Rational® IBM Rational Test RealTime

IBM

Version 7.0.0
Windows, UNIX, and Linux

Installation Guide

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Before using this information, be sure to read the general information under *Notices* on page 31.

Contents

About this book

Welcome to IBM Rational Test RealTime.

This installation guide contains information to help you install the products, including the steps you need to take both before and after installation.

Test RealTime is a complete runtime analysis and testing solution for real-time and embedded systems. It addresses all runtime analysis needs and all test levels including component and system testing for the C, C++, Ada, and Java programming languages.

Who should read this book

This guide is intended for users who are installing Test RealTime, such as system administrators, application developers, quality assurance managers, and quality assurance testers. To install and use the products, you should be familiar with the selected Windows or UNIX platform and its conventions.

Other resources

- All manuals are available online, either in HTML or PDF format. The online manuals are on the Test RealTime CD and are installed with the product.

- For more information about Rational Software technical publications, see:
  http://www.ibm.com/software/rational/support/documentation/

- For more information on training opportunities, see the Rational University Web site:
  http://www.ibm.com/services/learning/us/catalog/rational/

Contacting IBM Customer Support

If you have questions about installing, using, or maintaining this product, contact IBM Customer Support as follows:

The IBM software support Internet site provides you with self-help resources and electronic problem submission. The IBM Software Support Home page for Rational products can be found at:

http://www.ibm.com/software/rational/support/

Voice Support is available to all current contract holders by dialing a telephone number in your country (where available). For specific country phone numbers, go to:

http://www.ibm.com/planetwide/

Note: When you contact IBM Customer Support, please be prepared to supply the following information:

- Your name, company name, ICN number, telephone number, and e-mail address

- Your operating system, version number, and any service packs or patches you have applied

- Product name and release number

- Your PMR number (if you are following up on a previously reported problem)

Downloading the IBM Support Assistant

The IBM Support Assistant (ISA) is a locally installed serviceability workbench that makes it both easier and simpler to resolve software product problems. ISA is a free, stand-alone application that you download from IBM and install on any number of machines. It runs on AIX, (RedHat Enterprise Linux AS), HP-UX, Solaris, and Windows platforms.

ISA includes these features:

- Federated search
- Data collection
- Problem submission
- Education roadmaps

For more information about ISA, including instructions for downloading and installing ISA and product plug-ins, go to the ISA Software Support page:

http://www.ibm.com/software/support/isa/

Chapter 1. Before installing Test RealTime

This chapter explains the tasks you must perform before you install IBM Rational Test RealTime on a desktop or client.

Upgrading IBM Rational Test RealTime

On Windows platforms, you must first remove any previous version of IBM Rational products, including the IBM Rational license server, from your system. Please see the uninstall instructions provided with the old versions.

On UNIX systems, a new version of Test RealTime can be installed alongside one or several previous versions. In this case, any shortcut icons installed in your window environment will need updating.

Always follow the installation procedure when installing a new release and ensure that environment variables, especially $TESTRTDIR, point to the product version that you want to use.

You might also need to update any shortcuts or links to the product binaries.

Installing mixed versions of IBM Rational products

In most cases, you cannot run mixed versions of IBM Rational products on the same computer. Please ensure that all your IBM Rational software is currently at version 7.0.0.

Licensing Test RealTime

When you purchase Test RealTime, you purchase a specific number of licenses to use the product. IBM issues you a license key for the product that corresponds to the type and number of licenses you purchased.

You must have a license key installed and configured to run the product. Your license administrator may have already requested the permanent or evaluation license keys. Consult with your license administrator about which license keys you need for your Rational products.

Test RealTime comes with a temporary license to get you started.

To get your IBM Rational license keys:

1 Log into the IBM Rational Licensing and Download Center through IBM Web Membership: http://www.ibm.com/software/rational/support/licensing/

2 Select the appropriate licensing web form for your product.

3 Submit the form to get your license key .

You will need either your product account number located on the second page of your Proof of Entitlement (PoE) under Product licensing information or your IBM Customer Number and IBM Order Reference number found on your IBM PoE that was sent to you at the time you placed your order.

Licensing self-help

You can find the answers to many common licensing questions in the Rational software support knowledge base. You can easily find articles about Rational licensing by clicking on the following link:

Search for IBM Rational licensing technotes

Using the License Key Administrator (LKAD) wizard

Import a node-locked key, enter a per user key, or specify a floating license server in the License Key Administrator (LKAD) Wizard. The Setup Wizard installs the LKAD automatically with each Rational product. If the product is not already licensed, you can launch the LKAD Wizard at the end of installation, or you can open the LKAD from the **Start** Menu under the **Rational Software** folder. The License Key Administrator main window and the License Key Administrator Wizard page appear simultaneously. Use the LKAD Help for further assistance.

Refer to the *Rational License Administration Guide*, provided on the product CD for more information.

Administrator privileges

To install IBM Rational Test RealTime, you must have Administrator privileges on the local system.

In Windows 2000 or Windows XP, you have local Administrator privileges if you are logged on to local host as administrator, or if your domain account (for example DOMAIN\ *<your name>*) is also a member of the administrators group in the local host's account database.

Hardware and software requirements

The following tables provide the recommendations and requirements for operating Rational Test RealTime on your desktop.

Table 1   Hardware and software requirements for Windows systems

Item	Requirements and recommendations
Operating System	▪ Windows 2000 Professional Edition - Service Pack 4 ▪ Windows XP Professional Edition - Service Pack 1 or 2 ▪ Windows Server 2003
Hardware	PC-compatible computer with a Pentium microprocessor 800 MHz or higher 256 MB RAM is the recommended minimum; more memory generally improves responsiveness. 800 X 600 X 256-color video resolution, or higher; high color or true color recommended Microsoft Mouse or compatible pointing device
Disk Space	130 MB free disk space (minimum installation) Swap space: 2 x physical memory

Item	Requirements and recommendations
Language support	You can install IBM Rational products on these international operating systems: ▪ Simplified or Traditional Chinese ▪ Dutch, French ▪ German ▪ Hebrew ▪ Italian ▪ Japanese ▪ Korean ▪ Swedish All displays, menus, controls, wizards, reports, and user documentation are in U.S. English. If you have a Traditional Chinese, Dutch, Hebrew, or Korean operating system, enter data (such as path names) in U.S. English or the ASCII character set. If you have a Simplified Chinese, French, German, Italian, Japanese, or Swedish operating system, enter data in U.S. English or the native language character set. Regional date, time, currency, and numbering conventions are also supported for both input and output.
Rational documentation	Adobe Acrobat Reader 4.x or higher to read online PDF files. Download the free Adobe Acrobat Reader from www.adobe.com.
Integrations with other development applications	▪ IBM Rational Rose RealTime ▪ IBM Rational TestManager ▪ IBM Rational ClearCase ▪ IBM Rational ClearQuest ▪ Microsoft Visual Studio 6.0 and .NET ▪ Eclipse 3.1.0 with CDT 3.0.0

Table 2   Hardware and software requirements for UNIX systems

Item	Requirements and recommendations
Operating system	▪ IBM AIX 5L 5.2 or 5.3 ▪ HP-UX 11.0, or 11.11 ▪ Sun Solaris 2.7, 8, 9 or 10 ▪ Red Hat Linux 8.0, Red Hat Enterprise Linux WS 3.0 and 4.0 ▪ SuSE Linux 8.1 and 9.1, Novell SuSE Linux 9.3 ▪ zLinux for IBM zSeries (s390x architecture, Red Hat Enterprise Linux 4.0, support for C and C++ languages only) For Linux, our product is dynamically linked with the following libc libraries: ▪ RedHat: libc.so.6 => /lib/i686/libc.so.6 => libc-2.2.4.so ▪ Suse: libc.so.6 => /lib/libc.so.6

Item	Requirements and recommendations
Hardware	x86 architecture platform.
	256 MB RAM is the recommended minimum; more memory generally improves responsiveness.
	800 X 600 X 256-color video resolution, or higher; high color or true color recommended
	Mouse or pointing device
Disk Space	230 MB free disk space (minimum installation)
	Swap space: 2 x physical memory
Language Support	You can install Rational products on these international operating systems:
	▪ Simplified or Traditional Chinese
	▪ Dutch, French
	▪ German
	▪ Hebrew
	▪ Italian
	▪ Japanese
	▪ Korean
	▪ Swedish
	All displays, menus, controls, wizards, reports, and user documentation are in U.S. English.
	If you have a Traditional Chinese, Dutch, Hebrew, or Korean operating system, enter data (such as path names) in U.S. English or the ASCII character set.
	If you have a Simplified Chinese, French, German, Italian, Japanese, or Swedish operating system, enter data in U.S. English or the native language character set. Regional date, time, currency, and numbering conventions are also supported for both input and output.
Rational Documentation	Adobe Acrobat Reader 4.x or higher to read online PDF files. Downloadthe free Adobe Acrobat Reader from www.adobe.com.
	A Java and Javascript-enabled browser to access the online HTML documentation. Mozilla Firefox 1.0 or later recommended. Download Mozilla Firefox from www.mozilla.org.
Integrations with other Development Applications	▪ IBM Rational Rose RealTime
	▪ IBM Rational ClearCase

About the Target Deployment Ports

The Target Deployment technology used in Test RealTime offers a strong integration between all product components and the target platform. It does this while keeping test script development, deployment, execution, and reporting user friendly.

In order to help you achieve your test objectives, each Target Deployment Port can be tailored to match the specifics of the environment in which you are working.

Configuration and customization of Target Deployment Ports is covered in the *Target Deployment Guide* online manual.

Chapter 2. Installing Test RealTime on Windows

Use the IBM Rational installation wizard for initial and upgrade installations of IBM Rational products on Windows 2000, Windows XP or Windows Server 2003.

This chapter explains how the IBM Rational installation wizard can help you install IBM Rational Test RealTime using two methods:

- *Installing from the CD-ROM image* on page 6.
- *Installing products from a release area* on page 11.
- *Using silent installation commands* on page 13.

The following section is aimed at system administrators who want to create a unique installation location for many users:

- *Creating a release area and site defaults file* on page 8.

Using the IBM Rational setup wizard

In Windows, you cannot install both IBM Rational Test RealTime and IBM Rational PurifyPlus RealTime on the same machine.

Before you start the Rational setup wizard

The following general requirements are necessary to run the IBM Rational setup wizard on the system.

- Read the relevant Release Notes file on the product CD for the latest installation notes before running the installation process:

    doc/help/release_notes.htm

- Stop all applications before you begin the installation.
- Make sure you have administrator privileges before installing IBM Rational products.
- Make sure that you have a current backup of your Registry and system directories.
- Make certain that the system meets the minimum requirements and the correct operating system.
- On Windows Server 2003, make sure that the temporary directories directories have adequate write permission. To locate these directories, select **Control Panel** > **System** > **Advanced** > **Environment Variables** and note the TEMP paths for both the user and the system variables. Next, in the Explorer, check that the **Read only** attribute is not set in the properties of these directories.
- The IBM Rational Setup Wizard uses C:\Program Files\Rational as the default install path. The program installs software system files in the Windows directory or Windows systems directory.
- If your C:\ drive lacks sufficient free disk space, you may either specify another drive during the installation procedure or make space available on the default drive. The Setup Wizard will report the amount of space required on all drives for your installation.

    Note: The Setup Wizard installs Microsoft Core Components and some additional files on the same drive as the operating system (often the C:\ drive), even if you have specified an alternate drive for installation.

- The IBM Rational Setup Wizard requires that you install all IBM Rational products in the same directory. If you already have IBM Rational products installed on the system, the Setup Wizard installs additional IBM Rational products in the same directory.

- Turn off all virus protection software. These programs often run in the background and interfere with the installation and file decompression process.

- Turn off any user interface managers or environments that run on Microsoft Windows.

- Change to a standard VGA video driver while IBM Rational Setup is running, or disable video features such as virtual screens or screen switching.

- Change to a standard mouse driver, or disable special mouse features that perform tasks such as leaving pointer trails or changing pointer sizes.

Microsoft Visual Studio support

If you plan to use Test RealTime on Windows with Microsoft Visual Studio 6.0 or .NET, you must install Visual Studio and execute it at least once before installing Test RealTime in order to correctly initialize the Windows registry database.

If you omitted to run the Visual Studio GUI before installing Test RealTime, the wizard produces one of the following messages:

Microsoft Visual Studio is installed but has never been launched by this user. Installation will continue but please refer to the installation guide to enable support for Microsoft Visual Studio

or

Microsoft Visual Studio is not installed. Installation will continue but please refer to the installation guide to enable support for Microsoft Visual Studio

In this case, proceed with the installation as normal. After installation, execute the following steps.

1 Open a Windows Explorer and browse to the following directory:

<install_dir>/targets/xml

2 Double click the cvisual6.xdp (for Microsoft Visual 6.0) or cvisual7.xdp (for Microsoft Visual .NET). This opens the TDP in the Target Deployment Port Editor.

3 Save the TDP to update the /targets/cvisual6 or /targets/cvisual7 TDP directories.

Installing from the CD-ROM image

This section describes a typical installation of Test RealTime from the CD-ROM. The IBM Rational Setup Wizard Program guides you through the software installation. Click **Next** to launch the installation, and to advance through the following screens.

Note: Interrupting an installation that is in progress may leave your system in an indeterminate state. If you try to close the IBM Rational Setup Wizard window while the installation is in progress, you are asked to confirm that you want to exit from the incomplete installation.

To install Test RealTime from a CD-ROM image:

1 Log in as a user with Administrator rights on the local machine on which you want to install the product.

2 Insert the product CD into the system's CD-ROM drive. The IBM Rational Setup Wizard starts automatically.

If autorun is disabled on your system, click **Start > Run** and enter

<drive>: \Setup.exe

where *<drive>* is the letter of the CD-ROM drive.

3 The **Product Selection** page lists all products available for installation. Select the product you want to install.

4 The **Deployment Method** page displays the **Enterprise Deployment** and **Desktop Install from CD Image** options. Select the **Desktop Install from CD Image** option.

5 Choose to accept or not to accept the IBM license agreement in the **License Agreement** page. To view the Open Source license agreement, select the checkbox **View Open Source Agreement**.

  ▫ If you accept the license agreement, the installation Wizard continues.

  ▫ If you do not accept the license agreement, exit the Setup Wizard by clicking **Cancel** and then **Finish**. When you exit from the Wizard, the Setup Wizard makes no visible changes to your system.

6 On the **Destination Folder** page, specify the directory where you want to install the product. Click **Change** to modify the location.

   Note: The installation Wizard requires that all IBM Rational products be installed in the same directory.

7 The **Custom Setup** page provides product feature options and disk space requirements for the software installation. You can either accept the default typical installation on the page or you can customize the installation. If you want to customize the installation, use the following steps to help you select or clear features:

  a Select the feature from the tree on the left side of the page. You can expand or collapse the tree to show or hide features.

  b Click the disk drive icon to the left of the feature name. Choose one of three options:

    • **This feature will be installed on local hard drive:** Choosing this option installs the specific feature on your computerís disk drive.

    • **This feature, and all subfeatures, will be installed on local hard drive:** Choosing this option installs the feature, as well as all subfeatures in the tree below the feature, on your computerís disk drive.

    • **This feature will not be available:** Choosing this option will not install the feature, or any of the subfeatures in the tree below the feature, on your computer's disk drive.

8 The Wizard informs you of the disk space required to install the product and the available disk space on the system. If the amount of free space is less than the amount required:

    • Exit from the installation and make more space available on the specified disk, or

    • Specify an alternate **Install Path**. Type the new path in the **Install Path** field or use the **Browse** button to select a drive and directory, or

    • Exclude product features in the **Custom Setup** page.

9 Click **Install** on the **Ready to Install the Program** dialog to begin the installation.

10 A **Restart Windows** page appears if the IBM Rational Setup Wizard needs to restart your computer. If files required for the installation are in use during the IBM Rational Setup program and if the program needs to install shared components on your system,

the Setup Wizard may need to restart your system. Select **Restart** or **Don't Restart**. If you select **Don't Restart**, the Wizard reminds you that the installation cannot complete until Windows restarts.

11 After Windows restarts, log on *as the same user*. If you do not, the installation does not complete correctly. The second part of the installation process starts automatically after you log on.

12 Click **Finish** to complete the installation.

13 IBM Rational products require licenses. If you have not provided a IBM Rational License Server name in the IBM Rational SitePrep Wizard or your product requires a desktop license key, the License Key Administrator (LKAD) automatically starts on the desktop.

14 If you are using a floating license, the machine name of the IBM Rational License Server entered using the IBM Rational SitePrep Wizard appears in the **Server Name** box in the License Key Administrator. Click **Finish** to configure the license. If you are using a desktop license key, import the node-locked or per user license key file in the LKAD. For more information, see *Licensing Test RealTime* on page 1 or the *IBM Rational Software License Management Guide*.

The installation wizard does not display an error summary. To verify that an installation was successful or to understand why it failed, look in the log of installation activities. The rational_install.log file is located in your TEMP directory (e.g.TEMP=C:\DOCUME~1\<username>\LOCALS~1\Temp or c:\temp\rational_install.log). The location of the directory depends on the system environment variable set on the machine.

Canceling an installation from a CD-ROM image

If you click **Cancel** any time during the Setup Wizard or before the installation completes, you will not see any visible changes to the system. The program returns your system close to the state it was in before you launched the IBM Rational Setup Wizard.

Creating a release area and site defaults file

This section applies to System Administrators who want to create a single installation location to be used by many users. For users who want to install the product from a Release Area, see *Installing products from a release area* on page 11.

A release area contains site defaults files and all the files that will be used in subsequent installations. For example, part of setting up a release area is to specify information, such as client software and license servers. This information is stored in a site defaults file and used when an IBM Rational product is installed on clients.

There are two methods for creating site defaults files. Both methods create an on-disk image of product files in a shareable directory on the network. The first method creates a release area (Enterprise Deployment). The second method (Site Preparation Wizard) does not create a release area. You can also use these methods to install the product on your computer after creating a site defaults file.

- Run the IBM Rational Setup Wizard on the product CD-ROM. See *Using the IBM Rational setup wizard to create a release area and site defaults file* on page 9 for more information.

- Run the Site Preparation Wizard multiple times to create multiple site defaults files. See *Running the site preparation wizard to create multiple site defaults files* on page 11 for more information.

Using the IBM Rational setup wizard to create a release area and site defaults file

This section explains how you can use the IBM Rational Setup Wizard to create a release area and populate it with site defaults files. You can create a meaningful name for each site defaults file, such as testrt.dat. By default, the file is named sitedefs.dat if you do not specify a name for it. Do not name a file with an additional suffix, such as sitedefs.developers.dat.

You can use this release area to install IBM Rational servers. Client users can use this release area to install IBM Rational products on their desktops.

1   Make the release area directory shareable. Even if the drive containing that directory is already shareable, making the directory itself shareable makes it easier to find the product release area.

   ▫   In Windows Explorer, right-click the network release area to display the directory shortcut menu.

   ▫   Click **Sharing**. The **Properties** page appears.

   ▫   On the **Sharing** tab, click **SHARE this folder** and supply a meaningful share name, such as Test RealTime Release Area.

   Note: The Setup Wizard creates a shortcut to the site defaults file only if the release area is created under a network share. The shortcut appears in the release area, for example, as sitedefs or testrt without the suffix .dat.

2   Log in as a user with Administrator rights on the local machine.

3   Insert the product *CD* into the system's CD-ROM drive.

   The IBM Rational Setup Wizard starts automatically.

   If autorun is disabled on your system, click **Start > Run** and enter *<cd_drive>*: \Setup.exe where *<cd_drive>* is the letter of the CD-ROM drive.

   The IBM Rational Setup Wizard Program guides you through the software installation. Click **Next** to open the page.

4   The **Product Selection** page lists all products available for installation. Select the product that you want to create a release area for. Click **Next**.

5   Select the **Enterprise Deployment** option in the **Deployment Method** page. Click **Next**.

6   Depending on the product you have selected, you will see one or more custom configuration pages in the wizard. Use the **Help** to provide instructions in this section of the wizard.

   Enter the required information in each page of the wizard. (All required information displays in the left panel of the wizard with a red dot.)

   To navigate through the pages, you can either click **Next** to see them sequentially or click on the page title in the left pane to access the page directly and nonsequentially.

7   In the **Completion** pages, you are required to fill in the **Description** page and the **Create a Release Area** page. The **Launch Installation** is optional.

   ▫   In the **Description** page, enter a description for users. When you are done, click **Next.**

   ▫   In the **Create a Release Area** page, enter the release area location and filename for the site defaults file (.dat) that will be created.

   If you want to install software on your computer based on the site defaults that you just entered, click **Next** to go to the **Launch Installation** page. Select **Launch installation using these settings**. You will save the site defaults information to a file and then proceed with the installation on your computer. Click **Done** and then **Next**.

Skip to *Installing the product on your computer* on page 10 for the rest of the instructions. If you only want to create a release area, click **Done** and then **Next** to create the site defaults file.

8   When the **Setup Complete** page appears, we recommend that you review the current information related to new features and known issues in the readme file. In addition, you can view the **IBM Rational Developer Network** Web pages. Click **Finish** to complete the installation of the release area.

For more information about how to install products from this release area, see *Installing products from a release area* on page 11.

Installing the product on your computer

When you create a release area, you have the option to install the product on your desktop.

1   In the **Launch Installation** page, select **Launch installation using these settings** and then click **Done** and then **Next**.

2   When the IBM Rational Setup Wizard Completed page appears, click **Finish** to complete the installation of the release area.

3   When the installation begins, click **Next**. Choose to accept or not to accept the IBM Rational Software license agreement in the **License Agreement** page.

  ▫   If you accept the license agreement, the Setup Wizard continues.

  ▫   If you do not accept the license agreement, exit the Setup Wizard by clicking **Cancel** and then **Finish**. For information about changes to the computer, see *Canceling a product installation* on page 15.

4   Specify the **Destination folder**, and then click **Next,** or change the desination by clicking **Change.**

5   In the **Site Default Configuration** page, you will see the Release Area Description that you entered previously. Decide whether you want the site defaults that you set installed on your computer. Either click **Use the standard configuration** (These are site defaults that you set.) or **I will create my own custom client configuration**.

  ▫   If you select **I will create my own custom client configuration**, the **Custom Setup** page displays product features to select.

      When you click **Next,** you may change any of the existing site default values. (Any changes to the site default values apply only to this single installation.) After modifying the values, click **Done** and then click **Install** to begin the installation.

  ▫   If you select **Use the standard configuration**, then the features for the existing site default values will be used for the installation. Click **Next** and then click **Install** to begin the installation.

6   A **Restart Windows** page appears if the IBM Rational Setup Wizard needs to restart your computer. If files required for the installation are in use during the IBM Rational Setup program and if the program needs to install shared components on your computer, the Setup Wizard may need to restart your computer.

    Select **Restart** or **Don't Restart.** If you select **Don't Restart**, the Wizard reminds you that the installation cannot complete until Windows restarts. After Windows restarts, the second part of the installation process starts automatically after you log on.

7   When the **Setup Complete** page appears, we recommend that you review the current information related to new features and known issues in the readme file. In addition, you can view the **IBM Rational Developer Network** Web pages. Click **Finish** to complete the installation.

Running the site preparation wizard to create multiple site defaults files

In some cases, your site may require multiple site defaults files.

To create multiple site defaults for a release area:

1 Create the initial release area by following the instructions in *Using the IBM Rational setup wizard to create a release area and site defaults file* on page 9. Set up this area with the site-specific parameters relevant to the first group of users.

2 Select the site defaults file created in Step 1 (sitedefs.dat, for instance) as a starting point by clicking **File > Open** or typing the command siteprep.exe *<sitedefs.dat>*. The IBM Rational Site Preparation Wizard displays the values set in sitedefs.dat. Keep the values that apply to both groups and change the ones according to the needs of the second group.

   Note: If you double-click on siteprep.exe in the release area or use the command siteprep.exe without the site defaults filename, the Site Preparation Wizard launches without displaying the values set in the existing site defaults file.

3 Click **File > Save as** to save a new site defaults file. You are prompted to enter a file name and folder for the new site defaults file:

   ▫ If you started the site preparation on the command line and specified a file-name argument for the site defaults file, for example, sitedefs.dat, the **Folder** and **File name** boxes display this information. You could save the modified site defaults files with a new file name, for example testrt2.dat.

   ▫ If no file name was previously specified, the **File name** box is blank. Type a file name that does not currently exist in the release area.

      Note: If you enter the name of an existing site defaults file, a warning message appears. You can overwrite the existing file or specify a different file name to create a new site defaults file.

According to your needs, you may create additional site defaults files in this way.

Installing products from a release area

When you are installing IBM Rational products on a desktop from a release area designated by your system administrator, in most cases, we recommend that you accept the defaults as presented on the installation screens. Speak to your administrator if you want to change the defaults chosen for you.

Installing from a release area includes the following tasks:

1 Your administrator creates one or more site defaults files in a release area using the IBM Rational Setup Wizard or the Site Preparation Wizard and informs you of the name of the site defaults file and network location of the release area or sends you a shortcut to the site defaults file.

   Note: The instructions for setting up a release area and populating it with site defaults files are in the *Installation Guide* for IBM Rational server products.

2 You can then navigate to the release area and execute the site defaultss file or execute the site defaults shortcut from your desktop client. This shortcut will run an installation on your desktop from the release area.

To install products from a release area, you can either use a standard configuration (These are the definitions set by your administrator.), or you can customize the configuration for your desktop. The first section, *Using a standard configuration* on page 12, describes the procedure for using a standard configuration. The second section, *Customizing your own configuration* on page 12, describes the procedure for customizing your configuration.

Using a standard configuration

To install a default configuration from the release area:

1 Log on as a user with local administrator privileges.

2 To install a IBM Rational product using a specific site defaults file, either run setup.exe on the command line and specify the name of the site defaults file or click the associated site defaults shortcut in the release area. Then,

  ❏ On the command line, use the cd command to navigate to the root directory of the release area. Then enter: setup.exe sitedefs.dat, or

  ❏ Double-click the mapped drive and click the sitedefs.dat shortcut.

3 The IBM Rational Setup Wizard runs and guides you through the software installation. In each page, click **Next** to open the next page. Click **Help** for more information.

4 The **License Agreement** page displays the IBM Rational Software license agreement.

  ❏ If you accept the license agreement and click **Next**, the installation continues.

  ❏ If you do not accept it, the installation does not let you proceed further. Click **Cancel** and exit from the installation. For information about changes to the computer, see *Canceling a silent installation* on page 14.

5 The **Destination Folder** page displays the default destination folder for the installation. Click **Change** to select a different destination folder for the installation. Click **Next.**

6 Click **Use the standard configuration** on the **Site Default Configuration** page. The default features for the product and the existing site default values will be used for the client installation. Click **Next**.

7 Click **Install** to begin the installation on your client desktop.

8 A **Restart Windows** page appears if the IBM Rational Setup Wizard needs to restart your computer. If files required for the installation are in use during the IBM Rational Setup program and if the program needs to install shared components on your computer, the Setup Wizard may need to restart your computer.

Select **Restart** or **Don't Restart**. If you select **Don't Restart**, the Wizard reminds you that the installation cannot complete until Windows restarts.

After Windows restarts, the second part of the installation process starts automatically after you log on.

9 When the **Setup Complete** page appears, we recommend that you review the current information related to new features and known issues in the **readme** file. In addition, you can view the **IBM Rational Developer Network** Web pages. Click **Finish** to complete the installation.

Customizing your own configuration

To customize a configuration for a specific computer:

1 Log on as a user with local administrator privileges.

2 To install an IBM Rational product using a specific site defaults file, either run setup.exe on the command line and specify the name of the site defaults file or click the associated site defaults shortcut in the release area. Then,

  ❏ On the command line, use the cd command to navigate to the root directory of the release area. Then enter: setup.exe sitedefs.dat, or

  ❏ Double-click the mapped drive and click the sitedefs shortcut.

3   The IBM Rational Setup Wizard runs and guides you through the software installation. In each page, click **Next** to open the next page. Click **Help** for more information.

4   The **License Agreement** page displays the IBM license agreement.

   ▫   If you accept the license agreement and click **Next**, the installation continues.

   ▫   If you do not accept it, the installation does not let you proceed further. Click **Cancel** and exit from the installation. For information about changes to the computer, see *Canceling a silent installation* on page 14.

5   The **Destination Folder** page displays the default destination folder for the installation. If you want to select a different destination folder for the installation, click **Change**.

6   Click **I will create my own custom client configuration** on the **Site Default Configuration** page.

   ▫   The Custom Setup page displays product features to select.

   ▫   When you click **Next,** you may change any of the existing site default values. (Any changes to the site default values apply only to this single installation.) After modifying the values, click **Done**.

7   Click **Install** to begin the installation on your client desktop.

8   A **Restart Windows** page appears if the IBM Rational Setup Wizard needs to restart your computer. If files required for the installation are in use during the IBM Rational Setup program and if the program needs to install shared components on your computer, the Setup Wizard may need to restart your computer.

   Select **Restart** or **Don't Restart**. If you select **Don't Restart**, the Wizard reminds you that the installation cannot complete until Windows restarts.

   After Windows restarts, the second part of the installation process starts automatically after you log on.

9   When the **Setup Complete** page appears, we recommend that you review the current information related to new features and known issues in the **readme** file. In addition, you can view the **IBM Rational Developer Network** Web pages. Click **Finish** to complete the installation.

Using silent installation commands

A *silent* installation lets you install an IBM Rational product, using the same parameters, repeatedly on a number of systems.

Silent installation overview

Your administrator may set up a site defaults file so that many users can perform unattended installations of an IBM Rational product with the same parameters.

The site defaults file directs the IBM Rational Setup Wizard to install program files in a specific directory on your computer. For information about setting up a silent installation, see the *Installation Guide* for IBM Rational server products.

When you start the silent installation, you do not see any installation screens. If a restart is required, your computer restarts automatically. After the computer restarts, you must log on manually. The install wizard then re-launches automatically and finishes. When the installation finishes, you do not see an installation complete screen at the end. If your administrator did not specify the license server in the site defaults file or you are using a node-locked or per user license key, you may have to manually configure licensing after the Setup Wizard finishes. For more information, see *Licensing Test RealTime* on page 1.

Running a silent installation

The following instructions describe the commands you need to run a silent installation on your computer.

To run the silent installation on your desktop, your administrator gives you the following information:

- Path to the site defaults file and the setup.exe executable in the release area or shortcut to the site defaults file. (The shortcut will not have a .dat suffix.)

- Installation directory (where the IBM Rational Setup Wizard will install the files on your desktop).

- License key information, if necessary.

To run the site defaults file in silent mode:

1 Map a local drive to the release area (optional).

2 Go to **Start > Run** and enter the following commands:

   <local drive>: \setup.exe /g <C:\filename.dat>

   Where *<local drive>* is the mapped drive or the path to setup.exe. There is a space between setup.exe and command /g and a space between /g and the path to the filename.dat file which is C:\:filename.dat.

   The executable installs the product specified in the site defaults file from the source directory to the installation path. The default installation path is C:\Program Files\Rational*<Rational products>*.

   If a restart is required, your computer restarts automatically. After the restart, you must log on manually. The installer then re-launches automatically and finishes. When the installation finishes, you do not see an installation complete screen.

   If your administrator did not specify the license server in the site defaults file, you may have to manually configure licensing after the Setup Wizard finishes.

   Note: If the IBM Rational Setup Wizard detects insufficient disk space on the desktop, the Wizard will cancel the installation and note the error in the Rational_install.log in your TEMP directory. The location of the directory depends on the environment variable set on the computer. To find the location, open a command Window and type echo %TEMP% at the DOS prompt.

Canceling a silent installation

There is no command to cancel a silent installation.

Removing a product by using silent install commands

To remove an IBM Rational product, use the following commands:

<local drive>:\msiexec.exe /X *<path to product>*.msi /qn

Where *<local drive>* is a mapped drive or path to msiexec.exe and *<path to product>* is the path to the MSI file in your network-wide release area, for example, during installation. In the release area, that MSI file exists in the Setup directory. The command /x indicates an uninstall operation and /qn indicates no user interfaces are displayed during the uninstall operation.

Canceling a product installation

If you click **Cancel** any time during the installation procedure or before the installation completes, you will not see any visible changes to the system. The program returns your system to the state it was in before you launched the IBM Rational Setup Wizard.

Note: If you do not have the correct version of Windows Installer software on your computer, the IBM Rational Setup Wizard will install it for you. Canceling the installation does not remove the updated version of Windows Installer. In some cases, you may have to restart the computer.

Chapter 3. Installing Test RealTime on UNIX

Use the IBM Rational rs_install script for initial and upgrade installations of IBM Rational products on UNIX platforms.

This chapter explains how the rs_install script can help you install IBM Rational Test RealTime.

Using the rs_install script

For environments where more than one user is using the product, install the main files on a centralized server.

Before you start the rs_install script

The following general requirements are necessary to run the rs_install Script on the system.

- Read the relevant Release Notes file on the product CD for the latest installation notes before running the installation process:

    release_notes.htm

- Stop all applications before you begin the installation.

- Make certain that the system meets the minimum requirements and the correct operating system.

- Any registered user on the system may install the product.

- Users must have a native compiler registered in their PATH environment, such as gcc or a native C or C++ compiler.

Installing from the CD-ROM image

This section describes a typical installation of Test RealTime from the CD-ROM. The rs_install script guides you through the software installation.

Note: Interrupting an installation that is in progress may leave your system in an indeterminate state. If you try to cancel the execution of the rs_install script while the installation is in progress, you are asked to confirm that you want to exit from the incomplete installation.

To install Test RealTime from a CD-ROM image:

1 Log in to the local machine on which you want to install the product.

2 Place the product CD in the CD-ROM drive and mount the CD-ROM.

See the instructions for your particular CD-ROM drive and operating system for details.

Note: On Solaris and Linux the CD-ROM may be automatically mounted.

3 From a shell, change directory to the mounted CD-ROM device.

For example:
% cd /cdrom

4 Run the rs_install installation program:

% rs_install

The rs_install program prompts you through the installation process, providing detailed instructions along with default settings. The defaults appear in brackets (for example: `[2]`). To accept the default, press ENTER.

5 After you install your license key, the rs_install program reminds you that you must configure your server to automatically restart the license server when it reboots. The rs_install program gives you instructions for doing this.

For any license-related issues, please refer to the *License Management Guide* , provided with the product.

6 Change to the following directory accordingly:

<install_dir>/TestRealTime.7.0.0

where *<install_dir>* is the Test RealTime installation directory.

7 Check and edit the testrtinit.sh or pplusrtinit.sh file (or testrtinit.csh or pplusrtinit.csh file), if necessary. This file contains the environment variable settings for Test RealTime.

If the product installed successfully, you can move on to *After installing Test RealTime* on page 21.

Questions and answers about rs_install

Below are the answers to some common questions about the rs_install program.

▪ **Can I rerun parts of the installation?**
Yes. The rs_install program provides commands that enable you to rerun specific sections of the installation as needed.

▪ **Do I have to reenter my license server information each time I install a product?**
No. You only need to enter this information once. The rs_install program saves the information you enter about yourself and about the machine to be used as the license server for your Rational Software product licenses in two text files: an rs_install.defaults file that contains information about you and your license server, and a file, that records product-specific information. The rs_install program reports the location of these files when you quit the program. The next time you run rs_install, the program uses the saved configuration information.

▪ **Do I need to install all my licenses on one server?**
No. You are not required to use all of your allowed licenses for a single-license server. You can install a product at another site and configure a license server at that site to serve the remaining licenses in your IBM Rational Software account.

▪ **Which type of product license key should I install?**
If you already have your permanent or TLA license key, you can install it right away. You can also request a permanent license key at:
https://www.software.ibm.com/reg/rational/rational-i

Otherwise, select the startup or evaluation license to get started using the product.

Note: To ensure uninterrupted use of your IBM Rational Software product, you should install your permanent or TLA license key as soon as possible.

▪ **Can I import existing user names from an earlier installation of the product installed with Named User licensing?**
Yes. If you installed the product previously under FLEXlm, the user names are imported automatically when you run rs_install. If you installed the product under PureLA License Administrator, rs_install asks you if you want to import the existing users.purela file, and also permits you to edit the imported user names.

▪ **How do I proceed if I already have other IBM Rational product licenses installed on my server?**
You must add the new licenses to your current IBM Rational product license file. To do this, specify the current IBM Rational license file as the license file name instead of using the default.

▪ **How do I get updates for the rs_install program and for the IBM Rational products?**
You can get updates from within the rs_install program, though you must be running the program on a machine that has network access. The rs_install program's Licensing Options screen lets you select an item to download the latest version of rs_install (in which case rs_install replaces itself and restarts using the new version) or get product updates.

Chapter 4. After installing Test RealTime

This chapter explains how to start using IBM Rational Test RealTime. It includes the following topics:

- Launching the Product
- Accessing the Online Documentation
- Troubleshooting

Launching the product

Test RealTime can be used either in a graphical environment or through a command line interface.

When using the product for the first time, the graphical user interface (GUI) provides a convenient way to access all Test RealTime features.

Running the graphical user interface for Windows

On Windows, run **IBM Rational Test RealTime** from the **Start** menu.

Running the graphical user interface for UNIX

The UNIX binaries are located in the following directory:

<installdir>/TestRealTime.7.0.0/bin/*<platform>*/*<os>*

where:

- *<install_dir>* is the installation directory of the product
- *<platform>* is the platform architecture, such as intel or sparc
- *<os>* is the name of the current operating system

This path is set automatically by the testrtinit.sh or start_testrt.sh script

The following method is valid only for *sh*, *ksh* or *bash* shells:

1   Run the .sh script file to set the environment variables.

In a *sh* or *bash* shell (the period '.' is part of the command):

. *<install_dir>*/TestRealTime.7.0.0/testrtinit.sh

In a *ksh* or *csh* shell:

source *<install_dir>*/TestRealTime.7.0.0/ testrtinit.csh

where *<install_dir>* is the installation directory.

2   Type the following command to start the product graphical user interface:

studio

To simplify the execution of Test RealTime, you can add the script file parameters to your .profile account parameters.

Alternatively, the following script configures the environment and launches Test RealTime in *sh* or *bash* shells:

<install_dir>/TestRealTime.7.0.0/start_testrt.sh

If you use a *csh* or *ksh* shell, you should run the following script:

<install_dir>/TestRealTime.7.0.0/start_testrt.csh

License variable

The environment variable RSU_LICENSE_MAP is used by IBM Rational products for some advanced licensing features. In some cases, Test RealTime may produce an error message such as:

```
License manager: RSU Licensing WARNING: Couldn't open map file from
$RSU_LICENSE_MAP: ./NIX
```

If this error occurs, use one of the following work arounds:

Unset the variable manually for the current shell. For bash, this command would be:

unset RSU_LICENSE_MAP

Alternatively, launch the Test RealTime tool from within a script, which might be:

```
#!/bin/bash
if [ -z $RSU_LICENSE_MAP -o -r $RSU_LICENSE_MAP ]
then
launch_tool
else
unset RSU_LICENSE_MAP
launch_tool
fi
```

Accessing the online documentation

The entire documentation set for Test RealTime is provided as a full-featured information center:

- If this is the first time you are using Test RealTime, take the time to complete the relevant **Online Tutorial**. This provides a quick and practical approach to using the product.

- The **User Guide** provides online help and information about testing and monitoring your software in Test RealTime as well as advanced information about the test script languages used by Test RealTime and command line tools.

Depending on the operating system you are using, these documents were designed to be viewed in either:

- Microsoft HTML Help which is part of Windows

- A recent Java and Javascript-enabled web browser on UNIX such as Mozilla Firefox. If you experience problems displaying the Help, please upgrade your web browser.

Both environments provide contextual help from within the application, a full-text search facility, and direct navigation through the **Contents** and **Index** panes on the left-hand side of the Help window.

Browsing the online documentation in windows

To access the online documentation in Windows, from the **Start** menu, select **Programs**, **IBM Rational Test RealTime**, **User Manuals** and the document name.

The documentation is also accessible as context-sensitive online help from the graphical user interface and from the **Help** menu.

Browsing the online documentation in UNIX

Before opening the online documentation in UNIX, ensure that your Web browser has Java and Javascript support options enabled.

In your Web browser, locate and open the following file:

> *<install_dir>*/TestRealTime.7.0.0/doc/rtrt-ug/index.htm

where *<install_dir>* is the installation directory.

If necessary, you can bookmark this page in your Web browser.

Specifying a browser for the online documentation in UNIX

The documentation is also accessible as context-sensitive online help from the graphical user interface and from the **Help** menu.

In UNIX, you must specify the command line used to open a Java-enabled Web browser.

To specify the Web browser:

1 From the **Edit** menu, select **Preferences**.

2 Expand **General** and **Help**.

3 Enter the command line to launch a Web browser and click **OK**. For example:

```
firefox %1
```

If you plan to modify Target Deployment Ports, perform the same action in the Target Deployment Port Editor.

Troubleshooting

If you encounter any problems with the software, try the following suggestions before you call IBM Rational Customer Support for help.

Installation issues

If the installation procedure fails:

- Stop all applications before you begin the installation.

- Turn off all virus protection software. These programs often run in the background and may interfere with the installation and file decompression process.

- Turn off any user interface managers or desktop environments that run on Microsoft Windows.

- Change to a standard VGA video driver while IBM Rational Setup is running, or disable video features such as virtual screens or screen switching.

- Change to a standard mouse driver or disable special mouse features that perform tasks such as leaving pointer trails or changing pointer sizes.

Software errors

If Test RealTime fails to run, try any of the following suggestions:

- Check that the environment variables such as $TESTRTDIR are correctly set. If not, refer to the installation instructions, or set the environment variables manually. See the *Reference Manual* for a list of required environment variables.

- For any license-related issues, please refer to the *License Management Guide* manual provided with the relevant product.

Documentation problems

If the online documentation fails to display correctly:

- Ensure that you have the latest supported version of Internet Explorer on Windows or a browser that supports Java, Javascript and frames on UNIX, such as Mozilla Firefox 1.0 or later. You can download Mozilla Firefox from http://www.mozilla.org.

- Check that you have enabled Java and Javascript support in the browser preferences and that the path to the Java binary is correct.

- When using an X terminal, ensure that the DISPLAY parameters are correctly set.

- On UNIX, try starting the Web browser before launching the online Help from Test RealTime. Make sure that the Web browser specified in the Preferences dialog box is valid.

Chapter 5. Integrating Test RealTime with other products

This chapter explains how to install IBM Rational Test RealTime product integrations. These allow you to use the product with the following software development tools:

- IBM Rational Rose RealTime (Windows and Solaris only)
- IBM Rational TestManager (Windows only)
- Microsoft Visual Studio 6.0 or .NET (Windows only)
- Eclipse C/C++ Development Tools (Windows only)

Note: The installation of product integrations uses items that are installed with the product. Please ensure that Test RealTime is installed before following the instructions described in this section.

Installing IBM Rational Rose RealTime integration

Both Test RealTime and Rose RealTime must be installed on the same machine. For the integration between these products to be fully operational, ensure that the latest versions of each software are installed.

If you installed Test RealTime after Rose RealTime, the installation procedure automatically adds new menus to Rose RealTime for direct access to the features of the product.

Windows installation

If you have installed Rose RealTime after Test RealTime, you must manually install the plug-in.

To install the IBM Rational Rose RealTime plug-in:

1 From the Windows **Start** menu, select **Programs**, **IBM Rational Software**, **Test RealTime**, **Tools** and **Install IBM Rational Test RealTime add-in for Rose RealTime** to add the new menu items to Rose RealTime.

UNIX installation

On Solaris platforms, the rs_install script prompts you to enter the location of Rose RealTime and installs the plug-in as required.

Installing the IBM Rational TestManager integration

Integration with IBM Rational TestManager is only available for the Windows version of IBM Rational Test RealTime.

Both Test RealTime and TestManager must be installed on the same machine. For the integration between these products to be fully operational, ensure that the latest versions of each software are installed.

To install the IBM Rational TestManager plug-in:

1   From the Windows **Start** menu, select **Programs**, **IBM Rational Software**, **Test RealTime**, **Tools** and **Install IBM Rational TestManager Integration** to install the additional files for Test RealTime support in TestManager.

Installing the Microsoft Visual Studio integration for Windows

Integration with Microsoft Visual Studio 6.0 or .NET is only available for the Windows version of Test RealTime.

Installation for Microsoft Visual Studio 6.0

Both Test RealTime and Microsoft Visual Studio 6.0 must be installed on the same machine.

To install the Microsoft Visual Studio 6.0 plug-in:

1   From the Windows **Start** menu, select **Programs > Rational Software > IBM Rational Software**, **Rational Test RealTime**, **Tools** and **Rational Test RealTime Plug-in for Microsoft Visual Studio Install** to add the new menu items to Microsoft Visual Studio

To uninstall the plug-in:

1   From the Windows **Start** menu, select **Programs > Rational Software > IBM Rational Software**, **Rational Test RealTime**, **Tools** and **Rational Test RealTime Plug-in for Microsoft Visual Studio Uninstall** to remove the plug-in from Microsoft Visual Studio.

Installation for Microsoft Visual Studio .NET

Both Test RealTime and Microsoft Visual Studio .NET must be installed on the same machine.

To install the Microsoft Visual Studio .NET plug-in:

1   From the Windows **Start** menu, select **All Programs** > **IBM Rational Software** > **IBM Rational Test RealTime** > **Tools** > **TDP Editor**.

2   In the TDP Editor, select **File** > **Open** and open cvisual7.xdp located in the *<install_directory>*/targets/xml directory.

3   Under **Basic Settings** > **For All**, set the **INSTALL_PLUGIN** key to **TRUE**.

4   Save cvisual7.xdp and close the TDP Editor.

To uninstall the plug-in:

1   From the Windows **Start** menu, select **All Programs** > **IBM Rational Software** > **IBM Rational Test RealTime** > **Tools** > **TDP Editor**.

2   In the TDP Editor, select **File** > **Open** and open cvisual7.xdp located in the *<install_directory>*/targets/xml directory.

3   Under **Basic Settings** > **For All**, set the **INSTALL_PLUGIN** key to **FALSE**.

4   Save cvisual7.xdp and close the TDP Editor.

Installing the Eclipse CDT integration

This section explains how to install the Test RealTime integration for the Eclipse C/C++ Development Tools (CDT) development environment.

Windows installation

The Test RealTime plugin for Eclipse CDT for Windows relies on the following third party product versions:

- Eclipse version 3.1.0
- Eclipse CDT version 3.0.0
- EMF/XSD version 2.1.0
- Java 2 Platform, Standard Edition, version 1.4.2
- Cygwin 1.5.18 or later

It is important that these exact versions are used. Any later or earlier versions of these products might cause the Test RealTime integration to fail.

To install the Eclipse CDT development environment:

1   Download and install Java 2 Platform, Standard Edition 1.4.2 from:
    http://java.sun.com/j2se/1.4.2/download.html

2   Download and install Cygwin from:
    http://www.cygwin.com

    The Cygwin environment is required for the Eclipse CDT. If you want to use the Cygwin gcc compiler, make sure that the Cygwin installation options include the development tools category. If not, you can install a different gcc 3.2 compiler.

3   Add the Cygwin and Java directories to your PATH environment variable. Go to **Start > Control Panel > System > Advanced > Environment Variables** and add the following paths to your PATH system variable:
    c:\cygwin\bin; c:\j2sdk1.4.2_10\jre\bin

4   Download and install Eclipse 3.1.0 from:
    http://www.eclipse.org/downloads

5   Download and install the CDT 3.0.0 by following the instructions at:
    http://www.eclipse.org/cdt

6   Download and install the EMF, SDO and XSD 2.1.0 by following the instructions at:
    http://www.eclipse.org/emf

7   Install Test RealTime as described in *Installing Test RealTime on Windows* on page 5.

Note: Test RealTime must be installed after steps 2 and 3 because the Test RealTime Setup wizard needs to locate the Cygwin gcc compiler during the installation. If necessary, you can uninstall and reinstall Test RealTime after installing Cygwin.

To install the Eclipse CDT development environment:

1   Launch Eclipse.

2   Select **Help > Software Updates > Manage Configuration**

3   In the **Product Configuration** window, on the right, select **Add Extension Location**.

4   In the **Browse for Folder** window, select the eclipse_*<version>*/cdt_*<version>*/eclipse folder located in the Test RealTime installation directory and click **OK**. For example:
    C:\Program Files\Rational\TestRealTime\eclipse_3.1.0\cdt_3.0.0\eclipse

5   When asked to restart the workbench, click **Yes**.

Chapter 6. Uninstalling Test RealTime

This chapter explains how to remove IBM Rational Test RealTime 7.0.0 from your computer.

Removing the product from a Windows platform

Use the Windows **Add/Remove Programs** control panel to select and remove Test RealTime.

All the files and registry settings installed are removed from the system. If you have run the examples in the examples directory, any intermediate files generated by your compiler will remain. You must delete these files manually.

Note: Removing either product does not remove any Test RealTime project data from your system.

Removing the product from a UNIX platform

To remove the product from a UNIX platform, simply delete the relevant installation directory:

    rm -rf <install_dir>/TestRealTime.7.0.0

where <install_dir> is the directory where the product was installed.

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