Rational the e-development company™

WINDOWS

Installing Rational Suite®

VERSION: 2001A.04.00

PART NUMBER: 800-024441-000

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http://www.rational.com

Rational®
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Preface

Installing Rational Suite provides procedures to install Rational Suite, including an overview of how to configure the point-products within Rational Suite. Detailed procedures about point product configurations, as well as standalone installations, are available in the individual point product documentation.

Rational Suite delivers a comprehensive set of integrated tools that embody software engineering best practices and span the entire software development lifecycle. Rational Suite's unparalleled level of integration improves communication both within teams and across team boundaries, reducing development time, and improving software quality.

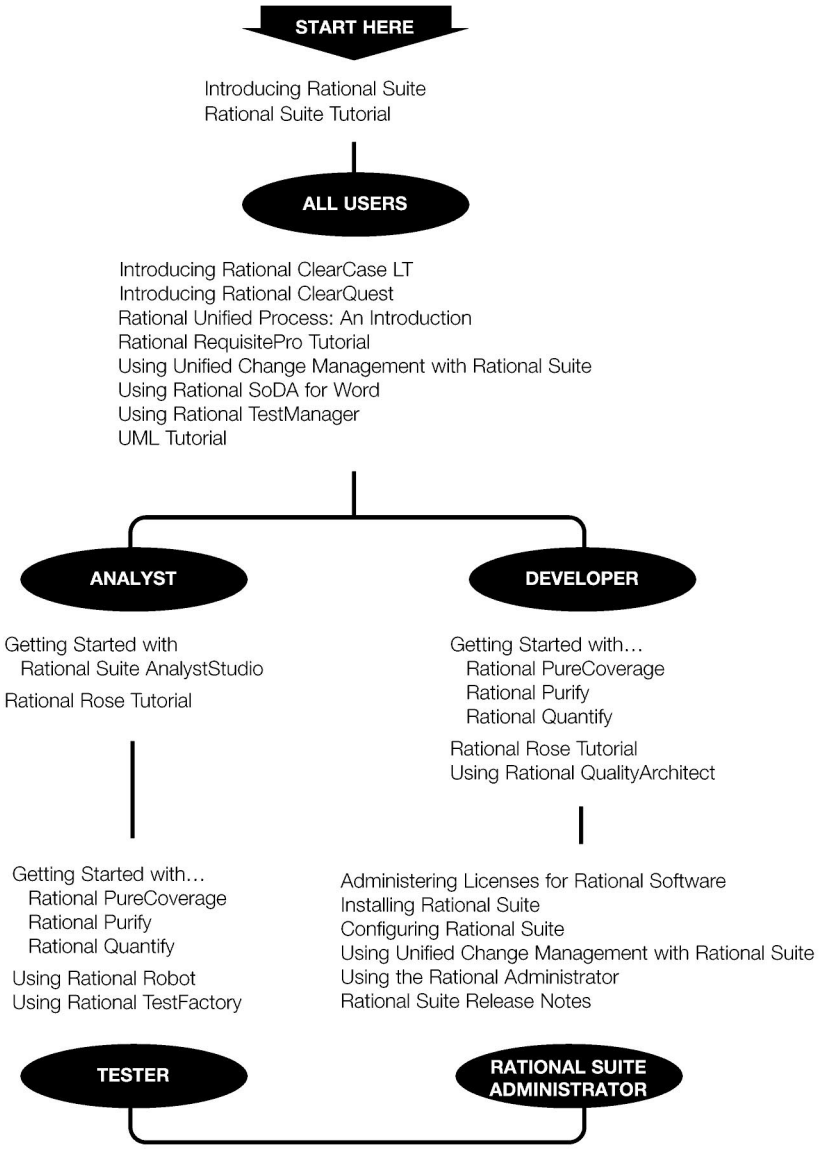
Audience

This guide is intended for system administrators, project managers, and all members of the software development team, including requirements developers, software architects and developers, and quality engineers. It assumes a knowledge of Microsoft Windows and its conventions.

Other Resources

- All manuals are available online, either in HTML or PDF format. The online manuals are on the Rational Solutions for Windows Online Documentation CD-ROM.
- To send feedback about documentation for Rational products, please send e-mail to `techpubs@rational.com`.
- For more information about Rational Software technical publications, see: http://www.rational.com/documentation.
- For more information on training opportunities, see the Rational University Web site: http://www.rational.com/university.
- For articles, discussion forums, and Web-based training courses on developing software with Rational Suite products, join the Rational Developer Network by selecting **Start > Rational Suite > Logon to the Rational Developer Network**.

Rational Suite Documentation Roadmap



Contacting Rational Technical Support

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

Your Location	Telephone	Facsimile	E-mail
North America	(800) 433-5444 (toll free) (408) 863-4000 Cupertino, CA	(781) 676-2460 Lexington, MA	support@rational.com
Europe, Middle East, Africa	+31 (0) 20-4546-200 Netherlands	+31 (0) 20-4545-201 Netherlands	support@europe.rational.com
Asia Pacific	+61-2-9419-0111 Australia	+61-2-9419-0123 Australia	support@apac.rational.com

Note: When you contact Rational Technical Support, be prepared to supply the following information:

- Your name, company name, 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 case ID number (if you are following up on a previously reported problem)

Using This Guide

1

The Rational Software Setup program lets you perform typical, compact, custom, and network installations of Rational Suite. This common procedure installs Rational Suite as well as standalone versions of point products. The term *Rational product* used throughout this manual refers to standalone point products and Rational Suite.

This manual provides an overview of requirements for installing Rational Suite as well as requirements for configuring point products within Rational Suite. To perform a standalone installation of a point product, read the product's installation manual on the Rational Solutions for Windows Documentation CD-ROM. The system and software requirements may vary when you install a point product outside of Rational Suite.

To install Rational Suite ContentStudio, read the *Installing Rational Suite ContentStudio* manual. *Installing Rational Suite* does not cover ContentStudio installation requirements.

This manual provides you with:

- Information needed to perform a typical or custom installation of Rational Suite.
- An overview of the pre- and post-configuration requirements for setting up Rational Suite databases.
- An overview of the pre- and post-configuration requirements for Rational Suite Web applications.
- Information about upgrading from earlier releases of Rational Suite.
- Instructions for configuring a silent installation of Rational Suite
- Instructions for configuring a network installation of Rational Suite.
- Instructions for removing Rational Suite.
- Support information, including references to additional sources of information and help, in the *Preface* on page xiii.

To help you navigate through this manual, see *Installation Roadmap* on page 18.

Installation Roadmap

The Installation Roadmap and Table 1 on page 19 help you navigate through this guide. Read *Troubleshooting* on page 131 or the *Preface* on page xiii if you see error messages or encounter problems during installation.

Installation Roadmap

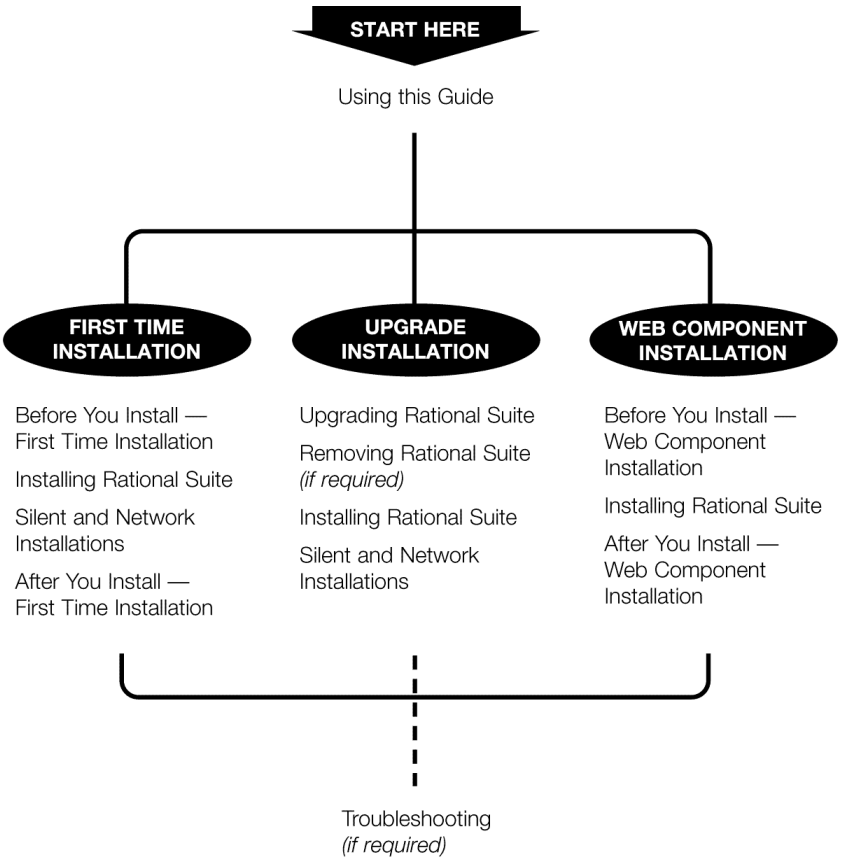


Table 1 Installing Rational Suite

To	See
Deploy a first-time installation of Rational Suite	▪ The *Administering Licenses for Rational Software* manual to install and configure licenses either before or after installing the product. ▪ The Rational Software Setup and product-specific requirements for an initial installation in the chapter *Before You Install – First Time Installation* on page 23. ▪ The chapter *Installing Rational Suite* on page 59 for the installation procedure. ▪ The product-specific configuration requirements in the chapter *After You Install – First Time Installation* on page 65.
Deploy Rational Suite using a silent installation	▪ The *Administering Licenses for Rational Software* manual to install and configure licenses either before or after installing the product. ▪ The chapter *Silent and Network Installations* on page 121 for the silent installation procedure. ▪ The Rational Software Setup and product-specific requirements for an initial installation in the chapter *Before You Install – First Time Installation* on page 23. ▪ The chapter *Installing Rational Suite* on page 59 for the installation procedure.
Deploy Rational Suite using a network installation	▪ The *Administering Licenses for Rational Software* manual to install and configure licenses either before or after installing the product. ▪ The chapter *Silent and Network Installations* on page 121 for the minimal installation procedure. ▪ Rational Suite and product-specific requirements for an initial installation in the chapter *Before You Install – First Time Installation* on page 23. ▪ The chapter *Installing Rational Suite* on page 59 for the installation procedure.

Table 1 Installing Rational Suite (continued)

To	See
Deploy Rational Suite Web applications.	▪ The *Administering Licenses for Rational Software* manual to install and configure licenses either before or after installing the product. ▪ Rational Suite and product-specific requirements for an initial installation in the chapter *Before You Install – Web Component Installation* on page 53. ▪ The chapter *Installing Rational Suite* on page 59 for the installation procedure. ▪ The product-specific configuration requirements in the chapter *After You Install – Web Component Installation* on page 71.
Upgrade to a new release of Rational Suite	▪ The chapter *Upgrading from Earlier Versions of Rational Suite* on page 73 for upgrade requirements. ▪ The chapter *Removing Rational Suite* on page 117 if you need to remove an earlier version of the product.
Install additional Rational software and third-party components	▪ The product-specific installation and configuration requirements in the chapter *After You Install – First Time Installation* on page 65. ▪ The chapter *Installing Rational Suite* on page 59 for the installation procedure.
Remove Rational Suite from your system	▪ The *Administering Licenses for Rational Software* manual to move license keys to another system or return license keys to Rational Software. ▪ The chapter *Removing Rational Suite* on page 117 for the removal procedure.

Products in Each Rational Suite

Rational Suite is an integrated set of software development tools, combined with the Rational Unified Process. Rational Suite is available in several editions, each tailored to the needs of a specific organization or user.

Rational Suite: Summary

This table shows which tools are included with each edition of Rational Suite.

		The Project Leader	The Analyst	The Developer			The Tester	All Roles
		Team Unifying Platform	AnalystStudio	DevelopmentStudio		DevelopmentStudio RealTime Edition	TestStudio	Enterprise
		Windows	Windows	Windows	UNIX	Windows	Windows	Windows
Rational Tool								
Team Unifying Platform	Rational Unified Process	●	●	●	●	●	●	●
	Rational RequisitePro	●	●	●	● W	●	●	●
	Rational ClearQuest	●	●	●	● W	●	●	●
	Rational SoDA for Word	●	●	●	● F	●	●	●
	Rational ClearCase LT	●	●	●		●	●	●
	Rational TestManager	●	●	●		●	●	●
	Rational Rose		● M	● E	● E	● RT		● E
	Rational Robot						●	●
	Rational TestFactory						●	●
	Rational PureCoverage			●	●	●	●	●
	Rational Purify			●	●	●	●	●
	Rational Quantify			●	●	●	●	●
	Rational Process Workbench							●

M = Data Modeler Edition
E = Enterprise Edition
RT = RealTime Edition
F = Rational SoDA for FrameMaker
W = Accessed through the tool's Web interface

NOTE: For information on **Rational Suite ContentStudio**, see http://www.rational.com/products/cstudio.

Before You Install – First Time Installation 2

This chapter provides an overview of tasks for installing Rational Suite for the first time. The following topics cover licensing, administrator privileges, and options and requirements in the Rational Software Setup program. The Rational Suite product sections include an overview of additional requirements for initial Suite installations.

Rational Software Setup – Before You Install

The following sections cover general requirements for running the Rational Software Setup program, planning your installation, and using Rational Software.

Administering Licenses for Rational Software

You can request and install license keys before or after installing Rational products; however, you must have a license key installed and configured to run a Rational product. In the Rational Software Setup program, a green check mark next to a Rational product indicates you have a license key configured for that product. If you do not see a green check mark next to the product you want to install, you may want to install a license key before you install the product. To configure a license key, click the **Configure Licenses** button to launch the Rational License Key Administrator (LKAD) and the License Key Administrator Wizard. Both tools provide online Help. If you do not install the license keys before you install the product, the LKAD will appear at the end of the installation.

The *Administering Licenses for Rational Software* manual describes the web-based license manager Rational AccountLink, Rational licensing terms, and the Rational License Key Administrator. The Setup program installs the LKAD automatically with each point product within Rational Suite. *Administering Licenses for Rational Software* also provides instructions for acquiring, installing, upgrading, and configuring floating and node-locked license keys.

If you install Rational Suite and other Rational Software products on the same system, there is an order in which the products will use licenses on the client or the license server. To learn more about license usage order, see the *Administering Licenses for Rational Software* manual.

Note: If you plan to upgrade the Rational license server, and this server has other Rational products installed on its system, you must either remove the Rational products from the system or upgrade the Rational products to the current release. Older Rational products may not work with an upgraded license server if they are on the same system.

Licensing Windows NT Components for DevelopmentStudio on UNIX

To run the Windows NT components for DevelopmentStudio on UNIX, request a floating license from AccountLink (www.rational.com/accountlink). When you receive the permanent license key file from AccountLink, import the file on the Rational license server.

- A UNIX license server can serve floating licenses to Windows (NT components) and UNIX (UNIX Suite) clients. To set up a Rational license server on a UNIX system, see the *Installing DevelopmentStudio for UNIX* manual.
- A Windows license server can serve floating licenses to Windows (NT components) and UNIX (UNIX Suite) clients. To set up a Rational license server on a Windows system, see *Administering Licenses for Rational Software* or use the Rational License Key Administrator Help.

Administrator Privileges

To use the Rational Software Setup program on a Windows NT or 2000 system, you must have Windows NT or 2000 administrator privileges on the local system. Log in as one of the following users:

- Local administrator
- Member of the local administrator's group
- Domain administrator who is a member of the local administrator's group

Selecting an Installation Type

The Rational Software Setup program provides you with several installation types, allowing you to install the configuration most appropriate for your system. Table 2 describes each type.

Table 2 Installation Types

Type	Description
Typical	▪ Installs the most commonly used features for a product. ▪ Use this option for standard installations.
Custom	▪ Allows you to add or remove product features for installation. ▪ Defaults to all features in a Typical installation. ▪ Use this option to install Web server components and other Rational Suite feature components. See Table 3 on page 26 for a feature list.
Compact	▪ Installs a subset of the standard configuration. May omit optional files, including online documentation or online Help. To find out which files will be installed, read the product's release notes. ▪ Use this option for installations on systems with limited disk space.
Network	▪ Installs the required files on your system to run the program from a network location. ▪ Use this option to run a program from a centrally managed location. ▪ We recommend that you map a drive on your local system to the source directory on the network before you select this option. Select the **Reconnect at Logon** option in the Windows **Map Network Drive** dialog box. ▪ This installation type is available to you when a system administrator has copied and decompressed the product files to a target directory. (If you are a system administrator, see *Performing Network Installations* on page 125 to set up a source directory for network installations.) **Note:** If you have older Rational products on your system, you cannot perform upgrades with network installations.

Table 3 lists Rational Suite features that you can install using the **Custom** Installation Type.

For more information about feature configuration requirements, see the product-specific section in this chapter or *Before You Install – Web Component Installation* on page 53.

Table 3 Rational Suite Features

Rational Suite Point Product	Feature	Where You Need to Install Feature
ClearQuest	ClearQuest Administrator	ClearQuest administrator's system
ClearQuest	ClearQuest Client	ClearQuest client
ClearQuest	ClearQuest Web	Web server
RequisitePro	database configuration scripts	Database server
RequisitePro	RequisiteWeb	RequisiteWeb Requirements server
TestManager	ManualTest Web Execution	Web server
Rational Unified Process	IBM e-Business content	Client
Rational Unified Process	Microsoft Web Solutions platform	Client

Installing Shared Files

The Rational Software Setup program installs some shared components, which is software provided by a company other than Rational. The *Rational Suite Release Notes* includes a complete list of third party components that are installed with Rational Suite.

These components are potentially available to other applications on your system. Setup installs the U.S. English version of these files. It does not overwrite newer file versions.

If the Setup program needs to update shared components, it displays a list of the shared components that require updates. The files listed must be installed on your system before the installation can proceed.

Installing Files Yourself

In general, we recommend that you allow the installation procedure to install shared files for you. In the following circumstances, you may want to install the files yourself:

- You are using a U.S. English system, but installing new files may invalidate your current environment. In this case, you need to determine how to correct your environment so that you can run existing tools and the Rational products you want to install.
- Your site may mandate that you obtain shared files directly from the source, for example, from Microsoft, rather than using files supplied by a third party. Or your site may prohibit end users from installing shared components.
- You may want to install equivalent files that are localized to your language.

  The check box, **Replace files with newer versions in English**, is enabled when you have installed earlier versions of shared files that are localized to a non-U.S. English language.

  - If you select this check box, the U.S. English versions of the files will replace your localized versions.
  - If you clear this check box, you can save and print the list of files that need to be updated. You will need to update the files yourself.
- There may be a later version of the files available. Rational products should work with the supplied version of shared files or any later versions.

Ensuring Version Compatibility

When you have older Rational products installed on your system, you have to ensure that all Rational products on that system are upgraded to the same version. Because Rational tools share files and components, a new installation can cause the older Rational products to stop working. If there are Rational beta releases on the system, remove the beta releases before you install a later version. See *Removing Rational Suite* on page 117 to remove the older Rational products from your system.

If the Rational Software Setup detects older products on your system, you will see the **Upgrade Compatibility** dialog box. For each of the Rational products listed in the **Upgrade Compatibility** dialog box, we strongly recommend that you do one of the following:

- **Upgrade it:** Complete the installation. To upgrade older Rational products on clients, see *Removing Earlier Versions of Rational Suite* on page 75 for a list of Rational products that you must remove from your system before you can restart the Setup program and install current versions of these products. To

upgrade older products on server or administrator systems, see the chapter *Upgrading from Earlier Versions of Rational Suite* on page 73. Upgrading each product updates all necessary files, registry entries, startup menu items, and shared components on your system.

Note: You cannot perform upgrades with network installations. For more information about network installations, see *Selecting an Installation Type* on page 25.

- **Remove it:** Complete this installation. Then see *Removing Rational Suite* on page 117 to remove the older Rational products from your system.

Rational Software Setup Installation Requirements

The following general requirements are necessary to run the Rational Software Setup program and to install Rational Software products for the first time at your site.

1. Order your permanent Rational license keys from Rational AccountLink (www.rational.com/accountlink). You can install the Rational license keys before or after you install Rational software. Read each Rational Suite product's *Before You Install* section for any special licensing requirements.

   See the *Administering Licenses for Rational Software* manual for information about installing node-locked license keys on a client system or installing floating license keys on a license server.

   Note: You need to install Rational licenses to use Rational products.

2. You can install the Rational license server software and SQL Server Anywhere from either Rational Solutions for Windows Disc 1 or Disc 2. Rational Solutions Disc 2 includes Rational Rose RealTime and Rational Suite RealTime Edition. Disc 1 provides all other Rational products.

3. The Rational Software Setup program requires that you install all Rational products in the same directory. If you already have Rational products installed on your system, the Setup program installs additional Rational products in the same directory.

4. Make sure you have administrator privileges before installing Rational products. Read the section *Administrator Privileges* on page 24 if you have not read it already.

5. Make sure that you have a current backup of your Registry and system directories.

6. Ensure that other programs are not running before you start the installation.

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

8. Turn off any user interface managers or desktop environments that run on top of Microsoft Windows.
9. Change to a standard VGA video driver while Rational Setup is running, or disable video features such as virtual screens or screen switching.
10. Change to a standard mouse driver, or disable special mouse features that perform tasks such as leaving pointer trails or changing pointer sizes.
11. Make certain that your system meets the minimum requirements.
12. The Rational Software Setup program 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 Software Setup program will report the amount of space required on all drives for your installation.

    Note: The Setup program 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. These files can require up to 20 MB of disk space on your hard drive.

Rational Suite – Before You Install

The following sections provide tasks you should perform and information you must prepare before you install Rational Suite. To install Rational Suite, you must also perform configuration tasks for the point products within Rational Suite. See the point product sections in this chapter for an overview of those requirements.

Rational Suite DevelopmentStudio on UNIX (Windows NT Components)

Refer to the Rational RequisitePro, ClearQuest, and testing products sections in this chapter and in *After You Install – First Time Installation* on page 65 for an overview of pre-installation and post-installation tasks. For information about licensing the Windows NT components, see *Licensing Windows NT Components for DevelopmentStudio on UNIX* on page 24.

Planning Your Rational Suite Environment

To help you plan your Rational Suite environment, you need to determine which systems will be server systems. Servers need to be highly available, and may need extra memory and disk space. Table 4 describes the types of servers you may need.

Table 4 Servers Used with Rational Suite

Type of Server	Description
License server	If you use floating licenses, you need to set up a server to administer the licenses. For more information, see the *Administering Licenses for Rational Software* manual or the Rational License Key Administrator Help.
Web server	▪ Some Rational tools include a Web component. You can set up a Web server for these tools: ClearCase LT, ClearQuest, RequisitePro, Rational Test Manager. ▪ You can install the ClearQuest Web server and the RequisiteWeb Requirements server on the same system. ▪ See the chapter *Before You Install – Web Component Installation* on page 53 for an overview of instructions.
Database server	▪ If you are using commercial databases with Rational Suite products, you probably want to install those databases on dedicated systems. ▪ The following Rational tools require databases: ClearQuest, RequisitePro, and Rose Data Modeler. See the point product sections in this chapter for an overview of configuration tasks. ▪ ClearQuest requires at least two databases each. ▪ We recommend, for improved performance, security, and reliability, the ClearQuest database server and the ClearQuest Web server be two different systems, each with its software installed onto a Windows NT File System (NTFS) partition. ▪ Microsoft Access Runtime is automatically installed when you install at least one Rational Suite product on your system. Sybase SQL Anywhere is available on the Rational Solutions for Windows Disc 1 or 2, but it is configured to work only with Rational products.

Table 4 Servers Used with Rational Suite (continued)

Type of Server	Description
ClearCase LT server	ClearCase LT is a client / server product. To use a ClearCase LT client, a ClearCase LT server must be installed in the same network domain as the clients. A client can work with exactly one server. For guidelines about selecting a ClearCase LT server system, see the manual *Installing Rational ClearCase LT*.
ClearQuest administrator's system	To use ClearQuest, you need to designate one system as the administrator's system. See *Rational ClearQuest – Before You Install* on page 41 for an overview.

Rational Suite System and Software Requirements

Table 5 describes the system and software requirements for installing Rational Suite. For standalone installation requirements, see the point product release notes.

Table 5 Rational Suite Requirements

Item	Minimum Requirements
Operating Systems	▪ Windows NT 4.0 Service Pack 6a ▪ Windows 2000 Professional Service Pack 1 ▪ Windows 98 Second Edition ▪ Windows Millenium Edition **Note:** Rational Suite DevelopmentStudio – RealTime Edition, ClearCase LT server, Purify, Quantify, and PureCoverage do not support Windows 98 and Windows Millenium Edition. Windows XP is not supported at this time.
Hardware Requirements	▪ 500 MHz or higher is recommended ▪ 256 MB RAM or higher is recommended; more memory generally improves responsiveness ▪ 2 GB free disk space on a single drive ▪ Network installation: 2.6 GB space on network, 584 MB space on systems **Note:** ▪ ClearCase LT server – 128 MB RAM required minimum ▪ Rational Rose – memory requirements increase with the size of the model

Table 5 Rational Suite Requirements (continued)

Item	Minimum Requirements
Disk Space: ▪ Enterprise Suite (no tutorial) ▪ AnalystStudio ▪ DevelopmentStudio ▪ DevelopmentStudio – RealTime Edition ▪ TestStudio ▪ DevelopmentStudio on UNIX ▪ Developer Kit ▪ Web Components ▪ ClearCase LT server	 1.3 GB or higher 650 MB or higher 775 MB or higher 775 MB or higher 675 MB or higher 1.0 GB or higher 175 MB or higher 350 MB or higher 70 MB or higher The ClearCase LT server also needs enough disk space to contain the files and databases under source control. The amount of space required depends on the characteristics and use of the VOBs and views.
Windows Terminal Server	▪ Windows NT 4.0 Service Pack 4 or higher ▪ Windows 2000 Server
Hosted Development Systems (remote sessions)	RequisitePro, Rose, SoDA, ClearCase, and ClearQuest support hosted development on these platforms: ▪ Citrix ▪ Windows Terminal Server (Windows NT 4) ▪ Windows 2000 Server
Microsoft Visual Basic	6.0 Service Pack 3 or higher (Visual Studio 6.0) Rational Test products support V5.0.
Microsoft Visual C++	6.0 (Visual Studio 6.0) Rational Test products support V5.0.
Microsoft Word	97 Service Release 2 or 2000 Service Release 1
Microsoft Excel	97 Service Release 2 or 2000 Service Release 1

Table 5 Rational Suite Requirements (continued)

Item	Minimum Requirements
Web Browsers	▪ Internet Explorer 4.01 Service Pack 1 or higher Certain Rational products require components from Internet Explorer 4.01 to run correctly. However, you are not required to use Internet Explorer for your browser. If you do not have Internet Explorer, you can download it from Microsoft's Web site: http://www.microsoft.com/windows/ie. If the Rational installer does not detect that Internet Explorer 4.01 is already installed on your system, it does not allow the installation to proceed. ▪ Netscape Navigator 4.6 or 4.7 (Windows 98/NT, UNIX) **Note:** Rose Add-ins that use a Web browser (for example, Rose Web Publisher) support most common Web browsers.
Web Servers	▪ ClearCase IIS 5, 4, Apache, Netscape **Note:** In addition to enough free disk space to load ClearCase LT server, the server needs 0.5 to 1.0 MB for each user who will use the ClearCase Web interface through the ClearCase LT server. ▪ ClearQuest IIS 5, 4 ▪ RequisitePro IIS 5, 4, Apache ▪ TestManager IIS 5, Microsoft Personal Web Server from Windows NT 4.0 Option Pack
Web Servers on Non-Windows Platforms	▪ ClearCase Apache on Solaris 2.51 or higher, or on HP-UX 10.20 or higher ▪ RequisitePro Apache on Solaris 8, Red Hat Linux 7
Web Clients on Non-Windows Platforms	ClearCase, ClearQuest, RequisitePro, Rational Unified Process, Rose Web Publisher Netscape 4.6 or higher on Solaris 2.51 or later, or on HP-UX 10.20 or higher
SQL Anywhere Server	Sybase SQL Anywhere is available on the Rational Solutions for Windows CD-ROM Disc 1 or 2, but it is configured to work only with Rational products. Operating system: Windows 2000, Windows NT 4.0 Server, or Workstation 4.0 ▪ Processor: Pentium ▪ Memory: 64 MB ▪ Disk space: 100 MB (minimum) ▪ Network protocol: TCP/IP **Note:** Novell NetWare is no longer supported for network servers.

Table 5 Rational Suite Requirements (continued)

Item	Minimum Requirements
ClearQuest Databases	▪ DB2 6.1 ▪ Microsoft Access 2000 ▪ SQL Server 6.5 Service Pack 5, 7.0 Service Pack 2, or 2000 ▪ SQL Anywhere 5.5.05 ▪ Oracle 7.3.4, 8.0.5, 8.1.6, 8.1.7 ▪ DB2 7.1
RequisitePro Databases	▪ Access 2000 ▪ SQL Server 7.0 Service Pack 2, or 2000 ▪ Oracle server 7.3.4, 8.1.6, or 8.1.7 Oracle client 7.3.4, 8.1.6, or 8.1.7 **Note:** If you are using a version 7.3.4 server, we recommend that you use a version 7.3.4 client. ▪ 96 MB disk space ▪ 128 MB minimum memory; for projects with approximately 50,000 requirements, 256 MB memory is recommended. Memory requirements vary depending on the number of concurrent users, the amount of data being requested, and the size of the database.
Rose Data Modeler Databases	▪ DB2 Universal Database 5.x, 6.x, or 7.x ▪ DB2 OS390 5.x or 6.x ▪ SQL Server 6.x or 7.x ▪ Oracle 7.x or 8.x ▪ Sybase System 12 ▪ To reverse engineer Oracle and DB2 databases using Rose Data Modeler, an RDMS client must be installed.
Monitor	SVGA-compatible display with 256 or more colors Minimum resolution: 1024 x 768 pixels Recommended resolution: 1280 x 1024 pixels
Mouse / Pointing Device	Microsoft Mouse or compatible pointing device with at least 2 buttons
Dual Boot Systems	Installation of Rational Suite on dual-boot systems is not supported
Archive Utility	WinZip or equivalentb
Rational Documentation	Adobe Acrobat Reader 4.x or higher to read online PDF files

Installing Rational Suite

Here is a list of requirements for installing Rational Suite for the first time at your site.

1. You cannot run a Rational product without a license key. See *Administering Licenses for Rational Software* on page 23.
2. If you are setting up a Rational Suite installation with Unified Change Management, see *Using Unified Change Management with Rational Suite*.
3. Read the *Configuring Rational Suite* manual to plan your Rational product integrations, such as Rational RequisitePro and Rational ClearQuest, and to plan how you will use the Rational Administrator and the Rational Synchronizer.
   - The Rational Software Setup program automatically installs Rational Administrator with Rational RequisitePro, Rose Enterprise, Robot, and TestManager. If any of these point products are included in your Rational Suite, you will see the Rational Administrator in your **Start** menu.
   - The Rational Software Setup program installs the Rational Synchronizer only in Rational Suite installations.
4. Read the product-specific sections for the tasks required to install features that are part of your Rational Suite. See *Products in Each Rational Suite* on page 20 to find out which products are in your Rational Suite.
5. Read the following topics about the Rational Software Setup program: *Selecting an Installation Type* on page 25 and *Installing Shared Files* on page 26.
6. If you are upgrading from an individual Rational product to a Rational Suite, see *Ensuring Version Compatibility* on page 27.

Rational Suite Documents

This installation section refers to the following manuals in the Rational Solutions for Windows Documentation CD-ROM:

- *Administering Licenses for Rational Software*
- *Configuring Rational Suite*
- *Using Unified Change Management with Rational Suite*

Rational ClearCase LT – Before You Install

The following sections provide an overview of tasks you must perform before you install ClearCase LT as part of Rational Suite. These ClearCase LT requirements are in addition to the list of requirements for running the Rational Software Setup program and installing Rational Suite.

ClearCase LT System and Software Requirements

Table 6 lists additional system and software requirements for installing ClearCase LT as part of Rational Suite. If you do not see an item listed in Table 6, see Table 5 on page 32. See *Installing Rational ClearCase LT* for standalone installation requirements.

Table 6 ClearCase LT Requirements

Item	Minimum Requirements
Operating System	ClearCase LT client only: Windows 98 all versions Windows Me
Windows 98 Windows Millenium Edition	▪ Client for Microsoft Networks (shipped with both platforms) ▪ TCP/IP (shipped with both platforms) ▪ Windows Sockets 2 (shipped with Windows 98)
Supported File Systems: ▪ Windows NT ▪ Windows 98 ▪ Windows 2000	 FAT, NTFS, LANMAN, NFS FAT, FAT32 FAT, FAT32, NTFS, LANMAN
ClearCase LT client Disk Space	ClearCase LT client is included in Rational Suite. The client also needs enough disk space to contain all files loaded into snapshot views and all view-private files added to the views. The amount of space required depends on the number and sizes of the files in the views.

Administering Licenses for ClearCase LT

The following describes requirements and options for licensing ClearCase LT as part of Rational Suite. For information about installing the license server and license keys, see the *Administering Licenses for Rational Software* manual.

- The ClearCase LT server requires a floating license except when you are installing it for evaluation.
- Install the license server and ClearCase LT server on different systems.

Installing ClearCase LT

Here is an overview of tasks for installing ClearCase LT as part of Rational Suite for the first time. See *Installing Rational ClearCase LT* for detailed procedures.

Note: If you have installed ClearCase on any system that you intend to use as a ClearCase LT client or server, you must remove ClearCase on those systems before you install ClearCase LT. If you continue with your installation of Rational Suite (includes ClearCase LT client) on that system, the Setup program will install every Rational product within Rational Suite, except ClearCase LT client, on that system.

1. UCM is Rational Software's approach to managing change in software system development from requirements to release. It is an out-of-the-box change management process layered on top of Rational ClearCase and Rational ClearQuest. You can use Rational ClearCase LT with or without UCM. For more information about this choice, see *Introducing Rational ClearCase LT*.

   To learn how to set up a networking environment so you can use UCM with Rational Suite products, read about setting up UCM in *Using Unified Change Management with Rational Suite*. We recommend that you read about setting up UCM before you continue this installation.

   For information about the Rational ClearQuest integration with UCM, see *Managing Software Projects with ClearCase*.

2. ClearCase LT is a client/server product. To use a ClearCase LT client, a ClearCase LT server must be installed in the same network domain as the clients.

   - The ClearCase LT server requires a separate installation. To select a ClearCase LT server system, see *Installing Rational ClearCase LT* for guidelines.
   - A ClearCase LT client can access only one server.
   - ClearCase LT client is included in Rational Suite installations. The Rational Software Setup program will ask for the ClearCase LT server name when you install Rational Suite.

3. For optimal performance, we strongly recommend installing the ClearCase LT server on a dedicated system. However, if you are evaluating ClearCase LT or working in a small team, you can install ClearCase LT server and Rational Suite on the same system.

   - To install the ClearCase LT server and Rational Suite on the same system, install the ClearCase LT server first. When you install Rational Suite on the same system afterward, the Rational Software Setup program excludes the ClearCase LT client software. In a typical Rational Suite installation, the ClearCase LT client is included.

- To evaluate ClearCase LT, use only the ClearCase LT server because the server includes client software.

4. The systems on which you plan to install ClearCase LT must be members of a Windows NT domain, and all users who will use ClearCase LT must have accounts in a Windows NT domain.
5. Designate one domain group as the ClearCase Users Group. When you install ClearCase LT server, you need to be a member of the ClearCase Users Group as well as have administrator privileges (on page 24) to run the Server Setup Wizard at the end of the installation (or after the restart). If you are not a member of the ClearCase Users Group when you install ClearCase LT server, you will have to log out and log in again as a member of the ClearCase Users Group to run the Server Setup Wizard.
6. If you anticipate many users will access a single VOB more or less simultaneously, install Windows NT or Windows 2000 server software on your ClearCase LT server. A maximum of 10 systems can access a Windows NT or Windows 2000 Workstation simultaneously by means of file-system mounts or Uniform Naming Convention (UNC).
7. You can install ClearCase LT server on any UNIX platform that ClearCase LT supports. For a list of platforms that ClearCase LT supports, see the *Rational ClearCase LT Release Notes*. For more information about interoperation between Windows and UNIX, see *Administering Rational ClearCase LT*.
8. The Server Setup Wizard appears immediately after you install ClearCase LT server if you have logged in using the correct permissions. Refer to *Rational ClearCase LT – After You Install* on page 65 for an overview of Server Setup and operating environment requirements.

ClearCase LT Documents

This initial installation section refers to the following documents in the Rational Solutions for Windows Documentation CD-ROM:

- *Installing Rational ClearCase LT*
- *Administering Rational ClearCase LT*
- *Introducing Rational ClearCase LT*
- *Rational ClearCase LT Release Notes*
- *Using Unified Change Management with Rational Suite*
- *Managing Software Projects with ClearCase*

Rational ClearQuest – Before You Install

The following sections provide an overview of tasks you must perform before you install ClearQuest as part of Rational Suite. These ClearQuest requirements are in addition to the list of requirements for running the Rational Software Setup program and installing Rational Suite.

ClearQuest System and Software Requirements

See the Rational Suite requirements in Table 5 on page 32. The standalone system and software requirements are listed in the *Rational ClearQuest Release Notes*.

Installing ClearQuest

Here is an overview of tasks for installing ClearQuest as part of Rational Suite for the first time. For detailed procedures, see the *Installing Rational ClearQuest* manual.

Note: For improved performance, security, and reliability, we recommend that you place the database server and the Web server on two different systems, each with its software installed onto a Windows NT File System (NTFS) partition.

1. Set up an empty server database for the ClearQuest schema repository and at least one empty database for the ClearQuest user database.

   For guidelines on which type of database software would meet your needs and for procedures for setting up the database software, see *Installing Rational ClearQuest*.

2. Select a system that has extra memory and disk space to become the ClearQuest administrator's system.

3. Use the Rational Software Setup program to install Rational Suite on the ClearQuest administrator's system and client systems.

4. If you or other users want to customize the defect reports that ship with ClearQuest, install Crystal Reports on the ClearQuest administrator's system and client systems. To install Crystal Reports, use the Crystal Reports installation directions that come with the separate Crystal Reports CD-ROM in your Rational software shipment.

   Note: A user who will not be editing existing report formats or creating new report formats does not need to install Crystal Reports.

ClearQuest Documents

This installation section refers to the following ClearQuest documents in the Rational Solutions for Windows Documentation CD-ROM:

- *Installing Rational ClearQuest*
- *Rational ClearQuest Release Notes*

Rational RequisitePro – Before You Install

The following sections provide an overview of tasks you must perform before you install RequisitePro as part of Rational Suite. These RequisitePro requirements are in addition to the list of requirements for running the Rational Software Setup program and installing Rational Suite.

RequisitePro System and Software Requirements

See Table 5 on page 32. See *Installing Rational RequisitePro* for standalone installation requirements.

Installing RequisitePro

Before installing RequisitePro, determine which database type you will use with RequisitePro Projects. RequisitePro can be used with Oracle, Microsoft SQL Server, and Microsoft Access databases. Refer to Oracle or Microsoft documentation for information on installing Oracle or Microsoft SQL Server. If you are using an Oracle database, you must also install the Oracle Client software on the client systems.

For more installation details, see the *Installing Rational RequisitePro* manual for detailed procedures.

Note: The Rational Administrator is automatically installed with RequisitePro.

RequisitePro Documents

This installation section refers to the following documents in the Rational Solutions for Windows Documentation CD-ROM:

- *Installing Rational RequisitePro*
- *RequisiteWeb Installation and Configuration*

Rational Rose – Before You Install

The following sections provide an overview of tasks you must perform before you install Rational Rose as part of Rational Suite. These Rose requirements are in addition to the list of requirements for running the Rational Software Setup program and installing Rational Suite.

Note: There are no post-configuration tasks for an initial installation of Rational Rose as part of Rational Suite.

Rose System and Software Requirements

See Table 5 on page 32. Table 7 lists additional system and software requirements for installing Rational Rose as part of Rational Suite. See *Installing Rational Rose* for standalone installation requirements.

Table 7 Rational Rose Requirements

Add-In	Minimum Requirements
Rose Visual Basic	Microsoft Visual Basic (Visual Studio 6.0)
Rose Visual C++	Microsoft Visual C++ (Visual Studio 6.0)
Rose J	JDK 1.1.6 or any of the major Java IDEs

Installing Rose

Here is an overview of tasks for installing Rose as part of Rational Suite for the first time.

Note: The Rational Administrator is automatically installed with Rose Modeler and and Rose Enterprise.

- Before you install Rational Rose as part of Rational Suite for the first time, back up model and property files and restore path map variables. For instructions, see either the *Back Up Guidelines* section in the *Installing Rational Rose* manual or the *Getting Started* section in the beginning of the *Rational Rose Release Notes.*
- To use Rose Data Modeler, see Table 5 on page 32 for the supported databases and follow the database vendor's documentation for configuration instructions. The *Using Rose Data Modeler* manual does not provide database configuration procedures.

- When installing Rose as part of Rational Suite on Microsoft Windows NT 4.0 SP6a or Windows 2000, Rose may not run until you add the Rational\Common directory to your user path. Use the procedure in the *File Location Guidelines* section in *Installing Rational Rose* to add the directory to your user path.
- Rational Rose Add-ins are automatically installed with Rose Enterprise or Rose Modeler in a Rational Suite installation.

  If you do not want to install the Rose Add-ins:

  a Select the **Custom** Installation Type in the **Select Configuration** dialog box.

  b Deselect the Add-ins under Rose Enterprise or Rose Modeler in the **Choose Features** dialog box.

Rose Documents

This installation section refers to the following documents in the Rational Solutions for Windows Documentation CD-ROM:

- *Installing Rational Rose*
- *Rational Rose Release Notes*

Rational Rose RealTime – Before You Install

The following sections provide an overview of tasks you must perform before you install Rational Rose RealTime as part of Rational Suite. These Rose RealTime requirements are in addition to the list of requirements for running the Rational Software Setup program and installing Rational Suite.

Note: There are no post-configuration tasks for an initial installation of Rational Rose RealTime as part of Rational Suite.

Rose RealTime System and Software Requirements

See Table 5 on page 32. Table 8 lists additional software requirements for installing Rational Rose RealTime as part of Rational Suite. See *Installation Guide - Rational Rose RealTime (Chapter 3 Installing Rose RealTime on Windows)* for standalone installation requirements.

Table 8 Rational Rose RealTime Requirements

Item	Minimum Requirements
Development environment	Visual Studio 5.0 Visual Studio 6.0, SP3 or SP4

Installing Rose RealTime

Here is an overview of tasks for installing Rational Rose RealTime as part of Rational Suite for the first time.

- Insert Rational Solutions for Windows Disc 2 to install Rose RealTime or Rational Suite RealTime Edition.
- To generate and execute code with Rose RealTime, C++ compilers must be installed on your system. See the *Installation Guide - Rational Rose RealTime* for a list of supported compilers and targets.
- To construct and execute UML models, you must test your Visual C++ environment. To help you determine whether you have correctly installed and configured Visual C++ on your system, see the *Testing your Environment* section in the *Installation Guide - Rational Rose RealTime.*
- To deploy your model in a real-time operating system, see the *Installation Guide - Rational Rose RealTime* for information about the supported line-ups.

Rose RealTime Documents

This installation section refers to *Installation Guide - Rational Rose RealTime (Chapter 3 Installing Rose RealTime on Window)* on Rational Solutions for Windows Disc 2.

Rational Testing Products – Before You Install

This section provides an overview of tasks you need to perform before you install Rational testing products and their related components as part of Rational Suite. These requirements are in addition to the list of requirements for running the Rational Software Setup program and installing Rational Suite.

For standalone installations of Rational testing products, including TeamTest, see *Installing Rational Testing Products* for installation requirements.

Rational Testing System and Software Requirements

See Table 5 on page 32. Table 9 lists additional system and software requirements for installing TestManager and Test Agent as part of Rational Suite. See *Installing Rational Testing Products* for standalone installation requirements.

Table 9 Rational Testing Products Requirements

Component	Minimum Requirements
Rational TestManager	▪ 1–3 MB RAM per virtual tester ▪ 1–3 MB disk space per virtual tester ▪ If you are running Visual Basic language test scripts, VB 6 on Windows 2000 or Windows NT is required. ▪ If you are running Java test scripts, the JDK (IBM version 1.1.7B or Sun Microsystems versions 1.2.2 or 1.3.0) is required.
Rational Test Agent – Windows Systems	▪ 150 MB free disk space for installation. We recommend more disk space for large virtual tester runs. ▪ If you are running VB test scripts, Microsoft Windows NT 4.0 (Service Pack 5 or 6a) or Windows 2000 is required. ▪ If you are running Visual Basic language test scripts, VB 6 Service Pack 3 and Windows 2000, or VB 6 Service Pack 3 and Windows NT. ▪ If you are running Java test scripts, the JDK (IBM version 1.1.7B or Sun Microsystems versions 1.2.2 or 1.3.0). ▪ TCP / IP
Rational Test Agent – UNIX Systems	▪ 32 MB memory, plus 0.5–2 MB per virtual tester (some workloads may require more memory) ▪ 150 MB free disk space for installation. We recommend more disk space for large virtual tester runs. ▪ One of the following operating systems: AIX 4.3 HP-UX 11 DYNIX / ptx 4.5.1 Solaris 2.5, 2.6, or 2.7 Red Hat 6.x release of Linux ▪ If you are running Java test scripts, the JDK (IBM version 1.1.7B or Sun Microsystems versions 1.2.2 or 1.3.0).

Administering Licenses for Rational Testing Products

This section describes the types of licenses you need in order to Rational testing products.

- Rational Suite TestStudio requires floating licenses.
- To record GUI test scripts on multiple computers, you need to install Rational Robot outside of Rational Suite on each computer. A separate node-locked license is required for Robot-only installations.

For more information about Rational Software licensing, see *Administering Licenses for Rational Software.*

Installing Rational Testing Products

This section provides an overview of tasks for installing Rational testing products as part of Rational Suite for the first time. For more information about Rational testing products and features, see the *Installing Rational Testing Products* manual.

1. Previous versions of Rational LoadTest and Rational Suite PerformanceStudio will not work with testing products from this release. You must uninstall them first.
2. If SQA Suite 6.x is installed on your computer, you do not have to uninstall it. The current version of Rational testing products and SQA Suite 6.x. can coexist because they are installed in different directories.
3. Make sure that all computers have TCP/IP installed. If you have updates to your network software that you have not installed, be sure to install the upgrades.
4. Verify that the Windows systems are communicating with each other. (If you have any problems, see your network administrator.)
5. Determine a database type for Rational ClearQuest. See *Installing Rational ClearQuest* for more information.
6. Rational Test Samples Setup is automatically installed in a Typical installation of Rational Robot, TestStudio, and EnterpriseStudio. These files let you evaluate a sample application, applets, and Rational project.

   See *Installing Rational Testing Products* for a description of these files and for setup instructions.

7 To play back a TestStudio script that tests Oracle, Sybase, or SQL Server databases on a Local or Agent computer, you must install the appropriate database client software before you install TestStudio software. For information, see *Installing Rational Testing Products*.

Note: Do not install any Rational testing products until you have installed the database client software.

8 Determine the role each system will play in testing—whether it will be a Local (Rational Suite) or an Agent system. For a description of these roles, see *Installing Rational Testing Products*.

a After you install the Rational Suite on a Local system, use the Rational Software Setup program to install Rational Test Agent on Agent systems. To do this, select Rational Test Agent in the **Choose Product** dialog box.

b To install Test Agent software on a UNIX system, see *Installing Rational Testing Products*.

Note: The same version of Rational testing software must be installed on the Local and Agent computers; otherwise, they will not work together.

9 Determine the kind of network you will be using, either Ethernet or Token Ring. You need this information when you install the Rational Test network driver. For information, see "Installing the Rational Test Network Driver" in *Installing Rational Testing Products*.

10 To install ClearQuest Web, see *Before You Install – Web Component Installation* on page 53.

11 Use the Rational Administrator to create your test datastores. The Rational Administrator is automatically installed with Robot and TestManager. See the *Using the Rational Administrator* manual for more information.

Documents for Rational Testing Products

This installation section refers to *Installing Rational Testing Products* and *Using the Rational Administrator* in the Rational Solutions for Windows Documentation CD-ROM.

Rational Unified Process – Before You Install

This section provides an overview of tasks you need to perform before you install the Rational Unified Process (RUP) as part of Rational Suite. These requirements are in addition to the list of requirements for running the Rational Software Setup program and installing Rational Suite.

Note: There are no post-configuration tasks for the RUP.

Rational Unified Process System and Software Requirements

See Table 5 on page 32. For standalone installation requirements, see *Installing the Rational Unified Process*.

Installing Rational Unified Process

This section provides an overview of tasks for installing the Rational Unified Process as part of Rational Suite for the first time. For more information about the variants of the RUP, see *Installing the Rational Unified Process*.

- To install the RUP, select the Typical Installation type in the Rational Software Setup program.
- To install the RUP for the Microsoft Web Solution Platform:
  - **a** Select the Rational Suite under **Choose Product** in the Rational Software Setup program.
  - **b** Select the **Custom** Installation Type.
  - **c** Under **Rational Unified Process**, select **(variant) with content for the Microsoft Web Solution Platform**.
  - **d** Leave the **(core) Rational Unified Process [required]** selected.
- To install the RUP with IBM e-Business content:
  - **a** Select the Rational Suite under **Choose Product** in the Rational Software Setup program.
  - **b** Select the **Custom** Installation Type.
  - **c** Under **Rational Unified Process**, select **(variant) with IBM content for e-Business**.
  - **d** Leave the **(core) Rational Unified Process [required]** selected.

Rational Unified Process Documents

This installation section refers to *Installing the Rational Unified Process* in the Rational Solutions for Windows Documentation CD-ROM.

Before You Install – Web Component Installation 3

Rational Suite Web server components give users who do not have Rational Suite on their systems the opportunity to access project data. This chapter provides an overview of requirements for installing Rational Suite Web components for the following point products: Rational ClearCase LT, ClearQuest, RequisitePro, and TestManager. You can install all of these Web components from Rational Solutions for Windows Disc 1.

The Rational Unified Process and Rose Web Publisher are also Web applications, but you do not have to install Web server components or configure Web server software in order to use them.

Administering Licenses for Web Applications

Some of the Rational Web applications require license keys:

- To get full ClearQuest Web and RequisiteWeb access, you need to use floating licenses. For more information about installing floating license keys, see *Administering Licenses for Rational Software* manual.
- To use the ClearCase Web interface, use the same license type that you purchased for the ClearCase LT server. For more information about ClearCase LT licensing, see *Administering Licenses for ClearCase LT* on page 38.

ClearCase Web Interface – Before You Install

To run the ClearCase Web interface, you need to configure third-party Web server software. ClearCase LT Web components are included in the ClearCase LT server installation.

ClearCase Web Interface System and Software Requirements

Table 5 on page 32 lists the supported Web server software and browsers. If you use a Windows NT Web server, the server must run as a service and it must be configured to log on as the `System` account. This is the default for Microsoft and Netscape Web servers.

To provide a secure port through which to access ClearCase, the ClearCase Web interface can run through a secure port using Secure Socket Layer (SSL).

For more information about changing the location of view storage directories and limiting the size of uploaded files, see the "ClearCase Considerations" section in "Configuring a Web Server for the ClearCase Web Interface" in *Administering ClearCase LT*.

Installing ClearCase Web Interface

Because the ClearCase LT Web server components are part of the ClearCase LT server installation, you can perform the Web server configuration after you have installed and configured the ClearCase LT server.

1. To access ClearCase Web from clients, install one of the Web browsers listed in Table 5 on page 32. Users do not have to disable cookies on the Web clients. No additional software is required to use the ClearCase Web interface.
2. To set up the ClearCase Web interface through Apache, Microsoft Internet Information Server, or Netscape Enterprise Server software, see *ClearCase Web – After You Install* on page 71.

ClearQuest Web – Before You Install

You can install the ClearQuest Web server and the RequisiteWeb Requirements server on the same system. ClearQuest Web requires installing ClearQuest Web server components and setting up the ClearQuest Web server.

ClearQuest Web System and Software Requirements

Table 5 on page 32 lists the supported Web server software and browsers.

Installing ClearQuest Web

Use the following instructions to install the ClearQuest Web components.

Note: For improved performance, security, and reliability, we recommend that you place the database server and the Web server on two different systems, each with its software installed onto an NTFS partition.

1. To install the ClearQuest Web components on the Web server:
   a. Select a Rational Suite edition or Rational ClearQuest under **Choose Product** in the Rational Software Setup program.
   b. Select the **Custom** Installation Type in the **Select Configuration**.
   c. In the **Choose Features** dialog box, select **ClearQuest Web** Under **Web Server Components**.
   d. If you do not want Rational Suite or the ClearQuest application installed on the Web server, clear the check boxes for ClearQuest and other Rational Suite point products.
2. To access ClearQuest Web from client systems, install one of the Web browsers listed in Table 5 on page 32. Users need only browsers with cookies enabled to use ClearQuest Web clients. No additional software is required to use ClearQuest Web.
3. Configure the ClearQuest Web server, set up e-mail notification for the Web clients, and provide users with the path to ClearQuest Web. See an overview of the requirements in *ClearQuest Web – After You Install* on page 72.

RequisiteWeb – Before You Install

You can install the ClearQuest Web server and the RequisiteWeb Requirements server on the same system. RequisiteWeb requires installing Web server components and setting up a Web server configuration.

RequisiteWeb System and Software Requirements

Table 5 on page 32 lists the general requirements for a RequisiteWeb Requirements Web server on Windows and UNIX.

Installing RequisiteWeb

To set up RequisiteWeb, choose from the following possible Web server configurations:

- If you use Microsoft Internet Information Server (IIS) on Windows NT 4.0 or Windows 2000 on your Web server, you can configure a single Windows server for your RequisiteWeb Requirements server.
- If you use Linux or Sun Microsystems Solaris for an operating system on your Web server, you must configure a both your UNIX Web server and another Windows server for managing the RequisiteWeb artifacts.

An overview of these components, configurations, and set-up instructions are also provided in the *RequisiteWeb Installation and Configuration* document that is on the Rational Solutions for Windows Disc 1 at \RequisitePro\ReqWeb\reqwebsetup.html. The *RequisiteWeb Installation and Configuration* document is also available from the online *Release Notes* in RequisitePro.

Use the following instructions to install and configure the RequisitePro Web components on the RequisiteWeb Requirements server:

1. Select a Rational Suite edition or RequisitePro under **Choose Product** in the Rational Software Setup program.
2. Select the **Custom** Installation Type in **Select Configuration**.
3. In the **Choose Features** dialog box, select **RequisiteWeb** under **Web Server Components**.
4. Select or clear the following optional check boxes:
    - The **RequisiteWeb Sample Projects** are helpful for testing and learning RequisiteWeb.
    - If you do not want other Rational Suite point products installed on the Web server, clear the check boxes for these products.
5. To access RequisiteWeb from client systems, install one of the Web browsers listed in Table 5 on page 32. Users need only browsers with cookies enabled to use RequisiteWeb clients. No additional software is required to use RequisiteWeb.
6. Configure the RequisiteWeb Requirements Server, set up e-mail notification for the Web clients, and provide users with the path to RequisiteWeb. See *RequisiteWeb – After You Install* on page 72.

ManualTest Web Execution – Before You Install

The Rational ManualTest Web Execution component of TestManager requires you to install and configure ManualTest Web Execution software on a Web server and configure a Web browser on each client to access a Rational project.

ManualTest Web Execution System and Software Requirements

ManualTest Web software supports additional Windows operating systems. Table 5 on page 32 lists the Web browsers needed to access the Web server from a client.

For	Install
All versions of Windows 2000	Microsoft Internet Information Services 5.0 (IIS 5.0) from the Windows 2000 CD-ROM
Windows 98, Windows 95, or the Windows NT 4.0 Workstation	Microsoft Personal Web Server (PWS) from the Windows NT 4.0 Option Pack (available from Microsoft, www.microsoft.com)
Windows NT 4.0 Server	Microsoft Internet Information Server (IIS) from the Windows NT 4.0 Option Pack (available from Microsoft, www.microsoft.com)

Note: We recommend that you use Windows 2000 Server, Windows 2000 Advanced Server, or Windows NT 4.0 Server, as the Web server platform. You can not use a shared or networked project with the Windows 2000 Professional or Windows NT 4.0 Workstation.

Installing ManualTest Web Execution

You do not need to install a Rational testing product on the Web server unless you want to create manual test scripts on the Web server. The Manual Test Web Execution component installs by default when you install any of the Rational testing products included in your Rational Suite. For complete instructions, see the *Using Rational TestManager* manual.

To install the ManualTest Web Execution components on the Web server:

1. After you select Rational Suite under **Choose Product** in the Rational Software Setup program, do one of the following on the **Select Configuration** page:
   - **a** If you do not want to create manual test scripts on the Web server and want to set up a Web server:
     - **i** Select the **Custom** Installation Type.
     - **ii** Clear all check boxes in **Choose Features**.
     - **iii** Select the **Web Server Components** check box.
     - **iv** Select the **Rational ManualTest Web Execution** check box.
   - **b** If you want to create manual test scripts on the Web server, select **Typical**.

2 To configure the Web server software, see the *Using Rational TestManager* manual.

3 After installing the ManualTest Web Execution component and configuring the Web server software, set up the Web browser on the clients. See the *Using Rational TestManager* manual for more information.

Installing Rational Suite 4

This chapter describes a typical or custom installation of Rational Suite. You use the Rational Software Setup program for initial and upgrade installations.

Some products within Rational Suite may need to be removed or may require backups or test upgrades before you upgrade the Rational Suite. See *Upgrading from Earlier Versions of Rational Suite* on page 73 for upgrade requirements.

Using the Rational Software Setup Program

The Rational Software Setup program installs Rational Software products, including Rational Suite.

You can install Rational license keys before or after you install a Rational product. To install a license key before you install a Rational product, open the Rational License Key Administrator by clicking the **Configure Licenses** button in the **Choose Product** dialog box. Use the Rational License Key Administrator Help or see the *Administering Licenses for Rational Software* manual for information about requesting and installing license keys.

1. If you are installing on a Windows NT or Windows 2000 system, make sure you have administrator privileges on the local system. For more information, see *Administrator Privileges* on page 24.
2. Insert the Rational Solutions for Windows Disc 1 or 2 into your system's CD-ROM drive.

   The Rational Software Setup program 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 **Rational Software Setup** dialog box provides general information about the software installation.

4 Choose the edition of Rational Suite that you want to install from the **Choose Product** dialog box. A green check mark next to a Rational product indicates you have a license key configured for that product. If you do not see a green check mark next to the product you want to install, you may want to install license keys before you install the product.

   To configure a license key, click the **Configure Licenses** button to launch the Rational License Key Administrator (LKAD) and the License Key Administrator Wizard. If you do not install the license keys before you install the product, the LKAD will appear at the end of the installation.

5 Choose to accept or not accept the Rational Software license agreement in the **License Agreement** dialog box.

   - If you accept the license agreement, the Setup program continues.
   - If you do not accept the license agreement, exit the Setup program by clicking **Finish** or **Cancel**. When you exit from the Setup program, the Setup program makes no changes to the system (unless you have used the Rational License Key Administrator to install a license key file or use a Rational license server).

6 Select an installation type in the **Select Configuration** dialog box. The installation types are described in Table 2 on page 25. If you need to install the feature component of a Rational Suite, select **Custom** and go to Step 7 on page 61.

   If you select any other installation type, see *Confirm Sufficient Free Space for the Installation* on page 60 before you click **Next**.

   To enable all installation type options, remove all Rational Software products from the system and then restart the Setup program.

Confirm Sufficient Free Space for the Installation

If the amount of free space is less than the amount required, either

- Exit from the Setup program 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.

If a Rational product has been previously installed with the Rational Software Setup program, the **Browse** option and *Install Path* field are disabled. To enable these options, remove all Rational products from the system, then reinstall the products.

7 After you choose **Custom**, specify which features to install on your system in the **Choose Features** dialog box. Click the **+** in front of products and features to expand options, then select or clear options. There are dependencies between some products that may force an installation option, even if you have cleared it.

Table 10 lists where the features are located in the **Choose Features** dialog box.

Table 10 Choose Features Options

Check Box (in Rational Software Setup)	Notes
ClearQuest > Administration Tools	Deselect Client Installation. Select or deselect other options if appropriate.
ClearQuest > Client Installation	Clear Administration Tools. Select or deselect other options if appropriate.
ClearQuest > Web Server Components > ClearQuest Web	Deselect the ClearQuest check box.
RequisitePro > Oracle Setup or SQL Server	Deselect other options.
RequisitePro > Web Server Components > RequisiteWeb	Select the RequisiteWeb Sample Projects for testing option if appropriate.
▪ Rational Suite > Web Server Components > ManualTest Web Execution ▪ Robot > Web Server Components > ManualTest Web Execution ▪ TestManager > Web Server Components > ManualTest Web Execution	If you do not want to create manual test scripts on the Web server and want to set up a Web server: 1 Clear all check boxes on **Choose Features**. 2 Select the **Web Server Components** check box. 3 Select the **Rational ManualTest Web Execution** check box.
Rational Unified Process > (variant) with IBM content for e-Business	Leave the (core) Rational Unified Process [required] selected.
Rational Unified Process > (variant) with content for the Microsoft Web Solution Platform	Leave the (core) Rational Unified Process [required] selected.

Note: Before you click **Next**, see *Confirm Sufficient Free Space for the Installation* on page 60.

8 You may see one or more of the following dialog boxes before you see the **Confirmation** dialog box in Step 9 on page 62.

Update Shared Components

The **Update Shared Components** dialog box appears if the Setup program needs to update shared files or components on your system. Click **Next** to have the Rational Software Setup program install these files for you or **Cancel** to install these files yourself. For additional information, see *Installing Shared Files* on page 26 or the Rational Software Setup online Help.

The Setup wizard does not recalculate the disk space required for your updated selections.

Upgrade Compatibility

The **Upgrade Compatibility** dialog box appears if you have older Rational products installed on your system. For each of the older products listed, we strongly recommend that you do one of the following:

- **Upgrade it:** Complete this installation, and then restart the Setup program to upgrade the listed products.
- **Remove it:** Complete this installation, and then see *Removing Rational Suite* on page 117 to remove the listed products from the system.

For more information, see *Ensuring Version Compatibility* on page 27.

9 The **Confirmation** dialog box displays the product features to be installed.

Warning: Interrupting the installation after you have confirmed the product features to be installed may leave your system in an indeterminate state.

10 The **Error Summary** dialog box displays errors from the first part of the software installation. If the installation is successful, this dialog box does not appear.

The Rational Software Setup program writes a log of installation messages in <*Install Path*>\Rational\RSSetup\RSSetup.log.

Possible Reboot Required

If files required for the installation are in use during the Rational Software Setup program, and if the program needs to install shared components on your system, the Setup program may need to reboot your system. After rebooting, do the following:

1. Log on as the same administrator identity to complete the installation procedure. If you do not log on as the same administrator identity, the installation does not complete correctly.

   The installation process completes on your system.

2. Click **Finish** to exit from the Rational Software Setup program.

After You Install – First Time Installation

5

This chapter provides an overview of tasks you must perform after you've installed Rational Suite. Each product section may include information about configuring databases, e-mail, and Web products, installing additional software, and setting up product integrations.

Rational ClearCase LT – After You Install

After you install ClearCase LT server and ClearCase LT client, you must configure the server, import existing files into ClearCase LT control, and make adjustments to the operating environment. For more information about each of the following tasks, see the *Installing Rational ClearCase LT* manual.

1. The Server Setup Wizard runs automatically at the end of a ClearCase LT server installation if you ran the Rational Software Setup as a user who is a member of the local administrator's group and who is also a member of the ClearCase users group. To install Rational Suite (which includes ClearCase LT client) on client systems before you configure the ClearCase LT server, cancel the wizard and run it later. See *Installing Rational ClearCase LT* for more information.
2. To import files and directories or convert files from another configuration management system into ClearCase version control, use the Import Wizard option in the Server Setup Wizard. The Import Wizard places these files and directories in the VOB that the Server Setup creates.
3. After you set up the ClearCase LT server, you can perform administrative tasks on the VOB and view storage directories. See *Administering ClearCase LT* for more information.

4. Make these adjustments to the client and server systems:

   a. Set the CLEARCASE_PRIMARY_GROUP environment variable for each user.

   b. Reset the language environment on the client to match the environment on the server if one of the language settings uses single-byte encoding and the other uses double- or multi-byte encoding.

   For more information, see *Installing Rational ClearCase LT.*

5. Instruct each user to create views to access data on the ClearCase LT server.

ClearCase LT Documents

You can find the following ClearCase LT documents in the Rational Solutions for Windows Documentation CD-ROM:

- *Installing Rational ClearCase LT*
- *Administering Rational ClearCase LT*

Rational ClearQuest – After You Install

The following overview assumes that you have set up empty vendor databases and that you and your users have installed ClearQuest as part of Rational Suite on your systems. For more information about the following tasks, see *Installing Rational ClearQuest*.

1. On the ClearQuest administrator's system, performing the following tasks:

   a. Create the ClearQuest databases that your users will use with ClearQuest. You will create the master database or schema repository with the ClearQuest Maintenance Tool first, and then create the user database(s) with the ClearQuest Designer.

   b. Set up the configuration management integrations with Rational ClearCase or Rational ClearCase LT. Within ClearCase, use the ClearQuest Integration Configuration tool. Within ClearQuest, use the Package Wizard to apply the ClearCase package to a schema. See the *Administering Rational ClearQuest* manual for more information.

      - To use the ClearQuest/ClearCase UCM integration, consult the *Managing Software Projects with ClearCase* and the *Administering Rational ClearQuest* manuals.

      - To set up the integration with Microsoft Visual SourceSafe, use the Package Wizard to apply the Visual SourceSafe integration package to a schema.

c Configure the Rational E-mail Reader application to allow users to submit and modify records via e-mail. Setting up Rational E-mail Reader is different from enabling e-mail notification in ClearQuest Web. The E-mail Reader is an e-mail processing tool that is automatically installed in the \Rational\common\ directory. To set up the E-mail Reader, see the `mailreader.hlp` in the same directory. For more information about the E-mail Reader, see the *Administering Rational ClearQuest* manual.

2 See the *Administering Rational ClearQuest* guide for details on customizing ClearQuest.

3 On each client system, instruct users to perform the following tasks:

a Connect to the schema repository.

b Enter the database properties information or load the user profile file (`cqprofile.ini`) that you have created for them.

c Enable e-mail notification through the ClearQuest main menu.

ClearQuest Documents

You can find the following documents in the Rational Solutions for Windows Documentation CD-ROM:

- *Installing Rational ClearQuest*
- *Administering Rational ClearQuest*
- *Managing Software Projects with ClearCase*

Rational RequisitePro – After You Install

After installing RequisitePro, you can perform the following configuration tasks:

- To use RequisitePro discussions for managing communication between your project team members, configure e-mail discussions that are integrated with your RequisitePro project. For detailed instructions, see “Configuring E-mail for Discussions” in *Installing Rational RequisitePro*.
- To use an enterprise database (Oracle or Microsoft SQL Server) to contain your RequisitePro project data, configure your database schema using the scripts and instructions that are included with the Custom installation option, as described in *Using the Rational Software Setup Program* on page 59. For more information, see “Configuring Enterprise Databases” in *Installing Rational RequisitePro*.

RequisitePro Documents

You can find *Installing Rational RequisitePro* in the Rational Solutions for Windows Documentation CD-ROM.

Rational Testing Products – After You Install

Table 11 lists the additional components that you may need to install for Rational testing products that are part of Rational Suite. For complete installation procedures, see *Installing Rational Testing Products*.

Table 11 Additional Installations

To	Install
Test ActiveX controls, Java applets, Oracle Forms, and Visual Basic applications	Rational Test Enablers: ▪ Rational ActiveX Test Control ▪ Rational Test Java Enabler ▪ Rational Test Oracle Forms Enabler ▪ Rational Test Visual Basic Enabler
Record sessions over a network	Rational Test network driver Determine the kind of network you will be using, either Ethernet or Token Ring. You need to know this information to install the network driver.
Record GUI test scripts on multiple computers	Rational Robot as a standalone product on each computer

Rational Testing Documents

You can find *Installing Rational Testing Products* on the Rational Solutions for Windows Documentation CD-ROM.

After You Install – Web Component Installation 6

This chapter provides an overview of tasks for configuring Rational Suite Web servers for the following point products: Rational ClearCase LT, ClearQuest, and RequisitePro.

ClearCase Web – After You Install

This section provides an overview of configuration instructions for the Web server software you have selected to run the ClearCase Web interface. For detailed instructions, see "Configuring a Web Server for the ClearCase Web Interface" in *Administering ClearCase LT*.

1. For each configuration you need to know the *ccase-home-dir* and *ccbase-url*.

   The *ccase-home-dir* is the location of the ClearCase installation directory, by default:

   - C:\Program Files\Rational\ClearCase on Windows NT
   - /usr/atria on UNIX

   The *ccbase-url* is the base URL for the interface. It can be any arbitrary string, for example, `ccaseweb` or `ccweb`. The full pathname for the Web interface is:

   - http://*server-name*/*ccbase-url*/bin/ccweb.exe on Windows NT
   - http://*server-name*/*ccbase-url*/bin/ccweb on UNIX

   If the server is on a secure port, the full ClearCase URL begins with `https` rather than `http`.

2. You will find detailed configuration tasks for Apache, Microsoft Internet Information Server (IIS), and Netscape Enterprise Server in "Configuring a Web Server for the ClearCase Web Interface" in *Administering ClearCase LT*.

3. Provide client users with the full pathname for the Web interface after you have configured the ClearCase LT Web server.

ClearQuest Web – After You Install

This section provides an overview of configuration instructions for the ClearQuest Web server. See *Installing Rational ClearQuest* for detailed instructions.

1. Create an anonymous user account for IIS to use when it serves the ClearQuest pages.

   If you are using a SQL Server database, the anonymous user account should be known in the domain that contains the ClearQuest database and should have full access to that database.

   a. Set up the access key registry privileges.

   b. Set up the read access permission to the directory tree containing the ClearQuest Web files (WWW directory in the ClearQuest installation area).

2. Create and edit a cache directory in the ClearQuest Web directory hierarchy.
3. Create and edit a virtual directory for the Web.
4. Edit the properties of the images subdirectory.
5. Restart the Web server.
6. Enable e-mail notification support for Web clients on the Web server.
7. Set up registry key access privileges on the Web server.
8. Give users on Web clients the URL for ClearQuest Web.

RequisiteWeb – After You Install

To configure RequisiteWeb, refer to “Installing and Configuring RequisiteWeb” in *Installing Rational RequisitePro.* The instructions are also available in the RequisiteWebInstall.html file, which is included in your RequisiteWeb installation. It is also available from a link in your RequisitePro online release notes.

Upgrading from Earlier Versions of Rational Suite 7

To continue using data that you created in earlier versions of Rational Suite, you need to upgrade your software and datastores in a specific order. If you are upgrading from an earlier version of Rational Suite to the current version, Version 2001A.04.00, read this chapter to understand how to upgrade successfully.

The information in this chapter collects and supersedes information available in documentation for individual products. Any changes made after this book went to press are recorded in the *Rational Suite Release Notes.*

Table 12 describes how to proceed, based on the version of Rational Suite that is currently installed on your network.

Table 12 Upgrading Rational Suite

If you are starting from this version	Then upgrade as follows
Rational Suite 2001.03.00	Follow the procedures in this chapter.
Rational Suite 2000.02.10	Follow the procedures in this chapter.
Rational Suite 1.5, 1.1, or 1.0	1 Upgrade to version 2000.02.10, following the procedure supplied by Rational Technical Support. 2 Upgrade to the current version by following the procedures in this chapter.
A Rational point product, any version	Contact Technical Support for more information.

Overview of Upgrading

This chapter describes how to perform the following tasks:

- Instruct users to stop work on Rational products.
- Prepare to upgrade.
- Install new software on servers and clients.
- Upgrade installed products, including their datastores.
- Instruct users to reconnect to Rational ClearQuest and resume work.

Note: If you have problems with the steps in this chapter, contact Rational Technical Support.

Preparing to Upgrade

To prepare to upgrade to the current version of Rational Suite, perform these tasks:

- Plan your upgrade.

  Design the upgrade process so that you upgrade software and datastores, and then test. If you are planning major changes to your environment, perform them after determining that the upgrade is successful. Do not attempt to make major changes to your Rational Suite environment in the middle of the upgrade. An example of a major change is switching a vendor database or enabling a project for use with Unified Change Management.

- Back up your databases and datastores.

  We strongly recommend that you back up your databases and datastores on a regular basis. Before upgrading, make sure that you have backups of all your data, and back up different datastores at the same point in the project (this is sometimes called a “simultaneous” backup). Doing so will ensure project consistency should you need to restore your data.

  For more information about backing up, contact Rational Technical Support.

- If you use Rational ClearCase or Rational ClearCase LT to store Rational data, make these preparations:

  - If you use ClearCase or ClearCase LT with Rational RequisitePro or Rational Test, make sure that those assets are available through a ClearCase view.

  - If you established the integration between Rational Suite and ClearCase by using the Rational Administrator to create a UCM-enabled project, your RequisitePro and Rational Test assets are already checked out and you don’t need to take further steps.

  - If you used another method to integrate Rational Suite and ClearCase, then check out RequisitePro and Rational Test assets that you store in ClearCase. If you do not, you will not be able to save changes you make to these assets as part of the upgrade.

- Ensure that all clients are disconnected from the Rational software you will upgrade. This means that users should have no connections to a Rational project or its datastores, and should not use any Rational tools involved in the upgrade until further notice.

- Read the *Rational Suite Release Notes* to learn of any updates to these upgrade procedures.

  The *Release Notes* are in the top-level directory of the Rational Solutions for Windows CD, Disk 1 and Disk 2, in the readme.htm file.

Installing New Software

This section describes how to use the Rational Software Setup program to install the new version of Rational Suite. It also outlines tasks that you need to perform both before and after you install.

Before You Install

Before you install Rational Suite, perform the following tasks:

1. Under certain circumstances, described later, remove earlier versions of Rational Suite from your computer.
2. Determine which Rational Suite point products you're adding to your environment, and perform pre-installation tasks for them.

The remainder of this section describes these tasks in more detail.

Removing Earlier Versions of Rational Suite

Before you can proceed with the upgrade, remove earlier versions of Rational Suite if any version of the following software is installed on your computer:

- Beta releases of Rational products
- Rational Suite PerformanceStudio
- Rational LoadTest
- Rational Suite DevelopmentStudio RealTime Edition
- Rational Rose RealTime
- Rational RequisiteWeb (which is installed only on a RequisiteWeb server)

To remove Rational software:

1. Read about special procedures for removing software in *Removing Rational Suite* on page 117. If you are removing RequisiteWeb, see *Installing Rational RequisitePro*, and read about "Uninstalling RequisiteWeb" in the chapters about "Installing and Configuring Rational RequisiteWeb" for Windows or for UNIX.
2. Use the Windows **Add/Remove Programs** option in the Control Panel to select and remove Rational Suite or Rational Suite products. The Rational Software Setup program removes the software from your system.

Performing Tasks Before You Install New Point Products

As part of upgrading to a new version of Rational Suite, it is likely that you will be adding new point products to your environment. You might add new point products for some of these reasons:

- The point product is part of Rational Suite in the current version, but it wasn't part of Rational Suite when you installed the version you are now using.
- You are adding new editions of Rational Suite to your environment, thereby introducing new point products.
- You have been adopting Rational Suite incrementally, and you are now adding new point products to your environment.
- Before upgrading, you removed a point product that you will re-install during the upgrade.

To prepare for installing new point products:

1. Compare the point products now installed in your environment (click **Start**, then click **Programs > Rational Suite** and scan the menu) to the table on page 21 that shows point products in each Rational Suite edition.
2. Determine which point products are new.
3. For those point products, follow the instructions in *Before You Install – First Time Installation* on page 23.
4. After installing, perform the post-installation steps for those same point products, as described in *After You Install – First Time Installation* on page 65. After you install, we remind you to perform this set of tasks.

5 Use the following table as a worksheet to track your progress.

Suite Point Product	New?	Completed Pre-Install Tasks?	Completed Post-Install Tasks?	Comments or Notes
Rational ClearCase LT				
Rational ClearQuest				
Rational ClearQuest Web				
Rational PureCoverage				
Rational Purify				
Rational Quantify				
Rational Process Workbench				
Rational RequisitePro				
Rational RequisiteWeb				
Rational Robot				
Rational Rose				
Rational Rose RealTime				
Rational SoDA for Word				
Rational TestFactory				
Rational TestManager				
Rational Unified Process				

Installing the Latest Version of Rational Suite

Use the Rational Software Setup program to install Rational Suite on all servers and clients, as described in the chapter *Installing Rational Suite* on page 59.

Perform the installations in the following order:

1. If you are working with ClearCase LT or ClearCase:
   - For ClearCase LT, install software on the ClearCase LT server.
   - For ClearCase, upgrade to the latest version of ClearCase on all VOB servers, view servers, and the ClearCase Registry Server. If you are installing Rational Suite 2001A, upgrade to ClearCase Version 4.2 or later.
2. Upgrade software on all other servers, including Web servers, that have Rational software installed.
3. Upgrade software on all client computers.

Performing Tasks After You Install New Point Products

In *Performing Tasks Before You Install New Point Products* on page 76, you filled in a worksheet listing the new point products you are adding to your Rational Suite environment. For those new point products, perform post-installation steps, as described in *After You Install – First Time Installation* on page 65.

Upgrading Installed Point Products: Overview

At this point, you have installed new software on your servers and clients. The remainder of this chapter describes how to:

- Upgrade ClearQuest databases
- Upgrade a Rational Project and Test Datastore
- Upgrade a RequisitePro database
- Upgrade a Rational Rose RealTime environment (overview)
- Perform last tasks to finish the upgrade process

Upgrading ClearQuest

This section describes how to upgrade data associated with ClearQuest. Specifically, this section shows you how to upgrade ClearQuest schemas and databases created with a previous version of ClearQuest.

This section is written for ClearQuest administrators or people who are comfortable with administrative concepts related to ClearQuest. Before you start upgrading ClearQuest, you may want to have the *Administering Rational ClearQuest* and *Installing Rational ClearQuest* manuals available.

Understanding the Upgrade Process for ClearQuest

To upgrade ClearQuest, you perform these general tasks:

1. Start ClearQuest and log in using administrator-level privileges.
2. Establish a new connection to your ClearQuest schema repository, as described in *Reconnecting to a Schema Repository* on page 80. Installing ClearQuest resets the connection to the ClearQuest schema repository.
3. Install the latest packages as required, and test your databases. See *Upgrading ClearQuest Packages* on page 80.
4. Apply schema changes to your user databases. See *Applying Schema Changes to User Databases* on page 99.
5. Optionally, upgrade ClearQuest feature levels if you want to enable new ClearQuest features. See *Upgrading ClearQuest Feature Levels* on page 101.
6. Inform end users that they can now reconnect to the schema repository and resume work. (We remind you to do this later in this chapter.)

Reconnecting to a Schema Repository

After you install a new version of ClearQuest, you need to reconnect to your schema repository as follows:

1. Start the ClearQuest Maintenance Tool: click **Start**, then click **Programs > Rational Suite > Rational ClearQuest > ClearQuest Maintenance Tool**.
2. On the first page, select **Connect to Existing schema repository**. Click **Next**.
3. On the next page, enter your database properties, or, in the Profile field, enter the pathname of a profile file. Click **Next**.

   If you saved a profile file before you installed the latest ClearQuest version, you can point to it instead of entering database properties by hand. A profile file has an extension of .ini, for example: dev_profile.ini.
4. On the next page, you have the option of saving the current settings in a profile file.
5. Click **Finish**.

Upgrading ClearQuest Packages

Each ClearQuest package implements a ClearQuest integration (for example, with Rational RequisitePro) or a feature, for example, e-mail rules. If you do not use these ClearQuest integrations or features, you do not need to upgrade your packages.

If you do use these integrations or features, carefully follow the instructions in this section to upgrade the associated ClearQuest packages.

Note: This section provides procedures for upgrading packages, but it does not provide information about the features that each package implements or about the dependencies among packages. For more detailed information about ClearQuest packages, see the appendixes in *Administering Rational ClearQuest*.

To upgrade ClearQuest packages, you perform these high-level steps, as detailed in the remainder of this section:

1. Determine which packages you need to upgrade.
2. Apply new packages, and in some cases, perform additional steps.
3. Apply schema changes to your user databases. See *Applying Schema Changes to User Databases* on page 99.

Determining Which Packages to Apply

To find out which packages to apply to each user database, run the `package_upgrade_info` utility. The utility analyzes the current packages in a user database and creates a customized checklist of packages you need to apply. To run the utility, at a command line, change to the ClearQuest installation directory (by default, c:\Program Files\Rational\ClearQuest) and type the following:

`> package_upgrade_info` *user-id password user-database* [*dbset*]

where:

Element	Description
package_upgrade_info	The utility is installed in the top-level ClearQuest directory.
user-id	Any valid ClearQuest user id
password	The user's password ("" signifies no password)
user-database	The name of the database to check
dbset	The name of the ClearQuest database set containing the user database you are upgrading. This parameter is optional; omitting it indicates that you want information on the schema repository currently connected to ClearQuest.

For example:

```
> package_upgrade_info admin "" SAMPL
> package_upgrade_info admin "" SAMPL 2001A.04.00
```

These two commands perform the same task: they analyze the `SAMPL` user database for the current release, using the `admin` login.

Note: When you run the utility, you may see an error that contains the text `Attempt to call function RegOpenKeyEx ... System Error: The system can not find the file specified.` If you see this error, it means that you need to connect to your schema repository. Perform the steps in *Reconnecting to a Schema Repository* on page 80 and then rerun the utility.

Interpreting the Script's Output

We recommend that you print the script's output and use it to guide you as you apply packages. The script displays the following information:

- An overview of the utility
- A list of packages you currently have installed
- Upgrade recommendations, in the form of an ordered list of packages to apply.

For example, as part of the utility's output, you might see the following excerpt:

```
--- Checking ClearQuest/TeamTest integration packages
*** Detected an older revision of the Repository package (version
    0.2).
*** Please use ClearQuest designer to apply the Repository 2.0 package

*** Detected an older revision of the TeamTest package (version 0.1)
*** Please use ClearQuest designer to apply the TeamTest 1.0 package,
    then apply the TeamTest 3.0 Package


--- Checking ClearQuest/RequisitePro integration packages
*** Detected an older revision of the RequisitePro package (version
    1.3).
*** Please use ClearQuest Designer to apply the RequisitePro 1.5
    Upgrade package


--- Checking ClearQuest/ClearCase UCM integration packages
!!! The AMStateTypes package is not installed.
!!! You will be unable to use the UCM integration between ClearQuest
!!! and ClearCase. If you wish to enable this integration, please use
!!! ClearQuest Designer to apply the AMStateTypes 1.0 Package.
```

This excerpt tells you to install these packages in this order:

- Repository 2.0 package
- TeamTest 1.0 package
- TeamTest 3.0 package
- RequisitePro 1.5 Upgrade package
- AMStateTypes 1.0 package (if you want to enable the UCM integration; this is a new package.)

Applying Packages

For each package to apply, follow these steps:

1. Start the ClearQuest Designer: click **Start**, then click **Programs > Rational Suite > Rational ClearQuest > Rational ClearQuest Designer**. Log into ClearQuest Designer with Super User or Schema Designer privileges.
2. If the Open Schema dialog box appears, click **Cancel**.

   By default, the Open Schema dialog box appears when you start the ClearQuest Designer. To change the default, clear the **Show this wizard at startup** checkbox.
3. From the ClearQuest Designer menu, select **Package > Package Wizard**.
4. In the Package Wizard, on the Install/Select Package page, select the appropriate version of the package you are applying. Click **Next**.

   If the package you want is not in the list, click **More Packages**, and select the appropriate package. Click **OK** to return to the **Select a Package** list. Select the package and click **Next**.
5. On the Select a Schema page, select the schema to upgrade with this package. Click **Next.**
6. On the Setup Record Types for Packages page:
   - If you are upgrading a package, leave all record types unselected.

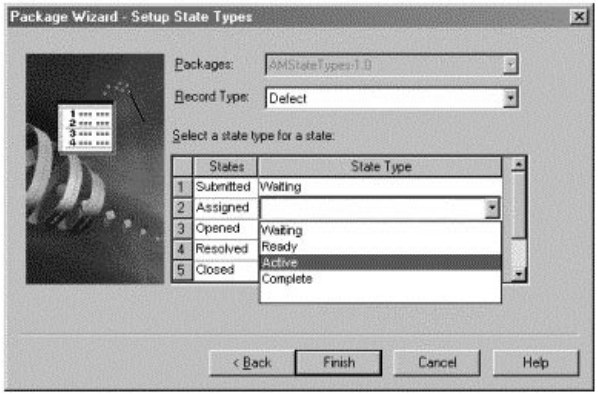
     The Package Wizard automatically applies the package to all record types in your schema that include an earlier version of the package.
   - If you are installing a new package, for example, AMStateTypes, select the record types to be enabled by the package.

     For the AMStateTypes package, we recommend that you select **BaseCMActivity** and **Defect**, and that you leave **EnhancementRequest** unselected.

     For more information on installing new packages and adding integrations, refer to *Administering Rational ClearQuest*.

7 If you are applying the AMStateTypes package, perform this additional step:

On the Setup State Types page, associate the AM State Types with the states defined in your schema. For each defined state (listed in the States column), select the corresponding AM State Type from the State Type column.



State	State Type
Submitted	Waiting
Ready	Ready
Active	Active
Complete	Complete

For record type `Defect`:

State	State Type
Submitted	Waiting
Assigned	Ready
Opened	Active
Resolved	Complete
Closed	Complete
Duplicate	Complete
Postponed	Waiting

8 Click **Finish** and continue with the remaining steps in this procedure.

9 From the ClearQuest Designer menu, select **File > Checkin** to check in the schema to which you have just applied this package. After verifying your choice, click **OK**. Click **OK** again in the ClearQuest Checkin Confirmation dialog box.

Note: Check in the schema after applying each package. If you apply several packages before checking in the schema, errors may result.

10 If you are applying certain packages, perform these additional steps:

If you are applying package	Perform these steps
Repository 2.0	Perform the steps in *After Applying the Repository 2.0 Package* on page 85.
RequisitePro 1.5 Upgrade	Perform the steps in *After Applying the RequisitePro 1.5 Upgrade Package* on page 93.
Email (latest version)	After applying schema changes to the user databases (on page 99), verify that the e-mail notification for each of your end users is enabled. For each type of end user (Windows, UNIX, and Web), see the appropriate section in *Installing Rational ClearQuest* (the section titles all start with "Enabling e-mail notification for...") We remind you to perform this task after you apply the schema change.

After Applying the Repository 2.0 Package

Perform the steps in this section after applying the Repository 2.0 package.

When you apply the Repository 1.0 package, many instances of the RepoProject field associated with some record types (such as Defect and EnhancementRequest) are renamed to RAProject. The automatic upgrade process cannot rename every instance of this field, so you need to perform some of this work yourself. We recommend you perform the steps in this section immediately after applying the Repository 1.0 package, but you can also perform them after applying the Repository 2.0 package.

Note: If you applied the Repository 1.0 package for an earlier version of Rational Suite, and you are now upgrading to the Repository 2.0 package, you have already completed the steps in this section. If you have already performed these steps, you do not need to perform them again.

This section describes how to check and upgrade the following:

- Forms with references to RepoProject
- Report formats that include RepoProject fields
- Report format headings
- User-defined hooks
- Web-dependent field lists

Upgrading Form Controls

Upgrade all Form controls that reference RepoProject, replacing those references with references to RAProject. Perform this upgrade if one of the following conditions exists:

- You use an out-of-the-box schema such as AnalystStudio, DevelopmentStudio, TestStudio, or Enterprise.
- You include the RepoProject field in any ClearQuest forms that you have created in a customized schema, particularly as a result of applying an earlier revision of the Repository package.

As part of the upgrade process for the Repository package, the RepoProject field was renamed to RAProject. Consequently, existing form controls that referenced the RepoProject field now reference a non-existent field and must be repaired. In these steps, you select properties for that control and change the name of the field referenced to the RAProject field.

If you do not perform these steps, the field always appears read-only from the client and the designer schema validation process displays a message saying that there is no field associated with that control.

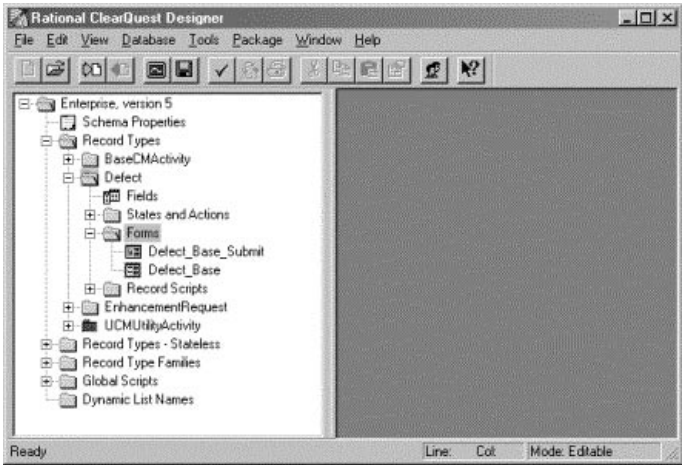
The following procedure describes how to upgrade forms for a typical out-of-the-box example using the Enterprise schema:

1. Display the Open Schema Wizard by performing the following steps:
   a. If the ClearQuest Designer is not started, start it now: click **Start**, then click **Programs > Rational Suite > Rational ClearQuest > Rational Designer**. Log in with Super User or Schema Designer privileges.
   b. If the Open Schema Wizard is not started, start it now: from the ClearQuest Designer menu, select **File > Open Schema**.

      The Open Schema Wizard appears.
2. On the first page of the Open Schema Wizard, select the schema to modify and select **Checkout a schema to edit**. For this example, select the Enterprise schema. Click **Next**.

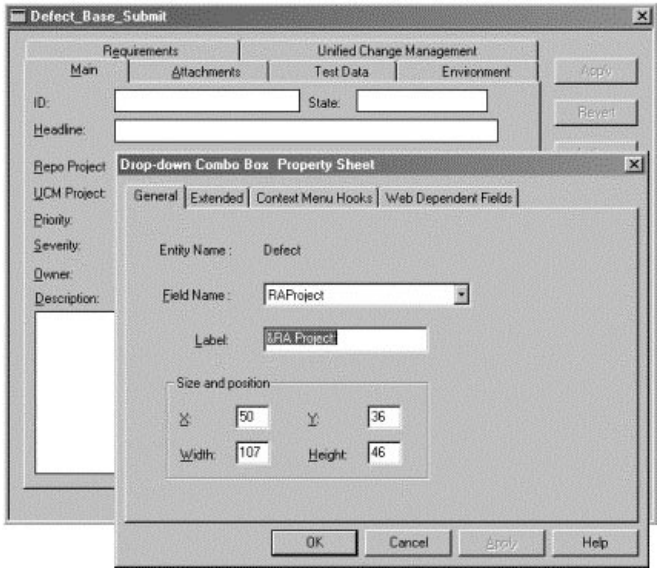
3 On the next page, enter the reason for the schema modification. For this example, enter **Update Defect forms with new RAProject Fields**. Click **Finish**.

4 In the Designer Workspace, expand the Record Type folder, the Defect folder, and the Forms folder.



The out-of-the-box schema for the Defects record type contains two forms, **Defect_Base_Submit**, and **Defect_Base**. You need to modify both forms.

5 Double-click the **Defect_Base_Submit** form to open it. On the form, locate the RepoProject label. Right-click the drop-down list next to the label and from the shortcut menu, click **Properties**.



6 On the Property Sheet, from the Field Name list, select **RAProject**. In the Label field, type **RA Project**.

7 Repeat these steps for each form in the Defect record type and any record types and Stateless record types where you include a reference to RepoProject in your forms. The forms defined for the Defect and EnhancementRequest record types, in the out-of-the-box Enterprise schema, include references to RepoProject.

Upgrading RepoProject References in Report Formats

If you created Crystal Reports report formats in earlier versions, they may reference RepoProject. The package upgrade utility cannot redirect these references to the new field name, RAProject. Editing, creating, or running a report format which contains these obsolete references results in a ClearQuest error message indicating that the "fielddef RepoProject does not exist" and that the user should contact Technical Support.

To assist with this problem, Rational provides a tool to convert the RepoProject field references to RAProject. You can use this tool any time you use the ClearQuest Designer to rename a field. The tool is named renrptflds.exe and it is in the ClearQuest installation directory.

Use it as follows:

1 To view a syntax description for renrptflds.exe, at the command line, type **renrptflds** with no parameters.

2 To completely convert all personal report formats, instruct each user who has personal report formats to run the following command once for each record type in their schema, for each user database.

```
renrptflds -us username -p "" -db cqdbname -fmt username
   -rec recordtype -fld old_field new_field
```

where

Option	Variable	Description
-us	username	ClearQuest login user name.
-p	""	ClearQuest user login password. Empty double quotes mean that there is no password. If you are converting another user's report format, you must supply their password.
-db	cqdbname	ClearQuest database name.
-fmt	username	ClearQuest login user name, the same one that you supply with the -us parameter.

Option	Variable	Description
-rec	recordtype	ClearQuest Record Type with the field that has changed.
-fld	old_field	The name of the referenced field you want to change.
	new_field	The name of the new reference field.

For example, to convert all RepoProject field references to RAProject for the `tkirk` user's personal report formats based on the "Defect" record type for the SAMPL database, type the following at the command line:

```
renrptflds –us tkirk –p "" –db SAMPL –fmt tkirk –rec Defect
   –fld RepoProject RAProject
```

3 To convert public report formats, instruct a user with Super User privileges to type the following command at the command line:

```
renrptflds –us admin –p "" –db SAMPL –rec Defect
   –fld RepoProject RAProject
```

In this example, the `–fmt` option is omitted. As a result, the command will convert public report formats. In this command, in the `–us` operand, specify a user who has Super User authority. The administrator should run this command once for each user database for each record type containing the RepoProject field.

You have now updated field references in the report format.

Upgrading Report Format Headings

Upgrade report format headings when the following conditions are true:

- You customized your schema to refer to RepoProject, and
- You performed these customizations either before applying the Repository 1.0 package, or without applying the Repository 1.0 package.

If these conditions are not true, then you can safely skip the steps in this section.

If your report formats contain headings indicating the names of the fields, you may wish to change that text to indicate the new field name. The following process requires that you have Crystal Reports 8.0 installed.

To upgrade report format headings:

1. Start ClearQuest: click **Start**, then click **Programs > Rational Suite > Rational ClearQuest**. Log in using Super User or Public Folder Administrator privileges.
2. Right click on the report to upgrade and click **Edit** to display the Edit Report Format dialog box.
3. Click the **Author Report** button to start Crystal Reports.
4. From the Crystal Reports Designer menu, select **Database > Verify Database**.
5. Click **Yes** to proceed with fixing the report.
6. On the Map Fields dialog box, map the report field **RepoProject** to the active data field **RAProject**. For each field, click the field, click **Map**, then click **OK**.
7. On the Report Designer Layout page, the field's name is set to the new value, **RAProject**, but text references such as page header information may still contain the old value. Edit these values appropriately.
8. Save your changes and quit Crystal Reports Designer.
9. On the ClearQuest Edit Report Format dialog box, click **OK** to save the changes to the ClearQuest database.
10. Repeat this procedure for each report format (private or public) containing references to the old field name. If you do not perform this procedure, the report will run correctly and show correct data, but text references such as column headings may appear incorrectly.

Upgrading User-Defined Hooks

Upgrade user-defined hooks when the following conditions are true:

- You customized your schema to refer to RepoProject, and
- You performed these customizations either before applying the Repository 1.0 package, or without applying the Repository 1.0 package.

If these conditions are not true, then you can safely skip the steps in this section.

If you have customized or defined your own hooks, you may have added custom script code that references the RepoProject fields or the stateless record type RepoProject by name. Use the hook editor to modify these hooks so that they reference RAProject instead. Any hook code owned by an out-of-the-box ClearQuest package will automatically be modified to use RAProject.

To find all hooks that define references to the RepoProject field:

1. Display the Open Schema Wizard by performing the following steps:
   a. If the ClearQuest Designer is not started, start it now: click **Start**, then click **Programs > Rational Suite > Rational ClearQuest > Rational Designer**. Log in with Super User or Schema Designer privileges.
   b. If the Open Schema Wizard is not started, start it now: from the ClearQuest Designer menu, select **File > Open Schema**.

      The Open Schema Wizard appears.
2. Select one of your schemas and click **Next**.
3. On the next page, enter the reason for this schema modification. For this example, enter **Update Defect hooks with new RAProject Fields**. Click **Finish**.
4. From the ClearQuest Designer menu, select **Edit > Find in Hooks**.
5. On the Find in Hooks dialog box, in the Find What field, type **RepoProject** and click **Find**. The lower window of the ClearQuest Designer lists all instances of this field name.
6. For each script listed:
   a. Double-click the script to display the script editor. (The editor opens at the line containing **RepoProject**.)
   b. Modify the script.
   c. Keep a list of each script you modify. (You need this list to complete Step 7.)
7. Select **Hooks > Compile** to check the syntax of each script you modified.

8 Check in your schema changes: from the ClearQuest Designer menu, select **File > Checkin**. After verifying your choice, click **OK**. Click **OK** again in the ClearQuest Checkin Confirmation dialog box.

9 Repeat this process for each of your schemas.

Upgrading Web-Dependent Field Lists

If you have identified the RepoProject field as a web-dependent field for any control in a form, remove the reference to RepoProject in that control and replace it with RAProject. In this section, we call such a control a *RepoProject-dependent control*.

To change RepoProject-dependent controls:

1 Display the Open Schema Wizard by performing the following steps:

   a If the ClearQuest Designer is not started, start it now: click **Start**, then click **Programs > Rational Suite > Rational ClearQuest > Rational Designer**. Log in with Super User or Schema Designer privileges.

   b If the Open Schema Wizard is not started, start it now: from the ClearQuest Designer menu, select **File > Open Schema**.

   The Open Schema Wizard appears.

2 On the first page of the Open Schema Wizard, select the schema in which you have defined a `Value_Changed` hook related to RepoProject.

3 Select **Checkout a schema to edit**. Click **Next**.

4 On the next page, enter the reason for this schema modification. For this example, enter **Update Web Dependent fields to reference new RAProject Fields**. Click **Finish**.

5 Expand the **Record Type** folder, expand the appropriate record type, expand the **Forms** folder, and locate all the forms that display the RAProject field.

6 Open the form that includes the RepoProject-dependent control. Right-click the RepoProject-dependent control, select **Properties**, and click the **Web Dependencies** tab.

7 In the Selected List, replace the RepoProject entry with RAProject.

8 Check in your schema changes: from the ClearQuest Designer menu, select **File > Checkin**. After verifying your choice, click **OK**. Click **OK** again in the ClearQuest Checkin Confirmation dialog box.

After Applying the RequisitePro 1.5 Upgrade Package

Perform the steps in this section after applying the RequisitePro 1.5 Upgrade package. At a high level, the steps are:

1. Establish associations between ClearQuest and RequisitePro to enable the integration between the two products. To establish these associations, you edit a utility, ASCQISetup.bat.
2. Add a back-reference field to certain fields in ClearQuest.
3. Later, you run the ASCQISetup.bat utility. (We remind you at the appropriate time.)

Establishing Associations Between ClearQuest and RequisitePro

To enable the integration of ClearQuest and RequisitePro, you need to create an association between ClearQuest record types and RequisitePro requirement types. You create this mapping by editing and running a batch file. Because the batch file has changed, you need to perform this work even if you performed it in for an earlier version.

The following sections describe the required steps:

- Collecting data related to your ClearQuest database and RequisitePro project environment.
- Editing the ASCQISetup.bat batch file.
- Later in this chapter, we instruct you to run the edited ASCQISetup.bat batch file.

Collecting Setup Information

To enable the integration in your specific environment, you must edit the ASCQISetup batch file. This file contains the command arguments shown in Table 13. Use this table to record the values of each variable for your project. You will use this information to edit the batch file.

Note: If your installation spans multiple computers, use Universal Naming Conventions (UNC) paths, as noted in Table 13.

Table 13 Variables Describing Your Environment

Batch Command	Description	Must Edit	Your Values
set CQDatabaseName =	The name of the ClearQuest User database	You must edit this entry.	
set H =	The hard drive letter where RequisitePro is installed, followed by a colon (for example C:). This refers to the Administrator's installation, not the client installation.	The default value is "C". Edit this entry only if you installed RequisitePro on a drive other than the "C" drive.	
set U =	The Superuser logon name for the ClearQuest database, the RequisitePro project, and the Rational Project	The default value for the Superuser logon is "admin". If you are using a logon for RequisitePro, ClearQuest, or the Rational Project other than "admin", edit this field. (The Super user logon refers specifically to ClearQuest user privileges.)	
set P =	The path to the administrator's local Rational installation directory	You must edit this field to display your administrator's installation location.	
set RP =	The name of the RequisitePro project as displayed in the RequisitePro **Project > Open** dialog box.	You must edit this field to display the name of your RequisitePro project that you will integrate.	

Table 13 Variables Describing Your Environment (continued)

Batch Command	Description	Must Edit	Your Values
set RQS =	The full directory path to the RequisitePro *.rqs file	You must edit this field to indicate the correct path of the RequisitePro project. Use the path defined in your RequisitePro .rqs file. If your installation spans multiple computers, use a UNC path.	
set Help=	The full path to the ClearQuest / RequisitePro Integration help file (Program Files\Rational\ RequisitePro\ Help\CQI.hlp).	You must edit this field if the CQI.hlp file is in a location other than the default location listed in the ASCQISetup.bat file. If your installation spans multiple computers, use a UNC path.	

Editing the ASCQISetup.bat File

Now use the information in the preceding table to modify the ASCQISetup.bat file for your specific environment. The file is in the directory *Install*\Program Files\Rational\Common. The ASCQISetup.bat file is designed to be run *only* by the administrator and all settings in this file should reflect those of the administrator's installation. After the file runs, it does not need to run again unless one of the above variables changes. Edit and run this file once for each RequisitePro and ClearQuest project that you want to integrate.

Begin by saving a copy of the ASCQISetup.bat file with a name that corresponds to your Rational project (you use the Rational Administrator to create a Rational project). For example, you might create a copy named ASCQI_*RA_project_name*.bat. Edit this copy to include the data specific to your ClearQuest database and RequisitePro project environment as follows:

1. Use a text editor such as Notepad to open the file.
2. Locate each `set` command and provide the value containing your project-specific information you supplied in Table 13.

The following example of a modified ASCQISetup.bat file was edited to work with the integration for the *Rational Suite Tutorial* data, which is used throughout the document, *Getting Started with Rational Suite AnalystStudio*. This sample batch file reflects a local installation of RequisitePro and an unmodified help file. Remember to use UNC paths when necessary to reflect your installation environment.

Note: Fields that you must edit are in **bold** and are surrounded by angle brackets **(<< >>)**. When editing to reflect your project specifications, replace the entire command, including the angle brackets, with information about your administrator's project installation.

Note: The **REM** command precedes a comment.

```
REM Before you launch this batch file, please update the following
information:

REM **** INFORMATION TO UPDATE ****

REM Update the name of the ClearQuest database.
set CQDatabaseName=<<CLSIC>>

REM Update the hard drive letter where your local Rational products are
installed.
set H=<<C:>>

REM Update the SuperUser login name for ClearQuest database and
RequisitePro project.
set U=<<admin>>

REM Update the path to your local Rational installation directory.
set P=<<\\Server_Name\Program Files\Rational\>>

REM Update the name of your RequisitePro project.
set RP=<<Order Processing and Fulfillment System>>

REM Update the full name to your RequisitePro .rqs file.
REM Use a UNC path for a project on a nonlocal computer.
set RQS=<<\\<Server_Name>\Program Files\Rational\Classics Demo\
ClassicsRepo\Project\ClassicsPOS\Requisite\requisite.rqs>>

REM Update the path to the cqi.hlp file.
REM Use a UNC path for a project on a nonlocal computer.
set Help=<<\\<Server_Name>\Program Files\Rational\RequisitePro
\help\cqi.hlp>>
```

```
REM **** BEGINNING OF THE SCRIPT ****

%H%
cd %P%\common

REM Create the association between the 'Defect' ClearQuest record type
and the RequisitePro attribute 'Defect' of the Feature requirement
type.
ASCQISetup.exe -c %U% %CQDatabaseName% Defect Requirements_List
Defects_list RAProject Modify "Associate Defects" "%Help%" 1 "%RP%"
"%RQS%" FEAT Defect 2

pause

REM Create the association between the 'EnhancementRequest' ClearQuest
record type and the attribute 'EnhancementRequest' of the Feature
requirement type.
ASCQISetup.exe -c %U% %CQDatabaseName% EnhancementRequest
Requirements_List EnhancementRequests_list RAProject Modify "Associate
Enhancement Requests" "%Help%" 1 "%RP%" "%RQS%" FEAT
EnhancementRequest 2

pause
```

Notes:

- For more information about customizing the integration or about the ASCQISetup.exe command arguments, see the chapter about *Configuring the Integration for ClearQuest and RequisitePro* in the manual, *Configuring Rational Suite*.
- If you have a RequisitePro project that does not have security enabled, your RequisitePro default project logon user name must be set to the SuperUser login name specified in the ASCQISetup.bat file. This setting is available through the **RequisitePro Tools > Options** menu command.

Adding a Back-Reference Field

For every record type that you have applied when you originally installed the RequisitePro package, you need to locate the **Requirements_List** field and add a back-reference field to it.

Naming the Back-Reference Field

Name this back-reference field consistently with the names in the file:
Install \ Program Files \ Rational \ Common \ ASCQISetup.bat

For example, the ASCQISetup.bat file might contain lines similar to the following:

```
REM Create the association between the 'Defect' ClearQuest record type and
REM the RequisitePro attribute 'Defect' of the Feature requirement type

ASCQISetup.exe -c %U% %CQDatabaseName% Defect Requirements_List Defects_list
RAProject Modify "Associate Defects" "%Help%" 1 "%RP%" "%RQS%" FEAT Defect 2
```

The line starting with `ASCQISetup.exe` includes `Defect`, `Requirements_List`, and `Defects_list`. These are defined as follows:

Defect	=	ClearQuest record type
Requirements_List	=	The RequisitePro field added to the Defect record type
Defects_list	=	The name of the back-reference field associated with the Requirements_List field of a Defect record.

Upgrading the Back-Reference Field

The ClearQuest / RequisitePro integration requires a back-reference field on the **Requirements_List** field for each of the record types you selected when you applied the RequisitePro package, such as Defect and EnhancementRequest.

To add a back-reference field to your schema, do the following:

1. Display the Open Schema Wizard by performing the following steps:
   a. If the ClearQuest Designer is not started, start it now: click **Start**, then click **Programs > Rational Suite > Rational ClearQuest > Rational Designer**. Log in with Super User or Schema Designer privileges.
   b. If the Open Schema Wizard is not started, start it now: from the ClearQuest Designer menu, select **File > Open Schema**.

      The Open Schema Wizard appears.
2. On the first page of the Open Schema Wizard, select the schema in which you have applied the RequisitePro 1.5 package.
3. Select **Checkout a schema to edit**. Click **Next**.
4. On the next page, enter the reason for this schema modification. For this example, enter **Add back-reference field to reference new Requirements_List fields**. Click **Finish**.

5 In the ClearQuest Workspace, expand the **Record Types** folder for the record type with RequisitePro integration, and expand the **Fields** grid. The list of fields appears in the right panel.

6 Right-click the **Requirements_List** field name and select **Field Properties**. The properties dialog box appears. This field is enabled only if you need to set up the back-reference field. If this work has already been performed, the field is disabled.

7 In the back-reference field, enter the name you identified in "Naming the Back-Reference Field" on page 98. For some schemas, this field may already contain the correct value. If the field contains a value that is incorrect, change it.

8 Close the properties dialog box.

9 Repeat from Step 5 for each of the record types you selected when you applied the RequisitePro package. Each record should have an entry in the ASCQISetup.bat file. See "Naming the Back-Reference Field" on page 98.

10 From the ClearQuest Designer menu, select **File > Checkin** to check these changes into your schema. After verifying your choice, click **OK**. Click **OK** again in the ClearQuest **Checkin Confirmation** dialog box.

Applying Schema Changes to User Databases

This section describes how to apply schema changes to your user databases. Perform these steps now. In general, you should always perform the steps in this section after making changes in the ClearQuest Designer, such as applying packages. The effect of performing these steps is to push changes in your schema to the user databases.

Applying schema changes takes just a few minutes for each user database.

Warning: After you apply schema changes, you cannot reverse or undo the action. Always back up your databases before starting this procedure.

To apply schema changes:

1. Start the ClearQuest Designer: click **Start**, then click **Programs > Rational Suite > Rational ClearQuest > Rational ClearQuest Designer**. Log in with Super User or Designer privileges.
2. If the Open Schema Wizard appears, click **Cancel**.
3. From the Designer menu, select **Database > Upgrade Database**.
   A message warns you that this action cannot be reversed, recommends that you back up your databases before proceeding, and asks you if you want to continue. If you have backed up your databases, click **Yes**.
4. Select the user database from the list in the Upgrade Database Wizard. Click **Next**.
5. On the next page, select the schema master database version from the list.

   If your most recent version does not appear in this list, it probably is not checked in. In that case, click **Cancel** to quit this wizard. On the Designer menu, click **File > Open Schema**, then check in the schema. You can now restart this process.
6. Click **Finish**. When the upgrade completes, a message appears saying that the database has been upgraded successfully.

After Applying Schema Changes

After applying schema changes, perform these steps:

1. Rerun the script you ran in *Determining Which Packages to Apply* on page 81 to verify that you have applied packages correctly.
2. Reminder: If you applied the Email package, verify that e-mail notification is enabled for each end user. See Step 10 on page 85.
3. If you are using the integration between ClearQuest and RequisitePro, run the ASCQISetup.bat utility that you edited earlier. Running this utility creates the associations between ClearQuest record types and RequisitePro requirements:
   a. At a command line, change to the directory *Install*\Program Files\Rational\Common and type **ASCQISetup**.

      As the batch file runs, it pauses every time it creates an association and prompts you to `Press any key to continue.`
   b. Press ENTER until the batch file ends.
4. Update your maintenance plans to include new user databases and schema repositories, and to omit the old ones.

You have now applied schema changes to your ClearQuest user database.

Upgrading ClearQuest Feature Levels

This section describes how to upgrade ClearQuest feature levels. These steps are optional. Perform these steps if you want to enable new features in the current version of ClearQuest. In Version 2001A, these new features are Rational ClearQuest MultiSite Technology Preview and the improved security model. If you do not want to enable these features, you do not have to upgrade feature levels.

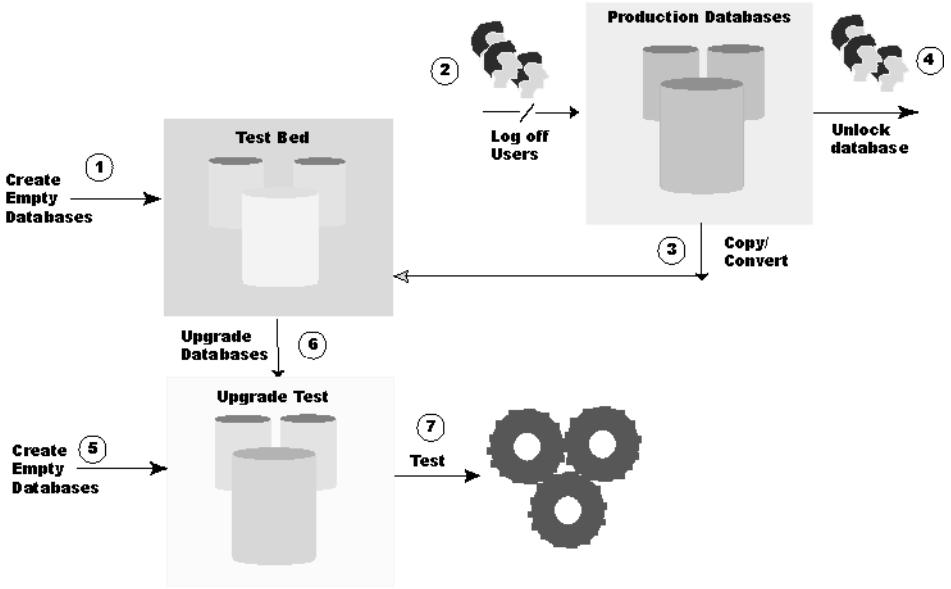
Upgrading ClearQuest feature levels can take several hours. The upgrade changes the schema repository and all its associated user databases. Typically, new tables are added to all databases, and new columns may be added to existing tables.

Overview of Upgrade Process

As part of upgrading ClearQuest feature levels, we strongly recommend that you perform the upgrade first on a test system, and then perform it again on production databases. At a high-level, the process is as follows:

1. Verify your environment.
2. Create a test bed based on production databases.
3. Upgrade the test bed and validate that the upgrade was successful.
4. Create new databases for the production system.
5. Upgrade the production databases and validate that the upgrade was successful.

The following illustration shows the general process for creating the test bed, upgrading it, and validating the upgrade. The process for upgrading production databases is similar.



Verifying Your Environment

Before you start the upgrade, be aware that the upgrade could fail under certain conditions. The following table describes these conditions and how to resolve them.

Condition	Solution
You currently have a ClearQuest schema checked out.	Check in your ClearQuest schema.
Your ClearQuest database is locked.	Unlock your database. For more information, read “Unlocking Databases” in the chapter, “Upgrading Rational ClearQuest” in *Installing Rational ClearQuest.*
You have customized your schema to include Record Types or fields that have a **ratl_** prefix.	Contact Rational Technical Support. They will explain how to correct this condition.

Creating a Test Bed

The following steps describe how to create a test bed based on your production databases:

1. Back up your data.

   Back up your schema repository and user databases. Upgrading ClearQuest feature levels changes the underlying structure of your data and can change your schemas. We strongly recommend you create a backup so you can revert to it if necessary.

2. Create new, empty vendor databases for each schema repository and user database, as described in "Configuring Vendor Databases" in *Installing Rational ClearQuest*. Create the new databases in a new test directory or on a test server. In this section, we refer to these new databases as the *test bed*.

   Note: Create empty databases only. Do not use your vendor database tools to move or copy the data. ClearQuest updates the data structure and moves it into the new databases as part of the upgrade process.

3. Notify users to log off from ClearQuest, and shut down your web server. Instruct users not to access ClearQuest during the upgrade process. Ensure that all users have disconnected from ClearQuest by using one of these techniques:

   - Some high-end databases give the administrator a tool for logging users off from the database. Check your vendor database to see if it has such a tool.
   - Check the Task Manager Process List of each client and server computer. If one of these processes is running, use the Task Manager to end the process:

     clearquest.exe, cqdesign.exe, or any cqintsvr*.exe process

4. Copy your existing production schema repository and user databases to the test bed databases. Use the ClearQuest `installutil` utility with the options, `convertschemarepo` and `convertuserdb`. For more information about this utility, read about "Creating Database Copies" in the chapter, "Upgrading Rational ClearQuest" in *Installing Rational ClearQuest*.

   Using the `convert` options with the `installutil` utility causes ClearQuest to lock the original production databases. If you need to unlock them, read about "Unlocking Databases" in the chapter, "Upgrading Rational ClearQuest" in *Installing Rational ClearQuest*.

5. For each database in the test bed, create another new empty vendor database. These will be the databases that you upgrade *to*. In this section, we refer to these new databases as the *test upgrade set*.

Upgrading the Test Bed

In this section, you upgrade the test bed and verify that the upgrade was successful. Upgrade the test bed as follows:

1. Start the ClearQuest Maintenance Tool: click **Start**, then click **Programs > Rational Suite > Rational ClearQuest > Rational ClearQuest Maintenance Tool**.
2. Select **Upgrade schema repository and/or user database(s)** and click **Next**.
3. Specify the test schema repository to upgrade. Click **Next**.
4. To upgrade user databases associated with this schema repository, select the **Upgrade user databases** option.
5. Enter the ClearQuest login name and password for a ClearQuest user account with Super User privileges, then click **Next**.
6. From the list of user databases associated with the schema repository, select one or more user databases to upgrade.
7. Enter the schema repository to upgrade to (the new, empty database you created in the test upgrade set), then click **Next**.
8. For each user database you selected in Step 6, enter the user database to upgrade to (the new, empty databases you created in the test upgrade set). Click **Next**. Repeat until you have associated all the user databases you selected. Click **Finish**.

   ClearQuest upgrades your schema repository and user databases, and notifies you when the process is complete.
9. Verify that the upgrade process completed successfully:
   a. When ClearQuest notifies you that the upgrade process is complete, carefully read the message to ensure that the process completed successfully.
   b. Reconnect to the schema repository, following the instructions in *Reconnecting to a Schema Repository* on page 80.
   c. Test the application. Enter a few test records of each record type and move them though the entire state model to be sure the upgrade is working correctly.

Creating Production Databases

After you verify that the test upgrade is successful, proceed to upgrade your production databases. The steps for upgrading production databases are nearly identical to those for upgrading the test databases.

The following steps describe how to upgrade production databases:

1. Create new, empty vendor databases for each schema repository and user database, as described in "Configuring Vendor Databases" in *Installing Rational ClearQuest*. Create the new databases on the production server. In this section, we refer to these new databases as the *production upgrade set*.

   Note: Create empty databases only. Do not use your vendor database tools to move or copy the data. ClearQuest updates the data structure and moves it into the new databases as part of the upgrade process.

2. Notify users to log off from ClearQuest, if any are logged in, and shut down your web server.

Upgrading the Production Databases

In this section, you upgrade from your original production databases to the production upgrade set as follows:

1. Start the ClearQuest Maintenance Tool: click **Start**, then click **Programs > Rational Suite > Rational ClearQuest > Rational ClearQuest Maintenance Tool**.
2. Select **Upgrade schema repository and/or user database(s)** and click **Next**.
3. Specify the original production schema repository to upgrade. Click **Next**.
4. To upgrade user databases associated with this schema repository, select the **Upgrade user databases** option.
5. Enter the ClearQuest login name and password for a ClearQuest user account with Super User privileges, then click **Next**.
6. From the list of user databases associated with the schema repository, select one or more user databases to upgrade.
7. Enter the schema repository to upgrade to (the new, empty database you created in the production upgrade set), then click **Next**.
8. For each user database you selected in Step 6, enter the user database to upgrade to (the new, empty databases you created in the production upgrade set). Click **Next**. Repeat until you have associated all the user databases you selected. Click **Finish**.

   ClearQuest upgrades your schema repository and user databases, and notifies you when the process is complete.

9 Verify that the upgrade process completed successfully:

   a When ClearQuest notifies you that the upgrade process is complete, carefully read the message to ensure that the process completed successfully.

   b Reconnect to the schema repository, following the instructions in *Reconnecting to a Schema Repository* on page 80.

   c Test the application. Enter a few test records of each record type and move them though the entire state model to be sure the upgrade is working correctly.

10 After verifying that the upgrade completed successfully:

   a To prevent users from accidentally using the original production databases, either keep them locked or remove them.

   b Optionally, discard the test bed and test upgrade set.

Upgrading Rational Test and Your Rational Project

This section describes actions to take if:

- You want to verify that ClearQuest packages are correctly configured for a Rational Project.
- You are upgrading from Rational Suite Version 2001.03.00.
- You are upgrading from Rational Suite Version 2000.02.10.

Verifying ClearQuest Packages for a Rational Project

If you are working with a Rational project, or if you have upgraded from a Rational repository to a Rational project, you can verify that the ClearQuest packages for your Rational project are correctly configured and upgraded:

1 Start the Rational Administrator: click **Start**, then click **Programs > Rational Suite > Rational Administrator**.

2 In the left pane of the Administrator, select a project, right-click it, and select **Connect**.

3 Select the same project, right-click it, and select **Configure** to display the Configure Project dialog box.

4 Click **Close** to initiate the program that checks your project.

If the correct packages are applied, you do not see a message. However, if there are packages to apply or upgrade, a message appears directing you to this chapter.

Upgrading from Version 2001.03.00

If you are upgrading from Rational Suite Version 2001.03.00, your Rational project, including your Rational Test datastore, is already upgraded, so you do not need to perform further upgrading tasks with respect to Rational Test. You may now proceed to *Upgrading RequisitePro* on page 111.

Upgrading from Version 2000.02.10

If you are upgrading from Rational Suite Version 2000.02.10, follow the instructions in this section.

In Version 2000.02.10 and earlier, Rational assets were stored in a Rational repository. Starting with Version 2001.03.00, Rational assets were stored in a Rational project. Because you are upgrading from Version 2000.02.10, you need to convert your Rational repository to a Rational project. To perform the conversion, you run a wizard which does the following:

- Checks whether ClearQuest packages need to be upgraded and provides further instructions in this area.
- Runs the RequisitePro project upgrade tool.
- Converts each project in a repository into a new Rational Administrator project. It also maintains any links that you created in a repository project to a ClearQuest database, RequisitePro project, or Rose model.
- Copies the repository's global assets, such as users, groups, and computers, into each new Rational project.

Before You Convert

Before converting, perform these steps:

- Make sure all users have disconnected from the Rational project and are not using any of the tools in the project.
- Back up your current repository. You will not be able to use it as a repository after you convert it to a project.
- Be aware that you must have administrator permission to convert the repository.
- Decide whether you want to rename the repository's projects, and if yes, do so before you start the conversion. During the conversion, the name of the Rational repository is removed, while each project inside that repository retains its name. To make it easier for users to understand the role of each project, you may want to rename the projects.

Performing the Conversion

To convert a Rational repository to a Rational project, perform the following steps:

1. Start the Rational Administrator: click **Start**, then click **Programs > Rational Suite > Rational Administrator**.
2. From the Administrator menu, select **File > Convert Rational Repository into Rational Projects**.
3. On the Repository Conversion - Login page, enter the path of the repository you want to convert, as well as the user ID and the password. Click **Next**.
4. On the Destination page, enter the path where the new Rational project will reside. Click **Next**.

   This directory becomes the root for all new projects. One new Rational project is created under this directory for each 2000.02.10 project in the source repository. All repository global assets, such as users, groups, and computers, are copied into each new Rational project.
5. On the Options page, select one of the following options and click **Next**:

   - Automatically create a Test Case for each RequisitePro requirement that defines test criteria and is associated with a test script.

     If you select this option, then one test case is created for each requirement even if multiple scripts are linked to the requirement.
   - Automatically create a Test Case for each Test Script associated with a RequisitePro requirement that describes a feature of the application under test. This option is recommended if multiple Test Scripts are associated with the same RequisitePro requirement.

     If you select this option, then one test case is created for each script linked to the requirement. If there are multiple scripts, then multiple test cases are created.

   For more information about test cases, see the *Using Rational TestManager* manual or the Rational TestManager Help.
6. On the Summary page, review your settings and click **Finish**.

   The output is captured in the RepositoryConvert.txt log file in your temp directory.

Rational Test Asset Conversion Information

In Version 2000.02.10, test assets were stored in a repository project. Starting with Version 2001.03.00, they are stored in a Test Datastore. Each Test Datastore is associated with a Rational project. Any 2000.02.10 test assets that were global to the repository are copied into each Test Datastore created for a 2000.02.10 repository project. Thus, test assets within a Test Datastore are not shared with any other Test Datastore.

Within a Test Datastore, the test assets persist as a collection of files. The properties and relationships of each test asset are stored within an XML file. These files are organized within the Test Datastore directory structure. Each Test Datastore also uses a Microsoft Access database to cache some of the information in the XML files for use by reports and queries.

Note: Users and Groups are stored in a separate datastore called a UserGroupTestDatastore. This datastore is a directory containing the Test Datastore's users and groups. It is created in a subdirectory of the Rational Administrator project.

Test cases are a new asset type. Test cases define the individual tests that are executed in order to validate test inputs such as RequisitePro requirements. In a 2000.02.10 repository project, scripts served this purpose and implemented the test, itself. In the new Rational Test, scripts are only used as implementations and do not play any role in test coverage. To facilitate this new model, the conversion program creates test cases based on the script / requirement relationships that exist in the 2000.02.10 repository project.

The following table lists the data that is converted from a Version 2000.02.10 repository to a Version 2001A.04.00 project:

Types of 2000.02.10 Rational Test Assets	**Converted?**
Scripts	Yes (including VPs and Low-Level Scripts)
Schedules	Yes (now called Suites)
Sessions	Yes
Users	Yes
Groups	Yes
Computers	Yes
Datapools	Yes
Data Types	Yes

Types of 2000.02.10 Rational Test Assets	Converted?
Performance Reports	Yes
Listing Reports	No
Logs	No
Builds	Yes
Test Documents	No
Coverage Reports	No
Queries	No
Log Filters	No

The following table lists the new test asset types:

New Test Asset Types	Description
Computer List	A collection of Computer assets that can be referenced as the execution target for Suites, Test Cases, and Scripts.
Test Plan	A collection of Test Cases which define “what” needs to be tested for a particular feature or set of features.
Test Case	A specific “test” that needs to be planned, designed, and executed in order to validate some aspect of the System Under Test (SUT).
Configured Test Case	A specific “test” that needs to be run under a specific configuration (for example, Operating System).
Listing Report (based on Crystal Reports)	A type of report that displays information about the test assets that are stored in the Test Datastore.
Test Case Analysis Report	A type of report that displays information about Test Cases and Test Case Results stored in the Test Datastore.
Iteration	A specific period of time during a project, which is typically associated with some exit criteria and milestones.

New Test Asset Types	Description
Test Input	Identifies some aspect of the SUT that needs to be verified by a Test Case.
Test Input Type	Types of Test Inputs include RequisitePro requirements and Rose Model elements. Non-Rational inputs, such as .csv or Microsoft Excel files, are configured as part of the TestManager extensible Test Input mechanism.
Test Script Type	Types of scripts, such as GUI, VU, Java, and VB.
Configuration Attribute	A specific aspect of a configuration, for example, OS, OS Version, or memory.
Configuration	A collection of Configuration Attributes which together describe some environment under which some set of Test Cases need to execute and pass.

Upgrading RequisitePro

When you upgrade RequisitePro, you perform these tasks:

- Upgrade a RequisitePro project
- Upgrade RequisitePro for use with the Rational Synchronizer

Upgrading a RequisitePro Project

To upgrade a RequisitePro project, you use the RequisitePro Database Upgrade Wizard. You need to upgrade a RequisitePro project if:

- It is in a Rational project but did not get upgraded

  If you are upgrading from Version 2001.03.00, then you need to upgrade your RequisitePro project as described in this section. If you upgraded a Rational repository to a Rational project (in *Upgrading Rational Test and Your Rational Project* on page 106), your RequisitePro project was upgraded automatically and you do not need to perform the steps in this section.

- It is not in a Rational project

Before You Upgrade

Before you upgrade a RequisitePro project, perform the following tasks:

- This upgrade modifies tables and properties of the database. For these reasons, you cannot revert to the original state before the upgrade. We recommend backing up the database before starting the upgrade.
- This process upgrades all RequisitePro projects in an enterprise database. Make sure all RequisitePro users have closed all projects in the database before continuing with the upgrade.
- In order to perform the database upgrade on projects, you must have RequisitePro administrator permissions.

Starting the Wizard

You start the wizard differently depending on the following:

- The RequisitePro project is in a Rational project and you are upgrading from Version 2001.03.00. Start the Database Upgrade Wizard as follows:

  a Start the Rational Administrator: click **Start**, then click **Programs > Rational Suite > Rational Administrator**.

  b If you are not already connected to the Rational project associated with the RequisitePro project that needs to be upgraded, connect now: from the Administrator menu, select **File > Connect**, then select the Rational project to which you want to connect.

  c From the Administrator menu, select **File > Upgrade RequisitePro Project**.

  d Select the RequisitePro project you want to upgrade and click **OK**.

  The Database Upgrade Wizard appears.

- The RequisitePro project is not in a Rational project.

  If you have administrative privileges and you open a RequisitePro project that needs to be upgraded to the current version of RequisitePro, the Database Upgrade Wizard appears.

Performing the Upgrade

While you work with the Database Upgrade Wizard, keep these points in mind:

- The Database Upgrade Wizard guides RequisitePro project administrators through the process of upgrading existing database structure and project data to the current RequisitePro release.
- If security is enabled for the project, you must type your Rational RequisitePro User ID and Password.
- If there are multiple projects in an enterprise database, you must type the User ID and Password used to create the enterprise database.
- After you've upgraded the project database, other users will not be able to access the affected projects until they upgrade to the current version of RequisitePro.
- If the project you are upgrading contains cross-project traceability links, you must upgrade the external projects as well. If the external projects have security enabled, you are prompted to log in to those projects while the Database Upgrade Wizard is running. You can also check for references to external projects in any RequisitePro project by clicking **Project > External Projects**.

Upgrading RequisitePro for Use with the Rational Synchronizer

Perform the steps in this section if you use the Rational Synchronizer to synchronize artifacts within a project.

Converting SynchLink Attributes

The Rational Synchronizer tracks links to and from requirements by storing data in a requirement attribute called SynchronizerSynchLink. This attribute must be present in any requirement type used as a source or a target of a synchronization rule.

After you convert the RequisitePro database, rename the SynchLink attribute to SynchronizerSynchLink as follows:

1. Start RequisitePro: click **Start**, then click **Programs > Rational Suite > Rational RequisitePro**.
2. Open your RequisitePro project: from the RequisitePro menu, select **Project > Open**, select the project to open, and click **OK**.
3. From the RequisitePro menu, select **Project > Properties**.

4 On the Attributes tab, select a Requirement Type that you want to synchronize, then:

To edit a SynchLink attribute:

a From the Labels for Attributes list, select **SynchLink** and click **Edit**.

b On the Edit Attribute dialog box, in the Label field, type **SynchronizerSynchLink** and click **OK**.

To add a SynchronizerSynchLink attribute:

a Click **Add** to insert the SynchronizerSynchLink.

b On the Add Attribute dialog box, in the Label field, type **SynchronizerSynchLink**, from the Type list, and select **Text**. Click **OK.**

5 Click **OK** to quit the Project Properties dialog box.

The data within the SynchLink attribute is automatically converted the first time you attempt a synchronization with the newly installed software.

Upgrading Rational Rose RealTime

If you are upgrading from Rational Suite 2001.03.00 and your environment includes Rational Rose RealTime, your Rose RealTime models will work with the current version of Rational Suite.

If you are upgrading from Rational Suite 2000.02.10 and your environment includes Rational Rose RealTime, read about "Migration from Rose RealTime 6.x" in the "Migration" chapter of *Installation Guide, Rational Rose RealTime* to learn about:

- Handling file format changes
- Working with source control
- Migrating when using the C Language
- Migrating when using the C++ Language
- Other changes to the Rose RealTime environment

Note: Online versions of the manuals for Rose RealTime are in the directory, %ROSERT_HOME%\help.The Rational Rose RealTime manuals are not included on the Rational Solutions for Windows Documentation CD.

Finishing the Upgrade Process

As a last step, inform users of the new information to use to reconnect to ClearQuest. When users start ClearQuest, the ClearQuest Maintenance Tool will prompt them to supply this information.

You have now finished with the upgrade process. Your team can now resume its work.

Removing Rational Suite 8

This chapter describes the requirements and procedure for removing Rational Suite or Rational Suite products from your system.

Before You Remove Rational Suite

This section provides general requirements for removing Rational Suite or Rational Suite products from your system. It also describes which components the Rational Software Setup program does or does not remove from your system.

- If you plan to move the application to another system, first return the license key file to your Rational Software account. To return a license key, use Rational AccountLink (www.rational.com/accountlink), the online license management tool. For more information about moving licenses or returning licenses, see the *Administering Licenses for Rational Software* manual.
- Removing an earlier version of Rational Suite does not delete your license key file, project databases, and other files that you created while using Rational Suite. If you plan to install an upgrade of Rational Suite to a different drive or use a new installation path, back up these files and manually remove them. If you do not remove them, the Rational Software Setup program may find these files and install the appplication in the old location instead of the new location.
- To remove Rational Software products from a Windows NT or 2000 system, you must have Windows NT administrator privileges on the local system.
- Make sure that no one is using the application or any associated files. You cannot remove files that are in use.
- SiteCheck is automatically installed with many Rational Suite products. The Rational Software Setup program does not remove this product from the system.

Removing Rational Suite

This section provides procedures for removing Rational Suite or Rational Suite products from your system.

Note: If you are removing ClearCase LT from your system, see *Removing ClearCase LT Data from a ClearCase LT Server* before you use **Add/Remove Programs**.

Use the Windows **Add/Remove Programs** control panel to select and remove Rational Suite or Rational Suite products. The Rational Software Setup program removes the software from your system.

Additional Removal Instructions

This section explains additional product-specific procedures for removing Rational Suite.

Removing ClearCase LT Data from a ClearCase LT Server

You can remove ClearCase LT and all ClearCase LT data (VOBs, views, and storage locations), or you can simply remove ClearCase LT.

Warning: ClearCase LT data may be valuable. Do not remove it unless you know that the data is not important.

You do not need to remove ClearCase LT data from a ClearCase LT server unless you intend to reinstall ClearCase LT server on the system and rerun the Server Setup Wizard to create a new set of VOBs. If you want to rerun the Server Setup, delete the following registry key:

HKLM\Software\Atria\ClearCase\CurrentVersion\ServerSetupComplete

and remove the ClearCase LT data. If you do not perform these tasks, you may encounter errors when the Server Setup starts.

To remove ClearCase LT data from the ClearCase LT server:

1. Use the ClearCase Administration Console or the **cleartool lsvob** command to locate all the VOBs on the ClearCase LT server. Then use the ClearCase Administration Console or the **cleartool rmvob** command to remove the VOBs.
2. Use the ClearCase Administration Console or the **cleartool lsview** command to locate all the views. Then use the ClearCase Administration Console or the **cleartool rmview** command to remove the views.

3 Use the ClearCase Administration Console or the **cleartool lsstgloc** command to locate all the server storage locations. Then use the ClearCase Administration Console or the **cleartool rmstgloc** command to remove the storage locations.

4 To remove registry values, use **regedit** to remove these lines:

HKLM\Software\Atria\ClearCase\CurrentVersion\ServerSetupComplete

HKLM\Software\Atria\ClearCase\CurrentVersion\CredmapAllowedDomainList

5 Delete the ClearCase LT /var directory from the installation directory.

Removing Rational RequisitePro

Removing RequisitePro does not remove RequisitePro project data from your system.

Removing RequisiteWeb

See the *Installing Rational RequisitePro* manual for removal instructions.

Removing Rational Testing Products

The following Rational testing software require special removal instructions.

To Remove	See
UNIX Test Agent	"Removing a UNIX Agent" in *Installing Rational Testing Products*.
Rational Test Network Driver	"Removing the Rational Test Network Driver" in *Installing Rational Testing Products*.

Removing the Rational Unified Process

The Rational Software Setup program does not remove all the files from the Rational Unified Process program folder. You can manually delete any files that the Setup program does not remove.

Silent and Network Installations

9

You can configure Rational Software Setup to perform silent and network installations of Rational software. Silent installations let you repeatedly install a Rational Software product, using the same parameters. A network installation lets you install the files needed on client systems to run Rational products from a network location.

The *Silent Installation White Paper* provides examples of various types of silent installations of Rational products, as well as sample files used in, or generated by, silent installations. Read the whitepaper before you begin the installation. The whitepaper is available at http://www.rational.com/. Select the following links in order: Support, Documentation, Free Rational Documentation on the Web, Whitepapers, and Rational Suite.

Performing Silent Installations

This section describes how to perform a silent installation.

Note: Before you set up a silent installation, make users either upgrade or remove older Rational products from their systems. Users who perform silent installations do not see error messages about upgrade compatibility. These messages will appear in their error log files, but they may not remember to look at their log files after the installation. For more information, see *Ensuring Version Compatibility* on page 27 and *Upgrading Rational Suite* on page 85.

There are three basic tasks:

1. Record an installation session.
2. Optionally, add a post-installation command to the recorded session.
3. Run the installation session.

Recording a Software Installation

You can record a software installation session and then use the resulting response.ini file to replay the session.

1. Insert the Rational Solutions for Windows Disc 1 or 2 in a CD-ROM drive.
2. Open a command window on your system and run `RSSetup` with the `-autocapture` switch. For example:

   ```
   <location>\setup\rssetup -autocapture
   ```

   Where *<location>* is the location of the Rational Solutions for Windows Disc.
3. When the Rational Software Setup program starts, proceed with the installation procedure, as described in the chapter *Installing Rational Suite* on page 59. Your responses will be recorded in the responses file *<Install Path>*\RSSetup\response.ini.

   Note: When you use the `-autocapture` switch, you cannot use the temporary license option. The silent installation procedure does not capture license certificate information in the `response.ini` file.
4. After you have answered all of the questions, the Setup program prompts you to continue with the installation of the product or to exit from the setup program. Click **OK** to proceed with the installation or **Cancel** to exit.

   Note: Even if you cancel at this point, your answers are still saved.

Specifying a Post-Installation Command

You can specify a task for the silent installation program to perform after the installation has finished.

To specify a post-installation command, perform the following steps after you record a response file:

1. Use a text editor such as Notepad to edit the response file. Append a line similar to the following example to the end of the file. The label `[PostInstallCmd]` is required:

   ```
   [PostInstallCmd]
   Command=post-installation-commands.bat
   ```
2. The `post-installation-commands.bat` is a batch file that contains the commands to execute. Such a file might contain the following commands:

   ```
   licadmin -fserver-info.txt
   net send administrator "Installation Complete"
   ```

   In this example, the License Key Administrator, `licadmin`, starts and uses the information in `server-info.txt` to specify the name of the license server that the current system will use. (See *License Key Administrator Command Line* on page 123 for the procedure.) The batch file then sends a message to the administrator, indicating that the installation procedure is complete.

3 Save the response file to a unique name (to ensure that it is not overwritten by subsequent autocaptures). For example, save the response file with a name such as c:\responses\enterprise-windows-post.ini

License Key Administrator Command Line

You can run the Rational License Key Administrator from a command line or batch file to automate installing and configuring your license keys.

To specify the name of the Rational license server in a client's License Key Administrator:

1 Create a file that contains the following line:
`Server:group-license-server`
where `group-license-server` is the name of your Rational license server system. The keyword `Server` is case-sensitive.

2 Save the file as `filename.ext`; for example, `server-info.txt`.

3 In a command window, run the following command:
`licadmin -fserver-info.txt`

Your system will be configured to use floating license keys from `group-license-server`.

The results of running this command are written to the status file `filename.ext_STATUS`, where `filename.ext` is the name of the license parameter file you created. The status file is created in the directory where you executed the `licadmin` command.

Replaying a Silent Software Installation

After you record your responses, use the response file to replay the installation, as in the following example:

`<location>\setup\rssetup -silent -response:response-path`

In the example, *response-path* is the path of the response file. The default path is c:\Program Files\Rational\RSSetup\response.ini .

If a response file is in the default location, you do not have to specify the `-response:response-path` parameter. To override the default, include the `-response:response-path` parameter on the command line.

Warning: Before distributing this file to users, find out where users have Rational program files installed on their systems. If the location is different from the location you specify in the response file, the silent installation will install the

latest program files in the new location. Installations in two places affect software performance. You may also have difficulty removing files with the standard removal procedure described in *Removing Rational Suite* on page 117. Rational Software does not support editing the response file beyond adding a post-installation command and changing features described in the *Silent Installation White Paper.*

Users must either upgrade or remove the older Rational products from their systems before or after they perform a silent installation. In a silent installation, users do not see error messages about upgrade compatibility. These messages appear in users' error log files, but they may not remember to look at their log files after the installation.

For more information about ensuring version compatibility, see page 27.

If you specify `-autocapture` on the `RSSetup` command line, your installation will initially select the product name identified in the previous `response.ini` file, but will allow you to select a new product for installation. A new `response.ini` file will be saved at the end of the installation procedure.

For additional information about the Rational Software Setup command-line syntax, see *RSSetup Command Syntax* on page 126.

Preparing Multiple Response Files

You can save multiple response files to support an unattended installation of different products.

1. Identify a directory where you will store your response files. The following examples use a directory named C:\responses.
2. Record the response file for each product to install.
3. Rename the response file with a unique file name. For example, save the Rose response file as C:\responses\Rose-response.ini.
4. Perform the installation and specify the path to the response file as a parameter to the `-response` switch. For example:

   ```
   <Install Location>\setup\rssetup -silent
    -response:c:\response\Rose-response.ini
   ```

   Note: Place this syntax on one line.

Performing Network Installations

Using the command line, you can direct the Rational Software Setup program to copy and decompress the product files to a network location. This network directory provides a rssetup executable from which users on client systems can perform network installations. The network option in the Setup program installs the files (shared system DLLs and local configuration settings) needed on the client systems to run Rational products (program files and executables) from the network directory.

Note: You can set up source directories on the network for both Rational installation discs, but place them in unique target directories. If you do not give the target directories for Disc 1 and 2 distinct names, the product files on one disc will overwrite the product files from the other disc.

Configuring the Setup Program for Network Installations

This section provides the instructions for copying and decompressing the Rational product files to a target directory on the network. All product files in a Rational Solutions for Windows Disc are compressed into `.cab` files. Before the Rational Software Setup program can offer a network installation option to clients, the Setup program needs to expand the `.cab` files in this target directory.

The target location that you select must have at least 2.6 GB of space to accommodate the expanded files. You must have write permission to set up the install location.

Note: If older Rational products are installed on server or client systems, do not perform upgrades with the network installation type. For more information about upgrades, see *Ensuring Version Compatibility* on page 27 and *Upgrading from Earlier Versions of Rational Suite* on page 73.

To set up the network install location:

1. Insert the Rational Solutions for Windows Disc 1 or 2 in your CD-ROM drive.
2. Open a command window on your system and enter the `RSSetup` command:

   `<location>\setup\rssetup.exe -Admin:<dir>`

   Where `<location>` is the location of the Rational Solutions for Windows Disc and `<dir>` is the target directory name. There is no space between `-Admin:` and the target directory name.
3. The Rational Software Setup dialog box prompts you to start the procedure by clicking **Next**.

A window appears displaying Rational product files as they are copied to the target location and then decompressed to subdirectories under the target location.

4 At the end of the procedure, the Installation Complete dialog box asks you to complete the procedure by clicking **Finish**.

5 We recommend that you set this administrator directory and all its subdirectories to read-only for users who will perform the network installation.

6 Give users the following information before they select the network installation option:

   a Users need 584 MB disk space on their systems to accommodate the shared system DLLs and local configuration settings the Setup program will install on their systems.

   b Users should map a drive on their local systems to the source directory on the network. In the **Map Network Drive** dialog box, users should select **Reconnect at Logon**. If they do not select this option, the installation will not automatically complete after the systems reboot.

   They can then go to the network drive on their systems and select **Network** in the **Select Configuration** dialog box of the Rational Software Setup program.

RSSetup Command Syntax

```
RSSetup [-silent [-response:response-path]]|
   [-verbose [-response:response-path]] |
   [-autocapture]
   [/product <product>] [/install /uninstall /update]
```

Parameter	Description
`-silent`	Performs a silent (unattended) installation.
`-verbose`	Replays a recorded installation, allowing you to override the recorded responses. **Note**: If you override the responses, those changes are not written to the response file.
`-response:response-path`	Specifies the path to the response file. *response-path* is the path for the response file. The default path is <*Install Location*>\Setup\RSSetup\response.ini, where <*Install Location*> is the location of the installation files.

Parameter	Description
`-autocapture`	Records your responses to a software installation, storing the responses in a file for later replay.
`/product product-identifier`	Specifies the product you are installing. Do not use this parameter for silent installations. For a silent installation, specify the product name in the response file instead. See Table 14 on page 127 for the list of identifiers you can use with this parameter.
`/install`	Installs the product you specified with the `/product` switch. This switch cannot be combined with `/uninstall` or `/update`. Do not use this parameter for silent installations.
`/uninstall`	Removes the product you specified with the `/product` switch. This switch cannot be combined with `/install` or `/update`. Do not use this parameter for silent installations.
`/update`	Updates the product you specified with the `/product` switch. This switch cannot be combined with `/install` or `/uninstall`. Do not use this parameter for silent installations.

Table 14 lists the product identifiers to use with the `/product` switch.

Table 14 Product Identifiers

Product Name	Product Identifiers
Rational Test Agent	`atbuPSAgent`
Rational Test Enablers	`atbuSetupEnablers`
Rational TestManager	`atbuTestManager`
Rational TeamTest	`atbuTeamTest`
Rational Robot	`atbuTSRobot`
Rational ClearCase LT Client	`ClearCaseLTClient`

Table 14 Product Identifiers (continued)

Product Name	Product Identifiers
Rational ClearCase LT Server	`ClearCaseLTServer`
Rational ClearQuest	`ClearQuest-1.1`
Rational ClearQuest TeamTest Edition	`ClearQuestTeamTestEdition-1.1`
Rational ContentStudio	`ContentStudio`
Rational PureCoverage	`coverageNT`
Rational Developer Kit	`dsbuDeveloperKit`
Rational Suite DevelopmentStudio for UNIX	`dsbuRSDSU`
Rational Purify	`purifyNT`
Rational Quantify	`quantifyNT`
Rational RequisitePro	`rmbuRequisitePro`
Rational Rose Enterprise Edition	`Rose98i`
Rational Rose Professional Ada Edition	`Rose98iAdaProfessional`
Rational Rose Professional C++ Edition	`Rose98iC++Professional`
Rational Rose Professional J Edition	`Rose98iJavaProfessional`
Rational Rose Modeler Edition	`Rose98iModeler`
Rational Rose Professional Visual Basic Edition	`Rose98iVBProfessional`
Rational Rose Professional Data Modeler Edition	`RoseDataModelerProfessional`
Rational Rose RealTime	`RoseRealTime`
Rational Unified Process	`ruObjectory51`
Rational SoDA for Word	`SoDA`
Rational Suite AnalystStudio	`wsbuAnalystEdition`
Rational Suite DevelopmentStudio	`wsbuDevelopmentStudio`
Rational Suite DevelopmentStudio - RealTime Edition	`wsbuDevelopmentStudioRT`
Rational Suite Enterprise	`wsbuEnterprise`

Table 14 Product Identifiers (continued)

Product Name	Product Identifiers
Rational License Server	`wsbuFLEXlmServer`
Sybase SQL Anywhere Database Server	`wsbuSQLAnywhereServer`
Rational Suite TestStudio	`wsbuTestStudio`
Rational Suite Team Unifying Platform	`wsbuUnifyingPlatform`

Troubleshooting 10

If you have any problems running the Rational Software Setup program or setting up a silent installation, read Table 15 and the index of error messages in the Rational Software Setup Help.

Installation Messages

Installation error messages, including messages for silent installations, are displayed in the file <*Install Path*>\RSSetup\Error.log.

Table 15 describes some errors that you may encounter when you configure a silent installation.

Table 15 Silent Installation Messages

Message	Description
Product "ProductName" specified in response file is not contained in the product list.	This message appears when the `response.ini` file contains an invalid product name.
Unable to open response file.	Typically, this error occurs when the installation procedure cannot locate the `response.ini` file. Either you have specified an incorrect path or the `response.ini` file is not in the default location.
Information required to remove the specified product cannot be found. The product may not be removed automatically.	When you tried to remove a product with the /uninstall switch, you either specified a product that is not installed on your system or you incorrectly typed the product name on the command line. Confirm that you are specifying a product on your system. Confirm that you have typed the product name exactly as it appears in the Rational Software Setup program.

Support Information

Contact Rational Support if you have questions about the installation, use, or maintenance of Rational Software products.

Contacting Rational Technical Support on page xv provides Rational Technical Support telephone and e-mail contact information.

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