HP QuickTest Professional Asset Upgrade Tool for Quality Center

Software Version: 10.00

Administrator Guide

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Getting Started with the QuickTest Asset Upgrade Tool for Quality Center

The QuickTest Asset Upgrade Tool for Quality Center enables you to simultaneously upgrade all of the QuickTest assets from an earlier QuickTest version to version 10.00 format. This applies only to QuickTest assets stored in a Quality Center 10.00 project.

This chapter includes:

About Upgrading QuickTest Assets

QuickTest assets include:

➤ **Testing documents**, such as tests, actions, components, and application areas.

Note: References to components and Business Process Testing are relevant only if the Quality Center project being upgraded has Business Process Testing support.

➤ **Attachments that are associated with tests, actions, components, and application areas**, such as function libraries, shared object repositories, data table files, environment variable files, and recovery scenario files.

Important: Attachments that are not associated with a testing document are not upgraded.

In addition to upgrading your QuickTest assets to the current version of QuickTest, the QuickTest Asset Upgrade Tool for Quality Center converts these testing assets from attachments to linked entities that use the new Resources and Dependencies model. All converted resource assets are copied from their attachment location in the **Test Plan** module to the **Test Resources** model.

Prior to using the asset upgrade tool, the Quality Center project must be upgraded to Quality Center 10.00. If you are not sure which Quality Center version you have, choose **Help > About HP Quality Center Software** in the Quality Center window.

The asset upgrade tool is intended for use only by Quality Center project administrators.

Important: All project users (including the user performing the upgrade) **must be logged out** of Quality Center client prior to the upgrade. Users must not log into the project during the upgrade process.
For more information on upgrade prerequisites, see "Considerations and Limitations" on page 14.

Resources and Dependencies Model Terminology

Term	Description
Assets	Any QuickTest testing document or resource file, including: ➤ tests ➤ actions (tests only) ➤ components (business process testing only) ➤ application areas (business process testing only) ➤ function libraries ➤ shared object repositories ➤ recovery scenarios ➤ data table files (tests only) ➤ environment variable files (tests only) **Note:** In Quality Center, QuickTest assets are referred to by the more general term **entities**.
Resources	Any asset used by a test or a component. For example, a test or component may contain calls to functions in associated function libraries, and they may reference test objects stored in shared object repositories that are associated with the test or with the component's application area. Resources include: ➤ function libraries ➤ shared object repositories ➤ recovery scenarios ➤ data table files (tests only) ➤ environment variable files (tests only)

Term	Description
Dependencies	The linked relationships between external actions and a particular test, and the linked relationships between resource files and a particular test or application area. Associated resource files are linked to each test or application area that uses these resources. Actions are linked to each test that calls them. Assets are considered dependencies if they are associated using absolute paths, and they are stored in the following modules: ➤ **Test Plan module:** QuickTest tests and business process tests ➤ **Business Components module:** components **Note:** Business Process Testing application areas are stored in the Quality Center database and are sometimes treated as component or template entities by Quality Center. In the reports generated by the asset upgrade tool, application areas are listed under templates. ➤ **Test Resources module:** function libraries, shared object repositories, recovery scenarios, data table files (tests only), and environment variable files (tests only). **Note:** Tests stored in the **Unattached** folder in the **Test Plan** module and components stored in the **Obsolete** folder in the Business Components module are not considered dependencies because they are not associated with any test or component.

Overview of the Analysis and Upgrade Processes

The following describes what the QuickTest Asset Upgrade Tool for Quality Center does at each stage of the upgrade process:

Analysis Stage

During the analysis stage, the asset upgrade tool does the following:

1 Searches for QuickTest tests (all versions) and components (version 9.x and later) in the Quality Center project. (If the analysis process was previously run, the asset upgrade tool already has data in the cache folder, so it asks the user whether to use data from the cache folder or to start the start the search from the beginning.)

2 Downloads metadata for tests, actions, and components to the cache.

3 Analyzes the downloaded tests and components to:

   a Determine the current QuickTest version of each test and component

   b Locate all associated attachments in the source project, and, if needed, resolve the location of attachments that are associated via relative paths. (Attachments are not downloaded to the cache file.)

4 Finds and downloads all associated recovery scenarios (**.qrs** files). Analyzes the recovery scenarios to determine which function libraries are used by them. (The function libraries themselves are not downloaded to the cache.)

5 Generates a detailed report in HTML for you to review.

At this stage, you would review the report to make sure that all relative paths are resolved according to your needs. If needed, you would modify the search list in the Folders pane of the QuickTest Options dialog box (in QuickTest, select **Tools** > **Options** > **Folders** node). Then you would rerun the analysis so that the analysis report contains the correct paths for all associated attachments. The asset upgrade tool upgrades your assets based on the information it includes in this report.

Upgrade Stage

During the upgrade stage, the asset upgrade tool does the following:

1 Creates a **Subject** folder in the test resource tree of the Quality Center **Test Resources** module, and moves all associated attachments with absolute paths from the source locations in the **Test Plan** module to the new **Resources\Subject** folder (except for the predefined resources that are provided with Business Process Testing, which are moved to the **BPT Resources** folder in the test resource tree of the Quality Center **Test Resources** module).

2 Updates Quality Center database tables for the function libraries associated with recovery scenarios files to create dependencies between each recovery scenario file and its associated function libraries.

3 Upgrades QuickTest Professional 8.2 and earlier tests using QuickTest automation, as follows:

a Before upgrading each test, all of the files related to these tests are downloaded to the cache (except Active Screen files and run results).

b Upgrades the tests to version 10.00, but does not yet convert the attachments to dependencies

4 Creates dependencies between each resource file and its associated testing document, and between external actions and the tests that call them. Updates the database tables in Quality Center accordingly.

Tip: After the upgrade, you can view all of these dependencies in the Dependencies tab in several Quality Center modules. For more information, see the *HP Quality Center User Guide* and the section on resources and dependencies in the *HP QuickTest Professional User Guide* or *HP Business Process Testing User Guide*.

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5 Upgrades QuickTest Professional 9.x tests and components.

6 Uploads tests and components back to the Quality Center project.

7 If the upgrade is successful, deletes all attachments from the **Test Plan** module (including those that remained in the **Test Plan** module from previous runs, if any, provided that these attachments were upgraded, converted to dependencies, and copied to the Resources tree of the **Test Resources** module).

Note: Converted attachments are not deleted if you selected not to delete converted attachments in "Step 1: Setting Up Your Project" on page 30.

If the upgrade fails for any reason, the asset upgrade tool does not delete any attachments from the **Test Plan** module.

What if the upgrade fails?

You would need to review the generated report to find the issues that need to be handled. After you handle them, you would run the upgrade again.

Possible reasons that the upgrade might be marked as failed include:

➤ At least one test in the **Test Plan** module is completely empty. (For example, if a test's files were deleted from the Quality Center file repository for some reason.)

➤ There are tests in the **Unattached** folder in the **Test Plan** module, or there are components in the **Obsolete** folder in the Business Components module. (You can solve this by deleting QuickTest assets from these folders prior to analyzing the project.)

➤ The asset upgrade tool could not resolve the path for at least one attachment that is associated with a test or component via a relative path, and you selected to allow the asset upgrade tool to convert attachments associated via relative paths to dependencies.

Notes:

➤ Even if the upgrade is marked as failed, it is possible that most assets were upgraded successfully. It takes only one failed asset, the existence of an asset in the **Obsolete** or **Unattached** folders, an empty test in the **Test Plan** folder, or an unresolved relative path to mark the upgrade as failed.

➤ Sometimes, running the upgrade again enables the asset upgrade tool to handle open issues by itself, resulting in a successful upgrade.

Considerations and Limitations

The asset upgrade and conversion process is not reversible. After you upgrade an asset to the QuickTest Professional 10.00 format, it cannot be opened in earlier versions of QuickTest Professional or Quality Center.

Before you begin the upgrade and conversion process, the following prerequisites must be met:

Review the Readme limitations	Review the limitations in the *HP QuickTest Professional Asset Upgrade Tool for Quality Center Readme*.
System Requirements	The computer you select to install the QuickTest Asset Upgrade Tool for Quality Center should not be a production server. The QuickTest Asset Upgrade Tool for Quality Center has the same system requirements as QuickTest Professional, with the exception that 64-bit edition Windows operating systems are not supported. For a complete list of system requirements, see the *HP QuickTest Professional Readme*.
Check required permissions	You must have Quality Center administrator permissions for the project you are upgrading.

Verify that Quality Center is already upgraded to the current version	Your project must be located in a Quality Center 10.00 server and must have been upgraded to Quality Center .10.00.
Back up the project	After the Quality Center project whose assets you are upgrading is upgraded to Quality Center 10.00, back up the project prior to beginning the QuickTest asset upgrade process. For more information, see the *HP Quality Center User Guide*.

Check installation prerequisites	➤ QuickTest Professional 10.00 must be installed on the computer on which you are installing and running the QuickTest Asset Upgrade Tool for Quality Center.
	
	➤ The QuickTest Asset Upgrade Tool for Quality Center must be installed on a computer in the same LAN (local area network) as:
	
	  ➤ The Quality Center project being upgraded.
	
	  ➤ The database used by the Quality Center project.
	
	  ➤ The file repository used by the Quality Center project.
	
	➤ All of the QuickTest add-ins used by your tests and components must be installed together with QuickTest Professional 10.00.
	
	➤ You must log in as an administrator on this computer.
	
	➤ Disable any power mode settings that could potentially shut down the computer, set the system to standby, hibernate the system, and so on. This is to prevent any of the relevant computers from turning off during the upgrade process.
	
	Note for Windows Vista or Windows Server 2008: You must turn off the UAC (User Account Control) option while working with the QuickTest Asset Upgrade Tool for Quality Center.

Check disk space	**Installation.** The QuickTest Asset Upgrade Tool for Quality Center requires a minimum of 3 MB disk space (in addition to the disk space required for QuickTest Professional installation). This does not include the cache space, described below, or the space required for the generated reports.
	Cache space. Performance is improved if the cache folder is located on the same computer on which you are running the asset upgrade tool.
	Make sure you have enough cache space. This differs from project to project depending on the number of tests, components, and application areas.
	What is the cache folder used for? The QuickTest Asset Upgrade Tool for Quality Center:
	1 Downloads the tests, components, and application areas to the cache folder.
	2 Analyzes these assets.
	3 Upgrades the assets in the cache folder, and then uploads them back to the Quality Center project.
	Estimate the amount of cache disk space needed. The *maximum* amount of cache space needed is the total size of the Quality Center project file repository, but if many of your tests were created in QuickTest 9.x, the size needed for the cache is *significantly* less than this.
	To estimate the required cache space:
	➤ For each **QuickTest 9.x test**, allow ~100 KB for each test and ~50 KB for each action.
	➤ For each **QuickTest 9.x component**, allow ~100 KB—150 KB per component.
	➤ For each **QuickTest 8.x or earlier test**, allow for all of the test's files excluding the Active Screen files and run result files (which are not downloaded).
	Tip: If you need data from the database for your estimate, ask your Quality Center site administrator.

Define a set of relative paths for the entire project or **Modify relative paths to absolute paths**	The QuickTest Asset Upgrade Tool for Quality Center upgrades and converts attachments that are associated with your tests and components using absolute paths. These can be existing absolute paths that were defined prior to beginning the upgrade, or relative paths that the asset upgrade tool converts to absolute paths, as part of the upgrade process. Using absolute paths enables your tests and components to take advantage of the new features in QuickTest 10.00 including: ➤ The Resources and Dependencies model that helps ensure that the linked relationships between dependent assets are maintained. Users can view all of the assets that are using a particular resource or are used by a particular resource. For example, users can see which tests are associated with a particular shared object repository (using), or, conversely, which shared object repositories are associated with a particular test (used by). ➤ Version control. ➤ Baselines that enable users to take a "snapshot" of a project at milestones or other important stages in a project's lifecycle. ➤ Asset Comparison Tool that enables users to compare two versions of a specific asset. ➤ Asset Viewer that enables users to view an earlier version of a particular asset, and to drill down to view its associated resource files, such as an external data table file or shared object repository. **Note:** Some of the above features may not be supported in the Quality Center edition you are using. Attached resource files that continue to use relative paths after the upgrade are not converted to dependencies, and they cannot be used with the new QuickTest features described above. **Note:** There may be specific attachments for which relative paths are preferable. For more information, see "Attachments with Relative Paths" on page 20. This section also describes how to enable the asset upgrade tool to convert your relative paths to absolute paths.

Remove tests and components from the Unattached and Obsolete folders	The asset upgrade tool does not upgrade tests in the **Unattached** folder in the **Test Plan** module, or components in the **Obsolete** folder in the Business Components module because these folders serve as a "recycle bin" for deleted tests and components.
	If you want to upgrade tests and components in these folders, you must move them to other folders prior to beginning the upgrade.
	In addition, the asset upgrade tool does not delete converted attachments from their original location in the **Test Plan** module if there are any tests or components in the **Unattached** or **Obsolete** folders. This is to ensure that your attachments are not lost if they are associated with a test or component that was moved to the "recycle bin".
	For example, someone may later decide that a deleted asset from one of these "recycle bin" folders is actually needed, and then move that asset to a different folder and upgrade it. If the asset is associated with attached resources, it is important that the resources be available.
	Therefore, if you want the asset upgrade tool to delete attachments from their original locations as part of the cleanup after the upgrade, make sure that the **Unattached** and **Obsolete** folders are empty prior to beginning the upgrade.
	Note: If there are tests or components in the **Unattached** or **Obsolete** folders, the project upgrade will be marked as failed, even if all of the other assets in the project were upgraded successfully. To prevent the upgrade from failing due to the existence of QuickTest assets in these folders, delete the assets prior to beginning to using the asset upgrade tool.
Close all assets in Quality Center	All project assets stored in the Quality Center project must be closed. Verify that no assets are locked by Quality Center.

Log all users out of Quality Center	During the analysis and upgrade process, the project must remain activated (unlike Quality Center server upgrades in which the project is deactivated). Users must not interact with the project during this time. Therefore, all project users (including the user performing the upgrade) must be logged out of the Quality Center clients prior to the upgrade. Users must not log into the project during the upgrade process. **Tip:** You can use the project customization workflow in Quality Center Site Administration to prevent users from logging in during the upgrade. Use the **CanLogin** event (method), and set it to **true** only for your project administrator user name. You can also include a message box to inform anyone that tries to log on that the project is being upgraded. Then, after the upgrade is completed, you can restore the original code for this event.
Install the QuickTest Asset Upgrade Tool for Quality Center	The computer you select to install the QuickTest Asset Upgrade Tool for Quality Center should not be a production server. For instructions on installing the asset upgrade tool, see the *HP QuickTest Asset Upgrade Tool for Quality Center Readme*.

Attachments with Relative Paths

Resource files and actions that are associated with tests via a relative path, and resource files that are associated with application areas via a relative path are not considered dependencies.

To enable the QuickTest Asset Upgrade Tool for Quality Center to upgrade your attachments and convert them to dependencies, they must be associated using the full Quality Center path.

Note: There may be cases in which you may want to use a relative path. For more information, see "Guidelines for Retaining Relative Paths" on page 21.

You can convert absolute paths to relative paths manually, or, in QuickTest, you can set up a search list that enables the asset upgrade tool to perform this task for you. In the Folders pane of the Options dialog box in QuickTest, you define a prioritized set of folders that the asset upgrade tool uses to resolve relative paths. (A set of instructions is included below.)

To enable the tool to resolve relative paths correctly, one search list must suit all relative paths used in the project. For example, if two attachments have the same name but are stored in different folders, the asset upgrade tool could potentially resolve the relative path incorrectly because it chooses the first instance of the attachment name it finds in the search list.

The search list is prioritized. During the analysis process, the asset upgrade tool searches for the specified action or resource file in the order in which the folders are displayed in the search list. If the same file name exists in more than one folder, QuickTest uses the first instance it finds.

To enable the QuickTest Asset Upgrade Tool for Quality Center to convert your relative paths to absolute paths:

1 Determine all of the relative paths that QuickTest needs to use to find the attachments in your project.

2 Open QuickTest on the computer on which the asset upgrade tool is installed.

3 Select **Tools** > **Options** > **Folders** node to open the Folders pane in the Options dialog box.

4 Click the + button and add each relative path. (For more information on using this dialog box, see the *HP QuickTest Professional User Guide* (available from the **Help** button).)

5 Prioritize the search list as needed.

6 Click **OK** to save the changes. The asset upgrade tool will use these search paths to locate the assets in your project and will convert all references to these files to absolute paths.

Guidelines for Retaining Relative Paths

There may be specific attachments for which relative paths are preferable. For example, a test for an application that is produced in multiple languages may use a relative path to access a different object repository for each language. Similarly, you may want to use the same tests to test different versions of your application using version-specific shared object repositories.

In this case, select the **Do not convert attachments with relative path** check box in the asset upgrade tool dialog box. For more information, see "Step 1: Setup" on page 26.

At the beginning of each section, the report lists the number of files that are included in that section, and the number of those files that were moved to the Resources folder in the **Test Resources** module. For example, if an upgrade was performed and the assets in this section are attached resource files (attachments), the row may indicate: Attachments (5) Moved to Test Resources module: (5)

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Using the QuickTest Asset Upgrade Tool for Quality Center

This chapter describes how to use the HP QuickTest Asset Upgrade Tool for Quality Center to upgrade your QuickTest assets.

This chapter includes:

➤ About the QuickTest Asset Upgrade Tool for Quality Center on page 24

➤ Step 1: Setting Up Your Project on page 30

➤ Step 2: Analyzing Your Assets on page 34

➤ Step 3: Upgrading Your Assets on page 36

➤ Analysis and Upgrade Recovery on page 40

About the QuickTest Asset Upgrade Tool for Quality Center

This section describes the HP QuickTest Asset Upgrade Tool for Quality Center dialog box. The sections following it provide more detail about each of the steps in the upgrade process.

Description	Enables you to simultaneously upgrade all of the QuickTest assets stored in Quality Center project from version 9.5 and earlier.
	Converts attachments to linked asset dependencies, enabling you to use the Resources and Dependencies model that helps ensure that the linked relationships between dependent assets are maintained.
How to Access	1 Do one of the following:
	➤ From the **Start** menu, choose **Programs > QuickTest Professional > Tools > QuickTest Professional Asset Upgrade Tool**.
	➤ Navigate to and double-click <**QuickTest Professional installation**>**bin \QTPAssetUpgradeTool.exe**.
	The HP QuickTest Asset Upgrade Tool for Quality Center splash screen opens.
	2 Click the Considerations and Limitations link. Review and make sure all prerequisites are met before continuing.
	3 Click **OK** in the splash screen. The HP QuickTest Asset Upgrade Tool for Quality Center window opens.
Important Information	"Considerations and Limitations" on page 14.
Learn More	**Conceptual overview**: "Overview of the Analysis and Upgrade Processes" on page 11
	Primary tasks:
	➤ "Step 1: Setting Up Your Project" on page 30
	➤ "Step 2: Analyzing Your Assets" on page 34
	➤ "Step 3: Upgrading Your Assets" on page 36

Below is an image of the HP QuickTest Asset Upgrade Tool for Quality Center:
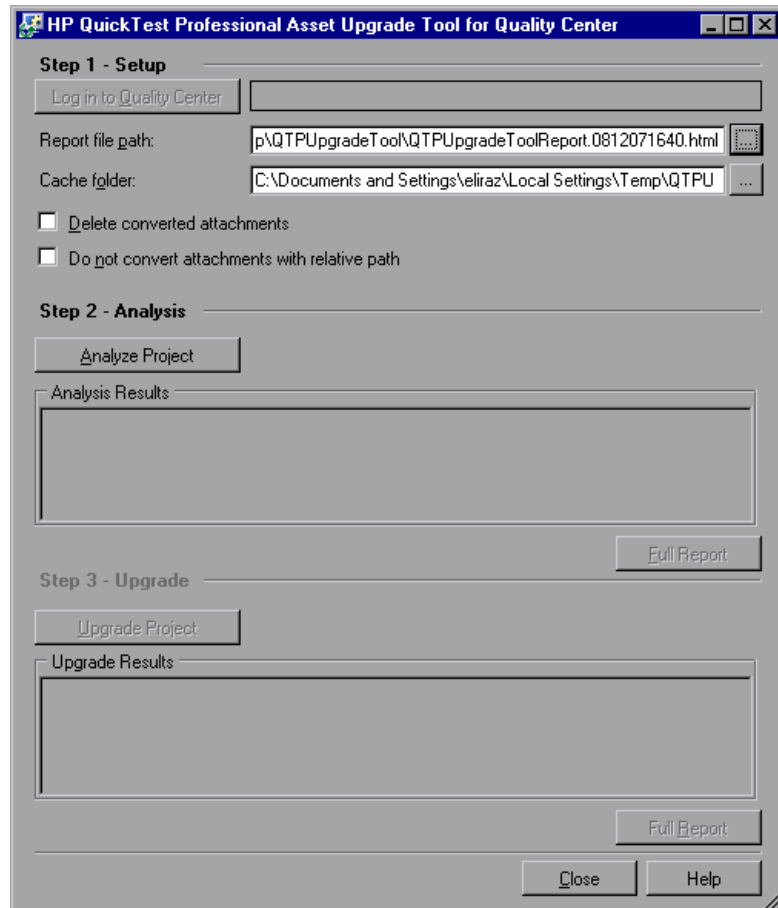
QuickTest Asset Upgrade Tool for Quality Center Options

The following tables describe the options available in the QuickTest Asset Upgrade Tool for Quality Center dialog box. The sections following provide in-depth information about each of these steps.

Step 1: Setup

Option	Description
Log in to Quality Center	Click to open the Quality Center login dialog box. This enables you to connect to the Quality Center project you want to upgrade.
	For information on this dialog box, see "Connecting QuickTest to Quality Center" on page 32.
Report file path	Specifies the folder in which the analysis and upgrade reports are saved.
	By default, the asset upgrade tool saves the analysis and upgrade reports to **C:\Documents and Settings\<username>\Local Settings\Temp\QTPUpgradeTool\ QTPUpgradeToolReport.<current date and time>.html**.
	You can accept this location, or you can browse to or enter a different location. The folder can be located on any local or mapped drive for which no login permissions are needed.
	For more information on the generated reports, see "The Report Folder" on page 31.

Option	Description
Cache folder	Specify a cache folder that is large enough to store all the tests and components from the Quality Center project.
	You can accept the default cache folder, or you can specify a different cache folder on a local or mapped drive for which no login permissions are needed.
	For more information on the cache folder, see:
	➤ the section describing the required cache size on page 16
	➤ "The Cache Folder" on page 31

Option	Description
Delete converted attachments check box	Instructs the asset upgrade tool to delete all successfully converted attachments from the **Test Plan** module after the upgrade is completed.
	You must remove all tests and components from the **Unattached** and **Obsolete** folders to enable the asset upgrade tool to implement this option.
	Note: Do not select the **Delete converted attachments** check box if:
	➤ any test step, component step, or function (in a function library file) references a file stored in Quality Center as an attachment.
	➤ any attachments are associated using relative paths and are not set to be converted to absolute paths using the Folders pane search list described on page 20.
	For more information, see "Overview of the Analysis and Upgrade Processes" on page 11.
Do not convert attachments with relative path check box	Instructs the asset upgrade tool not to convert attachments associated via relative paths to dependencies.
	Select this check box if attachments are associated with any of your tests or components via relative paths, and you do not want the asset upgrade tool to convert these paths to absolute paths.
	For more information, see "Attachments with Relative Paths" on page 20.

Step 2: Analysis

Option	Description
Analyze Project button (Enabled only after the login is complete)	Click to begin the analysis process. The asset upgrade tool analyzes the QuickTest tests and components in the selected Quality Center project. **Note:** If you click the **Analyze Project** button more than once, for example, if you want to analyze the project again, recovery mode is automatically initiated, and a message box opens asking if you want to use the cache folder content from a previous run. Click **Yes** if you stopped in the middle and want to continue. Click **No** if you want to clear the cache content and start over. For information on the recovery mode, see "Analysis and Upgrade Recovery" on page 40. For more information on the analysis process, see "Step 2: Analyzing Your Assets" on page 34.
Stop button (Displayed only when the analysis is in progress.)	Click to stop the current analysis process. When you click the **Stop** button, the analysis process ends after it finishes processing the current QuickTest test or component. This means that the process may not stop immediately when you click the **Stop** button if the asset upgrade tool is in the middle of analyzing a QuickTest test or component. You can restart the analysis by clicking **Analyze Project**. For more information, see "Step 2: Analyzing Your Assets" on page 34.
Analysis Results area	This read-only area displays statistical summary information about the tests and components in the project being analyzed. The statistics are updated in real time during the analysis process. When the analysis is complete, this log specifies whether the analysis was successful. For more information, see "Step 2: Analyzing Your Assets" on page 34.
Full Report button (Enabled only after the analysis process is complete.)	Click to view a full report of the analysis process in HTML format. For more information, see "Reviewing the Results Reports" on page 41.

Step 3: Upgrade

Option	Description
Upgrade Project button (Enabled only after the analysis is complete)	Click to begin the upgrade process. During the upgrade process, the asset upgrade tool uploads all upgraded assets from the cache folder back to the source project. For more information on the upgrade process, see "Step 3: Upgrading Your Assets" on page 36.
Upgrade Results area	This read-only area enables you to view the status of the upgrade while it is running. For more information on the upgrade process, see "Step 2: Analyzing Your Assets" on page 34.
Full Report button (Enabled only after the upgrade process is complete.)	Click to view a full report of the analysis and upgrade process in HTML format. For more information, see "Reviewing the Results Reports" on page 41.

Step 1: Setting Up Your Project

Important: Before you begin, ensure that all prerequisites are met. For more information, see "Considerations and Limitations" on page 14.

You upgrade each project individually. The first step in upgrading a project's assets is to log on to the project in Quality Center. Then you configure the locations of the report log and cache folder. You can accept the default locations, or you can specify other locations. By default, the asset upgrade tool uses the **Temp** folder for the user who is logged on to the upgrade computer. For example, in Windows XP, the asset upgrade tool uses the **Temp** folder under **C:\Documents and Settings\<user name>\Local Settings**.

The Report Folder

The report folder is used to store the **Project Analysis Report** and the **Project Analysis and Upgrade Report**, which contain information about each of the assets stored in the project. You can use these reports to:

➤ view information about the assets

➤ identify the assets that need to be handled before the upgrade continues

➤ view and analyze the upgrade results

The report folder also stores a log file named **QTPAssetUpgradeTool.log**. This log file contains cumulative data that is intended for Software Support only.

You specify the report folder location in the **Report file path** box.

For more information, see "Reviewing the Results Reports" on page 41.

The Cache Folder

The asset upgrade tool uses the cache folder as follows:

➤ During the analysis process, the asset upgrade tool downloads tests and resources from your project to the cache you specified in the **Cache folder** box. It then analyzes these assets in the cache folder, as described in "Step 2: Analyzing Your Assets" on page 34.

➤ Upgrades the tests and components based on the analysis, prior to uploading them back to the project, as described in "Step 3: Upgrading Your Assets" on page 36.

After the upgrade process, the attachments stored in the cache folder are no longer needed because they were converted. Therefore, they can be deleted.

Connecting QuickTest to Quality Center

Before you can upgrade a project's assets, you need to connect QuickTest to the Quality Center project.

To connect QuickTest to a Quality Center project:

1 Click the **Log in to Quality Center** button. The Quality Center Connection - Server Connection dialog box opens.
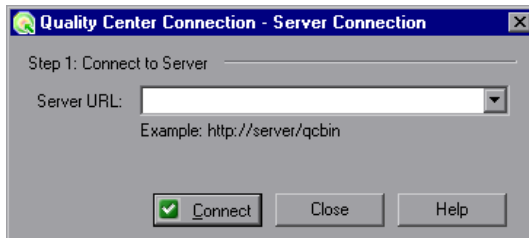
2 In the **Server URL** box, type the URL address of the Web server where Quality Center is installed. Specify a Quality Center server accessible via the local area network (LAN).

3 Click **Connect**. The Quality Center Connection dialog box opens.
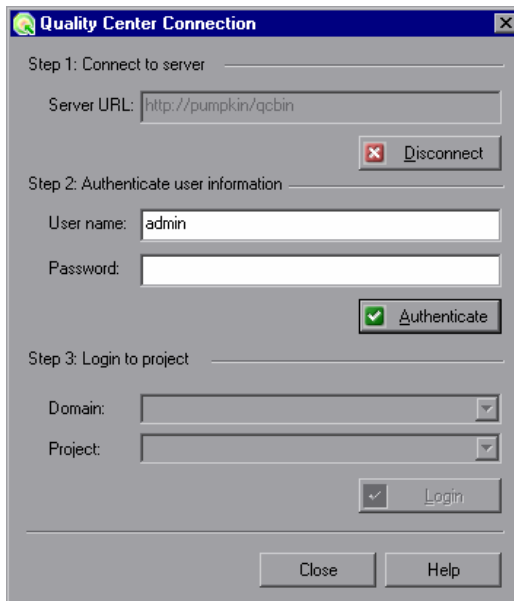
The Quality Center server name is displayed in read-only format in the Server URL box.

4 In the **Step 2: Authenticate user information** area, do the following:

   a In the **User name** box, type your Quality Center user name. (The user name must have full administrator privileges.)

   b In the **Password** box, type your Quality Center password.

   c Click **Authenticate** to authenticate your user information against the Quality Center server.

   After your user information is authenticated, the edit boxes in the **Authenticate user information** area are displayed in read-only format, and the **Authenticate** button changes to a **Change User** button.

5 In the **Step 3: Login to project** area, do the following:

   a In the **Domain** box, select the domain that contains the Quality Center project you want to upgrade.

   b In the **Project** box, select the project with that you want to upgrade.

   c Click **Login**.

6 Click **Close** to close the Quality Center Connection dialog box.

Step 2: Analyzing Your Assets

Important: Before you begin, ensure that all prerequisites are met. For more information, see "Considerations and Limitations" on page 14.

After you log in to the project you want to upgrade and specify the configuration settings, you click **Analyze Project** to begin the analysis stage of the upgrade. During the analysis process, the asset upgrade tool downloads the project's tests and components to the cache folder you specified in the **Step 1: Setup** area of the HP QuickTest Asset Upgrade Tool for Quality Center dialog box.

Note: If the analysis process was previously run, the asset upgrade tool already has data in the cache folder, so it asks the user whether to use data from the cache folder or to start the start the search from the beginning.

During the analysis process, the asset upgrade tool:

➤ checks whether each of the QuickTest tests and components in the project can be successfully upgraded.

➤ determines which attachments need to be converted to dependencies that will be stored in the **Test Resources** module. (Attachments that are not associated with a testing document are not included in the analysis process and are not upgraded.)

➤ tries to resolve the location of attachments that are associated via relative paths.

➤ generates a report enabling you to view the status of each asset.

While the analysis process is running, a progress bar is displayed. A **Stop** button is displayed to the right of the progress bar, enabling you to temporarily stop the analysis process, if needed. When you are ready to continue, click the **Analyze Project** button again.

If you stop and restart the analysis process, a message box opens asking if you want to use the cache folder content from a previous run.

➤ If you click **Yes**, the asset upgrade tool runs the **recovery mode**, which reviews the downloaded data and restarts the analysis based on the data in the cache. Recovery mode is useful in many situations. For more information, see "Analysis and Upgrade Recovery" on page 40.

➤ If you click **No**, the asset upgrade tool clears the cache content and begins the analysis again by examining the files in your project.

During the analysis, the **Analysis Details** area displays statistical summary information about the tests and components in the project being analyzed, as shown in the following example:
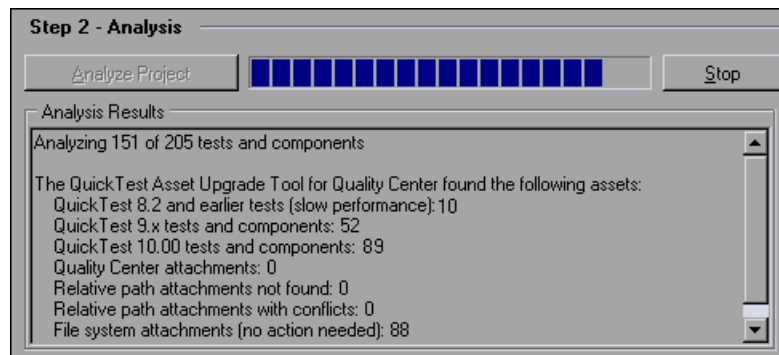
The information displayed in the **Analysis Results** area may be different, depending on the options you selected in the **Step 1 - Setup** area.

Important: If the value for **Relative path attachments not found** or **Relative path attachments with conflicts** is greater than 0, click **Full Report** when the process is complete and review these items. You may need to modify the search list in the Folders pane of the Options dialog box in QuickTest (select **Tools** > **Options** > **Folders** pane). Alternatively, you may need to modify the asset in the Quality Center project.

After the analysis process is complete, the **Analysis Results** area indicates whether the analysis succeeded or failed. In addition, the asset upgrade tool generates a report detailing all of the information it gathered. You open this report by clicking **Full Report**. You can use this report to view specifics about the analyzed project, and, if the analysis failed, you can locate the items that need to be handled. For more information, see "Reviewing the Results Reports" on page 41.

Note: If you want to rerun the analysis after it is complete, close the asset upgrade tool, reopen it, log in, and click **Analyze Project**.

Step 3: Upgrading Your Assets

Important: Before you begin, ensure that all prerequisites are met. For more information, see "Considerations and Limitations" on page 14.

After you analyze your project and the analysis is successful, you can upgrade your project by clicking **Upgrade Project**. When you upgrade the project, the QuickTest Asset Upgrade Tool for Quality Center does the following:

First, it creates a **Subject** folder in the Resources tree of the Quality Center **Test Resources** module. This folder serves as the repository for all associated file attachments that the asset upgrade tool converts to dependencies. After the folder is created, it moves all associated attachments from the source locations in the **Test Plan** module to that folder.

The asset upgrade tool then creates dependencies between function libraries and the recovery scenarios that use them. This is a separate task, as the function libraries are not associated directly with a test or component.

In the next stage, the asset upgrade tool uses QuickTest automation to upgrade tests created using QuickTest Professional 8.2 and earlier. To do this, it downloads all of the files related to each test to the cache folder you specified. Active Screen and run results files are not downloaded to the cache, as these files already conform to the current format. Then, it upgrades the tests to version 10.00, but does not yet convert their attachments to dependencies.

Next, it upgrades the associated attachments to QuickTest Professional version 10.00, and converts them to linked assets. This creates dependencies between each resource file and its associated testing document, and the database tables in Quality Center are updated accordingly. At this stage, the asset upgrade tool also upgrades the tests and components created using QuickTest Professional version 9.x, converting them to linked assets, too.

Tip: After the upgrade, you can view these dependencies in the Dependencies tab in several Quality Center modules. For more information, see the *HP Quality Center User Guide* and the section on resources and dependencies in the *HP QuickTest Professional User Guide*.

After the entire project is upgraded and dependencies are created, the asset upgrade tool uploads the tests and components back to the Quality Center project.

As the project is being upgraded, the **Upgrade Results** area displays statistical summary information about the tests and components in the project being upgraded, as shown in the following example:
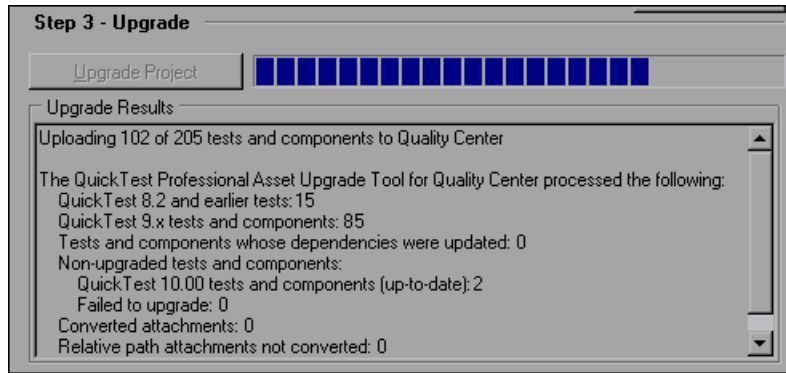
After the upgrade process is complete, the **Upgrade Results** area indicates whether the upgrade succeeded or failed and indicates how many assets fall into specific categories. The asset upgrade tool also generates a report that you open by clicking **Full Report**. The report provides details about the upgrade process. For more information, see "Reviewing the Results Reports" on page 41.

If the upgrade is successful and you selected **Delete converted attachments** in "Step 1: Setting Up Your Project" on page 30, the asset upgrade tool cleans the **Test Plan** module by deleting all files that were originally stored as attachments and are now independent resource files stored in the Resources folder of the **Test Resources** module. It does this by comparing the list of files in the Resources folder of the **Test Resources** module with the list of files stored as attachments in the **Test Plan** module. This enables the asset upgrade tool to also delete attachments that were upgraded during a previous run but were not deleted at that time.

The asset upgrade tool does not delete attached files if:

➤ You selected not to delete converted attachments in "Step 1: Setting Up Your Project" on page 30.

➤ The upgrade failed for any reason, for example, if:

   ➤ At least one test in the **Test Plan** module is completely empty. For example, if a test's files were inadvertently deleted.

   ➤ At least one test esists in the **Unattached** folder in the **Test Plan** module, or at least one component exists in the **Obsolete** folder in the **Business Components** module.

   ➤ The asset upgrade tool could not resolve the path for at least one attachment that is associated with a test or component via a relative path, and you selected to allow the asset upgrade tool to convert attachments associated via relative paths to dependencies.

   ➤ At least one test or component could not be upgraded.

Note: Even if the upgrade is marked as failed, it is possible that most assets were upgraded successfully. It takes only one failed asset, the existence of an asset in the **Obsolete** or **Unattached** folders, an empty test in the **Test Plan** folder, or an unresolved relative path to mark the upgrade as failed.

Analysis and Upgrade Recovery

The QuickTest Asset Upgrade Tool for Quality Center provides a **recovery mode** that enables you to continue the analysis or upgrade process from where it last stopped. The recovery mode is available for any Quality Center project, as long the analysis or upgrade process is run from the same computer, and you choose to continue the process using the data stored in the cache folder. Recovery mode is implemented automatically when you click **Analyze Project** or **Upgrade Project** after the relevant process was stopped for any reason.

When you run the asset upgrade tool in recovery mode, it performs a search for all tests and components in the project, regardless of whether they were already upgraded and uploaded to the project. Then, it analyzes or upgrades (depending on the current process) those tests and components that were not completely upgraded.

Recovery mode is useful in many situations, including:

➤ If the analysis or upgrade process stops for any reason, such as a lost connection to the Quality Center server, you can run recovery mode to continue the process from where it stopped, regardless of how much time passes.

> **Example:** Suppose you leave the upgrade process running over the weekend. When you return to work, you notice that it stopped. You can restart it from that stage.

➤ If the analysis or upgrade process fails, you can try running it again. The asset upgrade tool can sometimes solve issues that adversely affected a previous run.

➤ If tests, components, or attachments are added to a successfully upgraded project, you can run the upgrade again. The asset upgrade tool identifies the upgraded assets and skips them. This means that only the newly added assets are processed, which makes the upgrade process run faster.

> **Example:** Suppose after you upgrade the project, users add attachments in the Test Plan module and associate them with assets. You can run the asset upgrade tool again to convert these attachments to linked dependencies.

3

Reviewing the Results Reports

When you click the **Full Report** button after an analysis or upgrade is completed, an HTML report opens, providing detailed information about each test and component that was handled during the process. This report is saved in the folder you specified during **Step 1 - Setup** together with an identical plain text report of the same name.

Note: If, when you open the report, Internet Explorer displays a message that it has restricted the file from showing active content, click the message and select the option that allows blocked content to be displayed.

The asset upgrade tool can generate the following reports:

➤ **Project Analysis report.** Generated for the analysis process. Contains the following sections:

    ➤ **Project Details**

    ➤ **Analysis Summary**

    ➤ **Analysis Details**

➤ **Project Upgrade report.** Generated for the upgrade process. Contains the following sections:

    ➤ **Project Details**

    ➤ **Analysis and Upgrade Summary**

    ➤ **Analysis and Upgrade Details**

Project Details

The beginning of each report lists the **Project Details**, which include the connection information used to connect to the Quality Center project and the status for the type of process that was performed (analysis or upgrade). The status can be **Succeeded** or **Failed**. If the process failed, lists of the errors, failed tests, and failed components are displayed. You can click the plus sign (+) to expand any of these lists, or click the minus sign (-) to collapse them.

Analysis Summary / Analysis and Upgrade Summary

This section provides a table summarizing the type and number of assets that were handled during the analysis or upgrade process. You can click the plus sign (+) to expand any of the table cells, or click the minus sign (-) to collapse them.

If an upgrade process was performed, the **Upgrade Status** column lists how many assets succeeded in being upgraded and how many failed. In addition, for attachments and external actions, it lists how many of each type (such as function library or recovery scenario) were moved to the **Test Resources** module.

Analysis Details / Analysis and Upgrade Details

This table is divided into two main parts. The top part, labeled **Quality Center Test Plan Folder**, is relevant for tests and their attachments. The bottom part, labeled **Quality Center Business Components Folder**, is relevant for components and their attachments if the project being upgraded has Business Process Testing assets stored in it.

This section provides information for each QuickTest test or component in the project that was created using an earlier version.

The following is listed for each associated attachment:

➤ its name and type

➤ its source path in the Quality Center **Test Plan** module

➤ the resolution for relative paths, if any

➤ its upgrade status, for example **To update** or **Skipped** (if the test or component is **Already upgraded**)

At the beginning of each section, the report lists the number of files that are included in that section, and the number of those files that were moved to the Resources folder in the **Test Resources** module. For example, if an upgrade was performed and the assets in this section are attached resource files (attachments), the row may indicate: Attachments (5) Moved to Test Resources module: (5)