



Upgrade Guide

Note

Before using this information and the product it supports, read the information in “Notices,” on page 117.

October 2004

This document contains proprietary information of IBM. It is provided under a license agreement and is protected by copyright law. The information contained in this publication does not include any product warranties, and any statements provided in this manual should not be interpreted as such.

This document and its associated software may be used as stated in the underlying license agreement. Except as explicitly stated otherwise in such license agreement, and except to the extent prohibited or limited by law from jurisdiction to jurisdiction, IBM Rational Software Corporation expressly disclaims all other warranties, express or implied, with respect to the media and software product and its documentation, including without limitation, the warranties of merchantability, non-infringement, title or fitness for a particular purpose or arising from a course of dealing, usage or trade practice, and any warranty against interference with Licensee’s quiet enjoyment of the product.

When you send information to IBM, you grant IBM a nonexclusive right to use or distribute the information in any way it believes appropriate without incurring any obligation to you.

© Copyright International Business Machines Corporation 1992, 2004. All rights reserved.

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

Contents

Tables	vii
-------------------------	------------

Preface	ix
--------------------------	-----------

About this manual	ix
Documentation roadmap	x
Other resources	x
Contacting IBM Rational Customer Support.	xi

Chapter 1. Planning an upgrade	1
---	----------

Overview: flow of events	1
Creating an upgrade plan	1
Who should participate.	2
Which products are you upgrading?	2
Understanding the rules of upgrading	3
Upgrade paths.	3
Changing an installation directory for upgrades	4
Adding new features when you upgrade	4
Upgrade, then make major changes.	5
Back up databases and datastores	5
Plan to verify upgrade success	5
Special rules for upgrading ClearCase and ClearQuest	5
You cannot run with mixed versions of software	7
Have you met the prerequisites?.	9
IBM Rational Software Service Release requirements.	22
Additional considerations for service releases	23
Supported Configurations	24
Unsupported Configurations	24
Frequently asked questions	24
Checklist: are you ready to upgrade?.	25

Chapter 2. Upgrading servers and administrator systems	27
---	-----------

Installing new software	27
Using the Rational Software Setup Program	27
Before you install	27
Installing the IBM Rational Service Release directly to a desktop client or server from a CD	32
Installing the latest version of IBM Rational Suite.	33
Installing the IBM Rational Service Release Directly to a Desktop Client or Server from a CD	33
Applying the IBM Rational Service Release Using a Release Area	34
After the installation: reconfiguring licenses	35
If Your IBM Rational product is not updated	35
Upgrading SQL Anywhere server	35
ClearQuest only: before you upgrade SQL Anywhere	35
Upgrading the database server host	36
After you upgrade SQL Anywhere	38
Upgrading ClearCase	39
Incrementing VOB feature level.	39
Reformatting ClearCase views	39
Upgrading ClearQuest.	40
New database drivers, new database properties pages, and connection compatibility	40
Adjusting Oracle code pages when migrating ClearQuest version 2003.06.13 clients	48
Converting Oracle databases from LONG to CLOB	49
Upgrading clients and vendor databases.	49
Considerations when upgrading Crystal Reports	51
Considerations when upgrading using ClearQuest MultiSite	53
Considerations for ClearQuest integrations when upgrading	53

Considerations when upgrading New ClearQuest Web	53
Consideration when upgrading ClearQuest for Japanese	54
Upgrading ClearQuest packages	54
IBM Rational Suite AnalystStudio Upgrade	55
Upgrading from Rose RealTime 2003.06.00	55
Applying schema changes to user databases	55
Changing the ClearQuest data code page	56
Raising the ClearQuest feature level	56
Upgrading a Rational project	60
Upgrading the RequisitePro database and Rational Test datastores	60
Verifying ClearQuest packages for a Rational project	62
Rebuilding the UCM integration when you use ClearQuest	63
Upgrading ProjectConsole	63
Upgrading ProjectConsole server software	63
Restoring saved files from backup	63
Migrating project data from an earlier version of Rational ProjectConsole.	64
After migrating data	66
Upgrading ProjectConsole agent software	69
Migrating from Rose to XDE [optional]	70
When a Rose model is part of a Rational Administrator project	70
Upgrading Rational Unified Process	70
Running RUP Builder	70
Adding links to process views	71
Upgrading Rational Process Workbench	71
Packaging content in a thin plug-in	71
Upgrading Extended Help	71
Upgrading Japanese language systems	71
Upgrading on a Japanese System	72

Chapter 3. Upgrading Web servers. 73

Installing a Web service that uses the Rational Web Platform	73
Performing the installation	73
Configuring ClearCase Web	74
Specifying the ClearCase primary group.	74
Web view storage	74
Limiting upload size	75
Specifying a session timeout.	75
Specifying a directory for temporary storage	75
Permission to download applets on Windows	75
Allowing IIS and RWP to coexist on a single server	76
Configuring the Rational Web Platform	76
RWP installation directory	77
RWP configuration files	77
Configuration file reference versions	77
To change the default RWP HTTP port	78
To change the default RWP servlet engine ports	78
To configure RWP logging	79
Log rotation and log cleanup	80
To change the user account used by RWP	80
To change the RWP user account on Windows.	80
To change the RWP user account on UNIX	81
To stop and restart RWP	81
To configure access to RWP from another Web server	81
Configuring mod_proxy support for Apache	82
Configuring URL redirection for Internet Information Server	83
Configuring RWP to use Secure Sockets	83
Configuring secure access to RWP.	84
Other modifications to RWP.	85

Chapter 4. Installing IBM Rational products 87

Deploying IBM Rational products	87
Using the Setup Wizard	88
Rational_install log	88
Registry size	89
Interrupting an installation	89
Using the Custom Setup page	89
Specifying the IBM Rational license server	91
Installing IBM Rational products from the CD or Web download	91
Creating a release area and site defaults file	93
Using the Setup Wizard to create a release area and site defaults file	93
Installing the product on your computer.	95
Running the Site Preparation Wizard to create multiple sitedef files	96
Installing IBM Rational products from a release area.	97
Using a standard configuration.	97
Customizing your own configuration.	98
Setting up silent installations of IBM Rational products	100
Performing a silent installation	101
Canceling a silent installation	101
Using the command line to remove a product	101
Using postinstallation commands.	102
Running post_install_cmd from the command line	102
Running the command by modifying the site defaults file	102
Post-installation tasks.	102
Licensing.	102
Product installation checklist	103
Canceling a product installation	103
Reinstalling a product (modify or repair)	104
Command line syntax	104
Rational Setup Wizard warnings and blocks	105
Rational Setup Wizard upgrade blocks	105
Applying service releases	106
Chapter 5. Removing IBM Rational products	109
Before you remove IBM Rational software.	109
Before you remove ClearCase data from the ClearCase LT server	109
Before you remove RequisiteWeb	110
Removing IBM Rational software.	110
Removing an IBM Rational Service Release	110
Removing RequisiteWeb 2003.06.00	110
Removing RequisiteWeb 2002.05.X	111
Deleting the ReqWeb and Jakarta virtual directories	111
Removing the Jakarta ISAPI Filter	111
Restarting the IIS Admin Service	111
Removing the RequisiteWeb Program	112
Removing RequisiteWeb 2001A	112
Stop and Remove the RqTomcat Service	112
Remove the ReqWeb and Jakarta Virtual Directories	113
Remove RequisiteWeb 2001A	113
Remove the Tomcat_Home and Java_Home system variables	113
Removing TestManager	113
Chapter 6. Upgrading desktop systems	115
Before the upgrade	115
Upgrading to the new version.	115
After the upgrade	115
Appendix. Notices	117
Index	121

Tables

1.	Worksheet: which products will you upgrade?	2
2.	Upgrading from IBM Rational Suite v2003.06.00 or later	3
3.	Upgrading IBM Rational Suite from releases before v2003.06.00	3
4.	Server requirements and recommendations	9
5.	Desktop requirements and recommendations	15
6.	Troubleshooting: upgrading the ClearQuest feature level	57
7.	Default RWP servlet engine ports	78
8.	RWP log levels	79
9.	Deployment methods	87
10.	Server custom setup in the Setup Wizard	90
11.	LKAD launch	103
12.	LKAD tasks	103
13.	Command line syntax.	104
14.	Warnings and blocks	105
15.	Upgrade blocks	105

Preface

IBM 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.

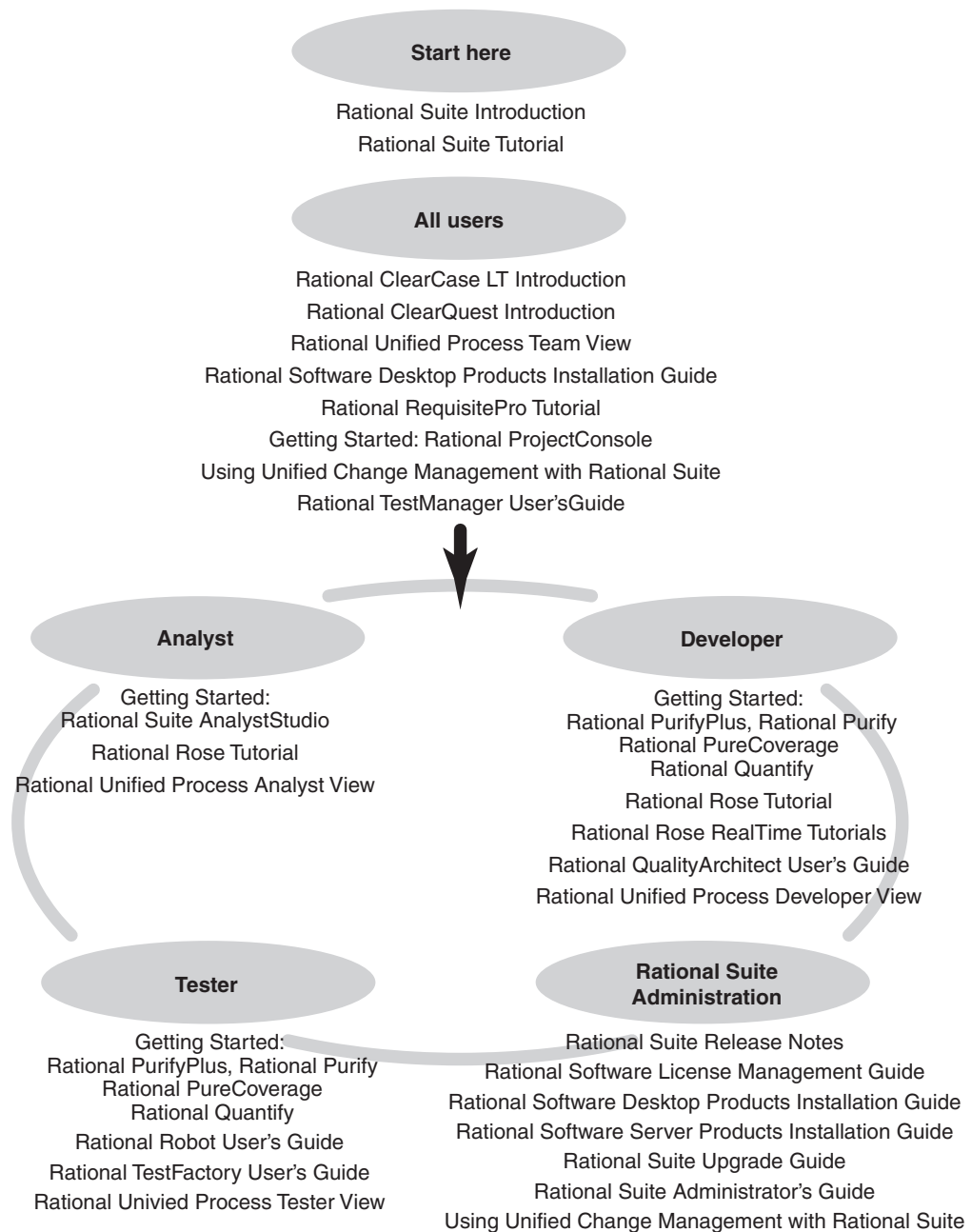
About this manual

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

IBM Rational Software Server Products Installation Guide and the *IBM Rational Software Desktop Products Installation Guide*

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

Documentation roadmap



Other resources

- All manuals are available in HTML or PDF format at the IBM Publications Center (<http://www.ibm.com/shop/publications/order>) (To search for the IBM Publications Center, go to <http://www.ibm.com> and enter "IBM Publications Center" in the Search field.)
- To send feedback about documentation for Rational products, send e-mail to docs@us.ibm.com .
- For more information about all IBM Rational Software technical publications, see: <http://www.ibm.com/shop/publications/order> .

- For more information on training opportunities, see:
<http://www.ibm.com/services/learning>.

Contacting IBM Rational Customer Support

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

The IBM software support Internet site provides you with self-help resources and electronic problem submission. The IBM Rational Software Support Home page can be found at <http://www.ibm.com/software/rational/support/>.

Voice Support is available to all current contract holders by dialing a telephone number in your country (where available). For specific country phone numbers, go to <http://www.ibm.com/planetwide/>.

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

- Your name, company name, ICN number, telephone number, and e-mail address
- Your operating system, version number, and any service packs or patches you have applied
- Product name and release number
- Your PMR number (if you are following up on a previously reported problem)

Chapter 1. Planning an upgrade

Attention::

The most recent version of this manual is available from the IBM Publications Center at www.ibm.com. You may wish to go to that site and check for a more recent version of the *IBM Rational Suites Upgrade Guide* before proceeding.

If you upgrade to IBM 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 *IBM Rational Suite Release Notes*. The *Release Notes* are in the top-level directory of the *IBM 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 IBM Rational products or their datastores - either instruct them to disconnect or, from each server, disconnect all users.
- If you are upgrading from a release earlier than Rational Suite 2003.06.00, remove existing Rational software from your computer.
- Install the current version of IBM 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 IBM Rational product 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 IBM 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	
XDE		NA	NA	NA	

Note:

- 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.

Upgrade paths

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 3:

- If you are running any release before v2003.06.00 you must uninstall all Suites products before upgrading to v2003.06.13. This is true for English as well as Japanese versions of the IBM Rational Suite. If you are running v2003.06.00, v2003.06.10 or v2003.06.12, you do not have to uninstall before installing service release v2003.06.13 .
- For servers, if you are starting from version 2001A or 2002, you can upgrade directly to the current version, v2003.06.13.
- For desktops, after you upgrade the servers, if you are starting at version 2000 or later, you can upgrade directly to the current version, 2003.06.13
- If you encounter errors on blocks in the course of an upgrade, consult "Rational Setup Wizard warnings and blocks" on page 105.

Table 2. Upgrading from IBM Rational Suite v2003.06.00 or later

Rational Service Release	Language	Applies to Rational products	Comments
v2003.06.13	English and Japanese	<ul style="list-style-type: none"> • v2003.06.00 (English version) • v2003.06.10 (Japanese version) • v2003.06.01 (English version only) • v2003.06.20 	<p>If you are updating a Rational product prior to version v2003.06.00 you must uninstall that product before installing this release.</p> <p>For more information, see the Installation Instructions.</p>

Table 3. Upgrading IBM Rational Suite from releases before v2003.06.00

If you are starting from this version	Then upgrade as follows
Servers running Rational Suite 2002 or 2001A	Follow the procedures in this manual.

Table 3. Upgrading IBM Rational Suite from releases before v2003.06.00 (continued)

If you are starting from this version	Then upgrade as follows
Servers running Rational Suite 2001 or 2000	<ul style="list-style-type: none"> • Upgrade to version 2001A, as described in “Upgrading from Earlier Versions of Rational Suite” in the 2001A version of <i>Installing Rational Suite</i> (see IBM Publications Center (http://www.ibm.com/shop/publications/order)). • Upgrade from version 2001A to the current version by following the procedures in this manual.
Desktops running Rational Suite 2000 or later	<ul style="list-style-type: none"> • Before you start, ensure that servers are upgraded. • Upgrade desktops directly to the current version.
Rational Suite 1.5 Fuji, 1.1 Molehill, or 1.0 caramel	<ul style="list-style-type: none"> • Upgrade servers and desktops to version 2000; contact Rational Customer Support for more information. • Upgrade servers from version 2000 to version 2001A, as described in “Upgrading from Earlier Versions of Rational Suite” in the 2001A version of <i>Installing Rational Suite</i> (see IBM Publications Center (http://www.ibm.com/shop/publications/order)). • Upgrade servers from version 2001A to the current version by following the procedures in this manual. • 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.

Changing an installation directory for upgrades

If IBM Rational products are currently installed on your system, you can update the existing Rational product in the current location (or install additional products to the same location). You cannot change the installation directory during upgrades. To install products into a different location than currently on your system, you must uninstall the current Rational product version, then install to the new location.

Adding new features when you upgrade

When you upgrade, the installation procedure does not prompt you to select features to install. Instead, it reinstalls the features that are already present. If you want additional features on your system, you must run the installer again, and select the new features. In addition, you must treat the new features as being installed for the first time, and not as part of an upgrade procedure. For more information, see the *IBM Rational Software Desktop Products Installation Guide* or the *IBM Rational Software Server Products Installation Guide*.

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 IBM 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 IBM Rational Server Products and IBM Rational Desktop Products.

Exception: Version 2003 no longer supports the Microsoft Windows 9x operating systems (Windows 95, Windows 98, Windows Me). Update these older operating systems before starting the IBM 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 *IBM 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 IBM 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 stand-alone environment.

Preparing to upgrade ClearCase

If you use IBM Rational ClearCase or IBM 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 IBM 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 IBM 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 uninstalling 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.

Installing the Shipping Server with Rational Suite Enterprise

If you install Rational Suite Enterprise with the Shipping Server option from the CD or from the IBM Web download package, perform the tasks in the following table. If ClearCase is already installed, do not perform these tasks because it will cause serious ClearCase problems.

Note: These options are only needed if you are installing ClearQuest and Shipping Server from the CD or the IBM Web download package. If you are installing these product components from a Suite Enterprise release area, ignore these tasks.

Condition	Task
-----------	------

<p>If the system will run both ClearCase, ClearQuest, and the Shipping Server</p>	<ol style="list-style-type: none"> 1. Install ClearCase first. If you must install both on the same system, make sure the versions and ClearCase products are identical. For example, the ClearCase product on the system should be ClearCase, not ClearCase LT, and either be a server or have local VOBs and Views enabled. 2. Install ClearQuest and the Shipping Server. Avoid installing the ClearQuest Shipping Server on a system where ClearCase (in particular, on a system with Rational products earlier than 2003.06.00 is installed. <p>Note: Do not install the Shipping Server on a system with a ClearCase that has no ALBD. The Shipping Server installs the ALBD and if ClearCase LT (for example) is installed, the system is rendered inoperable because it sees an ALBD running.</p>
<p>After you install ClearQuest and the Shipping Server from the CD or Web download package</p>	<ol style="list-style-type: none"> 1. Verify that the Shipping Server will not work with this command: <code>shipping_server -ver noname</code> Warning: Can not find a group named "clearcase". shipping_server 2003.06.13 (date and time) 2. Apply the CQ_SS.reg file (contact IBM Rational Software Support) and verify the Shipping Server works: <code>shipping_server -ver</code> <code>shipping_server 2003.06.00 (date and time)</code>

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:

- On a network, running any version of v2003 is supported as long as all machines on the network are running some version of v2003. However, only one version of v2003 can be run on a single machine.
- 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 stand-alone, there may be situations where you can operate in a mixed-version environment. For more information, see “Upgrading ClearCase or ClearQuest stand-alone” on page 8.
- For information about mixing ClearQuest versions in an environment that has UNIX clients, see the *IBM Rational ClearQuest Installation Guide for UNIX*.

Ensuring Version Compatability

Before you can upgrade your release, you must determine that the version of IBM Rational products installed on your system is in accordance with the guidelines notes in the *Upgrade Path* section of the manual. To do this:

1. Select **Start > Programs > Rational Software > Installed Product Information**
2. Ensure that, for each Rational product listed, the Build ID (version number) is in accordance with the guidelines listed here, or remove or upgrade as follows:
 - Remove the product altogether: Select it, then click **Add/Remove**. Use the Windows Add/Remove Programs feature to remove the IBM Rational product.
 - Upgrade the product to one of these versions.
3. Continue with the service release installation.

Upgrading ClearCase or ClearQuest stand-alone

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 stand-alone environment, that is:

- You've installed ClearCase only, ClearQuest only, or both.
- You have not installed IBM 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 8.0.2 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 8.0.2.
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 *IBM 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 IBM Rational Suite products on servers.

Table 4. Server requirements and recommendations

Item	Requirements and recommendations
Operating systems	<ul style="list-style-type: none"> • Microsoft Windows 2003 Enterprise Server, no Service Pack • Microsoft Windows 2003 STD Edition, no Service Pack • Microsoft Windows XP Professional, Service Pack 1, 1a (See notes about Service Pack 2) • Microsoft Windows 2000 Server, Service Pack 2, 3, 4 • Microsoft Windows 2000 Advanced Server, Service Pack 2, 3, 4 • Microsoft Windows 2000 Professional, Service Pack 2, 3, 4 • Microsoft Windows NT 4.0 Server, Service Pack 6a + SRP (Security Rollup Package, Q299444) • Microsoft Windows NT 4.0 Workstation, Service Pack 6a + SRP (Security Rollup Package, Q299444) (It is not supported as a Web server.) <p>Note:</p> <ul style="list-style-type: none"> • The production release of Windows XP SP2 was not available for final testing at the time these requirements were finalized. To obtain the latest information about Windows XP SP2 support, go to IBM Rational Support at http://www.ibm.com/software/rational/support and search for "Rational products and Windows XP SP2". For more information about how Microsoft Windows XP SP2 affects IBM Rational products in this release, see "Compatibility with Third-Party Products" in the <i>IBM Rational Suites Release Notes</i>. • ClearQuest MultiSite Shipping Server supports only Windows 2000 Server, Service Pack 2, 3, 4, Windows 2000 Advanced Server, Service Pack 2, 3, 4, Windows NT 4.0 Server, Service Pack 6a + SRP (Q299444) • For more information about ClearCase for UNIX-Interoperability solutions and Network Attached Storage, see the <i>IBM Rational ClearCase Installation Guide</i> • Windows XP Home Edition is not supported in this release. • For the most up to date information about ClearCase UNIX platforms, see http://www.ibm.com/support. Click Search Technical Support and enter "ClearCase family supported releases".

Table 4. Server requirements and recommendations (continued)

Item	Requirements and recommendations
Hardware	<ul style="list-style-type: none"> • 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 an IBM Rational point product <p>Note: For New ClearQuest Web minimum and recommended hardware requirements, see the <i>New ClearQuest Web Installation Guide</i>.</p>
ClearCase LT Server file storage space requirements	<ul style="list-style-type: none"> • 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 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	<ul style="list-style-type: none"> • 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 TeamTest – 645 MB (full), 583 MB (typical) • Rational Team Unifying Platform – 1.1 GB (full), 825 MB (typical) <p>Note: If Rational ProjectConsole is included in your Rational Suite, it requires 1+ GB for its repository.</p>
Point product disk space	<ul style="list-style-type: none"> • ClearCase LT Server: 264 MB (full) • ClearQuest MultiSite Administrator: 250 MB • Rational Shipping Server: 250 MB • Terminal Server (ClearQuest): 250 MB • RequisitePro: 192 MB (full), 176 MB (typical) • TestManager: 379 MB (full/typical)

Table 4. Server requirements and recommendations (continued)

Item	Requirements and recommendations
Databases	<p>ClearQuest Databases</p> <ul style="list-style-type: none"> • IBM DB2 UDB Express 8.1 • IBM DB2 UDB 7.2 with Fix Pack 8, 8.1 • ClearQuest ships with a DB2 UDB Components for Rational Products v8.1. This database will replace SQL Anywhere as the out-of-the-box offering in the next major release of ClearQuest. DB2 UDB Components for Rational Products v8.1 contains all the features and functionality of DB2 UDB Express v8.1. • Microsoft SQL Server 7.0, Service Pack 4; SQL Server 2000, Service Pack 2, 3, and more current versions. • Oracle 8.1.6, 8.1.7.3, 9.2, 10 • Sybase SQL Anywhere 5.5.05, 8.0.1, 8.0.2 (See additional information in the Sybase SQL Anywhere section of this table.) <p>Note:</p> <ul style="list-style-type: none"> • Sybase SQL Anywhere and Microsoft Access also support the desktop operating systems listed in the <i>IBM Rational Software Desktop Installation Guide</i>. You can use Windows XP Professional and Windows 2000 Professional as database servers for SQL Anywhere or Microsoft Access in a small development group. <p>ClearQuest also supports databases on UNIX operating systems. For the most current information, see http://www.ibm.com/support/. Click Technical Support Search and enter "supported ClearQuest platforms and databases".</p>
	<p>RequisitePro Enterprise Database</p> <p>Supports the same database vendors listed in the ClearQuest section, except Sybase SQL Anywhere</p> <p>Note: RequisitePro supports the same vendor databases and UNIX operating systems listed in the ClearQuest section.</p>
	<p>Rational TestManager Database</p> <ul style="list-style-type: none"> • Microsoft Access 2000, 2002 Service Pack 1, 2, 2003 on all supported workstations and professional server operating systems. • Sybase SQL Anywhere 8.0.2 (See additional information in the Sybase SQL Anywhere section of this table.)
	<p>Project Console</p> <ul style="list-style-type: none"> • See the Web Servers section in this table for supported Web server requirements. • ProjectConsole supports the full set of ClearQuest databases for the ProjectConsole data warehouse. • For the Template Builder, report server, and collection agent requirements, see the desktop requirements and recommendations section in the <i>IBM Rational Software Desktop Products Installation Guide</i>

Table 4. Server requirements and recommendations (continued)

Item	Requirements and recommendations
Sybase SQL Anywhere	<p>Sybase SQL Anywhere 8.0.2 is available on the <i>IBM Rational Solutions for Windows</i> installation CD or part of your IBM Web download package. It is configured to work only with Rational products. Select SQL Anywhere from the Product Selection list in the Rational Setup Wizard. .</p> <p>If you have installed Sybase SQL Anywhere 5.5 from Sybase and also from any of these IBM Rational products: IBM Rational ClearQuest, TestFactory, Robot, ProjectConsole, TestManager or TestManager Agent, you may experience a DLL conflict error. We recommend that you upgrade to the most recent Sybase SQL Anywhere database. For more information, contact IBM Rational Customer Support.</p>
Hosted development systems (remote sessions)	<p>ClearCase, ClearQuest, RequisitePro, Robot, Rose, and SoDA support hosted development on these platforms:</p> <ul style="list-style-type: none"> • Citrix MetaFrame 1.8, Service Pack 2 • Citrix MetaFrame XP Application Server • Microsoft Windows 2003 Enterprise Server, Windows Terminal Services • Microsoft Windows 2000 Advanced Server, Windows Terminal Services, Service Pack 2, 3, 4 <p>Note:</p> <ul style="list-style-type: none"> • ClearCase does not support Citrix MetaFrame 1.8. • TestManager does not support any version of Citrix MetaFrame or Windows Terminal Server. • You must use floating licenses for these products. Node-locked licenses are not supported.

Table 4. Server requirements and recommendations (continued)

Item	Requirements and recommendations
Web servers	<ul style="list-style-type: none"> • ClearCase Web, New ClearQuest Web, ProjectConsole Web, and RequisiteWeb use the Rational Web Platform. The Rational Web Platform runs on the server operating systems listed at the beginning of this table, except Windows XP Professional and Windows 2000 Professional. • To improve ClearQuest's maintainability and support, the ClearQuest Web ASP feature will be replaced with the New ClearQuest Web feature in ClearQuest v2003.06.13. The New ClearQuest Web feature is based on Java(c) technology which offers the flexibility to deploy on multiple hardware platforms. Those customers who choose to continue to use ClearQuest Web ASP will not be able to upgrade any other Rational products that are on the same web server to v2003.06.13 unless they first uninstall the ClearQuest Web ASP feature and then install v2003.06.13. • ClearCase and New ClearQuest Web support UNIX and LINUX platforms. For more information, see the <i>Installations Guides</i> for ClearCase UNIX and for New Rational ClearQuest Web. <p>For Rational ManualTest Web Execution:</p> <ul style="list-style-type: none"> • 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 <p>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.</p>
Microsoft JVM	The Rational Setup Wizard does not install the Microsoft JVM with the products in this release nor does it remove the Microsoft JVM from previous Rational installations. Look in the product-specific release notes for more information.
Automated license key requests	Internet connection to request and receive license key files. For more information, see the <i>IBM Rational Software License Management Guide</i> .
Dual boot systems	Rational Suite does not support dual boot systems where both operating systems are on the same partition.
IBM Rational documentation	Adobe Acrobat Reader 4.x or higher to read online PDF files. Download the free Adobe Acrobat Reader from Adobe.com .

Table 4. Server requirements and recommendations (continued)

Item	Requirements and recommendations
Language support	<p>You can install IBM Rational Suite on these international operating systems:</p> <ul style="list-style-type: none"> • Simplified • Traditional Chinese • Dutch • French • German • Hebrew • Italian • Japanese • Korean • Swedish <p>All displays, menus, controls, wizards, reports, and user documentation are in U.S. English with the following exceptions: most of Rational Suite v2003.06.10, v2003.06.12, and v2003.06.13 are translated into Japanese.</p> <ul style="list-style-type: none"> • 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. • ClearCase and ClearQuest support the Spanish and Brazilian character set. • ClearCase supports the Korean character set.

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

Table 5. Desktop requirements and recommendations

Item	Requirements and recommendations
Operating systems	<ul style="list-style-type: none"> • Microsoft Windows XP Professional, Service Pack 1, 1a (See note about Service Pack 2.) • Microsoft Windows 2000 Professional, Service Pack 2, 3, 4 • Microsoft Windows 2000 Server, Service Pack 2, 3, 4 • Microsoft Windows 2000 Advanced Server, Service Pack 2, 3, 4 • Microsoft Windows NT 4.0 Workstation, Service Pack 6a + SRP (Security Rollup Package, Q299444) <p>Note:</p> <ul style="list-style-type: none"> • The production release of Windows XP SP2 was not available for final testing at the time these requirements were finalized. To obtain the latest information about Windows XP SP2 support, go to IBM Rational Support at http://www.ibm.com/software/rational/support and search for "Rational products and Windows XP SP2". For more information about how Microsoft Windows XP SP2 affects IBM Rational products in this release, see "Compatibility with Third-Party Products" in the <i>IBM Rational Suites Release Notes</i>. • PurifyPlus, Purify, Quantify, and PureCoverage also support Windows 2003 Server, Windows 2003 Enterprise Server, Windows XP (no Service Pack), Windows 2000 Server (Service Pack 2, 3, 4), Windows 2000 Advanced Server (Service Pack 2, 3, 4), Windows 2000 Windows Terminal Server (Service pack 2, 3, 4; Purify Plus tests WTS applications. Do not run it remotely.), Windows NT 4.0 Server (Service Pack 6a + SRP), Windows NT 4.0 Terminal Server Edition (Service Pack 6a + Terminal Server Edition SRP, Q317636). • Robot and TestManager also support Windows 98, 98 Second Edition, and Windows ME. However, the TestManager installation does not include the Rational Administrator if TestManager is installed on Windows 98, 98 Second Edition, or Windows ME. • Do not use Windows XP Professional, Windows 2000 Professional, and Windows NT Workstation for the Web servers associated with RequisitePro, ClearCase LT Web, New ClearQuest Web or ProjectConsole. These operating systems can be used as a VOB server for ClearCase and a database server for ClearQuest (SQL Anywhere or Microsoft Access database) for a few users. A server operating system is recommended. • Windows XP Home Edition is not supported in this release. • XDE for Visual Studio.NET 2003 does not support Windows NT.
Hardware	<ul style="list-style-type: none"> • 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 <p>Note: 512 MB RAM; 1 GB recommended for XDE Developer and Developer Plus versions.</p>
Remote access support	See the "Server Requirements and Recommendations" table in the <i>IBM Rational Server Products Installation Guide</i> or the <i>IBM Rational Suite Release Notes</i> .

Table 5. Desktop requirements and recommendations (continued)

Item	Requirements and recommendations
Rational Suite disk space	<ul style="list-style-type: none"> • 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 TeamTest – 645 MB (full), 583 MB (typical) • Rational Team Unifying Platform – 1.1 GB (full), 825 MB (typical)
Point Product disk space	<p>ClearCase LT client file storage space:</p> <p>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.</p> <ul style="list-style-type: none"> • ClearQuest Native Client: 371 MB (full), 321 MB (typical) • 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: 70 MB (full/typical) • Rational Unified Process Modeler: 50 MB • Rational Unified Process Organizer: 150 MB • RequisitePro: 192 MB (full), 176 MB (typical) • Robot: 282 MB (full/typical) • Rose Enterprise Edition: 720 MB (typical), 173 MB (compact) • SoDA: 150 MB (Microsoft Word), 100 MB (FrameMaker) • XDE: 500 MB (minimum) for installation drive, 100 MB for workspace, 2-5 GB recommended for workspace
Integrations with 3 rd party applications	
ClearCase LT	<ul style="list-style-type: none"> • Microsoft Office 2000 Service Pack 1, 2; 2002 Service Pack 1, 2; 2003 • Microsoft Word 2000 Service Pack 1, 2; 2002 Service Pack 1, 2; 2003 • FrameMaker 5.5.6 (on UNIX)
ClearQuest	<ul style="list-style-type: none"> • Crystal Reports 8.5, 10.0 • Microsoft Project 98, 2000, 2002, 2003 • Visual Source Safe 6.0, Service Pack 3; .NET

Table 5. Desktop requirements and recommendations (continued)

Item	Requirements and recommendations
ProjectConsole	<ul style="list-style-type: none"> • Template Builder: Microsoft Word 2000 Service Pack 1, 2; 2002 Service Pack 1, 2; 2003 (required to create ProjectConsole Template Builder templates) • Collection Agent: If you install the collection agent and report server software on additional computers, they are required to be the same version as the ProjectConsole Web software as the Web server. • If you are collecting metrics, or generating reports from Microsoft Project (2000 Professional, Microsoft Project 2002 (.mpp only), Rational XDE v2003) install Microsoft Project on the machine with the collection agents and report server. If you are collecting metrics, or generating reports from any IBM Rational product, that product must be installed on the machine with the collection agents and report server.
RequisitePro	<ul style="list-style-type: none"> • Microsoft Office 2000 Service Pack 1, 2; 2002 Service Pack 1, 2 • Microsoft Project 2000 no Service Pack or Service Pack 1; 2002 • Microsoft Word 2000 Service Pack 1, 2; 2002 , Service Pack 1, 2; 2003 • Microsoft Excel 2000 Service Pack 1, 2; 2002, Service Pack 1, 2; 2003
SoDA	<ul style="list-style-type: none"> • Microsoft Word 2000 Service Pack 1, 2; 3 • Microsoft Word 2002 , Service Pack 1, 2 • Microsoft Word 2003, Service Pack 1
TestManager	<ul style="list-style-type: none"> • Crystal Reports 8.5, 10.0
<p>IDEs, integrations with 3rd party development applications, and add-ins. Earlier versions of Eclipse, WebSphere Studio Workbench, and WebSphere Application Developer that were supported in v.2003.06.00 release are still supported in this release.</p>	
ClearCase LT	<ul style="list-style-type: none"> • 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, 5.1.1, 5.1.2 • IBM WebSphere Application Developer Integration Edition 5.0 • IBM WebSphere Studio Enterprise Developer 5.0 • IBM WebSphere Studio Site Developer 5.0, 5.1.1, 5.1.2 • IBM WebSphere StudioWorkbench 2.1.2 • 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

Table 5. Desktop requirements and recommendations (continued)

Item	Requirements and recommendations
ClearQuest	<ul style="list-style-type: none"> • Microsoft Visual Studio .NET 7.0, Service Pack 1 (with .NET Framework Service Pack 2); Studio .NET 7.1 • IBM WebSphere Application Developer 5.0, 5.1.1 • IBM WebSphere Application Developer Integration Edition 5.0 • IBM WebSphere Studio Enterprise Developer 5.0 • IBM WebSphere Studio Site Developer 5.0, 5.1.1 • IBM WebSphere Studio Workbench 2.1.2 <p>Note: For more information about ClearQuest Eclipse Client platform support and integrations, see the ClearQuest Eclipse Client documentation.</p>
Purify, PurifyPlus, PureCoverage, and Quantify	PurifyPlus supports WebSphere Studio Workbench 2.1.2 and WebSphere Application Developer 5.1.2. For the latest support information, see the <i>PurifyPlus Family Release Notes</i> .
Robot and TestManager	<ul style="list-style-type: none"> • If you are developing or running test scripts written in the Visual Basic language, Visual Basic 6.0 is required. • If you are developing or running Java test scripts, a JDK (Java Development Kit) is required. • TestManager supports VMware GSX Server 2.5.0 and higher.
Rose	<p>Rose C++ Professional, Rose Data Modeler Professional, Rose Enterprise, Rose Web Modeler</p> <ul style="list-style-type: none"> • Microsoft Visual Basic 6.0 (Visual Studio 6.0, Service Pack 4, 5) • Microsoft Visual C++ 6.0 (Visual Studio 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. • The Microsoft .NET Framework (v.1.1 or higher) is required to install the Rose Data Modeler and Rose Web Modeler add-ins. If you do not have the required .NET versions installed and choose to continue the installation, these add-ins will not be installed and previously installed versions of these add-ins will be disabled. You can install these add-ins at any time after you install the .NET Framework by using the Change option of your Rose installation in the Add/Remove Programs in the Control Panel. • JDK 1.1.6 • Rose Add-Ins that use a Web browser (for example, Web Publisher) support most common browsers. <p>Rose J supports the following Java IDEs. Use the JDK appropriate to your IDE.</p> <ul style="list-style-type: none"> • 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 5. Desktop requirements and recommendations (continued)

Item	Requirements and recommendations
Rose Data Modeler	<p>Rose Data Modeler can produce data models for the following databases:</p> <ul style="list-style-type: none"> • 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 System 12 • SQL Server 2000 <p>To reverse engineer Oracle and DB2 databases using Rose Data Modeler, an RDMS client must be installed.</p> <p>The Microsoft .NET Framework (v.1.1 or higher) is required to install the Rose Data Modeler and Rose Web Modeler add-ins. If you do not have the required .NET versions installed and choose to continue the installation, these add-ins will not be installed and previously installed versions of these add-ins will be disabled. You can install these add-ins at any time after you install the .NET Framework by using the Change option of your Rose installation in the Add/Remove Programs in the Control Panel..</p>
Rose RealTime	For the latest support information, see the <i>IBM Rational Rose RealTime Release Notes</i> .
Rational Test Agent software	<p>In addition to the platforms listed as supported by all desktop products, you can install Test Agents on the following operating systems:</p> <p>Windows:</p> <ul style="list-style-type: none"> • Windows 2003 Server (Standard and Enterprise) • Microsoft Windows NT 4.0 Server, Service Pack 6a + SRP (Security Rollup Package, Q299444) • Microsoft Windows Millennium Edition • Windows 98 2nd edition <p>UNIX:</p> <ul style="list-style-type: none"> • AIX 4.3, 5.1, 5.2 • HP-UX 11 (PA-RISC 2.0 32-bit only; PA-RISC 1.1 and 64-bit not supported) • Red Hat LINUX 7.1, 7.2, and 7.3, and 8.0 (Personal and Professional LINUX) • RedHat Enterprise LINUX 3 Intel IA-32 • Solaris 2.6, 7–9 (SPARC architectures only) <ul style="list-style-type: none"> • 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.
XDE	For the latest support information, see the <i>Release Notes</i> for XDE Developer, XDE Modeler, and XDE Developer Plus in your product CD.

Table 5. Desktop requirements and recommendations (continued)

Item	Requirements and recommendations
XDE Tester	<ul style="list-style-type: none"> • Sun JDK 1.2.2-1.4x • IBM JRE 1.2.2-1.4x
	Integrated with the following IDE and shell: <ul style="list-style-type: none"> • IBM WebSphere Application Developer 5.0, 5.1.1, 5.1.2 • IBM WebSphere Studio Workbench 2.0.2, 2.1.2, 2.1.3
Web browsers on Windows	<ul style="list-style-type: none"> • Microsoft Internet Explorer 5.5, Service Pack 1, 2; 6.0 no Service Pack, Service Pack 1, 2 • Netscape Navigator 4.72 – 4.78, 7.0
	Note: <ul style="list-style-type: none"> • ClearCase Web and ClearQuest Web support Internet Explorer and Netscape Navigator 7.0 on Windows 98 2nd Edition, Windows ME, and Windows XP Home <i>Web clients</i> • ClearCase Web supports Mozilla 1.5 on all ClearCase supported desktop operating systems. • ClearCase Web, ManualTest Web, and XDE Tester do not support Netscape Navigator 4.72 – 4.78. • New ClearQuest Web browsers are listed in the <i>Release Notes for New Rational ClearQuest Web</i>. • ProjectConsole does not support Netscape releases before 7.0. • RequisiteWeb also supports Netscape Navigator 4.70 and 4.71. • Some IBM 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. • XDE Web Publisher supports Microsoft Internet Explorer 5.5, Service Pack 1, 2; 6.0 no Service Pack, Service Pack 1; Netscape Navigator 7.0. • XDE Tester also supports Microsoft Internet Explorer 5.01 Service Pack 1, 2 and Netscape Navigator 6.2.1-6.2.3.

Table 5. Desktop requirements and recommendations (continued)

Item	Requirements and recommendations
Web clients on non-Windows platforms	<p>ClearCase Web</p> <ul style="list-style-type: none"> • Mozilla 1.4 on all AIX (except AIX 4.33) and LINUX platforms (Red Hat, Red Hat Enterprise, SUSE LINUX Enterprise), and 1.5 on Mac OS X 10.2, 10.3 • Netscape Navigator 7.0 on SUSE LINUX Enterprise 7, 8-9 on S/390, zSeries, AMD64 (9 only), EM64T (9 only), AIX 4.3.3, 5.1-5.3, HP-UX 11.x-11.23, Red Hat 2.1, 3.0, Red Hat Personal and Professional 7.x-8.0, 9.0, Red Hat Enterprise LINUX 3 on AMD64, EM64T, IA32, S/390, zSeries, Solaris 2.6, 7- 9, SUSE LINUX Enterprise 8 and 9 on S/390 zSeries, SUSE LINUX Enterprise 9 on AMD64 and EM64T, SGI IRIX 6.5.12-6.5.24 <p>Note: ClearCase Web requires J2SE 1.4.1</p>
	<p>ManualTest Web</p> <ul style="list-style-type: none"> • 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
	<p>ProjectConsole</p> <ul style="list-style-type: none"> • Netscape Navigator 7.0 on Red Hat LINUX 8.0, 9.0, Solaris 8.0, 9.0 • Mozilla 1.6 on Red Hat 8.0, 9.0. <p>Note: Netscape 7.0 and above and Mozilla 1.6 require the 1.4.2_05 version of the Sun JRE. Netscape 7.1 and Mozilla 1.6 require the NS610-GCC32 version of the libjavapugin_oji.so. Netscape 7.0 requires the NS610 version of the plug-in</p>
	<p>RequisiteWeb and Rational Unified Process Netscape Navigator 4.72-4.78, 7.0 on Solaris 2.6, 7- 9, HP-UX 11.0 (QPK 1100), 11i v2, 11.11 GoldQPK11i, Bundle 11i, 11.23.</p>
	<p>Rose Web Publisher</p> <ul style="list-style-type: none"> • Netscape Navigator 4.7x on Solaris 2.6, 7- 9, and HP-UX 11.x • Netscape Navigator 4.74 on Red Hat LINUX Personal and Professional 7.1-7.3
	<p>XDE Web Publisher</p> <ul style="list-style-type: none"> • Netscape Navigator 4.72 - 4.78 on AIX 4.3.3, 5.1, 5.2, 5.3, HP-UX 11.x-11.23, Solaris 2.6, 7- 9 • Netscape Navigator 7.0 on Red Hat LINUX Personal and Professional 7.1-7.3, 8.0, SUSE LINUX Enterprise 8.0
Microsoft JVM	<p>The Rational Setup Wizard does not install the Microsoft JVMs with the products in this release, nor does it remove the Microsoft JVM from previous Rational installations. Look in the product-specific release notes for more information.</p>
Automated license key requests	<p>Internet Connection to request and receive license key files. For more information, see the <i>IBM Rational Software License Management Guide</i>.</p>
Dual boot systems	<p>Rational Suite and Rational Rose do not support dual boot systems where both operating systems are on the same partition.</p>
IBM Rational documentation	<p>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 .</p>

Table 5. Desktop requirements and recommendations (continued)

Item	Requirements and recommendations
Language support	<p>You can install IBM Rational products on these international operating systems:</p> <ul style="list-style-type: none"> • Simplified Chinese • Traditional Chinese • Dutch • French • German • Hebrew • Italian • Japanese • Korean • Swedish <p>All displays, menus, controls, wizards, reports, and user documentation are in U.S. English with the following exceptions: most of Rational Suite v2003.06.10, v2003.06.12, and v2003.06.13 are translated into Japanese.</p> <ul style="list-style-type: none"> • 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. • 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. • ClearCase and ClearQuest support the Spanish and Brazilian character set. • ClearCase supports the Korean character set.

IBM Rational Software Service Release requirements

The following general requirements are necessary to run the Rational Software Service Release on your system.

- To download software from the IBM Rational Support Web site, you will need to register for a "userid" and password.
- Ensure that all Rational products on your system are upgraded to the same version, otherwise, you cannot apply the service release.
- Make sure you have administrator privileges before you update your IBM Rational products. To use the Rational Software Setup program on a Windows NT, 2000, or XP system, you must have Windows administrator privileges on the local system. Log in as one of the following users:
 - Local administrator
 - Member of the local administrator s group (example: domain administrator)
- Backup your Registry and system directories.
- Disable all virus protection software. These programs often run in the background and interfere with the installation and file decompression process.

- Make sure you have the original v2003.06 install area available (either the CD, or the network share).

We also recommend that you:

- Disable any user interface managers or desktop environments that run on top of Microsoft Windows.
- Change to a standard VGA video driver while the setup program is running, or disable video features such as virtual screens or screen switching.
- Change to a standard mouse driver, or disable special mouse features that perform tasks such as leaving pointer trails or changing pointer sizes.

Finally:

- Ensure that your computer meets the system requirements as described in the XREF TBD. **Tip:** Ensuring that a greater amount of memory is available may result in a shorter install time.
- After you install an IBM Rational product, you must restart your system before applying this service release. Do not apply this service release until you have restarted your system after installing an IBM Rational product.

Additional considerations for service releases

Before installing a service release, you should also:

- Ensure that the Build ID (version number) for all Rational products installed on your system is one of the appropriate version numbers listed above for your service release: Select Start > Programs > Rational Software > Rational Software Installed Product Information. If it is not one of these versions, see the section: Installing an Additional Product to an Updated System.
- Read the service release Release Notes for each IBM Rational product you are updating with this service release.
- Review the Release Notes for each IBM Rational product you are updating with this service release. Release notes can be accessed from <http://www.ibm.com/software/rational/support/documentation/>.
- Back up your data before you install the service release .
- Make sure all IBM Rational applications are closed.
- Shut down the following ProjectConsole services from the services panel:
 - IBM Rational ProjectConsole Collection Server
 - IBM Rational ProjectConsole Dashboard Server
 - IBM Rational ProjectConsole Report Server
- Keep the following documents easily accessible during this installation:
 - Release Notes:
 - Service release Release Notes for each IBM Rational product you are updating.
 - V2003.06.13 Release Notes for each IBM Rational product you are updating.
 - Manuals (available on the v2003.06.13 Rational Solutions for Windows Online Documentation CD-ROM, or at the IBM Publications Center (<http://www.ibm.com/shop/publications/order>):
 - *The IBM Rational Desktop Products Installation Guide.*
 - *The IBM Rational Server Products Installation Guide*

Supported Configurations

You can apply this IBM Rational service release to the following IBM Rational product configurations:

- An IBM Rational product-version for which it was intended.
- Directly to a desktop client and servers.
- Release areas created with the Enterprise Deployment install option.

Unsupported Configurations

You cannot apply this IBM Rational service release to:

- An IBM Rational product-version for which it was not intended.
- Only one IBM Rational product if you have multiple IBM Rational products on one computer.
- Multiple versions of IBM Rational Software (but no service releases) on the same system.
- A computer that has had a more current service release applied to it. That is, applying an earlier service release to a later service release is not supported.

Attention:: If there are Rational product versions on your system that are prior to v2003.06.00, either English or Japanese versions, remove these before applying this release.

Frequently asked questions

What is new in this version of the software?

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

Do I need to remove or uninstall software before upgrading?

Only if your particular upgrade path requires it. If you are upgrading from a release prior to 2003.06.00, you need to manually remove software before upgrading to a new version. Perform the steps in Chapter 5, "Removing IBM Rational products," on page 109. 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 7 and “Upgrading ClearCase or ClearQuest stand-alone” on page 8.

Can I install an additional product to an updated system?

Yes. When you install any IBM Rational product to a system that already has had a service release applied to it, the setup program warns you that the products on your system are updated. Continue with the installation and then reapply the service release to update the additional product.

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 IBM 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?

Generally, no. Rebooting is the final step in installation. The next time you login, the product is ready for use.

If a reboot is ever necessary in the course of a product installation, the setup program instructs you. 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 Chapter 2, “Upgrading servers and administrator systems,” on page 27 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 *IBM 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?

Chapter 2. Upgrading servers and administrator systems

Attention:: The most recent version of this manual is available from the IBM Publications Center at www.ibm.com. You may wish to go to that site and check for a more recent version of the *IBM Rational Suites Upgrade Guide* before proceeding.

We assume that you have already completed the tasks necessary to plan the upgrade, as described in Chapter 1, “Planning an upgrade,” on page 1, 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 IBM 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 Rational ProjectConsole
- Migrate from Rational Rose to Rational XDE [optional]
- Upgrade Rational Unified Process
- Upgrade Japanese systems

Installing new software

This section describes how to use the Rational Software Setup program to install the new version of IBM Rational Suite.

Using the Rational Software Setup Program

This service release allows you to download product fixes, new features, and documentation for Rational products. The service release is available from <http://www.ibm.com/software/rational/support/upgrades/>. IBM recommends that you download the file by saving it to your hard disk instead of opening it directly from the Web site.

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.

Downloading IBM Rational software

This service release allows you to download product fixes, new features, and documentation for IBM Rational products. Access the service release from <http://www.ibm.com/software/rational/support/upgrades/>. We recommend that you download the file by saving it to your hard disk instead of opening it directly from the Web site. You can download software in download format or CD format. For more information, see [cross-reference to section on CD and Download Media].

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 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 IBM Rational products” on page 87.

Installation on dual processor machines

When you install this service release on a multiprocessor machine, disable the additional processors before installing the service release. Consult your computer manufacturer for information on how to disable additional processors.

Special considerations for installation media

IBM Rational has provided customers with two types of media: CD's and downloads. You must upgrade your systems using the same type of media as the original install. This affects all desktop and server installs (and installs from release areas).

If your original installation was:

- Directly from a CD, you must upgrade from a CD or release area created from CD
- Directly from a download, you must upgrade from a download or release area created from a download.
- From a release area created from a CD, you must upgrade from a CD or a release area created from a CD
- From a release area created from a download, you must upgrade from a download or a release area created from a download.

The following table presents a matrix of supported media and release area installations for various methods of upgrade.

Original installation media	Upgrade installation media			
	CD	Release area from a CD	Download	Release area from a download
CD	Supported	Supported	Not supported	Not supported
Release area from a CD	Supported	Supported	Not supported	Not supported
Download	Not supported	Not supported	Supported	Supported

Original installation media	Upgrade installation media			
	CD	Release area from a CD	Download	Release area from a download
Release area from a download	Not supported	Not supported	Supported	Supported

If you are unsure of the source of the original installation, the location of the installation source can be found from this registry key:

HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion
\Uninstall\{Product GUID}\.

The String Value named `InstallSource` contains the location of the root directory used for the installation. In the case of a CD installation, the CD-ROM drive is listed. For example, with the CD-ROM drive mapped to drive letter E, the `InstallSource` String Value contains "E:\Setup\".

In the case of an installation from a download or a release area created through the **Enterprise Deployment** install option, the value contains the full path to the release area or the location from where the download was extracted.

The only way to differentiate between an extracted download and a release area is through the presence of Cabinet files (extension of .cab), found in the extracted download directory. If the location listed in the `InstallSource` String Value contains one or more files with a .cab extension, the source was either an extracted download or CD content copied to the hard disk.

If you lack this directory and .cab files, you have a release area. Only the creator of the release area or assistance from IBM Rational Customer Support can confirm whether the release area was created from CD or from a download area.

For detailed information about these issues, see tech note 1165296 at <http://www.ibm.com/software/rational/support/>.

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:

- Start the License Key Administrator: click **Start > Programs > Rational Software > Rational License Key Administrator**.
 - If the License Key Administrator Wizard starts, click **Cancel**.
1. Click **Settings > Client/Server Configuration**.
 2. 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 that contains the database they want to use and 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 *IBM Rational ClearQuest Administrator's Guide* and the *IBM Rational ClearQuest Documentation Supplement*.

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 typing information related to the connection.

Saving information about UCM: If you use the UCM integration between ClearCase and ClearQuest, record the following information:

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

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

Remembering the 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:

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 *IBM Rational Server Products Installation Guide*.

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 on to ProjectConsole and start the ProjectConsole Designer Tool.
 - b. Open the **Schema** menu and determine whether the **Checkout** menu item is enabled or disabled. If it is enabled, the schema repository is checked in. If

it is disabled, the schema is checked out and you must check it in. (You cannot upgrade the ProjectConsole warehouse if the schema is checked out.) For more information, see 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 subdirectories:

`c:\program files\rational\jakarta-tomcat\webapps\ProjectConsole`

`c:\program files\rational\ProjectConsole`

When you remove IBM 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 here:

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.

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 cannot restore this data if you need the earlier version.

Performing tasks for ClearCase use with XDE

In version 2003, ClearCase introduced 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**.

For important details on this and other aspects of upgrading XDE in a team environment, see the following resources on developerWorks:

- *Guidance on upgrading from Rational XDE 2002 to XDE 2003* at

http://www.ibm.com/developerworks/rational/library/content/images/catpulse/public/attachment/doc/8050_1881_upgrade.doc

- *Rational XDE v2003 Model Repair Tool* at

<http://www.ibm.com/developerworks/rational/library/4381.html>

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 you upgrade to ClearCase version 2003 to ensure that existing VOBs are properly configured. The XDE Type

Manager ships with XDE 2002.05.01 Service Release 1 and XDE 2003. For information about the XDE Type Manager Installer, see the XDE Compare/Merge Help.

If you create a new VOB with ClearCase 2002 after running the XDE Type Manager Installer and before upgrading to ClearCase 2003, rerun the XDE Type Manager Installer. After you install ClearCase version 2003, when you create new VOBs, you do not need to perform additional steps; ClearCase version 2003 creates VOBs at feature level 4, and those VOBs include the **xde** element type.

Checking VOB configuration: To check whether a VOB has been properly configured, run the following command in a command window 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 5.0 is installed on your computer, 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 click **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, you may need to remove all existing Rational software from your computer depending on which version of Rational software you are upgrading from. Perform the tasks in Chapter 5, "Removing IBM Rational products," on page 109. Then, from Control Panel, run the Add or Remove Programs tool to remove all installed Rational products.

Installing the IBM Rational Service Release directly to a desktop client or server from a CD

1. When the "Welcome to the Setup Wizard" opens, click **Next**.

2. In the "Select Product" dialog box, select the product you want to update, then click **Next**.
3. Choose "Desktop installation from CD image" as your deployment method, then click **Next**.
4. When you see "Welcome to the Patch for xxx," click **Update**.
5. In the "Product Warnings" dialog box click **Next**.
6. Click **Install**.
7. At the end of the installation, the Setup Complete dialog box displays. If the Wizard requires a restart, click **Yes** to restart your computer now and complete the installation. Or, click **No** and restart your computer later, then click **Finish**.
8. Make sure all IBM Rational products on your computer were updated to version is v2003.06.13 .

Note: The updated version number will appear for all IBM Rational products, regardless of whether or not a product change was applied to them in this service release.

Installing the latest version of IBM Rational Suite

Use the Rational Software Setup program to install Rational Suite on all servers. This version includes a setup program that IBM recommends that you become familiar with the program before running it. For more information, see Chapter 4, "Installing IBM Rational products," on page 87.

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 opens 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 Chapter 3, "Upgrading Web servers," on page 73.
3. Upgrade software on all desktop computers. In this manual, you perform this step as part of Chapter 6, "Upgrading desktop systems," on page 115.

Installing the IBM Rational Service Release Directly to a Desktop Client or Server from a CD

1. When the "Welcome to the Setup Wizard" opens, click **Next**.
2. In the "Select Product" dialog box, select the product you want to update, then click **Next**.
3. Choose "Desktop installation from CD image" as your deployment method, then click **Next**.
4. When you see "Welcome to the Patch for xxx," click **Update**.
5. In the "Product Warnings" dialog box click **Next**.
6. Click **Install**.

7. At the end of the installation, the "Setup Complete" dialog box displays. If the Wizard requires a restart, click Yes to restart your computer now and complete the installation. Or, click No and restart your computer later, then click Finish.
8. Make sure all IBM Rational products on your computer were updated to version is v2003.06.13 (click here for instructions on accessing version information).

Note: The updated version number will appear for all IBM Rational products, regardless of whether or not a product change was applied to them in this service release.

Applying the IBM Rational Service Release Using a Release Area

You must create a new release area for this release if you want to apply this service release to the IBM Rational products in your environment. Administrators should recreate the release area as if users will be installing the products on their desktops for the first time. This new release area will be used to:

1. Update IBM Rational desktop products (as described in the Upgrade Path table).
2. Install IBM Rational desktop products.

After creating this new release area, we recommend that the Administrator disable the "old" release area. This will help prevent access to the previous version of IBM Rational products and still allow access if ever the need to restore a system to the previous version of IBM Rational products were to arise.

For instructions on creating a release area, see the *IBM Rational Server Products Installation Guide* on the "IBM Rational Solutions for Windows Online Documentation CD-ROM," or online.

Upgrading from a Release Area

For instructions on installing/upgrading from a release area, see the *IBM Rational Server Products Installation Guide* on the "IBM Rational Solutions for Windows Online Documentation CD-ROM," or online.

Note: If you are upgrading from a release area, some of the dialogs may indicate an upgrade instead of a new installation.

At the end of the installation, the "Setup Complete" dialog box displays. If the Wizard requires a restart, click Yes to restart your computer now and complete the installation. Or, click No and restart your computer later, then click Finish. Make sure all IBM Rational products on your computer were updated to version is v2003.06.12 .

Note: The updated version number will appear for all IBM Rational products, regardless of whether or not a product change was applied to them in this service release.

Installing/Upgrading from a Release Area using a Silent Install

For more information, see instructions in the *IBM Rational Server Products Installation Guide* on the "IBM Rational Solutions for Windows Online Documentation CD-ROM," or online.

Canceling Installation of a Service Release

To cancel the installation, click Cancel at anytime during installation 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 started the installation.

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 opens. 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 29.

If Your IBM Rational product is not updated

Sometimes, an IBM Rational product is not updated when a service release is installed.

The following scenario describes the expected results after installation of the service release to a system when you are incrementally installing IBM Rational products and this service release:

If you install an IBM Rational product (A), and then install the service release, it is applied to the product. If (on the same system) you install another IBM Rational product (B), and install the service release again, it is reapplied to the first product, and applied to the second product. If (on the same system) you install another IBM Rational product (C), and install the service release again, it should be reapplied to all the products

The exception to this is when the order of applying the service release is to "A" then "C" then "B," and if applying the service release to "C" requires that you restart your system. This is true when the product is not ClearCase, ClearCaseLT, or any IBM Rational Suite containing ClearCaseLT. In this case, the service release is applied to product "A" and "C" and since product "B" is already at the desired version, when you restart your system, the service release is not applied to product "B."

Upgrading SQL Anywhere server

This release of Rational products supports a new version of SQL Anywhere, version 8.0.2. You need to upgrade SQL Anywhere from version 5.0 to version 8.0.2 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 or later 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 or later. At that point, upgrade your SQL Anywhere databases to version 8.

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 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.

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 version 2003.06.13.
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 version 2003.06.13, 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 preparedbforupgrade** 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
--------------	--

Attention: 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 32.
2. On the same database server host, install the SQL Anywhere 8 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 32 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:

<i>server</i>	Database service name
<i>database</i>	Full path to the schema repository or data warehouse
admin	Standard user name and password for SQL Anywhere database owners
4. 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.
5. Create and start the new SQL Anywhere 8 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 service. On the Parameters page, enter the following operands:

-n *servername*

-gd all

-x *protocol*

where:

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

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 2003.06.13.

1. Update your schema repository:
 - a. If you are performing a one-server upgrade, 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 8.0.2 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. 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 opens, 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 database information for SQL Anywhere 8, including the new SQL Anywhere 8 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 8.0.2 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 2003.06.13, 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 effect of raising the feature level is as follows:

- If you raise the feature level of all your VOBs to 4, you can use the new features.
- If you do not raise the feature level, you cannot use 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**, the *IBM Rational ClearCase Command Reference*.

Reformatting ClearCase views

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

If you are upgrading from the version before Version 5.0, read this 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 reformats a view the first time it is used with the current release.
- Manually. You can reformat some views by using the **cleartool reformatview** command. If a view has a large database, IBM recommends that you manually reformat it manually, which minimizes the chance that clients will experience view access timeouts.

After a view has been reformatted to the ClearCase 5.0 format, it cannot revert to its previous format.

Upgrading ClearQuest

This section describes how to upgrade ClearQuest clients, schema repositories and user 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 *IBM Rational ClearQuest Administrator's Guide* available for reference.

New database drivers, new database properties pages, and connection compatibility

With IBM Rational ClearQuest version 2003.06.13 for Windows and patch release clearquest_p2003.06.00-6, for UNIX, IBM is providing new database drivers with ClearQuest. These drivers simplify the deployment of ClearQuest clients in certain database environments and also improve performance. The new drivers are based on technology from DataDirect and are replacing the database drivers from OpenLink used in previous releases of ClearQuest. For environments that use Oracle databases, it is no longer necessary to install Oracle client software on the same systems as the ClearQuest Windows clients.

To facilitate the use of the new drivers, IBM has changed the database property pages for Oracle and SQL Server. For more information about changes to the database property pages, see the *IBM Rational ClearQuest Documentation Supplement*.

An additional affect of introducing the new database drivers is that under some conditions when the vendor database is Oracle or SQL Server, the way connection information is handled changes in ClearQuest version 2003.06.13. In an environment that mixes version 2003.06.13 clients with clients from an earlier version, you may need to take additional steps to make sure that connection information is compatible across all clients, schema repositories, and user databases.

In this section we describe:

- How to use the new database properties pages for Oracle and SQL Server. See "Setting database properties for Oracle" on page 41 and "Setting database properties for SQL Server" on page 42.
- How to determine if the connection information is compatible between old and new releases. See "Determining connection compatibility" on page 43.
- How to upgrade both clients and database vendor so that connection information is compatible between old and new releases. See "Upgrade scenarios for ClearQuest" on page 44.
- Considerations for upgrading Crystal Reports. See "Considerations when upgrading Crystal Reports" on page 51.

- Considerations for upgrading ClearQuest MultiSite. See “Considerations when upgrading using ClearQuest MultiSite” on page 53.
- Considerations for upgrading the ClearQuest UCM integration with ClearCase. See “Considerations for ClearQuest integrations when upgrading” on page 53.
- Considerations for upgrading New ClearQuest Web. See “Considerations when upgrading New ClearQuest Web” on page 53.
- Considerations when upgrading using ClearQuest for Japanese. “Consideration when upgrading ClearQuest for Japanese” on page 54.
- Considerations for upgrading packages. See “Upgrading ClearQuest packages” on page 54.
- Considerations for upgrading feature levels. See “Raising the ClearQuest feature level” on page 56.

Setting database properties for Oracle

Prior to ClearQuest release version 2003.06.13, the fields shown on the database properties page for Oracle were:

- **Vendor** (Oracle)
- **SQL*Net Alias**
- **User Name**
- **Password**
- **Connect Options**

In ClearQuest release version 2003.06.13, the fields shown on the database properties page for Oracle are:

- **Vendor** (Oracle)
- **Server**
- **SID**
- **User Name**
- **Password**
- **Connect Options**

Note the following changes:

- The two fields **Server** and **SID** replace the **SQL*Net Alias** field.
- The **Connect Options** field formerly displayed a text string listing **HOST=;SID=;SERVER_VER=; CLIENT_VER=;LOB_TYPE=**; Now, the **Connect Options** field always shows the **LOB_TYPE=** but other options are entered only if you need to override an existing entry.

After Oracle has been selected in the **Vendor** field, the remaining fields should be completed as follows for new Oracle databases:

1. In the **Server** field, enter the machine name of the server where the Oracle database is running. It may have a domain name added to it, for example, `dbserv.xxx.companyname.com`.
2. In the **SID** (Oracle System Identifier) field, enter the name of the database instance that will be used for the schema repository.
3. In the **User Name** field, enter the user name you created for the database.
4. In the **Password** field, enter the password for the user name.
5. In the **Connect Options** field, the default **LOB_TYPE** is **CLOB** when creating a new schema repository or user database.

Note: In the **Connect Options** field the names of the parameters are not case sensitive, but the values are case sensitive. Arguments must be separated by semicolons, with no spaces in between.

If you have ClearQuest clients that were installed with a ClearQuest release prior to version 2003.06.13, when using a ClearQuest version 2003.06.13 client, you can use the **Connect Options** field to enter options that override the database property entries and allow those clients to connect.

The Oracle arguments that can be entered in the **Connect Options** field are **HOST=;** **SID=;** **CLIENT_VER=;** **SERVER_VER=;** **LOB_TYPE=;** **PORT=;**.

Valid entries for **CLIENT_VER** are 8.0, 8.1, and 9.2.

Valid entries for **SERVER_VER** are 8.0, 8.1, 9.2, and 10.1.

If the port number of the database is different from the default for Oracle, which is 1521, then the port number should also be entered in this field, in the form **PORT=XXX**.

In the **Connect Options** field the default value is **LOB_TYPE=CLOB** (Character Large Object). **LONG** is an alternate selection, but **CLOB** is recommended provided all clients are at version 2003.06.00 or higher; prior versions of ClearQuest did not support CLOB. CLOB is Oracle's preferred method for storing large objects and it simplifies the way database administrators set up searching on multiline text fields. See Oracle's documentation for further information on the differences between CLOB and LONG datatypes.

Setting database properties for SQL Server

Prior to ClearQuest version 2003.06.13, the fields shown on the database properties page for SQL Server were:

- **Vendor (SQL_SERVER)**
- **Physical Database Name**
- **Database Server Name**
- **Administrator Name**
- **Administrator Password**
- **Read/Write User Name**
- **Read/Write User Password**
- **Read-Only User Name**
- **Read-Only User Password**

In ClearQuest release version 2003.06.13, the fields shown on the database properties page for SQL Server are:

- **Vendor (SQL_SERVER)**
- **Physical Database Name**
- **Database Server Name**
- **Administrator Name**
- **Administrator Password**
- **Connect Options**

Note, there are no longer any fields for **Read/Write User Name**, **Read/Write User Password**, **Read-Only User Name**, or **Read-Only User Password**. These fields are

not necessary, because in the vast majority of cases administrators set them to the same values as the **Administrator Name** and **Administrator Password**. There is also a new **Connect Options** field.

After **SQL_Server** has been selected in the **Vendor** field, the remaining fields should be completed as follows:

1. In the **Physical Database Name** field, enter the name of the database for the schema repository.
2. In the **Database Server Name** field, enter the machine name of the server where the SQL Server database is running.
3. In the **Administrator Name** field, enter the user name you created for the SQL Server database.
4. In the **Administrator Password** field, enter the password for the user name.
5. Leave the **Connect Options** field empty if you are going to use the default port number and database instance for SQL Server on that machine. ClearQuest will determine these automatically.

The options that can be entered in the **Connect Options** field for SQL Server are **PORT** and **INSTANCE**.

Note: In the **Connect Options** field the names of the parameters are not case sensitive, but the values are case sensitive. Arguments must be separated by semicolons, with no spaces in between.

SQL Server uses port number 1433 as the default port. If the port number of the database is different from the default, then the port number should be entered in this field in the form **PORT=XXX**. For SQL Server databases on Windows, you can specify a different name for the instance in the form, **INSTANCE=INSTANCE_NAME** **YYY**.

Note: If you will be accessing a SQL Server databases from ClearQuest UNIX clients, the **INSTANCE=** parameter is not supported for UNIX clients. Instead, you can specify a different name for the instance by specifying a different port number.

Determining connection compatibility

The ClearQuest clients connection information for version 2003.06.13 is dependent upon database drivers. Depending on the database vendor that is being accessed, the connection information may be compatible with no modifications between version 2003.06.13 and ClearQuest clients from a version prior to 2003.06.13. However, under some conditions, you may need to modify connection information to make it compatible between version 2003.06.13 and clients from a version prior to 2003.06.13.

ClearQuest database vendor	Connection information
Access, all supported versions	Compatible in all cases between version 2003.06.00 and version 2003.06.13 ClearQuest clients
SQL Anywhere, all supported versions	Compatible in all cases between version 2003.06.00 and version 2003.06.13 ClearQuest clients
DB2, all supported versions	Compatible in all cases between version 2003.06.00 and version 2003.06.13 ClearQuest clients

Oracle, all supported versions	<p>For version 2003.06.13, the Connect Options field has changed and the SERVER= and SID= values replace the SQL*Net Alias value used in connection information for versions prior to version 2003.06.13.</p> <p>Existing database connections that include valid HOST= and SID= values in the connection options will continue to work with version 2003.06.13 clients provided the default Oracle port of 1521 is utilized and there is no PORT= value specified.</p> <p>If this is not the case, then the connection information must be modified by upgrading the connection. For more information, see “Setting database properties for Oracle” on page 41. and “Before and after example of Oracle connection information on Windows” on page 46</p>
SQL Server, all supported versions	<p>For version 2003.06.13, a Connect Options field has been added.</p> <p>If the SQL Server connection uses the default SQL Server port, then there will be no value in the Connect Options field and there is complete compatibility for clients using version 2003.06.13 clients and earlier versions.</p> <p>If a nonstandard port is used, then see “Setting database properties for SQL Server” on page 42 and “Before and after example of SQL Server connection information on Windows” on page 47 for more information.</p>

Upgrade scenarios for ClearQuest

When upgrading ClearQuest to version 2003.06.13, you can perform an upgrade using either of these two scenarios:

- **Client-only upgrade:** In this scenario, only the ClearQuest clients are upgraded to version 2003.06.13 and the ClearQuest database remains the same. For more information, see “Upgrading ClearQuest clients.”
- **Clients and database upgrade:** In this scenario both the ClearQuest clients and the vendor database are upgraded. For more information, see “Upgrading clients and vendor databases” on page 49.

Note: The procedures in this chapter assume that the schema repository and the user databases are located on the same database server and that you are upgrading in an environment that does not use MultiSite. To upgrade from a ClearQuest MultiSite environment, read about synchronizing replicas in the *IBM Rational ClearQuest MultiSite Administrator's Guide*.

Upgrading ClearQuest clients

Before beginning the upgrade ClearQuest clients, you must first determine if the existing ClearQuest connection information is compatible between releases. For more information on assessing compatibility, see “Determining connection compatibility” on page 43.

If the connection is compatible:

1. Upgrade ClearQuest clients to 2003.06.13; clients installed with an earlier version of ClearQuest can continue to use their existing database connection until the client is upgraded.
2. (Optional) After a ClearQuest client is upgraded to version 2003.06.13, if a database client was previously used to connect to an Oracle database, uninstall the database client software.

If the connection is incompatible :

1. Upgrade the ClearQuest administration client host running on Windows to version 2003.06.13. After upgrading, the administrator must edit the connection information for the schema repository, using the ClearQuest Maintenance Tool to create a compatible connection for both version 2003.06.13 and clients from a version prior to 2003.06.13.

To do so, run the ClearQuest Maintenance Tool and select **Schema Repository > Upgrade> Selected Connection**.

For more information, see “Modifying connection options for Oracle” on page 45 and “Modifying connection options for SQL Server” on page 47.

2. Begin upgrading ClearQuest clients to 2003.06.13. New version 2003.06.13 ClearQuest clients and clients installed with an earlier version of ClearQuest can use the modified connection.

Note: Although the ClearQuest Maintenance Tool version .2003.06.13 will not correctly map the connect options arguments to the fields on the database properties dialog box, both ClearQuest version 2003.06.13 and clients installed with an earlier version can use the connection.

3. (Optional) After all ClearQuest clients upgrade to version 2003.06.13, the ClearQuest administrator can upgrade the properties of the database to clean up the connection information. Each version 2003.06.13 ClearQuest client will have their connection information updated at the next login.
4. (Optional) Once a client has been upgraded to version 2003.06.13, the database client that was previously used by Oracle to connect to the database can be uninstalled.

Modifying connection options for Oracle

To connect older clients to a ClearQuest database created with version 2003.06.13:

- The server name must match the **SQL*Net** name specified for clients from a version prior to 2003.06.13.
- The **Connect Options** field must contain the **SERVER_VER** and **CLIENT_VER** values that the earlier release needs.
- The **Connect Options** field must contain none of the new arguments introduced for version 2003.06.13.
- The SQL*Net alias must be configured for the proper **Server=** and **SID=** values. If a port number is entered in the **Connect Options** field, you can access a nondefault Oracle port from a version 2003.06.13 client, but clients installed from any versions prior to 2003.06.13 will be unable to connect.

Note: In some cases you may need to run the `installutil registerconnectoptions` subcommand to update the connection settings on a per-client and per-session basis. For more information, see the *IBM Rational ClearQuest Documentation Supplement*.

Before and after example of Oracle connection information on Windows

An example of an Oracle connection created in version 2003.06.00 and earlier might look like the following example. In this example, the SQL*Net Alias ORA1a1ias points to a SID of CQ1 on server ORA1, port 1521; and the SQL*Net Alias ORA2a1ias points to a SID of CQ2 on server ORA2, port 1521.

Connection information for the schema repository:

Version 2003.06.00 connection information	Value
Vendor	ORACLE
SQL*Net Alias	ORA1a1ias
User Name	susan
Password	*****
Connect Options	HOST=ora1.example.com;SID=CQ1; SERVER_VER=8.1;CLIENT_VER=8.1; LOB_TYPE=LONG

Connection information for the user database:

Version 2003.06.00 connection information	Value
Vendor	ORACLE
SQL*Net Alias	ORA2a1ias
User Name	sam
Password	*****
Connect Options	HOST=ora2.example.com;SID=CQ2; SERVER_VER=8.1;CLIENT_VER=8.1; LOB_TYPE=LONG

If the same connection is viewed using the ClearQuest Maintenance Tool in version 2003.06.13:

Version 2003.06.13 connection information	Value
Vendor	ORACLE
Server	ORA1a1ias
SID	susan
User Name	susan
Password	*****
Connect Options	HOST=ora1.example.com;SID=CQ1; SERVER_VER=8.1;CLIENT_VER=8.1; LOB_TYPE=LONG

Connection information for the user database:

Version 2003.06.13 connection information	Value
Vendor	ORACLE
Server	ORA2a1ias
SID	sam

User Name	sam
Password	*****
Connect Options	HOST=ora2.example.com;SID=CQ2; SERVER_VER=8.1;CLIENT_VER=8.1; LOB_TYPE=LONG

This connection will work in version 2003.06.13 because the **HOST** and **SID** arguments in the **Connect Options** field are the same values used for the connection in version 2003.06.00 and will override the **Server** and **SID** values in the main part of the connection. If the connect options had not had the **HOST** and **SID** values filled in correctly, this connection would not work.

Modifying connection options for SQL Server

The port number must be entered in the **Connect Options** field if the number is different from the default 1433.

Note: In some cases it may be necessary to run the `installutil registerconnectoptions` subcommand to change the connection settings on a per-client and per-session basis. The user should run `installutil registerconnectoptions` to override the connection parameters. For more information, see the *IBM Rational ClearQuest Documentation Supplement*.

Before and after example of SQL Server connection information on Windows

An example of a SQL Server connection created in version 2003.06.00 and earlier might look like the following example. In the example, the schema repository max10 points to the database server K123.

Version 2003.06.00 connection information	Value
Vendor	SQL_SERVER
Physical Database Name	max10
Database Server Name	K123
Administrator Name	jeff
Administrator Password	*****
Read/Write User Name	jeff
Read/Write Password	*****
Read-only User Name	jeff
Read-Only Password	*****

For the user database:

Version 2003.06.00 connection information	Value
Vendor	SQL_SERVER
Physical Database Name	max11
Database Server Name	K123
Administrator Name	rick
Administrator Password	*****
Read/WriteUser Name	rick

Read/Write Password	*****
Read-only User Name	rick
Read-Only Password	*****

If the same connection is viewed using the ClearQuest Maintenance Tool in version 2003.06.13:

Version 2003.06.13 connection information	Value
Vendor	SQL_SERVER
Physical Database Name	max10
Database Server Name	K123
Administrator Name	jeff
Administrator Password	*****
Connect Options	

For the user database:

Version 2003.06.13 connection information	Value
Vendor	SQL_SERVER
Physical Database Name	max11
Database Server Name	K123
Administrator Name	rick
Administrator Password	*****
Connect Options	

This connection works in this example because the default port value of 1433 is the same for both versions of ClearQuest. Although the port setting is not displayed, ClearQuest version 2003.06.13 uses the default port. The default port is established when you install SQL Server. If you are using a different port other than the default, you can specify the port number in the connect options field by entering **PORT=XXX**.

ClearQuest version 2003.06.13 also supports multiple instances. If you want to create more instances of SQL Server on that same host, they become *named* instances and are assigned unique port numbers. However, only one instance can run on one port. If you need more than one named instance, you can create multiple connections with each connection using a different value for the **PORT=XXX** connection option.

Adjusting Oracle code pages when migrating ClearQuest version 2003.06.13 clients

If you are using Oracle databases and upgrading to ClearQuest version 2003.06.13 clients, you may need to adjust the code page for the Oracle database. Most English and Latin-1 language Oracle servers come with the codepage set to a default of WE8ISO8859P1. If you were using Oracle with clients from a version prior to 2003.06.13, you had to install Oracle clients on the same systems. This client also used the default Oracle code page of WE8ISO8859P1. With ClearQuest version 2003.06.13 clients, you no longer need to install Oracle clients on the same systems.

However, if your Oracle data code page on the server is set to WE8ISO8859P1, you may have to make an adjustment. If you attempt to set a codepage to 1252 from an English or other ANSI-Latin 1 language for a ClearQuest Windows client that communicates with an Oracle server, and you receive an error message stating that the codepage isn't supported, you should do the following:

1. Determine the NLS_CHARACTERSET value of the database.
2. If the NLS_CHARACTERSET value of the database is set to WE8ISO8859P1, then either:
 - Set the ClearQuest code page value to ASCII, or
 - Use the **Alter Database** Oracle command to change the code page setting or the Oracle database instance

Converting Oracle databases from LONG to CLOB

For Oracle databases, the datatype used to store large objects can be set to either **LONG** or **CLOB**. **CLOB** is the default because it allows for reporting against multiline fields and improves management of data that requires multibyte fields. To convert an existing database from using the **LONG** datatype to using the **CLOB** datatype, you must use the Move database operation from the ClearQuest Maintenance Tool (to move the schema repository) or the ClearQuest Designer (to move a user database). To move a database:

1. From the main menu bar of the ClearQuest Maintenance Tool or the ClearQuest Designer, select the database and then click **Schema Repository > Move** from the ClearQuest Maintenance Tool, or click **Database > Move User Database** from the ClearQuest Designer.
2. If you are using the ClearQuest Maintenance Tool, type your logon information in the **Logon Name** and **Password** fields, click **Next** and select Oracle and then enter the **Server**, **SID**, **User Name**, and **Password**. In the **Connect Options** field, set the value of the **Connection Option** for **LOB_TYPE=CLOB** and also add any other connection options that are needed for providing compatibility in your upgrade scenario.
3. If you are using the ClearQuest Designer, in the dialog box that opens, select the user database name and click **Properties**. Enter the **Server**, **SID**, **User Name**, and **Password**. In the **Connect Options** field, set the value of the **Connection Option** for **LOB_TYPE=CLOB** and also add any other connection options that are needed for providing compatibility in your upgrade scenario.
4. Click **Move**. This moves the database and the new copy uses the CLOB datatype.

Upgrading clients and vendor databases

Some organizations may upgrade to a new vendor database at the same time as they upgrade ClearQuest clients to ClearQuest version 2003.06.13. The database upgrade may be to a new version of the same vendor or to a different database vendor on the same or different database host.

For more information on supported database vendors for ClearQuest version 2003.06.13, see the *IBM Rational Server Products Installation Guide* and the *IBM Rational ClearQuest Family of Products Installation Guide* on the IBM® Publications Center at: <http://www.ibm.com/shop/publications/order>.

Note: If you upgrade a vendor database to new version or change to a different database vendor, you must move your existing schema repository and user databases to use the new database

Before beginning a vendor database and ClearQuest upgrade, you must first determine if the existing ClearQuest connection information is compatible between releases. For more information, see “Determining connection compatibility” on page 43.

If the connection is compatible:

1. Upgrade the ClearQuest administration client host to version 2003.06.13.
2. The administrator uses the administrator client to upgrade the ClearQuest packages, test the databases and checks the changes into the schema repository.
3. The administrator installs a supported vendor database on a supported database server host.
4. The administrator uses the ClearQuest Maintenance Tool to migrate schema repository to use the new database.

Note: If upgrading an Oracle database, the database can be converted from **LONG** to **CLOB** support. For more information, see “Converting Oracle databases from LONG to CLOB” on page 49.

5. The administrator uses the ClearQuest Designer to move previous user databases to the new location.

Note: When the database is moved to a different host, the administrator must use the ClearQuest Maintenance Tool to create a profile and then have all ClearQuest clients upgraded to version 2003.06.13 import the profile.

6. Begin upgrading ClearQuest clients to version 2003.03.13. Version 2003.06.00 ClearQuest clients can continue to use the existing connection record until all ClearQuest clients are upgraded to 2003.06.13.
7. (Optional) After a client is upgraded to version 2003.06.13, if a database client was previously used for Oracle to connect to the database, uninstall the database client software.

If the connection is incompatible:

1. Upgrade the ClearQuest administration client host running on Windows to version 2003.06.13. After upgrading, the administrator must edit the connection information for the schema repository, using the ClearQuest Maintenance Tool to create a compatible connection for version 2003.06.00 and version 2003.06.13 clients. To do so, run the ClearQuest Maintenance Tool and click **Schema Repository > Upgrade > Selected Connection**. For more information, see “Modifying connection options for Oracle” on page 45 and “Modifying connection options for SQL Server” on page 47.
2. The administrator installs supported vendor database on a supported database server host.
3. The administrator uses the ClearQuest Maintenance Tool to migrate schema repository to use the new database.

Note: If upgrading an Oracle database, the database can be converted from **LONG** to **CLOB** support. For more information, see “Converting Oracle databases from LONG to CLOB” on page 49.

4. The administrator uses the ClearQuest Designer to move previous user databases to the new location.

Note: When the database is moved to a different host, the administrator must use the ClearQuest Maintenance Tool to create a profile and then have all ClearQuest clients upgraded to version 2003.06.13 import the profile.

5. Begin upgrading all ClearQuest clients to 2003.06.13 . Version 2003.06.13 ClearQuest clients and clients installed with an earlier version of ClearQuest can use the modified connection.

Note: Even though both version 2003.06.13 and version 2003.06.00 ClearQuest clients can connect to the database, the Maintenance Tool will look wrong for upgraded clients, but will look normal to pre-upgrade clients.

6. (Optional) After all ClearQuest clients upgrade to version 2003.06.13, the ClearQuest administrator can upgrade the properties of the database to clean up the connection information. Each version 2003.06.13 ClearQuest client will then have their connection information updated at the next login.
7. (Optional) After upgrading a client to version 2003.06.13, if a database client was previously used to connect to the Oracle database, it can be uninstalled.

Considerations when upgrading Crystal Reports

ClearQuest version 2003.06.13 allows you to use the Crystal Reports v.10 and v.8.5 to author and run reports. With this release, the deployment of Crystal Reports is simplified, because the files needed to run and view reports are installed automatically with the ClearQuest Windows clients. The installed files are based on Crystal Reports v.10. In addition, Rational provides a version of Crystal Enterprise Embedded Edition v.10 that you can install for use with the New ClearQuest Web client.

However, to author new report formats and to edit existing report formats, you will need to acquire a copy of Crystal Reports Professional edition or other Crystal Editions that contain Crystal Designer, v.10. To acquire a copy of Crystal Reports Professional Edition, contact Business Objects at www.businessobjects.com or www.businessobjects.com/ip1/default.asp?destination=RationalTeamTools =EN=crystalreports=Professional=10.0

Coexistence between Crystal Reports versions and the ClearQuest Windows client

Reports created with Crystal Reports version 8.5 can be run, viewed, and printed by ClearQuest Windows clients, version 2003.06.00 and prior. However, reports authored with Crystal Reports v.10 can not be run or viewed by ClearQuest Windows clients prior to version 2003.06.13 (that is, clients with the Crystal Reports 8.5 software). Therefore, if new reports are going to be authored with Crystal Reports v.10, you will need to upgrade all ClearQuest Windows clients to ClearQuest version 2003.06.13 before authoring new reports with Crystal Reports v.10

This section discusses how to continue to use Crystal Reports 8.5 Developers edition to author reports that will be read with ClearQuest version 2003.06.13 clients by registering two .dll files. It will also discuss how to install a later version of Crystal reports on a system where these two files were registered.

Continuing to use Crystal Reports Developers Edition v.8.5 to author reports

If you install ClearQuest version 2003.06.13 on a Windows client that has Crystal Reports Developers Edition v.8.5 installed, the ability to author new reports on that client will be disabled.

To continue using Crystal Reports Developers Edition v.8.5 on that client, you must either:

1. Reinstall Crystal Reports Developers Edition v.8.5 on that client.
2. Or, register two .dll files from the Crystal Reports Developers Edition v.8.5 as described in the following procedure.

To register the two .dll files:

1. Close the ClearQuest Windows client if it is running.
2. Find the path to the crax.dll file. It should be in the folder where Crystal Reports Developers Edition v.8.5 is installed (for example, c:\Program Files\SEAGATE SOFTWARE\REPORT DESIGNER COMPONENT\craxdrt.dll).
3. From the **Start** menu, click **Run**.
4. In the Run box, enter the following command and full name and click **OK**.
regsvr32 "c:\Program Files\SEAGATE SOFTWARE\REPORT DESIGNER COMPONENT\craxdrt.dll"
5. Find the path to the cpeaut32.dll file. It should be in the Windows **System** folder (for example, on Windows 2000, in c:\winnt\system\).
6. From the **Start** menu, click **Run**.
7. In the Run box, enter the following command and full pathname and click **OK**.
regsvr32 "c:\winnt\system\cpeaut32.dll"

Once you complete these steps, you can invoke the Crystal Reports v.8.5 viewer and author report formats from ClearQuest using Crystal Reports Developer Edition v.8.5.

Installing a later version of Crystal Reports on a ClearQuest client where the .dll files have been registered

If you want to install a later version of Crystal Reports on the same ClearQuest Windows client where you have re-registered the two .dll files from Crystal Reports Developers Edition v.8.5, you must unregister those two .dll files before installing the new version of Crystal Reports. Then you need to install the new version of Crystal Reports and register a file from the new version.

To unregister the two .dll files, follow the same procedures described in the "Continuing to use Crystal Reports Developers Edition v.8.5 to author reports" section, but append /u to the end of the command.

For example, before installing Crystal Reports Professional Edition v.10:

1. Close the ClearQuest Windows client if it is running.
2. From the **Start** menu, click **Run**.
3. In the Run box, enter the following command and full name and click **OK**.
regsvr32 "c:\Program Files\SEAGATE SOFTWARE\REPORT DESIGNER COMPONENT\craxdrt.dll"/u
4. From the **Start** menu, click **Run**.
5. In the Run box, enter the following command and full pathname and click **OK**.
regsvr32 "c:\winnt\system\cpeaut32.dll"/u
6. Install Crystal Reports Professional Edition v.10.
7. Search for the crax.dll file from the Crystal Reports Professional Edition v.10 folder (for example, c:\Program Files\Common Files\Crystal Decisions\2.5\bin).
8. From the **Start** menu, click **Run**.

9. In the Run box, enter the following command and full pathname and click **OK**.
- ```
regsvr32":\Program Files\Common Files\Crystal
Decisions\2.5\bin\craxdrt.dll"
```

## Considerations when upgrading using ClearQuest MultiSite

The `mkreplica -import` command already accepts an argument for `connect_options` when using Oracle with version 2003.06.13; you can use this to specify **SERVER\_VER=9.2** for Oracle 9i or **SERVER\_VER=10.1** for Oracle 10.

**Note:** One site can use Oracle 9i or Oracle 10 and interact with sites that use other versions of Oracle, or other vendor databases, in the same way as supported by ClearQuest MultiSite in version 2003.06.00

In version 2003.06.13, the `multiutil` command has changes to support using DataDirect for SQL Server. The `multiutil` commands now accept a `connect_options` argument for SQL Server as they currently do for Oracle. For SQL Server, `connect_options` are used only for nonstandard DBMS installations, such as an alternate port or running multiple versions on a single server, so the `connect_options` argument can often be omitted from the `multiutil` command. For more information, see the *IBM Rational ClearQuest Documentation Supplement*.

## Considerations for ClearQuest integrations when upgrading

To use ClearQuest integrations with all Rational products, except ClearCase and ClearCase LT, all of the clients participating in the integration must be at the same version.

### UCM integration for ClearCase with ClearQuest

When upgrading, the ClearCase integration with ClearQuest supports the following versions:

| ClearQuest version                                                | ClearCase version                                                                                                        | UCM package revision number | ClearQuest database level |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-----------------------------|---------------------------|
| 2001A.04.00<br>2001A.04.20<br>2002.05.00                          | 4.2                                                                                                                      | 2.0, 3.0, 4.0               | 3, 5                      |
| 2003.06.00 and higher                                             | 4.2 ClearCase only, not ClearCase LT                                                                                     | 2.0, 3.0, 4.0               | 3, 5                      |
| 2001A.04.00<br>2001A.04.20<br>2002.05.00<br>2003.06.00 and higher | 2002.05.00 (ClearCase only, not ClearCase LT). ClearCase LT version needs to be the exact same as the ClearQuest version | 2.0, 3.0, 4.0               | 3, 5                      |
| 2003.06.00 and higher                                             | 2003.06.00 and higher                                                                                                    | 2.0, 3.0, 4.0, 5.0          | 3, 5                      |

## Considerations when upgrading New ClearQuest Web

For information on upgrading New ClearQuest Web, see the *IBM Rational New ClearQuest Web Installation Guide*.

## Consideration when upgrading ClearQuest for Japanese

If you are using Oracle 9.2 with Japanese ClearQuest version 2003.06.13 and planning to use CLOB data, you must upgrade version 2003.06.12 Japanese clients to version 2003.06.13 for reporting support when using CLOB data.

## 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 IBM Rational Suite environment, you probably use at least one of these packages.

Note that no new packages have been introduced between ClearQuest version 2003.06.00 and version 2003.06.13. The only case in which you would need to upgrade packages, is if you are starting from a version of ClearQuest that is earlier than 2003.06.00.

This section explains how to upgrade these packages. At a high level, the procedure is as follows:

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 55.

This section does not provide information about the features that each package implements or about the dependencies among packages. For more information about ClearQuest packages, see the *IBM Rational ClearQuest Administrator's Guide*.

### Applying package upgrades

To upgrade ClearQuest packages:

1. Start the ClearQuest Designer:
  - a. Click **Start > Programs > Rational Software > Rational ClearQuest > Rational ClearQuest Designer**.
  - b. Log on with Super User or Designer privileges.

A message that the ClearQuest data code page value for the repository is not set may appear.
  - c. If the ClearQuest data code page message opens, place a checkmark next to this step to remind yourself later to take action. Click **OK**.
  - d. If the Open Schema Wizard starts, click **Cancel**. (You can control whether the wizard opens by clearing or setting the **Show this wizard at startup** check box.)
2. On the Designer menu, click **Package > Upgrade Installed Packages** to start the Upgrade Installed Packages wizard.
3. On the Select a schema to upgrade page, select the schema you want to upgrade from the list of available schemas.

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. Record the name of the file here for later reference:

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

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

1. 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.
2. Validate the changes you made. On the Designer menu, click **File > Validate**. [Optional] To test the changes on a test database, click **File > Test Work**.
3. Check in the schema. On the Designer menu, click **File > Check In**.
4. Repeat this procedure from Step 3 for additional schemas that need upgrading.

## IBM Rational Suite AnalystStudio Upgrade

Some features included in IBM Rational Suite AnalystStudio have duplicate component IDs, which causes problem with upgrades to this product (for example, necessary files might not be updated correctly). If you are upgrading IBM Rational Suite AnalystStudio v2003.06.01 to this service release, you must uninstall AnalystStudio before installing v2003.06.13 of this product. For more information, see the *IBM Rational Rose Release Notes* (version2003.06.13).

## Upgrading from Rose RealTime 2003.06.00

If you are installing Rose RealTime v2003.06.13 as an upgrade to an existing installation of Rose RealTime 2003.06.00, the Rose RealTime TargetRTS files may not update (install) correctly. In order to avoid unpredictable results, uninstall Rose RealTime v2003.06.00 before installing Rose RealTime v2003.06.13 or greater.

## Applying schema changes to user databases

This section describes how to apply schema changes to your user databases. Perform these steps now. It is good practice to always apply schema changes after you make changes in the ClearQuest Designer, such as applying packages. Applying the schema changes pushes them to the user databases, and takes only a few minutes for each 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 starts, click **Cancel**.
3. On the Designer menu, click **Database > Upgrade Database**.  
A message warns you that this action cannot be reversed, recommends that you back up your databases before proceeding, and asks you if you want to continue. If you have backed up your databases, click **Yes**.
4. Select the user database from the list in the Upgrade Database Wizard. Click **Next**.
5. On the next page, select from the list the version of the schema (typically the latest) to which you want 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**. On the Designer menu, click **File > Open Schema**, and check in the schema. You can now restart this process.

6. Click **Finish**. When the upgrade completes, a message that the database has been upgraded successfully appears.
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 1c on page 54 on page 54). 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 *IBM ClearQuest Administrator's Guide*.

## Raising the ClearQuest feature level

This section describes how to raise the ClearQuest feature level.

- If you want to enable the latest features in ClearQuest, raise the feature level. In Version 2003.06.13, these new features are Rational ClearQuest MultiSite (introduced in 2001A.04.20) and an improved security model (introduced in Version 2001A).
- If you do not want to enable these new features, do not raise the feature level. Also, if you have already upgraded to the ClearQuest feature level introduced in Version 2001A, raise the feature level again.

Raising the ClearQuest feature level can take several hours. The upgrade changes the schema repository and all 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 raise the feature level at any time except while upgrading a version of IBM Rational Suite. You may want to perform the work now. Alternatively, you may want to finish the other tasks in the Suite upgrade, allow users to resume their work, and raise the ClearQuest feature level later. Both options are possible, but 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 look in the **feature level** field.
- For a user database, open the **db\_global** table and look in 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 raising the ClearQuest feature level in a ClearQuest MultiSite environment, see the *IBM Rational ClearQuest MultiSite Administrator's Guide*.

### Overview of upgrading the ClearQuest feature level

As part of raising the ClearQuest feature level, IBM strongly recommends that you perform the upgrade on a test system first, and 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 6 describes these conditions and how to resolve them.

Table 6. 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 <b>installutil unlockscemarepo</b> and <b>installutil unlockuserdb</b> commands in the <i>IBM Rational ClearQuest Administrator's Guide</i> . |
| You have customized your schema to include Record Types or fields that have a <b>ratl_</b> prefix. | Contact IBM Rational Customer Support. They will explain how to correct this condition.                                                                                                                  |

### Creating a test bed

A test bed is a safe, nonproduction area where you can test your changes. IBM recommend that you perform the upgrade on the test bed 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 5.  
Upgrading the ClearQuest feature level changes the underlying structure of your data and schemas. IBM strongly recommends that you create a backup, if you have not done so, so that you can revert to it if necessary.
2. Create new, empty vendor databases for each schema repository and user database, as described in the chapter about configuring vendor databases in the *IBM Rational Server Products Installation Guide*. Create the new databases in a new test directory or on a test server. This section refers to these new databases as the *test bed*.

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

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. If your vendor database has such a tool, use it.
  - 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 the command line utilities in the *IBM 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 unlockscemarepo** and **installutil unlockuserdb** commands in the *IBM Rational ClearQuest Administrator's Guide*.
5. For each database in the test bed, create another new empty vendor database. These are the databases that you upgrade to. This section refers 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. To upgrade 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. IBM recommends that you use the default connection, 2003.06.13.
1. On the ClearQuest Maintenance Tool menu, click **Schema Repository > Upgrade > Selected Connection**.
2. At the prompt to upgrade user databases, click **Yes** to continue.
3. Log in with Super User privileges.
4. Enter the properties of the schema repository to upgrade to (the empty database you created in the test upgrade set), and click **Next**.
5. Enter the properties for the first user database you are upgrading to (the empty databases you created in the test upgrade set), and 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.

6. Verify that the upgrade process completed successfully:
  - a. When the upgrade process completes, read the status message carefully to confirm 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 through the entire state model to be sure the upgrade is working correctly.

## Creating production databases

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

To upgrade production databases:

1. Create empty vendor databases for each schema repository and user database, as described in the chapter about configuring vendor databases in the *IBM Rational ClearQuest Administrator's Guide*. Create the new databases on the production server. This section refers to these new databases as the *production upgrade set*.

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

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. IBM recommends that you use the default connection, 2003.06.13.
3. On the ClearQuest Maintenance Tool menu, click **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), and 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), and 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, read the status message carefully to confirm 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 through 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 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 IBM Rational Suite. Datastores created with an earlier version of Rational software are not compatible with the current version, 2003.06.13. 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 the location of Rational projects" on page 30.
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 5 on page 37 on page 37):  
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 "Upgrading ClearQuest" on page 40.

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.

**Reinstating the RProj Field when upgrading to the Enhancement Request schema:** When upgrading to the Enhancement Request schema that is included in 2003.06.12, if your original Enhancement Request record form contained the RProj field, it will be overwritten. This field is required for ClearQuest/RequisitePro integrations, on the Requirements tab of the Enhancement Request form. You must add the field back to the Main tab of the Enhancement Request form.

## 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 *IBM Rational Server Products Installation Guide* 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:
  1. 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.
  2. 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 IBM Rational Suite and ClearCase:
  1. Use ClearCase to check in the project's assets.
  2. 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, or if you have upgraded from a Rational repository to a Rational project, you can verify that the ClearQuest packages for your Rational project are correctly configured and upgraded:

1. 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 opens 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 30 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 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 *IBM Rational Server Products Installation Guide*.

### Upgrading ProjectConsole server software

To migrate data for use with ProjectConsole 2003.06.13, perform the following high-level tasks:

1. Install ProjectConsole, including all its components, and the ProjectConsole Web server component as part of an IBM Rational Suite installation. During this installation, SQL Anywhere 8, the report server, and collection agents are installed automatically.  
For more information, see the *IBM Rational Server Products Installation Guide*.
2. Restore from backup the files you saved before the upgrade.
3. Migrate data from an existing data warehouse that you created with an earlier version.
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 30, 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\common\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 earlier releases. 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.                                                                                                                           |
|                    | 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 <i>ProjectConsole repository</i> . |
|                    | 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 (described in “Upgrading SQL Anywhere server” on page 35).
- 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 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

### Use the ProjectConsole Maintenance Tool to work with new database driver parameters

In the 2003.06.13 release, IBM Rational ClearQuest uses a new set of DataDirect ODBC database drivers. As a result, some of the configuration parameters used to connect to a ClearQuest database were changed. Because ProjectConsole uses a ClearQuest database for the data warehouse, the parameters required to connect to a ProjectConsole data warehouse changed also.

The ProjectConsole Maintenance Tool has been upgraded to accommodate these new parameters. If you attempt to connect to an existing ProjectConsole repository, there is now a check box that enables you to modify the database connection parameters. If you are upgrading ProjectConsole from a previous release to the 2003.06.13 release, you may get an error during the upgrade indicating that ProjectConsole cannot locate the ProjectConsole database server (because you no longer have the proper configuration settings required to connect to the database). After you complete the upgrade, you must run the ProjectConsole Maintenance Tool and reconnect to your current ProjectConsole repository. On the database connections screen, enter all of the proper values.

## 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, TestManager, 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, TestManager, 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 v2003.06.13, 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 coexist on a single server” on page 76 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 TestManager 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 v2003.06.00 and later releases, 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 2003.06.13 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 2003.06.13 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 opens 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 Chapter 3, “Upgrading Web servers,” on page 73).
- 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 IBM 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 *IBM 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/rupeexchange](http://www.rational.net/rupeexchange)). 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 Japanese language systems

Because of changes in our installation technology, if you are upgrading from any release before v2003.06.00 must uninstall before you can install v2003.06.13. If you are running v2003.06.00, v2003.06.10, or v2003.06.12, you do not have to uninstall before installing v2003.06.13.

## Upgrading on a Japanese System

Read the following sections in this manual: Chapter 5, “Removing IBM Rational products,” on page 109 and Chapter 6, “Upgrading desktop systems,” on page 115. Then proceed with the upgrade as follows:

1. Back-up your data.
2. Uninstall all Rational products if you are upgrading from a release earlier than v2003.06.00..
3. Restart your system.
4. Install v2003.06.13 of your Rational products.
5. Import your saved data. To do this, refer to Chapter 6, “Upgrading desktop systems,” on page 115.

When you upgrade to v2003.06.13, all components for which a Japanese user interface is available will appear in Japanese.

---

## Chapter 3. Upgrading Web servers

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, you are using the Rational Web Platform (RWP), and you should be familiar with the material in this chapter:

- RequisitePro
- ProjectConsole
- ClearCase

For upgrade information about New ClearQuest Web, see *IBM Rational New ClearQuest Web Installation Guide*.

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

For information about configuring Requisite Web, see *IBM Rational Products Server Products Installation Guide*.

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

- Install the Rational Web Platform..
- 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 a Web service that uses the Rational Web Platform, prepare the environment as follows::

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 76 for more information.

Chapter 6, “Upgrading desktop systems,” on page 115 describes how to redirect a desktop browser to start using the new Web servers.

---

## 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:

```
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 78).

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 `fileccase-home-dir/config/ccweb/ccweb.conf` if you need to modify the default configuration of the ClearCase Web interface.

Do not confuse this file with the ClearCase Web interface support file for RWP. This support file is installed as `C:\Program Files\Rational Software\common\rwp\ccweb.conf` on Windows and `/opt/rational/common/rwp/conf/include/ccweb.conf` on UNIX. 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 how to set the ClearCase primary group in the *IBM Rational 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.

When users from multiple domains access the ClearCase Web interface, you must enable domain (described in the section about using proxy groups and domain mapping in Windows NT domains in the *IBM Rational 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 UNIX, these directories are normally created under  
`/var/adm/rational/clearcase/ccweb`.

On Windows, these directories are normally created under  
`C:\Program Files\Rational Software\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.

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 applets 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 coexist 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 76 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 on page 76, 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 IBM 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. It also includes information on configuring the ClearCase Web interface.

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](http://www.apache.org) . Additional information about the Tomcat servlet container is available at [jakarta.apache.org](http://jakarta.apache.org) .

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

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

---

## RWP installation directory

RWP is normally installed in one of the following directories:

- On Windows, `C:\Program Files\Rational\common\rwp`
- On UNIX, `/opt/rational/common/rwp`. If RWP is installed in another location, the installer creates the symbolic link `/opt/rational/common/rwp`, which points to the RWP installation directory.

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

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.
- `setclasspath.sh` controls the setting of the Tomcat classpath on UNIX.

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.

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 81.

## Configuration file reference versions

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

- On UNIX:
  - `rwp.conf.template`
  - `server.xml.template`
- On Windows:
  - `rwp.in.conf`
  - `server.in.xml`
  - `server2.in.xml`

The installation 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.

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 7 lists default port numbers, port uses, and the files in which the port numbers are defined.

*Table 7. Default RWP servlet engine ports*

| Port number          | Description                                                                         | Location                                                   |
|----------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------|
| 8009 (8010 on HP-UX) | Used for communication between RWP and the RWP servlet engine                       | <code>server.xml</code> , <code>workers.properties</code>  |
| 8010                 | Used for communication between RWP and the RWP ReqWeb servlet engine (Windows only) | <code>server2.xml</code> , <code>workers.properties</code> |
| 8005 (8006 on HP-UX) | RWP servlet engine shutdown port                                                    | <code>server.xml</code>                                    |

If any of these ports is used by another application on the RWP host, IBM recommends 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.jsp.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.jsp.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.

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 `rwpl.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.  
Any RWP log file may be piped to the `rotatelogs` command, as described in “Log rotation and log cleanup” on page 80.
- **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 8 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 8. RWP log levels

| LogLevel      | Messages logged                                                                          |
|---------------|------------------------------------------------------------------------------------------|
| <b>emerg</b>  | Emergency messages about events that may render the server inoperable (highest severity) |
| <b>alert</b>  | Conditions that should be corrected immediately                                          |
| <b>crit</b>   | Critical conditions such as hardware or system errors                                    |
| <b>error</b>  | All other errors                                                                         |
| <b>warn</b>   | Warning messages                                                                         |
| <b>notice</b> | Conditions that may require special handling                                             |
| <b>info</b>   | Informational messages (lowest severity)                                                 |
| <b>debug</b>  | 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](http://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 *IBM Rational 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.

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 one of the following programs to remove old log files:

On UNIX, the shell script cleanuplogs , located in the RWP bin directory

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

Use a scheduled-execution program supplied by the operating system (**cron**, for example, on UNIX, or **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

**Attention:** 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 ClearCaseWeb 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 81).

## To change the RWP user account on UNIX

On UNIX computers, RWP initially runs as **root** to obtain access to the required ports. It then changes its identity to that of a user with minimal privileges. The name and group of this user vary from platform to platform (for example, on Solaris it is typically **nobody.nobody** and on HP-UX it is **www.other**). To change this account on a UNIX computer:

1. Edit the User and Group lines in `rwplib.conf`. The following entries configure RWP to run as the user **rwplibuser.other**:  
User `rwplibuser`  
Group `other`
2. Edit the **su** command line in the RWP startup script `rwplib_startup` (located in the RWP `bin` directory). Change the specified user (the first parameter to the **su** command) to match the account you used in Step 1. Do not change anything else on the **su** command line:  
`su rwplibuser -c ...`
3. Stop and restart RWP.

---

## 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:

- **rwplib\_startup** starts RWP if it is not already running.
- **rwplib\_shutdown** stops RWP and any associated servlet engine processes.
- **rwplib\_restart** runs the **rwplib\_shutdown** and **rwplib\_startup** commands, in that order, to restart RWP.

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.** IBM recommends that you install RWP on a host that does not have to run any other Web servers. If this is impossible, 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 78) 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)

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](http://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 78). 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
```

For the ClearQuest Web interface, add the **ProxyPass** and **ProxyPassReverse** directives of the following form for the `ccweb` URL.

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

## Configuring URL redirection for Internet Information Server

If RWP must coexist 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 78) and then do one of the following procedures:

- 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 that if you create this directory as a subdirectory of the RWP installation directory, it will be deleted if RWP is reinstalled on the host.
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 [mod\\_ssl.org](http://mod_ssl.org) ; 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 [openssl.org](http://openssl.org).

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 UNIX, use this **openssl** command line:  
OpenSSL> **req -new -x509 -nodes \**  
**-keyout /opt/rational/common/rwp/conf/server.key \**  
**-out /opt/rational/common/rwp/conf/server.crt**
- On Windows, use this **openssl** command line:  
OpenSSL> **req -new -x509 -nodes -keyout ../conf/server.key \**  
**-out ../conf/server.crt**

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`  
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.

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 the configuration 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.

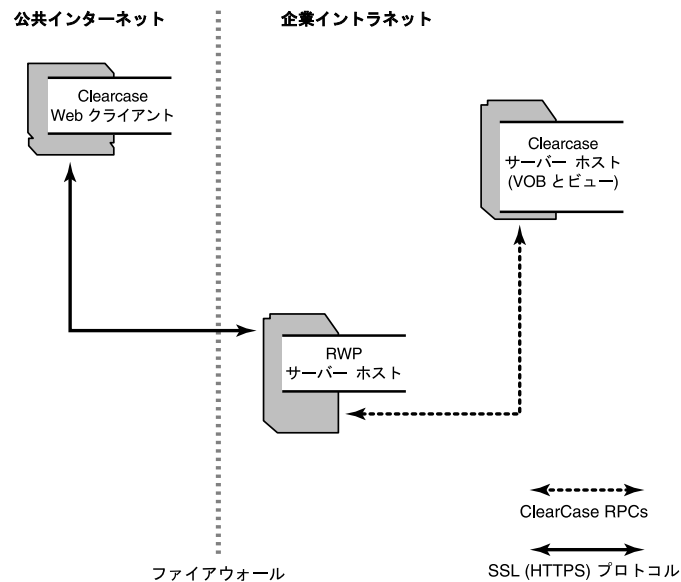


Figure 1. Secure communications between ccweb and RWP

---

## Other modifications to RWP

IBM does 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.



---

## Chapter 4. Installing IBM Rational products

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

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

---

### Deploying IBM Rational products

Use Table 9 to help you find the correct procedures for the deployment method that you have selected for your users. Read the referenced sections in the order in which they are listed.

Table 9. Deployment methods

Method	See
Install directly from the <i>IBM Rational Solutions for Windows</i> CD-ROM.	<ul style="list-style-type: none"><li>• “Using the Setup Wizard” on page 88.</li><li>• “Using the Custom Setup page” on page 89.</li><li>• “Specifying the IBM Rational license server” on page 91.</li><li>• “Installing IBM Rational products from the CD or Web download” on page 91.</li><li>• “Post-installation tasks” on page 102.</li></ul>
Download the software from the IBM Web site.	<ol style="list-style-type: none"><li>1. Go to <a href="http://www.rational.com/licensing">www.rational.com/licensing</a>.</li><li>2. Select <b>Rational Download and Licensing Center</b> and register with IBM Web membership.</li><li>3. Select <b>Full Product Versions</b> or <b>Patches and Service Releases</b>.</li><li>4. Select the Rational product that you want to install.</li><li>5. Select the version of the Rational product that you want to install. Click <b>Continue</b> to navigate to the <b>Download</b> page.</li></ol>
Create a release area and site defaults file using the Setup Wizard.	<ul style="list-style-type: none"><li>• “Using the Setup Wizard” on page 88.</li><li>• “Specifying the IBM Rational license server” on page 91.</li><li>• “Creating a release area and site defaults file” on page 93.</li></ul>
Create multiple site defaults files for a release area.	“Running the Site Preparation Wizard to create multiple sitedef files” on page 96.
Install from a release area on a network (using the standard configuration or customizing the client configuration on your desktop).	<ul style="list-style-type: none"><li>• “Installing IBM Rational products from a release area” on page 97.</li><li>• “Post-installation tasks” on page 102.</li></ul>

Table 9. Deployment methods (continued)

Method	See
Cancel a product installation.	"Canceling a product installation" on page 103, or "Canceling a silent installation" on page 101.
Reinstall the product (modify or repair).	"Reinstalling a product (modify or repair)" on page 104.
Set up a silent installation in a release area.	"Setting up silent installations of IBM Rational products" on page 100.
Perform a silent installation.	<ul style="list-style-type: none"><li>• "Performing a silent installation" on page 101.</li><li>• "Post-installation tasks" on page 102.</li></ul>
Remove a product.	Chapter 5, "Removing IBM Rational products," on page 109, or "Using the command line to remove a product" on page 101.
Use command line syntax.	"Command line syntax" on page 104.
Troubleshooting your installation.	"Rational Setup Wizard warnings and blocks" on page 105
Apply a service release.	"Applying service releases" on page 106.

---

## Using the Setup Wizard

Use the IBM Rational Setup Wizard to install IBM Rational Software products. The Setup Wizard arrives in your product shipment or in your software download.

### 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 most 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 MS-DOS prompt.

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

The installation log is not cumulative. Performing another installation or performing a repair or modify of an installation overwrites the existing log file. If you need to save the log, either copy it to a different location or rename it before you install another product.

### Before you start the IBM Rational Setup Wizard

The following general requirements are necessary to run the IBM 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 performance of the installation application 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 Setup Wizard uses C:\Program Files\Rational as the default installation path.
- The Setup Wizard installs Microsoft Core Components and some additional files on the same drive as the operating system (often the C:\ drive), even if you have specified an alternate drive for installation. These files can require 5-15 MB of temporary disk space on your hard drive.
- The Setup Wizard requires that you install all IBM 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.
- Do not install your Rational software to a network location under Windows 9.x. In certain situations, the installation needs to reboot to install files that have been locked by the operating system during installation. The reboot frees these files so that they can be replaced before they become locked again. Installing Rational software to a network location prevents this action from occurring because the network connections are not ready.
- Make sure that you have a current backup of your registry and system directories.
- When you install this release 2003.06.13 on a multiprocessor machine, disable the additional processors before installing the software. Consult your computer manufacturer for information on how to disable additional processors.
- Turn off any user interface managers or environments that run on Microsoft Windows.

## Registry size

You must increase the size of your Windows registry if you encounter the following system error during the installation. Let the service release installation complete, then increase your system's registry size by 10MB. For instructions, use your operating system's Help system:

"Your maximum registry size is too small. To ensure that Windows runs properly, increase your maximum registry size. For more information, see Help."

## Interrupting an installation

Interrupting an installation that is in progress may leave your computer in an indeterminate state. If you try to close the Setup wizard window while the installation is in progress, you are asked to confirm that you want to exit from the incomplete installation.

## Using the Custom Setup page

Use Table 10 to help you install the correct server features for your product when you install the product from the installation CD, from the IBM Web download package, 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 an IBM Rational Suite edition includes IBM Rational point products.

The **Custom Setup** page opens in Step 9 on page 92 of the procedure in “Installing IBM Rational products from the CD or Web download” on page 91.

For disk space requirements, see the “Have you met the prerequisites?” on page 9. Ignore the number displayed in **Custom Setup** and do not use the **Space** button on that page.

Table 10. Server custom setup in the 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, and so on.	<ul style="list-style-type: none"> <li>Does not install the ClearCase LT Server.</li> <li>Under each product in the Rational Suite, you will see features displayed as they are displayed in the rest of the <b>Custom Options</b> column.</li> </ul>
ClearCase LT server	ClearCase LT	<ul style="list-style-type: none"> <li>ClearCase Microsoft Visual Studio.NET</li> <li>Web server</li> </ul>	<ul style="list-style-type: none"> <li><b>Install from CD-ROM or from the Web:</b> Select the server and client software option for the ClearCase LT server in the <b>Client/Server</b> page.</li> <li><b>Create Release Area:</b> Select Siteprep ClearCase Server in the <b>Client/Server</b> page.</li> </ul>
ClearQuest Administration Tools	ClearQuest	Administration Tools	No other ClearQuest features are required.
ClearQuest MultiSite Administration Tools	ClearQuest	MultiSite Administration Tools	No other ClearQuest features are required.
ClearQuest database	SQL Anywhere 8.0.2	See Notes.	<ul style="list-style-type: none"> <li>Do not select Rational ClearQuest in the Setup Wizard’s <b>Product Selection</b> page. Install SQL Anywhere as a separate product.</li> <li>To install other vendor database software, read the vendor documentation.</li> <li>No ClearQuest features are required when you install the vendor database.</li> </ul>
ClearQuest MultiSite	Rational Shipping Server	See Notes.	No other ClearQuest features are required.
New ClearQuest Web	ClearQuest	ClearQuest Server and ClearQuest Web Application	To plan your New ClearQuest Web configuration, see <i>IBM Rational New ClearQuest Web Installation Guide</i> .
ManualTest Web Execution	Any Rational Suite, Robot, TeamTest, TestManager	<ul style="list-style-type: none"> <li>Web Server Components</li> <li>Rational ManualTest Web Execution</li> </ul>	You do not have to install any other IBM Rational testing product on the server. You can clear all the other features.

Table 10. Server custom setup in the Setup Wizard (continued)

To install	Choose product	Custom options	Notes
ProjectConsole software	Any Rational Suite	<ul style="list-style-type: none"> <li>ProjectConsole Web Server Components (includes Report Server and Data Collection Agent software)</li> <li>ProjectConsole Report Server and Data Collection Agent (Select this option if you want to configure additional Agents)</li> <li>ProjectConsole Template Builder</li> </ul>	<p>ProjectConsole is included in all Rational Suite editions.</p> <p>If you create a release area for Rational Suite, do not select the ProjectConsole Web server components. If you do select them, every user who installs from that release area will see the ProjectConsole Web server components (and Rational Web Platform) software loaded and running on their computers.</p>
RequisitePro Database	RequisitePro	<ul style="list-style-type: none"> <li>Database Setup</li> <li>Sample Projects</li> </ul>	If you are installing RequisitePro on a client, you do not need to install the Database Setup.
RequisiteWeb	RequisitePro	<ul style="list-style-type: none"> <li>Web Server Components</li> <li>Rational RequisiteWeb</li> </ul>	Do not install RequisiteWeb on a computer that has JIntegra already installed.

## Specifying the IBM Rational license server

You can provide a license server name in the 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 License Key Administrator (LKAD) start at the end of the installation.

## Installing IBM Rational products from the CD or Web download

This section describes a typical installation of a Rational product from the *IBM Rational Solutions for Windows* CD-ROM or from a software package that you downloaded from the IBM Web site. The Setup Wizard Program guides you through the software installation regardless of the deployment method. .

1. Log in as a user with Administrator rights on the local machine.
2. Insert the *IBM Rational Solutions for Windows* Disc 1 into the computer's CD-ROM drive. If you have downloaded the software using the Download Director or a zip file, click Setup.exe after you have extracted the files from either the Download Director or the zip file.

The 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 Setup Wizard opens. Click **Next** to start 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 IBM 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 103.
  8. On the **Destination Folder** page, specify the directory where you want to install the IBM Rational product. If you want to modify the location, click **Change**.  
 The installation Wizard requires that all IBM 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 89 for the product features that you want to install.  
 If you want to clear features or select new features, click **Help**.  
 Ignore the number displayed in **Custom Setup** and do not use 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 **Next** 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 opens if the Setup Wizard needs to restart your computer. If files required for the installation are in use during the IBM Rational Setup program and if the program needs to install shared components on your computer, the Setup Wizard may need to restart your computer.  
 Select **Restart** or **Don't Restart**. If you select **Don't Restart**, the Wizard reminds you that the installation cannot complete until Windows restarts.  
 After Windows restarts, the second part of the installation process starts automatically after you log on.
  13. When the **Setup Complete** page opens, review the current information related to new features and known issues in the readme file. In addition, you can view the IBM developerWorks 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 an IBM Rational product, such as ClearCase LT or ClearQuest, is installed on clients.

There are two methods for creating site defaults files. Both methods create a 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 Setup Wizard on the *IBM Rational Solutions for Windows* CD-ROM or click Setup.exe after you have extracted the files from either the IBM Download Director or the package zip file.. See “Using the Setup Wizard to create a release area and site defaults file” on page 93 for more information.

When you create a release area from CD-ROM, you may be required to replace the first CD-ROM after the second CD-ROM is finished copying.

- 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 96 for more information.

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

## Using the Setup Wizard to create a release area and site defaults file

This section explains how you can use the 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.

The maximum root path for the release area of an Enterprise deployment installation may be around 30-35 characters. This character limit changes depending on the product being installed and how long the paths are for the files each installs. You may also be different error messages when the root path is beyond the maximum.

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

If you plan to apply a service release to a release area, see the instructions at the end of the following procedure.

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 opens.

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

The Setup Wizard creates a shortcut to the site defaults file only if the release area is created under a network share. The shortcut opens 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 *IBM Rational Solutions for Windows* Disc 1 into the computer's CD-ROM drive. If you have downloaded the software using the Download Director or a zip file, click Setup.exe after you have extracted the files from either the Download Director or the zip file.

The 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 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.

Do not use multibyte 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 95 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 opens, review the current information related to new features and known issues in the readme file. In addition, you can view the IBM developerWorks 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 IBM Rational products from a release area" on page 97.

If you want to apply a service release to the Rational products in your environment, you must recreate the release area as if users will be installing the products on their desktops for the first time. This new release area will be used to update and install Rational desktop products.

After creating this new release area, IBM recommends that you disable the old release area. This will help prevent access to the previous version of Rational products and still allow access if any user needed to restore a system to the previous version of Rational products.

### Adding a post-installation command to the site defaults file

You can add a post-installation command to the sitedefs.dat file, to run the ClearQuest installutil program with the appropriate parameters so users do not have to restore existing database connections through the ClearQuest Maintenance Tool. The following command must be entered into the Properties section of the sitedefs.dat file: `POST_INSTALL_CMD = [installdir]\ClearQuest\installutil.exe clientregisterschemarepo -dbset [dbsetname] [VendorString] [Server] [DatabaseName] [ReadOnlyLogin] [ReadOnlyPassword] ""`

where:

- `installdir` is the location you entered in the Site Preparation Tool to install the products.
- `dbsetname` is the name displayed when you start ClearQuest Maintenance Tool.
- `VendorString` is the type of database (Access, SQL\_Server, and so on).
- `Server` is the name of the database server.
- `DatabaseName` is the name of the database.
- `ReadOnlyLogin` is the read-only login ID for the database.
- `ReadOnlyPassword` is the unencrypted read-only password for the database.

Most of the preceding data is available in the `cqprofile.ini`. The read-only login and password parameters are used by this command to set the user's privileges to those in the ClearQuest database. The password must be entered unencrypted. It is displayed encrypted in the `cqprofile.ini` file. The final parameter ("" ) at the end of the command must be entered but is reserved for future use.

## 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 opens, click **Finish** to complete the installation of the release area.
3. When the installation begins, click **Next**. Choose to accept or not to accept the IBM Rational Software license agreement in the **License Agreement** page.
  - If you accept the license agreement, the Setup Wizard continues.
  - If you do not accept the license agreement, exit the Setup Wizard by clicking **Cancel** and then **Finish**. For information about changes to the computer, see "Canceling a product installation" on page 103.
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 89.  
For disk space requirements, see “Have you met the prerequisites?” on page 9. Do not use the number displayed in Custom Setup or the **Space** button on that page.
    - When you click **Next**, you can 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 opens if the Setup Wizard needs to restart your computer. If files required for the installation are in use during the 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 opens, review the current information related to new features and known issues in the readme file. In addition, you can view the IBM developerWorks 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 93. 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 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.  
If you double-click `siteprep.exe` in the release area or use the command **siteprep.exe** without the site defaults filename, the Site Preparation Wizard starts 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.

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

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

---

## Installing IBM Rational products from a release area

When users install products from a release area that you designate, 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.

If you are upgrading from a release area, some of the dialogs may indicate an upgrade instead of a new installation. Make sure all Rational products on your computer were updated to version 2003.06.13. The updated version number will appear for all Rational products, regardless of whether or not a product change was applied to them in this upgrade.

Installing from a release area includes the following steps:

1. Create one or more site defaults files in a release area by using the 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 Setup Wizard. For instructions, see “Using the Setup Wizard to create a release area and site defaults file” on page 93.
2. Users can then access the release area from the command line or click the shortcut. The command line or shortcut will start 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.

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.lnk`.

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 starts 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 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 sidedefs_cqclient.dat`, or
  - In Windows Explorer, expand the mapped drive and launch the shortcut, for example, `sitedefs_cqclient.lnk` or `sitedefs_cqclient`.
3. The IBM 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 IBM Rational Software license agreement.

- If you accept the license agreement and click **Next**, the installation continues.
- If you do not accept it, the installation does not let you proceed further. Click **Cancel** and exit from the installation. 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.

If you do not have the correct version of Windows Installer software on your computer, the 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 opens if the 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 after you log on.

8. When the **Setup Complete** page opens, IBM recommends that you review the current information related to new features and known issues in the readme file. In addition, you can view the IBM developerWorks 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 an IBM 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.lnk` or `sitedefs_cqclient`.
3. The Setup Wizard runs and guides you through the software installation. In each page, click **Next** to open the next page. Click **Help** for more information.
4. The **License Agreement** page displays the IBM Rational Software license agreement.
  - If you accept the license agreement and click **Next**, the installation continues.
  - If you do not accept it, the installation does not let you proceed further. Click **Cancel** and exit from the installation. 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 Setup Wizard.

If you do not have the correct version of Windows Installer software on your computer, the 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 the "Using the Custom Setup page" section.

For disk space requirements, see "Have you met the prerequisites?" on page 9. 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 opens if the 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 opens, review the current information related to new features and known issues in the readme file. In addition, you can view the IBM developerWorks Web pages. Click **Finish** to complete the installation.

---

## Setting up silent installations of IBM Rational products

Silent installation 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 are explained in the following list.

1. Create a site defaults file and a release area (optional) on the network.
  - 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 93 for the procedure.  
Or use the Site Preparation Wizard by double-clicking `siteprep.exe` in the CD-ROM image or IBM download package (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 96.
2. Use the **`setup.exe /g`** command to start the 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 101 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 restarts 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 Setup Wizard will install the files on your desktop).
  - License key information, if necessary.
  - Ensure that users remove all IBM Rational products from their desktops. Users who install silently do not see the message to remove previous versions of IBM 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 88.

For information about `setup.exe` command line parameters, see “Command line syntax” on page 104 or type **`setup / ?`**.

## Performing a silent installation

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

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

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.

If the Setup wizard detects insufficient disk space on the desktop, the wizard will cancel the installation and note the error in the Rational\_install.log in your TEMP directory.

If you are not logged on to a Windows domain account that is a member of the local computer's Administrators group, the product fails to install. Some Setup Wizard components do not install unless the user is logged in with the appropriate privileges. These components don't log information in the installation log file.

---

## 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 or later), use the following commands. These commands will not remove earlier versions of Rational products.

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

The variable *<local drive>:\* must be 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.

You must specify the absolute path names 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>.

---

## Using postinstallation commands

The **POST\_INSTALL\_CMD** is used to run a process or executable, such as `winword.exe` or `cscript.exe`. When you set this property, the command is run after the installation completes. To include arguments with the command, use **POST\_INSTALL\_CMD\_ARGS** in addition to **POST\_INSTALL\_CMD**.

Before you follow the instructions in the next two sections, read these requirements:

- Enter an arguments file in the **POST\_INSTALL\_CMD\_ARGS** property.
- If an arguments file is in an IBM Rational directory subfolder, include the path to the file.

### Running `post_install_cmd` from the command line

To specify a command from the command line, use `setup.exe`'s `/V` command.

Example:

```
setup.exe /V POST_INSTALL_CMD=<notepad.exe>
```

```
POST_INSTALL_CMD_ARGS=<myfile.txt>
```

### Running the command by modifying the site defaults file

To specify a command from a `.dat` file, add or modify properties in the *Properties* section of the file. If there is no *Properties* section, add a section to the file. Include the full pathname to the postinstallation executable that you want to start from the `.dat` file.

Example:

...

...

[Properties]

```
POST_INSTALL_CMD=<notepad.exe>
```

```
POST_INSTALL_CMD_ARGS=<myfile.txt>
```

...

...

---

## Post-installation tasks

The following sections apply to all deployment types.

### Licensing

If you do not see the License Key Administrator (LKAD) start at the end of the installation, your product is either licensed or does not require a license. Skip to "Product installation checklist" on page 103.

You or your users may see the License Key Administrator (LKAD) start at the end of a product installation for any of the reasons the following table.

Table 11. LKAD launch

Deployment Type	Reason
Desktop installation from CD-ROM image or Web download.	<ul style="list-style-type: none"><li>• You did not provide an IBM Rational license server name in the Setup Wizard.</li><li>• The product requires a node-locked license key.</li></ul>
Install from a Release Area (Enterprise Deployment)	<ul style="list-style-type: none"><li>• You did not provide an IBM Rational license server name when you created the site defaults file. Or,</li><li>• The product requires a node-locked license key.</li></ul>
Silent Installation	<ul style="list-style-type: none"><li>• You did not provide an IBM Rational license server name when you created the site defaults file.Or</li><li>• The product requires a node-locked license key.</li></ul>

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

Table 12. LKAD tasks

To configure	Task	See
Floating License Key	Enter the name of the Rational license server in the LKAD.	<ul style="list-style-type: none"><li>•</li><li>• <i>IBM Rational Software License Management Guide</i>, or</li><li>• LKAD Help</li></ul>
Node-Locked License Key	Import the node-locked license key in the LKAD.	<ul style="list-style-type: none"><li>•</li><li>• LKAD Help</li></ul>

## Product installation checklist

Perform the postinstallation tasks for the product you have just installed.

---

## 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 Setup Wizard.

If you do not have the correct version of Windows Installer software on your computer, the 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.

You must specify the absolute path names 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.

---

## Reinstalling a product (modify or repair)

To modify or repair a Rational installation, use **Add or Remove Programs**.

Before you perform a Modify or Repair installation of any product, save the original installation log to a different location or rename it. Otherwise, it will be overwritten.

To remove the product, see Chapter 5, “Removing IBM Rational products,” on page 109.

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 IBM 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 and you want to install the client without this feature. 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.

**Attention:** A fatal error occurs when you click the **Space** button in the **Custom Setup** page. To prevent the Setup Wizard from aborting the modify action, do not click **Space**.

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 13. Command line syntax

Setup.exe command parameter	Description
<b>setup</b>	Starts the IBM Rational Setup Wizard
<i>&lt;local drive&gt;</i>	Specifies path to setup.exe.
<b>/g</b>	Starts the silent install session.
<i>&lt;path to sitedefs.dat&gt;</i>	Specifies the path to the site defaults file.
<b>msiexec.exe /x</b>	Starts the silent uninstall session.
<b>/qn</b>	Indicates no user interfaces are displayed during the operation.
<i>&lt;path to product&gt;.msi</i>	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.

Table 13. Command line syntax (continued)

Setup.exe command parameter	Description
/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 and blocks

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

Table 14. Warnings and blocks

Warning/Block	Solution
You are attempting to install on an unsupported operating system.	IBM recommends that you install on a supported operating system. Your IBM Rational product's <i>Release Notes</i> 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 IBM Rational product's <i>Release Notes</i> 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 IBM Rational product's <i>Release Notes</i> for a complete list of supported versions.
You are attempting to install on an unsupported version of WebSphere Studio.	It is recommended that you use a supported version. For the complete list of supported operating systems, see the <i>Release Notes</i> .
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.

## Rational Setup Wizard upgrade blocks

If you encounter blocks during the upgrade process, consult the following table for solutions.

Table 15. Upgrade blocks

Block Installation	Solution
Upgrade a Rational product that was installed from a CD-ROM with a 2003.06.13 product from a Web download.	Remove the product that was installed with a CD-ROM.

Table 15. Upgrade blocks (continued)

Block Installation	Solution
Upgrade a Rational product that was installed from a Web download with a 2003.06.13 product from a CD-ROM.	Remove the product that was installed with a Web download.
Install 2003.06.13 English Rational product on a Japanese operating system that already has an English Rational product (version earlier than 2003.06.00) installed on it.	Remove the Rational products that are earlier than 2003.06.00.
Install 2003.06.13 New ClearQuest Web or Rational Suite that includes New ClearQuest Web on a Web server that has ClearQuest Web ASP components installed on it.	Remove the ClearQuest Web ASP components from the Web server.
Install 2003.06.13 New ClearQuest Web or Rational Suite that includes New ClearQuest Web on a Web server that has New ClearQuest Web beta components installed on it.	Remove the New ClearQuest Web beta components from the Web server.
Install 2003.06.13 New ClearQuest Web or Rational Suite that includes New ClearQuest Web on a Web server that has New ClearQuest Web 1.0 components installed on it.	Remove the New ClearQuest Web 1.0 components from the Web server.
Install any Rational Rose variant, Rose as part of Rational Suite, or XDE.NET.	Install .NET Framework first.
Install Functional Tester on a workstation that has XDE Tester installed on it.	Remove XDE Tester.
Install XDE Tester on a workstation that has Functional Tester installed on it.	Remove Functional Tester.

## Applying service releases

To find an IBM Rational Software service release:

1. Log in to the Rational Download and Licensing Center at <https://www6.software.ibm.com/reg/rational/rational-i>.
2. Select **Patches and Service Releases**.
3. Select the Rational product that you want to install.
4. Select the version of the Rational product that you want to install. Click **Continue** to navigate to the **Download** page.

You can also download the service release notes from the Download page. The release notes provides service release features, restrictions, and instructions. Use this information to install a Rational service release.

- If you need to apply a service release to a release area, see the instructions in "Creating a release area and site defaults file" on page 93.
- When you apply a service release to a 2003.06.00 IBM Rational Suite release, you may receive one or more "Source File Not Found" warnings about files in the

...\Classics\Projects\... folder. You can ignore these warnings because they are only used by the ProjectConsole Web server components when accessing the ProjectConsole sample site.



---

## Chapter 5. Removing IBM Rational products

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

---

### Before you remove IBM Rational software

This section provides general requirements for removing IBM Rational server products. It also describes which components the 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 IBM Rational Software account. To return a node-locked or floating license key, use AccountLink. To find AccountLink, go to <https://www6.software.ibm.com/reg/rational/rational-i> and click **Request and Manage License Keys**. For more information about moving licenses or returning licenses, see the *IBM Rational Software License Management Guide*.
- Removing an IBM 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 IBM 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 Setup Wizard may find these files and install the application in the previous location instead of the new location.
- Before removing the IBM Rational products (including the IBM Rational license server) from clients, record the specified license serve hostnames in the License Key Administrator (LKAD).
  1. Launch the LKAD from **Start > Programs > Rational Software > Rational License Key Administrator**.
  2. Find the hostnames in **Settings > Client/Server Configuration**.
  3. After you install the new IBM 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 previous data.
- To remove IBM Rational 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 lsvo** command to locate all VOBs on the ClearCase LT server. Then use the ClearCase Administration Console or the **cleartool rmvo** 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 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

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.

---

## Removing IBM Rational software

Use the Windows Add or Remove Programs control panel to select and remove the IBM 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 110.
- “Removing RequisiteWeb 2002.05.X” on page 111.
- “Removing RequisiteWeb 2001A” on page 112.

## Removing an IBM Rational Service Release

Once a service release is applied, you cannot uninstall the updates it makes from your computer. To revert to your previous IBM Rational product configuration:

- Uninstall all IBM Rational products for which the service release was applied.
- Install your preferred IBM Rational product version again.

## 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 are 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

To remove RequisiteWeb 2001A, see “Removing RequisiteWeb 2001A” on page 112.

## Deleting the ReqWeb and Jakarta virtual directories

1. Launch the Internet Services Manager by performing one of the following procedures:
  - 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 opens. 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 <b>cmd</b> .	Select <b>Restart IIS</b> .
3	In the MS-DOS window, type the following: <b>net stop w3svc</b> <b>net start w3svc</b>	At the Stop/Start/Reboot dialog box, select <b>Restart Internet Services on &lt;server name&gt;</b> .

Step	Windows NT 4.0	Windows 2000
4	Type exit to close the MS-DOS window.	Click <b>OK</b> 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 uninstallation 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 opens.
2. Do one of the following procedures:
  - 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	Click <b>Start &gt; Settings &gt; Control Panel &gt; Services</b> .	Click <b>Start &gt; Settings &gt; Control Panel &gt; Administrative Tools &gt; Services</b>
2	Locate and select the <b>RqTomcat</b> service.	Locate the RqTomcat service and double-click the icon to display the Properties dialog box.
3	In the <b>Services</b> window, click <b>Stop</b> .	On the General tab under Service status, click the <b>Stop</b> button. Click <b>OK</b> and close the Services window.
4	Click <b>Close</b> to finish.	Click <b>OK</b> 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 uninstallation 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 opens.
2. Do one of the following procedures:
  - 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.

Restore back up projects and your catalog.txt file to their original locations.

---

## Removing TestManager

If you are upgrading to this release of TestManager, v. 2003.06.13, from the previous release (v. 2003.06), remove the Nutcracker executable and restart your computer before you install the current version. To remove the Nutcracker executable: Click OK. Before you start to install v. 2003.06.00, restart your computer.

1. Click **Start > Settings > Control Panel**.
2. In the Control Panel, double-click the **Add/Remove Programs**.

3. Select **Nutcracker**, and then click **Remove**.

---

## Chapter 6. Upgrading desktop systems

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 IBM 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 IBM Rational products from an earlier version.

In the Control Panel, use the Add or Remove Programs tool to remove all earlier IBM 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 opens. 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 IBM Rational products.

---

## Appendix. Notices

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

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

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

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

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

**The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law:**

INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

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

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

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

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created

programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

IBM Corporation  
Department BCFB  
20 Maguire Road  
Lexington, MA 02421  
U.S.A.

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

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

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

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

#### COPYRIGHT LICENSE:

This information contains sample application programs in source language, which illustrates programming techniques on various operating platforms. You may copy, modify, and distribute these sample programs in any form without payment to IBM, for the purposes of developing, using, marketing or distributing application programs conforming to the application programming interface for the operating platform for which the sample programs are written. These examples have not been thoroughly tested under all conditions. IBM, therefore, cannot guarantee or imply reliability, serviceability, or function of these programs. You may copy, modify, and distribute these sample programs in any form without payment to IBM for the purposes of developing, using, marketing, or distributing application programs conforming to IBM's application programming interfaces.

Each copy or any portion of these sample programs or any derivative work, must include a copyright notice as follows:

(c) (your company name) (year). Portions of this code are derived from IBM Corp. Sample Programs. (c) Copyright IBM Corp. \_enter the year or years\_. All rights reserved.

Additional legal notices are described in the legal\_information.html file that is included in your Rational software installation.

Trademarks

IBM, Rational, DB2 , ClearCase, ClearCase MultiSite, ClearQuest, and RequisitePro are trademarks of International Business Machines Corporation in the United States, other countries, or both.

Java and all Java-based trademarks and logos are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both.

Microsoft, Windows, Windows NT, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Linux is a trademark of Linus Torvalds in the United States, other countries, or both.

Other company, product or service names may be trademarks or service marks of others.



---

# Index

## A

administrator privileges 88

## B

backing up  
    registry 89  
    system directories 89

## C

ClearCase LT  
    file storage space 10  
    integration support 16, 17  
ClearQuest  
    integration support 16, 18  
customer support xi

## D

databases  
    supported software 11  
default installation path 89  
disk space  
    point product 10, 16  
    Rational Suite 10, 16  
    temporary 89  
documents, accessing 13, 21  
dual boot systems 13, 21

## F

file storage space for ClearCase LT 10

## H

hardware and software requirements 9, 15, 16, 17, 18, 19, 20, 21, 22  
hosted development systems 12

## I

installation  
    Microsoft Core Components 89

## L

language support 14, 22

## M

Microsoft Core Components, installing 89

## O

operating system support 9, 15

## P

ProjectConsole  
    integration support 17  
PureCoverage  
    integration support 18  
Purify  
    integration support 18  
PurifyPlus  
    integration support 18

## Q

Quantify  
    integration support 18

## R

Rational Setup Wizard  
    default installation path 89  
    requirements 88  
    stopping services 88  
remote access support 15  
remote sessions 12  
requirements and recommendations 15, 16, 17, 18, 19, 20, 21, 22  
RequisitePro  
    integration support 17  
Rose  
    integration support 18  
Rose Data Modeler 19  
Rose RealTime 19

## S

SoDA integration support 17  
supported database software 11  
system and software requirements 15, 16, 17, 18, 19, 20, 21, 22

## T

temporary disk space 89  
Test Agents  
    integration support 19  
    UNIX operating systems 19  
    Windows operating systems 19

## U

user interface manager, shutting down 89

## V

virus protection software 89

## W

### Web browsers

non-Windows requirements 21

Windows requirements 20

### Web servers (IIS)

supported software 13

---

## Readers' Comments — We'd Like to Hear from You

Suite  
Upgrade Guide

Publication No. S126-5305-01

Overall, how satisfied are you with the information in this book?

	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied
Overall satisfaction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How satisfied are you that the information in this book is:

	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied
Accurate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Complete	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Easy to find	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Easy to understand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Well organized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Applicable to your tasks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please tell us how we can improve this book:

Thank you for your responses. May we contact you? ☐ Yes ☐ No

When you send comments to IBM, you grant IBM a nonexclusive right to use or distribute your comments in any way it believes appropriate without incurring any obligation to you.

---

Name

---

Address

---

Company or Organization

---

Phone No.



Cut or Fold  
Along Line

Fold and Tape

Please do not staple

Fold and Tape



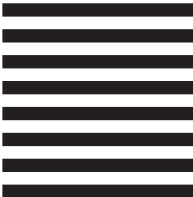
NO POSTAGE  
NECESSARY  
IF MAILED IN THE  
UNITED STATES

**BUSINESS REPLY MAIL**

FIRST-CLASS MAIL PERMIT NO. 40 ARMONK, NEW YORK

POSTAGE WILL BE PAID BY ADDRESSEE

IBM Corporation  
Attn: Dept CZLA  
20 Maguire Road  
Lexington, MA 02421-3112



Fold and Tape

Please do not staple

Fold and Tape

Cut or Fold  
Along Line