the data that is exported to Excel. For more details, see "Query Tab" on page 986.

Query Tab

This tab enables you to create an SQL script that defines the data that is exported to Excel.



The screenshot displays the 'Query Tab' interface. At the top, there are three tabs: 'Details', 'Configuration', and 'View'. Below these, there are three sub-tabs: 'Query', 'Post-processing', and 'Generation Settings'. The 'Query' sub-tab is active. A toolbar contains several icons: a green checkmark for 'Generate', a pencil for 'Query Builder', a plus sign, a red 'x', a minus sign, and a magnifying glass for 'Find'. Below the toolbar is a text area labeled 'Sheet1' containing the following SQL query:





```
SELECT REQ.RQ_REQ_STATUS as Status, Count (
REQ.RQ_REQ_STATUS ) as Num FROM REQ GROUP BY
REQ.RQ_REQ_STATUS
```




Below the text area is a table with the following columns:

Name	Default Value	Hide On Rur	Description	Type

To access	<ol style="list-style-type: none"> 1 On the ALM sidebar, under Dashboard, select Analysis View. 2 Expand the analysis tree and select an Excel report. 3 Under the Configuration tab, click the Query tab.
Important information	<ul style="list-style-type: none"> ▶ To ensure the integrity of the database, you should run only queries that extract data from the project database. For more details, see "Protecting the Database" on page 977. ▶ The query builder provides enhanced functionality for creating SQL queries. For more details, see "Excel Report Query Builder Dialog Box" on page 989.
Relevant tasks	<ul style="list-style-type: none"> ▶ "How to Generate an Excel Report" on page 980 ▶ "How to Analyze Data in ALM" on page 876
See also	<ul style="list-style-type: none"> ▶ "Excel Reports Overview" on page 976 ▶ "Analysis View Window" on page 879

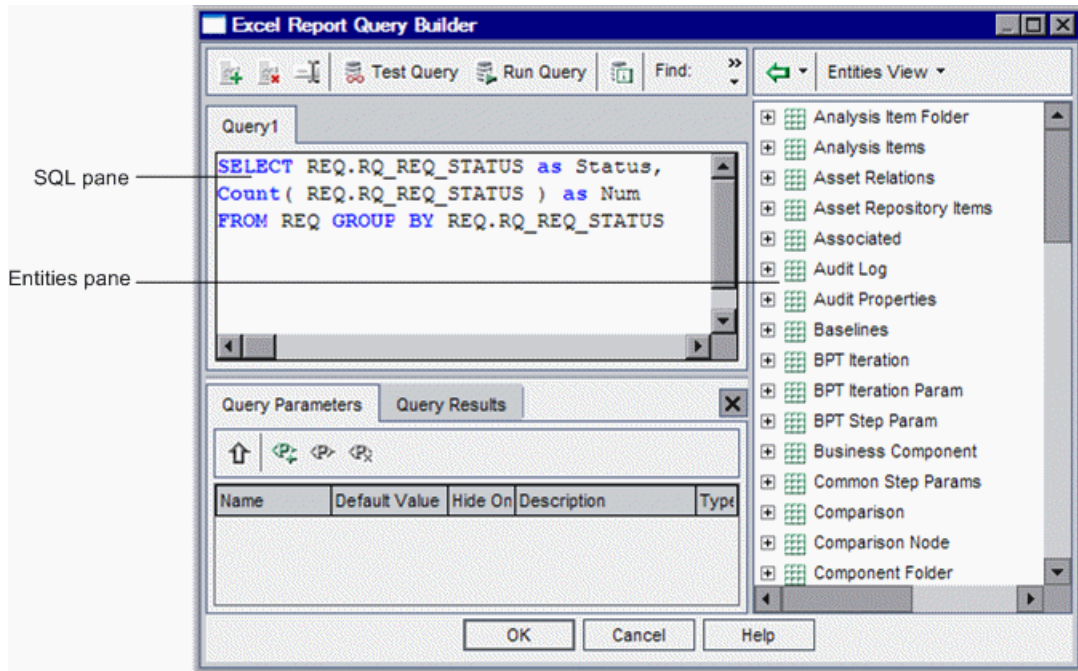
User interface elements are described below (unlabeled elements are shown in angle brackets>):

UI Elements	Description
 Generate	Generate. Generates the Excel report
 Query Builder	Query Builder. Opens the Excel Report Query Builder dialog box, offering extended functionality for creating SQL queries, including testing the query and adding parameters to the query. For more details, see "Excel Report Query Builder Dialog Box" on page 989.
	Add Query. Enables you to create a new query. A new tab is added to the query builder with the default name Query<number> . When you generate the report, the results of each query are displayed in separate Excel worksheets.
	Delete. Deletes the selected query.

UI Elements	Description
	<p>Rename Query. Enables you rename the current query.</p> <p>Note: The Excel worksheet containing the data extracted by the query will have the same name as the query.</p>
	<p>Database Type. Displays the type of database used for your project database.</p> <p>You must write the SQL query using the syntax used by the project database type.</p>
	<p>Find. Searches the query for text that you entered in the find box.</p> <p>Tip: Click the Find button again to find the next occurrence of the text.</p>
<Query Parameters grid>	<p>Contains a list of parameters available for use in the queries.</p> <p>Note: To add and edit query parameters, work in the Excel Report Query Builder. For more details, see "Excel Report Query Builder Dialog Box" on page 989.</p>
<SQL pane>	<p>Contains the SQL query that defines the data set that is extracted to the Excel report.</p> <p>Syntax exception: The @ and \ characters have a special meaning and are not read literally when running SQL queries on the project database. If you want these characters to be read literally, you should replace @ by \@ and \ by \\. For example, if you want the statement <code>SELECT * FROM BUG WHERE BUG.BG_SUMMARY = '@parameter@'</code> to be run literally on the ALM database, type <code>SELECT * FROM BUG WHERE BUG.BG_SUMMARY = '\@parameter\@'</code>.</p>

Excel Report Query Builder Dialog Box

This dialog box enables you to create an SQL query.




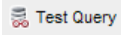


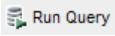


<p>To access</p>	<ol style="list-style-type: none"> 1 On the ALM sidebar, under Dashboard, select Analysis View. 2 Expand the analysis tree and select an Excel report. 3 Under the Configuration tab, click the Query tab, and then click the Query Builder button.
<p>Important information</p>	<ul style="list-style-type: none"> ▶ To ensure the integrity of the database, you should run only queries that extract data from the project database. For more details, see "Protecting the Database" on page 977. ▶ You can include parameters in SQL queries. For more details, see "Parameters in SQL Queries" on page 978.

Relevant tasks	"How to Generate an Excel Report" on page 980
See also	<ul style="list-style-type: none"> ▶ "Excel Reports Overview" on page 976 ▶ "Parameters in SQL Queries" on page 978

SQL Editor Area

User interface elements are described below (unlabeled elements are shown in angle brackets):



UI Elements	Description
<SQL editor>	<p>Contains the SQL query that defines the data set that is extracted to the Excel report.</p> <p>Note: Separate project entities with commas.</p> <p>Syntax exception: The @ and \ characters have a special meaning and are not read literally when running SQL queries on the project database. If you want these characters to be read literally, you should replace @ by \@ and \ by \\. For example, if you want the statement <code>SELECT * FROM BUG WHERE BUG.BG_SUMMARY = '@parameter@'</code> to be run literally on the ALM database, type <code>SELECT * FROM BUG WHERE BUG.BG_SUMMARY = '\@parameter\@'</code>. Contains the SQL query that defines the data set that is used for the Excel report.</p>
	<p>Add Query. Enables you to create a new query. A new tab is added to the query builder with the default name Query<number>.</p> <p>When you generate the report, the results of each query are displayed in separate Excel worksheets.</p>
	<p>Delete. Deletes the selected query.</p>
	<p>Add Query. Enables you rename the current query.</p> <p>Note: The Excel worksheet containing the data extracted by the query will have the same name as the query.</p>
	<p>Test Query. Displays the first ten results of the query in the Query Results tab. If your query contains parameters, ALM uses the default values for the parameters.</p>

UI Elements	Description
	<p>Run Query. Displays results of the query in the Query Results tab. If your query contains parameters, ALM prompts you for values.</p>
	<p>Database Type. Displays the type of database used for your project database.</p> <p>You must write the SQL query using the syntax used by the project database type.</p>
	<p>Find. Searches the query for text that you entered in the find box.</p> <p>Tip: Click the Find button again to find the next occurrence of the text.</p>
<p>Copy/Paste</p>	<p>Copies selected text from one place in the SQL editor to another.</p> <p>Available from: Query editor right-click menu</p>
<p>Cut/Paste</p>	<p>Moves selected text from one place in the SQL editor to another.</p> <p>Available from: Query editor right-click menu</p>

Entities Pane

Contains a list of ALM database fields and entities that you can add to the query.





User interface elements are described below:

UI Elements	Description
	<p>Add Entity to Query. Adds the selected project entity to the SQL query. The entity is inserted at the cursor position.</p> <p>To add a project entity with the column alias defined by the entity title, click the Add Entity to Query arrow and select Add Entity to Query with Entity Title as Alias.</p> <p>Available from: Entities pane</p>
	<p>Entities View. Enables you to view fields and entities in the Entities pane by their name, their database column name, or both.</p> <p>Available from: Entities pane</p>

Query Parameters Tab

Contains a list of parameters available for use in the queries.

User interface elements are described below:

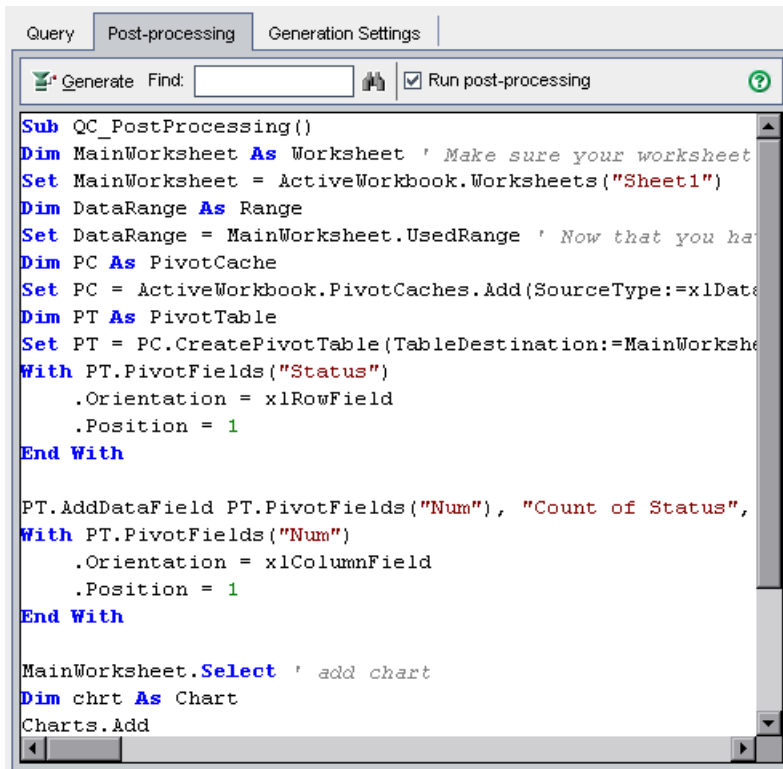
UI Elements	Description
	<p>Add Parameter to Query. Adds the selected parameter to the SQL query. The parameter is added at the cursor position.</p> <p>Note: For a parameter representing a text value, you must manually add single quotes (!) around the parameter in the SQL pane. For example, if the SQL pane contains the phrase WHERE BUG.BG_DETECTED_BY = @name@, you must replace the text @name@ with '@name@'.</p> <p>Available from: Query Parameters tab</p>
	<p>New Query Parameter. Opens the New Query Parameter dialog box, enabling you to add a parameter to the parameters grid. For more details, see "New Query Parameter/Edit Query Parameter Dialog Box" on page 999.</p> <p>Available from: Query Parameters tab</p>
	<p>Edit Query Parameter. Opens the Edit Query Parameter dialog box, enabling you to edit the selected parameter. For more details, see "New Query Parameter/Edit Query Parameter Dialog Box" on page 999.</p> <p>Available from: Query Parameters tab</p>
	<p>Delete Query Parameter. Deletes the selected parameter from the parameters grid.</p> <p>Caution: If you delete a parameter that is in use in a report query, queries containing the parameter will not be valid.</p> <p>Available from: Query Parameters tab</p>

Query Results Tab

Displays preview results of an SQL query.

Post-processing Tab

This tab enables you to create a Visual Basic script that runs after the extracted data is exported to Excel.



```

Sub QC_PostProcessing()
Dim MainWorksheet As Worksheet ' Make sure your worksheet
Set MainWorksheet = ActiveWorkbook.Worksheets("Sheet1")
Dim DataRange As Range
Set DataRange = MainWorksheet.UsedRange ' Now that you ha
Dim PC As PivotCache
Set PC = ActiveWorkbook.PivotCaches.Add(SourceType:=xlData
Dim PT As PivotTable
Set PT = PC.CreatePivotTable(TableDestination:=MainWorksh
With PT.PivotFields("Status")
.Orientation = xlRowField
.Position = 1
End With



PT.AddDataField PT.PivotFields("Num"), "Count of Status",
With PT.PivotFields("Num")
.Orientation = xlColumnField
.Position = 1
End With

MainWorksheet.Select ' add chart
Dim chrt As Chart
Charts.Add

```

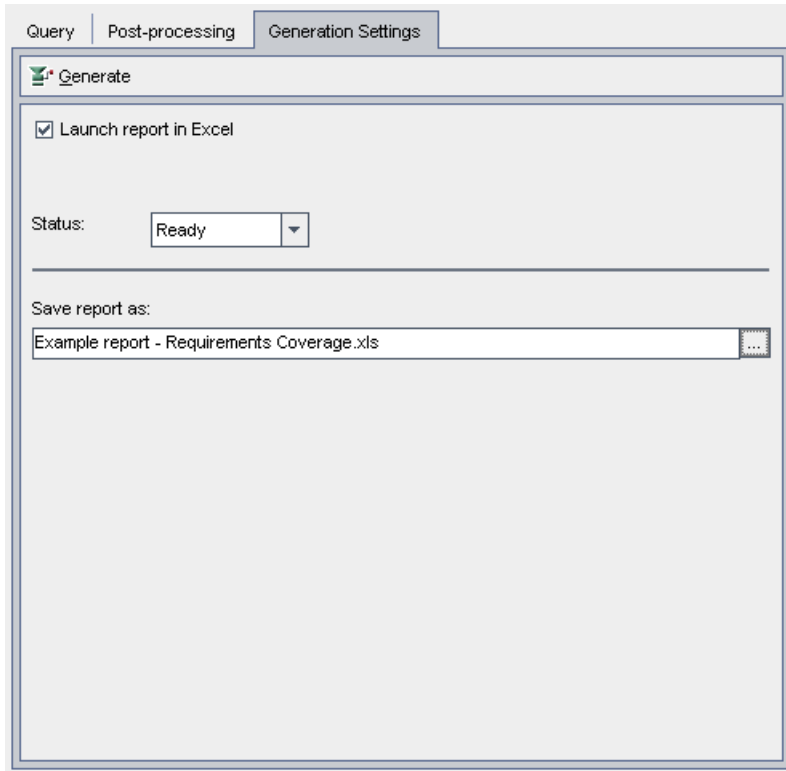
To access	<ol style="list-style-type: none"> 1 On the ALM sidebar, under Dashboard, select Analysis View. 2 Expand the analysis tree and select an Excel report. 3 Under the Configuration tab, click the Post-processing tab.
Important information	When writing a post-processing script, consider important guidelines. For more details, see "Guidelines for Creating a Post-Processing Script" on page 979.
Relevant tasks	<ul style="list-style-type: none"> ➤ "How to Generate an Excel Report" on page 980 ➤ "How to Analyze Data in ALM" on page 876
See also	<ul style="list-style-type: none"> ➤ "Excel Reports Overview" on page 976 ➤ "Analysis View Window" on page 879

User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements	Description
 Generate	Generate. Generates the Excel report
	<p>Find. Searches the post-processing script for text that you entered in the find box.</p> <p>Tip: Click the Find button again to find the next occurrence of the text.</p>
Run post-processing	Instructs ALM to run the post-processing script after the data is exported to Excel. Clear this option if you do not want to run the script when you generate the report.
<script editor box>	<p>Contains the Visual Basic script that runs in Excel after the report data is exported to Excel.</p> <p>Tip: Base the script on the template script already displayed in the Script Editor box.</p>

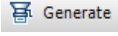
Generation Settings Tab

This tab enables you to define settings for generating the Excel report.



To access	<ol style="list-style-type: none"> 1 On the ALM sidebar, under Dashboard, select Analysis View. 2 Expand the analysis tree and select an Excel report. 3 Under the Configuration tab, click the Generation Settings tab.
Relevant tasks	<ul style="list-style-type: none"> ➤ "How to Generate an Excel Report" on page 980 ➤ "How to Analyze Data in ALM" on page 876
See also	<ul style="list-style-type: none"> ➤ "Excel Reports Overview" on page 976 ➤ "Analysis View Window" on page 879

User interface elements are described below:

UI Elements (A-Z)	Description
	<p>Generate. Generates the Excel report.</p> <p>If the status of the report is Not Ready, a warning displays.</p> <p>If the report query contains parameters, the Report Parameters dialog box opens. Type the parameter values in the Value column.</p> <p>The report is saved in the location you define. If you selected Launch report in Excel, Excel opens and displays the report. If not, a confirmation message displays.</p>
<p>Launch report in Excel</p>	<p>Instructs ALM to open the report in Excel after the report is generated. If this option is not selected, you can load the saved report in Excel at a later stage.</p>
<p>Save report as</p>	<p>The location and name of the Excel file to which the data is exported.</p> <p>Tip: Click the browse button to select a folder.</p>
<p>Status</p>	<p>Informs other users whether the report is ready to be generated. The following options are available for the report status:</p> <p>Ready. Indicates that the report is ready to be generated.</p> <p>Not Ready. Indicates that the report is not ready to be generated. If a user tries to generate a report with this status, a warning message displays.</p>

New Excel Report Dialog Box

This dialog box enables you to add a new Excel report to the analysis tree.

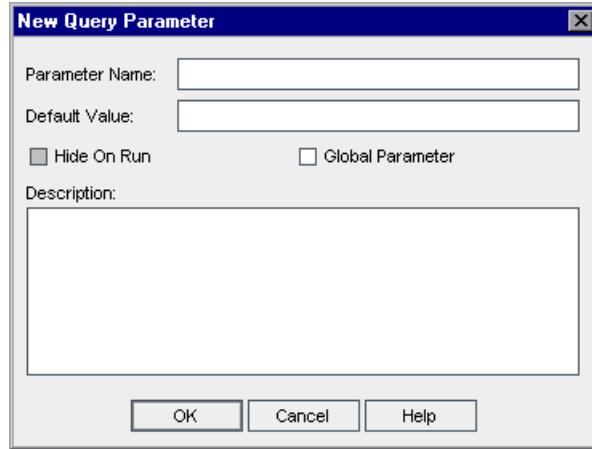
To access	<ol style="list-style-type: none"> 1 On the ALM sidebar, under Dashboard, select Analysis View. 2 Right-click the folder under which you want to add a report, and select New Excel Report.
Important information	Excel reports you create under private folders are available to the owner only. Excel reports you create under public folders are available to all users.
Relevant tasks	<ul style="list-style-type: none"> ➤ "How to Generate an Excel Report" on page 980 ➤ "How to Analyze Data in ALM" on page 876
See also	<ul style="list-style-type: none"> ➤ "Excel Reports Overview" on page 976 ➤ "Analysis View Window" on page 879

User interface elements are described below:

UI Elements	Description
Excel Report Name	The report's display name in the analysis tree.

New Query Parameter/Edit Query Parameter Dialog Box

This dialog box enables you to edit or create a new query parameter.



To access	<ol style="list-style-type: none"> 1 In an Excel report, under the Configuration tab, click the Query tab, and then click the Query Builder button. 2 In the Query Parameters tab, right-click and select New Parameter or Edit Parameter.
Relevant tasks	"How to Generate an Excel Report" on page 980
See also	"Parameters in SQL Queries" on page 978

User interface elements are described below:

UI Elements (A-Z)	Description
Default Value	The value that the parameter uses by default.
Description	An extended description of the parameter.
Global Parameter	Indicates that the parameter is available to all queries in the current Excel report.

UI Elements (A-Z)	Description
Hide On Run	Instructs ALM to use the default value every time you generate the report. Clear this option if you want to be prompted to keep or change the default value when you generate the report.
Parameter Name	<p>The parameter name.</p> <p>Note: If you rename a parameter, the change is automatically applied to the parameter wherever it is used in the SQL query.</p> <p>Syntax exception: A parameter name cannot include special characters, except the underscore character.</p>

39

Standard Reports

This chapter includes:

Concepts

- ▶ Standard Reports Overview on page 1002

Tasks

- ▶ How to Generate a Standard Report on page 1003

Reference

- ▶ Standard Report Types on page 1005
- ▶ Standard Reports User Interface on page 1012

Concepts

Standard Reports Overview

Standard reports enable you to customize and produce reports on HP Application Lifecycle Management (ALM) data. You can create reports for data in the Requirements, Test Plan, Test Lab, Defects, and Business Components modules.

There are two options for creating standard reports:

Predefined Reports. While working in one of the modules listed above, choose from a list of predefined reports to quickly analyze data related to that module. You can save predefined reports in the Analysis View module for future reference. For details on the predefined reports available in each module, see "Predefined Standard Reports" on page 1008.

Analysis View Reports. Create and customize reports in the Analysis View module, relating to data in any of the above modules. Creating reports in the Analysis View module enables you to filter the data and organize the reports in folders, and define various configurations. You can also add sub-reports that add an extra layer of information related to the parent report. For example, if you create a report of defects, you can add a sub-report of linked requirements. The report then displays the requirements that are linked to each defect. For details on the standard reports available in the Analysis View module, see "Standard Reports in the Analysis View Module" on page 1006.

For task details, see "How to Generate a Standard Report" on page 1003.

Tasks

How to Generate a Standard Report

This task describes how to produce reports of ALM data.

To learn more about standard reports, see "Standard Reports Overview" on page 1002.

- "Create a predefined report" on page 1003
- "Create a report in Analysis View" on page 1003
- "Configure a standard report" on page 1004
- "View a standard report" on page 1004

1 Create a predefined report

While working in the Requirements, Business Components, Test Plan, Test Lab, or Defects module, create an impromptu report of the module data.

In any of the above modules, select **Analysis > Reports** and select one of the predefined reports. For user interface details, see "View Tab – Standard Reports/Report Window" on page 1017.

2 Create a report in Analysis View

Create a standard report in the Analysis View module.

- a Open the Analysis View module.** On the ALM sidebar, under **Dashboard**, select **Analysis View**.
- b Add a folder to the analysis tree.** Right-click a folder under the Private or Public root folder, and select **New Folder**.
- c Create a new standard report.** Right-click a folder, and select **New Standard Report**. Fill in the fields in the New Standard Report dialog box. For user interface details, see "New Standard Report Dialog Box" on page 1019.

3 Configure a standard report

Add sub-reports, and define standard report settings, such as data filtering and page layout.

Click the **Configuration** tab. For user interface details, see "Configuration Tab – Standard Reports" on page 1013.

Available from: Analysis View module

4 View a standard report

Use one of the following:

- ▶ **In the Analysis View module.** Click the **View** tab.
- ▶ **In other modules.** On the module menu, select **Analysis > Most Recently Used** and select a recently used report. The selected report opens in the Analysis View module.

For user interface details, see "View Tab – Standard Reports/Report Window" on page 1017.

Reference

Standard Report Types

The following tables list the types of standard reports you can create in ALM.

This section includes:

- "Standard Reports in the Analysis View Module" on page 1006
- "Available Sub-Reports" on page 1007
- "Predefined Standard Reports" on page 1008

 **Standard Reports in the Analysis View Module**

The following reports are available in the Analysis View module.

Report	Entity	Description
Components Report	Components	Lists the components in the Business Components module.
Subject Components Report	Components	Lists the hierarchy of component folders in the Business Components module.
Defects Report	Defects	Lists the defects in the Defects module.
Requirements Report	Requirements	Lists the requirements in the Requirements module.
Cross Test Set Report	Test Instances	Lists the tests sets that appear in the Test Lab module, without listing their tests.
Execution Report	Test Instances	Lists the test instances with their testing status.
Test Set Hierarchy Report	Test Instances	Lists the hierarchy of test set folders in the Test Lab module.
Business Process Tests	Tests	Lists the business process tests and flows in the Test Plan module.
Subject Test Report	Tests	Lists the hierarchy of test subjects in the Test Plan module.
Test Plan Report	Tests	Lists the tests in the Test Plan module.

Available Sub-Reports

The following sub-reports are available depending on the type of parent report:

Report	Description
Component Steps	Lists the steps for a component.
Components Used By	Lists the business process tests and flows that use a component.
Components with Application Area	Lists the application area associated with a component.
Contained Test Sets	Lists the test sets in a test set folder.
Contained Tests	Lists the test instances in a test set.
Coverage Requirements	Lists information for requirements covered by a test.
Design Steps	Lists the design steps for a test.
Linked Defects	Lists the defects that are linked to an entity.
Linked Entities	List all entities that are linked to a defect.
Parent Test	Lists the parent test instance of a test run.
Related Requirements	Lists the requirements that are linked to a defect.
Requirements Coverage	Lists the tests that cover a requirement.
Run Steps	Lists the run steps for a test run.
Runs	Lists all runs of a test instance.
Source Execution Test	Lists the executed test instances that are linked to a defect.
Source Run	Lists the test runs that are linked to a defect.
Source Test	Lists the tests that are linked to a defect.
Trace To	Lists the requirements traced to a requirement.
Trace From	Lists the requirements traced from a requirement.

Predefined Standard Reports

The following predefined reports are available in the Requirements, Test Plan, Test Lab, Defects, and Business Components modules.

This section includes:

- "Requirements Module Reports" on page 1008
- "Test Plan Module Reports" on page 1009
- "Test Lab Module Reports" on page 1010
- "Defects Module Reports" on page 1011
- "Business Component Module Reports" on page 1011

Requirements Module Reports

The following reports are available for the Requirements module:

Report	Description
Standard Requirement Report	Lists the requirements that appear in the current requirements view.
Tabular Report	Displays the requirements that appear in the current requirements view, in a grid format.
Requirements with Coverage Tests	Lists the requirements that appear in the current requirements view, with their test coverage information.
Requirements with Coverage Tests and Steps	Lists the requirements that appear in the current requirements view, with their test coverage information. It also displays the test steps for each tests coverage.
Requirements with Linked Defects	Lists the requirements that appear in the current requirements view, with their linked defects.
Requirements with Traceability	Lists the requirements that appear in the current requirements view, with their associated traced to and traced from requirements.

Report	Description
Report Selected	Lists the requirements currently selected in the requirements tree or grid.
Report Selected with Children	Lists the requirements currently selected in the requirements tree or grid, including child requirements.

Test Plan Module Reports

The following reports are available for the Test Plan module:

Report	Description
Standard Test Planning Report	Lists the tests in the current test plan view.
Subject Tree Report	Lists the tests in the current test plan view by subject.
Tests with Design Steps	Lists the tests that appear in the current test plan view, including their design steps.
Tests with Covered Requirements	Lists the tests that appear in the current test plan view, with their requirement coverage information.
Tests with Linked Defects	Lists the tests that appear in the current test plan view, with their linked defects.
Report Selected	Lists the tests currently selected in the test plan tree or grid.
Business Process Tests with Script	Lists business process tests and flows. For details about this report, see the <i>HP Business Process Testing User Guide</i> .

Test Lab Module Reports

The following reports are available for the Test Lab module:

Test Set Reports

Report	Description
Current Test Set	Lists the tests that appear in the current test set.
Cross Test Set	Lists the test sets that appear in the Test Sets list, without listing their tests.
Test Set Hierarchy with Tests	Lists the test sets hierarchically, as well as the status of each of the test sets.
Cross Test Set with Tests	Lists the test sets that appear in the Test Sets list, including their tests.
Current Test Set with Failed Test Runs	Lists tests from the current test set, with “Failed” test run status.
Cross Test Set with Failed Test Runs	Lists tests from all test sets, with “Failed” test run status.
Execution Notification	Lists the tests that are displayed in the current test set with the results of their last test run.
Report Selected	Displays an execution report of the test instances currently selected in the execution grid.

Test Run Reports

Report	Description
Cross Run	Lists the runs matching the current filter in the Test Runs tab.
Cross Run with Steps	Lists the runs matching the current filter in the Test Runs tab with their run steps.
Runs by Test	Lists the runs in the Test Runs tab under their tests.

Report	Description
Runs by Test Set	Lists the runs in the Test Runs tab under their test sets and tests.
Report Selected	Displays a runs report of the test runs currently selected in the Test Runs tab.

Defects Module Reports

The following reports are available for the Defects module:

Report	Description
Standard Defect Report	Lists the defects that appear in the defects grid.
Tabular Report	Displays the defects that appear in the defects grid, in a grid format.
Defects with Linked Tests and Runs	Lists the defects with their linked tests and test run results.
Fixed or Rejected Defects	Lists defects with “fixed” or “rejected” status.
Fixed or Rejected Defects Detected by Current User	Lists defects with “fixed” or “rejected” status that were detected by the current user.
Opened Defects Assigned to Current User	List defects with “open” status that are assigned to the current user.
Report Selected	Lists defects currently selected in the defects grid.

Business Component Module Reports

For a list of reports available from the Business Components module, see the *HP Business Process Testing User Guide*.

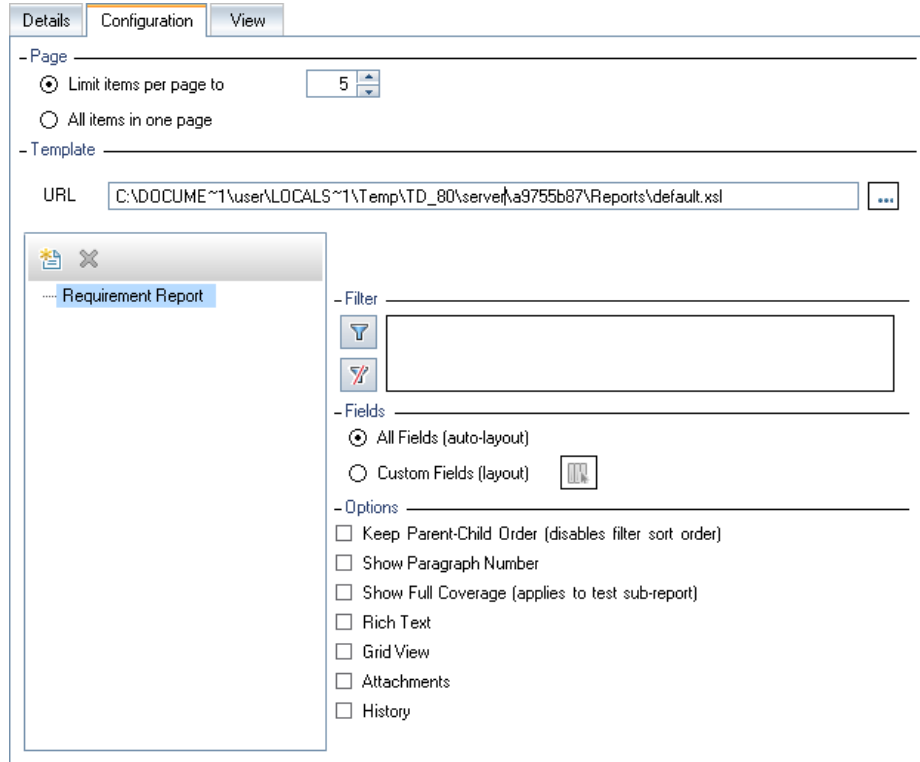
Standard Reports User Interface

This section includes:

- ▶ Configuration Tab – Standard Reports on page 1013
- ▶ View Tab – Standard Reports/Report Window on page 1017
- ▶ New Standard Report Dialog Box on page 1019

Configuration Tab – Standard Reports

This tab enables you to select the data and fields to be included in a standard report, add sub-reports, and set the report's layout.



Details Configuration View

- Page

Limit items per page to

All items in one page

- Template

URL ...

Requirement Report

- Filter

- Fields

All Fields (auto-layout)

Custom Fields (layout)

- Options

Keep Parent-Child Order (disables filter sort order)

Show Paragraph Number

Show Full Coverage (applies to test sub-report)

Rich Text

Grid View




Attachments


History

To access	<ol style="list-style-type: none"> 1 On the ALM sidebar, under Dashboard, select Analysis View. 2 Expand the analysis tree, and select a standard report. 3 Click the Configuration tab.
Important information	The available configuration options depend on the selected report type in the reports pane.

Relevant tasks	<ul style="list-style-type: none"> ➤ "How to Generate a Standard Report" on page 1003 ➤ "How to Analyze Data in ALM" on page 876
See also	<ul style="list-style-type: none"> ➤ "Standard Reports Overview" on page 1002 ➤ "Analysis View Window" on page 879

User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements (A-Z)	Description
	<p>Set Filter/Sort. Enables you to filter and sort the data according to the criteria you choose. For details, see "Select Filter Condition Dialog Box" on page 70.</p> <p>Clear Filter. Clears all filters and sorting priorities. The current filter is displayed in the filter box.</p> <p>Note: This option applies to the report selected in the reports pane.</p>
	<p>Add Sub Report. Opens the Add Sub-Report dialog box, enabling you to select a sub-report to add to the currently selected report. For details on available sub-reports, see "Available Sub-Reports" on page 1007.</p> <p>Notes:</p> <ul style="list-style-type: none"> ➤ To each sub-report you can add further sub-reports. ➤ At each level you can include multiple sub-reports.
	<p>Delete Sub Report. Deletes the selected sub-report.</p> <p>Note: When you delete a parent report, all its sub-reports are deleted too.</p>
<p><reports pane></p>	<p>Displays a tree of reports and sub-reports. The top level is the report type of the current report.</p> <p>Select a report and configure its filter, fields and options.</p>
<p>Attachments</p>	<p>Displays a list of associated attachments.</p>

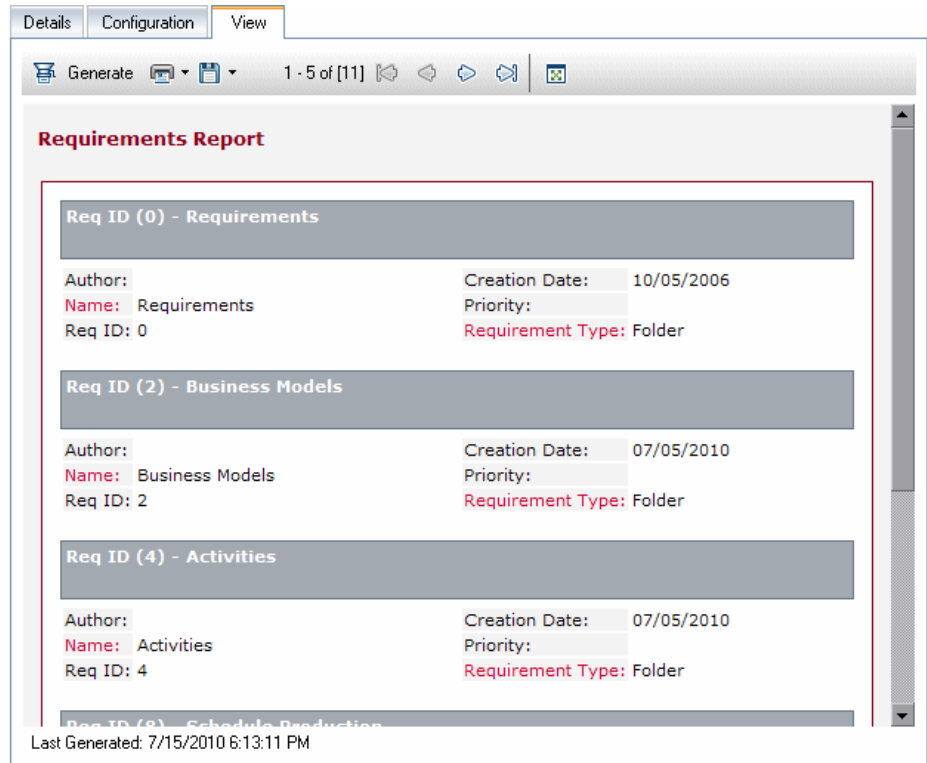
UI Elements (A-Z)	Description
Fields	<p>Enables you to set the fields that are included in the report and their order.</p> <ul style="list-style-type: none"> ▶ Select All Fields (auto layout) to display all fields in the report. ▶ Select Custom Fields (layout) and click Select Fields  to choose fields and set their order. For details, see "Select Columns/Select Fields Dialog Box" on page 90. <p>Note: This option applies to the report selected in the reports pane.</p>
Grid View	Displays the report as a grid.
History	Displays a list of all the changes made to a requirement, test, or defect.
Keep Parent-Child Order	<p>Displays the requirement topic with the child requirement below it. Selecting this option deactivates your defined filters and sorting priorities.</p> <p>Available from: Requirements reports</p>
Page	<p>Enables you to set the number of items from the main report that are displayed in each page:</p> <ul style="list-style-type: none"> ▶ To limit the number of items per page, select Limit items per page to and specify the number of items per page. ▶ To display all items in one page, select All items in one page.
Rich Text	<p>Includes rich text for requirements in the report.</p> <p>Available from: Requirements reports</p>
Show Full Coverage	<p>Displays the test coverage for each requirement in the tree.</p> <p>Available from: Requirements reports</p>
Show Paragraph Number	<p>Displays the assigned hierarchical numbers to each requirement in the tree.</p> <p>Note: These numbers are not related to the unique Req ID assigned to each requirement.</p> <p>Available from: Requirements reports</p>

UI Elements (A-Z)	Description
<p>Show Steps only for “Failed” Runs</p>	<p>If you add a Run Steps sub-report, displays steps only for failed runs. To display steps for all runs, clear this selection.</p> <p>Available from: Test run reports</p>
<p>Template</p>	<p>Enables you to choose a template for the selected standard report.</p> <p>In the URL field, select the ALM default report template, or a customized template.</p> <p>Tip: Click the browse button to select a template in a different folder.</p>

View Tab – Standard Reports/Report Window

The **View tab** enables you to view standard reports in the Analysis View module.

The **report window** in the Requirements, Business Components, Test Plan, Test Lab and Defects modules enables you to create predefined reports during your work in those modules.



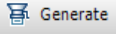



The screenshot displays a software application window titled "Requirements Report" under the "View" tab. The window has a toolbar with "Generate", a printer icon, a save icon, and a status bar showing "1 - 5 of [11]". The report content is organized into sections for different requirement IDs:



Req ID	Name	Author	Creation Date	Priority	Requirement Type
0	Requirements		10/05/2006		Folder
2	Business Models		07/05/2010		Folder
4	Activities		07/05/2010		Folder
8	Schedule Production				

At the bottom of the window, it states "Last Generated: 7/15/2010 6:13:11 PM".

<p>To access</p>	<p>View tab: Use one of the following:</p> <ul style="list-style-type: none"> ➤ In the Analysis View module, select a standard report, and click the View tab. ➤ In the Requirements, Test Plan, Test Lab, Defects, or Business Components module, choose Analysis > Recently Used, and select a standard report. <p>Report window: In the Requirements, Test Plan, Test Lab, Defects or Business Components module, choose Analysis > Reports, and select a predefined report.</p>
<p>Relevant tasks</p>	<ul style="list-style-type: none"> ➤ "How to Generate a Standard Report" on page 1003 ➤ "How to Analyze Data in ALM" on page 876
<p>See also</p>	<ul style="list-style-type: none"> ➤ "Standard Reports Overview" on page 1002 ➤ "Analysis View Window" on page 879

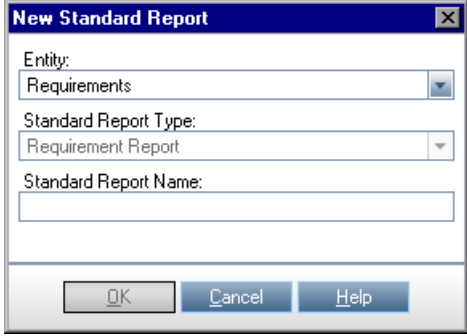
User interface elements are described below:

UI Elements	Description
	<p>Generate. Refreshes the report so that it displays the most recent data.</p>
	<p>Print Report. Prints the standard report. Select one of the following options:</p> <ul style="list-style-type: none"> ➤ Current Page. Prints the current report page. ➤ All Pages. Prints all the report pages.
	<p>Save Report. Saves the standard report. Select one of the following options:</p> <ul style="list-style-type: none"> ➤ Current Page. Saves the current report page. ➤ All Pages. Saves all the report pages. <p>The Save Web Page dialog box opens, enabling you to save the standard report as a Web page or a text file. Select the format in the Save as type list.</p>
	<p>First/Previous/Next/Last Page. Enables you to browse through the report pages.</p>

UI Elements	Description
	<p>Full Screen. In the View tab, enables you to view the report in full-screen.</p> <p>Note: The toolbar remains visible in full-screen mode.</p> <p>Tip: To return to the standard view, click the Close button in the top-right corner of the window.</p>
	<p>In the report window, opens the New Standard Report dialog box, enabling you to save the quick report to a folder in the Analysis View module.</p> <p>Available from: Report window</p>

New Standard Report Dialog Box

This dialog box enables you to add a new standard report to the analysis tree.



To access	<ol style="list-style-type: none"> 1 On the ALM sidebar, under Dashboard, select Analysis View. 2 Right-click the folder under which you want to add a standard report, and select New Standard Report.
Important information	Standard reports you create under private folders are available to the owner only. Standard reports you create under public folders are available to all users.

Relevant tasks	<ul style="list-style-type: none"> ➤ "How to Generate a Standard Report" on page 1003 ➤ "How to Analyze Data in ALM" on page 876
See also	<ul style="list-style-type: none"> ➤ "Standard Reports Overview" on page 1002 ➤ "Analysis View Window" on page 879

User interface elements are described below:

UI Elements (A-Z)	Description
Entity	The ALM entity covered by the report.
Standard Report Name	The report's display name in the analysis tree.
Standard Report Type	The type of report you want to create. For details, see "Standard Reports in the Analysis View Module" on page 1006.

40

Live Analysis Graphs

This chapter includes:

Concepts

- ▶ Live Analysis Graphs Overview on page 1022

Tasks

- ▶ How to Generate Live Analysis Graphs on page 1023

Reference

- ▶ Live Analysis Graphs User Interface on page 1025

Concepts

Live Analysis Graphs Overview

Live analysis enables you to create and display dynamic charts illustrating:

- ▶ Test subject data in the Test Plan module;
- ▶ Test set folder data in the Test Lab module;
- ▶ Business component subject folders in the Business Components module.

In each module you can create up to two live analysis graphs.

Live Analysis graphs differ from the graphs described in Chapter 35, "Graphs and Dashboard Pages," in that you do not have to re-generate a graph to view data that has changed. In addition, the layout and settings of the graph are preserved for all the folders in the same module. This enables you to view the same graphical analysis of different folders without the need to redesign the graphs.

For task details, see "How to Generate Live Analysis Graphs" on page 1023.

Tasks

How to Generate Live Analysis Graphs

This task describes how to create and view auto-generated graphs for test subjects, test sets, and business components.

This task includes the following steps:

- "Prerequisites" on page 1023
- "Create Live Analysis graphs" on page 1023
- "View Live Analysis graphs" on page 1024

1 Prerequisites

For test plan Live Analysis graphs, test subject folders are defined in the Test Plan module.

For test lab Live Analysis graphs, test set folders are defined in the Test Lab module.

For business component Live Analysis graphs, component subject folders are defined in Business Components module.

2 Create Live Analysis graphs

- a** On the sidebar, under **Testing**, select **Test Plan**, **Test Lab**, or **Business Components**.
- b** Select a folder in the module tree.
- c** Click the **Live Analysis** tab.
- d** Click the **Add Graph** link in the pane in which you want to display a graph. Follow the wizard to design a live analysis graph. For user interface details, see "Live Analysis Graph Wizard" on page 1029.

3 View Live Analysis graphs

You can change the way a Live Analysis graph is displayed. This includes maximizing the graph to full-screen view, changing the graph appearance, and drilling down to the graph data.

- a** On the sidebar, under **Testing**, select **Test Plan** or **Test Lab**.
- b** On the module menu, select **View > Test Plan Tree** or **View > Test Sets Tree**.
- c** Select a test subject folder or test set folder.
- d** Click the **Live Analysis** tab. For user interface details, see "Live Analysis Tab" on page 1026.

Reference

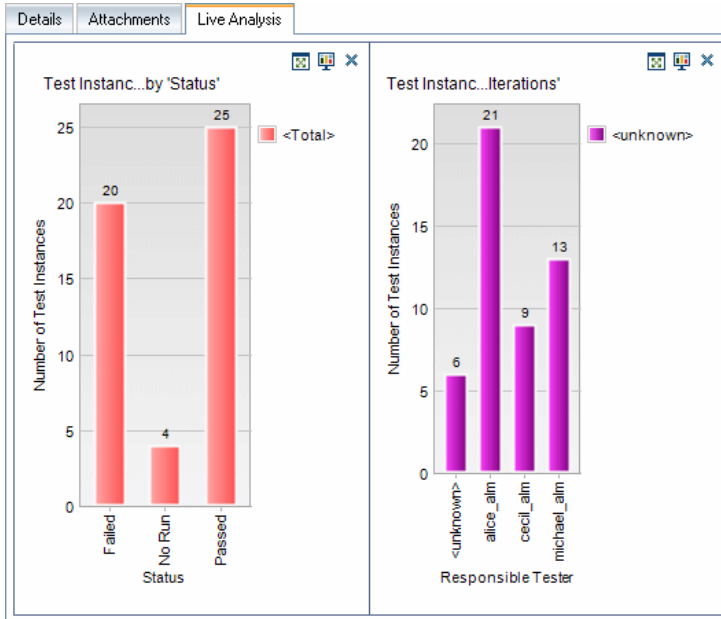
Live Analysis Graphs User Interface

This section includes:

- ▶ Live Analysis Tab on page 1026
- ▶ Live Analysis Graph Wizard on page 1029



Live Analysis Tab


This tab enables you to create and display Live Analysis graphs for test subjects, test set folders, and business component subjects.



To access	<ol style="list-style-type: none"> 1 On the ALM sidebar, under Testing, select Test Plan, Test Lab, or Business Components. 2 Select a folder in the module tree, and click the Live Analysis tab.
Important information	<ul style="list-style-type: none"> ▶ The Live Analysis graphs that you create are unique for your user login. Each project user can create Live Analysis graphs which will be visible only to that user but will not be visible to other users. ▶ Live Analysis graphs represent only nodes that are located directly below the selected folder. They do not include tests, test sets, or business components located at a lower hierarchical level in child folders of the selected folder. ▶ The data displayed in the graph reflects the filters that you have set for the module.
Relevant tasks	"How to Generate Live Analysis Graphs" on page 1023
See also	"Live Analysis Graph Wizard" on page 1029

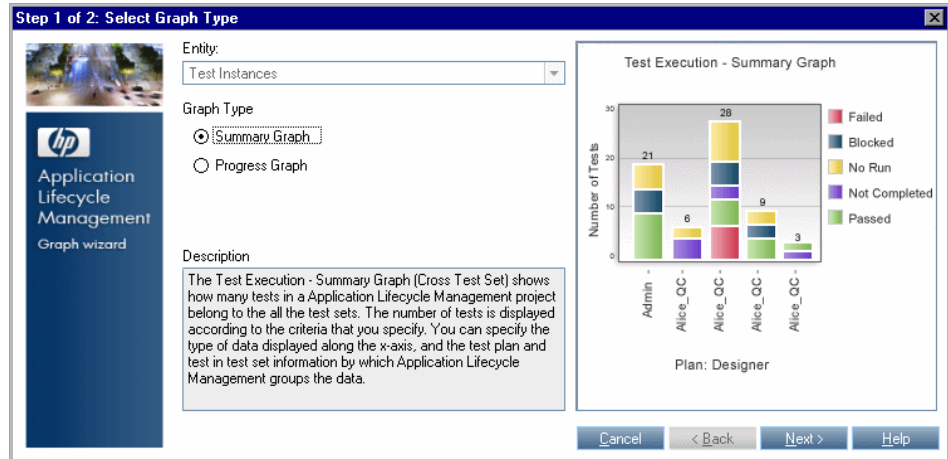
User interface elements are described below (unlabeled elements are shown in angle brackets>):

UI Elements	Description
Add Graph	Launches the Live Analysis Graph Wizard, enabling you to design a Live Analysis graph. For user interface details, see "Live Analysis Graph Wizard" on page 1029.
	<p>View Graph in Full Screen. Maximizes the current graph to full-screen view.</p> <p>Tip: To return to the normal view, click the Close button.</p>
	<p>Set Graph Appearance. Opens the Graph Appearance dialog box, enabling you to change the current graph's title, color, and display. For more details, see "Graph Appearance Dialog Box" on page 942.</p>

UI Elements	Description
	<p>Delete Graph. Removes the current Live Analysis graph from the Live Analysis tab.</p> <p>Note: If you have two Live Analysis graphs displayed for a folder and you want to create a new graph, you must first delete one of the existing graphs.</p>
<graph area>	<p>You can perform the following actions in the chart area:</p> <p>Drill Down. To further analyze your data, click a bar or segment in the graph. The Drill Down Results dialog box opens. For user interface details, see "Drill Down Results Dialog Box" on page 944.</p> <p>Set Colors. To change the graph colors, right-click a bar or line. In the Color dialog box that opens, select the new color from one of the color palettes.</p>
<legend>	<p>Displays the chart categories and their corresponding color.</p> <p>Set Colors. Right-click a category to change its color. In the Color dialog box that opens, select the new color from one of the color palettes.</p>

Live Analysis Graph Wizard

This wizard enables you to create Live Analysis graphs for test subjects, test set folders, and business component subjects.



To access	<ol style="list-style-type: none"> 1 On the ALM sidebar, under Testing, select Test Plan, Test Lab, or Business Components. 2 Select a folder in the module tree, and click the Live Analysis tab. 3 Click the Add Graph link in the pane in which you want to display the graph.
Important information	After you define the data that you want to display, the graphs are automatically updated each time the data changes in the tests or test sets in the folder for which you created the graph.
Relevant tasks	"How to Generate Live Analysis Graphs" on page 1023
Wizard map	This wizard contains: Select Graph Type Page > Select Graph Attributes Page
See also	"Live Analysis Tab" on page 1026

 **Select Graph Type Page**

This wizard page enables you to select the Live Analysis graph type.

Important information	General information about this wizard is available here: "Live Analysis Graph Wizard" on page 1029.
Wizard map	The Live Analysis Graph Wizard contains: Select Graph Type Page > Select Graph Attributes Page

User interface elements are described below:

UI Elements (A-Z)	Description
Description	A description of the selected graph type.
Entity	The ALM entity covered by the graph.
Graph Type	<p>Select the type of graph that you want to display:</p> <p>Summary Graph. Shows the number of tests in a test subject; the number of tests in test sets in a folder; or the number of components in a business component subject.</p> <p>Progress Graph. Shows how many tests accumulated in a test subject, in the test sets in a folder, or components in a business component subject, at specific points during a period of time.</p> <p>Trend Graph. In the Test Plan module, shows the history of changes to specific Test Plan fields in the selected test subject folder, for each time interval displayed. In the Business Components module, shows the history of changes to specific Business Components fields in a project, at each point during a period of time.</p>

Select Graph Attributes Page

This wizard page enables you to set attributes for the Live Analysis graph.

Important information	General information about this wizard is available here: "Live Analysis Graph Wizard" on page 1029.
Wizard map	The Live Analysis Graph Wizard contains: Select Graph Type Page > Select Graph Attributes Page

User interface elements are described below:

UI Elements (A-Z)	Description
Group By field	The field by which tests or components are grouped in the graph. Note: For progress graphs, you can select only fields for which history has been enabled. For more information on enabling history for a field, refer to the <i>HP Application Lifecycle Management Administrator Guide</i> .
X-axis field	In summary graphs, the field whose values are displayed along the X-axis.

41

Project Documents

This chapter includes:

Concepts

- ▶ Project Documents Overview on page 1034

Tasks

- ▶ How to Generate a Project Document on page 1035

Reference

- ▶ Document Generator User Interface on page 1038

Concepts

Project Documents Overview

You can generate a hard copy of the data contained in an HP Application Lifecycle Management (ALM) project by using the Document Generator. The Document Generator enables you to create a Microsoft Word document containing a project's requirements, test plans, test set folders, defect tracking, and business process testing data.

For task details, see "How to Generate a Project Document" on page 1035.

Tasks

How to Generate a Project Document

This task describes how to create project documents using the Document Generator.

This task includes the following steps:

- ▶ "Prerequisites" on page 1035
- ▶ "Set document formats" on page 1035
- ▶ "Specify document content" on page 1036
- ▶ "Generate a document" on page 1036
- ▶ "Result" on page 1037

1 Prerequisites

- ▶ The Document Generator can only be run if Microsoft Word has been enabled to run macros. If you receive a security message while using the Document Generator, you must set the security level of Microsoft Word to medium or low.
- ▶ To verify supported versions of Microsoft Word, refer to the *HP Application Lifecycle Management Installation Guide*.

2 Set document formats

Set formatting instructions to determine how your project document will look.

For example, you can print a company logo on each page of the document, create a table of contents and an index, and place test scripts and file attachments in the text of your document.

- a Open the Document Generator.** On the ALM menu, select **Tools > Document Generator**.
- b** In the Document Generator tree, click the **Document** link. For user interface details, see "Document Page" on page 1044.

3 Specify document content

Specify the project data that will be presented in your document. You can select information from the ALM modules.

For example, you can choose which folders and tests to include from the test plan tree, sort the data alphabetically or in a custom sort order, and display the data as lists or tables.

- a Open the Document Generator.** On the ALM menu, select **Tools > Document Generator**.
- b Open an entity page.** Expand the Document Generator tree, and click a link for an entity that you want to include in the document. For user interface details, see "Document Generator Tree" on page 1041.

4 Generate a document

- a** Use the buttons on the Document Generator toolbar to preview, generate, and save a document. For user interface details, see "Document Generator Window" on page 1039.
- b** Alternatively, reload a saved document by selecting a favorite view.

5 Result

After document generation is complete, you can view and edit the document in Microsoft Word. The information for each module that you select is printed in a separate chapter of the project document.

Example:

Below is a sample page from a Microsoft Word project document generated by the Document Generator.

		HP Software		
Chapter 1. Track Defects				
1.1. Defect ID: 1				
Status: Fixed				
Assigned To: james_gc				
Project: Mercury Tours (HTML Edition)				
Subject: Flight Finder				
Summary: The list of flights is given even when past date set as Departing date				
Reproducible: Y				
Severity: 3-High				
Priority: 3-High				
Detected By: alice_gc				
Detected on Date: 09/01/05				
Detected in Version: Version 1.0				
Planned Closing Version: Version 1.01				
Estimated Fix Time: 5				
Actual Fix Time: 0				
Description: Test Set: Mercury Tours Functionality				
Test: [1]Departing Date				
Run: Run_9-2_10-26-07				
Step: Step 1: Past Departing Date				
Description:				
1. Select the One Way option.				
2. In Departing Date, select any past date. Check each of the following possibilities:				
- Previous month, any date selected.				
- Past date, current month selected.				
3. Click the Continue button.				
Expected result:				
The list of flights should not be given.				
You should be requested to insert valid departing date.				
Actual Result:				
		3	04/10/07	

Reference

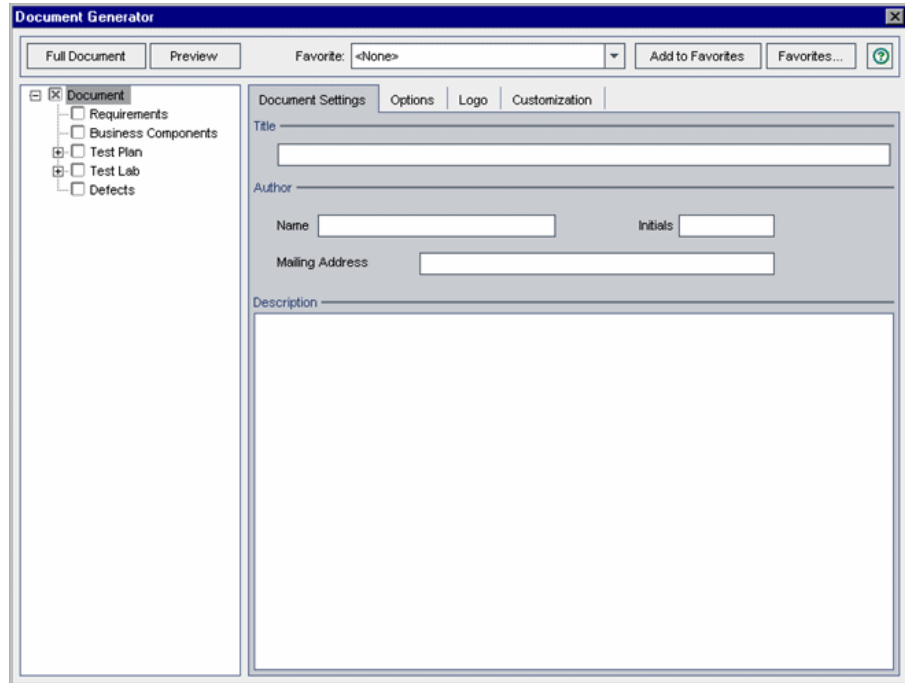
Document Generator User Interface

This section includes:

- ▶ Document Generator Window on page 1039
- ▶ Document Generator Tree on page 1041
- ▶ Document Page on page 1044
- ▶ Requirements Page on page 1047
- ▶ Business Components Page on page 1050
- ▶ Subject Tree Page on page 1051
- ▶ Subject Tests Page on page 1053
- ▶ Test List Page on page 1055
- ▶ Test Lab Page on page 1058
- ▶ Test Sets Page on page 1060
- ▶ Tests Page on page 1061
- ▶ Runs Page on page 1063
- ▶ Defects Page on page 1065
- ▶ Add Favorite Dialog Box on page 1067
- ▶ Organize Favorites Dialog Box on page 1068

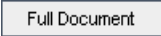

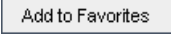
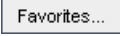
Document Generator Window

The Document Generator enables you to create a Microsoft Word document containing data from a project's requirements, test plans, test set folders, business components, and defects.



To access	On the masthead, select Tools > Document Generator .
Relevant tasks	<ul style="list-style-type: none"> ➤ "How to Generate a Project Document" on page 1035 ➤ "How to Analyze Data in ALM" on page 876

User interface elements are described below (unlabeled elements are shown in angle brackets>):

UI Elements	Description
	<p>Full Document. Opens the Save as dialog box, enabling you to generate the project document.</p> <p>If there are open project document files from previous runs of the Document Generator, first close the files.</p> <p>After you assign a document name, ALM begins generating the document.</p> <p>When the process is complete, Microsoft Word opens and displays the document.</p> <p>Note: If the generated document contains links to attachments, a folder is created in the same location as the document, and the attachment files are copied to this folder. The name of the attachment folder is the name of the document with the suffix “_Attachments”. If you send the document to someone, you can send the attachment folder along with it so that the recipient can access the attachments by using the links</p>
	<p>Preview. Enables you to quickly see how the document will look, without all the details included. ALM opens Microsoft Word and displays the preview project document.</p>
	<p>Add to Favorites. Opens the Add Favorite dialog box, enabling you to add a favorite view to your private or the public folder. For details, see "Add Favorite Dialog Box" on page 1067.</p>
	<p>Favorites. Opens the Organize Favorites dialog box, enabling you to organize saved project documents. For more details, see "Organize Favorites Dialog Box" on page 1068.</p>

UI Elements	Description
Favorite	Enables you to reload a view from a drop-down list of existing favorite views. Tip: Save changes to a favorite view by clicking the Add to Favorites button.
<Document Generator tree>	Lists links to pages in which you configure the document template, and specify project content to include in the document. For more details, see "Document Generator Tree" on page 1041.

Document Generator Tree

This area enables you to specify project data to include in your project document, and design the document template.

To access	On the masthead, select Tools > Document Generator .
Important information	Select the check box next to the appropriate nodes to include the data in the project document.
Relevant tasks	"How to Generate a Project Document" on page 1035

User interface elements are described below:

UI Elements	Description
Document	Enables you to set formatting instructions that control how the document will look and what is included in the cover page. For details, see "Document Page" on page 1044.
Requirements	Enables you to specify which requirements, traced requirements, test coverage, and linked defects from the Requirements module are included in the project document. For details, see "Requirements Page" on page 1047.

UI Elements	Description
<p>Business Components</p>	<p>Enables you to specify which components from the Business Components module are included in the project document. For additional details, see the <i>HP Business Process Testing User Guide</i>.</p>
<p>Test Plan</p>	<p>Enables you to specify which test subject folders and which tests from the Test Plan module are included in the project document.</p> <p>Expand to select which subject folders and tests to include.</p> <p>Click Subject Tree to specify which test subject folders from the test plan tree are included in the project document. For details, see "Subject Tree Page" on page 1051.</p> <p>Click Subject Tests to specify which tests from the selected subject folders are included in the project folder. For details, see "Subject Tests Page" on page 1053.</p> <p>Click Test List to specify which tests from the test grid are included in the project document. For details, see "Test List Page" on page 1055.</p>

UI Elements	Description
Test Lab	<p>Enables you to specify which test set folders from the Test Lab module are included in the project document. For details, see "Test Lab Page" on page 1058.</p> <p>Expand to select which test sets, tests and test runs to include.</p> <p>Click Test Sets to specify which test sets are included in the project document. For details, see "Test Sets Page" on page 1060.</p> <p>Click Tests to specify which tests from the selected test sets are included in the project document. For details, see "Tests Page" on page 1061.</p> <p>Click Runs to specify which test runs from the selected tests in a test set are included in the project document. For details, see "Runs Page" on page 1063.</p>
Defects	<p>Enables you to specify which defects from the Defects module are included in the project document. For more details, see "Defects Page" on page 1065.</p>

Document Page

This page enables you to set formatting instructions that control how the document appears and what is included in the cover page.

To access	In the Document Generator tree, click the Document link.
Relevant tasks	"How to Generate a Project Document" on page 1035
See also	"Document Generator Window" on page 1039

Document Settings Tab

User interface elements are described below:

UI Elements (A-Z)	Description
Author	Details of the document author that are displayed on the document cover page.
Description	A description of the document.
Title	A title that is displayed on the document cover page.

Options Tab

User interface elements are described below:

UI Elements (A-Z)	Description
Attachment Embedding Options	Choose whether the project document contains the data from attachments as a linked icon or as embedded text: As icons. Places a link to the attachment in the document as an icon. As expanded text. Adds the attachment to the document as expanded text.
Attachment Placement Options	Choose where attachments will appear in the document: In text. Displays attachments in the main text of the document. In appendix. Places attachments in a separate appendix.



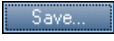
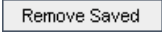

UI Elements (A-Z)	Description
Do not generate a paragraph if there is no corresponding project information	Instructs ALM to not include empty data fields in the project document.
Graph Options	Choose where graphs will appear in the document: In text. Displays graphs in the main text of the document. In appendix. Places graphs in a separate appendix.
Include with Document	Select additional sections to include in the project document: First Page. The cover page of the project document. This displays the title of the document, the date the document was created, and the name of the document's author. You specify this information in the Document Settings tab. Table of contents. A list of all sections in the project document. Index. An alphabetical list of all the information in the project document. The index appears at the end of the document.
Test Script Options	Choose where test scripts will appear in the document: In text. Displays test scripts in the main text of the document. In appendix. Places test scripts in a separate appendix.

Logo Tab

This tab enables you to set the image that is placed at the top of each page of the project document.

Important information	<ul style="list-style-type: none"> ▶ The logo is placed at the top of each page of the project document. ▶ If you do not define a logo, the Document Generator uses the HP logo in the project document.
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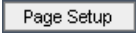
User interface elements are described below:

UI Elements	Description
	Load from File. Opens the Open dialog box, enabling you to select an image in your file system to use as a logo in the project document. The image is displayed in the Logo tab.
	Unload. Removes the displayed logo.
	Save. Saves the displayed image in the current project.
	Remove Saved. Deletes the saved image from the current project. Note: To remove the displayed logo, click the Unload button.
	Load from Saved. Displays the image that was saved to the project, and uses it as a logo in the project document.

Customization Tab

This tab enables you to set the document paper properties.

User interface elements are described below:

UI Elements	Description
	Page Setup. Opens the Page Setup dialog box, enabling you to set the measurement units, margins, orientation, and paper size to be used for project documents.

Requirements Page

This page enables you to specify the requirement information from the Requirements module that should appear in the Requirements section of the project document.

To access	In the Document Generator tree, click the Requirements link.
Important information	<ul style="list-style-type: none"> ▶ Select the check box next to the Requirements link to include the data in the project document. ▶ Microsoft Word is limited to nine header levels in the table of contents. If the requirements tree has more than nine hierarchical levels, these levels will not appear in the table of contents of the generated project document.
Relevant tasks	"How to Generate a Project Document" on page 1035
See also	"Document Generator Window" on page 1039

User interface elements are described below:

UI Elements (A-Z)	Description
Attachment	<p>Includes requirement attachments in the document. Requirement attachments are files that have been associated with the requirement, such as text files, images, or URLs.</p> <p>Note: Available if you selected Full page as the Requirements Layout.</p>
Coverage	<p>Includes test coverage for the requirements in the document. Click the Customize button to open the Tabular Layout dialog box to customize the coverage table. Use the Tabular Layout dialog box to choose the columns that will appear in the table, and set the column order, width, and captions.</p> <p>Note: Available if you selected Full page as the Requirements Layout.</p>

UI Elements (A-Z)	Description
Graphs	<p>Enables you to include graphs in the project document. Select graphs from the graph list located at the bottom of the page.</p> <p>Note: Only graphs that are saved in the Dashboard module are included in the list.</p>
Linked defects	<p>Includes linked defects in the document. Click the Customize button to open the Tabular Layout dialog box to customize the linked defects table. Use the Tabular Layout dialog box to choose the defect columns that will appear in the table, and to set the column order, width and captions. You can also specify whether to display only defects that have been directly linked to requirements or to include indirectly-linked defects as well.</p> <p>Note: Available if you selected Full page as the Requirements Layout.</p>
Page break after each requirement	<p>Inserts page breaks in the project document after each requirement.</p> <p>Note: Available if you selected Full page as the Requirements Layout.</p>
Requirements	<p>Select one of the following options:</p> <p>All. Includes all the requirements from the requirements tree.</p> <p>By status. Includes only requirements with the selected status.</p> <p>Selected. Includes only selected requirements. To include child requirements, click First Selected with Children.</p> <p>Click the Filter & Sort button to specify the criteria for selecting requirements. For more details, see "Filter Dialog Box" on page 60.</p>

UI Elements (A-Z)	Description
Requirements Layout	<p>Select one of the following options:</p> <p>Full page. Displays a list of the selected requirements. Click the Customize button to choose the information to appear in the document.</p> <p>Tabular. Displays the requirements as a table. Click the Customize button to open the Tabular Layout dialog box to customize the table. Use the Tabular Layout dialog box to choose the columns that will appear in the table, and set the column order, width, and captions.</p> <p>Coverage Analysis. Displays a graphical breakdown of the direct cover status for each requirement. Click the Customize button to open the Coverage Analysis dialog box to choose whether to display the analysis in color or black and white, the number of hierarchical levels to display, and whether to display a legend.</p>
Rich text	<p>Includes Microsoft Word content for each requirement.</p> <p>Note: Available if you selected Full page as the Requirements Layout.</p>
Trace from	<p>Includes traced from requirements in the document. Click the Customize button to open the Tabular Layout dialog box to customize the traceability table. Use the Tabular Layout dialog box to choose the columns that will appear in the table, and set the column order, width, and captions.</p> <p>Note: Available if you selected Full page as the Requirements Layout.</p>
Trace to	<p>Includes traced to requirements in the document. Click the Customize button to open the Tabular Layout dialog box to customize the traceability table. Use the Tabular Layout dialog box to choose the columns that will appear in the table, and set the column order, width, and captions.</p> <p>Note: Available if you selected Full page as the Requirements Layout.</p>

Business Components Page

This page enables you to specify the component information from the Business Components module that should appear in the Business Components section of the project document.

To access	In the Document Generator tree, click the Business Components link.
Important information	Select the check box next to the Business Components link to include the data in the project document.
Relevant tasks	"How to Generate a Project Document" on page 1035
See also	"Document Generator Window" on page 1039

User interface elements are described below:

UI Elements (A-Z)	Description
Components	Select one of the following options: All components. Includes all the components from the components tree. Selected. Includes only selected components. Click the Filter & Sort button to specify the criteria for selecting components. For more details, see "Filter Dialog Box" on page 60.
Full Page Layout	Full page. Displays a list of all the components in the components tree. Click the Customize button to choose the information to appear in the document.
Tests that use the component	Include business process tests that use the component in the document.
Steps	Includes steps from the business component in the document.

UI Elements (A-Z)	Description
Snapshot	Include business component's snapshots in the document.
Page break after each component	Inserts page breaks in the project document after each test.

Subject Tree Page

This page enables you to specify the information from the test plan tree view of the Test Plan module that should appear in the project document.

To access	In the Document Generator tree, expand the Test Plan node, and click the Subject Tree link.
Important information	<ul style="list-style-type: none"> ▶ Select the check box next to the Subject Tree link to include the data in the project document. ▶ Microsoft Word is limited to nine header levels in the table of contents. If the test plan tree has more than nine hierarchical levels, these levels will not appear in the table of contents of the generated project document.
Relevant tasks	"How to Generate a Project Document" on page 1035
See also	"Document Generator Window" on page 1039

User interface elements are described below:

UI Elements (A-Z)	Description
Attachment	Includes test subject attachments in the document. Test subject attachments are files that have been associated with the test subject, such as text files, images, or URLs.
Folders	Specify which test plan tree folders you want to include in the document: All. Includes all the folders in the test plan tree. Selected. Includes only the folders you choose from the test plan tree. You select the folders from the test plan tree displayed on the right side of the Subject Tree page.
Graphs	Enables you to include graphs in the project document. Select graphs from the graph list located at the bottom of the page. Note: Only graphs that are saved in the Dashboard module are included in the list.

UI Elements (A-Z)	Description
Page break after each folder	Inserts page breaks in the project document after each test subject folder.
Tree Sort	<p>Determine the order of the test plan tree information in the document:</p> <p>Alphabetical: The contents of the folders will be organized according to the alphabetical order of the folders in the test plan tree. For example, suppose the test plan tree contains two folders, Automated Tests and Manual Tests. The tests in the Automated Tests folder will be printed before the tests in the Manual Tests folder.</p> <p>Custom. The contents of the folders will be organized according to the custom sort order you set for displaying test plan tree folders. By default, subject folders in the test plan tree appear in alphabetical order (by name). For example, suppose the test plan tree contains two folders, Automated Tests and Manual Tests. You can create a sort order that prints the tests in the Manual Tests folder before the tests in the Automated Tests folder. For user interface details on creating a custom sort order for the test plan tree, see "Sort Folders in Test Plan Tree Dialog Box" on page 521.</p>

Subject Tests Page

This page enables you to include test data in the project document.

To access	In the Document Generator tree, expand the Test Plan > Subject Tree node, and click the Subject Tests link.
Important information	Select the check box next to the Subject Tests link to include the data in the project document.
Relevant tasks	"How to Generate a Project Document" on page 1035
See also	"Document Generator Window" on page 1039

User interface elements are described below:

UI Elements (A-Z)	Description
Attachments (Subject Tests)	Include test attachments in the document.
Components detailed layout	<p>If you use Business Process Testing, includes the layout of the components defined in the tests. Choose what to include in the detailed layout:</p> <p>Component steps. Includes component steps. Click the Customize button to open the Tabular Layout dialog box to customize the component steps table. Use the Tabular Layout dialog box to choose the defect columns that will appear in the table, and to set the column order, width and captions.</p> <p>Iterations list. Includes the iteration list.</p>
Design Steps	Includes design steps from the test.
History	Display a list of all the changes made to the tests, and which user made each change.
Layout	<p>Specify how design steps will be organized:</p> <p>Full page. Displays a list of all the design steps in a test. Click the Customize button to choose the information to appear in the document.</p> <p>Tabular. Displays all the design steps in a test as a table. Click the Customize button to open the Tabular Layout dialog box to customize the table. Use the Tabular Layout dialog box to choose the columns that will appear in the table, and set the column order, width, and captions.</p>
Linked defects	Includes a table of linked defects. Click the Customize button to open the Tabular Layout dialog box to customize the linked defects table. Use the Tabular Layout dialog box to choose the defect columns that will appear in the table, and to set the column order, width and captions. You can also specify whether to display only defects that have been directly linked to tests or to include indirectly-linked defects as well.

UI Elements (A-Z)	Description
Page break after each test	Inserts page breaks in the project document after each test.
Properties	Specify what to include from the design steps: Recursive. Includes called tests from the design steps. Attachments (Design Steps). Includes all design step attachments.
Test Scripts	Includes test scripts in the document.
Tests	Specify which tests you want to include in the document: All tests. Includes all the tests from the selected test plan tree folders. Selected. Includes only selected tests. Click the Filter & Sort button to specify the criteria for selecting tests. For more details, see "Select Filter Condition Dialog Box" on page 70.

Test List Page

This page enables you to specify the tests from the Test Grid that should appear in the project document.

To access	In the Document Generator tree, expand the Test Plan node, and click the Test List link.
Important information	Select the check box next to the Test List link to include the data in the project document.
Relevant tasks	"How to Generate a Project Document" on page 1035
See also	"Document Generator Window" on page 1039

User interface elements are described below:

UI Elements (A-Z)	Description
Attachments	Includes test attachments in the document. Note: Available if you selected Full page as the Test Layout.
Components detailed layout	If you use Business Process Testing, you can include the detailed layout of the components included in the tests. Choose what to include in the detailed layout: Component steps. Includes component steps. Click the Customize button to open the Tabular Layout dialog box to customize the component steps table. Use the Tabular Layout dialog box to choose the defect columns that will appear in the table, and to set the column order, width and captions. Iterations list. Includes the iteration list. Note: Available if you selected Full page as the Test Layout.
Design steps	Includes design steps from the test. Note: Available if you selected Full page as the Test Layout.
Graphs	Enables you to include graphs in the project document. Select graphs from the graph list located at the bottom of the page. Note: Only graphs that are saved in the Dashboard module are included in the list.
History	Displays a list of all the changes made to the tests, and who made them. Note: Available if you selected Full page as the Test Layout.

UI Elements (A-Z)	Description
Layout	<p>If you selected Design steps, specify how design steps will be organized:</p> <p>Full Page. Displays a list of all the design steps in a test. Click the Customize button to choose the information to appear in the document.</p> <p>Tabular. Displays all the design steps in a test as a table. Click the Customize button to open the Tabular Layout dialog box to customize the table. Use the Tabular Layout dialog box to choose the columns that will appear in the table, and set the column order, width, and captions.</p>
Linked defects	<p>Includes a table of linked defects. Click the Customize button to open the Tabular Layout dialog box to customize the linked defects table. Use the Tabular Layout dialog box to choose the defect columns that will appear in the table, and to set the column order, width and captions. You can also specify whether to display only defects that have been directly linked to tests or to include indirectly-linked defects as well.</p> <p>Note: Available if you selected Full page as the Test Layout.</p>
Page break after each test	<p>Inserts page breaks in the project document after each test.</p>
Properties	<p>If you selected Design steps, specify what to include from the design steps:</p> <p>Recursive. Includes called tests from the design steps.</p> <p>Attachments. Includes all design step attachments.</p>
Test Layout	<p>Specify how the tests will be organized:</p> <p>Full Page. Displays a list of all the tests in the project. Click the Customize button to choose the information to appear in the document.</p> <p>Tabular. Displays all the tests as a table. Click the Customize button to open the Tabular Layout dialog box to customize the table. Use the Tabular Layout dialog box to choose the columns that will appear in the table, and set the column order, width, and captions.</p>

UI Elements (A-Z)	Description
Test scripts	Includes test scripts in the document. Note: Available if you selected Full page as the Test Layout.
Tests	Specify which tests you want to include in the document: All tests. Includes all the tests from the Test Grid. Selected. Includes only selected tests. Click the Filter & Sort button to specify the criteria for selecting tests. For more details, see "Select Filter Condition Dialog Box" on page 70.

Test Lab Page

This page enables you to specify the information from the Test Lab module that should appear in the project document.

To access	In the Document Generator tree, click the Test Lab link.
Important information	<ul style="list-style-type: none"> ➤ Select the check box next to the Test Lab link to include the data in the project document. ➤ Microsoft Word is limited to nine header levels in the table of contents. If the test plan tree has more than nine hierarchical levels, these levels will not appear in the table of contents of the generated project document.
Relevant tasks	"How to Generate a Project Document" on page 1035
See also	"Document Generator Window" on page 1039

User interface elements are described below:

UI Elements (A-Z)	Description
Attachment	Includes test set attachments in the document.
Folders	<p>Specify which test lab folders you want to include in the document:</p> <p>All. Includes all the folders in the test set tree.</p> <p>Selected. Includes only the folders you choose from the test set tree. You select the folders from the test set tree displayed under Folders.</p>
Graphs	<p>Includes graphs in the project document. Select graphs from the graph list located at the bottom of the page.</p> <p>Note: Only graphs that are saved in the Dashboard module are included in the list.</p>
Page break after each test set folder	Inserts page breaks in the project document after each test set folder.

Test Sets Page

This page enables you to include test set data in the project document.

To access	In the Document Generator tree, expand the Test Lab node, and click the Test Sets link.
Important information	Select the check box next to the Test Sets link to include the data in the project document.
Relevant tasks	"How to Generate a Project Document" on page 1035
See also	"Document Generator Window" on page 1039

User interface elements are described below:

UI Elements (A-Z)	Description
Available Test Sets	Specify which test sets you want to include in the document: All. Includes all the test sets in the selected test set folder. Selected. Includes only selected test sets. Click the Filter & Sort button to specify the criteria for selecting the test sets. For more details, see "Filter Dialog Box" on page 60.
Graphs	Includes graphs in the project document. Select graphs from the graph list. Note: Only graphs that are saved in the Dashboard module are included in the list.
Linked defects	Includes linked defects. Click the Customize button to customize the linked defects. Use the Tabular Layout dialog box to choose the defect columns that will appear in the table, and to set the column order, width and captions. You can also specify whether to display only defects that have been directly linked to test sets or to include indirectly-linked defects as well.
Page break after each test set	Inserts page breaks in the project document after each test set.

Tests Page

This page enables you to include test data in the project document.

To access	In the Document Generator tree, expand the Test Lab > Test Sets nodes, and click the Tests link.
Important information	Select the check box next to the Tests link to include the data in the project document.
Relevant tasks	"How to Generate a Project Document" on page 1035
See also	"Document Generator Window" on page 1039

User interface elements are described below:

UI Elements (A-Z)	Description
Attachments	Includes test attachments in the document. Note: Available if you selected Full page as the Test Layout.
Components detailed layout	If you use Business Process Testing, you can include the detailed layout of the components included in the tests. Choose what to include in the detailed layout: Component steps. Includes component steps. Click the Customize button to open the Tabular Layout dialog box to customize the component steps table. Use the Tabular Layout dialog box to choose the defect columns that will appear in the table, and to set the column order, width and captions. Iterations list. Includes the iteration list. Note: Available if you selected Full page as the Test Layout.
History	Displays a list of all the changes made to the tests, and who made them. Note: Available if you selected Full page as the Test Layout.

UI Elements (A-Z)	Description
Linked defects	<p>Includes a table of linked defects. Click the Customize button to open the Tabular Layout dialog box to customize the linked defects table. Use the Tabular Layout dialog box to choose the defect columns that will appear in the table, and to set the column order, width and captions. You can also specify whether to display only defects that have been directly linked to tests or to include indirectly-linked defects as well.</p> <p>Note: Available if you selected Full page as the Test Layout.</p>
Page break after each test	<p>Inserts page breaks in the project document after each test.</p>
Test Layout	<p>Specify how the tests will be organized:</p> <p>Full Page. Displays test information as a list. Click the Customize button to choose the information to appear in the document.</p> <p>Tabular. Displays test information as a table. Click the Customize button to open the Tabular Layout dialog box to customize the table. Use the Tabular Layout dialog box to choose the columns that will appear in the table, and set the column order, width, and captions.</p> <p>Note: If you select Tabular, you cannot include test runs in the document.</p>
Test scripts	<p>Includes test scripts in the document.</p> <p>Note: Available if you selected Full page as the Test Layout.</p>
Tests	<p>Specify which tests you want to include in the document:</p> <p>All tests. Includes all the tests in the selected test set.</p> <p>Selected. Includes only selected tests. Click the Filter & Sort button to specify the criteria for selecting tests. For more details, see "Select Filter Condition Dialog Box" on page 70.</p>

Runs Page

This page enables you to include run data in the project document.

To access	In the Document Generator tree, expand the Test Lab > Test Sets > Tests nodes, and click the Runs link.
Important information	Select the check box next to the Runs link to include the data in the project document.
Relevant tasks	"How to Generate a Project Document" on page 1035
See also	"Document Generator Window" on page 1039

User interface elements are described below:

UI Elements (A-Z)	Description
Attachments (Run Steps)	Includes run step attachments in the document. Note: Available if you selected the Full page Run Layout.
Attachments (Runs)	Includes test run attachments in the document.
Defects	Includes a table of defects linked with run steps. Click the Customize button to open the Tabular Layout dialog box to customize the linked defects table. Use the Tabular Layout dialog box to choose the defect columns that will appear in the table, and to set the column order, width and captions. You can also specify whether to display only defects that have been directly linked to run steps or to include indirectly-linked defects as well.
Layout	If you are including run steps in the document, choose one of the following options: Full Page. Displays a list of all the steps in a run. Click the Customize button to choose the information to appear in the document. Tabular. Displays all the steps in a run as a table. Click the Customize button to open the Tabular Layout dialog box to customize the table. Use the Tabular Layout dialog box to choose the columns that will appear in the table, and set the column order, width, and captions.

UI Elements (A-Z)	Description
Linked defects	<p>Includes a table of linked defects. Click the Customize button to open the Tabular Layout dialog box to customize the linked defects table. Use the Tabular Layout dialog box to choose the defect columns that will appear in the table, and to set the column order, width and captions. You can also specify whether to display only defects that have been directly linked to tests or to include indirectly-linked defects as well.</p> <p>Note: Available if you selected the Full page Run Layout.</p>
Run Layout	<p>Specify how the runs will be organized:</p> <p>Full Page. Displays a list of all the test runs. Click the Customize button to choose the information to appear in the document.</p> <p>Tabular. Displays all the test runs as a table. Click the Customize button to open the Tabular Layout dialog box to customize the table. Use the Tabular Layout dialog box to choose the columns that will appear in the table, and set the column order, width, and captions.</p>
Run steps	<p>Includes a list of run steps in the document.</p> <p>Note: Available if you selected the Full page Run Layout.</p>
Runs	<p>Choose one of the following options:</p> <p>Last run. Includes only the last run of the test.</p> <p>All runs. Includes all runs of the test.</p> <p>Selected. Includes only selected runs in the document. Click the Filter & Sort button to specify the criteria for selecting tests. For more details, see "Select Filter Condition Dialog Box" on page 70.</p>

Defects Page

This page enables you to specify the defects information from the Defects module that should appear in the Defects section of the project document.

To access	In the Document Generator tree, click the Defects link.
Important information	Select the check box next to the Defects link to include the data in the project document.
Relevant tasks	"How to Generate a Project Document" on page 1035
See also	"Document Generator Window" on page 1039

User interface elements are described below:

UI Elements (A-Z)	Description
Attachments	Includes defect attachments in the document. Note: Available if you selected Full page as the Defects Layout.
Defects	Select one of the following options: All defects. Includes all the defects from the defects grid. Selected. Includes only selected defects. Click the Filter & Sort button to specify the criteria for selecting defects. For more details, see "Select Filter Condition Dialog Box" on page 70.
Defects Layout	Select one of the following options: Full page. Displays the selected defects as a list. Click the Customize button to choose the information to appear in the document. Tabular. Displays the selected defects as a table. Click the Customize button to open the Tabular Layout dialog box to customize the table. Use the Tabular Layout dialog box to choose the columns that will appear in the table, and set the column order, width, and captions.

UI Elements (A-Z)	Description
Graphs	<p>Enables you to include graphs in the project document. Select graphs from the graph list.</p> <p>Note: Only graphs that are saved in the Dashboard module are included in the list.</p>
History	<p>Displays a list of all the changes made to the defects.</p>
Linked defects	<p>Includes linked defects as a table. Click the Customize button to open the Tabular Layout dialog box to customize the linked defects table. Use the Tabular Layout dialog box to choose the defect columns that will appear in the table, and to set the column order, width and captions. You can also specify whether only direct links will be displayed.</p> <p>Note: Available if you selected Full page as the Defects Layout.</p>
Linked entities	<p>Includes linked entities as a table. Click the Customize button to open the Tabular Layout dialog box to customize the linked entities table. Use the Tabular Layout dialog box to choose the defect columns that will appear in the table, and to set the column order, width and captions. You can also change the captions and the width of the table columns.</p> <p>Note: Available if you selected Full page as the Defects Layout.</p>
Page break after each requirement	<p>Inserts page breaks in the project document after each defect.</p> <p>Note: Available if you selected Full page as the Defects Layout.</p>

Add Favorite Dialog Box

This dialog box enables you to add a favorite view to your private folder or to a public folder.

To access	In the Document Generator, click the Add to Favorites button.
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User interface elements are described below:



UI Elements (A-Z)	Description
Existing Favorites	Displays the favorite views that already exist in the selected location.
Location	Folders for storing your favorite views: <ul style="list-style-type: none"> ▶ Private. Favorite views in this folder can only be accessed by you. ▶ Public. Favorite views in this folder can be accessed by all users of the project.
Name	The name of the favorite view.

Organize Favorites Dialog Box

This dialog box enables you to organize the list of favorite views in the private and public folders by changing the properties of a view and by deleting views.

To access	In the Document Generator, click the Favorites button.
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User interface elements are described below (unlabeled elements are shown in angle brackets):

UI Elements	Description
	Opens the Properties dialog box, enabling you to change the following properties of the selected favorite view: Name. The name of the favorite view. Location. The folder in which you store the favorite view, private or public.
	Deletes the selected favorite view.
<favorite views tree>	Displays the list of favorite views alphabetically by location.

Glossary

This glossary lists terminology that is used throughout HP Application Lifecycle Management (ALM).

See also:

► *HP Business Process Testing User Guide*

A

activity

A business process model entity that represents a function, task, or sub-process. Activities are imported to ALM together with their parent business process model.

alert

A notification that informs specified users of changes in requirements, tests or defects. An alert can be triggered as a result of automatic notification rules or as a follow up reminder that you set up for yourself.

ALM Editions

HP Application Lifecycle Management (ALM) is also available in three editions which provide subsets of ALM functionality — HP ALM Quality Center Starter Edition, HP ALM Quality Center Enterprise Edition, and HP ALM Performance Center Edition.

ALM Quality Center Starter Edition: For application management teams managing small releases with a maximum of five concurrent users.

ALM Quality Center Enterprise Edition: For application teams managing medium to large releases.

ALM Performance Center Edition: For managing all aspects of large-scale performance testing projects.

associated libraries

Two libraries in the same project or in different projects, in which one library, the **source library**, was used as the basis for creating the other, **imported library**. You can compare associated libraries to track changes over time, or synchronize libraries to update one library with changes made to the other library.

B

baseline

A snapshot of a **library** at a specific point in time. It includes all the entities defined in the library and the relationships between them, such as **coverage** and **requirements traceability**. You can compare baselines to track changes in a project over time, or use a baseline to reuse or share the entities in a library.

Business Components module

Functional area of ALM accessible by selecting Business Components on the ALM sidebar under Testing. This module enables subject matter experts to work with Business Process Testing (BPT), the HP test automation solution. You use reusable business process components and flows to create business process tests. You can also combine manual components to manually test your application. Access to this module is dependent on your ALM license.

business criticality

A **risk-based quality management (RBQM)** category that measures how crucial a requirement is for the business. Risk is calculated based on the combined results of the Business Criticality and the Failure Probability assessment.

Business Models module

Functional area of ALM accessible by selecting Business Models on the ALM sidebar under Requirements. This module enables you to import business process models, and test the quality of the models and their components. Access to this module is dependent on your ALM license.

business process model

A diagram that represents the activities and workflows that take place in an organization. Business process models are imported to ALM for testing in the **Business Models module**.

Alternatively, an ALM entity in the Business Models module that represents a business process model as a whole.

C**check in**

When using **version control**, the process in which a new, updated version of an entity is created and made available to other users. After you **check out** the entity and make changes, you check in a new version of the entity.

check out

When using **version control**, the process in which you lock an entity to make changes, preventing other users from overwriting your changes. The checked out version of an entity is not visible to other users.

coverage

The links you create to keep track of the relationship between your requirements and tests. In the Test Plan module, you create **requirements coverage** by selecting requirements to link to a test. Alternatively, in the Requirements module, you create **test coverage** by selecting tests to link to a requirement. A test can cover more than one requirement, and a requirement can be covered by more than one test.

cross filter

An advanced, second-level filter on an associated item, such as requirements, tests, test sets, or defects. For example, in the Requirements module, you can define a cross filter to exclude requirements whose covering tests have the **Passed** status.

cross project customization

The process of customizing a template project to define and maintain a common set of project customizations for multiple ALM projects. You link a template project to one or more other projects. You then customize the template and apply customization to the linked projects. Template customization applied to linked projects can include user groups and permissions, project entities, requirement types, lists, and workflow.

cycle

A set of development and quality assurance efforts performed to achieve a common goal based on the release timeline. After you define a **release**, you add cycles to the release. You can then assign requirements, defects, and test set folders to the cycles.

D

Dashboard module

Functional area of ALM accessible by selecting Dashboard on the ALM sidebar. This module enables you to analyze ALM data by creating, viewing and managing graphs, standard reports, and Excel reports. You also create dashboard pages that display multiple graphs side-by-side.

dashboard page

A selection of graphs that you view in a single display. You design and view dashboard pages in the Dashboard View tab of the Dashboard module.

defect

A problem detected in the project application during any phase of the application management process. You can link defects to other project entities, such as requirements, tests, or other defects. A defect can be linked directly or indirectly to other entities. When you add a defect link to an entity, ALM adds a direct link to this entity and indirect links to other related entities.

Defects module

Functional area of ALM accessible by selecting the Defects button in the sidebar. This module enables you to submit and track defects, determine repair priorities, and analyze the data.

domain

ALM projects are grouped by domain. A domain contains a group of related ALM projects and assists you in organizing and managing a large number of projects. Each domain contains a Projects folder and a Template Projects folder to organize your ALM projects and template projects.

draft run

A test run whose outcome does not impact test statistics such as execution status or coverage. You can set a test run as a draft before or after the run, enabling you to try out tests while they are in development, or after they have been modified. When you change the draft run value, ALM recalculates tests statistics and updates status fields.

E

entity

A data set in an ALM project that works as a unit, such as the requirement entity which stores data on all ALM requirements. Entities contain data entered by users for a specific application management process and the data is stored in tables. Each entity can contain system fields and user-defined fields.

Alternatively, an individual record containing unique data, such as a single requirement in the Requirements module. You can create and modify an entity, mail an entity, maintain a history of changes made to an entity, or create links between entities.

Excel add-in

You can import requirement, test plan, or defect data from a Microsoft Excel worksheet to an ALM project. To import from Excel, you first install the HP ALM Microsoft Excel Add-in on your client machine.

F

failure probability

A **risk-based quality management (RBQM)** category that indicates how likely a test based on the requirement is to fail. Risk is calculated based on the combined results of the Failure Probability and the Business Criticality assessment.

functional complexity

A **risk-based quality management (RBQM)** category that indicates the complexity of the requirement's implementation.

I

imported library

You can create a new **library** by importing an existing library. An imported library is a library that you create by importing an existing library from the same project or from a different project.

K**key performance indicator (KPI)**

You define a KPI in a project planning and tracking (PPT) milestone. A KPI is a quantifiable measure designed to track a critical performance variable over time, and measure the essential outcome of a release scope item. For each KPI, you define threshold limits for allowable deviations.

L**Libraries module**

Functional area of ALM accessible by selecting Libraries on the ALM sidebar under Management. This module enables you to define and create libraries and baselines to track changes in your project, reuse entities in a project, or share entities across multiple projects.

library

A defined set of entities in a project and the relationships between them, such as **coverage** and **requirements traceability**. The entities in a library can include requirements, tests, test resources, and business components. After you define a library, you then create a **baseline**, enabling you to track changes in a project over time, reuse the entities in a project, or share entities across multiple projects.

linked project

A project connected to a **template project**. You apply template customization updates to the linked project as a part of **cross project customization**.

M**Management module**

Functional area of ALM accessible by selecting Management on the sidebar. This module includes two sub-modules: **Releases module** and **Libraries module**.

milestone

To measure the progress of a project planning and tracking (PPT) release scope item, you associate it with milestones. A milestone is a point in the time-line of a release that signifies the completion of a deliverable. It enables you to validate the progress of the release. A milestone can be associated with one or more release scope items.

P

path

A business process model entity that represents a series of transitions between activities. You define paths in ALM that are critical for quality testing.

pinned test set

A test set that is linked to a **baseline**. In the Test Lab module, after you create a test set, you can link the test set to a baseline that you specify. When you run the test set, ALM runs only the versions of the test stored in the baseline.

project

Collects and stores data relevant to the application lifecycle management process, including requirements, tests, defects, and additional resources. Projects are stored in the ALM project repository on the application server's file system.

project customization

The process of adapting a project to meet the specific needs of your organization. Using the Project Customization window, you can control access to a project by defining the users who can access the project, determining the types of tasks each user can perform, and adding and modifying fields.

project planning and tracking (PPT)

A feature that enables quality assurance managers to track application readiness by defining goals and activities involved in the quality assurance process of an application release. This feature is accessed from the Releases module and it includes the following tabs: Release Scope, Master Plan, and Scorecard.

R**release**

A group of changes to the application that will be available for distribution at the same time. You can divide a release into cycles. You can then assign requirements and defects to the release and cycles.

release scope item

A subdivided section of a project planning and tracking (PPT) release. For each release scope item you define the related requirements, tests, and defects. To measure the progress of a release scope item, you associate it with a milestone.

Releases module

Functional area of ALM accessible by selecting Releases on the ALM sidebar under Management. This module allows you to organize and track your upcoming releases by defining releases and cycles for the application management process.

representative requirement

A **requirement** that corresponds to a **business process model, activity, or path**. Representative requirements link model entities to their associated requirements, tests, and defects.

requirement

A detailed description of a specific objective of your application under development. You organize your requirements in a requirements tree, a hierarchical structure in which you can group your application's requirements according to function or objective. You can link a requirement to releases and cycles in the Releases module. You can also create links between a requirement and other requirements, tests, and defects.

requirements coverage

The links you create to keep track of the relationship between your requirements and tests. In the Test Plan module, you create requirements coverage by selecting requirements to link to a test. Requirements coverage assists you in assessing the impact of a change in the test or requirement. A test can cover more than one requirement. The direct cover status of a requirement reflects the execution status of the tests covering the requirement.

Requirements module

Functional area of ALM accessible by selecting Requirements on the ALM sidebar under Requirements. This module enables you to create, manage and analyze requirements in a hierarchical tree-structure. You can also create links between requirements and other requirements, tests, or defects.

requirements traceability

A link you create to establish a relationship between requirements. When analyzing the impact of a proposed change in a requirement, traceability identifies other requirements that may be affected by the change. You define traceability relationships in the Requirements Traceability tab of the Requirements module. You can add traceability links to and from a selected requirement.

requirement type

A category for a requirement that describes the purpose of the requirement, such as a functional requirement, or a testing requirement. You assign each requirement to one of the ALM default requirement types, or to a customized requirement type that the project administrator can create.

risk-based quality management (RBQM)

A feature that assists you in determining a testing strategy for your requirements, based on risk and functional complexity, testing time, and the resources you have available. You work with risk-based quality management in the Risk Analysis and Risk Assessment tabs of the Requirements module.

S**source library**

You can create a new **library** by importing an existing library from the same project or from a different project. A source library is a library used as the basis for creating another library.

Sprinter

HP's manual testing solution, providing advanced functionality and a variety of tools to assist in the manual testing process. Sprinter is fully integrated with ALM, enabling you to run tests manually from the Test Lab module using Sprinter.

system field

An ALM default field for entering data in an ALM project. System fields cannot be added or deleted, only modified.

T**template project**

A customized project used to apply a common set of project customizations to other projects as a part of **cross project customization**. Enables you to standardize policies and procedures across projects in your organization.

template test

A test that includes common steps you often want to perform as part of other tests. You can mark a manual test in the test plan tree as a template test so that you can easily select it for calling from another test.

test

One or more steps you define to verify a specific function or requirement of your application. You can create manual tests, or automated tests that are executed by a testing tool. You organize your tests in a test plan tree, a hierarchical structure that divides your application into testing units, or subjects. A test can contain multiple **test configurations**.

test configuration

A set of definitions that describe a specific use-case of a **test**. For example, a test configuration can specify a subset of data or a run-time environment that the test should use. A test configuration is contained in a **test instance**.

test coverage

The links you create to keep track of the relationship between your requirements and tests. In the Requirements module, you create test coverage by linking tests to a requirement. Test coverage assists you in assessing the impact of a change in the test or requirement. A requirement can be covered by more than one test, or by selected configurations of different tests.

test instance

An occurrence of a test in a **test set**. Each test instance contains a defined **test configuration**.

test criteria

When creating **coverage** between requirements and business process tests, instead of covering each requirement only at the level of a test, test criteria enables coverage by defined business components of a test.

Test Lab module

Functional area of ALM accessible by selecting Test Lab on the ALM sidebar under Testing. This module enables you to create and manage test sets, and perform test runs. You can schedule tests to run either manually or automatically.

Test Plan module

Functional area of ALM accessible by selecting Test Plan on the ALM sidebar under Testing. This module enables you to develop and manage tests in a hierarchical tree-structure. Tests can be linked to requirements and defects.

test resource

Test resources are files or folders stored in the ALM repository that are used by tests. A test resource can be used by one or more tests. For example, a test resource can be a data file containing data needed as input for a number of tests.

Test Resources module

Functional area of ALM accessible by selecting Test Resources on the ALM sidebar under Testing. This module enables you to manage test resources in a hierarchical tree-structure. Test resources can be associated with tests.

test run

The execution of a **test instance** in a **test set**. You run tests in the Test Lab module. You can run tests manually or automatically, schedule the date and time of test runs, and set the conditions for when a test can be run. You can view results for a single test run, or view and compare details of all the runs for a selected test instance.

test set

A group of tests in an ALM project designed to achieve a specific testing goal, such as sanity or regression testing. Grouping the tests in your project into test sets helps you organize test execution to meet your testing goals. You can assign test set folders to cycles.

test step

Detailed instructions on how to execute a test. Can include the action to perform on your application, the input to enter, or the expected outcome.

traceability matrix

Determines the extent of relationships between requirements and other requirements, and between requirements and tests.

U**user-defined field (UDF)**

Data fields that you can add to an ALM project. You can customize user-defined fields to meet the specific needs of your organization.

V

version control

Tracks changes made to entities in your project, by maintaining previous versions of entities. In a version control enabled project, version history is maintained for entities, including requirements, tests, test resources, and business components. You can view and compare previous versions of an entity, or restore a previous version.

W

Word add-in

You can import requirement or test plan data from a Microsoft Word document to an ALM project. To import from Word, you first install the HP ALM Microsoft Word Add-in on your client machine.

workflow

A feature that offers tools to generate or edit scripts used to customize fields and values of the ALM modules, and to control the actions that users can perform. You can customize workflow from the Workflow page, available from the Project Customization window.

