



Installation Guide



Installation Guide

Note

Before using this information and the product it supports, read the information in “Notices” on page 77.

Second edition, April 2008

This edition applies to version 7.0.2 of IBM Rational Tester for SOA Quality (part number 5724-S34) and to all subsequent releases and modifications until otherwise indicated in new editions.

© Copyright International Business Machines Corporation 2000, 2008. All rights reserved.

US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

Contents

Overview	1
IBM Installation Manager	1
IBM Rational Software Delivery Platform	1

Installation requirements	3
Hardware requirements	3
Software requirements	3
User privileges requirements	6

Planning to install	7
Installation scenarios	7
Deciding which features to install	8
Upgrade and coexistence considerations	8
Upgrading from IBM Rational Performance Tester v6.1.x	8
Offering coexistence considerations	9
Installation repositories	10
Setting repository preferences in Installation Manager	10
Package groups and the shared resource directory	11
Extending an existing Eclipse IDE	12

Preinstallation tasks	13
------------------------------	-----------

Installation tasks	15
Installing Rational Tester for SOA Quality from CDs: task overview	15
Installing Rational Tester for SOA Quality from an electronic image on your workstation: task overview	15
Installing from an electronic image	16
Installing Rational Tester for SOA Quality from an electronic image on a shared drive: task overview	16
Installing Rational Tester for SOA Quality from a repository on an HTTP or HTTPS Web server: task overview	17
Placing Rational Tester for SOA Quality on an HTTP Web server: task overview	17

Managing IBM Installation Manager	19
Installing Installation Manager on Windows	19
Installing Installation Manager on Linux	19
Starting Installation Manager on Windows	20
Starting Installation Manager on Linux	20
Uninstalling Installation Manager on Windows	20
Uninstalling Installation Manager on Linux	20
Silently installing and uninstalling Installation Manager	21
Silently installing Installation Manager	21
Silently uninstalling Installation Manager from Windows	21
Silently uninstalling Installation Manager on other platforms	21

Verifying and extracting electronic images	23
Extracting the downloaded files	23

Installing from the launchpad program	25
Starting the launchpad program	25
Starting an installation from the launchpad program	26

Installing Rational Tester for SOA Quality by using the Installation Manager GUI	27
---	-----------

Installing silently	31
Creating a response file with Installation Manager	31
Creating the Data Collection Infrastructure response file	32
Recording a response file with the Installation Manager installer	32
Installing and running Installation Manager in silent mode	33
Searching for and silently installing all available products	34
Silently installing updates to all currently installed products	35
Response file commands	35
Silent installation preference commands	35
Silent installation commands	37
Reference: Sample response file	41
Silent install log files	42

Managing development seat licenses for workstations	43
Licenses	43
Viewing license information about installed packages	45
Purchasing licenses	45
License enablement	45
Importing a product activation kit	46
Enabling floating licenses	46

Managing protocol keys and virtual tester license key packs	49
--	-----------

Increasing the number of file handles on Linux workstations	51
--	-----------

Updating Rational Tester for SOA Quality	53
---	-----------

Modifying installations	55
--------------------------------	-----------

Reverting updates to previous versions	57
---	-----------

**Uninstalling Rational Tester for SOA
Quality. 59**

IBM Packaging Utility 61

Installing Packaging Utility 61
Copying product packages to an HTTP server using
Packaging Utility 61

Installing optional software 65

Installing Agent Controller 65
 Hardware prerequisites 65
 Supported platforms 66
 Supported JVMs. 66
 Locating the installation files 66
 Installing Agent Controller on an AIX
 workstation 66

Installing Agent Controller on z/OS (OS/390) . . 70
Using the Agent Controller security feature. . . 72
Workbench/Agent Controller compatibility
summary 72
Known problems and limitations 73
Installing ClearCase LT 73
 Locating the ClearCase LT installation
 instructions and release notes 74
 Starting an installation of Rational ClearCase LT 74
 Configuring Rational ClearCase LT licensing . . 75

Notices 77

Trademarks and service marks 78

Overview

This installation guide provides instructions for installing, updating, and uninstalling IBM® Rational® Tester for SOA Quality.

You can find the most recent version of this *Installation Guide* online at http://download.boulder.ibm.com/ibmdl/pub/software/rationalsdp/v7/rtsoaq/70/docs/install_instruction/install.html.

Note: Refer to <http://www.ibm.com/software/rational/support/documentation/> for updated documentation and troubleshooting information.

IBM Installation Manager

IBM Installation Manager is a program that helps you install the Rational Tester for SOA Quality product package on your computer. It also helps you update, modify, and uninstall any package that you install. A package can be a product, a group of components, or a single component that is specifically designed for Installation Manager to install.

IBM Installation Manager offers several time-saving features, which you can use to complete the following tasks:

- Install product packages
- Manage licenses for installed product packages
- Search for and install updates to installed product packages
- Modify installed product packages
- Revert installed product packages to earlier versions
- Uninstall product packages

For more information about IBM Installation Manager, visit the Installation Manager Information Center at <http://publib.boulder.ibm.com/infocenter/install/v1m0r0/index.jsp>.

IBM Rational Software Delivery Platform

The IBM Rational Software Delivery Platform is a common development environment that contains the development workbench and other software components that share multiple products.

The delivery platform includes the following offerings:

- Rational Application Developer
- Rational Functional Tester
- Rational Performance Tester
- Rational Software Architect
- Rational Software Modeler
- Rational Systems Developer
- Rational Tester for SOA Quality

Also available but not part of the platform is Rational Manual Tester. Manual Tester is included with Rational Functional Tester, or it can be purchased separately.

About Rational Tester for SOA Quality

IBM Rational Tester for SOA Quality automates the creation, execution and analysis of functional, regression and performance tests for services and SOA applications.

Installation requirements

This section details hardware, software, and user privilege requirements for installing and running your software.

Hardware requirements

Before you can install the product, verify that your system meets the minimum hardware requirements.

Hardware	Requirements
Processor	Minimum: 1.5 GHz Intel® Pentium® 4 (or higher for best results)
Memory	Minimum for Rational Performance Tester: 768 MB of RAM; minimum for just the Agent Controller: 500 MB of RAM
Disk space	<p>Minimum: 1.5 GB of disk space for product package installation. Additional disk space for the resources that you develop.</p> <p>Note:</p> <ul style="list-style-type: none">• Disk space requirements can be reduced or increased depending on the features that you install.• Additional disk space is required if you download the product package to install this product.• For Windows®: Additional disk space is required if you use FAT32 instead of NTFS.• For Windows: An additional 500 MB of disk space is required in the directory that you specify in the environment variable TEMP.• For Linux®: An additional 500 MB of disk space is required in the /tmp directory.
Display	<p>1024 x 768 resolution minimum using 256 Colors or higher for best results</p> <p>For just the Agent Controller: 800 x 600 display minimum using 256 Colors or higher for best results</p>
Other hardware	Microsoft® mouse or compatible pointing device

Software requirements

Before you can install the product, verify that your system meets the software requirements.

Operating system

The following operating systems are supported for this product in 32-bit mode.

Operating system	Rational Tester for SOA Quality	Performance Test Agent	Performance Test Agent with DCI
AIX® 5.2 TL7 or later	No	Yes	No
AIX 5.3 TL3 or later	No	Yes	No
Red Hat Desktop 4 updates 1 through 6, running in 32-bit mode	Yes	Yes	Yes
Red Hat Enterprise Linux 4 updates 1 through 6, running in 32-bit mode	Yes	Yes	Yes
Red Hat Enterprise Linux 5 update 1, running in 32-bit mode	Yes	Yes	Yes
SuSE Linux Enterprise Server Version 9.0 SP1 to SP4	Yes	Yes	Yes
SuSE Linux Enterprise Desktop / Enterprise Server Version 10.0	Yes	Yes	Yes
Microsoft Windows 2000 Advanced Server with Service Pack 3 or 4	No	Yes	Yes
Microsoft Windows 2000 Professional with Service Pack 3 or 4	Yes	Yes	Yes
Microsoft Windows Server 2003 Enterprise/Standard Edition with Service Pack 1, 2, or 3	Yes	Yes	Yes
Microsoft Windows XP with Service Pack 1 or 2	Yes	yes	Yes
Microsoft Windows Vista	Yes	Yes	Yes
z/OS® 1.4, 1.5, 1.6, 1.7 System Z	No	Yes	No

Note:

- Rational Tester for SOA Quality is not supported on Microsoft Windows operating systems running on 64-bit processors.

- The listed operating systems support all of the languages that are supported by Rational Tester for SOA Quality.
- The SAP and Citrix extensions are supported only on Microsoft Windows operating systems.

Software requirements for extending an installed Eclipse IDE

The products in this version of the IBM Rational Software Delivery Platform were developed for use with version 3.2.2, or later, of the Eclipse integrated development environment (IDE). You can only extend an existing Eclipse IDE of version 3.2.2 with latest updates from eclipse.org.

To extend an installed Eclipse IDE, you also require a Java™ runtime environment from one of these Java development kits:

- For Windows: IBM 32-bit SDK for Windows, Java 2 Technology Edition, Version 5.0 service release 5; Sun Java 2 Standard Edition 5.0 Update 12 for Microsoft Windows
- For Linux: IBM 32-bit SDK for Linux on Intel architecture, Java 2 Technology Edition, Version 5.0 service release 5; Sun Java 2 Standard Edition 5.0 Update 12 for Linux x86 (not supported for SUSE Linux Enterprise Server [SLES] Version 9)

Note:

- The Performance Test Agent supports neither the Java Runtime Environment nor the Sun Java 2 Standard Edition Java SE Runtime Environment 6.0.
- You might need to update your Eclipse version in order to install updates to Rational Performance Tester. Refer to the release documentation of the update for information on changes to the prerequisite Eclipse version.

Important: To enable users who do not have Administrator privileges to work with Rational Tester for SOA Quality on a computer running the Windows Vista operating system, do not install Eclipse in the Program Files directory (C:\Program Files\).

Additional software requirements

- For Linux: The GNU Image Manipulation Program Toolkit (GTK+), Version 2.2.1 or later, and associated libraries (GLib, Pango).
- One of the following Web browsers to view the readme files and the installation guide and to support the Standard Widget Toolkit (SWT) browser widget:
 - For Windows: Microsoft Internet Explorer 6.0 with Service Pack 1, or later
 - Mozilla 1.6 or later
 - Firefox 1.0.0 or later, 1.5, 2.0, 3.0 or later

Note:

- On Red Hat Enterprise Linux Workstation Version 4.0, set the environment variable MOZILLA_FIVE_HOME to the folder that contain your Firefox or Mozilla installation. For example, enter this command: `setenv MOZILLA_FIVE_HOME /usr/lib/firefox-1.5.`
- To support the SWT browser widget, your Firefox browser must have been compiled with linkable Gecko libraries. Firefox downloads from mozilla.org currently do not satisfy this criteria, but Firefox installations that are included in major Linux distributions often do.

- The Launchpad does not support Mozilla 1.6; if your browser is Mozilla, you need version 1.7, or later, to run the launchpad.
- To view multimedia user assistance, such as tours, tutorials, and demonstration viewlets, you must install Adobe® Flash Player.
 - For Windows: Adobe Flash Player Version 6.0 release 65 or later
 - For Linux: Adobe Flash Player Version 6.0 release 69 or later
- For information about supported database servers, Web application servers, and other software products, see the online help.

User privileges requirements

You must have a user ID that meets the following requirements to install Rational Tester for SOA Quality.

- Your user ID must not contain double-byte characters.
- For Windows: You must have a user ID that belongs to the Administrators group.
- For Linux: You must be able to log in as root.

Planning to install

Read all the topics in this section before you begin to install or update any of the product features. Effective planning and an understanding of the key aspects of the installation process can help ensure a successful installation.

Installation scenarios

There are a number of scenarios that you can follow when you install or update Rational Tester for SOA Quality.

The following are some of the factors that might determine your installation scenario:

- The format and method by which you access your installation files (for example, from CDs or files downloaded from IBM Passport Advantage®).
- The location for your installation (for example, you can install the product onto your own workstation, or make the installation files available to your enterprise.).
- The type of installation (for example, you can use the Installation Manager GUI, or install silently.).

These are the typical installation scenarios you might follow:

- Installing from the CDs.
- Installing from a downloaded electronic image on your workstation.
- Installing from an electronic image on a shared drive.
- Installing from a repository on an HTTP or HTTPS Web server.

Note that in the latter three scenarios you can choose to run the Installation Manager program in silent mode to install Rational Tester for SOA Quality. For details on running Installation Manager in silent mode, see “Installing silently” on page 31.

Note also that you can install updates at the same time that you install the base product package.

Installing from CDs

In this installation scenario, you have the CDs that contain the product package files, and typically you are installing Rational Tester for SOA Quality on your own workstation. See “Installing Rational Tester for SOA Quality from CDs: task overview” on page 15 for an overview of the steps.

Installing from a downloaded electronic image on your workstation

In this scenario, you have downloaded the installation files from IBM Passport Advantage and you will install Rational Tester for SOA Quality on your own workstation. See “Installing Rational Tester for SOA Quality from an electronic image on your workstation: task overview” on page 15 for an overview of the steps.

Installing from an electronic image on a shared drive

In this scenario, you will place the electronic image on a shared drive so that users in your enterprise can access the installation files for Rational Tester for SOA Quality from a single location. See “Installing Rational Tester for SOA Quality from an electronic image on a shared drive: task overview” on page 16 for an overview of the steps.

Installing from a repository on an HTTP or HTTPS Web server

This scenario is the fastest method for installing the product on a network and is different from the shared-drive installation. To place product package files for Rational Tester for SOA Quality on an HTTP or HTTPS Web server, you must use IBM Packaging Utility, a utility application, to copy the installation files in a package format that you can use to install Rational Tester for SOA Quality directly from an HTTP or HTTPS Web server. This utility is provided with Rational Tester for SOA Quality. The directory on the HTTP or HTTPS Web server that contains the package is called a repository. Note that any optional software included with the Rational Tester for SOA Quality installation CDs are not placed in the package; only the Rational Tester for SOA Quality installation files are placed in the package. See “Installing Rational Tester for SOA Quality from a repository on an HTTP or HTTPS Web server: task overview” on page 17 and “Placing Rational Tester for SOA Quality on an HTTP Web server: task overview” on page 17 for an overview of the steps.

Deciding which features to install

You can customize your software product by selecting which features of Rational Tester for SOA Quality to install.

When you install the Rational Tester for SOA Quality product package by using IBM Installation Manager, the installation wizard displays the features in the available product package. From the features list, you can select which to install. A default set of features is selected for you (including any required features). Installation Manager automatically enforces any dependencies between features and prevents you from clearing any required features.

Note: After you finish installing the package, you can still add or remove features from your software product by running the Modify Packages wizard in Installation Manager. See “Modifying installations” on page 55 for more information.

Upgrade and coexistence considerations

If you have a previous version of the product, or if you plan to install multiple Rational Software Delivery Platform products on the same workstation, review the information in this section.

Upgrading from IBM Rational Performance Tester v6.1.x

Note: Uninstalling v6.1.x packages will not delete project assets.

Migrating IBM Rational Performance Tester v6.1.x assets to v7.0

Performance Tester assets are separated into two classifications:

- Renewable assets: generated test code, .java files, and test projects

- Non-renewable assets: records such as .rec and .recmodel files, test, schedules, .testsuite fields, custom code, locations, datapools, execution history files, statistical results, and reports

Renewable assets are automatically recreated if they are used across versions 6.1.0, 6.1.1, 6.1.2, and 7.0. However, when they are moved to other machines, their associated class paths may need to be updated.

Non-renewable assets that were developed in v6.1.x products are usable in v7.0. When these assets are first opened in version 7.0, the user is warned that the assets are about to be migrated and that the assets will be unusable in earlier versions of the product. If the user accepts the warning, the assets are upgraded to version 7.0 when they are saved.

Note: Version 7.0 assets are not compatible with version 6.1.x products.

Migrating IBM Performance Optimization Toolkit v6.1.x assets to v7.0

The migration of assets created with IBM Performance Optimization Toolkit v6.1.x for use with IBM Rational Performance Tester v 7.0 is not officially supported. In version 7, the Performance Optimization Toolkit functionality has been integrated into the Performance Tester product image and is no longer a separately installable package.

Offering coexistence considerations

Some products are designed to coexist and share function when they are installed in the same package group. A package group is a location where you can install one or more software products or packages. When you install each package, you select whether you want to install the package to an existing package group, or whether you want to create a new one. IBM Installation Manager will block products that are not designed to share or do not meet version tolerance and other requirements. If you want to install more than one product at a time, the products must be able to share a package group.

At the time of release, the following products will share function when installed to a package group:

- Rational Application Developer
- Rational Software Architect
- Rational Functional Tester
- Rational Performance Tester
- Rational Software Modeler
- Rational Systems Developer
- Rational Tester for SOA Quality

Any number of eligible products can be installed to a package group. When a product is installed, its function is shared with all of the other products in the package group. If you install a development product and a testing product into one package group, when you start either of the products, you have both the development and testing functionality available to you in your user interface. If you add a product with modeling tools, all of the products in the package group will have the development, testing, and modeling functionality available.

If you install a development product and later purchase a development product with increased functionality and add that product to the same package group, the

additional function will be available in both products. If you uninstall the product with the greater functionality, the original product remains. Note that this is a change from the "upgrade" behavior of version 6 products in the Rational Software Delivery Platform group.

Note: Each product installed into a unique location may be associated with only one package group. A product must be installed into multiple locations in order to be associated with multiple package groups. Rational Functional Tester and Rational Performance Tester can be installed into only one location on a computer, therefore one package group.

Installation repositories

IBM Installation Manager retrieves product packages from specified repository locations.

If the launchpad is used to start Installation Manager, the repository information is passed to Installation Manager. If the Installation Manager is started directly, you must specify an installation repository that contains the product packages that you want to install. See "Setting repository preferences in Installation Manager."

Some organizations bundle and host their own product packages on their intranet. For information about this type of installation scenario, see "Installing from a repository on an HTTP or HTTPS Web server" on page 8. Your system administrators will need to provide you with the correct URL.

By default, IBM Installation Manager uses an embedded URL in each Rational software development product to connect to a repository server over the Internet. Installation Manager then searches for the product packages as well as new features.

Setting repository preferences in Installation Manager

When you start the installation of Rational Tester for SOA Quality from the launchpad program, the location of the repository that contains the product package you are installing is automatically defined in IBM Installation Manager when it starts. However, if you start Installation Manager directly (for example, installing Rational Tester for SOA Quality from a repository located on a Web server) then you must specify the repository preference (the URL for the directory that contains the product package) in Installation Manager before you can install the product package. Specify these repository locations on the Repositories page of the Preferences window. By default, Installation Manager uses an embedded URL in each Rational software development product to connect to a repository server through the Internet and search for installable packages and new features. Your organization may require you to redirect the repository to use intranet sites.

Note: Before starting the installation process, be sure to obtain the installation package repository URL from your administrator.

To add, edit, or remove a repository location in Installation Manager:

1. Start Installation Manager.
2. On the Start page of Installation Manager, click **File** → **Preferences**, and then click **Repositories**. The Repositories page opens, showing any available repositories, their locations, and whether they are accessible.
3. On the Repositories page, click **Add Repository**.

4. In the Add repository window, type the URL of the repository location or browse to it and set a file path.
5. Click **OK**. If you provided an HTTPS or restricted FTP repository location, then you will be prompted to enter a user ID and password. The new or changed repository location is listed. If the repository is not accessible, a red x is displayed in the **Accessible** column.
6. Click **OK** to exit.

Note: For Installation Manager to search the default repository locations for the installed packages, ensure the preference **Search service repositories during installation and updates** on the Repositories preference page is selected. This preference is selected by default.

Package groups and the shared resource directory

When you install the Rational Tester for SOA Quality package using IBM Installation Manager, you must choose a package group and a shared resource directory.

Package groups

During the installation process, you must specify a *package group* for the Rational Tester for SOA Quality package. A package group represents a directory in which packages share resources with other packages in the same group. When you install the Rational Tester for SOA Quality package using Installation Manager, you can create a new package group or install the packages into an existing package group. (Some packages might not be able to share a package group, in which case the option to use an existing package group will be disabled.)

Note that when you install multiple packages at the same time, all the packages are installed into the same package group.

A package group is assigned a name automatically; however, you choose the installation directory for the package group.

After you create the package group by successfully installing a product package, you cannot change the installation directory. The installation directory contains files and resources specific to the Rational Tester for SOA Quality product package installed into that package group. Resources in the product package that can potentially be used by other package groups are placed in the shared resources directory.

Shared resources directory

The *shared resources directory* is the directory where installation artifacts are located so that they can be used by one or more product package groups.

Important:

- You can specify the shared resources directory once: the first time that you install a package. For best results, use your largest drive for this. You cannot change the directory location unless you uninstall all packages.

Extending an existing Eclipse IDE

When you install the Rational Tester for SOA Quality product package, you can choose to extend an Eclipse integrated development environment (IDE) already installed on your computer by adding the functions that the Rational Tester for SOA Quality package contains.

The Rational Tester for SOA Quality package that you install using IBM Installation Manager is bundled with a version of the Eclipse IDE or workbench; this bundled workbench is the base platform for providing the functionality in the Installation Manager package. However, if you have an existing Eclipse IDE on your workstation, then you have the option to *extend* it, that is, add to the IDE the additional functionality provided in the Rational Tester for SOA Quality package.

To extend an existing Eclipse IDE: in the Location page of the Install Packages wizard, select the **Extend an existing Eclipse IDE** option.

You might extend your existing Eclipse IDE, for example, because you want to gain the functionality provided in the Rational Tester for SOA Quality package, but you also want to have the preferences and settings in your current IDE when you work with the functionality from the Rational Tester for SOA Quality package. You also might want to work with plug-ins that you have installed that already extend the Eclipse IDE.

Your existing Eclipse IDE must be version 3.2.2 for the latest updates from eclipse.org to be extended. Installation Manager checks that the Eclipse instance you specify meets the requirements for the installation package.

Note: You might need to update your Eclipse version in order to install updates to Rational Tester for SOA Quality. Refer to the update release documentation for information on changes to the prerequisite Eclipse version.

Preinstallation tasks

Before you install the product, complete these steps:

1. Confirm that your system meets the requirements described in the section “Installation requirements” on page 3.
2. Confirm that your user ID meets the required access privileges for installing the product. See “User privileges requirements” on page 6.
3. Read the section “Planning to install” on page 7 and give particular attention to the topic “Upgrade and coexistence considerations” on page 8.
4. For Linux: If you want to enable the product to be used by users other than root, then you must set to 0022, the umask variable **before you install the product**. To set this variable, log in as root user, start a terminal session, and type umask 0022.

Installation tasks

The following sections provide an overview of the installation scenarios that are described in the section “Installation scenarios” on page 7. You can access detailed instructions from links in the main steps.

Note: After the Agent Controller and Data Collection Infrastructure are installed, they must be configured to enable the Resource Monitoring and Response Time Breakdown features. Refer to <http://www.ibm.com/software/rational/support/documentation/> for updated documentation and troubleshooting information.

Installing Rational Tester for SOA Quality from CDs: task overview

In this installation scenario, you have the CDs that contain the installation files, and typically you are installing Rational Tester for SOA Quality on your own workstation.

The following are the general steps for installing from CDs:

Note: Rational Performance Tester must be installed before you install Rational Tester for SOA Quality.

1. Complete the preinstallation steps listed in “Preinstallation tasks” on page 13.
2. Insert the first installation CD into your CD drive.
3. For Linux: Mount the CD drive.
4. If autorun is enabled on your system, the Rational Tester for SOA Quality launchpad program automatically opens. If autorun is not enabled, start the launchpad program. Refer to “Starting the launchpad program” on page 25 for details.
5. Start the installation of Rational Tester for SOA Quality from the launchpad. For details, see “Starting an installation from the launchpad program” on page 26.
6. Click **Install Packages** and follow the instructions in the Install Packages wizard to complete the installation. For details, see “Installing Rational Tester for SOA Quality by using the Installation Manager GUI” on page 27.
7. Configure your license. By default, a trial license for Rational Tester for SOA Quality is included. You must configure the license to ensure that you have continued access to the product. Refer to “Managing development seat licenses for workstations” on page 43 for details.
8. For Linux: Increase the number of file handles on your workstation. For details, see “Increasing the number of file handles on Linux workstations” on page 51.
9. Install optional software that is included with Rational Tester for SOA Quality.

Installing Rational Tester for SOA Quality from an electronic image on your workstation: task overview

The following are the general steps for installing Rational Tester for SOA Quality from an electronic installation image:

Note: Rational Performance Tester must be installed before you install Rational Tester for SOA Quality.

1. Ensure that your workstation has sufficient space to store both the files you must download from IBM Passport Advantage and the extracted installation image. Refer to “Hardware requirements” on page 3.
2. Download all required parts for the product image from IBM Passport Advantage to a temporary directory.
3. Extract the installation image from the downloaded file and verify that the installation image is complete. See “Verifying and extracting electronic images” on page 23 for details.
4. Continue with the steps in “Installing from an electronic image” below.

Installing from an electronic image

1. Complete the preinstallation steps listed in “Preinstallation tasks” on page 13.
2. Start the launchpad program. Refer to “Starting the launchpad program” on page 25 for details.
3. Start the installation of Rational Tester for SOA Quality from the Launchpad. For details, see “Starting an installation from the launchpad program” on page 26.
4. Follow the instructions in the Install Packages wizard to complete the installation. For complete details, see “Installing Rational Tester for SOA Quality by using the Installation Manager GUI” on page 27.
5. Configure your license. By default, a trial license for Rational Tester for SOA Quality is included. You must configure the license to ensure you have continued access to the product. Refer to “Managing development seat licenses for workstations” on page 43 for details.
6. For Linux: Increase the number of file handles on your workstation. For details, see “Increasing the number of file handles on Linux workstations” on page 51.
7. Install optional software that is included with Rational Tester for SOA Quality.

Installing Rational Tester for SOA Quality from an electronic image on a shared drive: task overview

In this scenario, you will place the electronic image on a shared drive so that users in your enterprise can access the installation files for Rational Tester for SOA Quality from a single location.

The following steps are performed by the person who places the installation image on a shared drive.

1. Ensure that your shared drive has sufficient disk space to store both the files you must download from IBM Passport Advantage and the extracted installation image. Refer to “Hardware requirements” on page 3 for details.
2. Download all required parts for the product image from IBM Passport Advantage to a temporary directory on the shared drive.
3. Extract the installation image from the downloaded files into an accessible directory on the shared drive and verify the installation image is complete. See “Verifying and extracting electronic images” on page 23 for details.

To install Rational Tester for SOA Quality from the installation files on the shared drive:

1. Change to the disk1 directory on the shared drive containing the installation image.
2. Follow the steps in “Installing from an electronic image” on page 16.

Installing Rational Tester for SOA Quality from a repository on an HTTP or HTTPS Web server: task overview

In this scenario, the product packages are retrieved by IBM Installation Manager from an HTTP or HTTPS Web server.

These steps assume the repository containing the package for Rational Tester for SOA Quality has been created on the HTTP or HTTPS Web server.

To install the Rational Tester for SOA Quality package from a repository on an HTTP or HTTPS server:

Note: Rational Performance Tester must be installed before you install Rational Tester for SOA Quality.

1. Complete the preinstallation steps listed in “Preinstallation tasks” on page 13.
2. In this scenario, for example, the Installation Manager installation files are available from a shared drive.
3. Start Installation Manager. Refer to “Starting Installation Manager on Windows” on page 20 for details.
4. Set the URL of the repository containing the package of Rational Tester for SOA Quality as a repository preference in Installation Manager. See “Setting repository preferences in Installation Manager” on page 10.
5. Start the Install Packages wizard in Installation Manager and follow the on-screen instructions in the Install Packages wizard to complete the installation. For complete details, see “Installing Rational Tester for SOA Quality by using the Installation Manager GUI” on page 27.
6. Configure your license. By default, a trial license for Rational Tester for SOA Quality is included. You must set the license to ensure you have continued access to work with the product. Refer to “Managing development seat licenses for workstations” on page 43 for details.
7. For Linux: Increase the number of file handles on your workstation. For details, see “Increasing the number of file handles on Linux workstations” on page 51.
8. Install optional software included with Rational Tester for SOA Quality.

Placing Rational Tester for SOA Quality on an HTTP Web server: task overview

To prepare Rational Tester for SOA Quality for installation from a repository located on an HTTP Web server:

1. Ensure that your HTTP or HTTPS Web server has sufficient disk space to store the product package. Refer to “Hardware requirements” on page 3.
2. Ensure that your workstation has sufficient disk space to store both the files you must download from IBM Passport Advantage and the extracted installation image. Refer to “Hardware requirements” on page 3.
3. Download all required parts for the product image from IBM Passport Advantage to a temporary directory on your workstation.

4. Extract the installation image from the downloaded files into another temporary directory on your workstation and verify that the installation image is complete. See “Verifying and extracting electronic images” on page 23 for details.
5. Install on your workstation the IBM Packaging Utility from the Enterprise Deployment CD (or electronic disk) appropriate for your platform.
6. Using the Packaging Utility, copy the Rational Tester for SOA Quality product package.
7. Copy the output of the Packaging Utility to an HTTP or HTTPS Web Server.
8. Copy the installation files for IBM Installation Manager from the Enterprise Deployment CD to a shared drive.
9. Instruct users in your organization to install Installation Manager.
10. Provide users the URL for the repository that contains the Rational Tester for SOA Quality product package you created earlier.

Managing IBM Installation Manager

This section deals with some common tasks relating to IBM Installation Manager. For more information, see the Installation Manager online help or the Installation Manager Information Center at <http://publib.boulder.ibm.com/infocenter/install/v1m0r0/index.jsp>.

Installing Installation Manager on Windows

If you start the installation of your product from the launchpad program, then the installation of IBM Installation Manager is started automatically if it is not already installed on your workstation. (For more information on this process, refer to “Installing from the launchpad program” on page 25.) In other cases, you must manually start the installation of Installation Manager.

To start the installation of Installation Manager manually:

1. Run `install.exe` from the `InstallerImage_win32` folder on the first installation disk.
2. Click **Next** on the Install Packages page.
3. Review the license agreement on the License Agreement page and select **I accept the terms in the license agreement** to accept. Click **Next**.
4. Click the **Browse** button on the Destination Folder page to change the installation location if required. Click **Next**.
5. Click **Install** on the Summary page. When the installation process is complete, a message confirms the success of the process.
6. Click **Finish**. IBM Installation Manager opens.

Installing Installation Manager on Linux

IBM Installation Manager is installed by the launchpad. For more information on this process, refer to “Installing from the launchpad program” on page 25.

To install Installation Manager manually:

1. Open a terminal window with root user privileges.
2. Run `install` from the `InstallerImager_linux` folder on the first installation disk.
3. Click **Next** on the Install Packages screen.
4. Review the license agreement on the License Agreement page and select **I accept the terms in the license agreement** to accept. Click **Next**.
5. If necessary, edit the installation directory location. Click **Next**.
6. Click **Install** on the information summary page. When the installation process is complete, a message confirms the success of the process.
7. Click **Finish**. IBM Installation Manager opens.

Starting Installation Manager on Windows

IBM Installation Manager should be started from the launchpad program. Doing so starts Installation Manager with a configured repository preference and selected Rational Tester for SOA Quality packages. If you start Installation Manager directly, then you must set a repository preference and choose product packages manually. For more information, see “Planning to install” on page 7.

To start Installation Manager manually:

1. Open the **Start** menu from the **Taskbar**.
2. Select **All Programs** → **IBM Installation Manager** → **IBM Installation Manager**.

Starting Installation Manager on Linux

IBM Installation Manager should be started from the launchpad program. Doing so starts the Installation Manager with a configured repository preference and selected Rational Tester for SOA Quality packages. If you start Installation Manager directly, then you must set repository preference and choose product packages manually. For more information, see “Planning to install” on page 7.

To start Installation Manager manually:

1. Open a terminal window with root user privileges.
2. Change directory to the installation directory for Installation Manager (by default, /opt/IBM/InstallationManager/eclipse) and run IBMIM.

Uninstalling Installation Manager on Windows

To uninstall Installation Manager:

1. Open the **Start** menu from the **Taskbar**.
2. Select **All Programs** → **IBM Installation Manager** → **Uninstall IBM Installation Manager**.
3. Click **Next** on the Uninstall page. The IBM Installation Manager is selected for uninstallation.
4. Click **Uninstall** in the Summary page.

Note: You can also uninstall Installation Manager by using the Control Panel. Click **Start** → **Settings** → **Control Panel**, and then double-click **Add or Remove Programs**. Select the entry for IBM Installation Manager and click **Remove**.

Uninstalling Installation Manager on Linux

IBM Installation Manager must be uninstalled using the package management tool that is included with your Linux version.

To uninstall Installation Manager manually on Linux:

1. Open a terminal window with root user privileges.
2. Change directory to the uninstallation directory of Installation Manager. By default, this is /var/ibm/InstallationManager/uninstall.
3. Run ./uninstall.

Silently installing and uninstalling Installation Manager

IBM Installation Manager can be silently installed and uninstalled.

Silently installing Installation Manager

To install Installation Manager silently, unzip the installer and switch to the `InstallerImage_platform` subdirectory, then use the following commands:

- For Windows: `installc --launcher.ini silent-install.ini -log <log file path and name>` . For example: `installc --launcher.ini silent-install.ini -log c:\mylogfile.xml`
- For other platforms: `install --launcher.ini silent-install.ini -log <log file path and name>`. For example, `install --launcher.ini silent-install.ini -log /root/mylogs/mylogfile.xml`

After installation, you can use Installation Manager or the Installation Manager installer to silently install packages.

Silently uninstalling Installation Manager from Windows

To silently uninstall Installation Manager on Windows:

1. From a command line, go to the uninstall directory for the Installation Manager. By default, this is `C:\Documents and Settings\All Users\Application Data\IBM\Installation Manager\uninstall`.
2. Enter the following command: `uninstallc.exe --launcher.ini silent-uninstall.ini`

Silently uninstalling Installation Manager on other platforms

To silently uninstall Installation Manager on other platforms:

1. From a terminal window, go to the directory uninstallation directory of Installation Manager. By default, this is `/var/ibm/InstallationManager/uninstall`).
2. Run the following command: `uninstall --launcher.ini silent-uninstall.ini`

Verifying and extracting electronic images

If you download the installation files from IBM Passport Advantage, you must extract the electronic image from the compressed files before you can install Rational Tester for SOA Quality.

If you select the Download Director option for downloading the installation files, the Download Director applet automatically verifies the completeness of each file that it processes.

Extracting the downloaded files

Extract each compressed file to the same directory. For Linux: Do not include spaces in the directory names, or you won't be able to run the `launchpad.sh` command to start the launchpad from a command line.

Installing from the launchpad program

The launchpad program provides you with a single location to view release information and start the installation process.

Note: Rational Performance Tester must be installed before you install Rational Tester for SOA Quality.

Use the launchpad program to start the installation of Rational Tester for SOA Quality in the following cases:

- Installing from the product CDs
- Installing from an electronic image on your local file system
- Installing from an electronic image on a shared drive

By starting the installation process from the launchpad program, IBM Installation Manager is automatically installed if it is not already on your computer, and it starts preconfigured with the location of the repository that contains the Rational Tester for SOA Quality package. If you install and start Installation Manager directly, then you must set repository preferences manually.

To install from the launchpad:

1. Complete the preinstallation tasks described in “Preinstallation tasks” on page 13, if you have not done so already.
2. Start the launchpad program. See “Starting the launchpad program.”
3. Start the installation of Rational Tester for SOA Quality. See “Starting an installation from the launchpad program” on page 26.

Follow the instructions in the Install Packages wizard to complete the installation. For complete details, see “Installing Rational Tester for SOA Quality by using the Installation Manager GUI” on page 27.

Starting the launchpad program

Complete the preinstallation tasks described in “Preinstallation tasks” on page 13, if you have not done so already.

If you are installing from a CD and autorun is enabled on your workstation, then the Rational Tester for SOA Quality launchpad starts automatically when you insert the first installation disc into your CD drive. If you are installing from an electronic image, or if autorun is not configured on your workstation, then you must start the launchpad program manually.

To start the launchpad program:

1. Insert the IBM Rational Tester for SOA Quality CD into your CD drive. For Linux: Ensure that you have mounted the CD drive.
2. If autorun is enabled on your system, the IBM Rational Tester for SOA Quality launchpad program automatically opens. If autorun is not enabled on your system:
 - For Windows: Run launchpad.exe located in the root directory of the CD.
 - For Linux: Run launchpad.sh located in the root directory of the CD.

Starting an installation from the launchpad program

1. Start the launchpad program.
2. If you have not done so already, read the release information by clicking **Release notes**.
3. When you are ready to begin the installation, click **Install IBM Rational Tester for SOA Quality**.
4. If IBM Installation Manager is not detected on your system or if an older version is already installed, then you must continue with the installation of the latest release.
5. Follow the instructions in the wizard to complete the installation of IBM Installation Manager. Refer to “Installing Installation Manager on Windows” on page 19 for more information.
6. When the installation of IBM Installation Manager completes successfully, click **Finish** to close the wizard. After the installation is complete, IBM Installation Manager opens automatically.
7. If this is a new installation, click **Install Packages** and follow the instructions in the wizard to complete the installation process. For complete details, see “Installing Rational Tester for SOA Quality by using the Installation Manager GUI” on page 27
8. If this is a product update, click **Update Packages** and follow the instructions in the wizard to complete the update process. For complete details, see “Updating Rational Tester for SOA Quality” on page 53.

Installing Rational Tester for SOA Quality by using the Installation Manager GUI

The following steps describe installing the IBM Rational Tester for SOA Quality package with the Installation Manager graphical user interface (GUI).

1. From the Installation Manager Start page, click **Install Packages**.

Note: If a new version of Installation Manager is found, you are prompted to confirm that you want to install it before you can continue. Click **OK** to proceed. Installation Manager automatically installs the new version, stops, restarts, and resumes.

2. The Install page of the Install Packages wizard lists all the packages found in the repositories that Installation Manager searched. If two versions of a package are discovered, only the most recent, or recommended, version of the package is displayed.
 - To display all versions of any package found by Installation Manager, click **Show all versions**.
 - To return to the display of only the recommended packages, click **Show only recommended**.
3. Click the IBM Rational Tester for SOA Quality package to display its description in the **Details** pane.
4. To search for updates to the IBM Rational Tester for SOA Quality package, click **Check for Other Versions and Extensions**.

Note: For Installation Manager to search the predefined IBM update repository locations for the installed packages, the preference **Search the linked repositories during installation and updates** on the Repositories preference page must be selected. This preference is selected by default. Internet access is also required.

Installation Manager searches for updates at the predefined IBM update repository for the product package. It also searches any repository locations that you have set. A progress indicator shows the search is taking place. You can install updates at the same time that you install the base product package.

5. If updates for the IBM Rational Tester for SOA Quality package are found, then they will be displayed in the **Installation Packages** list on the Install Packages page below their corresponding product. Only recommended updates are displayed by default.
 - To view all updates found for the available packages, click **Show all versions**.
 - To display a package description under **Details**, click on the package name. If additional information about the package is available, such as a readme file or release notes, a **More info** link is included at the end of the description text. Click the link to display the additional information in a browser. To fully understand the package you are installing, review all information beforehand.
6. Select the IBM Rational Tester for SOA Quality package and any updates to the package that you want to install. Updates that have dependencies are automatically selected and cleared together. Click **Next** to continue.

Note: If you install multiple packages at the same time, then all the packages will be installed into the same package group.

7. On the Licenses page, read the license agreement for the selected package. If you selected more than one package to install, there might be a license agreement for each package. On the left side of the **License** page, click each package version to display its license agreement. The package versions that you selected to install (for example, the base package and an update) are listed under the package name.
 - a. If you agree to the terms of all of the license agreements, click **I accept the terms of the license agreements**.
 - b. Click **Next** to continue.
8. On the Location page, type the path for the *shared resources directory* in the **Shared Resources Directory** field, or accept the default path. The shared resources directory contains resources that can be shared by one or more package groups. Click **Next** to continue.

The default path is:

- For Windows: C:\Program Files\IBM\SDP70Shared
- For Linux: /opt/IBM/SDP70Shared

Important: You can specify the shared resources directory only the first time that you install a package. Use your largest disk for this to help ensure adequate space for the shared resources of future packages. You cannot change the directory location unless you uninstall all packages.

9. On the Location page, create a *package group* to install the IBM Rational Tester for SOA Quality package into or if this is an update, use the existing package group. A package group represents a directory in which packages share resources with other packages in the same group. To create a new package group:
 - a. Click **Create a new package group**.
 - b. Type the path for the installation directory for the package group. The name for the package group is created automatically.

The default path is:

 - For Windows: C:\Program Files\IBM\SDP70
 - For Linux: /opt/IBM/SDP70
 - c. Click **Next** to continue.
10. On the next Location page, you can choose to extend an existing Eclipse IDE already installed on your system, adding the functionality in the packages that you are installing. You must have Eclipse Version 3.2.1 with the latest updates from eclipse.org to select this option.
 - If you do not want to extend an existing Eclipse IDE, click **Next** to continue.
 - To extend an existing Eclipse IDE:
 - a. Select **Extend an existing Eclipse**.
 - b. In the **Eclipse IDE** field, type or navigate to the location of the folder containing the eclipse executable file (eclipse.exe or eclipse.bin). Installation Manager will check if the Eclipse IDE version is valid for the package that you are installing. The **Eclipse IDE JVM** field displays the Java Virtual Machine (JVM) for the IDE that you specified.
 - c. Click **Next** to continue.

11. On the Features page under **Languages**, select the languages for the package group. The corresponding national language translations for the user interface and documentation for the IBM Rational Tester for SOA Quality package will be installed.
12. On the next Features page, select the package features that you want to install.
 - a. Optional: To see the dependency relationships between features, select **Show Dependencies**.
 - b. Optional: Click a feature to view its brief description under **Details**.
 - c. Select or clear features in the packages. Installation Manager will automatically enforce any dependencies with other features and display updated download size and disk space requirements for the installation.
 - d. When you are finished selecting features, click **Next** to continue.
13. On the Summary page, review your choices before installing the IBM Rational Tester for SOA Quality package. If you want to change the choices that you made on previous pages, click **Back** and make your changes. When you are satisfied with your installation choices, click **Install** to install the package. A progress indicator shows the percentage of the installation completed.
14. When the installation process is complete, a message confirms the success of the process.
 - a. Click **View log file** to open the installation log file for the current session in a new window. You must close the Installation Log window to continue.
 - b. In the Install Package wizard, select whether you want IBM Rational Tester for SOA Quality to start when you exit.
 - c. Click **Finish** to launch the selected package. The Install Package wizard closes and you are returned to the Start page of Installation Manager.
15. If the Data Collection Infrastructure software is installed, follow these steps to enable the test server for data collection:
 - a. From the **Start** menu, select **IBM Software Delivery Platform → IBM Rational Data Collection Infrastructure → Application Server Instrumenter** to open the instrumentation application.
 - b. Click the **Add Local** button and select the type of application server that you have running on the server.
 - c. Fill in the server type specific fields including the location of the server if required and click **OK**.
 - d. Stop and start the server for the instrumentation to take effect.
 - e. From the **Start** menu, select **IBM Software Delivery Platform → IBM Rational Data Collection Infrastructure → Start Data Collection**.

Note: All Rational Performance Tester systems involved with the Data Collection Infrastructure must have the data collection software running for the transaction breakdown functionality to be available within the results of an Rational Performance Tester test schedule.

Note: The Application Server Instrumenter or the instrumentServer.bat (or instrumentServer.sh) batch file can fail with a generic error message ("Error during install/uninstall") when instrumenting or uninstrumenting a server. If this occurs, you can find more information to help troubleshoot the error in the log files in the IBM Tivoli® common directory. On Windows, the default location of this directory is C:\Program Files\IBM\tivoli\common. On Linux, the default location of this directory is /var/ibm/tivoli/common. If the IBM Tivoli common directory is not in the default location, search for a path containing

tivoli/common, or for any of these log files: trace-install.log, trace-ma.log, or trace-tapmagent.log.

Note: For Websphere Application Server 6.x, if you create a new profile and then use the Application Server Instrumenter to instrument this profile without first starting WebSphere® Application Server, the Application Server Instrumenter will report that the server is instrumented and will request that you re-start the server manually. This message is incorrect; the server is not actually instrumented. To work around this problem:

- a. Close and then re-start Application Server Instrumenter.
- b. Select the entry you just added from the list of instrumented servers and click **Remove**.
- c. Re-start WebSphere Application Server.
- d. Re-start Application Server Instrumenter and use it to instrument the server.

To avoid this problem, after creating a new profile, start the WebSphere Application Server profile manually. Then, use the Application Server Instrumenter to instrument the server.

Installing silently

You can install the Rational Tester for SOA Quality product package by running Installation Manager in silent installation mode. When you run Installation Manager in silent mode, the user interface is not available; instead, Installation Manager uses a response file to input the commands that are required to install the product package. You can also install Installation Manager silently using the Installation Manager installer. You can then use the installer to silently install product packages.

Running Installation Manager in silent mode is helpful because it enables you to use a batch process to install, update, modify and uninstall product packages through scripts.

Note that you must install Installation Manager before you can silently install the Rational Tester for SOA Quality package. Refer to “Managing IBM Installation Manager” on page 19 for details on installing Installation Manager.

There are two main tasks required for silent installation:

Note: To install the Data Collection Infrastructure silently with Rational Performance Tester, an additional response file must be created.

1. Create the response file.
2. Run Installation Manager in silent installation mode.

Creating a response file with Installation Manager

You can create a response file by recording your actions as you install a Rational Tester for SOA Quality product package using Installation Manager, or the Installation Manager installer. When you record a response file, all of the selections that you make in the Installation Manager GUI are stored in an XML file. When you run Installation Manager in silent mode, Installation Manager uses the XML response file to locate the repository that contains the package, select the features to install, and so on.

To record a response file for installation (or uninstallation):

1. On a command line, change to the eclipse subdirectory in the directory where you installed Installation Manager. For example:
 - For Windows: `cd C:\Program Files\IBM\Installation Manager\eclipse`
 - For other platforms: `cd /opt/IBM/InstallationManager/eclipse`
2. On a command line, type the following command to start the Installation Manager, substituting your own file name and location for the response file and (optionally) the log file:
 - `IBMIM -record <response file path and name> -log <log file path and name>`. For example, `IBMIM.exe -record c:\mylog\responsefile.xml -log c:\mylog\record_log.xml`
 - You can record a response file without installing or uninstalling a product by adding the optional `-skipInstall <agentDataLocation>` argument. Note that `<agentDataLocation>` must be a writable directory. The argument causes the Installation Manager to save the installation data without installing the product. You can use the same `<agentDataLocation>` in the next recording

session to record updates or modifications to the product, or to record license management. Note that the products installed or preferences, including repository settings, that you may have set on install when not using the `-skipInstall` argument are not be stored. Using `-skipInstall` will make installation faster because the IM is not installing the product, it is just recording the installation data.

The syntax for using the `skipInstall` argument is: `IBMIM -record <response file path and name> -skipInstall <a writable directory for agent data location>`. For example `IBMIM -record c:\mylog\responsefile.xml -skipInstall c:\temp\recordData`

Note: Ensure the file paths you enter exist; Installation Manager will not create directories for the response file and the log file.

3. Follow the instructions in the Install Packages wizard to make your installation choices. For details, see “Installing Rational Tester for SOA Quality by using the Installation Manager GUI” on page 27.
4. Click **Finish**, then close Installation Manager.

An XML response file is created and resides in the location specified in the command.

Creating the Data Collection Infrastructure response file

The following UTF-8 text file (`rpt_dci.rsp`) must be placed in the operating system’s temporary directory in order to include Data Collection Infrastructure during a silent installation:

```
-V VAccessAll=true
-V VAccessLocal=false
-V VAccessCustom=false
-V VHosts=" "
```

Note: `VHosts` must be a list of valid host systems separated by comas.

1. Determine the temporary directory used by your operating system or login profile. For example, on Windows, from a command line, enter `set`. The list of set variables will be displayed. Look for the value assigned to `tmp`. This is the temporary directory in which the silent installation routine will look for the `rpt_dci.rsp` response file.
2. Change directories to temporary directory.
3. Create a UTF-8 text file named `rpt_dci.rsp` that contains the arguments previously listed.

Recording a response file with the Installation Manager installer

You can use the Installation Manager installer to record the installation of Installation Manager and other products.

To record the installation of Installation Manager, follow these steps:

1. Unzip the Installation Manager, then go to the `InstallerImage_platform` directory.
2. To start recording, enter `install -record <response file path and name> -skipInstall <agentDataLocation> -vmargs -Dcom.ibm.cic.agent.hidden=false`

Recording a product install with the installer

To start recording a product install with the Installation Manager installer, follow these steps:

1. Go to the `InstallerImage_platform` directory in location where you unzipped the Installation Manager.
2. Open the `install.ini` file by removing the following lines: `-input` and `@osgi.install.area/install.xml`
3. Enter the following command: `install -record <response file path and name> -skipInstall <agentDataLocation>`, for example: `install -record`
4. Start the Installation Manager and complete the Install Packages wizard.

Installing and running Installation Manager in silent mode

Use the Installation Manager installer to install Installation Manager, then use Installation Manager to install product packages in silent installation mode from a command line.

Refer to the Installation Manager Web site for additional documentation on how to run it in silent mode. For example, silently installing from a repository that requires authentication (user ID and password).

The following table describes the arguments used with the silent installation command:

Argument	Description
<code>-vm</code>	Specifies the Java launcher. In silent mode, always use <code>java.exe</code> on Windows, and <code>java</code> on other platforms.
<code>-nosplash</code>	Specifies that the splash screen should be suppressed.
<code>--launcher.suppressErrors</code>	Specifies that the JVM error dialog should be suppressed.
<code>-silent</code>	Specifies that the Installation Manager installer or Installation Manager should be run in silent mode.
<code>-input</code>	Specifies an XML response file as the input to Installation Manager installer or the Installation Manager. A response file contains commands that installer or Installation Manager runs.
<code>-log</code>	(Optional) Specifies a log file that records the result of the silent installation. The log file is an XML file.

Both the Installation Manager installer and the Installation Manager have an initialization or `.ini` file `silent-install.ini` that includes default values for the arguments in the table.

The Installation Manager installer is used to install the Installation Manager. Follow these steps to install the Installation Manager silently.

To install Installation Manager silently, unzip the installer and switch to the eclipse subdirectory, then use the following commands:

- For Windows: `installc --launcher.ini silent-install.ini -log <log file path and name> .` For example: `installc --launcher.ini silent-install.ini -log c:\mylogfile.xml`
- For other platforms: `install --launcher.ini silent-install.ini -log <log file path and name> .` For example, `install --launcher.ini silent-install.ini -log /root/mylogs/mylogfile.xml`

After Installation Manager is installed, you can use it to install other products. You can also use the Installation Manager installer to install the products.

To run Installation Manager in silent mode run the following command from the eclipse subdirectory:

- For Windows: `IBMIMc.exe --launcher.ini silent-install.ini -input <response file path and name> -log <log file path and name> .` For example: `IBMIMc.exe --launcher.ini silent-install.ini -input c:\mylog\responsefile.xml -log c:\mylog\silent_install_log.xml`
- For other platforms: `IBMIM --launcher.ini silent-install.ini -input <response file path and name> -log <log file path and name> .` For example: `IBMIM --launcher.ini silent-install.ini -input /root/mylog/responsefile.xml -log /root/mylog/silent_install_log.xml`

If you want to silently install products using the Installation Manager installer, from the eclipse directory, enter the following command:

- For Windows: `installc.exe --launcher.ini silent-install.ini -input <response file path and name> -log <log file path and name> .` For example: `installc --launcher.ini silent-install.ini -input c:\mylog\responsefile.xml -log c:\mylog\silent_install_log.xml`
- For other platforms: `install.exe --launcher.ini silent-install.ini -input <response file path and name> -log <log file path and name> .` For example: `IBMIM --launcher.ini silent-install.ini -input /root/mylog/responsefile.xml -log /root/mylog/silent_install_log.xml`

When the Installation Manager installer, or Installation Manager runs in silent installation mode; it reads the response file and writes a log file to the directory you specified. While you must have a response file when running in silent installation mode, log files are optional. The result of this execution should be a status of 0 on success and non-zero number on failure.

Searching for and silently installing all available products

You can silently search for and install updates for all available products.

To search for and silently install all available products:

1. On a command line, change to the eclipse subdirectory in the directory where you installed Installation Manager.
2. Enter and run the following command, substituting your own locations for the response file and, optionally, the log file:
 - For Windows: `IBMIMc.exe --launcher.ini silent-install.ini -installAll -log <log file path and name>`
 - For other platforms: `IBMIM --launcher.ini silent-install.ini -installAll -log <log file path and name>`

All available products known to Installation Manager are installed.

Silently installing updates to all currently installed products

You can silently search for and install updates for all currently installed products.

To search for and silently install updates for all available products:

1. On a command line, change to the eclipse subdirectory in the directory where you installed Installation Manager.
2. Enter and run the following command, substituting your own locations for the response file and, optionally, the log file:
 - For Windows: `IBMIMc.exe --launcher.ini silent-install.ini -updateAll -log <log file path and name>`
 - For other platforms: `IBMIM --launcher.ini silent-install.ini -updateAll -log <log file path and name>`

All available product updates known to Installation Manager are installed.

Response file commands

If you want to use the silent installation capabilities of Installation Manager, you need to create a response file that contains all of the commands that Installation Manager must run. The recommended way to do this is to create a response file by recording your actions as you install the IBM Rational Tester for SOA Quality package. However, you can create or edit a response file manually.

There are two categories of commands for the response file:

- **Preference commands** are used to set preferences that are found in Installation Manager under **File** → **Preferences**, such as repository location information.
- **Silent installation commands** are used to emulate the Install Packages wizard in Installation Manager.

Silent installation preference commands

While you typically specify preferences using the Preferences window, you can also specify preferences (identified as keys) in a response file for use during a silent installation.

Note: You can specify more than one preference in a response file.

When you define preferences in a response file, your XML code will look similar to the following example:

```
<preference
  name = "the key of the preference"
  value = "the value of the preference to be set">
</preference>
```

Use the following table to identify keys and their associated values for silent installation preferences:

Key	Value	Notes®
com.ibm.cic.common.core.preferences.logLocation	Specifies the location of Installation Manager log file.	Important: This key is optional and is designed for testing and debugging. If you do not specify a location for the log file, both silent installation and the UI version of Installation Manager will use the same location.
com.ibm.cic.license.policy.location	Specifies a URL that defines where the remote license policy file resides.	
com.ibm.cic.common.core.preferences.http.proxyEnabled	True or False	False is the default value.
com.ibm.cic.common.core.preferences.http.proxyHost	Host name or IP address	
com.ibm.cic.common.core.preferences.http.proxyPort	Port number	
com.ibm.cic.common.core.preferences.http.proxyUseSocks	True or False	False is the default value.
com.ibm.cic.common.core.preferences.SOCKS.proxyHost	Host name or IP address	
com.ibm.cic.common.core.preferences.SOCKS.proxyPort	Port number	
com.ibm.cic.common.core.preferences.ftp.proxyEnabled	True or False	False is the default value.
com.ibm.cic.common.core.preferences.ftp.proxyHost	Host name or IP address	
com.ibm.cic.common.core.preferences.ftp.proxyPort	Port number	

Key	Value	Notes®
com.ibm.cic.common.core.preferences.eclipseCache	c:\IBM\ common (Windows) /opt/IBM/ common (Linux) Note: The paths above are default values for this preference; typically, install packages provide their own values for this preference.	You cannot change this location if you have already installed a package.
com.ibm.cic.agent.core.pref.offering.service.repositories. areUsed	True or False	Change this preference to 'False' to disable it. When 'True', all linked repositories will be searched when products are installed or updated.
com.ibm.cic.common.core.preferences. preserveDownloadedArtifacts	True or False	Change this preference to 'False' to disable it. When true, the files required to roll the package back to a previous version are stored on your system. When false, these files are not stored. If you do not store these files, you must connect to your original repository or media to roll back.

Silent installation commands

You can use this reference table to learn more about response file commands for use during a silent installation.

Response file commands	Description
Profile <pre> <profile id="the profile (package group) id" installLocation="the install location of the profile"> <data key="key1" value="value1"/> <data key="key2" value="value2"/> </profile> </pre>	<p>Use this command to create a package group (or installation location). If the specified package group already exists, then the command has no effect. Currently, when creating the profile, the silent installation will also create two installation contexts; one for Eclipse and one for native. A profile is an installation location.</p> <p>You can use the <data> element for setting profile properties.</p> <p>The following list contains the keys currently supported keys and related values:</p> <ul style="list-style-type: none"> • The eclipseLocation key specifies an existing Eclipse location value, such as c:\myeclipse\eclipse. • The cic.selector.nl key specifies the Natural Language (NL) locale selections, such as zh, ja, and en. <p>Note: Separate multiple NL values with commas.</p> <p>The following list contains the currently supported language codes:</p> <ul style="list-style-type: none"> • English (en) • French (fr) • Italian (it) • Simplified Chinese (zh) • Russian (ru) • Traditional Chinese (Taiwan) (zh_TW) • Traditional Chinese (Hong Kong) (zh_HK) • German (de) • Japanese (ja) • Polish (pl) • Spanish (es) • Czech (cs) • Hungarian (hu) • Korean (ko) • Portuguese (pt_BR)
Repositories <pre> <server> <repository location="http://example/ repository/"> <repository location="file:/C:/ repository/"> <!--add more repositories below--> <...> </server> </pre>	<p>Use this command to specify the repositories used during a silent installation. Use a URL or UNC path to specify remote repositories; use directory paths to specify local repositories.</p>

Response file commands	Description
Install <pre> <install> <offering profile= "profile id" features= "feature ids" id= "offering id" version= "offering version"></offering> <!--add more offerings below> <...> </install> </pre>	<p>Use this command to specify the installation packages that will be installed.</p> <p>The profile ID must match an existing profile or a profile created by the set profile command.</p> <p>Feature IDs can be optionally specified by a comma-delimited list, such as "feature1, feature2" and so on. If no feature IDs are specified, all the default features in the specified offering will be installed.</p> <p>The version number is not required. If no version is specified, the Installation Manager will install the most recent product with the specified id and any available updates and fixes.</p> <p>Note: Required features will be included for installation, even if they are not explicitly specified in the comma-delimited list.</p>
<pre> <install modify="true"> or <uninstall modify="true"> (optional attribute) <uninstall modify="true"> <offering profile="profileID" id="Id" version="Version" features="-"/> </uninstall> </pre>	<p>Use the <install modify="true"> attribute on install and uninstall commands to indicate that you want to modify an existing install. If the attribute is not set to true, the value defaults to false. If the intent of the modify operation is only to install additional language packs, then a hyphen "-" should be used in the offering feature id list to indicate no new features are being added.</p> <p>Important: You must specify "modify=true" and a hyphen "-" feature list as specified in the example; otherwise, the install command will install the offering's default features and the uninstall command will remove all the features.</p>
Uninstall <pre> <uninstall> <offering profile= "profile id" features= "feature ids" id= "offering id" version= "offering version"></offering> <!--add more offerings below> <...> </uninstall> </pre>	<p>Use this command to specify the packages that will be uninstalled.</p> <p>The profile ID must match an existing profile or a profile specified in a profile command. Further, if there are no feature IDs specified, all the features in the specified offering will be uninstalled; if there are no offering IDs specified, all the installed offerings in the specified profile will be uninstalled.</p>
Rollback <pre> <rollback> <offering profile= "profile id" id= "offering id" version= "offering version"> </offering> <!--add more offerings below> <...> </rollback> </pre>	<p>Use this command to roll back to the specified offerings from the version currently installed on the specified profile. You cannot specify features in a roll back command.</p>

Response file commands	Description
InstallAll <code><installAll/></code> Note: This command is equivalent to using <code>-silent -installAll</code> .	Use this command to silently search for and install all available packages.
UpdateAll <code><updateAll/></code> Note: This command is equivalent to using <code>-silent -updateAll</code> .	Use this command to silently search for and update all available packages.
License <code><license policyFile="policy file location"/></code> For example: <code><license policyFile="c:\mylicense.opt"/></code>	<p>Use this command to generate a response file containing a license command by starting the license wizard after starting Installation Manager in record mode.</p> <p>During record mode, if you set flex options through the license management wizard, the options you set will be recorded in a license policy file named "license.opt" in the same directory as the generated response file; the response file will contain a license command that references the policy file.</p>
Wizard <code><launcher -mode wizard -input < response file ></code>	Use this command to start Installation Manager in UI mode. The UI mode starts Installation Manager in either the install wizard or the uninstall wizard. However, in this case, the response file can only contain preference commands and install commands or preference command and uninstall commands; you can not mix install and uninstall commands in the same response file when you run Installation Manager in UI mode.

Additional response file attributes

Response file attribute	Description
Clean <code><agent-input clean="true"></code> <code></agent-input></code>	<p>By default, <code>clean="false"</code>. Installation Manager will use the repository and other preferences specified in the response file as well as the existing preferences set in the Installation Manager. If a preference is specified in the response file and the Installation Manager, the one in the response file takes precedence.</p> <p>If set to <code>clean="true"</code>, Installation Manager will use the repository and other preferences specified in the response file; the existing preferences set in the Installation Manager will not be used.</p>

Response file attribute	Description
Temporary <code><agent-input clean="true" temporary="false"></code> <code></agent-input></code>	<p>By default, temporary is set to 'false' and the preferences set in your response file will be persisted. When you set temporary="true", the preferences set in the response file will not be persisted.</p> <p>You can use the temporary and clean attributes together, for example, if you set clean to true and temporary to false, after running the silent install the repository setting specified in the response file will override the preferences set in the previous sessions using Installation Manager.</p>
License agreement acceptance <code><agent-input acceptLicense="false"></code> <code></agent-input></code>	<p>By default, you agree to accept whatever license an installation package carries when using Installation Manager in silent installation mode. If you do not want to accept the license agreement, you can use an additional attribute in the <code><agent-input></code> element that automatically fails the silent installation operation, <code><agent-input acceptLicense="false"></code>. If the installation package you are installing has a license agreement that must be accepted, the silent installation operation will fail.</p>

Reference: Sample response file

You can use an XML-based response file to specify predefined information such as silent installation preferences, repository locations, installation profiles, and so on. Response files are beneficial for teams and companies that want to install installation packages silently and to standardize the locations and preferences for installation packages.

Sample response file
<pre> <agent-input > <!-- add preferences --> <preference name="com.ibm.cic.common.core.preferences. http.proxyEnabled" value="c:/temp"/> <!-- create the profile if it doesn't exist yet --> <profile id="my_profile" installLocation="c:/temp/my_profile"></profile> <server> <repository location= "http://a.site.com/local/products/sample/20060615_1542/repository/"></repository> </server> <install> <offering profile= "my_profile" features= "core" id= "ies" version= "3.2.0.20060615"> </offering> </install> </agent-input> </pre>

Silent install log files

You can use silent install log files to examine the results of a silent installation session.

The silent installation functionality creates an XML-based log file that records the result of the silent install execution (as long as a log file path is specified using `-log <your log file path>.xml`). If your silent installation session is successful, the log file will contain just the root element of `<result> </result>`. However, if errors occur during the installation, the silent install log file will contain error elements with messages such as:

```
<result>
  <error> Cannot find profile: profile id</error>
  <error> some other errors</error>
</result>
```

For detailed analysis, you can look at the logs generated in the Installation Manager data area. By using a preference command, you can optionally set the data area to your preferred location, as shown in the response file topic.

Managing development seat licenses for workstations

Development seat licenses for your installed IBM software and customized packages are administered with the Manage Licenses wizard in IBM Installation Manager. The Manage Licenses wizard displays license information for each installed package.

The development seat licenses that come with Rational Performance Tester Version 7.0 and later are trial licenses and expire 30 days after installation. You must purchase and activate a development seat license to continue to use Rational Performance Tester after the expiration date.

Using the Manage Licenses wizard, you can upgrade the trial version of an offering to a licensed version by importing a product activation kit or you can enable floating license enforcement to use floating development seat license keys from a license server.

Important: Rational Performance Tester also uses floating licenses to enable the use of protocol extensions and virtual testers during test playback. These floating licenses can be retrieved from the same license server that delivers the development seat floating licenses. However, the following provisions apply:

- The development seat floating licenses can only be delivered by either a UNIX[®] 7.0.0.1 or the Rational License server v7.0.1 for Windows or a later version.
- The floating licenses for test playback can be delivered along with the development seat floating licenses from the newer servers, or they may be delivered apart from the development seat floating licenses from older servers.

In this topic, floating licenses refer to development seat floating licenses. References to other licenses in this topic are identified.

For information about managing test playback floating licenses, see “Managing protocol keys and virtual tester license key packs” on page 49.

For more information about managing development seat licenses for your Rational product, see the following information:

- The technote at <http://www.ibm.com/support/docview.wss?uid=swg21250404> dealing with Rational product activation.
- The Rational licensing support page at <http://www.ibm.com/software/rational/support/licensing/>.

Licenses

With the purchase of IBM Rational software products, you select from three types of product licenses: an Authorized User license, an Authorized User Fixed Term License (FTL), and a Floating License. The best choice for your organization depends upon how many people use the product, how often they require access, and how you prefer to purchase your software.

Authorized User License

An IBM Rational Authorized User license permits one individual to use a Rational software product. Purchasers obtain an Authorized User license for each individual who uses the product in any manner. An Authorized User license cannot be reassigned unless the purchaser replaces the original assignee on a long-term or permanent basis.

For example, if you purchase one Authorized User license, you can assign that license to one individual, who can then use the Rational software product. The Authorized User license does not entitle a second person to use that product at any time, even if the licensed individual is not using it.

To install an Authorized User license, see “Importing a product activation kit” on page 46.

Authorized User Fixed Term License

An IBM Rational Authorized User Fixed Term License (FTL) permits one individual to use a Rational software product for a specific length of time (the term). Purchasers obtain an Authorized User FTL for each individual who uses the product in any manner. An Authorized User FTL cannot be reassigned unless the purchaser replaces the original assignee on a long-term or permanent basis.

Note: When you purchase an Authorized User FTL under the Passport Advantage Express program, IBM will automatically extend the license term for an additional year at the prevailing price unless you notify IBM before the license expires that you do not want an extension. The subsequent FTL term starts when the initial FTL term expires. The price for this subsequent term is currently 80% of the initial FTL price but is subject to change.

If you notify IBM that you do not want to extend the license term, then you must stop using the product when the license expires.

To install an Authorized User Fixed Term license, see “Importing a product activation kit” on page 46.

Floating License

An IBM Rational Floating License is for a single software product and can be shared among multiple team members; however, the total number of concurrent users cannot exceed the number of floating licenses that you purchase. For example, if you purchase one Floating License for a Rational software product, then only one user in your organization can use the product at any given time. Another person who wants to use the product must wait until the current user logs off.

To use floating licenses, you obtain Floating License keys and install them on a Rational License Server. The server responds to user requests for access to the license keys; it grants access to the number of concurrent users that matches the number of licenses the organization purchased.

Viewing license information about installed packages

You can review license information for installed packages, including license types and expiration dates, from IBM Installation Manager.

To view license information:

1. Start IBM Installation Manager.
2. On the main page, click **Manage Licenses**.

The package vendor, current license types, and expiration dates are displayed for each installed package.

Purchasing licenses

You can purchase new licenses if your current product license is about to expire or if you want to acquire additional product licenses for team members.

To purchase licenses and use your product, complete the following steps:

1. Determine the type of license you want to purchase.
2. Go to ibm.com[®] or contact your IBM sales representative to purchase the product license. For details, visit the IBM Web page on How to buy software.
3. Depending on the type of license you purchase, use the Proof of Entitlement that you receive and do one of the following to enable your product:
 - If you purchase Authorized User licenses for your product, go to Passport Advantage and follow the instructions there for downloading your product activation kit. After you have downloaded the activation kit, import the product activation .jar file using Installation Manager.
 - If you purchase Floating licenses for your product, click the link to the IBM Rational Licensing and Download site, login (IBM registration is required), and then select the link to connect to the IBM Rational License Key Center. There you can use your Proof of Entitlement to obtain floating license keys for your license server.

Optionally, you can go to Passport Advantage to download the activation kit for your product. After importing the activation kit, you can switch from a floating to a permanent license type if you use your computer offline for long periods.

When you want to import the activation kit or enable Floating License support for your product, use the Manage Licenses wizard in IBM Installation Manager.

License enablement

If you are installing a Rational software product for the first time or want to extend a development seat license to continue using the product, you have options for enabling licenses for your product.

You can enable licenses for Rational Software Delivery Platform offerings two ways:

- Importing a product activation kit
- Enabling Rational Common Licensing to obtain access to Floating License keys

Importing a product activation kit

To install your permanent license key, import the activation kit from the download location or the product media by using IBM Installation Manager.

If you have not purchased an activation kit, download the activation kit first. If you have purchased a product or a product activation kit, insert the appropriate CD or download the activation kit from IBM Passport Advantage to an accessible workstation. The activation kit is a compressed file that contains a Java archive (.jar) file. The .jar file contains the permanent license key and must be imported to activate your product.

To import an activation kit .jar file and enable the new license key:

1. Start IBM Installation Manager.
2. On the main page, click **Manage Licenses**.
3. Select a package, and click the **Import Activation Kit** button.
4. Click **Next**. Details for the selected package are shown, including the current license kind and the product version range of the license.
5. Browse to the path on the media CD or download location for the activation kit; then select the appropriate Java archive (.jar) file and click **Open**.
6. Click **Next**. The Summary page displays the target installation directory for the activation kit, the product that the new license applies to, and version information.
7. Click **Finish**.

The product activation kit with its permanent license key is imported to the product. The Manage Licenses wizard indicates whether the import is successful.

Enabling floating licenses

If your team environment supports Floating license enforcement, you can enable Floating Licenses for your product and configure a server connection to obtain access to Floating License keys.

Before enabling Floating License enforcement, you must obtain the license server connection information from your administrator. For details on license server, license key, and Rational Common Licensing administration, see the *IBM Rational License Management Guide*.

Note: Enabling Floating License enforcement on a workstation disables licenses that product activation kits include.

You can find the most recent version of the *License Management Guide* online: http://download.boulder.ibm.com/ibmdl/pub/software/rationalsdp/v7/rcl/701/docs/install_instruction/install.html

To enable Floating Licenses as the license type for specified packages and configure license server connections:

1. In the IBM Installation Manager for the Rational Software Delivery Platform, click **File** → **Open** → **Manage Licenses**.
2. Select a version of a package, and then select the **Configure Floating License support** button.
3. Click **Next**.
4. Click the **Enable Floating License enforcement** button.

5. Configure one or more license server connections.
 - a. Click an empty field in the **Servers** table or click the **Add** button.
 - b. If your administrator provided information for a redundant server environment, click the **Redundant Server** button. Fields for the primary, secondary, and tertiary server names and ports are displayed.
 - c. Enter the host name of the license server in the **Name** field.
 - d. Optional: Enter a value in the **Port** field for environments where a firewall is used. Do not assign a value to this port unless your administrator instructs you to do so.
 - e. For redundant server environments, enter the names and ports (if required) for the secondary and tertiary servers.
 - f. Optional: You can click the **Test Connection** button to confirm that the connection information is correct and that the server is available.
 - g. Click **OK**.
6. Click **Next**.
7. Optional: Configure the license usage order for your shell shared or custom packages. The order of licenses in the list determines the order in which your package obtains access to license keys for a given licensed package.
8. Click **Finish**.

The Manage Licenses wizard indicates whether the floating licenses configuration is successful.

When you open the enabled product, a connection is created to the license server to obtain a license key from the pool of available Floating License keys.

Managing protocol keys and virtual tester license key packs

Rational Performance Tester checks for the correct protocol keys and virtual tester license key packs when you run a performance schedule.

In addition to product activation, Rational Performance Tester also checks for the correct protocol keys and virtual tester license key packs when you run a performance schedule. You need a protocol key to run tests with any protocol other than HTTP. You need a virtual tester license key pack to run tests with more than five virtual users. You can check out these keys from the same Rational License Server that you use for Floating License product activation.

To check out protocol and virtual tester license keys in Windows, you must use the IBM Rational License Key Administrator program to point to a Rational License Server:

1. Click **Start** → **Program** → **IBM Rational** → **IBM Rational License Key Administrator**.
2. Type the name of your Rational License Server.

To learn more about IBM Rational License Key Administrator, select **Help** → **Contents and Index**.

There is no Linux version of the IBM Rational License Key Administrator. To check out protocol and virtual tester license keys in Linux, create and edit the .flexlmrc file. Create the file .flexlmrc in the home directory of every user who runs more than five virtual testers, uses a protocol other than HTTP, or uses the Floating License product activation. Edit the .flexlmrc file, adding a line with the computer name or the IP address of the Rational License Server. For example, add one of the following lines to the file: `RATIONAL_LICENSE_FILE=@license-server-name.com` or `RATIONAL_LICENSE_FILE=@license-server-ip-address`.

Increasing the number of file handles on Linux workstations

Important: For best results, before you work with your Rational product, increase the number of file handles available for Rational Tester for SOA Quality, because it uses more than the default limit of 1024 file handles per process. (A system administrator might need to make this change.)

Exercise caution when using the following these steps to increase your file descriptors on Linux. Failure to follow the instructions correctly might result in a computer that will not start correctly. For best results, have your system administrator perform this procedure.

To increase your file descriptors:

1. Log in as root. If you do not have root access you will need to obtain it before continuing.
2. Change to the etc directory
3. Use the vi editor to edit the initscript file in the etc directory. If this file does not exist, type `vi initscript` to create it.

Important: If you decide to increase the number of file handles, **do not** leave an empty initscript file on your computer. If you do so, your machine will not start up the next time that you turn it on or restart.

4. On the first line, type `ulimit -n 4096` (the key here is that the number is significantly larger than 1024, the default on most Linux computers). **Caution:** do not set this too high, because it can seriously impact system-wide performance.
5. On the second line, type `eval exec "$@"`.
6. Save and close the file after making sure you have done steps 4 and 5.

Note: Ensure you have followed the steps correctly, as not doing this correctly will result in a machine that does not boot.

7. Optional: Restrict your users or groups by modifying the limits.conf file in the etc/security directory. Both SUSE Linux Enterprise Server (SLES) Version 9 and Red Hat Enterprise Linux Version 4.0 have this file by default. If you do not have this file, you might consider a smaller number in step 4 above (for example, 2048). You need to do this so that most users have a reasonably low limit on the number of allowable open files per process. If you used a relatively low number in step 4, it is less important to do this. However, if you choose to set a high number in step 4, refraining from establishing limits in the limits.conf file can seriously impact computer performance.

The following is a sample limits.conf file would look that restricts all users and then sets different limits for others afterwards. This sample assumes you set descriptors to 8192 in step 4 earlier.

```
*      soft nofile 1024
*      hard nofile 2048
root   soft nofile 4096
root   hard nofile 8192
user1  soft nofile 2048
user1  hard nofile 2048
```

Note that the * in the example above sets the limits for all users first. These limits are lower than the limits that follow. The root user has a higher number of allowable descriptors open, while user1 is in between the two. Make sure you read and understand the documentation contained within the limits.conf file before making your modifications.

For more information on the ulimit command, refer to the man page for ulimit.

Updating Rational Tester for SOA Quality

You can install updates for packages that were installed with IBM Installation Manager. Package updates provide fixes and updates to installed features and might also include new features that you can install using the Modify Packages wizard.

By default, Internet access is required unless your repository preferences points to your local update site.

Each installed package has the location embedded for its default IBM update repository. For Installation Manager to search the IBM update repository locations for the installed packages, the preference **Search service repositories during installation and updates** on the Repositories preference page must be selected. This preference is selected by default.

See the Installation Manager help for more information.

Note: Close all programs that were installed using Installation Manager before updating.

To find and install product package updates:

1. From the Start page of the Installation Manager, click **Update Packages**.
2. If IBM Installation Manager is not detected on your system or if an older version is already installed, then you must continue with the installation of the latest release. Follow the instructions in the wizard to complete the installation of IBM Installation Manager.
3. In the Update Packages wizard, select the location of the package group where the Rational Tester for SOA Quality product package you want to update is installed or select the **Update All** check box, and then click **Next**. Installation Manager searches for updates in its repositories and the predefined update sites for Rational Tester for SOA Quality. A progress indicator shows the search is taking place.
4. If updates for a package are found, then they are displayed in the **Updates** list on the Update Packages page below their corresponding package. Only recommended updates are displayed by default. Click **Show all** to display all updates found for the available packages.
 - a. To learn more about an update, click the update and review its description under **Details**.
 - b. If additional information about the update is available, a **More info** link will be included at the end of the description text. Click the link to display the information in a browser. Review this information before installing the update.
5. Select the updates that you want to install or click **Select Recommended** to restore the default selections. Updates that have a dependency relationship are automatically selected and cleared together.
6. Click **Next** to continue.
7. On the Licenses page, read the license agreements for the selected updates. On the left side of the **License** page, the list of licenses for the updates you selected is displayed; click each item to display the license agreement text.

- a. If you agree to the terms of all the license agreements, click **I accept the terms of the license agreements**.
 - b. Click **Next** to continue.
8. On the Summary page, review your choices before installing the updates.
- a. If you want to change the choices you made on previous pages, click **Back**, and make your changes.
 - b. When you are satisfied, click **Update** to download and install the updates. A progress indicator shows the percentage of the installation completed.

Note: During the update process, Installation Manager might prompt you for the location of the repository for the base version of the package. If you installed the product from CDs or other media, they must be available when you use the update feature.

9. Optional: When the update process completes, a message that confirms the success of the process is displayed near the top of the page. Click **View log file** to open the log file for the current session in a new window. You must close the Installation Log window to continue.
10. Click **Finish** to close the wizard.
11. Optional: Only the features that you already have installed are updated using the **Update** wizard. If the update contains new features that you would like to install, run the **Modify Packages** wizard and select the new features to install from the feature selection panel.

Modifying installations

The Modify Packages wizard in the IBM Installation Manager enables you to change the language and feature selections of an installed product package. You can also use the Modify Packages wizard to install new features that might be included in a package update, such as a refresh pack.

By default, Internet access is required unless the repository preferences points to a local update site. See the Installation Manager help for more information.

Note: Close all programs that were installed using Installation Manager before modifying.

To modify an installed product package:

1. From the Start page of the Installation Manager, click the **Modify Packages** icon.
2. In the Modify Packages wizard, select the installation location for the Rational Tester for SOA Quality product package and click **Next**.
3. On the Modify page, under Languages, select the languages for the package group, then click **Next**. The corresponding national language translations for the user interface and documentation for the packages will be installed. Note that your choices apply to all packages installed under this package group.
4. On the Features page, select the package features that you want to install or remove.
 - a. To learn more about a feature, click the feature and review the brief description under **Details**.
 - b. If you want to see the dependency relationships between features, select **Show Dependencies**. When you click a feature, any features that depend on it and any features that are its dependents are shown in the Dependencies window. As you select or exclude features in the packages, Installation Manager will automatically enforce any dependencies with other features and display updated download size and disk space requirements for the installation.
5. When you are finished selecting features, click **Next**.
6. On the Summary page, review your choices before modifying the installation package, and then click **Modify**.
7. Optional: When the modification process completes, click **View Log File** to see the complete log.

Reverting updates to previous versions

You can remove an update to some packages to revert to a previous version by using the Roll Back Packages wizard of IBM Installation Manager.

During the rollback process, Installation Manager must access files from the earlier version of the package. By default, these files are stored on your computer when you upgrade to a new package. If you have deleted the files that are saved locally for rollback or cleared the **Save files for rollback** check box in the Preferences page (**File** → **Preferences** → **Files for Rollback**) while upgrading, you will not be able to roll back to the previous version without the media or repositories that were used to install that version of the package.

Note: You can only rollback to Version 7.0.1, 7.0.1.1, or 7.0.1.2. Rolling back to prior versions is not possible.

Use the rollback feature if you have applied an update to a product package and decide later that you want to remove the update and revert to the earlier version of the product. When you use the rollback feature, Installation Manager uninstalls the updated resources and reinstalls the resources from the previous version. You can only roll back one version level at a time.

For more information, see the Installation Manager online help or Information Center.

To revert an update to a previous version, do the following:

1. On the Start page, click **Roll back Packages**.
2. In the Rollback wizard, from the **Installation Packages** list, select the package that you want to revert to the previous version.
3. Follow the instructions in the wizard.

Uninstalling Rational Tester for SOA Quality

The Uninstall Packages option in the Installation Manager enables you to uninstall packages from a single installation location. You can also uninstall all the installed packages from every installation location.

To uninstall the packages, you must log in to the system using the same user account that you used to install the product packages.

To uninstall the packages:

1. Close the programs that you installed using Installation Manager.
2. On the Start page click **Uninstall Packages**.
3. In the Uninstall Packages page, select the Rational Tester for SOA Quality product package that you want to uninstall. Click **Next**.
4. In the Summary page, review the list of packages that will be uninstalled and then click **Uninstall**. The Complete page is displayed after the uninstallation finishes.
5. Click **Finish** to exit the wizard.

IBM Packaging Utility

Use IBM Packaging Utility software to copy product packages to a repository that can be placed on a Web server available over HTTP or HTTPS.

Packaging Utility software is located on the Enterprise Deployment CD that is included with Rational Tester for SOA Quality. If you want to place a repository that contains a Rational Tester for SOA Quality package on a Web server that will be available over HTTP or HTTPS, you must use Packaging Utility to copy the product package of Rational Tester for SOA Quality into the repository.

Use this utility to perform the following tasks:

- Generate a new repository for product packages.
- Copy product packages to a new repository. You can copy multiple product packages into a single repository, thereby creating a common location for your organization from which product packages can be installed using IBM Installation Manager.
- Delete product packages from a repository.

Refer to the online help for Packaging Utility for full instructions using the tool.

Installing Packaging Utility

IBM Packaging Utility must be installed from the Enterprise Deployment CD before it can be used to copy the Rational Tester for SOA Quality product package.

Use the following steps to install IBM Packaging Utility software from the Enterprise Deployment CD:

1. Navigate to the Enterprise Deployment CD for the appropriate platform and extract the zip file from the CD.
2. Navigate to the Packaging Utility directory and extract the Packaging Utility installation package from the compressed file (pu.disk_win32.zip or pu.disk_linux.zip).
3. Locate the Packaging Utility installer executable.
 - For Windows: Change to the InstallerImage_win32 directory in the area where the pu.disk_win32.zip file was unpacked. Locate the installer executable "install.exe".
 - For Linux: Change to the InstallerImage_linux directory in the area where the pu.disk_linux.zip file was unpacked. Locate the installer executable "install".
4. Start the installer executable and follow the instructions in the wizard to install the Packaging Utility.

Copying product packages to an HTTP server using Packaging Utility

To create a repository on an HTTP or HTTPS server, you must use Packaging Utility to copy the product package for Rational Tester for SOA Quality.

Note that this method does not copy the optional software that is included with the Rational Tester for SOA Quality installation image. Only the Rational Tester for SOA Quality files that are installed using IBM Installation Manager are copied.

Note also that Packaging Utility can be used to combine multiple product packages into a single repository location. See the Packaging Utility online help for more information.

To copy product packages with Packaging Utility:

1. If you are copying from a CD image, perform these tasks:
 - a. Insert the first installation CD into your CD drive.
 - b. For Linux: Mount the CD drive.
 - c. If autorun is enabled on your system, the Rational Tester for SOA Quality launchpad program automatically opens. Close the launchpad program.
2. Start Packaging Utility.
3. On the main page of the utility, click **Copy Packages**. The Prerequisite page opens, and presents two options:
 - **I will be downloading product packages from IBM Web**
 - **I will be obtaining the product packages from other sources**
4. Click **I will be downloading product packages from IBM Web**.

Note: You can use the **I will be obtaining the product packages from other sources** option if you have already defined an accessible repository.

5. Click **Next** to advance to the Source page. If there are no product packages to select, you must open a repository that contains product packages.
6. To open a repository, click the **Open repository** button. The Open Repository window opens.

Note: A repository can be a path to a file on the local file system, a disk drive containing the first CD of the product, or a URL to a file on a server.

7. To define a repository location, click the Repository Location **Browse** button, and then navigate to the Repository location (the common root directory) that contains the disk images. For example, if the product files (disk1, disk2, and so on) reside in C:\productA\unzip, you should navigate there and select the repository.config file, the diskTag.inf, the jar file, or a zip file.
8. Click **OK** to define the repository location and to close the Browse to a repository directory window.
9. On the Destination page, click the **Browse** button and select an existing repository directory, or create a new folder to store the products.
10. After you specify a repository for the selected product packages and any fixes, click **OK** to close the Browse to a directory window. The file path that you just defined is listed in the **Directory** field on the Destination page.
11. Click **Next** to advance to the Summary page. The Summary page displays the selected product packages that will be copied into the destination repository. This page also lists the amount of storage space that the copy requires, as well as the amount of available space on the drive.
12. Click **Copy** to copy the selected product packages to the destination repository. A status bar opens at the bottom of the wizard indicating how much time is remaining in the copy process. After the copy process is finished, a Complete page opens and displays all of the product packages that were copied successfully.
13. Click **Done** to return to the Packaging Utility main page.

Now that you have used Packaging Utility to copy the Rational Tester for SOA Quality installation files into a repository, you can place the repository on a Web server and make the directories and files available over HTTP. (The repository can also be placed on a UNC drive.)

For the latest information about working with IBM Packaging Utility, visit the IBM Packaging Utility Information Center at <http://publib.boulder.ibm.com/infocenter/install/v1m0r0/index.jsp>.

Installing optional software

The following optional software is included on the Rational Tester for SOA Quality installation image:

- IBM Rational Agent Controller Version 7.0.1
- IBM Rational ClearCase® LT Version 7.0.1

Installing Agent Controller

Agent Controller is a daemon that allows client applications to launch and manage local or remote applications and provides information about running applications to other applications. You must install Agent Controller separately before you can use the following tools:

- Profiling tools to profile your applications. Agent Controller must be installed on the same system as the application that you are profiling.
- Logging tools to import remote log files. Agent Controller must be installed and running on the remote system from which the log files are imported.
- Component testing tool to run test cases. Agent Controller must be installed on the systems on which you run the test cases.
- Tools for remote application testing on WebSphere Application Server version 5.0 or 5.1. (Agent Controller does not have to be installed for remote *publishing* of applications; or for local application publishing or testing.) Note that WebSphere Application Server version 6.0 has this functionality built in, so Agent Controller is not required on version 6.0 target servers.

Note:

- It is highly recommended that you install Agent Controller behind a firewall.
- For more information on the security implications of using Agent Controller, refer to the Agent Controller documentation.
- The online documentation for Agent Controller is not installed until the software is installed. At that time, the documentation is added to the online help.
- Before installing Agent Controller version 7.0.1, you must uninstall the previous version of Agent Controller using the instructions provided below.

Refer to the instructions below for more information on silently installing Agent Controller.

Hardware prerequisites

Note: For Rational Performance Tester, the Agent Controller should be installed on Windows and Linux systems using the Installation Manager.

- AIX: PowerPC® 604e 233MHz (IBM RS/6000® 7043 43P Series) minimum
- z/OS, LINUX/S39: zSeries® (as required by the operating system)
- 512 MB RAM minimum (768 MB RAM is recommended)
- Disk space:
 - You will require 100 MB minimum disk space for installing
- Display resolution:
 - 800 x 600 display minimum (1024 x 768 recommended)

Supported platforms

Agent Controller v7.0.1 is supported on the following platforms:

- AIX v5.2, v5.3, and 5L on PowerPC (32-bit)
- z/OS V1R4, V1R5, V1R6 and V1R7 on zSeries (32-bit only)

Supported JVMs

IBM Java SDK v5:

- AIX: J2RE 1.5.0 <http://www-128.ibm.com/developerworks/java/jdk/aix/service.html>
- z/OS: J2RE 1.5.0 <http://www-03.ibm.com/servers/eserver/zseries/software/java/j5pcont31.html>

Locating the installation files

The installation files are located on the Agent Controller disk in the following directories:

- For AIX: <Agent Controller CD>/aix_powerpc
- For z/OS: <Agent Controller CD>/os390

Installing Agent Controller on an AIX workstation

Note: For Rational Performance Tester, the Agent Controller should be installed on Windows and Linux systems using the Installation Manager.

Uninstalling previous versions of Agent Controller

Note: Before installing Agent Controller version 7.0.1, you must uninstall the previous version of Agent Controller:

- If Agent Controller 7.0 or 6.x is found, the Agent Controller v7.0.1 installer will block the installation with a warning: Please remove any existing IBM Rational Agent Controller and run the install again. When using the silent installer, the Agent Controller v7.0.1 installer will exit the installation without any warning.
- If a previous installation of Agent Controller v7.0.1 is found, the installer displays the following warning: This product is already installed at <rac_install_dir>. To overwrite the existing installation, click "Next". If you choose to continue with the installation, the installer will overwrite the existing installation. When using the silent installer, the existing installation will be overwritten without any warning.

When uninstalling Agent Controller V6.x or V7.x on AIX platforms, you will need to manually remove any residual files. To do this, stop the Agent Controller, uninstall it, and clean up any of the following files which may be left behind after uninstalling:

AIX:

```
$RASERVER_HOME/* (directory where Agent Controller is installed)
/usr/lib/libLogAgent.so
/usr/lib/libhcbnd.so
/usr/lib/libhccclco.so
/usr/lib/libhcccldt.so
/usr/lib/libhcccls.so
/usr/lib/libhccclserc.so
/usr/lib/libhccclsert.so
```

```
/usr/lib/libhcc1sm.so
/usr/lib/libhccjbnd.so
/usr/lib/libhcclaunch.so
/usr/lib/libhccthread.so
```

Configuring the operating system environment

Execute the following commands to set the required environment variables:

```
PATH={path to java installation}/jre/bin:$PATH
export PATH
LIBPATH={path to java installation}/jre/bin: {path to java installation}/jre/bin/
        classic:$LIBPATH
export LIBPATH
```

Note: After the environment variables have been set, the command "java -fullversion" can be used to verify the Java version.

Installing Agent Controller

1. Log in as Administrator (or root).
2. Change directory to the directory where you unzipped the installation files for the appropriate platform.
3. Close all Eclipse platforms before continuing with the installation.
4. Run **setup.bin**.
5. Click **Next** on the welcome screen to proceed.
6. Read the license agreement.
7. Select **I accept the terms in the license agreement** and click **Next** to proceed.
8. Specify the path where Agent Controller should be installed and click **Next** to proceed.
9. Specify the path of the Java Runtime Environment (JRE) executable program java.exe or java which Agent Controller should be using. The JRE entered here will be used by Agent Controller for launching Java applications. Therefore, you may want to change the JRE path pre-filled by the installer program.

Note: The JRE you provide at this time will be used both to run Agent Controller and for Agent Controller to launch Java applications. You may, however, later configure Agent Controller to use a separate JRE for each of these functions. For details, refer to Agent Controller help topic *Configuring Applications to be launched by Agent Controller*.

Click **Next** to proceed.

10. Optional: Specify the version of IBM WebSphere Application Server if "Remote Support for WebSphere Application Server" was selected in step 9 above. Click **Next** to proceed.
11. Optional: Specify the paths of IBM WebSphere Application Server version 5.0 (Windows only) and 5.1 if "Remote Support for WebSphere Application Server" was selected in step 9 above. Click **Next** to proceed.
12. Specify which hosts can access Agent Controller. For Rational Performance Tester, you must select **Specific computers**. Click **Next** to proceed.
13. Accept the default value (Disable) for the security setting. Click **Next** to proceed.
14. Click **Next** on the summary screen to install Agent Controller.
15. Click **Finish** after the installation has completed.

Installing Agent Controller silently

You can run the installation process silently using the following parameters with the setup command:

Parameter	Description
-silent This variable is required if silent is used: -V licenseAccepted=true	Optional: tells the installer to run silently otherwise you will get an install wizard with passed inputs.
-P installLocation	Optional: specifies the installation path. The default installation path is '\$D(install)/IBM/AgentController'. Examples: for Windows: C:\Program Files\IBM\AgentController for UNIX/Linux: /opt/IBM/AgentController
-V VJavaPath	Required: specifies the fully-qualified path of the java executable
-V VAccessLocal -V VAccessCustom -V VAccessAll	Optional: specifies how clients can connect to Agent Controller (ALL, LOCAL, CUSTOM). Set only one of the variables to "true" and the others to false. By default, VAccessAll="true" <ul style="list-style-type: none"> Any computer: VAccessAll="true" : allow any client This computer only : VAccessLocal="true" : allow only localhost (default) Specific computers : VAccessCustom="true" : allow a list of clients (also requires the -V VHosts parameter)
-V VHosts	Required if VAccessCustom="true" specifies the client hostnames, separated by commas
The following two variables must both be specified and should be set as opposites: -V VSecurity="true" or "false" -V VSecurityDisable="false" or "true"	Optional: (true, false) default: VSecurity=true VSecurityDisable=false
-V VUsers	Required: if VSecurity="true" specifies which users can connect to Agent Controller
-V VWAS6 -V VWAS5	Optional: -V VWAS6="true" (default) : If WAS V6 is used -V VWAS5="true" : If WAS V5.x is used
-V VWAS_HOME_V50 -V VWAS_HOME_V51	Optional: if -V VWAS5="true" specifies the installed location of IBM WebSphere Application Server 5.1 and 5.0

Examples:

Installing from the command line:

```
-P installLocation="D:\IBM\AgentController"

-V VJavaPath=" D:\jdk1.4.2\jre\bin\java.exe "

-V VAccessLocal="false"

-V VAccessCustom="true"

-V VAccessAll="false"

-V VHosts="host1,host2"

-V VSecurity="true"

-V VSecurityDisable="false"

-V VUsers="user1,user2"

-V VWAS5="true"

-V VWAS_HOME_V51="D:\WebSphere5.1\AppServer"

-V VWAS_HOME_V50="D:\WebSphere5.0\AppServer"
```

Installing using a response file:

You can create a response file, for example setup.rsp, to store all the parameters, instead of specifying them on the command line. Following is a Windows example, Linux/UNIX platforms would be similar:

```
setup.exe -silent -options setup.rsp
```

Contents of the response file:

```
# Start of response file

-P installLocation="D:\IBM\AgentController"

-V licenseAccepted="true"

-V VJavaPath=" D:\jdk1.4.2\jre\bin\java.exe "

-V VAccessLocal="false"

-V VAccessCustom="true"

-V VAccessAll="false"

-V VHosts="host1,host2"

-V VSecurity="true"

-V VSecurityDisable="false"

-V VUsers="user1,user2"

-V VWAS5="true"

-V VWAS_HOME_V51="D:\WebSphere5.1\AppServer"

-V VWAS_HOME_V50="D:\WebSphere5.0\AppServer"

# End of response file
```

Starting and stopping Agent Controller

- On AIX, the Agent Controller process (RAServer) does not start automatically. You must start it yourself.
- **Important:** For certain JVMs, the LDR_CNTRL environment variable needs to be set to USERREGS to work properly with the Agent Controller. To set this variable, run the following command before running the RASStart.sh script:

```
export LDR_CNTRL=USERREGS
```
- To start the Agent Controller process, change to the installation location's **bin** directory (for example, /opt/IBM/AgentController/bin) and run

```
./RASStart.sh
```
- To stop the Agent Controller process, change to the installation location's **bin** directory (for example, /opt/IBM/AgentController/bin) and run

```
./RASStop.sh
```

Uninstalling Agent Controller

1. Run the program **uninstall.bin** from the installation location's **_uninst** directory (for example, /opt/IBM/AgentController/_uninst).
2. Follow the on-screen instruction to complete the uninstallation.
3. To perform a silent uninstallation, use the command `uninstall.bin -silent`.

Uninstalling Agent Controller that has multiple references on a workstation

Agent Controller version 7.0.1 prevents multiple instances of the product from being installed on a single workstation. When additional installations are performed, either by stand-alone install or as an embedded install inside a product, Agent Controller records a reference to the name of the product that is initiating the new installation.

If Agent Controller has been installed multiple times - in other words, there are multiple reference counts - either by stand-alone install or as an embedded install inside a product, it can be uninstalled only when the last referencing product is uninstalled; the last referencing product still requires Agent Controller.

If you attempt to uninstall Agent Controller while it is still required by another product, the uninstallation will not proceed and you will receive a message "This product cannot be uninstalled as it is required by another product."

Installing Agent Controller on z/OS (OS/390®)

Uninstalling previous versions of Agent Controller

If you have a previous version of Agent Controller, stop it and uninstall it before installing this version.

Configuring the operating system environment

1. Create the installation directory for the RAC. For example: `mkdir /u/rpt/IBM/RAC`.
2. Set `ASSIZEMAX=2147483647`. This may require support from the system programmer.
3. Add the following export commands to the .profile of the user ID that will be used to start the RAC:

```
export RASERVER_HOME={install location}
export LIBPATH=$LIBPATH:{install location}/lib:{path to java installation}/bin:
    {path to java installation}/bin/classic
export PATH=$PATH:{install location}/bin:{path to java installation}/bin
export _BPX_SHAREAS="NO"
```

Note: After the environment variables have been set, the command "java -fullversion" can be used to verify the Java version.

Installing Agent Controller

1. In a UNIX System Services shell, go to the directory where you want to install Agent Controller. It is recommended that you install it in the /usr/lpp/ directory.
2. Transfer the install images **ibmrac.os390.pax**, **tptpdc.os390.pax** to the installation directory.
3. Issue the following command to extract Agent Controller files:


```
pax -ppx -rvf ibmrac.os390.pax
```
4. Issue the following command to extract the test and performance tools (TPTP) Agent Controller files:


```
pax -ppx -rvf tptpdc.os390.pax
```
5. Make the Agent Controller shared object files program controlled by issuing the following commands in a UNIX System Services shell:


```
extattr +p /usr/lpp/IBM/AgentController/lib/*.so
```

If you wish to install the National Language packs, complete steps 7 and 8 below. If not, proceed to step 9.
6. Transfer the NL install images **tptpdc.nl1.os390.pax**, **tptpdc.nl2.os390.pax**, **ibmrac.os390.nl1.pax**, **ibmrac.os390.nl2.pax** to the installation directory.
7. Issue the following command to extract Agent Controller files:


```
pax -ppx -rf tptpdc.nl1.os390.pax
pax -ppx -rf tptpdc.nl2.os390.pax
pax -ppx -rf ibmrac.os390.nl1.pax
pax -ppx -rf ibmrac.os390.nl2.pax
```
8. After you have installed Agent Controller, change the directory to the installed location's bin directory /usr/lpp/IBM/AgentController/bin, and run the setup script by typing:


```
./SetConfig.sh
```
9. Follow the on-screen prompt to configure Agent Controller.

Starting and stopping Agent Controller on the z/OS (OS/390)

Note: RAServer requires the directories of the JRE that contain executable libraries such as libjvm.so to be added to the LIBPATH environment variable. For example, if you are using the IBM JRE 1.4.1, the LIBPATH variable would be set as follows:

```
export LIBPATH=/usr/lpp/java/IBM/J1.4/bin/classic:
/usr/lpp/java/IBM/J1.4/bin:$LIBPATH
```

- Start the server by logging in as root, opening the /usr/lpp/IBM/AgentController/bin directory and issuing the command:


```
./RAStart.sh
```
- To stop the server, log in as root, open the /usr/lpp/IBM/AgentController/bin directory, and issue the command:


```
./RAStop.sh
```

Uninstalling Agent Controller on the z/OS (OS/390)

- If you ran createLinks.sh when installing Agent Controller, then go to the /usr/lpp/IBM/AgentController/bin directory and issue the command:
`./removeLinks.sh`
- Remove the IBMRAC directory and all of its subdirectories by issuing the following command:
`rm -rf /usr/lpp/IBM/AgentController`

Using the Agent Controller security feature

The following list contains hints and tips for using the Agent Controller security feature on all platforms:

- Authentication is provided by the operating system. Only users specified at installation time will be allowed to authenticate. If the user name ANY is provided, any valid user name and password pairs will be forwarded to the operation system for authentication, otherwise only listed pairs will be forwarded.
- When security is enabled, the users you specified at installation time are required to authenticate with the operating system before any information can be exchanged with Agent Controller. The workbench user must provide a valid user name and password combination that is an operating system user name and password.
- **(Windows only)** Domain name passwords will not be authenticated. You must provide local user name and password pairs.
- There are no key management capabilities provided. Agent Controller uses Java keystores for security.
- A default keystore and exported certificate are in the Agent Controller directory <rac_install_dir>\security for Windows, and <rac_install_dir>/security for Linux. Where <rac_install_dir> is the installation directory of Agent Controller. These are samples only. You should replace these with a keystore containing meaningful certificates.

Workbench/Agent Controller compatibility summary

Backward compatibility (using an older workbench with a version 6.0.1 Agent Controller): Yes, they are compatible, in that the new Agent Controller supports all the features in previous versions (for example, Security on the control channel). However, you will not be able to use new features, including multiplexing (returning data via the control channel so that it can be secure).

Forward compatibility (using a 6.0.1 workbench with an older Agent Controller): No, in general, is not supported.

Cross-version Inter-Agent-Controller compatibility: Some products or tools (such as IBM Performance Optimization Toolkit) require that Agent Controllers on multiple hosts (apart from the workbench) "discover" and communicate with each other. Changes made from one version to the next surrounding this function mean that if you need to use this function, you must use either Agent Controller version 6.0.0.1 or Agent Controller version 6.0.1 on all involved hosts. That is, you cannot mix and match versions when using dynamic discovery between Agent Controller instances.

Known problems and limitations

This section covers known problems and limitations related to installing and uninstalling Agent Controller. Except where otherwise noted, the following information applies to all operating systems that are supported for Agent Controller.

Agent Controller may fail to start on non-Windows platforms

Agent Controller may fail to start on non-Windows platforms with the following message:

RAServer failed to start.

This failure is usually caused when TCP/IP port 10002 is not free. Agent Controller listens on this port by default. Another process running on the system may be using this port when Agent Controller is started or perhaps Agent Controller was just stopped and then restarted before the port could be released.

If Agent Controller failed to start, you can start it as follows:

- If port 10002 is being used by another process, you can change the port number by editing the serviceconfig.xml file. This is described in the documentation.

Note: If the communication port number that is configured in the serviceconfig.xml file has been changed, then the property INSTANCE_RAC_PORT_NUM_ID that is defined in the WebSphere Application Server configuration needs to be changed to the same port number.

- If Agent Controller was just stopped, wait a few minutes and try to start it again.

Other errors during installation and uninstallation

If you encounter errors during installation or uninstallation, this may be due to the fact that the object files of Agent Controller are loaded by running processes. To ensure the object files can be modified, do the following:

1. Shut down your Eclipse workbench.
2. Terminate all java.exe processes that contain either the Java Profiling Agent or the J2EE Request Profiler.

Installing ClearCase LT

Rational ClearCase LT is a configuration management tool for small project teams. ClearCase LT is part of the IBM Rational ClearCase product family that can scale from small project workgroups to the distributed, global enterprise.

Your installation media includes Rational ClearCase LT Version 7.0.1. It is installed separately from Rational Tester for SOA Quality.

If you already have ClearCase LT installed on your workstation, then you might be able to upgrade it to the current version. Refer to the installation documentation for ClearCase LT for information on upgrading from previous versions.

To enable Rational Tester for SOA Quality to work with ClearCase LT, you must install the Rational ClearCase SCM Adapter feature. By default, this feature is selected when you install Rational Tester for SOA Quality; however, if you did not include it, you can install it later using the Modify Packages wizard in IBM Installation Manager. For details, refer to “Modifying installations” on page 55.

You must enable the Rational ClearCase SCM adapter before you can work with it. Refer to the online help for details on enabling and working with the adapter.

Locating the ClearCase LT installation instructions and release notes

For complete instructions on installing Rational ClearCase LT, refer to the installation documentation provided with the ClearCase LT installation media. It is also strongly recommended that you read the ClearCase LT release notes before you install the product.

Some documentation is in Acrobat® PDF files. To open the files, you require the Adobe Reader software, which you can download from <http://www.adobe.com/products/acrobat/readstep2.html>.

For Windows: The installation instructions and release notes can be viewed from the ClearCase LT installation launchpad. See “Starting an installation of Rational ClearCase LT.”

To open the installation instructions:

- For Windows: From the first ClearCase LT installation CD (or disk directory for an electronic image), open doc\books\install.pdf.
- For Linux: See <http://www.ibm.com/support/docview.wss?uid=pub1gi11636600> for instructions to download.

Getting documentation from the IBM Publications Center

You can also download the installation instructions and release notes for Rational ClearCase LT from the IBM Publications Center.

1. Go to <http://www.ibm.com/shop/publications/order>.
2. Select your country/region on the Welcome page of the Publications Center.
3. Click Search for Publications.
4. Enter either the document title or publication number in the appropriate search field.
 - To search for a document by its title, enter the title in the Search on field.
 - To search for a document by its publication (Material ID) number, enter the number in the Publication number field.

Table 1. ClearCase publication numbers

Document	Publication number
IBM Rational ClearCase, ClearCase MultiSite®, and ClearCase LT Installation and Upgrade Guide (Windows)	GI11-6365-00
IBM Rational ClearCase, ClearCase MultiSite, and ClearCase LT Installation and Upgrade Guide (UNIX)	GI11-6366-00
IBM Rational ClearCase LT Release Notes	GI11-6369-01

Starting an installation of Rational ClearCase LT

The installation instructions in this section are to help you start the installation process for Rational ClearCase LT. You must refer to the complete installation

instructions found in the Rational ClearCase LT Installation Guide when installing the product. Before installing, it is strongly recommended that you read the release notes.

Starting an installation of Rational ClearCase LT on Windows

1. Start the Rational ClearCase LT launchpad program using one of the following methods:
 - From the Rational Tester for SOA Quality launchpad program (see “Starting the launchpad program” on page 25), click **Rational ClearCase LT**.
 - Insert the first CD of Rational ClearCase LT. The launchpad program should start automatically. If it does not run, run `setup.exe` from the root of the first CD or disk image.
2. Read the release information if you have not done so.
3. Click **Install IBM Rational ClearCase LT**. The Rational ClearCase LT Setup Wizard opens.

Follow the instructions in the Setup Wizard to complete the installation.

Installing Rational ClearCase LT on Linux

Complete instructions on installing Rational ClearCase LT version 7.0 on a Linux workstation are available in the document *IBM Rational ClearCase, ClearCase MultiSite, and ClearCase LT Installation Guide, 7.0, Linux and UNIX*, which you can download at 600.

Configuring Rational ClearCase LT licensing

When you have Rational Tester for SOA Quality installed on the same computer as Rational ClearCase LT, you do not need to configure Rational ClearCase LT licensing. However, if you install Rational ClearCase LT without Rational Tester for SOA Quality, then you will need to configure ClearCase LT Licensing.

See the ClearCase LT *Installation Guide* for details about configuring licensing.

Notices

© Copyright IBM Corporation 2000, 2008. All rights reserved.

U.S. Government Users Restricted Rights - Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

This information was developed for products and services offered in the U.S.A.

IBM may not offer the products, services, or features discussed in this documentation in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not grant you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing
IBM Corporation
North Castle Drive
Armonk, NY 10504-1785
U.S.A.

For license inquiries regarding double-byte (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

IBM World Trade Asia Corporation
Licensing
2-31 Roppongi 3-chome, Minato-ku
Tokyo 106-0032, Japan

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law: INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web

sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

Intellectual Property Dept. for Rational Software
IBM Corporation
20 Maguire Road
Lexington, Massachusetts 02421-3112
U.S.A.

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this document and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement or any equivalent agreement between us.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

All statements regarding IBM's future direction or intent are subject to change or withdrawal without notice, and represent goals and objectives only.

If you are viewing this information softcopy, the photographs and color illustrations may not appear.

Trademarks and service marks

See www.ibm.com/legal/copytrade.shtml.



Printed in USA

GC23-8860-01

