Rational Suite®

Upgrade Guide

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WINDOWS

Rational®
the software development company

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Contents

Preface xiii
Audience xiii
Other Resources xiii
Rational Suite Documentation Roadmap xiv
Contacting Rational Customer Support xv

1 Planning an Upgrade 17
Overview: Flow of Events 17
Creating an Upgrade Plan 18
Who Should Participate 18
Which Products Are You Upgrading 19
Understanding the Rules of Upgrading 19
Can You Upgrade Directly? 20
Upgrade, Then Make Major Changes 21
Back Up Databases and Datastores 21
Plan to Verify Upgrade Success 21
Special Rules for Upgrading ClearCase and ClearQuest 22
Preparing to Upgrade ClearCase 22
Working with Full ClearCase, ClearQuest, and MultiSite 22
You Cannot Run with Mixed Versions of Software 23
Exceptions 23
Upgrading ClearCase or ClearQuest Standalone 23
Have You Met the Prerequisites? 25
Frequently Asked Questions 41
Checklist: Are You Ready to Upgrade? 43

2 Upgrading Servers and Administrator Systems 45
Installing New Software 45
Before You Install 45
Determining the Type of Installation to Perform 46
Saving License Server Name 46
Saving ClearQuest Information 46
Remembering Location of Rational Projects 47
Performing ProjectConsole Tasks 48
Performing Tasks for ClearCase for Use With XDE 49
Preparing to Upgrade SQL Anywhere 50

Removing Rational Products From Your Computer 50
Optional: Installing Rational Download Manager 50
Installing the Latest Version of Rational Suite 51
After the Installation: Reconfiguring Licenses 51
Upgrading SQL Anywhere Server 52
ClearQuest Only: Before You Upgrade SQL Anywhere 52
Upgrading the Database Server Host 52
Overview of Upgrade Steps 52
ClearQuest Only 53
All Products: ClearQuest, Test, ProjectConsole 54
After You Upgrade SQL Anywhere 55
ClearQuest Only: Migrating the Data 55
Upgrading ClearCase 56
Incrementing VOB Feature Level 56
Changing the Feature Level 57
Changing the Feature Level in a MultiSite Environment 57
Reformatting ClearCase Views 57
Upgrading ClearQuest 58
Understanding the Upgrade Process for ClearQuest 58
Connecting to ClearQuest 58
Performing Database Tasks 59
Upgrading Database Versions or Changing Database Vendors 59
Using Oracle Databases 59
Upgrading ClearQuest Packages 60
Applying Package Upgrades 60
Applying Schema Changes to User Databases 61
Changing the ClearQuest Data Code Page 62
Upgrading the ClearQuest Feature Level 62
Scheduling the Feature Level Upgrade 63
Determining the Current Feature Level 63
Working With ClearQuest MultiSite 63
Overview of Upgrading the ClearQuest Feature Level 63
Verifying Your Environment 64
Creating a Test Bed 64
Upgrading the Test Bed 65
Creating Production Databases 66
Upgrading the Production Databases 66

Upgrading a Rational Project 67
Upgrading the RequisitePro Database and Rational Test Datastores 68
Upgrading the RequisitePro Database 69
Upgrading the Rational Test Datastore 70
After Upgrading a Rational Project 71
Verifying ClearQuest Packages for a Rational Project 71
Rebuilding the UCM Integration When You Use ClearQuest 72
Upgrading from RobotJ to XDE Tester 72
Enabling Integrations 72
Converting a Rational Test Datastore 72
Reusing RobotJ Assets 73
Re-enabling Java Environments and Web Browsers 73
Re-enabling Java Environments 73
Re-enabling Web Browsers 74
Integrations with XDE Tester 75
Upgrading ProjectConsole 75
Upgrading ProjectConsole Server Software 75
Restoring Saved Files from Backup 76
Migrating Project Data from an Earlier Version of Rational ProjectConsole. . . . 76
After Migrating Data 80
Checking for Errors 80
Changing the Rational Services Logon Information 80
Re-Connect to the Database 81
ProjectConsole Automatically Sets the Data Code Page 81
Performing Final Steps 82
Upgrading ProjectConsole Agent Software 84
Migrating from Rose to XDE [optional] 84
When a Rose Model Is Part of a Rational Administrator Project 84
Upgrading Rational Unified Process. 85
Running RUP Builder 85
Adding Links to Process Views 85
Upgrading Rational Process Workbench 86
Packaging Content in a Thin Plug-in 86
Upgrading Extended Help 86

3 Upgrading Web Servers 87
Installing a Web Service that Uses the Rational Web Platform 87
Before You Install 87
Performing the Installation 88
Configuring RequisiteWeb 88
Prerequisites 88
Configuring the RequisiteWeb Server 89
Creating the ReqWebUser 89
Adding the ReqWebUser to the Local Administrator Group 90
Assigning DCOM Permissions to the Local Administrators Group 91
RequisiteWeb and IIS 92
Disable IIS 92
Change and redirect the default RWP HTTP port 93
Editing the RequisiteWeb Configuration File (optional) 93
Enabling SSL (Secure Socket Layer) 95
Granting ReqWebUser Access to Network Projects 95
Reboot Required 95
Testing RequisiteWeb 96
Stopping and Starting RequisiteWeb 96
Managing RequisitePro Projects for RequisiteWeb 96
Using the RequisiteWeb Project Catalog 96
Editing the RequisitePro Projects Catalog 97
Database Projects 97
Configuring ClearCase Web 97
Specifying the ClearCase Primary Group 98
Web View Storage 98
Limiting Upload Size 99
Specifying a Session Timeout 99
Specifying a Directory for Temporary Storage 99
Permission to Download Applets on Windows 99
Allowing IIS and RWP to Co-Exist on a Single Server 100
Configuring the Rational Web Platform 100
RWP Installation Directory 101
RWP Configuration Files 101
Configuration File Reference Versions 102
To Change the Default RWP HTTP Port 102
To Change the Default RWP Servlet Engine Ports 102
To Configure RWP Logging 103

Log Rotation and Log Cleanup 105
To Change the User Account Used by RWP 105
To Change the RWP User Account on Windows 105
To Stop and Restart RWP 106
To Configure Access to RWP from Another Web Server 106
Configuring mod_proxy Support for Apache 107
Configuring URL Redirection for Internet Information Server 108
Configuring RWP To Use Secure Sockets 109
Configuring Secure Access to RWP 110
Other Modifications to RWP 111

4 Installing Rational Products 113

Removing Previous Releases of Rational Products 113
Deploying Rational Products 114
Using the Rational Setup Wizard 115
Rational_Install Log 115
Before You Start the Rational Setup Wizard 115
Using the Custom Setup Page 116
Specifying the Rational License Server 119
Installing Rational Products from the CD 119
Creating a Release Area and Site Defaults File 121
Using the Setup Wizard to Create a Release Area and Site Defaults File 122
Installing the Product on Your Computer 123
Running the Site Preparation Wizard to Create Multiple Sitedef Files 125
Installing Rational Products from a Release Area 125
Using a Standard Configuration 126
Customizing Your Own Configuration 127
Setting Up Silent Installations of Rational Products 129
Performing a Silent Installation 130
Canceling a Silent Installation 131
Using the Command Line to Remove a Product 131
Post-Installation Tasks 131
Licensing 131
Canceling a Product Installation 132
Reinstalling a Product (Modify or Repair) 133
Command Line Syntax 133
Rational Setup Wizard Warnings or Blocks 134
Applying Service Releases 135

5 Removing Rational Products 137
Before You Remove Rational Software 137
Before You Remove ClearCase Data from the ClearCase LT Server 138
Before You Remove Rational RequisiteWeb 138
Removing Rational Software 139
Removing RequisiteWeb 2003.06.00 139
Removing RequisiteWeb 2002.05.X 139
Deleting the ReqWeb and Jakarta Virtual Directories 140
Removing the Jakarta ISAPI Filter 140
Restarting the IIS Admin Service 141
Removing the RequisiteWeb Program 141
Removing RequisiteWeb 2001A 142
Stop and Remove the RqTomcat Service 142
Remove the ReqWeb and Jakarta Virtual Directories 143
Remove RequisiteWeb 2001A 143
Remove the Tomcat_Home and Java_Home System Variables 143

6 Upgrading Desktop Systems 145
Before the Upgrade 145
Upgrading to the New Version 146
After the Upgrade 146

Index 147

List of Of Tables

Table 1	Worksheet: Which Products Will You Upgrade?	19
Table 2	Paths to Upgrading Rational Suite	20
Table 3	Server Requirements and Recommendations	25
Table 4	Desktop Requirements and Recommendations	32
Table 5	Troubleshooting: Upgrading the ClearQuest Feature Level	64
Table 6	Creating the RequisiteWeb User	90
Table 7	Adding the ReqWebUser to the Local Administrator Group	90
Table 8	Disable IIS	92
Table 9	Granting ReqWebUser Access to Network Projects	95
Table 10	Default RWP Servlet Engine Ports	102
Table 11	RWP Log Levels	104
Table 12	Deployment Methods	114
Table 13	Server Custom Setup in Rational Setup Wizard	117
Table 14	LKAD Launch	131
Table 15	LKAD Tasks	132
Table 16	Command Line Syntax	133
Table 17	Warnings and Blocks	134

Preface

This manual provides detailed instructions about how to upgrade to the current version of Rational Suite when an earlier version is already installed on your computer or your network. (For information about installing Rational Suite for the first time, see the *Installation Guides* for Rational Desktop Products and Rational Server Products.)

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

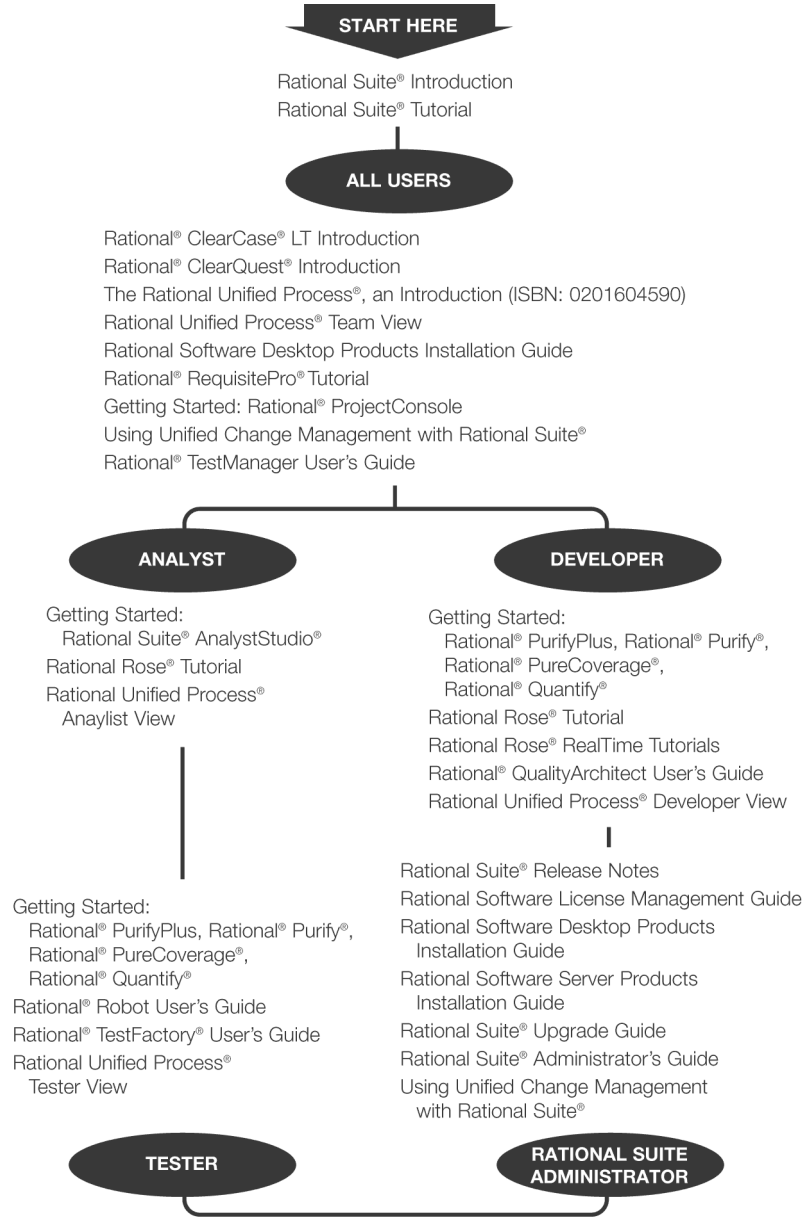
Audience

This manual is intended for administrators who install and configure Rational Suite.

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.
- 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 > Programs > Rational Software > Logon to the Rational Developer Network**.

Rational Suite Documentation Roadmap



Contacting Rational Customer Support

If you have questions about installing, using, or maintaining this product, contact Rational Customer 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) 20-4546-201 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 Customer Support, please 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 service request number (if you are following up on a previously reported problem)

Planning an Upgrade 1

If you upgrade to Rational Suite 2003 from an earlier version, you need to upgrade your software and datastores in a specific order to continue using your team's data. When you upgrade, you need to upgrade all computers in your environment so that datastores and software are all running the same version of Rational software. Read this manual to understand how to upgrade successfully.

This manual collects information available for individual products. Any changes made after this book went to press are recorded in the *Rational Suite Release Notes*. The *Release Notes* are in the top-level directory of the Rational Solutions for Windows installation CD-ROMs, in the readme.htm file.

This chapter describes how to plan for a successful upgrade. It concludes with a checklist to help you determine whether you are ready to upgrade.

Overview: Flow of Events

This manual describes the steps to upgrade Rational Suite. At a high level, these steps are as follows:

- Create an upgrade plan, including schedule, people to involve, milestones, and special notes for your installation.
- Ensure that users are not connected to Rational products or their datastores – either instruct them to disconnect or, from each server, disconnect all users.
- Remove existing Rational software from your computer.
- Install the current version of Rational Suite on servers and administrator systems.
- Upgrade datastores for installed products and perform configuration tasks.
- Optionally configure web servers.
- Test the upgrade to make sure everything is working correctly.
- Install new software on desktops and perform minor tasks.
- Alert users that they can resume using the tools.

Creating an Upgrade Plan

In a large organization, coordinating and implementing an upgrade can be a complex task. We recommend that you create an upgrade plan so that all affected people understand their responsibilities in the process. We suggest that you include at least the following topics in your plan:

- Why are you upgrading? Include an overview of new features or a pointer to the new features in the *Rational Suite Release Notes*.
- Who is participating in the upgrade? Include each person's name, contact information, role, and responsibility.
- When is the upgrade taking place? Include a schedule with milestones and specific dates.
- What are you upgrading? Include a list of Rational point products that you use in your environment and special considerations for each product.
- What else do you need? Include special information about your environment that is relevant to the upgrade.
- How will you verify success? What are your acceptance criteria for a successful upgrade?
- Do you have contingency plans for administrators performing the upgrade and for users who may have problems after the upgrade? Will knowledgeable people be available to help during the upgrade?

Who Should Participate

Before you upgrade, identify the members of your upgrade team. The following list describes the types of people to involve.

- Network or System administrators – install Rational tools, may decide to set up a silent install
- Database administrators (DBAs) – upgrade enterprise databases
- Configuration managers – administer ClearCase
- Project leaders – use the Rational Administrator to maintain Rational projects; represent needs of the users
- The Change (or Configuration) Control Board – members of the team who govern a project's software development environment

In a smaller group, one person may perform more than one of these roles (for example, the DBA might be the same person as the network administrator). In a larger group, several people may perform just one role; in that case, identify one main contact in each role.

Which Products Are You Upgrading

Use the following worksheet to note which products are part of your environment and how they are configured. Remember that editions of Rational Suite include different combinations of these products. Your configuration should help you determine which roles to involve in the upgrade.

Table 1 Worksheet: Which Products Will You Upgrade?

Product	Upgrade?	Database	Web	VOB Server	File Server
ClearQuest				NA	
Rational Unified Process		NA		NA	
ProjectConsole				NA	
RequisitePro				NA	
ClearCase		NA			
Test Products				NA	
Rose		NA	NA	NA	

Notes:

- *NA* means *not applicable*.
- In the *Upgrade?* column, indicate whether the product is in your environment.
- In the *Database* column, write the type of database you use with the product.
- In the *Web* column, indicate whether you use the Web interface for the product.
- In the *VOB Server* column, write the name of the VOB Server.
- In the *File Server* column, indicate where you store this product's artifacts.

Understanding the Rules of Upgrading

Before you upgrade your Rational software, you need to understand the rules that apply, as described in this section.

Can You Upgrade Directly?

In most cases, you can upgrade directly from your starting version, but in a few cases, you need to upgrade to an intermediate version before you can upgrade to the current version. The general rules are as follows; more detailed information is in Table 2:

- For servers, if you are starting from one or two versions back (version 2001A or 2002), you can upgrade directly to the current version, 2003.
- For desktops, after you upgrade the servers, if you are starting at version 2000 or later, you can upgrade directly to the current version, 2003.

Table 2 Paths to Upgrading Rational Suite

If you are starting from this version	Then upgrade as follows
Servers running Rational Suite 2002 or 2001A	Follow the procedures in this manual.
Servers running Rational Suite 2001 or 2000	1 Upgrade to version 2001A, as described in "Upgrading from Earlier Versions of Rational Suite" in the 2001A version of *Installing Rational Suite* (see www.rational.com/documentation). 2 Upgrade from version 2001A to the current version by following the procedures in this chapter.
Desktops running Rational Suite 2000 or later	1 Before you start, ensure that servers are upgraded. 2 Upgrade desktops directly to the current version.
Rational Suite 1.5, 1.1, or 1.0	1 Upgrade servers and desktops to version 2000; contact Rational Customer Support for more information. 2 Upgrade servers from version 2000 to version 2001A, as described in "Upgrading from Earlier Versions of Rational Suite" in the 2001A version of *Installing Rational Suite* (see www.rational.com/documentation). 3 Upgrade servers from version 2001A to the current version by following the procedures in this manual. 4 Upgrade desktops from version 2000 to the current version by following the procedures in this manual.
A Rational point product, any version	Contact Customer Support for more information.

Upgrade, Then Make Major Changes

If you plan to make 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, enabling a project for use with Unified Change Management, or adding new point products to your environment. If you are adding a new product, read about prerequisites and postrequisites in the *Installation Guides* for Rational Server Products and Rational Desktop Products.

Exception: Version 2003 no longer supports the Microsoft Windows 9*x* operating systems (Windows 95, Windows 98, Windows Me). Update these older operating systems before starting the Rational Suite upgrade. (You can use Rational Robot to record and run test scripts on Windows 98 and Windows Me, and Rational TestManager to run scripts on those platforms. For more information, read about platform support in the *Rational Testing Products Release Notes*.)

Back Up 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 creating backups, contact Rational Customer Support.

Plan to Verify Upgrade Success

Because upgrading software changes both the software and your environment, it is important to verify that the upgrade is successful. Here are some suggestions:

- Many organizations benefit from performing a test upgrade in a non-production area of their network. Some organizations copy all data stores to a lab environment and test there first before starting a production upgrade. By using this technique, you can understand the special considerations that apply to your environment before you upgrade your production data.
- To ensure that the software is running normally, run a series of tests after the upgrade but before desktop users resume use of the software. We recommend that you determine your group's acceptance criteria before the upgrade and that you document those criteria in your upgrade plan.

Special Rules for Upgrading ClearCase and ClearQuest

This section describes special considerations for upgrading ClearCase and ClearQuest, including how to prepare for the upgrade, and working with the products in a standalone environment.

Preparing to Upgrade ClearCase

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

- If you use ClearCase or ClearCase LT to store assets from Rational RequisitePro or Rational Test, make sure that those assets are available through a ClearCase view so that you can upgrade the data stores.
- 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. We recommend, however, that you perform the following steps so that you can revert to the current version should the need arise:
  - Use the Rational Administrator to perform a *Check in All* operation for the RequisitePro project and the Test datastore. (In the Administrator, on the Configure dialog box for your project, click **Check in All** for both datastores. ClearCase checks in all project-related assets, then checks them out again.)
  - Create a baseline (In the ClearCase Project Explorer, select the project, then click **Tools > Make Baseline**).
- If you used another method to integrate Rational Suite and ClearCase, then:
  - We recommend that you create a label to mark the latest versions of your datastores. This will allow you to revert to the current version should the need arise.
  - Check out RequisitePro and Rational Test assets that you store in ClearCase. If you do not, the upgrade will fail.

Working with Full ClearCase, ClearQuest, and MultiSite

The Rational Shipping Server is required by both Rational ClearCase Multisite and Rational ClearQuest MultiSite. It should be installed only on those hosts that are responsible for replicating data to other sites.

We recommend that you avoid configuring any one host to run the Shipping Server for both products, because de-installing either product from such a host will remove the Shipping Server that is used by both products and render the remaining product inoperable.

If you must install both ClearCase MultiSite and ClearQuest with the Shipping Server on the same host, ensure you do the following:

- Install ClearCase first.
- Uninstall both products if you ever uninstall either product.

Warning: Administrators should ensure that site configuration files for typical host systems do not specify installation of the ClearQuest Shipping Server. Any attempt to install ClearCase on a host where ClearQuest and the Shipping Server is already installed will fail.

You Cannot Run with Mixed Versions of Software

All Rational tools and all servers and desktops must run the same version of Rational software. With just a few exceptions, you cannot mix versions.

Exceptions

The exceptions are as follows:

- You can install a v2003 product on a computer that already has full ClearCase v4.2 or later.

  Note: If you plan to work with an older version of full ClearCase and a newer version of other Rational products, do not remove full ClearCase from your computer when you remove other Rational products from your computer.

- If you are working with ClearQuest or ClearCase standalone, there may be situations where you can operate in a mixed-version environment. For more information, see *Upgrading ClearCase or ClearQuest Standalone* on page 23.

- For information about mixing ClearQuest versions in an environment that has UNIX clients, see the *ClearQuest Installation Guide for UNIX*.

Upgrading ClearCase or ClearQuest Standalone

Your network environment can contain mixed versions of ClearCase and ClearQuest clients (where some clients are at v2003 and some clients are at earlier versions) if these products are in a standalone environment, that is:

- You've installed ClearCase only, ClearQuest only, or both.
- You have not installed Rational Suite.
- You have not installed other individual Rational point products.

In addition, for ClearQuest, the following items must be true.

- You are not using ClearQuest MultiSite.

- As long as your network environment contains ClearQuest clients at v2001 or earlier, you plan to keep your database at its current feature level.
- If your vendor database is SQL Anywhere, you do not plan to upgrade to SQL Anywhere 8.0 until all ClearQuest clients and databases have been upgraded to version 2003.

Upgrade Order

If you plan to use mixed versions of ClearCase or ClearQuest clients, the upgrade tasks remain the same as described in this manual, but the order in which you perform these tasks changes as follows:

1. Upgrade all ClearCase servers but do not change the ClearCase VOB feature level. VOBs and views are inaccessible during the upgrade process, but checked-out files and directories may remain checked out during the upgrade.

   Rule: Newer ClearCase servers can communicate with newer or older clients.

2. To run ClearQuest in a mixed-version environment, apply a special package that prevents data corruption.
3. Upgrade ClearCase and ClearQuest clients when it's convenient to do so. You can operate in this mixed-version mode indefinitely.

   Rule: Older ClearQuest databases can communicate with newer or older clients.

4. When all clients are upgraded, upgrade ClearQuest databases. If you are using an SQL Anywhere database, switch to SQL Anywhere 8.0.
5. Optional: when all clients are upgraded, increment the ClearCase VOB feature level.

Applying the Special ClearQuest Package

ClearQuest now has a feature, the data code page, which restricts ClearQuest databases to accept data in one character set only. To operate in a network environment with versions of ClearQuest earlier than v2003:

- Work on an administrator host that has been upgraded to at least ClearQuest Version 2002.05.01 Patch 2.
- Apply the CharacterSetValidation package (using a script) to all ClearQuest schemas.
- Set the ClearQuest data code page value for all associated user databases.
- If any clients are using a version earlier than 2002.05.01, Patch 2, then set the ClearQuest data code page to ASCII.

For more information about working with ClearQuest data code pages, read about ClearQuest and Code Pages in the *Rational ClearQuest Administrator's Guide*. For more information about performing these specific steps, read the section about Interoperation with Previous Versions of ClearQuest in the same guide.

Have You Met the Prerequisites?

Table 3 lists the prerequisites for installing Rational Suite products on servers.

Table 3 Server Requirements and Recommendations

Item	Requirements and Recommendations
Operating Systems	▪ Microsoft Windows XP Professional, Service Pack 1 ▪ Microsoft Windows 2000 Server, Service Pack 2, 3 ▪ Microsoft Windows 2000 Advanced Server, Service Pack 2, 3 ▪ Microsoft Windows 2000 Professional, Service Pack 2, 3 ▪ Microsoft Windows NT 4.0 Server, Service Pack 6a + SRP (Security Rollup Package, Q299444) ▪ Microsoft Windows NT Workstation, Service Pack 6a + SRP (Security Rollup Package, Q299444) **Notes:** ▪ The production release of Windows 2003 Server was not available for final testing for most products at the time this document was finalized. Please visit our web site www.ibm.com/software/rational/ to obtain the latest information on Windows 2003 Server support. ▪ ClearCase LT server supports Windows 2003 Server. ▪ See the Database section of this table for supported UNIX platforms that Windows clients can access.
Hardware	▪ 500-600 MHz or higher ▪ 256-512+ MB RAM ; More memory generally improves performance; required memory depends on the number of concurrent users, amount of data being requested, and the size of the database ▪ 2 x physical memory is the recommended swap space ▪ 250 MB or higher disk space for a Rational point product

Table 3 Server Requirements and Recommendations (continued)

Item	Requirements and Recommendations
ClearCase LT Server File Storage Space Requirements	▪ Rational ClearCase LT needs enough disk space on the server 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. ▪ In addition to the free disk space required to load the Rational ClearCase LT server, the server needs 0.5 to 1.0 MB for each user who will access the ClearCase Web interface through the ClearCase LT server.
Rational Suite Disk Space	▪ Rational Suite Enterprise – 1.6 GB (full), 1.2 GB (typical), 1.9 GB (Enterprise Deployment) ▪ Rational AnalystStudio – 1.2 GB (full), 851 MB (typical) ▪ Rational DevelopmentStudio – 1.4 GB (full), 1.1 GB (typical) ▪ Rational DevelopmentStudio for UNIX (Windows components only) – 515 MB (full), 445 MB (typical) ▪ Rational DevelopmentStudio – RealTime Edition – 1.4 GB (full), 1.1 GB (typical) ▪ Rational DevelopmentStudio – RealTime Edition for UNIX (Windows components only) – 515 MB (full), 445 MB (typical) ▪ Rational TestStudio – 1.4 GB (full), 1.1 GB (typical) ▪ Rational TeamTest – 645 MB (full), 583 MB (typical) ▪ Rational Team Unifying Platform – 1.1 GB (full), 825 MB (typical) **Note:** If Rational ProjectConsole is include in your Rational Suite, it requires 1+ GB for its repository.

Table 3 Server Requirements and Recommendations (continued)

Item	Requirements and Recommendations
Point Product Disk Space	▪ ClearCase LT Server: 264 MB (full) ▪ ClearQuest Multisite Administrator: 250 MB ▪ ClearQuest Web Server: 250 MB ▪ Rational Shipping Server: 250 MB ▪ Terminal Server (ClearQuest): 250 MB ▪ PurifyPlus for Windows: 70 MB (full), 68 MB (typical) ▪ QualityArchitect: 250 MB ▪ Rational Unified Process: 195 MB (full/typical) ▪ RUP Modeler: 50 MB ▪ RUP Organizer: 2-4 GB ▪ RequisitePro: 192 MB (full), 176 MB (typical) ▪ Robot: 282 MB (full/typical) ▪ Rose Enterprise Edition: 456 MB (full/typical) ▪ SoDA: 150 MB (Microsoft Word), 100 MB (FrameMaker) ▪ TestManager: 379 MB (full/typical)

Table 3 Server Requirements and Recommendations (continued)

Item	Requirements and Recommendations
Databases	ClearQuest Databases ▪ IBM DB2 Universal Database 7.2 with Fix Pack 8, 8.1 ▪ Microsoft SQL Server 7.0, Service Pack 4; SQL Server 2000, Service Pack 2, 3 ▪ Oracle server + Client 8.1.6, 8.1.7 ▪ Sybase SQL Anywhere 8.0.1 is available on the *Rational Solutions for Windows* installation disc. It is configured to work only with Rational products. Select SQL Anywhere from the **Product Selection** list in the Rational Setup Wizard. ▪ Microsoft Access 2000, 2002 Service Pack 1, 2 (You cannot use Access from the ClearQuest Web client.) **Note:** ClearQuest also supports Oracle on Solaris 2.6, 7-9 and HP-UX 11.0 QPK1100, 11.11 GoldQPK11i and Bundle11i.
	RequisitePro Enterprise Database ▪ Microsoft SQL Server 7.0, Service Pack 4; SQL Server 2000, Service Pack 2, 3 ▪ Oracle server + client 8.1.7, 9, Service Pack R2 **Note:** RequisitePro also supports Oracle on Solaris 2.6, 7-9 and HP-UX 11.0 QPK1100, 11.11 GoldQPK11i and Bundle11i.
	Rational TestManager Database ▪ Microsoft Access 2000, 2002 Service Pack 1, 2 ▪ Sybase SQL Anywhere 8.0.1 is available on the *Rational Solutions for Windows* installation discs. It is configured to work only with Rational products. Select SQL Anywhere from the **Product Selection** list in the Rational Setup Wizard.

Table 3 Server Requirements and Recommendations (continued)

Item	Requirements and Recommendations
ProjectConsole	Collection Agent If you install the agent software on additional computers, agents require the same version of ProjectConsole software as the server. Additional Collection Support: ▪ Microsoft Project 2000 Professional ▪ Microsoft Project 2002 (.mpp only) ▪ Rational XDE v. 2003
	Web Server ▪ Microsoft Word 2000 Service Pack 1 ▪ Microsoft Word 2002
	Template Builder Microsoft Word 2000 Service Pack 1; Word 2002 (required to create ProjectConsole Template Builder templates)
	Repository (supports the same vendor databases as ClearQuest) ▪ IBM DB2 Universal Database 7.1, 7.2 (Fix Pack 8), 8.1 ▪ Microsoft SQL Server 7.0, Service Pack 4; SQL Server 2000, Service Pack 2, 3 ▪ Oracle server + Client 8.0.5, 8.1.6, 8.1.7 ▪ Sybase SQL Anywhere 8.0.1 is available on the *Rational Solutions for Windows* installation disc. It is configured to work only with Rational products. Select SQL Anywhere from the **Product Selection** list in the Rational Setup Wizard. It is not installed by default with the product. ▪ Microsoft Access 2000, 2002 Service Pack 1, 2. **Note:** ProjectConsole also supports Oracle on Solaris 2.6, 7-9 and HP-UX 11.0 QPK1100, 11.11 GoldQPK11i and Bundle11i.

Table 3 Server Requirements and Recommendations (continued)

Item	Requirements and Recommendations
Hosted Development Systems (remote sessions)	Rational ClearCase, Rational ClearCase LT, Rational ClearQuest, Rational RequisitePro, Rational Robot, Rational Rose, and Rational SoDA support hosted development on these platforms: ▪ Citrix MetaFrame 1.8, Service Pack 2 ▪ Citrix MetaFrame XP Application Server ▪ Microsoft Windows 2000 Advanced Terminal Server, Service Pack 2, 3 **Notes:** ▪ Rational ClearQuest supports Citrix MetaFrame and Citrix XP on all supported Windows server operating systems. ▪ Rational ClearCase and ClearCase LT do not support remote sessions on Citrix XP and MetaFrame. You must use floating licenses for these products. Node-locked licenses are not supported.
Web Servers	ClearCase Web, ProjectConsole Server, RequisiteWeb use the Rational Web Platform. The Rational Web Platform runs on the server operating systems listed at the beginning of this table.
	For ClearQuest Web: ▪ IIS 5.0 on Windows 2000 Server Service Pack 2, 3 ▪ IIS 4.0 on Windows NT Server Service Pack 6a + SRP (Security Rollup Package, Q299444)
	For Rational ManualTest Web Execution: ▪ Microsoft Internet Explorer 5.0 or later on the Web server ▪ Microsoft Internet Information Services 5.0 (IIS 5.0) on Windows XP and Windows 2000 ▪ Microsoft Personal Web Server (PWS) from the Windows NT 4.0 Option Pack (available from Microsoft, www.microsoft.com) on Windows NT 4.0 Workstation ▪ Microsoft Internet Information Server (IIS) from the Windows NT 4.0 Option Pack (available from Microsoft, www.microsoft.com) on Windows NT 4.0 Server We recommend that you use Windows 2000 Server, Windows 2000 Advanced Server, or Windows NT 4.0 Server as the Web server platform. You cannot use a shared or networked project on Windows XP Professional, Windows 2000 Professional, or Windows NT 4.0 Workstation.

Table 3 Server Requirements and Recommendations (continued)

Item	Requirements and Recommendations
Automated License Key Requests	Internet connection to request and receive license key files. For more information, see the *Rational Software License Management Guide*.
Dual Boot Systems	Rational Suite does not support dual boot systems where both operating systems are on the same partition.
Rational Documentation	Adobe Acrobat Reader 4.x or higher to read online PDF files. Download the free Adobe Acrobat Reader from Adobe.com.
Language Support	You can install Rational Suite on these international operating systems: ▪ Simplified or Traditional Chinese ▪ Dutch ▪ French ▪ German ▪ Hebrew ▪ Italian ▪ Japanese ▪ Korean ▪ Swedish All displays, menus, controls, wizards, reports, and user documentation are in U.S. English. ▪ If you have a Traditional Chinese, Dutch, Hebrew, or Korean operating system, enter data (such as path names) in U.S. English or the ASCII character set. ▪ If you have a Simplified Chinese, French, German, Italian, Japanese, or Swedish operating system, enter data in U.S. English or the native language character set. Regional date, time, currency, and numbering conventions are also supported for both input and output.

Table 4 lists the prerequisites for installing Rational products on desktops.

Table 4 Desktop Requirements and Recommendations

Item	Requirements and Recommendations
Operating Systems	▪ Microsoft Windows XP Professional, Service Pack 1 ▪ Microsoft Windows 2000 Professional, Service Pack 2, 3 ▪ Microsoft Windows NT 4.0 Workstation, Service Pack 6a + SRP (Security Rollup Package, Q299444)
	Notes: PurifyPlus supports additional operating systems. See the *PurifyPlus Family Release Notes* in the *Rational Solutions for Windows Online Documentation* CD for more information. Robot and TestManager also support: Windows 98, 98SE, and ME. However, the TestManager installation does not include the Rational Administrator if TestManager is installed on Windows 98, 98SE, or ME. XDE: ▪ For the latest information about XDE operating system support, see the *Release Notes* for Rational XDE.
	The production release of Windows 2003 Server was not available for final testing at the time this document was finalized. Please visit our web site www.ibm.com/software/rational/ to obtain the latest information on Windows 2003 support.
Hardware	▪ 500-600 MHz or higher ▪ 256-512+ MB RAM; more memory generally improves performance ▪ Swap space: 2 x physical memory ▪ 800 X 600 X 256-color video resolution, or higher; high color or true color recommended ▪ Microsoft mouse or compatible pointing device
	Notes: XDE: ▪ 512 MB RAM; 1 GB recommended for Developer versions.
Remote Access Support	See the Server Requirements and Recommendations table in the *Installation Guide* for Rational Server Products or the *Rational Suite Release Notes*.

Table 4 Desktop Requirements and Recommendations (continued)

Item	Requirements and Recommendations
Rational Suite Disk Space	▪ Rational Suite Enterprise – 1.6 GB (full), 1.2 GB (typical) ▪ Rational AnalystStudio – 1.2 GB (full), 851 MB (typical) ▪ Rational DevelopmentStudio – 1.4 GB (full), 1.1 GB (typical) ▪ Rational DevelopmentStudio for UNIX (Windows components only) – 515 MB (full), 445 MB (typical) ▪ Rational DevelopmentStudio – RealTime Edition – 1.4 GB (full), 1.1 GB (typical) ▪ Rational DevelopmentStudio – RealTime Edition for UNIX (Windows components only) – 515 MB (full), 445 MB (typical) ▪ Rational TestStudio – 1.4 GB (full), 1.1 GB (typical) ▪ Rational TeamTest – 645 MB (full), 583 MB (typical) ▪ Rational Team Unifying Platform – 1.1 GB (full), 825 MB (typical)
Point Product Disk Space	ClearCase LT client file storage space: Rational ClearCase LT needs enough disk space on the desktop 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.
	▪ ClearQuest native client: 371 MB (full), 321 MB (typical) ▪ ClearQuest Web client: 50 MB (browser + JRE) ▪ PurifyPlus for Windows: 70 MB (full), 68 MB (typical) ▪ QualityArchitect: 250 MB ▪ Rational Test Agent: 425 MB (We recommend more disk space for large virtual tester runs.) ▪ Rational Unified Process: 195 MB (full/typical) ▪ Rational Unified Process Modeler: 50 MB ▪ Rational Unified Process Organizer: 2-4 GB ▪ RequisitePro: 192 MB (full), 176 MB (typical) ▪ Robot: 282 MB (full/typical) ▪ Rose Enterprise Edition: 456 MB (full/typical) ▪ SoDA: 150 MB (Microsoft Word), 100 MB (FrameMaker) ▪ TestManager: 379 MB (full/typical) ▪ XDE: 500 MB (minimum) for installation drive, 100 MB for workspace, 2-5 GB recommended for workspace
Integrations with 3rd Party Applications	

Table 4 Desktop Requirements and Recommendations (continued)

Item	Requirements and Recommendations
ClearCase LT	▪ Microsoft Office 2000 Service Pack 1, 2; 2002 without a Service Pack or Service Pack 1 ▪ Microsoft Word 2000 Service Pack 1, 2; 2002 without a Service Pack or Service Pack 1
ClearQuest	▪ Crystal Reports 8.0, 8.5 (recommended for customizing standard reports) ▪ Microsoft Project 98, 2000, 2002 ▪ Visual Source Safe 6.0, Service Pack 3 .NET
ProjectConsole Template Builder	▪ Microsoft Word 2000 Service Pack 1; Word 2002 (required to create ProjectConsole Template Builder templates)
Integrations with 3rd Party Applications	
(Purify PurifyPlus PureCoverage Quantify	For the latest support information, see the *PurifyPlus Family Release Notes* in the *Rational Solutions for Windows Online Documentation* CD.
RequisitePro	▪ Microsoft Word 2000 Service Pack 1, 2; Word 2002 , Service Pack 1, 2 ▪ Microsoft Excel 2000, Service Pack 1, 2; Excel 2002, Service Pack 1, 2
Rose	Microsoft JVM Build 3809
Robot and TestManager	▪ If you are developing or running test scripts written in the Visual Basic language, Visual Basic 6 is required. ▪ If you are developing or running Java test scripts, a JDK (Java Development Kit) is required.
SoDA	▪ Microsoft Word 2000 Service Pack 1, 2; Word 2002 , Service Pack 1

Table 4 Desktop Requirements and Recommendations (continued)

Item	Requirements and Recommendations
IDEs, Integrations with 3rd Party Development Applications, Add-Ins, and Hosted Development Systems	
ClearCase LT	▪ Forte for C++ 6.x, Update 1 ▪ Forte for Java 2.0, 3.0 ▪ IBM VisualAge for Java 3.5.3, 4.0 ▪ IBM WebSphere Application Developer 5.0 ▪ IBM WebSphere Application Developer Integration Edition 5.0 ▪ IBM WebSphere Studio Enterprise Developer 5.0 ▪ IBM WebSphere Studio Site Developer 5.0 ▪ JBuilder 4.x – 8.x ▪ Microsoft PowerBuilder 6.x – 9.x ▪ Microsoft Visual Basic 6.0, Service Pack 4, 5 ▪ Microsoft Visual C++ 5.0, 6.0, Service Pack 4, 5 ▪ Microsoft Visual InterDev 6.0 ▪ Microsoft Visual J++ 6.0, Service Pack 4, 5 ▪ Microsoft Visual Studio .NET 7.0, Service Pack 1 (with .NET Framework Service Pack 2); Studio .NET 7.1 ▪ Oracle JDeveloper 9.0 ▪ SunOne for Java 4.0 ▪ WebGain Studio 4.5.2 ▪ WebGain Visual Cafe 4.1 Expert Edition, 4.5.2 or higher Expert and Enterprise Editions
ClearQuest	▪ Microsoft Visual Studio.NET, Service Pack 1 (with .NET Framework Service Pack 2) ▪ IBM WebSphere Application Developer 5.0 ▪ IBM WebSphere Application Developer Integration Edition 5.0 ▪ IBM WebSphere Studio Enterprise Developer 5.0 ▪ IBM WebSphere Studio Site Developer Advanced 5.0

Table 4 Desktop Requirements and Recommendations (continued)

Item	Requirements and Recommendations
IDEs, Integrations with 3rd Party Development Applications, Add-Ins, and Hosted Development Systems	
Rose	▪ Rose Visual Basic: Microsoft Visual Basic 6.0 (Visual Studio 6.0) ▪ Rose Visual C++: Microsoft Visual C++ 6.0 (Visual Studio 6.0) ▪ Rose J: JDK 1.1.6 Rose Add-Ins that use a Web browser (for example, Web Publisher) support most common browsers.
	Rose J supports the following Java IDEs. Use the JDK appropriate to your IDE. ▪ VisualCafe in Studio 4.0, 4.1 Standard, Professional, Enterprise, and Expert Editions ▪ IBM VisualAge for Java 3.5, 3.5.3, 4.0 Professional and Enterprise Editions ▪ Forte for Java Community Edition 3.0 and 4.0 ▪ Forte for Java Enterprise Edition 3.0 and 4.0 ▪ Sun One Studio 3 and 4 Community and Enterprise Edition ▪ JBuilder 4.0, 5.0, 6.0, 7.0, 8.0 Enterprise, Professional and Foundation Editions

Table 4 Desktop Requirements and Recommendations (continued)

Item	Requirements and Recommendations
Rose Data Modeler	Rose Data Modeler can produce data models for the following databases: ▪ IBM DB2 Universal Database + Client 5.x, 6.x, and 7.x ▪ IBM DB2 OS390 + Client 5.x, 6.x ▪ Microsoft SQL Server 6.x, 7.x ▪ Oracle server + Client 7.x, 8.x, and 9.x ▪ Sybase SQL Anywhere 8.0.1 is available on the *Rational Solutions for Windows* installation disc. It is configured to work only with Rational products. Select SQL Anywhere from the **Product Selection** list in the Rational Setup Wizard. ▪ Sybase System 12 ▪ SQL Server 2000 To reverse engineer Oracle and DB2 databases using Rose Data Modeler, an RDMS client must be installed. **Note:** Rose Data Modeler also supports Oracle on Solaris 2.6, 7-9 and HP-UX 11.0 QPK1100, 11.11 GoldQPK11i and Bundle11i. Make sure that the database server meets these minimum requirements: ▪ Operating system: Windows NT 4.0 Server or Workstation 4.0 ▪ Processor: Pentium ▪ Memory: 64 MB ▪ Disk space: 1.3 GB (minimum)
Rose RealTime	For the latest support information, see the *Release Notes* for Rose RealTime in the *Rational Solutions for Windows Online Documentation* CD.
XDE	For the latest support information, see the printed *Release Notes* for XDE Developer and XDE Modeler in your XDE media kit.
XDE Tester	For the latest support information, see the printed *Release Notes* for XDE Tester in you XDE Tester media kit.

Table 4 Desktop Requirements and Recommendations (continued)

Item	Requirements and Recommendations
Rational Test Agent Software	In addition to the three listed as supported by all desktop products, you can install Test Agents on the following operating systems: Windows ▪ Microsoft Windows 2000 Server, Service Pack 2, 3 ▪ Microsoft Windows 2000 Advanced Server, Service Pack 2, 3 ▪ Microsoft Windows NT 4.0 Server, Service Pack 6a + SRP (Security Rollup Package, Q299444) ▪ Microsoft Windows Millennium Edition ▪ Windows 98 2nd edition **Note:** If you use Windows XP Professional, ensure that Service Pack 1 is installed.
	UNIX ▪ AIX 4.3 ▪ HP-UX 11 ▪ Solaris 2.6, 7- 9 ▪ Red Hat 7.1, 7.2, and 7.3 and 8.0 Personal Linux ▪ Red Hat 7.1, 7.2, and 7.3 and 8.0 Professional Linux
	▪ If you are running test scripts written in the Visual Basic language, VB 6 is required. ▪ If you are running Java test scripts, a JDK is required. ▪ Install TCP/IP on all Test Agents.

Table 4 Desktop Requirements and Recommendations (continued)

Item	Requirements and Recommendations
Web Browsers on Windows	▪ Microsoft Internet Explorer 5.5, Service Pack 1, 2; 6.0 without a Service Pack or Service Pack 1 ▪ Netscape Navigator 4.72 – 4.78, 7.0
	Notes: ▪ ClearCase Web and ClearQuest Web support Internet Explorer and Netscape Navigator 7.0 on Windows 98 2nd Edition, Windows ME, and Windows XP Home. ▪ ClearCase Web and ManualTest Web do not support Netscape Navigator 4.7x. ▪ ProjectConsole does not support Netscape Navigator 4.72 – 4.78 ▪ RequsiteWeb also supports Netscape Navigator 4.70, 4.71 ▪ RUP Modeler and RUP Organizer support Netscape Navigator versions 6.2.1 and 6.2.3. ▪ Some Rational products (including some Rose Add-In's) may require certain Microsoft Internet Explorer components. Rose is tested with one of the recommended versions of Internet Explorer. Attempting to install and run Rose without Internet Explorer installed may cause unpredictable results. However, you are not required to use Internet Explorer as your browser.

Table 4 Desktop Requirements and Recommendations (continued)

Item	Requirements and Recommendations
Web Clients on Non-Windows Platforms	ClearCase Web ▪ Netscape Navigator 7.0 on SuSE Linux 8.0, AIX 4.3.3, 5.1, 5.2, HP-UX 11.x, Solaris 2.6, 7– 9
	ClearQuest Web ▪ Netscape Navigator 7.0 on Red Hat Linux 7.1 - 7.3, SuSE Linux 8.0, AIX 4.3.3, 5.1, 5.2, HP-UX 11.x, Solaris 2.6, 7– 9 ▪ Netscape Navigator 4.72 – 4.78 on Red Hat Linux 7.1 - 7.3, AIX 4.3.3, 5.1, 5.2, HP-UX 11.x, Solaris 2.6, 7– 9
	ManualTest Web ▪ Netscape Navigator 4.78 on Solaris 2.9 (You can see the manual test scripts, but you cannot run and save the results to the project. ▪ Netscape Navigator 4.78 on Red Hat Linux 7.3 ▪ Netscape Navigator 7.0 on Solaris 2.9
	ProjectConsole ▪ Netscape Navigator 7.0 on Red Hat Linux 7.1 - 7.3, SuSE Linux 8.0, AIX 4.3.3, 5.1, 5.2, HP-UX 11.x, Solaris 2.6, 7– 9
	RequisiteWeb and Rational Unified Process ▪ Netscape Navigator 4.72-4.78 ▪ Netscape Navigator 7.0 on SuSE Linux 8.0
	Rose Web Publisher ▪ Netscape Navigator 4.7x on Solaris 2.6, 7– 9, and HP-UX 11.x ▪ Netscape Navigator 4.74 on Red Hat Linux 7.1 - 7.3
	XDE Web Publisher ▪ Netscape Navigator 7.0 on Red Hat Linux 7.1 - 7.3, SuSE Linux 8.0 ▪ Netscape Navigator 4.72 – 4.78 on AIX 4.3.3, 5.1, 5.2, HP-UX 11.x, Solaris 2.6, 7– 9
Automated License Key Requests	Internet Connection to request and receive license key files. For more information, see the *Rational Software License Management Guide*.
Dual Boot Systems	Rational Suite and Rational Rose do not support dual boot systems where both operating systems are on the same partition.
Rational Documentation	Adobe Acrobat Reader 4.x or higher to read online PDF files. Download a free version of Adobe Acrobat Reader from http://www.adobe.com.

Table 4 Desktop Requirements and Recommendations (continued)

Item	Requirements and Recommendations
Language Support	You can install Rational products on these international operating systems: ▪ Simplified or Traditional Chinese ▪ Dutch ▪ French ▪ German ▪ Hebrew ▪ Italian ▪ Japanese ▪ Korean ▪ Swedish All displays, menus, controls, wizards, reports, and user documentation are in U.S. English. ▪ If you have a Traditional Chinese, Dutch, Hebrew, or Korean operating system, enter data (such as path names) in U.S. English or the ASCII character set. ▪ If you have a Simplified Chinese, French, German, Italian, Japanese, or Swedish operating system, enter data in U.S. English or the native language character set. Regional date, time, currency, and numbering conventions are also supported for both input and output.

Frequently Asked Questions

What is new in this version of the software?

The major new features are described in the *Rational Suite Release Notes*.

Do I need to remove or uninstall software before upgrading?

Yes, you need to manually remove software before upgrading to a new version. Perform the steps in *Removing Rational Products* on page 137. Then, in the Control Panel, use the Add or Remove Programs tool to remove all Rational software from your system before starting the upgrade. If you do not remove software, the upgrade cannot proceed.

Make sure that you do not remove data storage (for example, VOBs, views, databases, or datastores) when you remove products. In particular, make sure that you do not locate data storage in subdirectories of directories installed by Rational.

What happens to my existing repositories and data during an uninstall?

When the Rational installer removes an earlier version of a product, it does not remove the following files or software:

- Rational license files
- Data created by the user
- System files that have been installed or updated by Rational
- Components that another product may be using

Do I have to upgrade all of the systems and products my company uses at once?

Yes. Rational products share many components, so to operate correctly, all Rational products in a Suite environment must be at the same version number. There are a few exceptions to this general rule; for more information, see *You Cannot Run with Mixed Versions of Software* on page 23 and *Upgrading ClearCase or ClearQuest Standalone* on page 23.

Can I still use my old license keys or do I need new ones?

The license keys you currently have installed will continue to work with the current version of Rational Suite.

If I install the software on drive D why does the product also need disk space on drive C?

Even if you have specified an alternate drive for installation, the setup program needs room on the same drive as the operating system (usually the C:\ drive) for the following reasons:

- To install and modify various system .dll files
- To install a small amount of information in the C:\flexlm directory if you have the Rational License Server installed
- To install a sample project in C:\Classics when you install ProjectConsole

Do I have to reboot the machine during installation?

In many cases, a reboot is required during the installation of the new software. The setup program instructs you to reboot your machine if it is necessary to do so. After the reboot, you must log in using the same user id that you used to perform the installation. The installation continues. When it successfully completes, you can use the Rational software or log out and log in as another user.

After I upgrade the software, how do I upgrade the data associated with the software?

See *Upgrading Servers and Administrator Systems* on page 45 for more information about upgrading data used by your Rational tools.

What if I encounter problems during the upgrade?

Contact Rational Customer Service as described on page xv.

Checklist: Are You Ready to Upgrade?

Use this checklist to determine whether you are ready to upgrade. When you can answer yes to all the questions in the checklist, then you are ready to upgrade.

Ready?	Task
	Have you read this manual to understand the upgrade process?
	Have you read the *Rational Suite Release Notes* to determine whether there are updates to the upgrade process?
	Have you created an upgrade plan?
	Are the people on the upgrade team available when you need them?
	Have you met the upgrade prerequisites, including those for operating systems and disk space?
	Are you at the appropriate starting version (two versions back for servers, four versions back for desktops) or do you have a plan to get to an appropriate starting version?
	Have you made backups of your data?
	Can users disconnect from Rational tools when you plan to do the upgrade?

Upgrading Servers and Administrator Systems 2

We assume that you have already completed the tasks necessary to plan the upgrade, as described in *Planning an Upgrade* on page 17, and that all computers in your network meet the prerequisites.

This chapter describes how to upgrade servers in your Rational Suite environment by following these steps:

- Install new version of Rational Suite on servers
- Upgrade SQL Anywhere software
- Upgrade Rational ClearCase
- Upgrade Rational ClearQuest
- Upgrade a Rational Project (which upgrades RequisitePro and Rational Test)
- Upgrade from Rational RobotJ to Rational XDE Tester
- Upgrade Rational ProjectConsole
- Migrate from Rational Rose to Rational XDE [optional]
- Upgrade Rational Unified Process

Installing New Software

In this section, you use the Rational Software Setup program to install the new version of Rational Suite.

Before You Install

Before you install Rational software on a computer, perform these tasks, which are described in the remainder of this section:

- Determine the type of installation to perform.
- Save license server name, if you use a floating license.
- Save ClearQuest information.
- Save Rational project locations.
- Perform tasks for ProjectConsole.
- Perform tasks for ClearCase, if you use XDE.
- Remove all existing Rational software from your computer.
- Optional: Install Rational Download Manager.

Determining the Type of Installation to Perform

Decide what type or types of installation to perform. Some of your options are to do the following:

- Perform a regular installation from a CD, and have your users perform installations from a CD.
- Create a release area and site defaults file so that desktop users can install more consistently with each other.
- Create a silent installation so that users can install without having to interact with the installation program.

For an overview of these and other options, see *Deploying Rational Products* on page 114.

Saving License Server Name

If you use a floating license scheme, record the name of your license server so that you can re-enter it after installation:

1. Start the License Key Administrator: click **Start > Programs > Rational Software > Rational License Key Administrator**.
2. If the License Key Administrator Wizard appears, click **Cancel** to dismiss it.
3. Click **Settings > Client/Server Configuration**.
4. Read the name of your License Server from the **Single Server** field or the **Primary Server** field. Record it here for future reference:

   _____

Saving ClearQuest Information

Saving the ClearQuest Connection

In ClearQuest, a *connection* refers to the set formed by one schema repository and all its associated user databases. When users log on to ClearQuest, they are asked to select the connection containing the database they want to use, then to select the database itself.

Connection names are machine-independent; you can rename a connection without changing its content on your machine. For more information about working with connections, see the *Rational ClearQuest Administrator's Guide*.

Creating a Connection Profile

Before you upgrade, create a connection profile for each connection in your network environment, as follows:

1. Start the ClearQuest Maintenance tool: click **Start > Programs > Rational Software > Rational ClearQuest > Rational ClearQuest Maintenance Tool**.
2. Click **File > Export Profile**.
3. Select the connection and provide a file name. Choose a directory that is not on the default Rational installation path.
4. Record the connection profile path here for future reference:

   _____

Later, you and other users can *import* the connection profile instead of manually typing information related to the connection.

Saving information about UCM

If you use the UCM integration between ClearCase and ClearQuest, then save the following information:

- In ClearQuest, look at the UCM activities and write the name of the default user here:

  _____

- Write the name of the user database you use with the integration:

  _____

Remembering Location of Rational Projects

Note the location of each Rational project now. After the upgrade, you need to browse to each project to re-register it:

1. Start the Rational Administrator: click **Start > Programs > Rational Software > Rational Administrator**.
2. In turn, select each project in the left pane. In the right pane, read the path and record it somewhere where you can retrieve it.
3. Record the locations of your Rational projects here for future reference:

   _____

   _____

Performing ProjectConsole Tasks

Take the appropriate step, depending on whether you are installing ProjectConsole for the first time, or you are upgrading ProjectConsole.

Preparing to Install ProjectConsole for the First Time

Rational ProjectConsole was introduced in Version 2002, so it is possible that it is not yet installed on your network. If it is not installed, follow the instructions in the section, "Preparing to Install ProjectConsole," in the *Installation Guide* for Rational Server Products.

Preparing to Upgrade ProjectConsole

If ProjectConsole is already installed on your network, perform the following steps:

1. Determine whether your schema is checked out; if so, check it in:
   a. Log onto ProjectConsole and start the ProjectConsole Designer Tool.
   b. Click the **Schema** menu and determine whether the **Checkout** option is enabled or disabled. If this option is enabled, then the schema repository is already checked in. If the option is disabled, then the option is checked out and you need to check it in.

      You cannot upgrade the ProjectConsole warehouse if the schema is checked out.

      For more information, refer to Help for ProjectConsole.
2. Stop the following services:
   - The default Web server under Internet Information Server (use the Computer Management utility)
   - The World Wide Web (WWW) Publishing service
   - ProjectConsole servers and xmlagents.exe
3. Change the Startup Type for the WWW service to *Disabled* or *Manual*.
4. Back up the templates and other files you have added or modified in the following directories and their sub-directories:
   c:\program files\rational\jakarta-tomcat\webapps\ProjectConsole
   c:\program files\rational\ProjectConsole

   Note: When you remove Rational Suite, the files that you have changed or added in ProjectConsole are removed from your system. Back them up to a safe place (a directory that is not used by Rational products) for later retrieval. For future reference, record the location of your backup on the following line:

   _____

5 In Version 2003, start pages are displayed, but root pages are not. If your current installation includes both types of pages, consider combining them into one page, start.htm.

6 Use database vendor tools to back up the schema repository and warehouse. Alternatively, you can use the ProjectConsole Maintenance Tool to copy the original databases to another set of databases.

Note: ProjectConsole data migration occurs in place, replacing the earlier version of your data. If you do not back up the schema repository and warehouse, you have no recourse in the case that you need the earlier version of the data.

Performing Tasks for ClearCase for Use With XDE

In this version, ClearCase introduces Feature Level 4, which includes a new element type, *xde*, for use with XDE artifacts. If you used XDE with ClearCase 2002, you may have created an *xde* element type in your VOBs.

XDE 2002.05.20 Service Release 1 and XDE v2003 check ClearCase 2002 installations for proper configuration and create an *xde* element type if it is not already present. As part of changing to Feature Level 4, existing *xde* element types are renamed to *xde_v5.0*.

Understanding When to Run XDE Type Manager Installer

If you use XDE with ClearCase v2002 then ensure that you have defined an *xde* element type in your VOBs and that XDE files are associated with that type. To define the *xde* element type: run the XDE Type Manager Installer just before upgrading to ClearCase v2003 to ensure that existing VOBs are properly configured. The XDE Type Manager ships with XDE 2002.05.01 Service Release 1 and XDE 2003. See the XDE Compare/Merge Help for information about the XDE Type Manager Installer.

If you create a new VOB with ClearCase 2002 after running the XDE Type Manager Installer and before upgrading to ClearCase 2003, then re-run the XDE Type Manager Installer. After you install ClearCase v2003, when you create new VOBs, you do not need to perform additional steps; ClearCase v2003 automatically creates VOBs at Feature Level 4, and therefore those VOBs include the *xde* element type.

Checking VOB Configuration

To check whether a VOB has been properly configured, run the following command from a command tool where the current directory is in the VOB you are checking:

cleartool lstype –kind eltype

If the output includes the element type *xde*, then the VOB has been configured to use XDE as the Type Manager for XDE model files. For example, in the output, you should see a line similar to the following:

```
06-Mar.11:25   vob_admin   element type "xde"
```

Preparing to Upgrade SQL Anywhere

If SQL Anywhere is installed on your computer, then follow these steps now:

1. Stop the SQL Anywhere 5.0 service. From Sybase Central, open the **Services** folder. In the right pane, right click the service and from the shortcut menu, select **stop**.
2. Back up all of your SQL Anywhere 5.0 databases. From Sybase Central, under **Sybase SQL Anywhere**, open the **Utilities** folder. Double-click **Backup Database**. Follow the wizard to back up your databases. When you are prompted for the connection parameters, enter **dba** for the database user ID and **sql** for the password.

   For more information, see the SQL Anywhere Help. From Sybase Central, click **Help > SQL Anywhere Help**. Click **Using the SQL Anywhere Utilities > Backing up a database**.
3. ProjectConsole only: Back up the SQL Anywhere 5.0 server software: copy the files in c:\program files\rational\SQLAny50\win32 to another folder. Record the name of the folder here:

   _____
4. Uninstall **Sybase SQL Anywhere Database Server 5.0** on the database server host. If there is any other Rational software from an earlier version on the database server host, remove that also.

Removing Rational Products From Your Computer

Before you upgrade to a new version of Rational software, remove all existing Rational software from your computer. Perform the tasks in *Removing Rational Products* on page 137. Then, from the Control Panel, run the Add or Remove Programs tool. Remove all installed Rational products.

Optional: Installing Rational Download Manager

Rational Download Manager allows you to obtain this version of Rational products and service releases over the Web. Consider installing it now; alternatively, you can wait to install it until you want to install a service release for this version. For more information, see *Applying Service Releases* on page 135.

Installing the Latest Version of Rational Suite

Use the Rational Software Setup program to install Rational Suite on all servers. This version includes a new setup program; we recommend that you familiarize yourself with the program before running it. For more information, see *Installing Rational Products* on page 113.

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. When the installation finishes, the ClearCase LT Getting Started Wizard appears and displays a message saying that you have already run this wizard successfully. It is safe to quit the wizard.
   - For ClearCase, upgrade on these systems in this order:
     - License servers
     - Registry servers
     - VOB servers
     - View servers
2. Upgrade software on all other servers, including Web servers. In this manual, you perform this step as part of *Upgrading Web Servers* on page 87.
3. Upgrade software on all desktop computers. In this manual, you perform this step as part of *Upgrading Desktop Systems* on page 145.

After the Installation: Reconfiguring Licenses

After you have installed a Rational product, if your computer does not have licensing configured, the License Key Administrator wizard appears. If you use a floating license, click **Point to a Rational License server to get my licenses**, and follow the instructions. Use the license server that you recorded in *Saving License Server Name* on page 46.

Upgrading SQL Anywhere Server

This release of Rational products supports a new version of SQL Anywhere, version 8.0. You need to upgrade SQL Anywhere if you use it as your database for Rational Test tools, ClearQuest, or ProjectConsole.

To upgrade to the new version of SQL Anywhere:

1. Prepare to upgrade (ClearQuest only).
2. Upgrade the SQL Anywhere software on the database server host.
3. For some products, perform additional steps.
4. When clients upgrade, instruct them to connect to the new database.

ClearQuest Only: Before You Upgrade SQL Anywhere

If your site is running mixed versions of ClearQuest, (that is, some clients use v2003 and some clients use earlier versions) and you use a SQL Anywhere database, continue to use SQL Anywhere 5.0 until your entire site has upgraded to ClearQuest v2003. At that point, upgrade your SQL Anywhere databases to version 8.0.

After you install the latest release of ClearQuest, you can still use existing databases created with SQL Anywhere 5.0. However, you cannot create new schema repositories or user databases using that version. Instead, use SQL Anywhere 8.0 to create new databases.

Upgrading the Database Server Host

In this section, you install the new software on the same database server host you have been using, and then update and move existing schema repositories and user databases to use version 8.0.

Overview of Upgrade Steps

At a high level, you upgrade the SQL Anywhere database server host as follows:

1. ClearQuest only: upgrade one ClearQuest administrator host to ClearQuest v2003.
2. ClearQuest only: prepare all databases for upgrade.
3. On the SQL Anywhere server, install SQL Anywhere 8 and configure the service.
4. ClearQuest only: from the administrator host, update the original databases to indicate the new server information.
5. ClearQuest only: From the administrator host, reformat the databases to SQL Anywhere 8.
6. Upgrade remaining clients, and reconnect to the new databases.

ClearQuest Only

Perform this set of steps for ClearQuest only:

1. Upgrade one ClearQuest administrator host to ClearQuest v2003, making sure that you install ClearQuest Administration Tools. Select a ClearQuest administrator host that is different from the SQL Anywhere database server.
2. Create a profile to save your connection: in the ClearQuest Maintenance tool, click **File > Export Profile** and specify a file name.
3. From the administrator host, remove any installed Rational products that are from an earlier version.
4. Install the latest release of ClearQuest on the ClearQuest administrator host.
5. On the ClearQuest administrator host, start the ClearQuest Maintenance Tool. Connect to your current schema repositories and the user databases that were created with SQL Anywhere 5.0: click **File > Import Profile** and specify the file name you created in Step 2.
6. For each schema repository and user database you are upgrading, run the **installutil** utility with option **preparedbforupgrade**. On the ClearQuest administrator host, open a DOS command line window. Enter the following command:

   installutil preparedbforupgrade SQL_ANYWHERE *server database* **admin admin "SERVER_VER=5.0"**

   where:

server	Database service name
database	Full path to the schema repository or user database
admin	Standard user name and password for SQL Anywhere database owners

Warning: If you do not run this command before stopping the SQL Anywhere 5.0 service on the database server, you are prevented from successfully reconnecting to the schema repository and user databases later in this procedure.

All Products: ClearQuest, Test, ProjectConsole

Perform this set of steps for all products that use SQL Anywhere:

1. On the database server host, ensure that you have performed the steps in *Preparing to Upgrade SQL Anywhere* on page 50.
2. On the same database server host, install the SQL Anywhere 8.0 server component. Start the Rational Setup Wizard. At the prompt to select a product,
   - If you plan to use ProjectConsole, then install any Suite edition; the SQL Anywhere 8 server is installed automatically.
   - For ClearQuest or Test, click **Sybase SQL Anywhere Database Server 8**.
3. ProjectConsole only:
   a. Restore SQL Anywhere 5.0 server software: copy the files you backed up in *Preparing to Upgrade SQL Anywhere* on page 50 to c:\program files\rational\SQLAny50\win32. If you are prompted to overwrite existing files, click **Yes**.
   b. Start the SQL Anywhere 5.0 service: from the right pane of the services panel, right-click the service named **SQL Anywhere –** *server_name*, and click **start,** where *server_name* is the name of the server you used.
   c. For both the schema repository and the data warehouse, update the SQL Anywhere 5.0 databases so the SQL Anywhere 8 server can access them:

      installutil preparedbforupgrade SQL_ANYWHERE *server database*
      admin admin "SERVER_VER=5.0"

      where:
      server is the database service name
      database is the full path to the schema repository or data warehouse
      admin is the standard user name and password for SQL Anywhere database owners.

   d. Stop and disable the SQL Anywhere 5.0 service: from the right pane of the services panel, right-click the service named **SQL Anywhere –** *server_name*, and click **Properties**. On the Properties dialog box, change the Startup Type to **Disabled** and click **stop** to stop the service.
4. Create and start the new SQL Anywhere 8.0 service. From Sybase Central, under **Adaptive Server Anywhere 8**, click **Services**. In the right pane, double-click **Add Service** to start the Create New Service wizard. Follow the wizard to create and start the new SQL Anywhere 8.0 service. On the Parameters page, enter the following operands:

   –n servername
   –gd all
   –x *protocol*

where
protocol is one protocol or a comma-separated list of protocols.
Possible values are: **ALL, NamedPipes** (or **NP**), **NONE, SPX, TCPIP** (or **TCP**)
for example, **–x tcpip**

For Test datastores, we recommend that you use the same servername that you used for the Version 5.0 database. Note here whether you used the same name or a different name: _____

For more detailed instructions about setting up SQL Anywhere for ClearQuest, see the *Installation Guide* for Rational Server Products.

To complete the process, you need to perform additional steps related to each product for which you use SQL Anywhere. See later sections of this chapter which discuss upgrading ClearQuest, Test tools, and ProjectConsole.

After You Upgrade SQL Anywhere

ClearQuest Only: Migrating the Data

Perform these steps for ClearQuest only. To migrate the data, start on the ClearQuest administrator host that you have already upgraded to ClearQuest Version 2003.

1 Update your schema repository:

a Update the schema repository properties. Start the ClearQuest Maintenance Tool. In the **Existing Connections** area, select the connection to SQL Anywhere 5.0, then click **Schema Repository > Update > Selected Connection**. Enter the required properties, including the new 8.0 server name and **SERVER_VER=8.0.** Complete the other wizard steps.

b Move your schema repository. In the ClearQuest Maintenance Tool, in the **Existing Connections** area, select the connection to your existing SQL Anywhere 5.0 databases, then click **Schema Repository > Move**. Enter database information for a new database under your SQL Anywhere 8.0 server. For example, enter a different filename in the same directory as the existing database. Click **Finish**.

c Create a new connection profile by exporting information containing the updated schema repository properties. Click **File > Export Profile**. In the **Export Connection** area, select the connection to SQL Anywhere 8.0. In the **File Name** box, enter the pathname and file name for the profile. Connection profiles must be saved with a .ini extension.

Write the path to the profile here for future reference:

_____

2 Update your user databases:

   a Update the user database properties. Start the ClearQuest Designer. Log in, and if you need to choose a connection, select the one you worked with in Step 1. If the Open Schema dialog box appears, click **Cancel**. Select **Database > Update User Database Properties**. In the Update User Database Properties dialog box, select the SQL Anywhere 5.0 user database, and click **Properties**. In the Database Properties dialog box, enter the new 8.0 database information, including the new SQL Anywhere 8.0 server name, and, in the **Connect Options** field, **SERVER_VER=8.0**. Click **Update**.

   b Move your user database. In the ClearQuest Designer, select **Database > Move User Database**. In the Move User Database dialog box, select the database you just updated, then click **Properties**. In the Database Properties dialog box, enter database information for a new database under your SQL Anywhere 8.0 server. For example, enter a different filename in the same directory as the existing database. Click **Move**.

3 Repeat Step 1 and Step 2 for any other schema repositories and user databases you need to upgrade.

Upgrading ClearCase

This section describes how to upgrade ClearCase by performing the following tasks:

- Raising the feature level of your VOBs
- Reformatting some ClearCase views

Incrementing VOB Feature Level

With nearly every new release, ClearCase increments an internal *feature level* number. Each new feature level indicates support for a set of features introduced in the release. To take advantage of the new features, you need to change the feature level in each ClearCase VOB.

Raising the feature level allows a VOB created in an earlier release to use features introduced in a later release. In a MultiSite environment, raising a feature level also advertises to the MultiSite family the functions that a VOB can perform.

In Version 2003, the new feature level introduces support for new element types which facilitate working with Rational XDE. It also solves some line-length problems for certain element types.

The following table describes the effect of raising or not raising the feature level:

If you	Then
Raise the feature level of all your VOBs to 4	You can take advantage of the new features.
Do not raise the feature level of any VOBs	You cannot take advantage of the new features.

Changing the Feature Level

To change the feature level, in a command window, use the `cleartool chflevel` command as follows:

```
cleartool chflevel –force –auto
```

Changing the Feature Level in a MultiSite Environment

In a MultiSite environment, change the feature level as follows:

1. Install the ClearCase release on all VOB replica hosts.
2. Raise the feature level of each replica.
3. Raise the feature level of the VOB family.

For more information about `chflevel`, see the *ClearCase LT Reference* or the *ClearCase Reference*.

Reformatting ClearCase Views

If you are upgrading from the version before Version 5.0, read this section.

If you are upgrading from Version 5.0, you have already performed the steps in this function and you can safely skip to the next section.

ClearCase view data is stored in a view database. The previous release of ClearCase, Version 5.0, introduced a new view database format, requiring each view to be reformatted. You can choose to reformat in one of the following ways:

- Automatically. ClearCase automatically reformats a view the first time it is used with the current release.
- Manually. You may choose to reformat some views manually using the **cleartool reformatview** command. We recommend that you manually reformat a view if it has a large database. By reformatting manually, you minimize the chance that clients will experience view access timeouts during automatic view reformats.

Note: After a view has been reformatted to the ClearCase 5.0 format, it cannot revert to the earlier format.

Upgrading ClearQuest

This section describes how to upgrade ClearQuest schemas and databases created with an earlier version of ClearQuest.

This section is written for ClearQuest administrators or people who are comfortable with administrative concepts related to ClearQuest. Before you start, we recommend that you have the *Rational ClearQuest Administrator's Guide* available for reference.

Understanding the Upgrade Process for ClearQuest

To upgrade ClearQuest, you perform these general tasks:

1. Connect to ClearQuest, as described on page 60.
2. Start the ClearQuest Designer and log on using Super User or Designer privileges.
3. Perform tasks related to the databases you use to store ClearQuest data.
4. Upgrade ClearQuest packages, test your databases, and check in the changes to the schema repository. See *Upgrading ClearQuest Packages* on page 60.
5. Apply schema changes to your user databases. See *Applying Schema Changes to User Databases* on page 61.

   Note: We recommend you perform Step 4 and Step 5 during the same logon session.
6. Optionally, upgrade the ClearQuest feature level if you want to enable the latest set of ClearQuest features. See *Upgrading the ClearQuest Feature Level* on page 62.

Connecting to ClearQuest

To re-establish a ClearQuest connection after an upgrade:

1. Start the ClearQuest Maintenance tool: click **Start > Programs > Rational Software > Rational ClearQuest > Rational ClearQuest Maintenance Tool**.
2. Perform one of the following steps:
   - Click **File > Import Profile** and navigate to the profile you saved earlier.
   - If you neglected to save a profile, click **Connection > New** and fill in the fields to re-establish a connection. For more information, refer to the *ClearQuest Administrator's Guide*.

Performing Database Tasks

Upgrading Database Versions or Changing Database Vendors

If you upgrade your database to a new version or you change to a different database vendor, you need to move your existing schema repositories and user databases to use the new database. This includes upgrading the version of SQL Anywhere. For each schema repository and user database:

1. Use the ClearQuest **installutil** utility with options **convertschemarepo** and **convertuserdb**. For more information, read about "Command Line Utilities" in the *Rational ClearQuest Administrator's Guide*.
2. Create a new connection profile (.ini file): from the Maintenance Tool, click **File > Export Profile** and follow the prompts.

Using Oracle Databases

Upgrading Oracle

If you are running Oracle server 8.0.5, upgrade to Oracle 8.1.6 or 8.1.7. On a Windows host, upgrade the Oracle client software to 8.1.6 or 8.1.7.

To use interMediaText support for multiline searches, set up the corresponding version of interMediaText (8.1.6 or 8.1.7) during the Oracle server installation:

1. Move the existing schema repositories and user databases to use the new Oracle version. Use the ClearQuest **installutil** utility with options **convertschemarepo** and **convertuserdb**. For more information, read about "Command Line Utilities" in the *Rational ClearQuest Administrator's Guide*.
2. To enable multiline search on the new Oracle databases, follow the instructions in "After Install: Configuring Databases and Administrative Tasks for ClearQuest" in the *Installation Guide* for Rational Products.

Setting the Data Type

For Oracle databases, set the type of data you will be using. The valid data types are either LONG or CLOB. If your existing databases default to LONG, do not change them to CLOB. Databases already implemented with the LONG LOB_TYPE property are incompatible with CLOB. Note that there are limitations on using the CLOB data type. For more information on restrictions and guidelines, consult the *Release Notes* for Rational ClearQuest.

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 use ClearQuest in a Rational Suite environment, you probably use at least one of these packages. Carefully follow the instructions in this section to upgrade ClearQuest packages.

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

1 For each schema, apply package upgrades.

2 Test your changes, then check in the changes to the schema repository.

3 Apply schema changes to your user databases. See *Applying Schema Changes to User Databases* on page 61.

Note: This chapter 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 *Rational ClearQuest Administrator's Guide*.

Applying Package Upgrades

To upgrade ClearQuest packages:

1 Start the ClearQuest Designer if it is not already open:

   a Click **Start > Programs > Rational Software > Rational ClearQuest > Rational ClearQuest Designer**.

   b Log on with Super User or Designer privileges.

   A message may appear saying that the ClearQuest data code page value for the repository is not set.

   c If the ClearQuest data code page message appears, place a checkmark next to this step to remind yourself later to take action. Click **OK**.

   d If the Open Schema Wizard appears, click **Cancel** to dismiss it. (You can control whether the wizard appears by clearing or setting the **Show this wizard at startup** option.)

2 From the Designer menu, click **Package > Upgrade Installed Packages** to display the Upgrade Installed Packages wizard.

3 On the *Select a schema to upgrade* page, the wizard lists the available schemas. Select the schema you want to upgrade.

   The Upgrade Installed Packages wizard checks out the schema, analyzes which packages need upgrading, and determines whether those packages have any prerequisite packages.

4 On the *Status* page, note the list of packages that need upgrading. Do the following:

   - Select and copy this list into a text file. Write the name of the file here for later reference:

     _____

   - If you are applying the Email package, place a checkmark next to this step to remember that you applied the package. When owners of desktop systems upgrade, they need to enable e-mail notification. We remind users to perform this task at the appropriate time.

   The wizard applies packages to the schema in the correct order.

5 When the wizard finishes, read the status message to verify that the package upgrade was successful. In the open schema, inspect the changes. Complete the work for this schema before upgrading other schemas.

6 Validate the changes you've made: from the Designer menu, click **File > Validate**.

   [Optional] Test the changes on a test database: click **File > Test Work**.

7 Check in the schema: from the Designer menu, click **File > Check In**.

8 Repeat this procedure from Step 3 for additional schemas that need upgrading.

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. To apply schema changes:

1 Start the ClearQuest Designer: click **Start > Programs > Rational Software > Rational ClearQuest > Rational ClearQuest Designer**. Log on 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, from the list, select the version of the schema (typically the latest) to which you wish to upgrade the user database.

   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.

7 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.

Changing the ClearQuest Data Code Page

When you applied package upgrades, you may have seen a warning about the ClearQuest data code page (see Step c on page 60). The ClearQuest data code page refers to the legal character set that you can use to enter data into a ClearQuest database. By default, when no value is set, you are restricted to using ASCII characters only.

To allow users to enter non-ASCII data into ClearQuest databases, read about ClearQuest data code pages in the *ClearQuest Administrator's Guide*.

Upgrading the ClearQuest Feature Level

This section describes how to upgrade the ClearQuest feature level. These steps are optional, as follows:

- *Perform these steps* if you want to enable the latest features in ClearQuest. In Version 2003, these new features are Rational ClearQuest MultiSite (introduced in 2001A.04.20) and an improved security model (introduced in Version 2001A).
- *Do not perform these steps* if you do not want to enable these new features. Also, if you have already upgraded to the ClearQuest feature level introduced in Version 2001A, do not perform the steps again.

Upgrading the ClearQuest feature level 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.

If ClearQuest is installed in an environment with other Rational software, you must upgrade the feature level for all databases at the same time; you cannot upgrade them incrementally.

Scheduling the Feature Level Upgrade

You can perform a feature level upgrade at any time, not just while you're upgrading a version of Rational Suite. You may want to perform the work now. Alternately, you may want to finish the other tasks in the Suite upgrade now and allow users to resume their work, then upgrade the ClearQuest feature level later. While both options are possible, this chapter assumes you are upgrading the feature level now.

Determining the Current Feature Level

To determine the current feature level of your databases, check the value for the feature level in the following tables:

- For a schema repository, open the **master_global** table and refer to the **feature level** field.
- For a user database, open the **db_global** table and refer to the **feature level** field.

For a description of the supported feature levels in this release, type the following at a command prompt:

```
C:\Program Files\Rational\ClearQuest> packageutil showfeaturelevels
```

Working With ClearQuest MultiSite

For information about upgrading the ClearQuest feature level in a ClearQuest MultiSite environment, see the *Rational ClearQuest MultiSite Administrator's Guide*.

Overview of Upgrading the ClearQuest Feature Level

As part of upgrading the ClearQuest feature level, 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.

Verifying Your Environment

Before you start the upgrade, be aware that the upgrade can fail under certain conditions. Table 5 describes these conditions and how to resolve them.

Table 5 Troubleshooting: Upgrading the ClearQuest Feature Level

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 about the **installutil unlockschemarepo** and **installutil unlockuserdb** commands in the *Rational ClearQuest Administrator's Guide*.
You have customized your schema to include Record Types or fields that have a **ratl_** prefix.	Contact Rational Customer Support. They will explain how to correct this condition.

Creating a Test Bed

A test bed is a safe, non-production area where you can test your changes. We recommend that you perform the upgrade on the test bed first before you upgrade your production databases. The following steps describe how to create a test bed based on your production databases:

1. Make sure you have a backup copy of your ClearQuest schema repository and user databases, as described in *Back Up Databases and Datastores* on page 21.

   Upgrading the ClearQuest feature level changes the underlying structure of your data and schemas. We strongly recommend you create a backup, if you haven't done so already, 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 the *Installation Guide* for Rational Server Products. 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*.

   Do not perform this step if you are using Microsoft Access or SQL Anywhere.

   Note: Create empty databases only. Do not use the 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 Shut down your web server, stop any scheduled ClearQuest MultiSite synchronization jobs, and 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, read about "Command Line Utilities" in the *Rational ClearQuest Administrator's Guide*.

   Using the convert options with **installutil** causes ClearQuest to lock the original production databases. If you need to unlock them, read about the **installutil unlockschemarepo** and **installutil unlockuserdb** commands in the *Rational ClearQuest Administrator's Guide*.

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 > Programs > Rational Software > Rational ClearQuest > Rational ClearQuest Maintenance Tool**.

2 From the *Existing Connections* list, select the connection to the schema repository that you want to upgrade.

3 From the ClearQuest Maintenance Tool menu, select **Schema Repository > Upgrade > Selected Connection**.

4 At the prompt to upgrade user databases, click **Yes** to continue.

5 Log in with Super User privileges.

6 Enter the properties of the schema repository to upgrade to (the empty database you created in the test upgrade set), then click **Next**.

7 Enter the properties for the first user database you are upgrading to (the empty databases you created in the test upgrade set). Click **Next**. Repeat until you have associated all the user databases. Click **Finish**.

   ClearQuest upgrades your schema repository and user databases, and notifies you when the process is complete. It records all actions in a text file in the `\Temp` directory.

8 Verify that the upgrade process completed successfully:

   a When the upgrade process completes, carefully read the status message to ensure that the process completed successfully (scroll until you reach the end of the message). Click **Done**.

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

   Do not perform this step if you are using Microsoft Access or SQL Anywhere.

   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, shut down your web server, and stop any ClearQuest MultiSite synchronization jobs.

Upgrading the Production Databases

In this section, you upgrade from your original production databases to the production upgrade set. The process is similar to the process for upgrading the test bed:

1 Start the ClearQuest Maintenance Tool: click **Start > Programs > Rational Software > Rational ClearQuest > Rational ClearQuest Maintenance Tool**.

2 From the *Existing Connections* list, select the connection to the schema repository that you want to upgrade.

3 From the ClearQuest Maintenance Tool menu, select **Schema Repository > Upgrade > Selected Connection**.

4 At the prompt to upgrade user databases, click **Yes** to continue.

5 Log in with Super User privileges.

6 Enter the properties of the schema repository to upgrade to (the empty database you created in the production upgrade set), then click **Next**.

7 Enter the properties for the first user database you are upgrading to (the empty databases you created in the production upgrade set). Click **Next**. Repeat until you have associated all the user databases. Click **Finish**.

   ClearQuest upgrades your schema repository and user databases, and notifies you when the process is complete. It records all actions in a text file in the \Temp directory.

8 Verify that the upgrade process completed successfully:

   a When the upgrade process completes, carefully read the status message to ensure that the process completed successfully (scroll until you reach the end of the message). Click **Done**.

   b 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.

9 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 a Rational Project

This section describes how to upgrade datastores in a Rational project. It describes the actions to take if:

- You need to update Rational Test or Rational RequisitePro datastores so you can use them with the new version of Rational Suite. Datastores created with an earlier version of Rational software are not compatible with the current version, 2003. Therefore, before you can use these datastores, you need to convert them as described in this section.
- You want to verify that ClearQuest packages are correctly configured for a Rational project.

Upgrading the RequisitePro Database and Rational Test Datastores

Use the Rational Administrator to upgrade both RequisitePro databases and Rational Test datastores as follows:

1. Start the Rational Administrator: click **Start > Programs > Rational Software > Rational Administrator**.
2. Re-register the Rational project: click **File > Register Project** and browse to the project's location. You saved this location before you installed new software; see *Remembering Location of Rational Projects* on page 47.
3. Reconnect to the project: click **File > Connect** and browse to the project.
4. If you use SQL Anywhere as your test datastore, perform these steps if you used a different server name when you upgraded (see Step 4 on page 54):

   Do not perform the steps if you used the same server name.

   a. Right-click the Rational Test Datastore and select **Properties**.

   b. Click **Advanced Database Setup**.

   c. Enter the name of the SQL Anywhere 8 database server and the Host Name. Click **OK**.

   d. Quit the Properties dialog box.
5. From the Administrator menu, select **File > Upgrade Project Assets**.

   The Administrator displays a list of registered projects.
6. Select a project to upgrade and click **OK**.

   You may see a warning that says that you need to establish a ClearQuest connection. You have already performed this step in *Connecting to ClearQuest* on page 58.

The upgrade process starts. It first upgrades the RequisitePro database, if one is associated with the Rational project, then it upgrades the Rational Test datastore, if one is associated with the Rational project. If your Rational project is connected to a ClearQuest database, you may be prompted to log in. If so, log in using Super User privileges.

Upgrading the RequisitePro Database

The Rational Administrator displays the RequisitePro Database Upgrade wizard.

Note: If your RequisitePro project is not part of a Rational Administrator project, you can start the RequisitePro Database Upgrade wizard by using a newer RequisitePro client to open a RequisitePro project that was created with an older version.

While you work with the 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, enter your Rational RequisitePro User ID and Password at the prompt. If there are multiple projects in an enterprise database, type the User ID and Password used to create the enterprise database.
- After you upgrade the project database, users cannot open the associated 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 on to those projects while the Database Upgrade Wizard is running. You can always check for references to external projects in any RequisitePro project by clicking **Project > External Projects**.
- If an error occurs during the upgrade, the wizard displays an explanation of the problem. Problems commonly occur when the wizard cannot get exclusive access to the project or when the wizard cannot connect to external projects. After addressing a problem, rerun the wizard to complete the upgrade.

After the Upgrade: Understanding RequisitePro Packages

Starting in RequisitePro version 2002, requirement artifacts are organized in packages. Packages are containers, similar to file folders, in which you can group artifacts or elements of different types. Packages in RequisitePro can contain documents, requirements, views, and other packages, according to your organizational needs.

Earlier versions of RequisitePro do not use packages. When you upgrade a project created in an earlier version, the upgrade process automatically organizes your requirements artifacts into packages. RequisitePro uses the following default scheme to organize packages:

- **Requirements Document**. A package is created for each requirements document, including all requirements that are located within that document.
- **Requirement Type**. A package is created for each requirement type, including requirements of that type not located in documents.

  A Requirement Type package is not created when there are no requirements associated with the given type, or if all requirements of that type are already located in Requirements Document packages.
- **View Type**. A package is created for each view type: Attribute Matrix, Traceability Matrix, Traceability Tree. Each view package contains all views of that type in the project.

Later you can create your own packages, and reorganize your requirement artifacts accordingly.

Upgrading the Rational Test Datastore

During the upgrade, the Rational Administrator displays a progress indicator. When it has finished, you can optionally click the **View Log** button to display a log of the upgrade.

Note that after you perform this conversion, you cannot revert to an earlier version of the test datastore, nor can you use the upgraded test datastore with earlier versions of Rational Test tools.

Running Datastore Doctor

Run Datastore Doctor: click **Tools > Rational Test > Rational Datastore Doctor** and follow the prompts. The Datastore Doctor:

- Verifies the consistency of a datastore and records and reports any inconsistencies.
- Attempts to repair inconsistencies in the datastore and the cache database contained within the datastore.

Converting from Microsoft Access to a Sybase SQL Anywhere Database

Before Version 2002, Microsoft Access was the default database engine for test datastores. Starting with Version 2002, we strongly recommend that you convert to using Sybase SQL Anywhere if two or more users plan to use the test datastore simultaneously.

A special, Rational version of Microsoft Access is automatically installed when you install Rational software. The Sybase SQL Anywhere database server ships with Rational software but is not installed automatically.

For more information, refer to the *Installation Guide* for Rational Server Products to read about:

- Installing and configuring a SQL Anywhere database server.
- Creating a SQL Anywhere test datastore.
- Converting a test datastore from Microsoft Access to SQL Anywhere.

After Upgrading a Rational Project

Perform these steps after upgrading the Rational project:

If You Use Rational ClearCase or Rational ClearCase LT

If you use Rational ClearCase or Rational ClearCase LT to store Rational data:

- If you're using a snapshot view, update the view now.
- If your team works with a UCM-enabled project:
  a. Use the Rational Administrator to perform a *Check in All* operation for the RequisitePro project and the Test datastore. (In the Administrator, on the Configure dialog box for your project, click **Check in All** for both datastores. ClearCase checks in all project-related assets, then checks them out again.) Until you perform this step, you will be unable to open the RequisitePro project.
  b. Create a baseline for your project (in the ClearCase Project Explorer, select the project, then click **Tools > Make Baseline**).
- If your team uses another method to integrate Rational Suite and ClearCase:
  a. Use ClearCase to check in the project's assets.
  b. Use ClearCase to create a label on the checked-in versions. Name the label so you will remember that these versions represent the upgrade.

Verifying ClearQuest Packages for a Rational Project

If you are working with a Rational project, you can verify that the ClearQuest packages for your Rational project are correctly configured and upgraded:

1. In the left pane of the Rational Administrator, select a project, right-click it, and select **Connect**.
2. Select the same project, right-click it, and select **Configure** to display the Configure Project dialog box.
3. 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.

Rebuilding the UCM Integration When You Use ClearQuest

If you use UCM with ClearQuest, the system rebuilds the integration the first time you use ClearCase and prompts you to login to ClearQuest. Refer to *Saving information about UCM* on page 47 to retrieve the information you'll need.

Log in with the user name of the person who originally set up the integration between ClearCase and ClearQuest. On the ClearQuest tab, select the database you have been using in the integration.

Upgrading from RobotJ to XDE Tester

In Version 2002, Rational introduced Rational RobotJ, which shipped as part of these products: Rational Suite Enterprise, Rational Suite TestStudio, and Rational TeamTest. In Version 2003, XDE Tester replaces RobotJ. XDE Tester is a standalone product; XDE Tester is not included as part of any other product.

Read this section if you installed RobotJ as part of a version 2002 installation and you now want to work with XDE Tester Version 2003. Do not use this section to learn about installing XDE Tester for the first time; instead, refer to the *Installation Guide* for Rational XDE Tester.

Enabling Integrations

XDE Tester allows you to continue to use the original integrations with Rational TestManager, when you have both XDE Tester and TestManager installed. If you install Enterprise Studio, TestStudio, or TeamTest version 2003, TestManager will be installed for you and you can use the integrated features of XDE Tester and TestManager.

To use the Rational Test Agents, perform a separate install. You must install the 2003 version of TestManager, XDE Tester, and the Test Agents (if you use them) for the products to operate together.

Converting a Rational Test Datastore

In an earlier version, you might have created a Rational RobotJ datastore and associated it with a Rational Test datastore. If so, you have already performed the work to convert the RobotJ datastore so that it is compatible with XDE Tester. This work was performed as part of *Upgrading a Rational Project* on page 67.

Reusing RobotJ Assets

The test assets that you created with RobotJ also work with XDE Tester. These test assets are: RobotJ datastores, scripts, object maps, and verification points. From XDE Tester, you can connect to RobotJ datastores.

Re-enabling Java Environments and Web Browsers

If you used RobotJ and are now using XDE Tester, you must re-enable Java environments and Web browsers in XDE Tester because of upgrades in the enabling process.

Re-enabling Java Environments

To re-enable Java environments:

1. Disable any currently enabled environments:
   a. In XDE Tester, click **Configure > Enable Environments for Testing**.
   b. On the Enable Environments dialog box (the enabler), click the **Java Environments** tab.
   c. Click **Select All** to select all current Java environments.
   d. Click **Disable** to disable all current Java environments.
2. Click **Search**. On the Search for Java Environments dialog box, select one of the following search mechanisms, and then click **Search**:
   - Use **Quick Search** on Windows systems only to search the registry for the Java environments. Quick Search is quicker than searching your hard drive(s).
   - Use **Search All Drives** to scan your hard drives or partitions to locate all the Java environments on your system.
   - Use **Search In** to browse to a specific drive or root directory to search.

   A list of all JREs appears in the Java Environments list. Decide which environments to enable.
3. Select the environment or environments you want to enable for Java testing, and then click **Enable**.

   The enabled environments are indicated in parentheses after each JRE name in the list.

   If a JRE is not enabled, the Record Monitor is blank when you try to record against a Java application. For this reason, we recommend that you leave the Record Monitor visible while you record. If you notice this symptom, run the enabler.

4 To change the default JRE, select a JRE and click **Set as Default**.

The first time XDE Tester runs, it automatically enables the JVM of your browser's Java plug-in so that HTML recording works properly. If you install a different JVM, rerun the enabler.

Re-enabling Web Browsers

To re-enable Web browsers, follow a process similar to the one for re-enabling Java environments:

1 Disable any currently enabled browsers:

   a In XDE Tester, click **Configure > Enable Environments for Testing**.

   b On the Enable Environments dialog box (the enabler), click the **Web Browsers** tab.

   c Click **Select All** to select all current browsers.

   d Click **Disable** to disable all current browsers.

2 Click **Search**. On the Search for Web Browsers dialog box, select one of the following search mechanisms, and then click **Search**:

   - Use **Search All Drives** to scan your hard drives or partitions to locate all the browsers on your system.
   - Use **Search In** to browse to a specific drive or root directory to search.

   A list of all browsers appears in the Web Browsers list. Decide which browsers to enable.

3 If you don't see a specific browser in the Web Browsers list, click **Add** to display the Add Browser dialog box. Locate the browser, select it, and click **Add**. The browser appears on the Web Browsers list in the enabler.

4 Select the browser or browsers you want to enable for HTML testing, and then click **Enable**.

   The enabled browsers are indicated in parentheses after each browser name in the list.

   If a browser is not enabled, the Record Monitor is blank when you try to record against an HTML application. For this reason, we recommend that you leave the Record Monitor visible while you record. If you notice this symptom, run the enabler.

5 To change the default browser, select a browser and click **Set as Default**.

The first time XDE Tester runs, it automatically enables the JVM of your browser's Java plug-in so that HTML recording works properly. If you install a different JVM, rerun the enabler.

Integrations with XDE Tester

When you associate an XDE Tester datastore with a Rational project, you can use TestManager to run your XDE Tester scripts and to coordinate testing activities from a single computer running Windows. This is called the *Local computer*. To run XDE Tester scripts remotely on other computers, install Test Agent software (delivered on a separate CD-ROM), enable environments, and configure applications on the remote system, called an *Agent computer*.

Upgrading ProjectConsole

ProjectConsole was introduced in Version 2002. If you are upgrading from that version, follow the instructions in this section. If you need to install ProjectConsole for the first time, follow the instructions in the *Installation Guide* for Rational Server Products.

Upgrading ProjectConsole Server Software

To migrate data for use with ProjectConsole 2003, perform the following high-level tasks:

1. Install ProjectConsole, including all its components, and the ProjectConsole Web server component as part of a Rational Suite installation. During this installation, SQL Anywhere 8.0, the report server, and collection agents are installed automatically.

   For more information, see the *Installation Guide* for Rational Server Products.
2. Restore from backup the files you saved before the upgrade.
3. Migrate data from an existing data warehouse that you created with Version 2002.
4. Check for, and fix, any errors that occur during the data migration.
5. Perform final steps.

The remainder of this section describes restoring saved files from backup, configuring the ProjectConsole servers, and migrating existing data.

Restoring Saved Files from Backup

In *Performing ProjectConsole Tasks* on page 48, you saved ProjectConsole files that you had added or changed. Restore these files as follows:

- Restore the files you backed up from this directory to the same directory: c:\program files\rational\jakarta-tomcat\webapps\projectconsole
- Restore all templates to c:\program files\rational\ProjectConsole\templates
- If you backed up transformation scripts, configuration files (.ini) or batch files, restore them to c:\program files\rational\bin.

Migrating Project Data from an Earlier Version of Rational ProjectConsole

If you plan to use data collected in an earlier version of Rational ProjectConsole with the current version of ProjectConsole, you must first use the ProjectConsole Maintenance Tool to migrate the existing data.

Some terms used to describe data storage in ProjectConsole have changed since the previous release. These changes are listed in the following table.

Old term	New term	Usage
server software	Web server components	The Web server components installed on the ProjectConsole server machine.
agent software	report server and collection agents	The agent software installed on the ProjectConsole server machine and any separate agent machines.
metrics warehouse	none	The data warehouse in which ProjectConsole stored the artifacts and data collected from various Rational point products and third-party tools. A metrics warehouse consisted of the schema repository (master) database and the warehouse database.
warehouse database	data warehouse	The database in which ProjectConsole stores data collected from software development tools as well as view descriptions. The data warehouse is managed using the ProjectConsole Maintenance Tool.

Old term	New term	Usage
	security database	An SQL Anywhere 8.0 database that contains information about the ProjectConsole navigation tree structure and authentication information for all users and groups. A security database is associated with a data warehouse and a schema repository. Together, these databases comprise a *ProjectConsole repository.*
	ProjectConsole repository	The combined data warehouse/schema repository/security database group used to store collected data, navigation tree structure information, and user (and group) authentication information in ProjectConsole.

To migrate data used in an earlier version of ProjectConsole:

1. Click **Start > Programs > Rational Software > Rational ProjectConsole > Rational ProjectConsole Maintenance Tool**.
2. On the first page of the Maintenance Tool, click **Migrate data from a previous version of ProjectConsole**, and then click **Next**.
3. On the next page, in the **Database type** list, select the database vendor for the schema repository and warehouse databases that contain the data you want to migrate. The fields change depending on the database type you choose.
4. Specify the following required database information, based on the database type you chose:

For MS_ACCESS databases:

   a. In the **Schema repository** box, enter the directory of the existing schema repository database.

   b. In the **Data warehouse** box, enter the directory of the existing warehouse database.

For DB2 databases:

a In the **Schema repository** box, type the database alias of the existing DB2 schema repository.

b In the **Data warehouse** box, type the database alias of the existing DB2 warehouse.

c In the **Username** box, type the username required to log in to your DB2 databases.

d In the **Password** box, type the password required to log in to your DB2 databases.

For ORACLE databases:

a In the **Schema repository** area:

- In the **Name** box, type the SQLNet alias to connect to your Oracle server.
- In the **Username** box, type the username required to log in to your Oracle schema repository.
- In the **Password** box, type the password required to log in to your Oracle schema repository.

b In the **Data warehouse** area:

- In the **Name** box, type the SQLNet alias to connect to your Oracle server.
- In the **Username** box, type the username required to log in to your Oracle warehouse.
- In the **Password** box, type the password required to log in to your Oracle warehouse.

c In the **Connect options** box, type the Oracle versions installed on the database server and on the client machine using the following format:

```
CLIENT_VER=8.X;SERVER_VER=8.X
```

For example:

```
CLIENT_VER=8.1;SERVER_VER=8.1
```

If the database server is a machine other than the ProjectConsole server, then the ProjectConsole server is the client.

Note: ProjectConsole supports Oracle versions 8.0 and 8.1.

For SQL_ANYWHERE databases:

a Ensure that you have performed the pre-requisite tasks of upgrading SQL Anywhere 5.0 databases to SQL Anywhere 8.0 (described in *Upgrading SQL Anywhere Server* on page 52).

b In the **Schema repository** box, enter the path of the existing SQL Anywhere 5.0 schema repository database.

c In the **Data warehouse** box, enter the path of the existing SQL Anywhere 5.0 warehouse database.

d In the **Database server** box, type the name of the SQL Anywhere 8.0 database server.

e Next to **Protocol(s)**, select the check boxes for the protocols used to communicate with the SQL Anywhere server.

f In the **Hostname(s) (n1, n2,...)** box, type the host name or names of the database server or servers.

g In the **Connect options** box, specify the version of SQL Anywhere installed on your database server machine using the following format:

```
SERVER_VER=8.0
```

For SQL_SERVER databases:

a In the **Schema repository** box, type the name of the SQL Server schema repository database.

b In the **Data warehouse** box, type the name of the SQL Server warehouse database.

c In the **Database server** box, type the name of the server machine that hosts your SQL Server databases.

d In the **Username** box, type the username required to log in to the SQL Server schema repository.

e In the **Password** box, type the password required to log in to the SQL Server schema repository.

5 After you specify all of the required information for the database type, click **Next**.

6 On the next page, perform the following steps:

a In the **New repository name** box, type a name for the new ProjectConsole repository for your migrated data.

b In the **Old install location** box, if the installation path for the previously installed version of Rational ProjectConsole was different than the default path, then enter the correct path.

c In the **New install location** box, if the installation path for the currently installed version of Rational ProjectConsole is different than the default path, then enter the correct path.

d Click **Finish**.

After Migrating Data

Checking for Errors

After the migration completes, read the migration log to make sure there are no errors or exceptions. The log is displayed on the status page of the Maintenance Tool. It is also saved, by default, in:

C:\Program Files\Rational\ProjectConsole\bin\PjsSetup.log

If you notice an error or exception, address the problem before proceeding.

Changing the Rational Services Logon Information

You need to change the Rational Services Logon information if your site will use UNC paths for access to tree node properties, source templates, or tasks on remote machines. By default, the services run as the Local System user. Configure them to run as a domain user with access to the appropriate remote machine. To perform the configuration: start on the Services panel.

If you are either collecting metric data, or generating artifact reports from Rose models, configure the Rational ProjectConsole Collection Server and Rational ProjectConsole Report server services as follows:

- Log on using the **Local System** account.
- Select the **interact with desktop** checkbox.
- We recommend using a remote agent machine for all Rose data collections and artifact report generation.

For each of the following services, you may need to change the logon information.

- Rational ProjectConsole Collection Server

  Follow this step if you plan to perform metric data collections that access data repositories (Rose, Test Manager, MS Project, text, and so on) that are stored on a remote machine and the collection agent accesses those repositories using a mapped network drive or a UNC path name.

  - Configure this service to log on using a named account that has access to the remote resources.

- Rational ProjectConsole Dashboard Server

  Follow this step if you use either Microsoft Access or SQL Anywhere for your data warehouse, and the databases (`.mdb` or `.db` files) are accessed using a mapped network drive or a UNC path name.

  - Configure this service to log on using a named account that has access to the remote resources.

- Rational ProjectConsole Report Server

  Follow this step if you plan to configure report nodes in the ProjectConsole tree that access data repositories (Rose, Test Manager, MS Project, text, and so on) that are stored on a remote machine, and the report server accesses those repositories using a mapped network drive or a UNC path name.

  - Configure this service to log on using a named account that has access to the remote resources.

- Rational Web Platform, servlet engine

  Follow this step if you plan to configure report nodes in the ProjectConsole tree that use the File System template to display a list of files that are stored on a remote machine, and the report nodes are accessed using a mapped network drive or a UNC path name.

  - Configure this service to log on using a named account that has access to the remote resources.

Re-Connect to the Database

If you run collections from ClearQuest databases, re-establish the connection to these databases by performing one of the following tasks:

- If you have saved ClearQuest connection information to a profile, in the ClearQuest Maintenance Tool, click **File > Import Profile** and enter the name of the profile.
- If you do not have a profile, run the ClearQuest Maintenance Tool and select **Connection > New**. Provide the connection information.

ProjectConsole Automatically Sets the Data Code Page

If you are a ClearQuest user, you may be aware of the ClearQuest data code page topic in that product. ProjectConsole also uses data code pages. ProjectConsole, however, automatically sets the data code page for the schema repository and data warehouse when you create or migrate a schema repository or data warehouse.

Performing Final Steps

Perform the following tasks:

1. Check all the tree nodes on the main page and fix any that are broken.
   - In v2002, if the icon for a tree node did not exist, ProjectConsole displayed a default icon. In v2003, ProjectConsole displays a red **X**. If you notice a red **X**, edit the tree node and use the New Icon Browse dialog box to select a new icon.
   - If you configured any tree nodes to display URLs that referenced virtual IIS directories, these URLs may be invalid unless you have configured RWP and IIS to work together. See *Allowing IIS and RWP to Co-Exist on a Single Server* on page 100 for more information.
   - If you configured any tree nodes to display html pages you created and stored in v2002 Jakarta-tomcat\webapps\projectconsole, you may need to manually copy these html pages to common\rwp\webapps\projectconsole.
   - If you used relative references to the html files in your tree nodes (that is, the URL contained only the name of the html file), copy the html file to common\rwp\webapps\projectconsole\pjc.
   - The start.htm file and any associated image files are now located in rational\ProjectConsole\DataRepository*your-data-repository*. If this page did not migrate during the upgrade, copy the page and the associated image files from jakarta-tomcat\webapps\projectconsole to the new data repository folder. Then use the ProjectConsole Maintenance Tool to re-connect to your repository.
   - If any tree nodes under ProjectConsole Help or ProjectConsole Resources are no longer applicable, delete them.
2. If you use any templates that use an absolute path value to reference the jakarta-tomcat\webapps directory (using the FileSystem domain), then modify these paths to reference the location under the \common\rwp\webapps directory.
3. Modify any templates that use the FileSystem domain **OPEN** command to reference .gif files. ProjectConsole no longer supports .gif files inserted with the file system adapter; convert them to .png or .jpg format and modify the **OPEN** command to refer to the new file format.

4 Update username and password fields for RequisitePro, ClearQuest, and Test Manager tree nodes.

- In v2002, ProjectConsole prompted users to log in when an artifact report required authentication, and the logged in user was not a valid user in the specified product.

  In v2003, users are no longer prompted. If login information is specified in the configuration for a tree node, then the artifact report is generated using the specified username and password. If login information is not specified for a tree node, then the artifact report is generated using the username and password of user who is currently logged in.

- Only nodes that specify login information are included in scheduled, offline updates of the generated reports in the Web site. This includes report nodes for products that do not require a login.

5 Check all the published views. The ProjectConsole Version 2003 has new sample published views.

  To remove the sample views, delete the files in c:\program files\rational\common\rwp\webapps\projectconsole\PublishedViews\Dashboard\ClassicsCD.com Projects.

6 If the original warehouse did not include a user with username *admin*, then the ProjectConsole Version 2003 adds this user. The username is *admin* and the password is *changeit*. You cannot delete, rename, or suspend this user, but you can change its password. We recommend that you do change the password for security reasons.

7 When you or a user starts the ProjectConsole Dashboard or Designer Java applets, a Security Warning appears asking if you want to trust the signed applet. Click **Grant Always** or **Yes** to continue, depending on which Java plug-in version is installed on your computer.

  We recommend that you notify users that they will also have to respond to the question about trusting the signed applet.

8 If you have upgraded from SQL Anywhere 5.0: Optionally, use the ProjectConsole Maintenance tool to copy the schema repository and data warehouse from the migrated SQL Anywhere 5.0 databases to the SQL Anywhere 8 databases. Taking this step improves performance. See the Maintenance Tool Help for assistance with this step.

Upgrading ProjectConsole Agent Software

This section describes how to upgrade the ProjectConsole services running on a remote server. If you did not install ProjectConsole collection agents or report servers on a remote server, you may skip this section.

We assume that you have already performed these steps:

- Installed the ProjectConsole Web server components (see *Upgrading Web Servers* on page 87).
- Restarted the ProjectConsole Web server machine, which automatically starts ProjectConsole servers.
- Upgraded the ProjectConsole server software on the Web server machine.
- Installed the ProjectConsole report server and collection agents on a remote server.

To configure the ProjectConsole services:

1. Start the ProjectConsole Maintenance Tool: click **Start > Rational Software > Rational ProjectConsole > Rational ProjectConsole Maintenance Tool**.
2. On the first page of the Maintenance Tool, click **Configure the ProjectConsole services**, and then click **Next**.
3. Enter the Web server name.

   There are advanced options on this page. In most cases, you can accept the default value for each option. The Maintenance Tool Help describes each option in detail.
4. Click **Finish**.
5. Verify that the message `Operation Complete` displays.

You do not need to restart the ProjectConsole collection agents or report server. These items automatically notice the new Web server name and connect to the ProjectConsole servers running on the Web server.

Migrating from Rose to XDE [optional]

XDE is not part of Rational Suite. It is a companion product and some Suite products integrate with XDE. For information about migrating to Rational XDE, see "Upgrading and Migrating to Rational XDE" in the Rational XDE Help.

When a Rose Model Is Part of a Rational Administrator Project

If you migrate a Rose model to XDE and the Rose model is in a Rational project, the Rational Administrator continues to maintain a pointer to the obsolete Rose project, and does not create a new pointer to the XDE project. Also, the Rose project and XDE

project are independent and do not synchronize automatically. After the conversion from Rose to XDE, you cannot migrate new work from the Rose model to the XDE model.

Therefore, remember to perform all your work in the new XDE model, not in the Rose model.

Upgrading Rational Unified Process

To upgrade the Rational Unified Process, perform these tasks:

- If you used an earlier version of RUP and did not customize it, then you do not need to do anything to upgrade RUP. However, you may optionally wish to evaluate RUP Builder to determine whether your organization can benefit from creating and publishing a customized configuration.
- If you used an earlier version of RUP Builder to publish a RUP configuration for a project, use RUP Builder Version 2003 to select the process components and plug-ins you need. Then create appropriate process views and publish a new RUP web site.
- If you edited an earlier version of the published RUP website to point to additional content, take one of the following steps:
  - Use RUP Builder to add those links to process views.
  - Use the RUP Organizer component of the Rational Process Workbench to package the content in a Thin Plug-in. Then include it in a configuration.
- If you used Rational Process Workbench to create a process plug-in, download and install the new Rational Process Workbench, and migrate your plug-in based on content in the process-engineering version of RUP.

Running RUP Builder

To use RUP content that you have customized, run RUP Builder. Describe your process, select process components and plug-ins, edit the process views, and publish a new RUP web-site. See the RUP Builder Help and RUP Builder tool mentors for more information.

Adding Links to Process Views

If you created additional RUP content such as a project or organizational web site, use RUP Builder to create a process configuration and organize the content using the process views, adding the links that you need. See the RUP Builder Help for more information.

Upgrading Rational Process Workbench

If you used Rational Process Workbench in an earlier version of RUP, read this section. In this release, RPW has been split into these components:

- RUP Modeler is an add-in to Rational XDE Modeler. Process Engineers use RUP Modeler to create process models for RUP plug-ins.
- RUP Organizer helps you add content to RUP plug-ins, and to create Thin Plug-ins that do not require modeling.

If you used RPW in earlier releases, migrate your plug-ins to these new tools. For more information, read about migrating your plug-ins in the *Rational Process Workbench Upgrade Guide*. This guide is in the process-engineering version of RUP within the RPW package.

Packaging Content in a Thin Plug-in

To allow multiple teams access to organizational standards or guidelines in their customized version of RUP:

1. From the Rational Developers Network, download and install Rational Process Workbench (RPW).
2. Use the RUP Organizer component of RPW to package the content into a Thin Plug-in.
3. Provide the plug-in to project managers for use in their RUP configurations.

For more information, see the process-engineering version of RUP within the RPW package, RUP Organizer Help, and RUP Organizer tool mentors.

Upgrading Extended Help

If you customized Extended Help topics, upgrade as follows:

1. Use the RUP Organizer component of the Rational Process Workbench, available from the RUP Plug-in Exchange on the Rational Developer network (www.rational.net\rupexchange). Create a thin plug-in containing those Extended Help topics you have added to Extended Help.
2. Use RUP Builder to add the Thin Plug-in to your RUP Configuration.
3. Use RUP Builder to publish the RUP Configuration.
4. Instruct your users to navigate to the published configuration.
5. The first time users invoke Extended Help, RUP displays all RUP configurations they have navigated to. Users need to select a configuration, usually the configuration of the project they are working on.

Upgrading Web Servers 3

This chapter describes how to upgrade Web servers. As of this release, most Rational Web servers run on the Rational Web Platform, which needs minimal manual configuration.

If you are using Web services for the following tools, then you are using the Rational Web Platform (RWP), and you should be familiar with the material in this chapter:

- RequisitePro
- ProjectConsole
- ClearCase

ClearQuest Web and ManualTest Web do not use the Rational Web Platform. If you use these Web services, there are no upgrade tasks.

The remainder of this chapter describes how to perform the following tasks:

- Install the Rational Web Platform.
- Configure RequisiteWeb (one-time activity to set up new RWP service).
- Configure ClearCase Web (one-time activity to set up new RWP service).
- Allow IIS and RWP to co-exist on a single server.
- Configure RWP if you need to change the original configuration.

Installing a Web Service that Uses the Rational Web Platform

Before You Install

Before you install a Web service that uses the Rational Web Platform:

1. Stop the following services:
   - The default Web server under Internet Information Server (use the Computer Management utility)
   - The World Wide Web (WWW) Publishing service
   - ProjectConsole servers and xmlagents.exe
2. Change the Startup Type for the WWW service to *Disabled* or *Manual*.
3. Remove all Rational products on the computer that are at an earlier version than the current version.

Performing the Installation

Use the Rational setup program to install a Web service, such as RequisiteWeb, that uses the Rational Web Platform. The installation program configures the Rational Web Platform.

In most cases, the Rational Web Platform is immediately available for use at this point. In some cases, you may need to make minor configuration changes before users can work with the Web tools. See *Configuring the Rational Web Platform* on page 100 for more information.

Upgrading Desktop Systems on page 145 describes how to redirect a desktop browser to start using the new Web servers.

Configuring RequisiteWeb

To operate RequisiteWeb, see the following sections:

- Configuring the RequisiteWeb server on the Rational Web Platform (RWP)
- Testing RequisiteWeb
- Managing RequisitePro Projects for RequisiteWeb

For more information about the Rational Web Platform, see *Configuring the Rational Web Platform* on page 100.

For the most current information on RequisiteWeb, including installation, configuration, and known issues, refer to the *Installing and Configuring Rational RequisiteWeb* document that is on the *Rational Solutions for Windows* CD at:
\Doc\RequisiteWebInstall.html
It is also located, by default, in your RequisiteWeb installation at:
C:\Program Files\Rational\Doc\RequisiteWebInstall.html

The *Installing and Configuring Rational RequisiteWeb* document is also available from the online *Release Notes* in RequisitePro.

Prerequisites

The following instructions assume you have:

- Configured the RequisitePro project database.
- Installed and configured the Oracle client software on the RequisiteWeb server if you have chosen the Oracle database to store your RequisitePro projects.
- Installed the RequisiteWeb components. If you have not installed these components, see *Installing Rational Products* on page 113.

- To access RequisiteWeb from clients, users should install one of the supported Web browsers listed in the *Installation Guide* for Rational Desktop Products on their desktops. No additional client installation is required.
- For proper RequisiteWeb operation, client users should set their browsers to allow cookies.

Configuring the RequisiteWeb Server

This section describes how to configure the RequisiteWeb components on your Rational Web Server and describes how to perform the following tasks:

- Create the ReqWebUser
- Add the ReqWebUser to the Local Administrator group.
- Grant ReqWebUser access to network projects.
- Assign DCOM permissions to the Local Administrators group.
- Edit the RequisiteWeb configuration file (optional)
- Enable the Secure Socket Layer (SSL).

Creating the ReqWebUser

RequisiteWeb requires that you create a RequisiteWeb user. The RequisiteWeb user can be given any name. For the purposes of this guide, the user will be called ReqWebUser. This user will be granted the necessary permissions for RequisiteWeb to operate properly. If all RequisitePro projects that will be accessible via ReqWeb will be located on drives local to the RequisiteWeb server, create ReqWebUser as a local user on the RequisiteWeb server. Otherwise (if any of the projects assessable via ReqWeb are located on network file shares within your domain), create ReqWebUser as a domain user on your primary domain controller server.

Note: If you create the ReqWebUser user on the Windows domain server, be sure to log in to your Windows domain server as an administrator.

Table 6 on page 90 describes how to create the ReqWeb user.

Table 6 Creating the RequisiteWeb User

Step	NT 4.0	Windows 2000 Server/.NET RC2
1	On the domain server, click **Start > Programs > Administrative Tools (Common) > User Manager for Domains**.	On the domain server, click **Start > Programs > Administrative Tools > Computer Management**.
2	Click **User > New User**.	Expand **Domain Users and Groups**. Right-click **Users**; select **New User**.
3	In the **Username** field, type `ReqWebUser` and type a password of your choice.	In the **Username** field, type `ReqWebUser` and type a password of your choice.
4	Clear the check box **User must change password at next login,** and select the check box **Password never expires**. Click **Add**; click **Close**.	Clear the check box **User must change password at next login,** and select the check box **Password never expires**. Click **Create**; click **Close**.
5	Close the User Manager application.	Close the Computer Management application.

Adding the ReqWebUser to the Local Administrator Group

Table 7 shows how to add the ReqWebUser to the local administrator group.

Note: Be sure to log in to your RequisiteWeb server as an administrator for the following procedure.

Table 7 Adding the ReqWebUser to the Local Administrator Group

Step	NT 4.0	Windows 2000 Server/.NET RC2
1	On the Windows server, click **Start > Programs > Administrative Tools (Common) > User Manager for Domains**.	On the Windows server, click **Start > Programs > Administrative Tools > Computer Management**.
2	Click **User > Select Domain**, select your domain server, and type your machine name. Click **OK**.	Expand **Local Users and Groups**. Select **Groups**. Right-click Administrators and select **Add to Group**. In the Administrators Properties dialog box, click **Add**.
3	Under the **Groups** column, double-click **Administrators**.	The Select Users or Groups dialog box appears. At the **Look in** field, select the domain where you created the ReqWebUser.

Table 7 Adding the ReqWebUser to the Local Administrator Group

Step	NT 4.0	Windows 2000 Server/.NET RC2
4	In the Local Group Properties dialog box, click **Add**. Select your Domain Server in the **List Names From** list. Select ReqWebUser in the **Names** list and click **Add**. Click **OK**.	Select the ReqWebUser and click **Add**.
5	Click **OK** in the Local Group Properties dialog box to close it.	Click **OK** to close the **Select Users or Groups** dialog box. Click **OK** to finish.
6	Close the User Manager application.	Close the Computer Management application.

Assigning DCOM Permissions to the Local Administrators Group

RequisiteWeb uses DCOM to launch Microsoft Word. To achieve this, the ReqWebUser should be a member of the Administrators group on the RequisiteWeb server.

Note: If you have not already installed Microsoft Word on your RequisiteWeb server, you must do so now.

To Assign Access Permissions to the Local Administrators Group:

1. On the **Start** menu, click **Run**, and type `dcomcnfg`

   Note: At this point you may see the **DCOM Configuration Warning** dialog box. Close the warning and proceed to the next step.

2. Select the **Default Security** tab. Under **Default Access Permissions**, click the **Edit Default** button.
3. In the Registry Value Permissions dialog box, click **Add**.
4. At the **Add Users and Groups** dialog box, select your local machine from the **List Names From** drop-down list box.
5. Select the **Administrators** group in the **Names** list and click **Add**.
6. At the **Type of Access** field, select **Allow Access**. Click **OK** twice to return to the **Distributed COM Configuration Properties** dialog box.

To Assign Launch Permissions to the Local Administrators Group:

1. Select the **Default Security** tab. Under **Default Launch Permissions,** click the **Edit Default** button.
2. In the Registry Value Permissions dialog box, click **Add**.

3 At the **Add Users and Groups** dialog box, select your local machine from the **List Names From** drop-down list box.

4 Select the Administrators group in the **Names** list and click **Add**.

5 At the **Type of Access** field, select **Allow Launch**. Click **OK** twice to return to the **Distributed COM Configuration Properties** dialog box.

6 Close DCOM and restart your system.

RequisiteWeb and IIS

RequisiteWeb uses Rational Web Platform (RWP) as its Web service. Because RWP and IIS can conflict with one another you must choose one of the following options to run RequisiteWeb on a server with IIS running:

- Disable IIS
- Change and redirect the default RWP HTTP port

Disable IIS

If you choose to disable IIS, any programs using IIS will no longer work. Table 8 shows how to disable IIS.

Table 8 Disable IIS

Step	Windows NT 4.0	Windows 2000 Server/.NET RC2
1	Go to **Start > Settings > Control Panel > Services**.	Go to **Start > Settings > Control Panel > Administrative Tools > Services**.
2	Locate and select the **World Wide Web Publishing** service.	Locate the **World Wide Web Publishing** service and double-click the icon to display the **Properties** dialog box.
3	In the **Services** window, click the **Stop** button and change the **Startup type** to **Disabled**.	On the **General** tab under **Server status**, click the **Stop** button and change the **Startup type** to **Disabled**. Click **OK** and close the **Services** window.
4	Click **Close** to finish.	Click **OK** to close the dialog box. Close the Internet Services Manager.

Change and redirect the default RWP HTTP port

This option will allow the coexistence of RequisiteWeb and IIS. To change and redirect the default RWP HTTP port:

1. Change the default RWP HTTP port (80) in your rwp.conf file. Follow the instructions in *To Change the Default RWP HTTP Port* on page 214.
2. Create a virtual directory for RequisiteWeb on your RequisiteWeb server:
   a. Launch the Internet Services Manager by doing one of the following:
      - In Windows NT 4.0, click **Start > Programs > Windows NT 4.0 Option Pack > Microsoft Internet Information Server > Internet Service Manager.**
      - In Windows 2000 Server, click **Start > Programs > Administrative Tools/Internet Services Manager**.
   b. Right-click the Default Web Site and select **New Virtual Directory**.
   c. In the Virtual Directory Creation Wizard, click **Next** and type an **Alias**: ReqWeb.
   d. Click **Next** and browse to and select C:\Program Files\Rational\common\RWP\webapps2\ReqWeb and click **Next**.
   e. Click **Next** and **Finish** to complete the wizard.
3. In the properties of your newly created Virtual Directory, select **A redirection to a URL** and redirect to: http://*<server name>*:*<new port>*/reqweb.
4. Close the Internet Services Manager and restart the Rational Web Platform. Follow the instructions *To Stop and Restart RWP* on page 218.

Editing the RequisiteWeb Configuration File (optional)

Edit the RequisiteWeb configuration file to:

- Customize your document location
- Customize web access to document locations
- Relocate your catalog.txt
- Enable SSL

To use customized RequisiteWeb settings, in a text editor, open
`C:\Program Files\Rational\common\rwp\webapps2\ReqWeb\WEB-INF\classes\config.txt`

This procedure assumes that you have installed the RequisiteWeb application on your C:\ drive. Substitute the appropriate drive, if necessary, when performing this step.

Considerations:

- We recommend that you back up your config.txt file before making changes.
- Rational Web Platform must be restarted for configuration changes to take effect; see *To Stop and Restart RWP* on page 38.
- We *do not* recommend changing any config.txt settings not listed in this table without guidance from RequisiteWeb technical support.

Setting	Description	Default
RPXDocPath	The path to the directory where RequisiteWeb temporarily stores Word documents (aka the "GenDoc" directory). From the GenDoc directory, client web browsers download documents (Word format) or read them for display (HTML format). For example: `RPXDocPath=C:\Program Files\Rational\common\rwp\webapps2\ReqWeb\GenDoc` **Note:** If you change the RPXDocPath directory, you must make a corresponding change to the RPXHTTP variable below. The converse also applies.	<blank>

RPXHTTP	The URL that client web browsers use to access the RPXDocPath directory. If you enter a relative URL, it will be relative to "http://*<servername>*/ReqWeb". For example:
	`RPXHTTP=GenDoc/`
	-or-
	`RPXHTTP=http://<anotherserver>/GenDoc/`
	Note: This setting is case-sensitive.
		GenDoc/

RPXCatalog	The path to the project catalog file that is used to locate RequisitePro projects. For example: `RPXCatalog=C:\Program Files\Rational\RequisitePro\ReqWeb\Projects\catalog.txt`	<blank>
SSL	Set SSL to true if SSL is enabled. This setting affects whether hyperlinks in HTML-format documents use HTTP or HTTPS. For example: `SSL=true`	false

Enabling SSL (Secure Socket Layer)

RequisiteWeb supports SSL, an encryption system that ensures the confidentiality of data exchanged between RequisiteWeb and a client web browser. To use SSL with RequisiteWeb:

1. Stop the Rational Web Platform, see *To Stop and Restart RWP* on page 38.
2. Set SSL to true in the RequisiteWeb configuration file (see above table).
3. Remove all files and directories in the GenDoc directory. By default, this is `C:\Program Files\Rational\common\rwp\webapps2\ReqWeb\GenDoc`
4. Follow the instructions for configuring the Rational Web Platform to enable SSL in *Configuring RWP To Use Secure Sockets* on page 41.

Granting ReqWebUser Access to Network Projects

Table 9 Granting ReqWebUser Access to Network Projects

Step	Windows NT 4.0	Windows 2000 Server/.NET RC2
1	Go to **Start > Settings > Control Panel > Services**.	Go to **Start > Settings > Control Panel > Administrative Tools > Services**.
2	Locate and double-click the **Rational Web Platform, ReqWeb servlet engine** service to display the **Service** dialog box.	Locate the **Rational Web Platform, ReqWeb servlet engine** service and double-click the icon to display the **Properties** dialog box.
3	In the **Service** window under **Log On As**, click **This Account** and enter the ReqWebUser and password that you created. Click **OK** to close the **Service** window.	Select the **Log On** tab and click **This account**. Enter the ReqWebUser and password that you created and click **Apply**. Click **OK** and close the **Rational Web Platform** window.
4	Stop and start the **Rational Web Platform, ReqWeb servlet engine** service and start the **Rational Web Platform, HTTP server** service to finish.	Start or restart the **Rational Web Platform, ReqWeb servlet engine** service to finish.

Reboot Required

At this point you must restart your system. After rebooting, log in as the **same** user to complete the installation procedure.

Testing RequisiteWeb

To test a RequisitePro project in RequisiteWeb:

1. Open a web browser.
2. Set the URL address to http://<*server name*>/reqweb on your RequisiteWeb server and press enter.
3. Select a RequisitePro project that contains documents from the **Project** list. If your project does not appear on the list, refer to the procedure *Managing RequisitePro Projects for RequisiteWeb* on page 96.
4. Type your RequisitePro **User** name and **Password** and click **Log in.**
5. Select a document in the Explorer and open it. If the document opens correctly, the test has succeeded; RequisiteWeb has been properly installed.

   Note: If the Microsoft Word installer appears, you must allow it to complete.

Stopping and Starting RequisiteWeb

The Rational Web Platform (RWP) should start automatically, but if you need to stop and restart RWP, see *To Stop and Restart RWP* on page 38.

Managing RequisitePro Projects for RequisiteWeb

Although RequisiteWeb provides features for accessing and editing requirements and documents in projects, you must use the full RequisitePro PC client application to create projects and documents. RequisitePro offers project templates and other management tools for creating and modifying project structure and security. For more information, refer to the *Rational RequisitePro User's Guide* or the RequisitePro online help.

Using the RequisiteWeb Project Catalog

RequisiteWeb uses a catalog text file to provide access to RequisitePro projects. By default, the file contains entries for the RequisitePro Learning Project and another sample project. The projects that are listed in your catalog file appear in the **Projects** drop-down list box on the RequisiteWeb logon page.

To add your own projects to the catalog, you must type the full path for the project file, which has a .rqs extension. For instructions on modifying the catalog, see *Editing the RequisitePro Projects Catalog*.

Editing the RequisitePro Projects Catalog

To edit the catalog, perform the following procedure on the RequisiteWeb server:

1. Navigate to the directory:
   C:\Program Files\Rational\RequisitePro\ReqWeb\Projects

   Note: If your projects are installed in a directory other than C:\ you must edit the catalog.txt file to reflect the correct installation directory.

2. Using a text editor, open the catalog.txt file.

3. Create an entry on each line with the full path to the RequisitePro project file. Copy the format of the default project entries.

   Note: Use a full path for local projects on the RequisiteWeb server. To access projects on another server, you must specify a Universal Naming Convention (UNC) path to the shared folder containing the RequisitePro .rqs file. For example, \\server_name\full_path\my_project.rqs.

4. Save and close the catalog.txt file.

Note: To view updates to the catalog.txt file, you must log off RequisiteWeb and then select a project at the RequisiteWeb project "log in" page.

Database Projects

RequisiteWeb can open SQL Server- and Oracle-based projects that are not physically located on the RequisiteWeb server; however, the ReqWebUser domain user must have Change or Modify permission for the directory containing the RequisitePro (.rqs) project file on the remote project server.

Note: In order to execute the provided SQL Server database scripts you must be logged in as 'sa' or as a user with "System Administrator" and "Security Administrator" privileges.

Configuring ClearCase Web

For many sites, the ClearCase Web interface requires no special configuration; any host on which RWP is installed can support this interface at the URL

http://*hostname*[:*port*]/ccweb

where *hostname* is the name of the RWP host and *port* is an optional port number if RWP has been configured to use a port other than 80 for HTTP (see *To Change the Default RWP HTTP Port* on page 34).

Note: When RWP runs on a Windows computer, ClearCase Web interface users must be given permission to **Log On Locally** to the RWP server. Windows does not grant this permission by default.

The remainder of this section explains how you can edit the ClearCase Web interface configuration file

ccase-home-dir/config/ccweb/ccweb.conf

if you need to modify the default configuration of the ClearCase Web interface.

Note: Do not confuse this file with the ClearCase Web interface support file for RWP. This support file is installed as C:\Program Files\Rational\common\rwp\ccweb.conf. It should not be modified.

Specifying the ClearCase Primary Group

At sites where ClearCase users on Windows set the CLEARCASE_PRIMARY_GROUP environment variable (read about *Setting the ClearCase Primary Group* in the *ClearCase Administrator's Guide*), you must also specify that primary group for ClearCase Web interface users by modifying this line in the ccweb.conf file:

–primary_group *group-name*

where *group-name* is the name of a domain group that will be used as the CLEARCASE_PRIMARY_GROUP for all users who access the ClearCase Web interface on this host.

Note: When users from multiple domains access the ClearCase Web interface, you must enable domain (described in *Using Proxy Groups and Domain Mapping in Windows NT Domains* in the *ClearCase Administrator's Guide*) on the RWP host and specify an appropriate value for **–primary_group** in ccweb.conf.

Web View Storage

The ClearCase Web interface normally creates Web view directories on the RWP server host. These directories are used for temporary storage of files that are checked out or ready to be created as elements. Therefore, they must be on a disk volume that has enough space for the number of Web views to be supported. We suggest allocating 0.5 MB to 1 MB of disk space for each Web view.

On Windows, these directories are normally created under
C:\Program Files\Rational\ClearCase\var\ccweb

If the default Web view storage directory is not appropriate, you can select a different area by modifying ccweb.conf. Add the line

–view_storage *pathname*

where *pathname* is the directory in which you want the Web view directories to be created. This directory must be local to the RWP host.

Note: Although the ClearCase Web interface may create a separate directory for Web view storage, it continues to store executable and administrative files in *ccase-home-dir*/ccweb.

Limiting Upload Size

To better manage Web view storage or reduce the possibility of denial-of-service attacks, you may want to limit the size of files that can be uploaded to the RWP server. To do so, modify the following line in the ccweb.conf file:

–upload_limit *size*

where *size* is the approximate desired size limit in bytes. An attempt to upload a file that is too large results in an error message in the **Client Upload** output window.

Specifying a Session Timeout

You can configure the session timeout interval, which controls how long a user login remains valid. The default value is 14400 seconds (four hours). You can change this default by modifying the line

–session_timeout *seconds*

in ccweb.conf, where *seconds* is an integer number of seconds between 600 (10 minutes) and 2147483647 (about 68 years). Values less than 600 are interpreted as 600.

Specifying a Directory for Temporary Storage

You can designate a directory where the ClearCase Web interface stores temporary files by adding a line of the form

–tmpdir *directory-name*

to ccweb.conf, where *directory-name* is a directory on the RWP host in which the ClearCase Web interface has permission to create and delete files. If this line is not present in ccweb.conf, the ClearCase Web interface uses the value of the TMP or TEMP environment variables, if they exist.

Permission to Download Applets on Windows

Internet Explorer typically requires a user to have local administrator privileges to download applets, including those used by the ClearCase Web interface. After these applets have been downloaded (the first time the Web interface is used), they do not have to be downloaded again unless a ClearCase patch or new ClearCase release changes them.

Allowing IIS and RWP to Co-Exist on a Single Server

In some cases, you may want the Rational Web Platform to co-exist on the same computer with an IIS application. To enable this co-existence:

1. Follow the instructions in *Configuring the Rational Web Platform* on page 100 to configure the Rational Web Platform to listen on port 81. At this point, you can use hostname:81 to get access to a Rational Web application, for example, http://hostname:81/projectconsole.
2. Restart the RWP service.
3. Start IIS.
4. For each Rational Web application, create an IIS virtual directory pointing to a redirection directory. For example, name the directory projectconsole.
5. Edit the properties of each redirection directory:
   - Configure it as "A redirection to a URL"
   - For the URL, enter the path that you set up in Step 1, for example, http://hostname:81/projectconsole.

You can now get direct access to a Rational Web application without using the port number, for example, by typing: http://hostname/projectconsole.

Configuring the Rational Web Platform

The Rational Web Platform (RWP) provides server side support for Web interfaces to the Rational products, Rational ClearCase, Rational ProjectConsole, and Rational RequisiteWeb. RWP is installed with a default configuration, which is suitable for most sites. Some sites may need to modify the RWP configuration after installation to accommodate various host- or site-specific requirements. For example:

- To make RWP use a different HTTP port number
- To change RWP logging defaults
- To configure access to RWP from another Web server acting as a proxy
- To configure RWP to use secure sockets

This section explains how to edit the RWP configuration files to make some of the more common changes in the default configuration.

The Rational Web Platform includes a Web server based on the Apache HTTP Server version 2.*x* and a servlet engine based on the Tomcat servlet container version 4.*x*. Additional information about the Apache HTTP Server is available at www.apache.org. Additional information about the Tomcat servlet container is available at jakarta.apache.org.

On Windows, RWP creates a second instance of the servlet engine for use if needed.

Note: The Rational Web Platform supports only the Web interfaces to Rational products. Using it to serve other Web applications or content is not supported.

RWP Installation Directory

RWP is normally installed in the following directory:

- On Windows, C:\Program Files\Rational\common\rwp

The default RWP installation directory can be changed at installation time by supplying a different path when prompted by the install program.

RWP Configuration Files

RWP configuration is specified in several files. The following files are normally installed in the conf subdirectory of the RWP installation directory:

- rwp.conf specifies configuration parameters for the RWP server.
- ssl.conf specifies configuration parameters for secure sockets if they are used by the RWP server.
- server.xml specifies configuration parameters for the RWP servlet engine.
- On Windows, server2.xml specifies configuration parameters for the RWP ReqWeb servlet engine.
- workers.properties specifies configuration parameters for the connections between RWP and RWP servlet engine(s).

On Windows, the following files are normally installed in the bin subdirectory of the RWP installation directory:

- jk_service.properties controls how the RWP servlet engine runs as a Windows service.
- jk_service2.properties controls how the RWP ReqWeb servlet engine runs as a Windows service.

You can edit these files with any text editor. They include explanations of all configuration parameters. This section describes a few of the parameters that you may need to change.

Note: After changing any configuration parameter in any of these files, you must stop and restart RWP before the change takes effect. See *To Stop and Restart RWP* on page 106.

Configuration File Reference Versions

The RWP installation directory includes reference versions of all configuration files.

- rwp.in.conf
- server.in.xml
- server2.in.xml

The install program uses these reference versions to determine whether configuration files have been customized. Do not make any changes to them.

To Change the Default RWP HTTP Port

The port on which RWP listens for HTTP requests is defined by the **Listen** parameter in rwp.conf. For example,

```
Listen 80
```

tells RWP to listen on port 80 (the default for HTTP). You may change this to specify any available port number. For example:

```
Listen 8000
```

tells RWP to listen on port 8000.

Note: If you change the RWP HTTP port number to anything other than 80, all URLs that reference RWP must include the port number. For example:

```
http://RWP_host.domain:8000/ccweb
```

To Change the Default RWP Servlet Engine Ports

The ports on which the RWP servlet engine communicates with RWP are defined in the server.xml and server2.xml files as well as the workers.properties file. Table 10 lists default port numbers, port uses, and the files in which the port numbers are defined.

Table 10 Default RWP Servlet Engine Ports

Port Number	Description	Location
8009 (8010 on HP-UX)	Used for communication between RWP and the RWP servlet engine	server.xml, workers.properties

Table 10 Default RWP Servlet Engine Ports

Port Number	Description	Location
8010	Used for communication between RWP and the RWP ReqWeb servlet engine (Windows only)	server2.xml, workers.properties
8005 (8006 on HP-UX)	RWP servlet engine shutdown port	server.xml

If any of these ports is used by another application on the RWP host, we recommend that you reconfigure that application to use different ports. If you cannot, you must change the ports RWP uses.

The following example, from server.xml, defines port 8009 as the port used for internal communication between RWP and the RWP servlet engine:

```
<Connector className="org.apache.ajp.tomcat4.Ajp13Connector"
   port="8009" minProcessors="5" maxProcessors="75"
   acceptCount="10" debug="0"/>
```

To change either port, change the value of the **port** attribute of the appropriate **Connector** element. For example, the **port="8088"** attribute in the line

```
<Connector className="org.apache.ajp.tomcat4.Ajp13Connector"
   port="8088" minProcessors="5" maxProcessors="75"
   acceptCount="10" debug="0"/>
```

causes internal communication between RWP and the servlet engine to use port 8088.

Note: If you change the port attribute of the **Ajp13Connector** element in server.xml, you must also change the port in this line of the workers.properties file:

```
worker.ajp13.port=8009
```

If you change the port attribute of the **Ajp13Connector** element in server2.xml, you must also change the port in the **worker.ajp13_2.port** line of workers.properties. These files exist only on Windows hosts where RWP supports a second instance of the RWP servlet engine.

To Configure RWP Logging

A number of configuration parameters related to access, error, and event logging in rwp.conf are grouped under the heading **Logging-related directives**. You may want to change any of the following:

- **ErrorLog** specifies the name of the file where errors are logged. For example,

  ```
  ErrorLog logs/error.log
  ```

specifies that errors will be logged in the file logs/error.log under the RWP installation directory.

Note: Any RWP log file may be piped to the **rotatelogs** command, as described in *Log Rotation and Log Cleanup* on page 105.

- **LogLevel** specifies the type and severity of errors to be logged. For example,

  ```
  LogLevel warn
  ```

  specifies that errors up to and including warnings will be logged. Table 11 lists the various log levels in order of decreasing severity. Specifying any of these values for **LogLevel** logs events of that severity and all lower severities.

Table 11 RWP Log Levels

LogLevel	Messages logged
emerg	Emergency messages about events that may render the server inoperable (Highest severity)
alert	Conditions that should be corrected immediately
crit	Critical conditions such as hardware or system errors
error	All other errors
warn	Warning messages
notice	Conditions that may require special handling
info	Informational messages (lowest severity)
debug	Debugging RWP

- **LogFormat** specifies the format in which events are logged. You can choose one of the predefined formats (for example, **common**), or you can define your own format. For more information about format tokens and the rules for constructing log file strings, see the documentation for **mod_log_config** at www.apache.org.
- **CustomLog** specifies the name of the file in which RWP access requests are logged. For example,

  ```
  CustomLog logs/access.log common
  ```

  specifies that access requests will be logged in the file logs/access.log under the RWP installation directory in the **common** log file format.

Log Rotation and Log Cleanup

On RWP hosts where ClearCase is installed, the scheduled Weekly Log Scrubbing job removes all RWP log files that are more than 30 days old. You can modify this job as described in the ClearCase *Administrator's Guide* to change the frequency with which the job runs, the age of the log files it removes, or any other aspect of its operation.

Note: If you change any of the default RWP log locations on a host where ClearCase is installed, you must also modify the cleanuplogs script so that it looks for these logs in their new location.

On RWP hosts that do not have ClearCase installed, you must periodically run the following program to remove old log files:

- the perl script cleanuplogs.pl, located in the RWP bin directory.

Use a scheduled-execution program supplied by the operating system (**at** on Windows) to run these scripts, or run them manually.

To Change the User Account Used by RWP

On installation, RWP is configured to run with the identity of a built-in user account. You can change this account if necessary by using one of the procedures described in this section.

To Change the RWP User Account on Windows

On Windows computers, RWP is started at boot time by the Windows Service Control Manager and runs with the identity of the built-in **LocalSystem** account (**NT AUTHORITY\SYSTEM**).

To change the identity under which RWP runs on Windows:

1. Run the Services application (in **Control Panel > Services** or **Control Panel > Administrative Tools > Services**). RWP includes the following services:
   - Rational Web Platform, HTTP Server
   - Rational Web Platform, servlet engine
   - Rational Web Platform, ReqWeb servlet engine

   Caution: The HTTP Server and servlet engine must run as **LocalSystem** on a Windows RWP host that is supporting the ClearCase Web interface. If these services run as any other user, the ClearCase Web interface will fail. The ReqWeb servlet engine can run as another account if necessary.
2. Edit each service's **Log On** properties to specify either a local or domain account.
3. Run **rwp_restart** to stop and restart RWP (see *To Stop and Restart RWP* on page 106).

To Stop and Restart RWP

RWP is normally started at boot time. If you need to stop or restart RWP (for example, to force it to re-read a changed configuration file), use one of the following commands, which are normally installed in the RWP bin directory:

- **rwp_startup** starts RWP if it is not already running.
- **rwp_shutdown** stops RWP and any associated servlet engine processes.
- **rwp_restart** runs the **rwp_shutdown** and **rwp_startup** commands, in that order, to restart RWP.

Note: Commands that stop and start ClearCase do not affect RWP.

To Configure Access to RWP from Another Web Server

Some sites may need to access RWP by proxy or redirection from another Web server. In this configuration, the other Web server redirects specific URLs to an RWP process running on the same server but using a different port, or running on a separate server. Two common use cases require this type of configuration.

- **RWP and another Web server must run on the same host.** We recommend that you install RWP on a host that does not have to run any other Web servers. If this is impossible, we recommend that you configure the other Web server to use ports that are not being used by RWP. If you cannot do this, you must configure RWP to use ports not used by the other Web server (see *To Change the Default RWP HTTP Port* on page 102) and optionally configure the other Web server to redirect URLs for Rational Web clients to RWP.
- **RWP must run behind a firewall.** To restrict access to RWP, a Web server running on the public side of a firewall can be configured to pass specific URLs to an RWP instance running on the other side of the firewall.

Follow the instructions in this section to enable a proxied or redirected configuration that provides access to RWP from either of the following Web servers:

- Apache HTTP Server
- Microsoft Internet Information Server (IIS)

Note: Instructions for configuring proxied or redirected access to a Rational Web application are specific to the application and the Web server acting as the proxy. Only the Web servers and Rational Software products that are specifically cited in this section can be supported in a proxied or redirected configuration.

Configuring mod_proxy Support for Apache

To configure an instance of Apache HTTP Server to support proxy access to RWP, you must configure the Apache HTTP Server with proxy support supplied by the Apache **mod_proxy** module. Detailed information about how to do this is available at www.apache.org. The following is a summary of the steps you will probably need to take:

1. Configure the Apache HTTP Server to load the mod_proxy module and the other modules on which it depends. This typically requires you to uncomment various **LoadModule** directives related to mod_proxy support in the Apache httpd.conf file. For example

   ```
   LoadModule proxy_module modules/mod_proxy.so
   LoadModule proxy_connect_module modules/mod_proxy_connect.so
   LoadModule proxy_http_module modules/mod_proxy_http.so
   ```

   You also need to uncomment the `ProxyRequests On` directive in the **<IfModule mod_Proxy.c>** block in httpd.conf:

   ```
   <IfModule mod_Proxy.c>
   ProxyRequests On
   </IfModule>
   ```

2. Add the appropriate **ProxyPass** and **ProxyPassReverse** directives within the **<IfModule mod_proxy.c>** block in httpd.conf. **ProxyPass** and **ProxyPassReverse** directives are application specific:

   For the ClearCase Web interface, add these **ProxyPass** and **ProxyPassReverse** directives:

   ProxyPass /ccweb http://*hostname***[:***port***]/ccweb**
   ProxyPassReverse /ccweb http://*hostname***[:***port***]/ccweb**
   ProxyPass /Java_Plugins http://*hostname***[:***port***]/Java_Plugins**
   ProxyPassReverse /Java_Plugins http://*hostname***[:***port***]/Java_Plugins**

   Where *hostname* is the name of the RWP server host and *port* is an optional port number, which you must specify if you have changed the default port on which RWP listens for HTTP requests (see *To Change the Default RWP HTTP Port* on page 102). For example, the following directives would configure the proxy server to support access by the ClearCase Web interface to an RWP process listening on port 81 of a host named **RWP_host**.

   ```
   ProxyPass        /ccweb http://RWP_host:81/ccweb
   ProxyPassReverse /ccweb http://RWP_host:81/ccweb
   ProxyPass        /Java_Plugins http://RWP_host:81/Java_Plugins
   ProxyPassReverse /Java_Plugins http://RWP_host:81/Java_Plugins
   ```

   Note: The URLs specified in this example must be written in the httpd.conf file exactly as specified here, with the exception of the host name and optional port number.

Configuring URL Redirection for Internet Information Server

If RWP must co-exist on a server with an instance of Microsoft Internet Information Server (IIS) that listens for HTTP requests on port 80, you must reconfigure RWP to listen for HTTP requests on a different port (see *To Change the Default RWP HTTP Port* on page 102) and then do one of the following:

- Include a port specifier (for example http://*hostname*:81/ccweb/) in the URLs used by Rational Web interfaces served by this instance of RWP.
- Use the IIS redirection facility to force Rational Web interface URLs directed to port 80 (and received by IIS) to be redirected to RWP.

To configure IIS to use redirection:

1. Run the IIS configuration utility (Internet Services Manager).
2. Create a new virtual directory in the IIS Default Web Site folder:
   - For the **Virtual Directory Alias**, pick a name that reflects the name of the Web client that will use the virtual folder (for example, **ccweb**).
   - For the **Web Site Content Directory**, you must specify a physical directory on the Web server host. Although this directory must exist on the host, it will not be used to hold any Web site content after you configure redirection in Step 4. We recommend that you create a new directory for this purpose and apply protections to it that reduce the chances of its being accidentally deleted.

   Note: If you create this directory as a subdirectory of the RWP installation directory, it will be deleted if RWP is reinstalled on the host.

   - For **Access Permissions**, specify **Read** and **Run scripts**.
3. Right-click the virtual directory you created in Step 2 and open its **Properties** dialog box.
4. In the **When connecting to this resource, the content should come from** section of the **Virtual Directory** tab, select **A redirection to a URL**.
5. In the **Redirect to:** box, type the URL used by the Rational Web interface that you are redirecting to RWP. For example, to redirect the ClearCase Web interface (**ccweb**) to use an instance of RWP listening on port 81, type

   http://*hostname***:81/ccweb/**

   where *hostname* is the name of the host running RWP and IIS.
6. In the **The client will be sent to** section, select **The exact URL entered above**.
7. Verify that browsing to the URL http://*hostname*/ccweb redirects you to the ClearCase Web interface at the URL specified in Step 5.

Configuring RWP To Use Secure Sockets

To provide secure communications between Rational Web clients and RWP, you can configure RWP to support the Secure Sockets Layer (SSL) protocol. To do this, you need to take the following steps:

1. Edit the RWP configuration files to enable SSL support.
2. Modify client URLs as needed to specify the HTTPS protocol.
3. Stop and restart RWP.

Procedures for configuring RWP to support SSL are the same as those for configuring any Apache HTTPD that uses the **mod_ssl** module. These procedures are fully documented at the mod_ssl.org Web site; a summary of the configuration steps is presented here.

The first step in using SSL is to obtain a certificate from a certification authority (CA). RWP includes the **openssl** program (installed in the RWP bin directory), which you can use to generate a self-signed certificate for testing purposes and also obtain a certificate and key from a CA. For more information on **openssl**, see the openssl.org Web site.

You can run **openssl** in the RWP bin directory to generate a self-signed certificate and a matching private key and then install them in the locations specified in Step 2 and Step 3 of the following procedure.

- On Windows, use this **openssl** command line:

  ```
  OpenSSL> req –new –x509 –nodes –keyout ../conf/server.key –out ../conf/server.crt
  ```

Note: If you do not have the right to create files in the specified **–out** directory, this command will fail.

To configure RWP to accept SSL connections:

1. Configure RWP to include the ssl.conf configuration file. Uncomment this directive in rwp.conf:

   ```
   Include conf/ssl.conf
   ```

   Note: The ssl.conf file includes a **Listen** directive that specifies the port on which RWP will listen for HTTPS requests. The default is port 443. You can change this in the same way that you change the default HTTP port. If you want RWP to listen only for HTTPS requests, comment out the **Listen** directive in the rwp.conf file.

2. Install the certificate. The default location of the certificate file is specified in this directive in the ssl.conf file:

   `SSLCertificateFile` *rwp-root-dir*`/conf/server.crt`

   where *rwp-root-dir* represents the directory in which RWP is installed on the host. If you install the certificate file in a different location, make sure that this line in ssl.conf references that location.

3 Install the key. The default location of the key file is specified in this directive in the ssl.conf file:

```
SSLCertificateKeyFile rwp-root-dir/conf/server.key
```

If you install the key file in a different location, verify that this directive references that location.

4 Stop and restart RWP.

Note: To configure a Web application to use SSL, specify the **https** protocol in the application URL. For example:

```
https://RWP_host.domain/ccweb
```

Configuring Secure Access to RWP

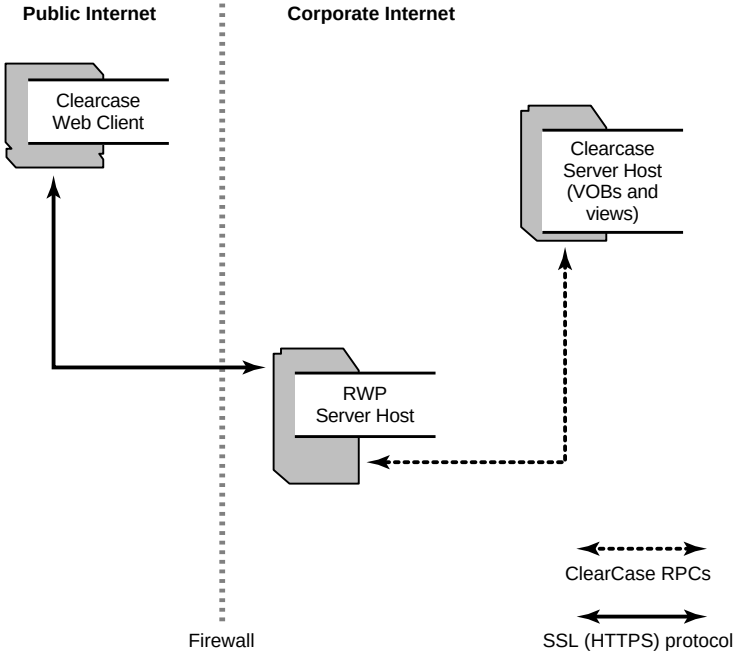
There are a number of ways to configure RWP to use SSL to provide secure communications with Rational Web clients such as **ccweb**. Figure 1 shows a typical configuration that allows **ccweb** clients on the public Internet to access RWP through a firewall. Communications between client Web browsers and the RWP host supporting **ccweb** use the HTTPS protocol and are secured by SSL. Communications between RWP and the ClearCase servers on the corporate intranet use ordinary ClearCase remote procedure calls (RPCs) and are not secure. ClearCase RPCs cannot communicate through a firewall, so you cannot place a firewall between RWP and the ClearCase servers used by **ccweb**.

In a configuration like that shown in Figure 1, the **ccweb** URL would be:

https://*hostname*/ccweb

where *hostname* is the name of the RWP server host. HTTPS communications between the ClearCase Web client and RWP would use port 443, the default for HTTPS.

Figure 1 Secure Communications Between ccweb and RWP



Other Modifications to RWP

We do not recommend that you modify any RWP configuration files other than those described in this section. Some of the configuration options cannot be changed without adversely affecting the operation of RWP. Any configuration change not recommended in this section should be carefully evaluated before introducing them into a production environment.

Installing Rational Products

4

Use the Rational installation program for initial and upgrade installations of Rational products. This chapter describes the Rational Setup Wizard and how the Wizard can help you deploy Rational products directly from the *Rational Solutions for Windows* CD-ROM, from a release area on a network, and in silent installation mode.

Note: See the *Installation Guide* for Rational Desktop Products for more information about installing and configuring desktop or client software.

Removing Previous Releases of Rational Products

Before installing Rational products from version 2003.06.00, remove previous versions of Rational products, including the Rational license server. The only exception is Rational ClearCase. You can install 2003.06.00 products with older versions of ClearCase.

For the removal procedure, see the *Removing Rational Products* chapter in this guide.

Note: If you are using floating licenses, record the license server name(s) before you remove Rational products from your computer. After you install new Rational products on your computer, reset the hostnames in the Rational License Key Administrator. For more information, see the *Removing Rational Products* chapter in this guide.

Deploying Rational Products

Use Table 12 to help you find the correct procedures for the deployment method that you have selected for your users. If the references are numbered, read the sections in the order specified.

Table 12 Deployment Methods

Method	See
Install directly from the *Rational Solutions for Windows* CD-ROM.	1 *Using the Rational Setup Wizard* on page 115. 2 *Using the Custom Setup Page* on page 116. 3 *Specifying the Rational License Server* on page 119. 4 *Installing Rational Products from the CD* on page 119. 5 *Post-Installation Tasks* on page 131.
Create a release area and site defaults file using the Rational Setup Wizard.	1 *Using the Rational Setup Wizard* on page 115. 2 *Specifying the Rational License Server* on page 119. 3 *Using the Setup Wizard to Create a Release Area and Site Defaults File* on page 122.
Create multiple site defaults files for a release area.	1 Create a release area using the Rational Setup Wizard. 2 *Running the Site Preparation Wizard to Create Multiple Sitedef Files* on page 125.
Install from a release area on a network (using the standard configuration).	1 *Installing Rational Products from a Release Area* on page 125. 2 *Post-Installation Tasks* on page 131.
Install from a release area on a network (customizing the client configuration for your desktop).	1 *Installing Rational Products from a Release Area* on page 125. 2 *Using the Custom Setup Page* on page 116. 3 *Post-Installation Tasks* on page 131.
Cancel a product installation.	▪ *Canceling a Product Installation* on page 132, or, ▪ *Canceling a Silent Installation* on page 131.
Reinstall the product (modify or repair).	*Reinstalling a Product (Modify or Repair)* on page 133.

Table 12 Deployment Methods (continued)

Method	See
Set up a silent installation in a release area.	*Setting Up Silent Installations of Rational Products* on page 129.
Perform a silent installation.	1 *Performing a Silent Installation* on page 130. 2 *Post-Installation Tasks* on page 131.
Remove a product.	▪ *Removing Rational Products* on page 137, or, ▪ *Using the Command Line to Remove a Product* on page 131.
Use command line syntax.	*Command Line Syntax* on page 133.
Apply a service release.	*Applying Service Releases* on page 135.

Using the Rational Setup Wizard

The Rational Setup Wizard installs Rational Software products. Your Rational product shipment includes three *Rational Solutions for Windows* CD-ROMs:

- Disc 1-2 provide the Rational products to install.
- Disc 3 provides Rational product documentation.
- Installation blocks and warnings are listed in *Rational Setup Wizard Warnings or Blocks* on page 134.

Rational_Install Log

The Setup Wizard does not display an error summary. The log of installation activities called Rational_install.log records all installation activities. You and a Customer Support representative can use the log to trace any installation errors.

By default, the install log file is in the TEMP directory. The location of the directory depends on the TEMP environment variable set on the computer. To find the location, open a command Window and type **echo %TEMP%** at the DOS prompt.

This folder and file may be hidden. To display them in Windows Explorer, set **Show Hidden Files and Folders**.

Before You Start the Rational Setup Wizard

The following general requirements are necessary to run the Rational Setup Wizard on the system.

- Stop all applications, including SQL Anywhere services, before you begin the installation.
- Make sure you have administrator privileges before installing Rational products.

  To use the Rational Setup Wizard on a Windows operating system, you must have Windows administrator privileges on the local computer. 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
- Turn off all virus protection software. These programs often run in the background and interfere with the install application's performance because the virus protection checks each file that is installed.
- Make certain that the system meets the minimum requirements and the correct operating system.
- The Rational Setup Wizard uses C:\Program Files\Rational as the default installation path.
- The Rational Setup Wizard installs Microsoft Core Components and some additional files on the same drive as the operating system (often the C:\ drive), even if you have specified an alternate drive for installation. These files can require 5-15 MB of temporary disk space on your hard drive.
- The Rational Setup Wizard requires that you install all Rational products in the same directory. If you already have Rational products installed on the computer, the Setup Wizard installs additional Rational products in the same directory.
- Make sure that you have a current backup of your registry and system directories.
- Turn off any user interface managers or environments that run on Microsoft Windows.

Using the Custom Setup Page

Use Table 13 to help you install the correct server features for your Rational product when you install the product from the CD-ROM image or when you customize your own configuration as you install from a release area.

The Custom Setup page lists the features for the product to be installed. The feature list in a Rational Suite edition includes Rational point products. The Custom Setup page appears in Step 9 of the procedure in *Installing Rational Products from the CD* on page 119.

Note: For disk space requirements, see *Have You Met the Prerequisites?* on page 25. Do not use the number displayed in Custom Setup or the **Space** button on that page.

Table 13 Server Custom Setup in Rational Setup Wizard

To Install	Choose Product	Custom Options	Notes
Rational Suite Edition	Rational Suite	The products included in the Suite edition will be selected. For example, under ClearQuest, you will see the ClearQuest Administration Tools, Web server, etc.	▪ Does not install the ClearCase LT Server. ▪ Under each product in the Rational Suite, you will see features displayed as they are displayed in the rest of the Custom Options column.
ClearCase LT server	ClearCase LT	▪ Rational ClearCase Microsoft Visual Studio.NET ▪ Web server	▪ Install from CD-ROM: Select the server and client software option for the ClearCase LT server in the Client/Server page. ▪ Create Release Area: Select Siteprep ClearCase Server in the Client/Server page.
ClearQuest Administration Tools	ClearQuest	Administration Tools	
ClearQuest MultiSite Administration Tools	ClearQuest	MultiSite Administration Tools	

Table 13 Server Custom Setup in Rational Setup Wizard (continued)

To Install	Choose Product	Custom Options	Notes
ClearQuest database	SQL Anywhere 8.0.1	See Notes.	▪ Do not select Rational ClearQuest in the Setup Wizard's Product Selection page. Install SQL Anywhere as a separate product. ▪ To install other vendor database software, read the vendor documentation. ▪ No ClearQuest features are required when you install the vendor database.
ClearQuest MultiSite	Rational Shipping Server	See Notes.	
ClearQuest Web server used with IIS	ClearQuest	ClearQuest Web	
ManualTest Web Execution	▪ Any Rational Suite ▪ Robot ▪ TeamTest ▪ TestManager	Web Server Components > Rational ManualTest Web Execution	You do not have to install any other Rational testing product on the server. You can clear all the other features.
ProjectConsole software	Any Rational Suite	▪ ProjectConsole > Web Server Components (includes Report Server and Data Collection Agent software) ▪ ProjectConsole > Report Server and Data Collection Agent (Select this option if you want to configure additional Agents) ▪ ProjectConsole > Template Builder	ProjectConsole is included in all Rational Suite editions.

Table 13 Server Custom Setup in Rational Setup Wizard (continued)

To Install	Choose Product	Custom Options	Notes
RequisitePro Database	RequisitePro	▪ Database Setup ▪ Sample Projects	If you are installing RequisitePro on a client, you do not need to install the Database Setup.
RequisiteWeb	RequisitePro	Web Server Components > Rational RequisiteWeb	Do not install RequisiteWeb on a computer that has JIntegra already installed.

Specifying the Rational License Server

You can provide a Rational license server name in the Rational Setup Wizard if you are using floating licenses. You may provide the license server name if you plan to have users install from a release area or run a silent installation from the release area. If your product requires a license key and you do not provide the server name, users will see the Rational License Key Administrator (LKAD) launch at the end of the installation.

Installing Rational Products from the CD

This section describes a typical installation of a Rational product from the *Rational Solutions for Windows* CD. The Rational Setup Wizard Program guides you through the software installation. .

1. Log in as a user with Administrator rights on the local machine.
2. Insert the *Rational Solutions for Windows Disc 1* into the computer's CD-ROM drive.

   The Rational Setup Wizard starts automatically.

   If autorun is disabled on your computer, click **Start > Run** and enter *cd_drive*: \Setup.exe where *drive* is the letter of the CD-ROM drive.
3. The **Welcome** page to the Rational Setup Wizard appears. Click **Next** to launch the installation, and to advance through the following screens.
4. The **Product Selection** page lists all products available for installation. Select the product you want to install.
5. Select the **Desktop Installation from CD Image** option in the **Deployment Method** page.

6 If you are installing ClearCase LT, you will see the **Client/Server** page. The client software on the clients will not work until you have installed and configured the server (and client software).

- If you are installing and configuring the server software, select **Install the server and client software.**
- If you are installing client software, select **Install the client software only.**

7 Choose to accept or not to accept the Rational Software license agreement in the **License Agreement** page.

- If you accept the license agreement, the installation Wizard continues.
- If you do not accept the license agreement, exit the Setup Wizard by clicking **Cancel** and then **Finish**. For information about changes to the computer, see *Canceling a Product Installation* on page 132.

8 On the **Destination Folder** page, specify the directory where you want to install the Rational product. If you want to modify the location, click **Change**.

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

9 The **Custom Setup** page provides product feature options for the software installation. You can either accept the default typical features on the page or you can customize the installation. Refer to the table in *Using the Custom Setup Page* on page 116 for the product features that you want to install.

If you want to clear features or select new features, click **Help**.

Note: For disk space requirements, see *Have You Met the Prerequisites?* on page 25. Do not use the number displayed in Custom Setup or the **Space** button on that page.

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

- Enter the required information in each page of the wizard. (All required information displays in the left panel of the wizard with a red dot.)
- To navigate through the pages, you can either click **Nex**t to see them sequentially or click on the page title in the left pane to access the page directly and nonsequentially.

When you complete the last page, click **Done**.

11 Click **Install** on the **Ready to Install the Program** page to begin the installation.

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

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

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

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

Creating a Release Area and Site Defaults File

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

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

- Run the Rational Setup Wizard on the *Rational Solutions for Windows CD-ROM*. See *Using the Setup Wizard to Create a Release Area and Site Defaults File* on page 122 for more information.
- Run the Site Preparation Wizard multiple times to create multiple site defaults files. See *Running the Site Preparation Wizard to Create Multiple Sitedef Files* on page 125 for more information.

Note: Do not use the Enterprise Deployment option in the Rational Setup Wizard or the Site Preparation Wizard on Windows 9*x* computers. You cannot create a site defaults file or release area on Windows 9*x* systems.

Using the Setup Wizard to Create a Release Area and Site Defaults File

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

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

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

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

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

   c. On the **Sharing** tab, click **SHARE this folder** and supply a meaningful share name, such as **ClearQuest 6.0 Release Area**.

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

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

3. Insert the *Rational Solutions for Windows Disc 1* into the computer's CD-ROM drive.

   The Rational Setup Wizard starts automatically.

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

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

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

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

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

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

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

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

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

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

   Note: Do not use multi-byte characters.

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

     Skip to *Installing the Product on Your Computer* on page 123 for the rest of the instructions.

   - If you only want to create a release area, click **Done** and then **Next** to create the site defaults file.

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

For more information about how to install products from this release area, see *Installing Rational Products from a Release Area* on page 125.

Installing the Product on Your Computer

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

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

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

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

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

- If you do not accept the license agreement, exit the Setup Wizard by clicking **Cancel** and then **Finish**. For information about changes to the computer, see *Canceling a Product Installation* on page 132.

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

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

- If you select **I will create my own custom client configuration**:
  - The **Custom Setup** page displays product features to select. For more information, see *Using the Custom Setup Page* on page 116.

  Note: For disk space requirements, see *Have You Met the Prerequisites?* on page 25. Do not use the number displayed in Custom Setup or the **Space** button on that page.

  - When you click **Next,** you may change any of the existing site default values. (Any changes to the site default values apply only to this single installation.) After modifying the values, click **Done** and then click **Install** to begin the installation.
- If you select **Use the standard configuration**, then the features for the existing site default values will be used for the installation. Click **Next** and then click **Install** to begin the installation.

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

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

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

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

Running the Site Preparation Wizard to Create Multiple Sitedef Files

In some cases, your site may require multiple site defaults files. For example, if two groups, say a database administrator's group and a client user group, both use ClearQuest but need to work with different default settings (such as ClearQuest features), then you can create one site defaults file for each group.

To create multiple site defaults for a release area:

1. Create the initial release area by following the instructions in *Using the Setup Wizard to Create a Release Area and Site Defaults File* on page 122. Set up this area with the site-specific parameters relevant to the first group of users.
2. Select the site defaults file created in Step 1 (sitedefs.dat, for instance) as a starting point by clicking **File** > **Open** or typing the command siteprep.exe <*sitedefs.dat*>. The Rational Site Preparation Wizard displays the values set in sitedefs.dat. Keep the values that apply to both groups and change the ones according to the needs of the second group.

   Note: If you double-click on siteprep.exe in the release area or use the command siteprep.exe without the site defaults filename, the Site Preparation Wizard launches without displaying the values set in the existing site defaults file.
3. Click **File** > **Save as** to save a new site defaults file. You are prompted to enter a file name and folder for the new site defaults file:
   - If you started the site preparation on the command line and specified a file-name argument for the site defaults file, for example, sitedefs.dat, the **Folder** and **File name** boxes display this information. You could save the modified site defaults files with a new file name, for example sitedefs_cqclient.dat.
   - If no file name was previously specified, the **File name** box is blank. Type a file name that does not currently exist in the release area.

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

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

Installing Rational Products from a Release Area

When users install Rational products from a release area designated by you, in most cases, they accept the defaults as presented on the installation screens. Users who do not want to accept the defaults should speak to you before they make changes.

Installing from a release area includes the following steps:

1. Create one or more site defaults files in a release area using the Rational Setup Wizard or the Site Preparation Wizard. Give users the path to the site defaults file or have them click the shortcut to the site defaults file created by the Rational Setup Wizard. For instructions, see *Using the Setup Wizard to Create a Release Area and Site Defaults File* on page 122.
2. Users can then access the release area from the command line or click the shortcut. The command line or shortcut will launch the Setup Wizard on their desktops. The Setup Wizard will use the settings in the site defaults file to install the product.
3. To install products from a release area, users can use the standard configuration set by you or they can customize the standard client configuration for their desktops. For more information, see the following procedures.

Note: If users type only siteprep.exe in the command window or click siteprep.exe, the Setup Wizard uses the settings in sitedefs.dat (the default site defaults file name). If there are other site defaults files, such as developers_cq.dat, that you would like them to use, tell them to specify developers_cq.dat or click the specific shortcut, developers_cq or developers_cq.link

If users click siteprep.exe (without specifying a site defaults file name) and there is no site defaults file called sitedefs.dat in the release area, the Site Preparation Wizard launches to create a new site defaults file.

Using a Standard Configuration

Before following these instructions, read the overview information in the previous paragraphs. You or your administrator must create a release area and a site defaults file before you can install a product from the release area.

To install a default configuration from the release area:

1. Log on as a user with local administrator privileges.
2. To install a Rational product using the settings in a specific site defaults file, either specify the name of the site defaults file on the command line or click the associated site defaults shortcut in the release area. For example, to install ClearQuest using the settings in sitedefs_cqclient.dat, map a network drive from your computer to the shared release area. Then,
   - In the DOS Windows, use the cd command to navigate to the root directory of the release area. Then enter, for example, setup.exe sitedefs_cqclient.dat, or
   - In Windows Explorer, expand the mapped drive and launch the shortcut, for example, sitedefs_cqclient.link or sitedefs_cqclient.
3. The Rational Setup Wizard guides you through the software installation. In each page, click **Next** to open the next page. Click **Help** for more information.

- The **License Agreement** page displays the Rational Software license agreement. If you accept the license agreement and click **Next**, the installation continues.
- If you do not accept it, the installation does not let you proceed further. Click **Cancel** and exit from the installation. You will not see any visible changes to the system. The program returns your system to the state it was in before you launched the Rational Setup Wizard.

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

4. The **Destination Folder** page displays the default destination folder for the installation. Click **Change** to select a different destination folder for the installation. Click **Next.**
5. Click **Use the standard configuration** on the **Site Default Configuration** page. The default features for the product and the existing site default values will be used for the client installation. Click **Next**.
6. Click **Install** to begin the installation on your client desktop.
7. A **Restart Windows** page appears if the Rational Setup Wizard needs to restart your computer. If files required for the installation are in use during the Setup Wizard, and if the Wizard needs to install shared components on your computer, the Setup Wizard may need to restart your computer.

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

   After Windows restarts, the second part of the installation process starts automatically after you log on.
8. When the **Setup Complete** page appears, we recommend that you review the current information related to new features and known issues in the **readme** file. In addition, you can view the **Rational Developer Network** Web pages. Click **Finish** to complete the installation.

Customizing Your Own Configuration

Before following these instructions, read the overview of installing a product from a release area in this section. You or your administrator must create a release area and a site defaults file before you can install a product from the release area.

To customize a configuration for a specific computer:

1. Log on as a user with local administrator privileges.
2. To install a Rational product using the settings in a specific site defaults file, either specify the name of the site defaults file on the command line or click the associated site defaults shortcut in the release area. For example, to install ClearQuest using the settings in sitedefs_cqclient.dat, map a network drive from your computer to the shared release area. Then,
   - In the DOS Window, use the cd command to navigate to the root directory of the release area. Then enter, for example, setup.exe sitedefs_cqclient.dat, or
   - In Windows Explorer, expand the mapped drive and launch the shortcut, for example, sitedefs_cqclient.link or sitedefs_cqclient.
3. The Rational Setup Wizard runs and guides you through the software installation. In each page, click **Next** to open the next page. Click **Help** for more information.
4. The **License Agreement** page displays the Rational Software license agreement.
   - If you accept the license agreement and click **Next**, the installation continues.
   - If you do not accept it, the installation does not let you proceed further. Click **Cancel** and exit from the installation. You will not see any visible changes to the system. The program returns your system to the state it was in before you launched the Rational Setup Wizard.

     Note: If you do not have the correct version of Windows Installer software on your computer, the Rational Setup Wizard will install it for you. Canceling the installation does not remove the updated version of Windows Installer. In some cases, you may have to restart the computer.
5. The **Destination Folder** page displays the default destination folder for the installation. If you want to select a different destination folder for the installation, click **Change**.
6. Click **I will create my own custom client configuration** on the **Site Default Configuration** page.
   - The Custom Setup page displays product features to select. For more information about features for your product, see *Using the Custom Setup Page* section in this chapter.

     Note: For disk space requirements, see the *System and Software Requirements* table in the *Before You Install* chapter of this guide. Do not use the number displayed in Custom Setup or the **Space** button on that page.
   - When you click **Next,** you may change any of the existing site default values. (Any changes to the site default values apply only to this single installation.) After modifying the values, click **Done**.
7. Click **Install** to begin the installation on your client desktop.

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

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

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

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

Setting Up Silent Installations of Rational Products

Silent install is a method of installing Rational products on client computers without intervention from users. It greatly reduces the work of an administrator during a deployment. It also ensures that the correct software configuration is installed on each server and desktop.

This section describes how to set up and perform a silent installation. The basic steps, explained below, are:

1 Create a site defaults file and a release area on the network. Creating a release area is optional.

   a Use the **Enterprise Deployment** option in the Rational Setup Wizard to create a site defaults file and a release area to deploy the product to your users. See *Creating a Release Area and Site Defaults File* on page 121 for the procedure.

   Or use the Site Preparation Wizard by double-clicking siteprep.exe in the CD-ROM image (or run siteprep.exe on the command line) to create a site defaults file without the release area.

   b You can customize site defaults files for different sets of users. For more information, see *Running the Site Preparation Wizard to Create Multiple Sitedef Files* on page 125.

2 Use the **setup.exe /g** command to start the Rational Setup Wizard and test the site defaults file. You should not see any installation screens displayed on your computer during the installation. (See *Performing a Silent Installation* on page 130 for the full command.)

The file directs the Rational Setup Wizard to install program files in a specific directory on your computer. If a restart is required, your computer restarts automatically. After the restart, you must log on manually. The installer then re-launches automatically and finishes. When the installation finishes, you do not see an installation complete screen.

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

3 Give users the following information so they can perform silent installations on their computers.

- Path to the site defaults file and the setup.exe executable in the release area or the shortcut to the site defaults file. (The shortcut will not have a *.dat* suffix.)
- Silent installation commands.
- Installation directory (where the Rational Setup Wizard will install the files on your desktop).
- License key information, if necessary.
- Ensure that users remove all Rational products from their desktops. Users who install silently do not see the message to remove previous versions of Rational products. The installation does not proceed until all products are removed. The message is saved in the user's installation log file. If the installation fails, direct users to the log file. For more information about this file, see *Rational_Install Log* on page 115.

Note: For information about setup.exe command line parameters, see *Command Line Syntax* on page 133 or type **setup /?**.

Performing a Silent Installation

After you have created the site defaults file, test it with the following commands:

<*local drive*>:**setup.exe /g** <C:*sitedefs.dat*>

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

Note: You must specify the absolute pathnames to both setup.exe and <*sitedefs.dat*> when you perform a silent installation, unless you have mapped the files to a disk drive on your computer.

By default, the installation log file (rational_install.log) is created in your computer TEMP directory. To find the Temp directory, open a command prompt and type **echo %TEMP%**. The location of the directory depends on the system environment variable set on the computer.

Canceling a Silent Installation

There is no command to cancel a silent installation.

Using the Command Line to Remove a Product

To remove a Rational product in the current releases (2003.06.00), use the following commands. These commands will not remove earlier versions of Rational products.

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

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

Note: You must specify the absolute pathnames to both msiexec.exe and <*path to product*>.msi when you perform a silent uninstall, unless you have mapped the files to a disk drive on your computer.

For more information about the **msiexec.exe** command, and associated command line options, see the Microsoft Windows Installer Platform Software Developer's Kit documentation at http://www.microsoft.com/windows/reskits/webresources/default.asp.

Post-Installation Tasks

The following sections apply to all deployment types.

Licensing

If you do not see the License Key Administrator (LKAD) launch at the end of the installation, your product is either licensed or does not require a license. Skip to *Canceling a Product Installation* on page 132.

You or your users may see the License Key Administrator (LKAD) launch at the end of a product installation for the following reasons:

Table 14 LKAD Launch

Deployment Type	Reason
Desktop installation from CD image	▪ You did not provide a Rational license server name in the Rational Setup Wizard, or ▪ The product requires a node-locked license key.

Table 14 LKAD Launch (continued)

Deployment Type	Reason
Install from a Release Area (Enterprise Deployment)	▪ You did not provide a Rational license server name when you created the site defaults file, or ▪ The product requires a node-locked license key.
Silent Installation	▪ You did not provide a Rational license server name when you created the site defaults file, or ▪ The product requires a node-locked license key.

If you see the LKAD, you or your users must perform the following tasks to license the product.

Table 15 LKAD Tasks

To Configure	Task	See
Floating License Key	Enter the name of the Rational license server in the LKAD.	▪ *Rational Software License Management Guide, or* ▪ LKAD Help
Node-Locked License Key	Import the node-locked license key in the LKAD.	▪ *Rational Software License Management Guide, or* ▪ LKAD Help

Canceling a Product Installation

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

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

Reinstalling a Product (Modify or Repair)

If you have sucessfully completed a previous installation of a Rational product in version 2003.06.00, you can modify or repair the installation by using **Add or Remove Programs**.

To remove the Rational product, see the chapter *Removing Rational Products.*

1. Log in as a user with Administrator rights on the local computer on which you want to install the product.
2. Click **Start > Settings > Control Panel > Add or Remove Programs**.
3. Highlight the Rational product and click **Change**.
   - **Modify the Existing Installation** – Choosing this option enables you to change which products and product features are installed. The Setup Wizard provides the **Custom Setup** page for you to clear or select features. For example, you included the **ClearQuest Multisite Administration Tools** in your ClearQuest client installation. To reinstall the ClearQuest client, clear this product feature in the **Custom Setup** page and reinstall the ClearQuest client.

     Click **Modify** and then click **Next** to select or clear features in the Custom Setup page. Click **Next** and then click **Install** to begin the installation.
   - **Repair the Existing Installation** – Choosing this option enables you to repair a damaged registry or replace files that you may have inadvertently deleted. This option does not repair incomplete or unsuccessful installations.

     To begin the repair, click **Repair** and then click **Next** and then click **Install**. At the end of the operation, the status of the repair is displayed.

Command Line Syntax

This section provides the syntax for setup.exe.

Table 16 Command Line Syntax

Setup.exe **Command Parameter**	**Description**
setup	Executes the Rational Setup Wizard
<local drive>	Specifies path to setup.exe.
/g	Executes the silent install session.
<*path to sitedefs.dat***>**	Specifies the path to the site defaults file.
msiexec.exe /x	Executes the silent uninstall session.

Table 16 Command Line Syntax (continued)

Setup.exe **Command Parameter**	**Description**
/qn	Indicates no user interfaces are displayed during the operation.
<*path to product*>**.msi**	Specifies path to product's MSI file. The MSI file is used by ClearQuest, for example, during installation. The MSI file exists in the Setup directory in the release area.
/l	Specifies the name and location of the install log file. By default, the log of installation activities called Rational_install.log is in the TEMP directory.

For example, to create a site defaults file, enter on the command line:

<*local drive*>:**setup** <*path to sitedefs.dat*

Rational Setup Wizard Warnings or Blocks

If you encounter blocks or warnings during the installation procedure, consult the following table if you do not remember the entire message.

Table 17 Warnings and Blocks

Warning/Block	**Solution**
You are attempting to install on an unsupported operating system.	We recommend that you install on a supported operating system. Your Rational product's Release Notes for a complete list of supported operating systems and service packs.
You are attempting to install on a system with an unsupported browser.	See your Rational product's Release Notes for a complete list of supported browsers before using Rational Unified Process, ProjectConsole, Rose, Web Publisher, and XDE Web Publisher.
You are attempting to install on a system that has an version of Office that is not compatible with SiteCheck.	See your Rational product's Release Notes for a complete list of supported versions.
You are attempting to install on an unsupported version of WebSphere Studio.	It is recommended that you utilize a supported version. Please refer to the Release Notes for the complete list of supported operating systems.

Table 17 Warnings and Blocks (continued)

Warning/Block	Solution
MDAC and ODBC	If the correct MDAC and ODBC drivers are not installed on your computer, the Setup Wizard installs version 2.7 of the Microsoft Data Access Components (MDAC) and Open Database Connectivity (ODBC) drivers. For more information, read Microsoft Knowledge Base Article 216149.

Applying Service Releases

Here are the basic steps for obtaining a Rational service release:

1. Install the Rational Download Manager client software on your computer.

   There are two sources from which you can download the Rational Download Manager installer.

   - From the Rational Solutions for Windows Disc 2. Locate the Rational Download Manager setup.exe and Readme.html in the Rational Extras folder. The Readme.html contains the installation procedure.
   - From the Rational Download Center at www.rational.com/support/downloadcenter/about_dlm.jsp. You must either login or register as a member before you can download the software.

   You can either save the file to a local drive on your computer or install Rational Download Manager directly from the Rational Download Center by clicking **Open** in the File Download dialog box.

2. Use your browser to go to: www.rational.com/docs/v2003/readme_v2003.html for service release documentation. The documentation provides service release features, restrictions, and instructions.
3. Use the Rational Download Manager to download the service release mechanism from this web site.
4. Install the Rational service release.

Removing Rational Products

5

This chapter describes how to remove Rational products from your servers. For information about removing desktop or client products, see the *Installation Guide* for Rational Desktop Products.

Before You Remove Rational Software

This section provides general requirements for removing Rational server products. It also describes which components the Rational Setup Wizard does or does not remove from the computer.

- If you plan to move the application to another system, first return the license key file to your Rational Software account. To return a node-locked or floating 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 *Rational Software License Management Guide.*
- Removing a Rational product does not delete the license key file, project databases, and other files that you created while using the product. If you plan to install an upgrade of the Rational product 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 Setup Wizard may find these files and install the application in the old location instead of the new location.
- Before removing the Rational products (including the Rational license server) from clients, record the specified license serve hostname(s) in the Rational License Key Administrator (LKAD).
  - **a** Launch the LKAD from **Start > Programs > Rational Software > Rational License Key Administrator**.
  - **b** Find the hostname(s) in **Settings > Client/Server Configuration**.
  - **c** After you install the new Rational products, reset the license server name in the (LKAD). The LKAD Wizard should launch after the installation. If the Wizard does not launch, use **Start > Programs > Rational Software > Rational License Key Administrator.**

- Removing ClearCase LT does not remove ClearCase LT data from the computer. If you reinstall ClearCase LT on the same computer, you must install ClearCase LT to the same directory to see the old data.
- To remove Rational Software products from a Windows NT, 2000, or XP computer, you must have Windows 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.

Before You Remove ClearCase Data from the ClearCase LT Server

You should never remove ClearCase data from a computer unless that data was used for purposes of evaluation only and you have no intention of saving it or using it in a production capacity.

To completely remove ClearCase data from the ClearCase LT server, take the following steps *before* you remove ClearCase LT:

1. Use the ClearCase Administration Console or the **cleartool lsvob** command to locate all 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 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 server storage locations on the ClearCase LT server. 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/var directory from the installation directory.

Before You Remove Rational RequisiteWeb

RequisiteWeb installs a new project catalog containing paths to new sample projects. Be sure to make a copy of your existing catalog.txt file before removing RequisiteWeb. If you are upgrading from an earlier release of RequisiteWeb, the catalog.txt file should be located in the following default directory: C:\Program Files\Rational\RequisitePro\ReqWeb\Projects

Add your previous catalog.txt entries to the new catalog file that is installed with the new version of RequisiteWeb in the default directory:
C:\Program Files\Rational\RequisitePro\ReqWeb\Projects

Note: Your existing webapps2 directory will be deleted when you remove RequisiteWeb. To preserve your configuration files or any other files in your webapps2 directory, you must relocate those files before removing RequisiteWeb.

For more information, see *Managing RequisitePro Projects for RequisiteWeb* on page 197.

Removing Rational Software

Use the Windows **Add or Remove Programs** control panel to select and remove the Rational product. Click **Start > Settings > Control Panel > Add or Remove Programs**. Highlight the product and click **Remove**.

To remove data and additional software for RequisiteWeb, see

- *Removing RequisiteWeb 2003.06.00* on page 139.
- *Removing RequisiteWeb 2002.05.X* on page 139.
- *Removing RequisiteWeb 2001A* on page 142.

Removing RequisiteWeb 2003.06.00

1. Use the **Add/Remove Programs** function in the Windows Control Panel to select and remove RequisiteWeb.
2. Using dcomcnfg, remove the Local Administrators Group from "Default launch permissions" and "Default access permissions".
3. If ReqWebUser is no longer in use, remove this user.
4. RequisitePro project data, backup files, and log files may still exist on the server. The log files will be located at C:\Program Files\Rational\common\rwp\logs\.

Removing RequisiteWeb 2002.05.X

To remove RequisiteWeb from a Windows NT or Windows 2000 server, you must have Windows administrator privileges on that computer. Use the following instructions to:

- Delete the ReqWeb and Jakarta virtual directories
- Remove the Jakarta ISAPI Filter
- Restart the IIS Admin Service

- Remove the RequisiteWeb program files

Note: To remove RequisiteWeb 2001A, see *Removing RequisiteWeb 2001A* on page 142.

Deleting the ReqWeb and Jakarta Virtual Directories

1. Launch the Internet Services Manager by doing one of the following:
   - Click **Start** > **Run**, and type **inetmgr**. Click **OK**.
   - In Windows NT 4.0, click **Start > Programs > Windows NT 4.0 Option Pack > Microsoft Internet Information Server > Internet Service Manager**.
   - In Windows 2000 Server, click **Start > Programs > Administrative Tools/Internet Services Manager**.
2. Select the Default Web Site and click the **Stop** button on the toolbar.
3. Right-click the ReqWeb virtual directory and select **Delete**.
4. Right-click the Jakarta virtual directory and select **Delete**. Leave the Internet Services Manager open.

Removing the Jakarta ISAPI Filter

1. Right-click the Default Web Site and select **Properties**. The Default Web Site Properties dialog box appears. Click the **ISAPI Filters** tab and select the **jakarta** filter.
2. Click **Remove** and then click **OK** to close the dialog box.

Restarting the IIS Admin Service

Perform the tasks in the following table. Refer to the column that corresponds to your operating system.

Step	Windows NT 4.0	Windows 2000
1	Close the Internet Service Manager.	In the Internet Services Manager, right-click the server name.
2	At the Start/Run command line, type `cmd`.	Select **Restart IIS**.

3	In the MS-DOS window, type the following:
	`net stop w3svc`
	`net start w3svc`
		At the Stop/Start/Reboot dialog box, select **Restart Internet Services on <server name>**.

4	Type `exit` to close the MS-DOS window.	Click **OK** to close the dialog box. Close the Internet Services Manager.

Removing the RequisiteWeb Program

After using **Add/Remove Programs** in the Windows Control Panel to remove RequisitePro and the uninstall process is complete (including restarting the server), check to see if the C:\Program Files\Rational\RequisitePro\ReqWeb directory is still present on the server. If so, delete the ReqWeb directory and its subdirectories. You must also perform the following steps to edit your System Variables:

1. On the start menu, click **Settings > Control Panel**. In the Control Panel, double-click the **System** icon. The System Properties dialog box appears.
2. Do one of the following:
   - In Windows 2000, at the **Advanced** tab, click **Environment Variables**.
   - In Windows NT, click the **Environment** tab.

   Locate the PATH system variable and remove the following from your PATH directory:

   C:\Program Files\Rational\common\java\jre\bin

Removing RequisiteWeb 2001A

To remove RequisiteWeb from a Windows NT or Windows 2000 server, you must have Windows administrator privileges on that machine. Use the following instructions to:

- Stop and remove the RqTomcat Service
- Remove the ReqWeb and Jakarta virtual directories
- Remove RequisiteWeb 2001A
- Remove the Tomcat_Home and Java_Home system variables

Stop and Remove the RqTomcat Service

Step	Windows NT 4.0	Windows 2000
1	Go to **Start** > **Settings** > **Control Panel** > **Services**.	Go to **Start** > **Settings** > **Control Panel** > **Administrative Tools** > **Services**.
2	Locate and select the **RqTomcat** service.	Locate the **RqTomcat** service and double-click the icon to display the **Properties** dialog box.
3	In the **Services** window, click the **Stop** button.	On the **General** tab under **Service status**, click the **Stop** button. Click **OK** and close the **Services** window.
4	Click **Close** to finish.	Click **OK** to close the dialog box. Close the Internet Services Manager.

After you stop the RqTomcat service you must perform the following steps to remove the service from your system:

1. Open an MS-DOS shell and navigate to the following directory:

   C:\ProgramFiles\Rational\jakarta-tomcat\bin

2. Type the following at the MS-DOS prompt:

   ```
   jk_nt_service -R RqTomcat
   ```

3. Close the MS-DOS shell

Remove the ReqWeb and Jakarta Virtual Directories

1. Launch the Internet Services Manager by doing one of the following:
   - In Windows NT 4.0, click **Start > Programs > Windows NT 4.0 Option Pack > Microsoft Internet Information Server > Internet Service Manager**.
   - In Windows 2000 Server, click **Start > Programs > Administrative Tools > Internet Services Manager**.
2. Under the **Default Web Site**, locate the **ReqWeb** and **Jakarta** virtual directories. Right-click each of the directories and select **delete**.
3. Right-click the **Default Web Site** and select **Properties**.
4. At the **ISAPI Filters** tab, locate the **jakarta** filter. Right-click the **jakarta** filter and select **delete**.
5. Click **OK** and close the Internet Services Manager.

Remove RequisiteWeb 2001A

After using **Add/Remove Programs** in the Windows Control Panel to remove RequisitePro and the uninstall process is complete (including restart the server), check to see if the following directories are still present on the server:

C:\Program Files\Rational\RequisitePro

C:\Program Files\Rational\jakarta-tomcat

If so, delete both directories and their subdirectories.

Remove the Tomcat_Home and Java_Home System Variables

1. On the start menu, click **Settings** > **Control Panel**. In the Control Panel, double-click the **System** icon. The System Properties dialog box appears.
2. Do one of the following:
   - In Windows 2000, at the **Advanced** tab, click **Environment Variables**.
   - In Windows NT, click the **Environment** tab.
3. Locate the `TOMCAT_HOME and JAVA_HOME` system variables and delete them from your system.

Note: Restore back up projects and your `catalog.txt` file to their original locations.

Upgrading Desktop Systems

6

This chapter describes how to upgrade a desktop system.

Before the Upgrade

Before you upgrade, perform the following tasks:

1. Get the go-ahead from your administrator or project leader.

   In your network installation of Rational products, most of the work of upgrading to a new version occurs on servers and administrative systems. Therefore, before you upgrade to a new version, make sure that your administrator has performed all prerequisite tasks.

2. Gather the following information from your administrator or project leader:

   Type of installation to perform:

   _____

   Location of installation and other installation details:

   _____

   If you use floating licenses, the location of your license server:

   _____

   If you use ClearQuest, the location of the ClearQuest profile:

   _____

   If your team works with a Rational project, the location of your project or projects:

   _____

   Locations of new Web servers for RequisiteWeb, ProjectConsole, or ClearCase Web:

   _____

3. Uninstall any Rational products from an earlier version.

   In the Control Panel, use the Add or Remove Programs tool to remove all earlier Rational software on your system. If more than one Rational product is installed on your computer, run this tool again until all older products are removed.

Upgrading to the New Version

Using the information you have gathered, install the new version of Rational products on your desktop.

After the Upgrade

After the installation completes, perform these steps, referring to the information you gathered in the first part of this chapter:

1. If you use floating licenses and your computer does not have licensing configured, the License Key Administrator wizard appears. If you use a floating license, click **Point to a Rational License server to get my licenses**, and follow the instructions.
2. If you use ClearQuest, reconnect to the ClearQuest databases:
   a. Start the ClearQuest Maintenance tool: click **Start > Programs > Rational Software > Rational ClearQuest > Rational ClearQuest Maintenance Tool**.
   b. Click **File > Import Profile** and provide the name of the ClearQuest profile.
3. If you work with Rational projects:
   a. Start the Rational Administrator: click **Start > Programs > Rational Software > Rational Administrator**.
   b. For each Rational project you work with, click **File > Register Project**, and supply the path to the project.
4. Redirect your Web browser to new Web servers for RequisiteWeb, ProjectConsole, and ClearCase Web.
5. Wait for your administrator to notify you that the upgrade is complete.

You are now ready to use Version 2003 of Rational products.

Index

A

administrative systems, upgrading 45
administrator privileges 116
agreement, license 120
applying service releases 135

B

backing up
  databases and datastores 21
  registry 116
  SQL Anywhere database 50
  system directories 116
blocks, installation 134

C

canceling installation 131, 132
CD-ROM, installing from 119
CharacterSetValidation package, ClearQuest 24
ClearCase
  and XDE 49, 56
  before you install 49
  feature level 57
  preparing to upgrade 22
  upgrading 56
ClearCase LT
  Custom Setup page 117
  file storage space 26, 33
  integration support 34, 35
  upgrading 56
ClearCase Web
  configuring 97
  default port number 97
  downloading applets 99
  interface URL 97
  limiting upload size 99
  permissions 97
  specifying ClearCase Primary Group 98
  specifying session timeout 99
  specifying temporary storage 99
  view storage 98
ClearQuest
  and Oracle databases 59
  before you install 46
  connecting 58
  Custom Setup page 117– 118
  data code page 24, 62
  data types with Oracle 59
  feature level 62
  integration support 34, 35
  preparing to upgrade 22
  upgrading 58
  upgrading packages 60
  upgrading SQL Anywhere 52
  user databases, applying schema changes 61
  verifying packages 71
ClearQuest Designer tool 60, 65
ClearQuest Maintenance Tool 66
ClearQuest MultiSite
  Custom Setup page 118
ClearQuest SQL Anywhere databases
  installing 118
ClearQuest Web
  Custom Setup page 118
CLOB data type, Oracle and ClearQuest 59
command line syntax 133
Custom Setup page 116

D

data code page 24
  ClearQuest 62
  ProjectConsole 81
databases
  SQL Anywhere, converting to 70
  supported software 28
Datastore Doctor, Testing Products 70
DCOM 91
default installation path 116

deployment method
creating a release area 121
desktop installation from CD-ROM 119
enterprise deployment 121
procedures for 114
silent installations 129
desktops
prerequisites 32
upgrading 145
direct upgrade, versions required 20
disk space 42
point product 27, 33
Rational Suite 26, 33
requirements 117
temporary 116
documents, accessing 31, 40
download manager 135
dual boot systems 31, 40

E

enterprise deployment
customizing client configuration 126
installation procedure 121
using standard client configuration 126
error summary 115
Extended Help, upgrading 86

F

feature level
ClearCase 57
ClearQuest 62
file storage space for ClearCase LT 26

H

hardware and software requirements 25, 32
hosted development systems 30
HTTP port number and RWP 100

I

IIS
and Rational Web Platform 100
and RequisiteWeb 88
installation
as part of upgrade 45
blocks 134
canceling installations 131
creating a release area 121
customizing client configuration 126
enterprise deployment 121
from CD-ROM 119
from release area 125
log file 115
Microsoft Core Components 116
service releases 135
silent installations 129–130
using command line syntax 133
using standard client configuration 126
warnings 134

L

language support 31, 41
license agreement page 120
license keys 42
license servers
removing 113
specifying in Setup Wizard 119
specifying in site defaults file 119
log file 115
LONG data type, Oracle and ClearQuest 59

M

Maintenance Tool, ClearQuest 66
ManualTest Web
Custom Setup page 118
Microsoft Core Components, installing 116
Microsoft Windows installer software 132
modifying a product 133

O

operating system support 25, 32
Oracle databases and ClearQuest 59

P

packages
  ClearQuest, verifying 71
  RequisitePro 69
  upgrading for ClearQuest 60
participants in an upgrade 18
patches. *See* service releases.
planning an upgrade 17
port assignments 102, 106
prerequisites
  desktops 32
  servers 25
products in your environment 19
ProjectConsole
  before you install 48
  Custom Setup page 118
  data code page 81
  integration support 34
  upgrading 75
  upgrading SQL Anywhere 52
PureCoverage
  integration support 34
Purify
  integration support 34
PurifyPlus
  integration support 34

Q

Quantify
  integration support 34

R

Rational Administrator, upgrading 68
Rational Download Manager 50, 135
Rational Process Workbench 85
Rational products, removing 113
Rational project
  before you install 47
  upgrading 68
Rational Setup Wizard
  about 115
  creating a release area 122
  creating a site defaults file 122
  Custom Setup page 116
  default installation path 116
  desktop installation from CD-ROM 119
  enterprise deployment 121
  requirements 115
  stopping services 116
  using command line syntax 133
Rational Suite
  Custom Setup page 117
  upgrading 17
Rational Test, upgrading 70
Rational Unified Process, upgrading 85
Rational Web Platform (RWP)
  about 100, 101
  and IIS 100
  changing user account 105
  configuring 100
  configuring ClearCase Web 97
  configuring RequisiteWeb 89
  customizing logging 103
  editing configuration files 100
  enabling Secure Socket Layer (SSL) 95, 109
  HTTP port number 100
  installation directory 101
  installing 87
  port assignments 102, 106
  proxy access to 106
  restarting 106
  secure sockets 100
rebooting, during upgrade 42
reinstalling a product 133
release area
  creating 121
  customizing client configuration 127
  installing from 125
  using Rational Setup Wizard 122
  using standard configuration 126
remote access support 32

removing software
administrator privileges 138
ClearCase LT data 138
databases 137
different drives 137
files 137
installation path 137
license keys 137
license server 113, 137
previous versions of Rational software 113
procedure 139
requirements 137
RequisiteWeb 139– 143
RequisiteWeb requirements 138
using command line 131
removing software before installing 50
repairing a product 133
requirements and recommendations 32
RequisitePro
integration support 34
packages 69
upgrading 68, 69
upgrading SQL Anywhere 52
RequisitePro Oracle database
Custom Setup page 119
RequisitePro SQL Server database
Custom Setup page 119
RequisiteWeb
accessing network projects 95
adding to Local Administrator Group 90
and IIS 88
assigning DCOM permissions 91
changing default port 93
configuring Web server 89
conflict with IIS 92
creating ReqWebUser 89
Custom Setup page 119
disabling IIS 92
editing configuration file 93
enabling Secure Socket Layer (SSL) 95
managing project 96
opening database projects 97
project catalog 96
stopping and starting 96
testing RequisitePro project 96
Robot, integration support 34
RobotJ, migrating to XDE Tester 72
roles in an upgrade 18
Rose
integration support 34, 36
migrating to XDE 84
Rose Data Modeler 37
Rose RealTime 37
RUP Builder 85
RUP Organizer 85

S

schema changes, to ClearQuest databases 61
Secure Socket Layer (SSL) 109
secure sockets and RWP 100
servers
prerequisites 25
upgrading 45
service releases 135
silent installations
canceling 131
performing 130
removing software 131
setting up 129
site defaults files
creating 121
multiple 121, 125
using the Rational Setup Wizard 122
using the Site Preparation Wizard 121, 125
SoDA integration support 34
supported database software 28
Sybase SQL Anywhere
backing up database 50
upgrading 52
Sybase SQL Anywhere, converting to 70
syntax, command line 133
system and software requirements 32

T

temporary disk space 116
Test Agents
integration support 38
UNIX operating systems 38
Windows operating systems 38

Testing Products
Custom Setup page 118
database type 70
Datastore Doctor 70
upgrading 68
TestManager
integration support 34

U

uninstall software. *See* removing software.
upgrade order 45
upgrade paths 20
upgrade plan document 18
upgrade planning 17
upgrading
ClearCase LT 56
ClearQuest 58
desktops 145
Rational software 17
Rational Test datastore 70
RequisitePro 69
servers 45
Web servers 87
user interface manager, shutting down 116

V

versions
allowed for direct upgrades 20
allowed in upgrade 23
virus protection software 116

W

warnings, installation 134
Web browsers
non-Windows requirements 40
Windows requirements 39
Web servers
upgrading 87
Web servers (IIS)
supported software 30
Web servers (Rational Web Platform)
conflict with IIS 92
enabling Secure Socket Layer (SSL) 95
restarting 96, 106

X

XDE
and ClearCase 49, 56
integration support for 37
migrating from Rose 84
XDE Tester 72
integration support for 37