

Installing Rational Suite

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Patent

U.S. Patent Nos. 5,193,180 and 5,335,344 and 5,535,329 and 5,835,701. Additional patents pending.

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Preface

Welcome to *Installing Rational Suite*. This document provides you with the information you need to perform a typical installation of Rational Suite. Additional information about the products in Rational Suite is available in the documentation for each of the products in the Suite, including installation options and product customizations.

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

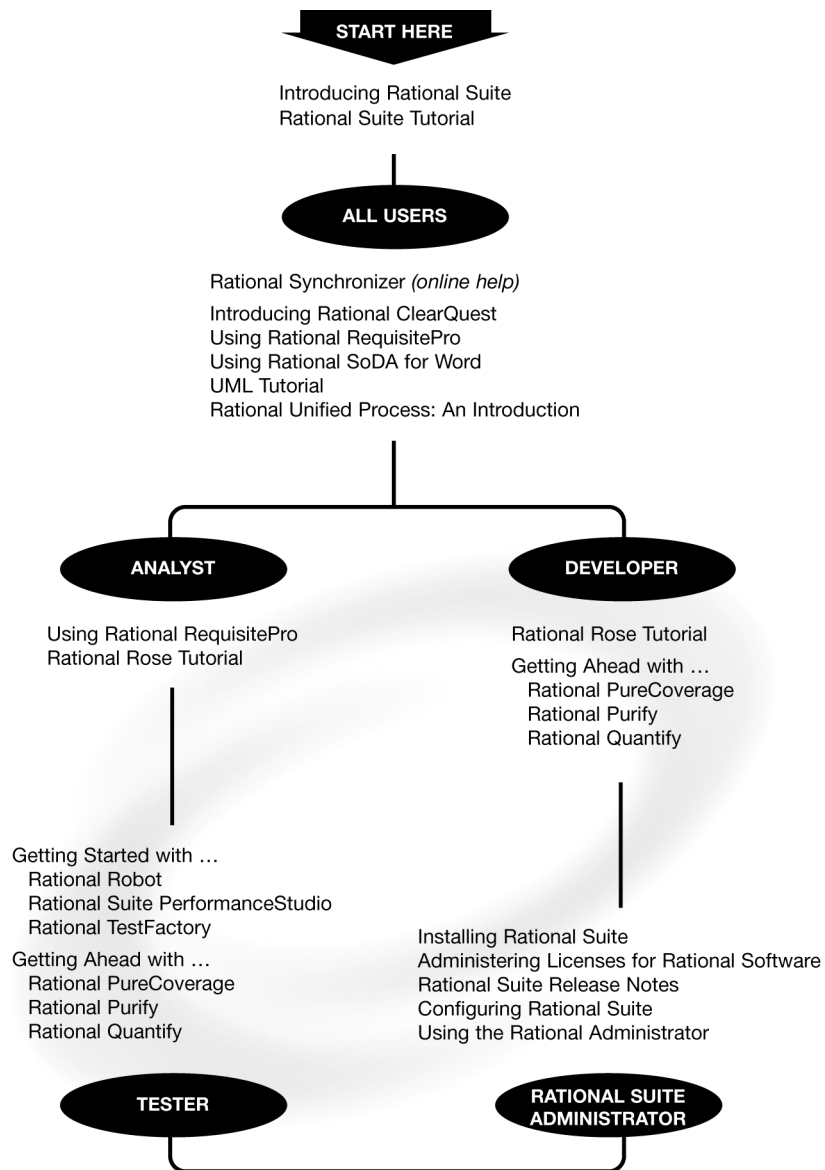
Audience

This guide is intended for anyone who is installing Rational Suite. It assumes a basic knowledge of Microsoft Windows and its conventions.

Other Resources

- The Rational Suite Release Notes are available in HTML.
- Online Help is available for Rational Suite.
From a Suite tool, select an option from the **Help** menu.
- All manuals are available online, in either HTML or PDF format. The online manuals are on the Rational Solutions for Windows Online Documentation CD.
- PDF versions of the hard copy manuals for Rational Rose RealTime Edition are installed in %ROSET_HOME%\help when you install Rational Suite DevelopmentStudio — RealTime Edition.
- For more information on training opportunities, see the Rational University Web site: <http://www.rational.com/university>.

Rational Suite Documentation Roadmap



Contacting Rational Technical Publications

To send feedback about documentation for Rational products, please send e-mail to our technical publications department at techpubs@rational.com.

Contacting Rational Technical Support

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

Rational Technical Support Information

Location	Contact Information	Notes
U.S. and Canada	800-433-5444 781-676-2450 support@rational.com	When sending e-mail: – Specify the product name in the subject line, for example, “Rational Suite”. – For existing issues, include your case ID in the subject line.
Europe	+31 (0) 20 4546 200 support@europe.rational.com	
Asia Pacific	+61-2-9419-0111 support@apac.rational.com	
World Wide Web	http://www.rational.com	Click the Technical Support link.

1

Before You Begin

The Rational Software Setup program lets you perform standard and custom installations of Rational software products.

This document provides you with:

- An overview of the installation procedures for Rational Software products, included in this chapter.
- Information needed to perform a typical installation of Rational Suite. Additional information about the products in Rational Suite is available in the documentation for each of the products in the Suite, including installation options and product customization.
- Support information, including references to additional sources of information for Rational software and licensing. See “Contacting Rational Technical Support” on page 11.

This chapter tells you what you need to know before installing:

- Rational Suite (see “Installing Rational Software Products” on page 14)
- Rational Testing products (see “Before You Install Rational Suite Testing Products” on page 20)
- Rational RequisitePro (see “Before You Start the RequisitePro Installation” on page 27)
- Rational ClearQuest (see “Before You Begin Installing ClearQuest” on page 31)

Installing Rational Software Products

This section provides a summary of the steps for installing Rational Software products.

See the following for information about prerequisites and additional installation procedures:

- “Before You Install Rational Suite Testing Products” on page 20
- “Before You Start the RequisitePro Installation” on page 27
- “Before You Begin Installing ClearQuest” on page 31
- “Before You Start the Rational Rose RealTime Installation” on page 50

Installation Quick Start

Table 1, Installation Quick Start Guide, summarizes the steps for installing Rational software and license keys:

Table 1: Installation Quick Start Guide

Step	For More Information
<p>If you are using floating licenses: Install and configure the FLEXIm License Server software on a license server. The FLEXIm License Server software is on the Rational Solutions for Windows CD.</p>	<p>See the chapter "FLEXIm License Server Installation" in <i>Administering Licenses for Rational Software</i>.</p>
<p>Install Rational Suite from the Rational Solutions for Windows CD or from the Rational RealTime Solutions for Windows CD. Make certain that you are installing the product you have purchased. You can either enter a temporary license key or point to a license server during installation. You will have to use the Rational License Key Administrator to install a permanent license.</p>	<p>For custom installation options and configuration procedures, see the installation manual for the product you are installing. For information related to a temporary license, see your temporary license key certificate. For information about licensing, see the Rational License Key Administrator online help.</p>

Table 1: Installation Quick Start Guide (Continued)

Step	For More Information
<p>Request permanent license keys from Rational using the License Key Administrator. Make certain that you are requesting keys for the product you have purchased and installed.</p>	<p>See the chapters "Rational Software Client Licensing" and "Rational Software Server Licensing" in <i>Administering Licenses for Rational Software</i>. Also see the Rational License Key Administrator online help.</p>
<p>If you are using node-locked licenses: Install the new permanent license key on your client system. If you are using floating licenses: Install the new permanent license key on your license server system.</p>	<p>See the Rational License Key Administrator online Help.</p>
<p>If you are using floating licenses: Set up your client systems to use the licenses from the license server system.</p>	<p>See the Rational License Key Administrator online Help.</p>
<p>Use the Start menu to select and start the program.</p>	<p>See the program's online Help.</p>
<p>After you install the software, you must install a permanent license key to use the software, unless a temporary license key was entered or a license server was pointed to during installation.</p>	<p>See the Rational License Key Administrator online Help. Temporary license key information is included with your Rational Suite software media kit. The temporary license expiration date is noted on your temporary license key certificate.</p>

Installation Types

The Rational Software Setup program provides you with several installation types, letting you install the configuration most appropriate for your system. Table 2, Installation Types, describes the installation types:

Table 2: Installation Types

Type	Description
Typical	Installs the most commonly used features for a product. Use this option for standard installations.
Custom/Full	Allows you to add or remove product or product features. Defaults to all features in a Typical installation. Use this option to install Web Server Components on a Web Server for RequisiteWeb, ClearQuestWeb, and for all the Suites in which these products appear.
Compact/Laptop	Installs a subset of the standard configuration. May omit optional files, including online documentation or online Help. Use this option on systems with limited disk space.
Minimal	Installs the files needed to run the program from a CD or network location. Use this option to run the program from a centrally managed location. Note: You must have write permission to run products from a minimal install area.

Configuring Rational Suite as an Administrator

An administrator must set up and configure the following Rational Suite features:

- The databases used with ClearQuest. For information about installing and configuring databases for use with ClearQuest, see *Administering Rational ClearQuest*.
- The repositories associated with Rational Suite; see *Configuring Rational Suite*.
- Automated testing programs included in Rational Suite TestStudio and Rational Suite Enterprise; see *Using the Rational Administrator*.

For More Information

See *Administering Licenses for Rational Software* for the software licensing description, procedures, and licensing administration information. The online Help for Rational License Key Administrator contains detailed information about common user licensing activities.

Products in Each Rational Suite

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

Table 3, Rational Suite Products, lists the products in each Rational Suite edition:

Table 3: Rational Suite Products

Rational Tool	Analyst Studio	Development Studio (Windows/Unix)	Development Studio - RealTime Edition	Test Studio	Performance Studio	Enterprise
Rational Unified Process	X	X	X	X	X	X
RequisitePro	X	X	X	X	X	X
ClearQuest	X	X	X	X	X	X
SoDA	X	X	X	X	X	X
Rose	Modeler Edition	Enterprise Edition	RealTime Edition		Enterprise Edition	Enterprise Edition
Robot				X	X	X
TestFactory				X	X	X
PureCoverage		X	X	X	X	X
Purify		X	X	X	X	X
Quantify		X	X	X	X	X
LoadTest					X	
Performance Architect					X	

The installation procedures are identical for Typical installations of each Rational Suite edition. Each Suite edition provides custom installation options, letting you select or delete products or features. You can use the Rational Software Setup Wizard to install the following, additional tools:

- Rational Test Enablers, which allow you to perform object testing with Rational Robot, are included as an installation option. Rational Test Enablers can be installed on any system. See “Installing the Rational Test Enablers” on page 88.
- Rational TestAccelerator, which is used with Rational TestFactory to speed up the testing process, is included as an installation option. Rational Robot is installed automatically when you install TestAccelerator; Robot is needed to run the scripts. See “Installing Rational TestAccelerator” on page 90.
- Rational Suite PerformanceStudio Agents, which allow you to add workload to a server and distribute your functional tests among different computers. See “Installing PerformanceStudio Agents” on page 79.
- GLOBEtrotter FLEXlm License Server and Sybase SQL Anywhere with the Rational Software Setup program.

Before You Install Rational Suite Testing Products

This section contains information about tasks to do before you install Rational Suite testing products such as Rational Suite Enterprise, Rational Suite PerformanceStudio, and Rational Suite TestStudio.

Before you install Rational Suite testing products, be sure to do the following:

For all Rational Suite testing products:

- Decide which type of database you need for your Rational repository or your ClearQuest database. For information about choosing databases, see “Choosing a Rational Test Database Type” on page 23.

For Rational Suite PerformanceStudio:

- If you have a Beta version of PerformanceStudio or TestStudio on your computer, completely remove it before installing Rational Suite PerformanceStudio.
- If you have SQA Suite 6.x or a previous release of PerformanceStudio on your computer, see “Upgrading from SQA Suite 6.x” on page 65.
- Determine the role each computer will play in testing—whether it will be a Master or an Agent computer. For information, see “Using PerformanceStudio Master and Agent Computers” on page 26.
- To play back a PerformanceStudio script that tests Oracle, Sybase, or SQL Server databases on a Master or Agent, you must install the appropriate database client software before you install PerformanceStudio software. For information, see “Installing Rational Suite PerformanceStudio Client Software” on page 24.
- Determine the kind of network you will be using, either Ethernet or Token Ring. You will need to know this when you install the PerformanceStudio network driver. For information, see “Installing the RSPS Network Driver” on page 77.

Hardware and Software Requirements

The following table supplements the information in the section Rational Suite Requirements. It lists the additional hardware and software requirements for Rational Suite testing products.

Table 4: Rational Suite Testing Requirements

Product	Requirement
Rational TestAccelerator	104 MB disk space (If you specify a disk other than C:\ for installation of TestAccelerator, TestAccelerator uses 4 MB on the C:\ drive and 100 MB on an alternate drive.)
Crystal Reports 6.0 Professional Edition	80 MB free disk space (minimum installation)
PerformanceStudio Master software	PC-compatible computer with a Pentium microprocessor (166 MHz or better recommended) 64 MB memory, plus 1–3 MB per virtual user being run on the Master computer. (Some workloads may require more memory.) We recommend configuring virtual memory to be three times the physical memory. 550 MB free disk space for installation 100+ MB free disk space recommended for product operation after installation. We recommend more disk space for large multi-user runs. The Master computer can be a Windows NT4.0 (Service Pack 4 or 5) or Windows 2000 server, or it can be an Windows NT or Windows 2000 workstation (for seven or fewer GUI users). TCP/IP

Table 4: (Continued)Rational Suite Testing Requirements

Product	Requirement
PerformanceStudio GUI Agent software	PC-compatible computer with a Pentium microprocessor (166 MHz or better recommended) 32 MB memory 40 MB free disk space for installation Microsoft Windows NT 4.0 (Service Pack 4 or 5), Windows 2000, Windows 95 (Service Pack 1 or OSR 2), or Windows 98 TCP/IP
PerformanceStudio Virtual User Agent software – Windows Systems	PC-compatible computer with a Pentium microprocessor (166 MHz or better recommended) 64 MB memory, plus 1–3 MB per virtual user (Some workloads may require more memory.) We recommend configuring virtual memory to be three times the physical memory. 100 MB free disk space for installation 50+ MB free disk space recommended for product operation after installation for virtual user runs We recommend more disk space for large multi-user runs. Microsoft Windows NT 4.0 (Service Pack 4 or 5) or Windows 2000 TCP/IP
PerformanceStudio Virtual User Agent software – UNIX Systems	32 MB memory, plus .5–2 MB per virtual user (Some workloads may require more memory.) 100 MB free disk space for installation 50+ MB free disk space recommended for product operation after installation We recommend more disk space for large multi-user runs. One of the following operating systems: AIX 4.x HP-UX 10.x or 11.x Sequent 4.x Solaris 2.x Red Hat 6.x release of Linux
SQL Anywhere Server	Your network server must be an Intel-based PC. Windows NT 4.0 Server, Windows NT 4.0 Workstation Pentium processor 64 MB memory 100 MB disk space TCP/IP protocol Note: Novell NetWare software is no longer supported for network servers.

Choosing a Rational Test Database Type

Before you install Rational Suite testing products, you need to decide which type of database you need for your Rational repository.

A Rational Test database stores functional and performance testing information such as verification point data, queries, reports and report layouts, scripts, and information about users, computers, and groups. When you create a new repository, you can create two types of databases: Microsoft Access databases or Sybase SQL Anywhere Database Server databases. For a summary of which type of database software to install, see “Determining a Database Type” on page 24.

Microsoft Access – Microsoft Access is the default database type for Rational Test databases and installs automatically when you install your Rational software. We recommend using Microsoft Access for a database with seven or fewer concurrent users. This type of database is virtually maintenance-free. For example, you can back up the database simply by backing up the Rational repository directory. However, with more than seven users, data access is slower than for a comparably sized Sybase SQL Anywhere Database Server database. If you are accessing the database over a wide-area network, we recommend using Sybase SQL Anywhere for your database.

Sybase SQL Anywhere Database Server – We recommend using this type of database for a database with eight or more concurrent users. Data access for a SQL Anywhere Database Server database is faster than for a comparably sized Microsoft Access database. However, SQL Anywhere database server software requires more maintenance than a Microsoft Access database. Sybase SQL Anywhere Database Server comes with your Rational software, but does not install automatically. For information about installing this software, see “Installing SQL Anywhere Server Database Software” on page 85.

Determining a Database Type

The following table summarizes which type of database software to use for a Rational Test database.

Table 5: Determining the Database Type

If your Rational Test database	Then
Has seven or fewer concurrent users and is not accessed over a wide-area network	Use a Microsoft Access database. This is the default database and installs automatically when you install your Rational software.
Has eight or more concurrent users or is accessed over a wide-area network	Install the Sybase SQL Anywhere Database Server software that comes with your Rational software. For more information about installing Sybase SQL Anywhere Database Server software, see "Installing SQL Anywhere Server Database Software" on page 85.

Installing Rational Suite PerformanceStudio Client Software

To play back a script that tests Oracle, Sybase, or SQL Server databases on a Master or Agent, you must install the appropriate database client software.

Note: You must install the database client software before you install Rational Suite PerformanceStudio.

To use PerformanceStudio with the TUXEDO or SAP protocols, you must install the appropriate client software.

Oracle Client Software

To play back a script that tests an Oracle database on a Master or Agent, you must install Oracle client software.

Sybase Client Software

To generate scripts that test a Sybase database, you must install the Sybase 11.1 NT client software on the Master computer.

To play back scripts that test a Sybase database, you must install the appropriate software on each Agent computer:

Table 6: Software for Agents

For	Install
UNIX Agents	Sybase 11.1 UNIX client software
NT Agents	Sybase 11.1 NT client software

SQL Server Client Software

To generate scripts that test a SQL Server database, you must install the SQL Server 6.5 NT client software on the Master computer.

To play back SQL Server scripts on an Agent, you must install the appropriate software on each Agent computer as follows:

Table 7: SQL Server Scripts on an Agent

For	Install
UNIX Agents	Sybase 11.1 UNIX client software (limited compatibility)
NT Agents	SQL Server 6.5 NT client software

TUXEDO Protocol Software

To generate scripts using the TUXEDO protocol, you must install the TUXEDO 6 client software on the Master computer.

SAP Protocol Software

To generate scripts using the SAP protocol, you must install the SAP client software, typically referred to as SAPGUI.

Using PerformanceStudio Master and Agent Computers

Before you install Rational Suite PerformanceStudio, you need to determine the role each computer will play in testing—whether it will be a Master or an Agent computer. You use a Master computer to:

- Record sessions and scripts.
- Create schedules.
- Run and monitor schedules.
- Analyze test results.
- Play back functional tests.

You use an Agent computer to:

- Support additional users in a schedule run.
- Play back functional tests. You can run your functional tests in parallel across several computers to save time. This is called distributed functional testing.

The installation of PerformanceStudio Agents is optional. For information on installing PerformanceStudio Agents, see “Installing PerformanceStudio Agents” on page 79.

Before You Start the RequisitePro Installation

The following sections provide you with steps you must take and information you must prepare prior to installing RequisitePro.

Installation Requirements

Table 8, RequisitePro Requirements, describes the system and software requirements for installing RequisitePro.

Table 8: RequisitePro Requirements

Item	Requirement
Operating Systems	Microsoft Windows NT 4.0, Service Pack 4, 5, or 6, or Windows 95 Retail Version with Service Release 2 and updates, or Windows 98 with Service Release 1, or Microsoft Windows 2000.
Enterprise Database Requirements (optional)	Microsoft SQL Server 7.0; Oracle7 or Oracle8 server and client software -- (specifically, Oracle version 7.3.4 or greater).
Processor	200 MHz or greater; 300 MHz or higher is recommended.
Memory	64 MB or greater; 128 MB is recommended; for projects with more than 50,000 requirements, 256 MB is recommended.
Disk Space	96 MB.
Monitor	800 X 600 X 256-color video resolution, or greater.
Mouse/pointing device	Microsoft Mouse or compatible pointing device.
Word Processor	Microsoft Word 97 or 2000, if requirements documents are used.
Requirement Metrics Reporting	Microsoft Excel 97 or 2000.
LAN Support	Windows NT.

Table 8: RequisitePro Requirements

Privileges	To use the Rational Software Setup program on a Windows NT system, you must have Windows NT administrator privileges on the local system. You must have Windows NT administrator privileges on the local system to run the License Administrator as well.
Automated License Key Requests	Internet connection required for automated license requests.

Caution Installation of Rational Suite on dual-boot systems is not supported.

Note Be sure you have a current backup of your Registry and system directories prior to running the Rational Software Installation procedure.

Upgrades from previous versions of products contained in Rational Suite are performed during and after the installation. Review the sections in this manual that describe Rational Software products you have already installed.

After you install the software, you must then install a permanent license key to use this software, unless a temporary license key was entered or a license server was pointed to during installation. The Rational License Key Administrator online help provides detailed instructions for installing startup and permanent license keys. See *Administering Licenses for Rational Software* for more information about licenses, including the procedure for obtaining an updated license key.

The installation program requires specific versions of Microsoft files. The installation program will install them or you may choose to install them yourself from other sources.

Installing RequisitePro with Rational Software Setup

The Rational Software Installation procedure uses `c:\Program Files\Rational` as the default installation path. You may specify another drive during the installation procedure.

If your C:\ drive lacks sufficient free disk space, you may either specify another drive or make space available on the default drive. Some files will be installed on your C:\ drive; the Software Setup wizard will report the amount of space required on all drives for your installation.

Note If you have installed another Rational Suite product, you cannot select an alternate location for your RequisitePro installation.

See “Installing Rational Suite” on page 51 for directions on how to install Rational Suite products.

Configuring E-mail for Discussions

Use the Rational E-mail Reader application to configure e-mail for all discussion participants with a valid e-mail address in their RequisitePro user information. The Rational E-mail Reader application is included with your Rational Software installation at the following default location:

```
c:\Program Files\Rational\common\mailreader.exe
```

This separate application offers full e-mail integration with RequisitePro by associating an e-mail handler with each RequisitePro project. Initial discussion items and replies are automatically stored in the RequisitePro database and sent to discussion participants via e-mail. Participants can reply to the discussion items using their e-mail, as well as from within RequisitePro.

Caution The E-mail Setup option on the RequisitePro Tools menu only configures notification e-mail for users who initiate a discussion or reply to a discussion from within the RequisitePro Discussion dialog box. To allow users to reply to discussions via e-mail, and to enable discussion e-mail for RequisiteWeb users, configure an e-mail handler for each project using the Rational E-mail Reader.

Discussion E-mail Configuration Requirements

- You must configure a unique e-mail address for each RequisitePro project
- **For RequisiteWeb:** You must run the Rational E-mail Reader on a different server than the IIS server where RequisiteWeb is installed.
- **For RequisiteWeb:** In order to enable e-mail for RequisiteWeb discussions, you must configure discussion e-mail using the **SMTP** protocol option rather than MAPI protocol option in the Rational E-mail Reader.
- In order to complete the Rational E-mail Reader setup for SMTP protocol, you need the following information from your e-mail administrator:
 - SMTP Server name
 - POP3 Server name
 - E-mail address; one for each RequisitePro project
 - POP3 server login and password for the e-mail address

Note Refer to the online help in the Rational E-mail Reader for more information.

Before You Begin Installing ClearQuest

You, the ClearQuest administrator, set up the databases to use with ClearQuest, install ClearQuest, and provide the required setup information to each client user. You (or your client users) can then install ClearQuest on the client machines.

Before you install ClearQuest, read the following:

- *Rational ClearQuest Release Notes* (\\Program Files\Rational\ClearQuest\readme.htm): An HTML file that contains the most current system requirements information (including platform version support).
- *Introducing Rational ClearQuest*: An overview of ClearQuest components and how to use them.
- *Administering Rational ClearQuest*: A guide on how to customize ClearQuest to meet your needs.

Note If you are using Rational ClearQuest/TeamTest Edition, see the *Getting Started with Rational ClearQuest TeamTest Guide*. This guide is available as a Portable Document Format (PDF) file in the \\ClearQuest\books directory.

Understanding the ClearQuest Install Process

You, the ClearQuest administrator, install ClearQuest by performing the following steps:

- 1 Set up your database product. As the ClearQuest administrator, you are responsible for setting up the databases your users will use with ClearQuest. See the appropriate section:
 - “Setting up Microsoft Access” on page 32.
 - “Setting up SQL Anywhere” on page 33.
 - “Setting up Microsoft SQL Server Version 6.5” on page 37.
 - “Setting up Microsoft SQL Server 7” on page 42
 - “Setting up the Oracle Server” on page 45.
- 2 Install ClearQuest on the administrator’s workstation and create the ClearQuest databases. See “Installing ClearQuest for the Administrator” on page 161.

- 3 Set up your license server. See *Administering Licenses for Rational Software* and the License Key Administrator online help.
- 4 Optionally, customize your installation. See the *Administering Rational ClearQuest* guide for details on customizing ClearQuest.
- 5 Install ClearQuest on the client machines and provide users with the information they need to connect to ClearQuest. See “Installing ClearQuest for End-users” on page 165.
- 6 If you are installing ClearQuest Web, see “Setting up ClearQuest Web” on page 173.
- 7 If you are integrating with a configuration management system, such as ClearCase or Visual SourceSafe, set up the integration. See “Setting up Configuration Management Integrations” on page 168.

Setting up Microsoft Access

If you are using ClearQuest with Microsoft Access,

- 1 Create one shared directory on the machine for the directory that will contain your Microsoft Access databases.
- 2 Make a note of the UNC path of the share directory. The path should be of the form:

```
\\<machine_name>\<share_name>\<database_directory>\
```

For example:

```
\\developmentserver\project34share\clearquestdbs\
```

The first time you run the ClearQuest, you are asked to create a schema repository. You will specify this pathname and provide a filename for the schema repository. ClearQuest then creates and initializes the appropriate Access databases in this directory.

Now that you have set up the Access databases, proceed to “Installing ClearQuest for the Administrator” on page 161.

Note ClearQuest Web does not support Microsoft Access databases.

Setting up SQL Anywhere

To create an SQL Anywhere database server, complete the following tasks:

- Install the Sybase SQL Anywhere Server software. (**Note:** SQL Anywhere is available on the ClearQuest CD and can be installed using the Rational Software Setup wizard).
- Choose or create a user account to run the SQL Anywhere database server and set user privileges for that account. See Defining User Privileges below.
- Create an SQL Anywhere database server. See “Creating an SQL Anywhere Database Server” on page 34.

Defining User Privileges

To define privileges for a user account running an SQL Anywhere database server:

- 1 Make sure you have installed the Sybase SQL Anywhere Server software.
- 2 Do one of the following:
 - If your Windows NT computer is running Windows NT Workstation software, click **Start > Programs > Administrative Tools (Common) > User Manager**.
 - If your Windows NT computer is running Windows NT Server software:
 - Click **Start > Programs > Administrative Tools (Common) > User Manager for Domains**.
 - Click **User > Select Domain** and type the local machine name in the Domain box, and then click **OK**.
- Note** If the user does not already exist, create the user (**User > New User**).
- 3 Click **Policies > User Rights** to open the User Rights Policy dialog box.
- 4 Select **Show Advanced User Rights**.
- 5 In the **Right** list box of the User Rights Policy dialog box, select **Access this computer from network**.

- 6 Click **Add**.
- 7 For **List Names From**, select the domain of the account running the SQL Anywhere database server.
- 8 Click **Show Users**.
- 9 In the **Names** list, select the account running the SQL Anywhere database server.
- 10 Click **Add**, and then click **OK**.
- 11 In the **Right** list box of the User Rights Policy dialog box, select **Log on as a service**.
- 12 Repeat Steps 6 through 10.
- 13 In the **Right** list box of the User Rights Policy dialog box, select **Log on locally**.
- 14 Repeat Steps 6 through 10.
- 15 Click **OK**.
- 16 Click **User > Exit**.

Creating an SQL Anywhere Database Server

An SQL Anywhere database server is a process that runs on the database server machine. Its function is to coordinate all activity against your SQL Anywhere databases. You create one SQL Anywhere server to provide access to all of your database files.

Follow these steps to use the Rational Administrator to create a new server:

- 1 From the Start menu, click **Sybase SQL Anywhere Database Server > Rational Administrator**.
- 2 Click **File > New SQL Anywhere Database Server**.
- 3 Type a unique alphanumeric string of up to 30 characters that identifies this database server on the network, and then click **Next**.

Important Do not use spaces or special characters in the server name (underscores are acceptable).

- 4 Type the amount of space to use for caching data for the SQL Anywhere database server, and then click **Next**. Allow 2048 KB for each Rational repository on the server.
- 5 Select one or more protocols to communicate with the SQL Anywhere database server, and then click **Next**.

Note To reduce connection time, select only those protocols that are actually used on your network.

- 6 Select the Startup options, as described in the following steps.
 - a Select one of the following Windows NT Service Startup options. These options start the SQL Anywhere database server when you power on your system:
 - Click **Automatic** to automatically start the SQL Anywhere database server when you start your system.
 - Click **Manual** if you do not want the SQL Anywhere database server to automatically start when you start your system. If you select this option you will have to manually start the database server after each time you reboot the server machine.
 - b Select or clear **Start service immediately**. This option starts the SQL Anywhere database server immediately after you create it. If the box is cleared, you will need to start the server manually after creating it.
- 7 In the Account section, do the following.
 - a Click **Other Account** to allow users to access a shared ClearQuest database or shared repository. This option gives users the most flexibility for accessing a database or repository.

Note Do not use **System Account (LocalSystem)** to run the service under a local account. Doing so prevents you from remotely configuring a ClearQuest database using UNC.

b Type a domain and user account name for the Other Account. This is the account you created and configured under “Defining User Privileges” on page 33. The name is case-sensitive. Enter the user account information as follows:

- If you created a local machine account in step 2, enter the domain and account name as:

```
.\userid
```

- If you created a domain account, enter the domain and account name as:

```
domain\userid
```

c Type the password for the Other Account. The password is case-sensitive.

8 Click **Next**.

The Rational Administrator displays a summary of your choices.

9 Click **Finish**.

10 After installing the SQL Anywhere software, create one shared directory on the machine for the directory that contains your SQL Anywhere databases. (To increase performance, keep your databases on the same machine as the database server.)

11 Make a note of the UNC path of the share directory. The path should be of the form:

```
\\<machine_name>\<share_name>\<database_directory>
```

For example:

```
\\developmentserver\project34share\clearquestdbs
```

Now that you have set up your SQL Anywhere databases, proceed to “Installing ClearQuest for the Administrator” on page 161.

Setting up Microsoft SQL Server Version 6.5

Install SQL Server 6.5 with SQL Server Service Pack 5a, if you have not already installed it.

Note When you install SQL Server, select one of the following sort-order options:

- Dictionary order, case-sensitive
- Dictionary order, case-insensitive

If you change sort orders after installing SQL Server, you must rebuild the SQL databases and reload the data.

Registering your SQL Server Machine for SQL Server 6.5

Start SQL Server Enterprise Manager. If the SQL Server machine is not already registered, register it now.

1 Click **Server > Register Server**.

2 Type the server name.

Note Make a note of the server name because you will need it during the ClearQuest installation.

3 Click **Use Standard Security**.

4 For **Login ID**, type SA, which is the System Administrator.

5 For **Password**, type your SA password.

6 Click **Register**.

The server should now appear in the list of servers.

7 Set up the SQL Server databases as described in the next section.

Setting up SQL Server 6.5 Databases

You must set up one empty SQL Server 6.5 database for the ClearQuest schema repository, and one empty SQL Server 6.5 database for each ClearQuest Client user database (such as the optional `SAMPL` database). For each SQL Server 6.5 database, complete the following tasks:

- Create an empty database
- Create login accounts for the database
- Set up a backup procedure for the database

To add more databases to ClearQuest, repeat the preceding tasks for each new database.

Note These instructions assume that you have a simple SQL Server configuration. If you have large databases or many users, consider setting up separate log devices or spreading data across multiple devices. For details, see your SQL Server documentation.

Creating Empty Databases

Use the SQL Server Enterprise Manager to create an empty SQL Server 6.5 database for the ClearQuest schema repository and for each ClearQuest client user database (such as the `SAMPL` database). For each SQL Server 6.5 database, do the following.

- 1 Create the data device.
 - a Select your SQL Server machine. If your machine does not appear in the list of servers, you need to register it. See “Registering your SQL Server Machine for SQL Server 6.5” on page 37.
 - b Click **Manage > Database Devices**.
 - c Click the **New Device** icon.

- d** Type a name for the device, select a location, and type a size.
For the schema repository, allocate at least 50 MB. The device must be large enough to hold all the schema versions. You can adjust this size later, if necessary.

For the user database, allocate at least 15 MB for every 1,000 records you expect to generate. The exact amount of space required depends on the complexity of your schema.
 - e** Click **Create Now**.
The new device should now appear in the list of devices.
 - f** Close the Manage Database Devices window.
- 2** Create the database.
- a** Click **Manage > Databases**.
 - b** Click the **New Database** icon.
 - c** Type a name for the database.
 - d** For **Data Device**, select the device you just created.
 - e** Leave **Log Devices** as none.
 - f** Click **Create Now**.
The new database should now appear in the list of databases.
- 3** Configure the database:
- a** In the Manage Database window, double-click the database you just created. The Edit Database dialog box appears.
 - b** Click the **Options** tab.
 - c** Click **Select Into/Bulk Copy** and **Truncate Log on Checkpoint**.
 - d** Click **OK**.
 - e** Close the Manage Databases window.

Creating Login Accounts for Each Database

Use the SQL Server 6.5 Enterprise Manager to create login accounts for ClearQuest. ClearQuest uses these accounts to log into the SQL Server database program on behalf of ClearQuest users. These login accounts are separate from ClearQuest user logins and are hidden after the installation.

Note When you create the ClearQuest schema repository, the ClearQuest Maintenance tool prompts you for the three logins listed below. If you do not want to create three separate login accounts, you can use the DBO login ID for all three. Be aware, though, that the read-only account is public to all users.

Create the following login accounts for each database using SQL Server authentication:

- A database owner (DBO) login account
- A general purpose login account
- For the schema repository only, create a read-only account

Note Because ClearQuest requires a SQL Server login for each database and does not support Windows NT Authentication, you will need to set up SQL Server to operate in Mixed Mode (Windows NT Authentication and SQL Server Authentication). This property can be set via Enterprise Manager, right-click on the server and select Properties menu, Security tab.

Follow these steps to create the login accounts:

- 1 Click **Manage > Logins**.
- 2 Type a unique login name and password.

Note Remember the names and passwords of each login account; you will need them during the ClearQuest installation.

- 3 In the **Permit** column, click the database for which you are creating the login. A check mark should appear in the Permit column.
- 4 If you are creating the database owner login, click the **Alias** column and select **DBO**.
- 5 Click **Add** and confirm the password.

- 6 Repeat steps 2 through 5 for the other accounts.
- 7 Close the **Manage Logins** window.

Setting up Database Backup Procedures

The backup procedure described here provides a daily backup for the ClearQuest databases by overwriting the backup device each day. It assumes that your site also periodically backs up the backup device to recoverable media.

Use the SQL Server Enterprise Manager to set up backup schedules for the schema repository and for the databases.

- 1 Click **Tools > Database Backup/Restore**.
- 2 On the Database Backup/Restore dialog box, click the **Backup** tab.
- 3 From the Database Backup list, select the database you want to back up.
- 4 From the Backup Devices list, select **New**.
- 5 Type a name and select a location. We recommend that you put the backup device on a different disk than the database devices, and that this daily backup be backed up to tape by your site's normal backup procedures.
- 6 Select **Disk Backup Device**.
- 7 Select **Create**.
- 8 Click **Schedule**.
- 9 In the Backup Volume Labels dialog box, leave **Volume level** blank.
- 10 In the Schedule Backup dialog box, select **Recurring**.
- 11 Click **Change**.
- 12 For **Daily Frequency**, select **12 a.m.** or another time of your choice.
- 13 Click **OK** to close the open dialog boxes.
- 14 Click **Close** to close the Database Backup/Restore dialog box.

Now that you have set up your SQL Server databases, proceed to "Installing ClearQuest for the Administrator" on page 161.

Setting up Microsoft SQL Server 7

You need to set up one empty SQL Server 7 database for the ClearQuest schema repository, and one empty SQL Server 7 database for each ClearQuest Client user database (such as the optional `SAMPL` database). For each SQL Server 7 database, complete the following tasks.

- (Verify) server registration
- Create an empty database
- Set up a backup procedure for the database
- Create a SQL Server 7 login with the `db_owner` role to use for the ClearQuest database logins (the same login is used by ClearQuest for all connections).

Note Do not use the `sa` (system administrator) login. During an upgrade or move process, ClearQuest requires empty databases. However, if the `sa` login is used, ClearQuest is able to see the System Tables, assumes the database is not empty, and does not allow the upgrade/move process to continue.

If you want to add more user databases to ClearQuest, repeat the preceding tasks for each new database.

Registering your SQL Server Machine for SQL Server 7

- 1 In the **SQL Server Enterprise Manager**, select your Windows NT server in the **SQL Server Group**.

If your server is not shown, register it now by going to Step 2. If your server is already registered, go to “Creating a New SQL Server 7 Database” on page 43.

- 2 Right-click on the SQL Server Group and select **New SQL Server Registration**. The Register SQL Server Wizard displays.
- 3 Select a server name, and click **Next**.

Note Make a note of the server name because you will need it during the ClearQuest installation.

- 4 For Authentication Mode, select **SQL Server**, then click **Next**.

- 5 For **Login ID**, type *sa*, and for **Password**, type your *sa* password. Then click **Next**. (The *sa* user has the privilege to create logins and databases.)
- 6 Add this server to an existing group, or create a new group. Then click **Next**.
- 7 Click **Finish**. The server will appear in the list of servers.

Creating a New SQL Server 7 Database

- 1 From the Getting Started Taskpad, select **Administer SQL Server > Create a database**.
- 2 In the wizard, specify a file system location for the database and the log. You can accept the defaults for the growth rate of the database and the log.

If you want to give the databases larger initial values, allocate at least 50 MB for the schema repository and at least 15 MB for every 1,000 records expected for your user databases.
- 3 After you create a database, you are prompted to create a Database Maintenance Plan. The Database Maintenance Plan Wizard allows you to set up a database backup routine. It is strongly recommended that you set up automated nightly backups for all your ClearQuest databases.
- 4 Set database properties for the new database:
 - a Select the new database from the server's **databases** folder.
 - b Right-click on the database and select **Properties**.
 - c On the **Options** tab, select these Settings:
 - Select into / bulk copy
 - Truncate log on checkpoint
 - d Click **OK**.

Creating SQL Server Logins

Create a **db_owner** login for each ClearQuest database (schema repository and each user database) by selecting the **db_owner** role for each of the logins you create.

Note Do not use the **sa** (system administrator) as the owner login of a ClearQuest database. During an upgrade or move process, ClearQuest requires empty databases. However, if the **sa** login is used, ClearQuest is able to see the System Tables, assumes the database is not empty, and does not allow the upgrade/move process to continue.

- 1 Expand the **Security** folder, then right-click **Logins**, and click **New Login**. The SQL Server Login Properties - New Login dialog box displays.
- 2 On the **General** tab, select **SQL Server authentication mode** because ClearQuest does not support Windows authentication.

Note Because ClearQuest requires a SQL Server login for each database and does not support Windows NT Authentication, you will need to set up SQL Server to operate in Mixed Mode (Windows NT Authentication and SQL Server Authentication). This property can be set via Enterprise Manager, right-click on the server and select Properties menu, Security tab.

- 3 Enter a name and password.
- 4 On the **Server Roles** tab, do not grant *any* server roles.
- 5 Grant **db_owner** privileges to the login in the new database.
 - a On the **Database Access** tab, select from the **Permit** list the new database to grant the login permission.
 - b Under **Permit in database role**, check **db_owner** and **public**. Do not grant this user any other privileges.
- 6 Set up daily backups for the database if you did not do so under Step 2. You can do this by selecting either **Administer SQL Server > Backup a database** or **> Create a maintenance plan**.

Migrating from SQL Server 6.5

Use the ClearQuest Maintenance Tool to migrate your schema repository to a SQL Server 7 database. Then use ClearQuest Designer to move previous SQL Server 6.5 user databases to SQL Server 7. You do this by using the Properties dialog box to change the properties of the user database.

Warning When migrating from SQL Server 6.5 to SQL Server 7, do **not** use the SQL Server 7 Upgrade Wizard to upgrade your schema repository and user databases. You need to use the ClearQuest Maintenance Tool and ClearQuest Designer.

Ensuring SQL Server 7 Client Connectivity

SQL Server 7 client machines require SQL Server ODBC driver number 3.7x. To update the ODBC driver for a client machine:

- 1 Go to that machine, insert the SQL Server 7 CD-ROM, and run
`D:\x86\other\mdac_type.exe`
where *D:* is the letter of your CD-ROM drive.
- 2 Choose the **Custom** install option when prompted.
- 3 Select **ODBC Driver for Microsoft SQL Server** (and unselect other options such as Microsoft JetEngine).

Now that you have set up your SQL Server databases, proceed to “Installing ClearQuest for the Administrator” on page 161.

Setting up the Oracle Server

If you are using an Oracle database, install the Oracle client software **before** installing ClearQuest.

If you are using ClearQuest with Oracle databases, install and create the databases according to Oracle’s documentation. Follow these guidelines when you set up your Oracle databases:

- Create a specific Oracle database instance, or identify an existing Oracle instance, to use for ClearQuest data.

- Create two or more separate Oracle database users (each with its login):
 - the ClearQuest schema repository user login
 - one user login for each ClearQuest user database
- Grant each user login the Connect and Resource roles only.

Note If you plan to use the Oracle Context Option, you should also grant the CTXAPP role. See “Enhancing Search Capabilities” on page 49.

- We recommend that you associate each Oracle database user with a unique default tablespace that is separate from all other users.

Note The Oracle database users can share the **temporary** tablespace(s), but the temporary tablespace(s) for these users must be separate from the Oracle system tablespace.

Configuring an Oracle 7 Client Installation for ClearQuest

The ClearQuest administrator and all ClearQuest end-users must install Oracle Client Software on their local machines before they can install and use ClearQuest. Oracle 7 client software contains networking drivers ClearQuest needs to interact with Oracle databases. To install Oracle Client Software, follow the Oracle Networking Products documentation.

Before using ClearQuest, all users must use the **SQL*Net Easy Configuration** program to configure their computers to access Oracle databases.

Important If your Oracle for Windows menu does not list SQL*Net Easy Configuration, you do not have the correct network configuration drivers installed. If your menu lists Net8 Easy Configuration, for information on installing the correct drivers, see “Configuring an Oracle 8 Client Installation for ClearQuest” on page 48. When you have the correct configuration drivers installed, return here and proceed with the following steps.

- 1 From the Start menu, click **Oracle for Windows NT > SQL*Net Easy Configuration** and complete these steps:
- 2 Select **View Configuration Information** to see if your Oracle database administrator configured a Database Alias for you. If not, go to the next step.
- 3 Add a new database alias by selecting **Add Database Alias**. Click **OK**.
- 4 Type a SQL*Net Database Alias (database name your Oracle database administrator set up previously). Make a note of the Database Alias because you will need it during the ClearQuest database setup. Click **OK**.

Note All ClearQuest users must use the same Database Alias.

- 5 Select **TCP/IP** as the network protocol to use to communicate with the database. Click **OK**.
- 6 Type the Host Name (the name of database server machine) and the Database Instance (the system ID or SID). Get this information from your Oracle database administrator.

Note All ClearQuest users must use the same Database Alias, Database Instance (system ID or SID), TCP/IP protocol, and Host Name (Oracle server machine).

- 7 When you click **OK**, the SQL*Net Easy Configuration program asks you to confirm your choices. Click **Yes** to confirm the current configuration information.
- 8 After configuring your database, the installer displays the initial opening screen so that you can configure additional aliases. To quit the program, click **Cancel**.

Configuring an Oracle 8 Client Installation for ClearQuest

ClearQuest requires the Oracle 7 networking drivers. These drivers are not automatically installed with an Oracle 8 client installation. If you are using an Oracle 8 client installation, you must manually install the correct drivers from your Oracle CD before creating database aliases.

To configure an Oracle network client for ClearQuest, do the following.

- 1 Install the Oracle 8 Client Software by following the Oracle Networking Products documentation.
- 2 Run the Oracle Installer:
Start > Programs > Oracle for Windows > Oracle Installer
- 3 Select the files to install:
 - a In the Installer window click **From**.
 - b Browse the Oracle CD and select the following file:

```
\Win32\Install\nt.prd
```
 - c Expand **All Products > Oracle Networking Products > Oracle Protocol Adapters**.
 - d Select the following components for installation:
 - Oracle TCP/IP Protocol Adapter 2.3.4.0.0
 - SQL*Net Client 2.3.4.0.2
 - Oracle 7 Util 7.3.4.0.0
 - Required Support Files 7.3.4.1.1.
- 4 After installing, reboot your system.
- 5 Use the SQL*Net Easy Configuration program to create database aliases as described in “Configuring an Oracle 7 Client Installation for ClearQuest” on page 46.

Enhancing Search Capabilities

With a standard Oracle installation, you cannot perform a string search on multi-line text fields. For example, in ClearQuest you cannot search for text in a multi-line Notes field.

Oracle does provide an option called the ConText Option (Oracle 7) or ConText Cartridge (Oracle 8) that enables string searches in multi-line text fields. When installed, multi-line text fields become available for queries in ClearQuest.

To enable ConText with ClearQuest, do the following.

- 1** Install the ConText Option/Context Cartridge according to the Oracle documentation.
- 2** Start at least two ConText servers. Be sure to use the QDM (Query, DDL, DML) personality options.
- 3** Grant the CTXAPP role to the Oracle user logins you created when you set up the ClearQuest databases.

Now that you have set up your Oracle databases, proceed to “Installing ClearQuest for the Administrator” on page 161.

Before You Start the Rational Rose RealTime Installation

Before installing Rational Rose RealTime, remove prior releases from your system. From the **Start** menu, select **Programs > Rational Rose RealTime 6.1 > Uninstall Rational Rose RealTime 6.1**.

All directory items and registry settings are removed from your system.

After installing the current version, open a model created in an earlier version of Rational Rose RealTime to upgrade it to the current version. Convert Rational Rose and ObjecTime Developer models by following instructions in the *Rational Rose RealTime Getting Started Guide*.

Installation Requirements

Make certain that you have a current backup of your Registry and system directories prior to running the Rational Software Installation procedure.

You must install either a startup or permanent license key to use this software.

The Rational License Key Administrator online Help provides detailed instructions for installation startup and permanent license keys. See "Rational Software Client Licensing" in *Administering Licenses for Rational Software* for more information about licenses, including the procedures for obtaining an updated license key.

You must have administrator privileges to install this software.

System Requirements

Item	Requirement
Operating System	Microsoft Windows NT 4.0, Service Pack 4, 5, or 6a; Windows 2000 RC2.
Processor	150 MHz or faster.
Memory	64 MB or greater; 128 MB is recommended.

2

INSTALLING RATIONAL SUITE

Installing Rational Suite

This chapter describes how to use the Rational Software Setup wizard to install Rational Suite.

Before You Start the Rational Suite Installation

The following sections describe the steps to take and information to prepare before installing Rational Suite.

Create Backups

Make sure that you have a current backup of your Registry and system directories before running the Rational Software Setup procedure.

Upgrading from Earlier Versions

Upgrades from previous versions of products contained in Rational Suite are performed during and after the installation. Review the sections in this manual that describe Rational Software products you have already installed.

Specifying Installation Paths

The Rational Software Installation procedure uses `C:\Program Files\Rational` as the default install path.

If your `C:\` drive lacks sufficient free disk space, you may either specify another drive during the installation procedure or make space available on the default drive. Some files will be installed on your `C:\` drive; the Software Setup wizard will report the amount of space required on all drives for your installation.

Installation Requirements

Table 9, Rational Suite Requirements, describes the system and software requirements for installing Rational Suite:

Table 9: Rational Suite Requirements

Item	Requirement
Operating System	Microsoft Windows 2000; Windows NT 4.0, Service Pack 4, 5, or 6; or Windows 95 Retail Version with Service Release 2 and updates; or Windows 98 with Service Release 1. Note: Rational Suite DevelopmentStudio - RealTime Edition does not support Windows 95 and 98.
Processor	166 MHz or greater; 300 MHz or higher is recommended.
Memory	64 MB or greater; 128 MB is recommended.
Browser	Microsoft Internet Explorer 4.x with Service Release 1 or greater, or Netscape Navigator 4.x. Note: You must install Internet Explorer 4.x to use Rational Software products. However, you are not required to use it for your browser.
Disk space: Enterprise Suite (no tutorial) Enterprise Suite (with tutorial) AnalystStudio DevelopmentStudio DevelopmentStudio - RealTime Edition PerformanceStudio (no tutorial) PerformanceStudio (with Suite tutorial) Test Studio DevelopmentStudio on UNIX Developer Kit Web Components	825 MB or greater. 875 MB or greater. 650 MB or greater. 775 MB or greater. 400 MB or greater. 550 MB or greater. 600 MB or greater. 675 MB or greater. 100 MB or greater. 175 MB or greater. 350 MB or greater.

Table 9: Rational Suite Requirements (Continued)

Item	Requirement
Monitor	800 X 600 X 256-color video resolution, or greater.
Mouse/pointing device	Microsoft Mouse or compatible pointing device.
Privileges	To use the Rational Software Setup program on a Windows NT system, you must have Windows NT administrator privileges on the local system. You must have Windows NT administrator privileges on the local system to run the License Administrator as well.
Automated License Key Requests	Internet email connection required for automated license requests.
Rational Unified Process	Web browser – Microsoft Internet Explorer 4.x with Service Release 1 or greater, or Netscape Navigator 4.x.
Rational TestFactory	Visual Basic 5.x or 6.0 (optional).
SoDA and RequisitePro	Microsoft Word 97 or 2000. (For Office 97, Service Pack 3 is required.)
Java testing with Rational Test tools	Support for JDK 1.1.5 or higher.
Windows Terminal Server	All Rational Suite products except RequisitePro can be installed and run on a Windows Terminal Server console. Rose and SoDA can run on a remote terminal.
Reading Rational Documentation PDF Files	Adobe Acrobat Reader 4.x or higher.

For **Windows 2000 Professional**, Microsoft recommends:

- Pentium 200 or better
- 64 MB of RAM minimum
- At least 1 GB hard drive space available

For **Windows 2000 Server**, Microsoft recommends:

- Pentium II 233 MHz or better
- 128 MB of RAM minimum
- At least 2 GB hard drive space available

Caution Installation of Rational Suite on dual-boot systems is not supported.

After you install the software, you must install a permanent license key to use the software, unless a temporary license key was entered or a license server was pointed to during installation. The Rational License Key Administrator online Help provides detailed instructions for installing temporary and permanent license keys. See “Rational Software Client Licensing“ in *Administering Licenses for Rational Software* for more information about licenses, including the procedure for obtaining an updated license key.

Software Use

The Rational Software Setup program lets you install Rational Suite for use by a client, administrator, or evaluator. During the setup program, you select the installation option based on the way you will use Rational Suite on this system. See the table below..

Table 10: Software Use Installation Choices

User	Description	After Installation
Client	Choose this option if you do not need to administer Rational Suite software. Installs software on your machine for use in a networked team environment. An administrator at your site will set up a Rational repository on the network for your team's use.	After you choose this option and complete the installation, start any of the Rational Test components and enter the path of the Rational repository in the login dialog box.
Administrator	Choose this option if users of client software depend on you to set up and manage the team's repositories and databases. In addition to installing client software, this option installs tools so you can create, move, and upgrade Rational repositories, Rational ClearQuest schema repositories, and ClearQuest user databases.	After you choose this option and complete the installation, use the Rational Administrator to create both a Rational repository and a ClearQuest Master Schema database.
Evaluator	Choose this option if you want to do a minimum amount of configuration work before using the product. Choosing this option does not restrict your use of the software. Installs software on your machine and creates a sample Rational repository for use in a standalone environment.	After you choose this option and complete the installation, start any of the Rational Test components and select the Sample Repository in the login dialog box.

Installing Shared Components

The Rational Software Setup program needs to install shared components. A shared component is software provided by a company other than Rational. It is potentially available to other applications on your system.

If the setup program needs to update shared components, the setup program displays a list of the required files. The files listed must be installed on your system before the installation can proceed.

Setup installs U.S. English versions of the files. It does not overwrite newer file versions.

The checkbox, **Replace files with newer versions in English**, is enabled when you have installed earlier versions of the files that are localized to a non-U.S. English language. If you select this checkbox, the U.S. English versions of the files will replace your versions. If you clear this checkbox, you can save and print the list of files that need to be updated. You will need to update them yourself.

When to Install Files Yourself

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

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

Installing Rational Suite with the Rational Software Setup Procedure

This section describes a Typical installation of Rational Suite.

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

- 1 Insert either the Rational Solutions for Windows CD or the Rational RealTime Solutions for Windows CD into your system's CD drive.

When you insert the CD, the setup program starts automatically.

If autorun is disabled on your system, click **Start > Run**. Using the drive letter of your CD-ROM drive, enter `drive:\SETUP.EXE`.

- 2 The Rational Software Setup wizard will guide you through the software installation. On each dialog box, click **Next** to proceed to the next one.

The Rational Software Setup dialog box provides general information about the software installation. Click **Browse** to review Rational product information. You must have a Web browser installed to view the product gallery.

The **Save** button lets you copy the contents of the setup wizard message window to a file. The **Copy** button copies the contents of the message window in the setup wizard to the Windows clipboard. The **Copy** and **Save** buttons are enabled on wizard dialog boxes that display the license agreement or installation messages.

The **Help** button provides you with additional information regarding setup options.

- 3 On the Select Installation Option dialog box, choose which type of license option you want: **Install licensed Rational products**, **Install the license server**, or **Install unlicensed tools**.

Note To install a Rational Suite PerformanceStudio Agent, see “Installing PerformanceStudio Agents” on page 79.

If you choose to install the license server or any unlicensed tools, the Select Licensing Source or License Key Certificate dialog boxes will not appear.

- 4 On the Select License Option dialog box, choose either to import a license file, to obtain a floating license key from a server, to enter a temporary node-locked key, to use an existing license because you are upgrading or reinstalling a Rational product, or to install the product before you configure the licensing.

If you choose a temporary node-locked license, the Enter Temporary Key dialog box appears so that you can enter the license key and expiration date found on your license key certificate.

Note Rational Suite PerformanceStudio requires floating licenses. For Rational Suite PerformanceStudio, choose one of the following:

- Choose **Obtain License Key from Server** and fill in the name of the license server, if you have a License Server already installed and configured.
 - Choose **Install Product before Licensing** if you do not have a license server installed. The license server installs automatically with Rational Suite PerformanceStudio. Then start the Rational License Key Administrator to set up your floating license. For more information, see the *Administering Rational Software Licenses* manual or Rational License Key Administrator Help.
 - Choose **Upgrade or Reinstall Product** if you are upgrading or reinstalling Rational Suite PerformanceStudio.
- 5 The Choose Product to Install dialog box displays the installation options for the software installation. If you are not licensed for a particular product, it will not appear in the product list. Choose the Rational Suite product you want to install.

- 6 The License Agreement dialog box displays the Rational Software license agreement. Choose to accept or not accept the license agreement.

If you accept the license agreement, the installation continues installing Rational Suite on your system. If you do not accept the license agreement, the installation does not let you proceed further. If you exit from the installation by clicking **Cancel**, no changes are made to your system.

- 7 The Setup Configuration dialog box describes the setup options for this software installation. Select the installation option. The options are described in “Installation Types” on page 16.

If you choose the **Custom/Full** installation option, you will see the Choose Features dialog box. This dialog box lets you specify exactly which features and subfeatures to install on your system. Use the **+** to expand and select or clear options as desired. There are dependencies between some products which may force an installation option, even if you have cleared it.

You *must* choose the **Custom/Full** installation option to install either RequisiteWeb or ClearQuestWeb. See “Installing RequisiteWeb on the IIS Server” on page 125 and “Setting up ClearQuest Web” on page 173.

Note

If you have previously performed a Typical installation of Rational Suite with the Rational Software Setup program, the Minimal installation type is disabled. Similarly, if you performed a Minimal installation, then all other installation types are disabled. You must remove Rational Suite to enable all installation options.

Confirm that you have sufficient free space for the installation. If the amount of free space is less than the amount required, either exit from the installation procedure and make more space available on the specified disk or specify an alternate Install Path.

To specify another Install Path, type the new path in the Install Path field or use the **Browse** button to select a drive and directory.

The setup procedure installs Microsoft Core Components and some additional files on the same drive as the operating system (often the C:\ drive), even if you have specified an alternate drive for installation. These files can require up to 20 MB of disk space on your hard drive.

Note The installation program requires that all Rational programs be installed in the same directory. If any Rational product has been previously installed with the Rational Software Setup program, the browse option and Install Path field are disabled. You must remove and reinstall Rational Suite to specify a new Install Path.

8 The Update Shared Components dialog box appears if the Rational Software Setup program needs to update some shared files or components on your system. Click **Next** to have Rational Software Setup install these files for you or **Cancel** to install these files yourself. For additional information, see “Installing Shared Components” on page 56 or the Rational Software Setup online Help.

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

9 The Software Use dialog box appears if you have selected a Rational Suite, ClearQuest, or Robot product for installation. Table 10, Software Use Installation Choices, on page 55 describes the available choices.

10 The Upgrade Compatibility dialog box appears if you have additional, older Rational products installed on your system. Because Rational tools share files and components, this installation can cause the older Rational products to stop working. You will see no visual clue to indicate that the older products may be compromised.

For each of the additional, older products listed, we strongly recommend that you take one of the following actions:

- **Upgrade it:** Complete this installation, and then restart the Setup wizard to upgrade the next product. Upgrading a product updates all necessary files, registry entries, startup menu items, and shared components on your system.

- **Remove it:** Complete this installation, and then use the Control Panel's Add/Remove Programs tool to remove the next product. Removing a product deletes files, registry entries, and startup menu items from your system.

A Web site exists to provide more details about interactions between specific products. To visit the Web site, please see <http://www.rational.com/sitewide/support/index.itmpl>. Click **Patches and Upgrades**, and then click **Upgrade Compatibility**.

- 11 The Confirmation dialog box displays the product features to be installed.
- 12 The Error Summary dialog box displays errors from the first part of the software installation. If the installation is successful, you do not see this dialog box.

The Rational Software Setup program writes a log of installation activities. The log file is located in
<Install Path>\Rational\RSSetup\RSsetup.log.

Possible Reboot Required

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

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

The installation process continues on your system.

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

Rational Suite PerformanceStudio Installation Tasks

If you are installing Rational Suite PerformanceStudio, after installation is complete, you should do the following:

- Install the RSPS Network Driver. For more information, see “Installing the RSPS Network Driver” on page 77.
- Optionally, install Agent software. For more information, see “Installing PerformanceStudio Agents” on page 79.

Removing Rational Suite

This section describes how to remove Rational Suite from your system.

Preparing to Remove Rational Suite

Make sure that no one is using Rational Suite or any associated files. You cannot remove files that are in use.

To remove Rational Suite from a Windows NT system, you must have Windows NT administrator privileges on the local machine.

To Remove Rational Suite

Use the Windows **Add/Remove Programs** control panel to select and remove Rational Suite. The Rational Software Setup program removes Rational Suite from your system. It does not remove directories containing files that you have created while using Rational Suite products.

3

Installing Rational Rose RealTime

This chapter describes how to use the Rational Software Setup wizard to install Rational Rose RealTime.

For the most current information related to Rational Rose RealTime features and known issues, refer to the Release Notes document that is, by default, at the following location on your system after installation: `C:\Program Files\Rational\Rose RealTime\readme.txt`.

Installing Rational Rose RealTime with Rational Software Setup

The Rational Software Installation procedure uses `C:\Program Files\Rational` as the default installation path. You may specify another drive during the installation procedure.

Note If you have installed another Rational Suite product, you cannot select an alternative location for your Rational Rose RealTime installation.

This section describes a Typical installation of Rational Rose RealTime. For a more detailed description of the installation procedure see “Installing Rational Suite with the Rational Software Setup Procedure” on page 57.

Caution Canceling an installation that is in progress may leave your system in an indeterminate state. If you click **Cancel** while your installation is in progress, you are asked to confirm that you want to exit from the incomplete installation.

- 1 Insert the Rational RealTime Solutions for Windows CD into your system's CD drive.

If the system is configured with the autorun feature enabled, the setup program will run automatically. If autorun is disabled on your system, click **Start > Run**. Using the drive letter of your CD-ROM drive, enter `[drive]:\setup.exe`.

- 2 The Rational Software wizard guides you through the software installation. Follow the instructions for “Installing Rational Suite with the Rational Software Setup Procedure” on page 57. On the Choose Products dialog box, select Rational Rose RealTime.
- 3 The Rational Software Setup program writes a log of the installation activities. The log file is located in
<Install Path>\Rational\RSSetup\RSSetup.log.

Possible Reboot Required

If files that are required for the installation are in use during the installation procedure, the Rational Windows Setup program may need to reboot your system to complete the installation. After rebooting, log on as the same user to complete the installation procedure.

4

Rational Suite Testing Products: Post - Install

This chapter contains information about tasks to do after you install Rational Suite testing products such as Rational Suite Enterprise, Rational Suite PerformanceStudio, and Rational Suite TestStudio. It includes the following topics:

- Upgrading from Rational Suite 1.5
- Upgrading from SQA Suite 6.x
- Upgrading from Rational Suite 1.0
- Upgrading from preVue-C/S
- Installing Additional Software

Upgrading from Rational Suite 1.5

You can install this version of any Rational Suite product directly over the Rational Suite 1.5 version.

Upgrading from SQA Suite 6.x

The section contains information about upgrading from SQA Suite 6.x to Rational Suite Enterprise, Rational Suite PerformanceStudio, or Rational Suite TestStudio products.

Summary of Tasks

The following table lists the type of tasks that you use to test an application, the component you used for each task in SQA 6.x, and the component you now use to do the same task.

Table 11: Summary of Tasks

To	For SQA Suite 6.x, you used	For current Rational Suite testing products, you use
Create a repository.	SQA Administrator	Rational Administrator
Create test requirements.	SQA Manager	Rational TestManager
Create scripts or procedures.	SQA Robot	Rational Robot
Check for pass/fail of scripts.	SQA Log Viewer	Rational LogViewer
Track defects.	SQA Manager	Rational ClearQuest
Run a report on a defect.	SQA Manager	Rational ClearQuest
Run a report on test coverage.	SQA Manager	Rational TestManager
Customize a report format used to track defects in your application.	SQA Manager	Rational ClearQuest Note: To customize reports, you must install Crystal Reports, which comes with Rational Suite testing products. For more information, see Installing Crystal Reports on page -93.

New Terminology

The following table lists the terminology used in SQA Suite 6.x and the new terminology used in current Rational Suite testing products.

Table 12: Terminology in Rational Suite Testing Products

SQA Suite 6.x term	Current Rational Suite testing product term
SQA Manager	Rational TestManager and Rational ClearQuest
SQA OCX	Rational ActiveX Test Control
SQA Test Log Viewer	Rational LogViewer

Table 12: (Continued) Terminology in Rational Suite Testing

SQA Suite 6.x term	Current Rational Suite testing product term
SQA Text Comparator	Text Comparator and Grid Comparator
SQAVU language	VU language
test case	verification point
test procedure	script

Upgrading a Rational Repository

You can use data from an existing SQA Suite 6.x or a Rational PerformanceStudio 7.0 repository in a new Rational repository. When you create a repository in the current release, the Create Repository Wizard gives you the option of initializing a repository with data from an existing repository.

For information about creating a Rational repository with data from an existing repository, see the *Using the Rational Administrator* manual.

Simplifying the Migration

Use the information in this section to simplify your migration from SQA Suite 6.x.

Long File Names

Robot now supports long file names with spaces. Because of this, a script (formerly called a test script) no longer has a separate ID (which had a maximum of eight characters). The name of the script, which can have a maximum of 40 characters, is now used as the file name.

Scripting Languages

You no longer need to select a GUI scripting language at installation. The SQABasic language is now used for all GUI scripts.

Using Defect Reports

Your Rational Suite testing products comes with special defect reports to help you manage your testing efforts. Use Rational ClearQuest to run these special reports to track your defects when

testing applications. When you create a Rational repository that contains an associated ClearQuest database, you automatically get these defect reports and report formats to use with ClearQuest. For more information about creating a repository with a ClearQuest database, see *Creating a Repository* in Chapter 2 of the *Using the Rational Administrator* manual.

You can customize a defect report or create new reports by customizing a report format or by creating a new report format using Rational ClearQuest. To customize a report format, you must install Crystal Reports 6.0 Professional Edition, which comes with your Rational Suite testing product.

To install Crystal Reports:

- Use the Crystal Reports installation directions that come with the Crystal Reports CD-ROM.

Using SQA 6.x Repository Data in a Rational Repository

You can use data from an existing SQA Suite 6.x repository in a Rational repository. When you create a new Rational repository, the Create Repository Wizard gives you the option of initializing a repository with data from an existing SQA Suite 6.x repository.

For information about creating a Rational repository with SQA Suite 6.x data, see *Creating a Repository* in Chapter 2 of the *Using the Rational Administrator* manual.

When to Convert SQA Suite 6.x Repository Data

We recommend that you convert SQA Suite 6.x repository data to Rational repository data after you finish a project.

The following table lists the data that is converted from an SQA Suite 6.x repository to a Rational repository:

Table 13: Data Conversion Table

Type of SQA Suite 6.x data	Converted?
Custom reports and graphs	No
Defects (For information about defects, see “Details About Converting Defects” on page 70.)	Yes
E-mail rules	No
Filters for defects or test procedures	No
Groups (Privileges are not converted.)	Yes
List reports	No
LoadTest schedules	No
Projects	Yes
Requirements	Yes
Test cases (called <i>verification points</i> in a Rational repository)	Yes
Test logs	No
Test plans	Yes
Test procedures (called <i>scripts</i> in Rational repository)	Yes
Users (Privileges are not converted.)	Yes
Virtual user test procedures (called <i>virtual user scripts</i> in a Rational repository)	No

Conversion Details

When you create a Rational repository with SQA Suite 6.x data, the converter does the following:

- Prefixes a script or verification point ID with a period (.) in the name with “_RENAMED_”.
- Converts a period (.) in a script name or verification point ID to an underscore (_).

For example, a script named `wn95.tst` converts to `_RENAMED_wn95_tst`. A verification point ID named `alpha.b2` converts to `_RENAMED_alpha_b2`.

Details About Converting Defects

Your Rational testing products incorporate the change-request management technology of Rational ClearQuest to track defects. For your convenience, Rational ClearQuest includes a specially designed defect form, the TestStudio defect form, similar to the SQA 6.x Manager defect form.

The following table lists each field in an SQA 6.x defect form and the comparable field in the TestStudio defect form. For more information about using the TestStudio form, see the *Using Rational Robot* manual.

Note: The word *List* in the Description column of the following table indicates that if you customize a list in SQA 6.x, it converts to a list in the TestStudio defect form.

Table 14: Converting Defects

SQA 6.x defect field	TestStudio defect field	Description
ID	New ID generated	The SQA 6.x ID does not appear on the defect form, but you can use the query feature of ClearQuest to find it. For more information, see the Rational ClearQuest Help.
Description	Headline/Description	Converts the first 125 characters or up to the first carriage return and places this text in the Headline field. The entire SQA 6.x Description field also appears in the Description field of the TestStudio defect form.
Priority	Priority	List
Severity	Severity	List
Occurrences	(Not converted)	
Keywords	Keywords	List
Symptoms	Symptoms	List
Build Found	Notes	In SQA 6.x, a Build Found field is a text field. In Rational Suite, Builds are objects that contain log folders and logs. The text data from the Build Found field is stored in Notes. A Build object is not created for each SQA 6.x Build Found field.
Build Fixed	Notes	In SQA 6.x, a Build Fixed field is a text field. In Rational Suite, Builds are objects that contain log folders and logs. The text data in the Build Fixed field is stored in Notes. A Build object is not created for each SQA 6.x Build Fixed field.

Table 14: (Continued) Converting Defects

SQA 6.x defect field	TestStudio defect field	Description
Proc	Script	
Case	Verification Point	
Cycle	(Not converted)	
Reported By	Reported By Contact	
Reported By Company	Reported By Company	
Hardware	Hardware	List
Operating System	Operating System	List
Other	Other Environment	
Test Station	(Not converted)	In SQA 6.x, a Test Station field is a text field. In Rational Suite, the Computers field replaces the Test Station field and is an object. A Computer object is not created for each SQA 6.x Test Station field.
Log	(Not converted)	
Custom 1	Custom 1	List If you customized the label for this field in SQA 6.x, the label is not converted. Use the ClearQuest Designer to customize this label.
Custom 2	Custom 2	List If you customized the label for this field in SQA 6.x, the label is not converted. Use the ClearQuest Designer to customize this label.
Custom 3	Custom 3	If you customized the label for this field in SQA 6.x, the label is not converted. Use the ClearQuest Designer to customize this label.
Attachment	Attachments	You can attach more than one file after you convert to a Rational Suite repository.
Requirement	Requirement	
Status History	History	
Resolution	Resolution	List
Resolution Description	Resolution Note	
Modified Software	(Not converted)	

Note: The `convert.txt` file in the converted project directory contains the conversion status of each verification point and script. Use this file as a diagnostic tool if you have any problems with your data after conversion.

Upgrading from Rational Suite 1.0

This release of Rational Suite testing products uses ClearQuest 2.0. If you used the TeamTest schema available in earlier releases of ClearQuest, you need to upgrade the schema before you use a current Rational Suite testing product. The new schema, the TestStudio schema, replaces the TeamTest schema.

To upgrade the TeamTest schema:

- 1 Click **Start > Programs > Rational product name > Rational ClearQuest > Rational ClearQuest Designer**.
- 2 If the Open Schema Wizard appears, make sure that the schema you want to upgrade is not checked out, and then click **Cancel**. If it is checked out, check it in or undo the check out.
- 3 Click **Package > Package Wizard**.
- 4 You must complete steps a through e for each of the following packages:
 - TeamTest Upgrade 0.1
 - Repository Upgrade 0.2
 - RequisitePro 1.1
 - PQC 1.0
 - Email Upgrade 1.0

If any of the packages listed above do not appear in the list, click **More Packages** to add the missing packages to the list, and then click **OK**.

- a Select the package, and then click **Next**.
- b Select a TeamTest-based schema to which you want to apply the package, and then click **Next**.

- c Click **Defect** (or if you renamed the record type, click that record type), and then click **Finish**. This opens a new revision of the schema with the package that you applied.
 - d Click **File > Check In**. Add your comments, and then click **OK**.
 - e Click **OK**.
- 5** After you finish applying the last package, do the following:
- a Click **File > Open Schema** and then open the schema you just upgraded using the Open Schema Wizard.
 - b Double-click **Record Types**.
 - c Double-click **Defects**.
 - d Double-click **Forms**.
 - e For each of the two forms, complete steps i. through iii.
 - i Double-click each form.
 - ii Select the drop-down list next to the Project label, and then right-click **Properties**.
 - iii Select **RepoProject** from the Field Name list, and then click **OK**.
- 6** Do the following to upgrade your database:
- Click **Database > Upgrade Database**.
 - Click **Yes**.
 - Select the database to upgrade, and then click **Next**.
 - Select the latest version, and click **Finish**.
- 7** Click **File > Check In**. Add your comments, and then click **OK**.
- 8** Click **OK**.

9 Click **Package > **Package Wizard**.**

You must complete steps a through g for the Resolution upgrade package.

- a Select the Resolution Upgrade 1.0, and then click **Next**.
If this package does not appear in the list, click **More Packages** to add the missing package to the list, and then click **OK**.
- b Select a TeamTest-based schema to which you want to apply the package, and then click **Next**.
- c Click **Defect** (or if you renamed the record type, click that record type), and then click **Next**. The Setup State Types page of the Package Wizard appears.
- d Under the State Type column, choose **Resolved** in the row of the state you want to set to *resolved*.
- e Click **Finish**.
- f Click **File** > **Check In**. Add your comments, and then click **OK**.
- g Click **OK**.

10 Click **File > **Exit** to close ClearQuest Designer.**

Upgrading from preVue-C/S

If you are upgrading to Rational Suite PerformanceStudio from preVue-C/S, the following information may be helpful.

Importing preVue-C/S Scripts

To use a preVue-C/S script in Rational Suite PerformanceStudio:

- 1** Copy the script file into the repository's script directory for the project, typically **...\Project\Default\Script**.
- 2** Start Rational LoadTest, and then log into the repository.

- 3 If you have not created a schedule, do the following:
 - a Click **File > New > Schedule**.
 - b Click **Blank Schedule**, and then click **OK**.
 - c Click **Insert User Group**, and then click **OK**.

- 4 Click **Insert > Script**.

Since the script is unknown to the repository, you must type its name (without the `.s` suffix) because it does not appear in the script query list. Inserting the script into the schedule in this way causes LoadTest to also insert the script into the repository, just as if you had recorded it using Robot.

You can now use the script in a schedule, just as if you had recorded it within Robot.

Preprocessor Differences

In preVue-C/S, the VU language used your local C preprocessor. Therefore, the available preprocessor features depended on the preprocessor on your computer.

Rational Suite PerformanceStudio, however, ships with the GNU C preprocessor, so you will see the GNU C preprocessor features.

Reserved Words

In preVue-C/S, the reserved words in the VU language included all ASCII, X, and C/S reserved words. The preVue-C/S reserved words have migrated to LoadTest.

SME Toolkit

The preVue-C/S SME toolkit is shipped with Rational Suite PerformanceStudio. Many of the file I/O and synchronization routines in the toolkit are now implemented using standard PerformanceStudio features such as datapools and synchronization points.

However, for compatibility purposes, you can still use scripts that used the SME toolkit. The header files are included in Rational Suite PerformanceStudio. Scripts that reference the INCLUDE files—for example, `#include "SME/data.h"`—will get SME toolkit functionality.

Installing Additional Software

The following table lists the additional components that you can install for Rational Suite testing products and where to find information about each one.

Table 15: Additional Software

To install	See
PerformanceStudio network driver	"Installing the RSPS Network Driver" on page 77
PerformanceStudio Agents	"Installing PerformanceStudio Agents" on page 79
Rational Robot for GUI testing (used with PerformanceStudio)	"Installing Rational Robot with PerformanceStudio" on page 85
Rational Test Enablers	"Installing the Rational Test Enablers" on page 88
Rational TestAccelerator	"Installing Rational TestAccelerator" on page 90
Rational TestManager/Web — Manual Script Execution	"Installing Rational TestManager – Manual Script Execution" on page 92
Sybase SQL Anywhere Database Server	"How to Install the Sybase SQL Anywhere Database Server Software" on page 86
Sample applications and applets	"Installing the Sample Applications" on page 90
Crystal Reports	"Installing Crystal Reports" on page 93

Installing Additional Rational Suite PerformanceStudio Software

After you install the Rational Suite PerformanceStudio Master, you can install additional software according to your testing needs, as follows:

Table 16: Additional Rational Suite PerformanceStudio Software

To	Install
To record scripts and sessions over a network:	The Rational Suite PerformanceStudio (RSPS) network driver. For information, see "Installing the RSPS Network Driver" on page 77.
Remotely run test scripts on Windows or UNIX Agents:	Rational Suite PerformanceStudio Agents. For information, see "Installing PerformanceStudio Agents" on page 79.
Record GUI scripts on multiple computers:	Rational Robot on each computer. For information, see "Installing Rational Robot with PerformanceStudio" on page 85.

Installing the RSPS Network Driver

After installing the PerformanceStudio Master software, you must install the Rational Suite PerformanceStudio (RSPS) network driver to record scripts and sessions over a network. The following sections explain how to do this on Windows NT and Windows 2000.

Installing the Network Driver on Windows NT

To install the RSPS network driver on Windows NT:

- 1 Turn on the Master computer.
- 2 Click **Start > Settings > Control Panel**.
- 3 Double-click the **Network** icon.
- 4 Click the **Protocols** tab.
- 5 Click **Add**.
- 6 Click **Have Disk**. The required files were installed on the Rational directory during installation.
- 7 Specify one of the following file paths to install the driver.

- For Windows NT Ethernet networks, type:

C:\Program Files\Rational\Rational Test 7\driver
or *installpath*\driver

where *installpath* is the drive and path where you installed the PerformanceStudio Master software.

- For Windows NT Token Ring networks, type:

C:\Program Files\Rational\Rational Test 7\drivertk
or *installpath*\drivertk

where *installpath* is the drive and path where you installed the PerformanceStudio Master software.

Note You can install only one type of driver on your computer at a time, either Ethernet or Token Ring. You must remove one type of driver before installing a new type of driver. For information about removing a network driver, see Removing the Rational Suite PerformanceStudio Network Driver on page -84.

- 8 Click **OK**.
- 9 In the Select OEM Option dialog box, click **OK** again to verify the driver.
- 10 Click **Close**.
- 11 Click **Yes** to shut down Windows and restart your computer after you install the network driver.

Installing the Network Driver on Windows 2000

To install the RSPS network driver on Windows 2000:

- 1 Turn on the Master computer.
- 2 Click **Start > Settings > Network and Dialup Connections**.
- 3 Right-click **Local Area Connection**, and then select **Properties** from the context menu.
- 4 Click **Install**.
- 5 Click **Protocol**, and then click **Add**.
- 6 Click **Have Disk**.
- 7 Enter the path where the driver is located, or browse for the driver. For example, type:

```
C:\Program Files\Rational\Rational Test 7\driverw2k  
or installpath\driverw2k
```

where *installpath* is the drive and path where you installed the PerformanceStudio Master software.
- 8 Select either **Ethernet** or **Token Ring** network, and then click **OK**.
- 9 Click **Yes** to shut down Windows and restart your computer after you install the network driver.

Installing PerformanceStudio Agents

After you install and license Rational Suite PerformanceStudio on a Master computer, you have the option of installing PerformanceStudio Agents on other computers. An Agent computer can be a Windows or UNIX computer.

You use an Agent computer to:

- Add workload to a server.
The Master computer may lack sufficient resources to host all the virtual users you want to include in a test. An Agent allows you to distribute virtual users.
- Play back functional tests. You can distribute your functional tests among different computers to save time.
You can specify that an Agent is to run a certain percentage of GUI scripts during a run, or you can run multiple identical GUI scripts simultaneously to test how a server accessed by the client might react under high demand condition.

Note The Master and Agent PerformanceStudio software that you install must be the same version; otherwise, the Master and Agent computers will not work together.

Installing a Windows Agent

To install Agent software on a Windows computer:

- 1 Turn on the computer to start Windows.
- 2 Log in using an account with Administrator privileges.
- 3 Insert the Rational Suite PerformanceStudio CD into your CD drive. The installation starts automatically.

If the installation does not start automatically, do the following:

- a Click **Start > Run**.
 - b Type `drive:\SETUP.EXE, \SETUP.EXE` and click **OK**,
where *drive* is the CD drive you are using.
- 4 In the Rational Software Setup screen, click **Next**.
 - 5 Click **Install Unlicensed Tools**, and then click **OK**.
 - 6 Select **Rational Suite PerformanceStudio Agent** from the list of available products, and then click **Next**.
 - 7 Follow the on-screen instructions to complete the installation.

The Rational Setup Wizard displays a series of dialog boxes that guide you through the installation process and prompt you for information.
 - 8 In the last dialog box, click **Finish**.

You must restart your computer to finish the installation.
 - 9 Log in again using the same user account and Administrator privileges that you used to start the installation.

Starting a Windows Agent

A Windows Agent runs as an application. In Windows NT, the PerformanceStudio Agent starts automatically when you restart the computer. To play back a GUI script, you must log into the Agent with read/write permission for the repository you want to work in.

You can run an Agent as an NT service, if the Agent is used only for virtual users.

To run an Agent as an NT service for virtual users:

- 1 Right-click the **Start** menu. Click **Open All Users**.
- 2 Double-click **Programs**.
- 3 Double-click **Startup**.
- 4 Delete **PerformanceStudio Agent**.
- 5 If the Agent is running, you must exit it before going to the next step.
- 6 Click **Start > Run**.
- 7 Type `sqa7psvc -install`, and then click **OK**.
- 8 Start the Agent as an NT service:
 - a Click **Start > Settings > Control Panel**.
 - b Double-click **Services**.
 - c Select **PerformanceStudio Agent Service** from the list of services, and then click **Start**.
- 9 To start the Agent automatically when you restart your computer:
 - a Click **Startup**.
 - b Click **Automatic** in the **Startup Type** box, and then click **OK**.

Installing a UNIX Agent

To install Agent software on a UNIX Agent computer:

- 1 Turn on the Agent computer.
- 2 Log in as root.
- 3 Type the password.
- 4 Create the installation directory:

```
# mkdir -p /usr/rational/test7
```
- 5 Insert the Rational Suite PerformanceStudio CD into your CD drive.

If the CD does not automount, then use the appropriate UNIX mount command to mount the CD.

6 Change your directory to the CD directory.

For an Agent on a Solaris operating system:

```
# mount /dev/dsk/c0t6d0s0 /cdrom
# cd /cdrom/solaris_agent
```

For an Agent on an HP-UX 11.x operating system:

```
# pfs_mount ldev/rdisk/c0t2d0 -t rrip /cdrom
# cd /cdrom/hp11_agent
```

For an Agent on an HP-UX 10.10 or later operating system:

```
# mount -r -F cdfs -o cdcase /dev/dsk/c0t2d0 /cdrom
# cd /cdrom/hp10_agent
```

For an Agent on an AIX 4.1 or 4.2 operating system:

```
# mount -vcdvfs -r /dev/cd0 /cdrom
# cd /cdrom/aix4.1_agent
```

For an Agent on an AIX 4.3 operating system:

```
# mount -vcdvfs -r /dev/cd0 /cdrom
# cd /cdrom/aix4.3_agent
```

For an Agent on a Red Hat 6.x release of Linux:

```
# mount /dev/cdrom /mnt/cdrom
# cd /mnt/cdrom/linux_agent
```

For an Agent on a Sequent operating system:

```
# mount -r -f cdfs /dev/dsk/cd1 /cdrom
# cd /cdrom/sequent_agent
```

7 Copy the installation files to your hard drive.

```
# find . -print|cpio -pdvm /usr/rational/test7
```

8 Change your directory to the directory that contains the installation script.

```
# cd /usr/rational/test7/bin
```

9 Run the installation script.

```
# ./agent_install
```

10 Start the UNIX Agent.

a Change to the Bourne shell.

```
# sh
```

b Change your directory to the installation directory.

```
# cd /usr/rational/test7/bin
```

c Set the TEST7HOME and PATH environment variables:

```
# TEST7HOME=/usr/rational/test7
```

```
# export TEST7HOME
```

```
# PATH=$PATH:/usr/rational/test7
```

```
# export PATH
```

d Start the Agent daemon.

```
# ./SQA7sagt
```

Restarting a UNIX Agent

To restart the UNIX Agent manually:

1 Change to the Bourne shell.

```
# sh
```

2 Change your directory to the installation directory.

```
# cd /usr/rational/test7/bin
```

3 Set the TEST7HOME and PATH environment variables:

```
# TEST7HOME=/usr/rational/test7
```

```
# export TEST7HOME
```

```
# PATH=$PATH:/usr/rational/test7
```

```
# export PATH
```

4 Start the Agent daemon.

```
# ./SQA7sagt
```

Removing Your Software

The following section explains how to remove the Rational Suite PerformanceStudio network drivers on Windows NT and 2000.

Removing the Rational Suite PerformanceStudio Network Driver

If you need to switch from an Ethernet network to a Token Ring network, or the reverse, you must remove the driver for the unwanted network type before you install the driver for the new network type.

To remove a network driver on Windows NT:

- 1 Click **Start > Settings > Control Panel**, then double-click the **Network** icon.
- 2 Click the **Services** tab.
- 3 Select the **Rational Suite PerformanceStudio** network driver from the **Network Services** list.
 - If your current driver is from Rational Suite PerformanceStudio 1.0 or earlier, including PerformanceStudio 7.1.1, 7.1, or 7.0, select **PerformanceStudio Network Driver**.
 - If your current driver is from Rational Suite PerformanceStudio 1.5, select **RSPS Network Driver**.
- 4 Click **Remove**.
- 5 Click **Yes** to confirm that you want to remove the driver.
- 6 When the removal is complete, click **Close**.
- 7 Click **Yes** to reboot the computer.

When the computer restarts, you can install the new network driver.

For information, see “Installing the RSPS Network Driver” on page 77.

To remove the network driver on a Windows 2000 computer:

- 1 Click **Start > Settings > Network and Dialup Connections**.
- 2 Right-click **Local Area Connection**, and select **Properties** from the context menu.
- 3 Select **PerformanceStudio Network Driver 2000** from the Network Services list.
- 4 Click **Uninstall**.
- 5 Click **Yes** to confirm that you want to remove the driver.
- 6 When the removal is complete, click **Close**.

Click **Yes** to reboot the computer.

Installing Rational Robot with PerformanceStudio

If you install Rational Suite PerformanceStudio, Rational Robot installs automatically. However, to record GUI scripts on multiple computers, you need to install Robot on each computer. A separate node-locked license is required for Robot-only installations. For information about installing node-locked licenses, see the *Administering Rational Software Licenses* manual or the Rational License Key Administrator Help.

To install Rational Robot:

- Follow the Rational Setup to install Rational Robot. For information, see “Installing Rational Suite with the Rational Software Setup Procedure” on page 57.

Installing SQL Anywhere Server Database Software

If you created an SQA Suite 6.1 SQL Anywhere Server repository and want to use data from that repository in a 1.5 SQL Anywhere Server database, you must configure existing 6.1 SQL Anywhere clients to access the 1.5 SQL Anywhere Server database.

Since you cannot run a 1.5 and a 6.1 SQL Anywhere Server on the same computer, do the following to gain access to a 6.1 SQL Anywhere Server database:

- 1 Click **Start > Programs > Rational product name > Rational Administrator**.
- 2 Double-click **SQL Anywhere Database Servers** in the left pane of the Administrator to display all databases.
- 3 Right-click the 7.0 SQL Anywhere database that you want to use, and then click **Properties**.
- 4 Click the **Advanced** tab.
- 5 In the Additional database server switches box, type:

```
pathname\databasefilename -n databasename
```

where *pathname* is the path to the 6.1 database file,
databasefilename is the name of the 6.1 database file,
and *databasename* is the name of the 6.1 database.
For example:

```
c:\repo\sqlanydb\sqa61.db -n mydb
```
- 6 Click **OK**.

How to Install the Sybase SQL Anywhere Database Server Software

When you install the SQL Anywhere Database Server, it installs the Rational Administrator and other Rational Suite testing components that you need to manage Rational repositories in a networked, client/server environment. The SQL Anywhere Database Server provides tools, samples, and related library files for your SQL Anywhere Database Server. Installing the SQL Anywhere Database Server software does not require a separate license.

(A Rational repository is a group of databases that stores application testing information such as scripts and logs.)

Note: You must install the SQL Anywhere Database Server software on a network server running Microsoft Windows NT. Installing the SQL Anywhere Database Server software does not require a license.

To begin the installation:

- 1 Turn on the computer to start Windows.
- 2 Log in using an account with Administrator privileges.
- 3 Quit any applications before installing any software product.
- 4 Insert the CD-ROM into your CD-ROM drive. The installation starts automatically.

If the installation does not start automatically, do the following:

a Click **Start > Run**.

b Type *drive:\SETUP.EXE*, and then click **OK**.

- 5 At the Rational Software Setup screen, click **Next**.
- 6 Click **Install Unlicensed Tools**, and then click **OK**.
- 7 Select **Sybase SQL Anywhere Database Server 5.5.04** from the list of available products, and then click **Next**.
- 8 Read the terms of the license agreement carefully, select one of the following, and then click **Next**.
Yes, I accept the agreement. If you accept the agreement, the Setup program continues.
No, I don't accept the agreement. If you do not accept the agreement, the Setup program ends.
- 9 Select **Typical**, and then click **Next**.

Note You can only select the **Typical** type of configuration for the Sybase SQL Anywhere Database Server installation. Select **Administrator** to set up a server, and then click **Next**.

- 10 View the selections that you have made, and if correct, click **Next**.

Note Although the summary page asks you to verify that you have a license key for this product, you do not need a license for the SQL Anywhere Database Server software.

- 11 Click **Finish** when done.

What to Do Next

After you install the SQL Anywhere Database Server software, you must configure the SQL Anywhere Database Server. For information, see Chapter 4 of the *Using the Rational Administrator* manual.

Installing the Rational Test Enablers

The Rational Test Enablers consist of the following:

- **Rational ActiveX Test Control** – Install to test the properties of the ActiveX controls in your application using Rational Robot.
Note If you are using a development environment other than PowerBuilder, Oracle Forms, Visual Basic, Java, or HTML, and you want to test the properties of your ActiveX controls, you must manually add the Rational ActiveX Test Control to each OLE container in your application. For instructions, see the documentation that comes with your development environment.
The ActiveX Test Control provides communication between any OLE container and Robot. It is a non-intrusive control and has no impact on the behavior or performance of your application. At runtime, the Rational ActiveX Test Control is not visible.
- **Rational Test Java Enabler** – Required to test Java applets running in a browser, or to test stand-alone Java applications. This Enabler scans your hard drive for Web browsers and Sun JDK installations that Robot supports and enables only those environments currently installed on your system. Run the enabler each time you install a new Java environment, such as a new release of a browser or JDK.
- **Rational Test Oracle Forms Enabler** – Install to test Oracle Forms 4.5 and 5.0 applications. Installs both the Rational Test Oracle Forms Enabler and the Rational Test Object Testing Library for Oracle Forms.
Note Be sure to install Oracle Forms 4.5 or 5.0 and the Oracle Open Client Adapter for ODBC before you install the Rational Test Oracle Forms Enabler.

- **Rational Test Visual Basic Enabler** – Install to test Visual Basic 4.0 applications. Ensures that all forms in your project, including MDI forms, contain the Rational ActiveX Test Control. This Enabler is an add-in (extension) to Visual Basic 4.0. For more information about Visual Basic add-ins, see your Visual Basic documentation.

Note

You do not need the Enabler to test Visual Basic 5.0 and later applications.

For more information about the Rational Test Enablers, see the *Using the Rational Robot* manual.

To install the Rational Test Enablers:

- 1 Turn on the computer and start Windows.
- 2 Insert the CD-ROM into your CD-ROM drive. The installation starts automatically.

If the installation does not start automatically, do the following:

- a Click **Start > Run**.
 - b Type *drive:\SETUP.EXE*, and then click **OK**.
- 3 At the Rational Software Setup screen, click **Next**.
 - 4 Click **Install Unlicensed Tools**, and then click **Next**.
 - 5 Select **Rational Test Enablers**, and then click **Finish**.

The Rational Test Enablers installation starts.

- 6 Select one of the following, and then click **Next**.

Rational ActiveX Test Control

Rational Test Oracle Forms Enabler

Rational Test Java Enabler

Rational Test Visual Basic Enabler

- 7 Follow the on-screen instructions to complete the installation.

Installing Rational TestAccelerator

Rational TestAccelerator, a component of Rational TestFactory, lets you remotely manage and run test scripts. To manage and run test scripts remotely, you must install TestAccelerator on each system that you want to do automated distributed testing.

You must use a floating license for each system running TestAccelerator. For information about setting up a license server for floating licenses, see the chapter *Rational Software Server Licensing* in the *Administering Rational Software Licenses* manual. For information about setting up your client system to use a floating license, see the chapter *Configuring Your Client System to Use a Floating License* in the *Administering Rational Software Licenses* manual.

To install TestAccelerator, see “Installing Rational Suite with the Rational Software Setup Procedure” on page 57. On the Choose Product to Install page, select **Rational TestAccelerator**.

Installing the Sample Applications

The sample applications that come with Rational Suite testing software consist of the following components:

- **Sample application** – You use the Classics Online sample application with the Rational Robot tutorial in the *Getting Started with Rational Robot* manual.
- **Small sample applets** – You use the sample applets with the *Try it!* cards for quick and easy instructions about recording tests on controls created in specific development environments. You can install sample applets for Java, HTML, Oracle Forms, PowerBuilder, and Visual Basic development environments.
- **Sample repository** – You use the sample repository with the Rational Robot tutorial and *Try it!* cards. The sample repository installs automatically when you install a sample application or sample applet.

Note Before you install and run the Oracle sample application for the *Try it! with Oracle* card, you must install Oracle Forms 4.5 or 5.0 and the Oracle Open Client Adapter for ODBC.

To install the sample application, sample applets, and sample repository:

- 1 Install Rational Suite TestStudio, Rational Suite PerformanceStudio, or Rational Suite Enterprise. For information about installing any of these products, see “Installing Rational Suite with the Rational Software Setup Procedure” on page 57.
- 2 Click **Start > Programs > *Rational product name* > Rational Test > Set Up Rational Test Samples**.
- 3 Select the sample application and the sample applets that you want to install:
 - HTML Sample**
 - Java Sample**
 - Visual Basic Sample**
 - PowerBuilder Sample**
 - Oracle Sample**
 - Classics Online**
- 4 Click **Next**.

Installing Rational TestManager – Manual Script Execution

Rational TestManager – Manual Script Execution is a Web Server component that comes with Rational Suite testing products.

Rational TestManager lets you create a manual script (a set of testing instructions to be run by a human tester) and then run the manual script in TestManager or on the Web. To run a manual script on the Web, you must install the Rational TestManager - Manual Script Execution component.

To install the TestManager - Manual Script Execution component, do the following custom installation:

- 1 Turn on the computer to start Windows.
- 2 Log in using an account with Administrator privileges.
- 3 Quit all applications before installing any Rational product.
- 4 Insert the CD-ROM into your CD-ROM drive. The installation starts automatically.

If the CD-ROM does not start automatically, do the following:

- a Click **Start > Run**.
 - b Type *drive:*\SETUP.EXE, and then click **OK**.
- 5 On the Rational Software Setup screen, click **Next**.
 - 6 Click **Install Rational Product**, and then click **Next**.
 - 7 Select the license you want, and then click **Next**. For information about software licenses, click **Help**, or see the *Administering Licenses for Rational Software* manual or the Rational License Administrator Help.
 - 8 Select one of the following products from the list of available products, and then click **Next**:

Rational Suite Enterprise

Rational Suite PerformanceStudio

Rational Suite TestStudio

- 9 Read the terms of the license agreement carefully, select one of the following, and then click **Next**.

Yes, I accept the agreement. If you accept the agreement, the Setup program continues.

No, I don't accept the agreement. If you do not accept the agreement, the Setup program ends.

- 10 On the Setup Configuration page of the Setup Wizard, click **Custom/Full**, and then click **Next**.
- 11 Optionally, clear all check boxes on the **Choose Features** page.

Note If you want to create manual scripts on the Web server, then you must install Rational Robot on the Web server.

- 12 Double-click **Web Server Components**.
- 13 Select the **Rational TestManager/Web** check box to install the Rational TestManager - Manual Script Execution component.
- 14 Follow the on-screen instructions to complete the installation.

The Rational Setup Wizard displays a series of dialog boxes that guide you through the installation process and prompt you for information.

- 15 Click **Finish** when done.

Your system restarts.

Installing Crystal Reports

Crystal Reports lets you customize defect reports that come with Rational Suite testing products. Crystal Reports also lets you create new report formats. This software comes on a separate CD-ROM in your Rational software kit.

To install Crystal Reports 6.0 Professional Edition, use the Crystal Reports installation directions that come with the CD-ROM.

5

RequisitePro: Post - Install

This chapter provides instructions for configuring Oracle® and Microsoft® SQL Server databases for RequisitePro projects. In addition, it includes instructions on e-mail setup for RequisitePro discussions, and installation and configuration procedures for RequisiteWeb.

RequisitePro organizes your software development requirements, linking Microsoft Word to a requirements repository that can be shared among other Rational products.

For the most current information related to RequisitePro features and known issues, refer to the release notes, which appear at the end of the RequisitePro installation. The release notes are available from a link in the Let's Go RequisitePro application, which appears when you first launch RequisitePro. They are also available after installation on the Start menu in the Rational RequisitePro program group.

Configuring an Enterprise Database for RequisitePro

The following sections describe the configuration of Oracle® and Microsoft® SQL Server™ databases for RequisitePro projects.

The use of client/server databases offers significantly increased power and expandability to your organization's implementation of Rational RequisitePro. RequisitePro provides the capability to use Oracle7 and Oracle8 and Microsoft SQL Server 7.0, as well as Microsoft Access databases. Project data currently in Access can be easily migrated to Oracle or SQL Server using the RequisitePro Database Type Conversion Wizard.

To create and access RequisitePro projects in Oracle or Microsoft SQL Server databases, you must configure an Oracle or SQL Server schema on your database server, and install RequisitePro on your client PC.

Database Setup

Refer to Oracle or Microsoft documentation for information on installing Oracle or Microsoft SQL Server. To configure an Oracle or SQL Server database for RequisitePro projects, refer to the sections “Configuring Oracle for RequisitePro” on page 11 and “Configuring SQL Server for RequisitePro” on page 25.

Client Installation

Access to RequisitePro projects on Oracle and SQL Server databases requires the installation of RequisitePro on the client PC. If you are using an Oracle database, you must also install the Oracle client software on your PC.

See the chapter “Rational RequisitePro Installation and Database Configuration” on page 1 for RequisitePro system requirements.

Installing Database Configuration Scripts

If you are responsible for setting up an Oracle or SQL Server database for RequisitePro, you should have installed the database configuration scripts with the **Custom/Full** installation option, described in “Installing RequisitePro with Rational Software Setup” on page 4.

If you selected the Oracle or SQL Server options, the program installed schema creation scripts in one or both of the following locations on your local machine:

```
c:\Program Files\Rational\RequisitePro\database\oracle  
c:\Program Files\Rational\RequisitePro\database\sqlserver
```

If you did not install the scripts during the installation process, you can copy them to your local machine from the RequisitePro/database directory on your installation media.

Configuring Oracle for RequisitePro

Purpose

This section provides information about configuring Rational RequisitePro for use with an Oracle database server. It includes:

- database management information for setting up an Oracle schema to accommodate Requisite projects,
- instructions for accessing an Oracle host from the client PC using Oracle's SQL*Net or Net8 Easy Configuration tool, and
- a procedure for creating a RequisitePro project in the Oracle database.

These instructions are intended for use by Oracle database administrators, system administrators, and RequisitePro project administrators.

For the most current information related to Oracle database configuration, refer to the “Oracle Database Configuration for RequisitePro” document that is, by default, at the following location on your system after installation:

`c:\Program Files\Rational\RequisitePro\help\OracleSetup.html`

Introduction

To create and access RequisitePro projects in the Oracle database, follow the instructions in this document for enabling your Oracle database compatibility. RequisitePro supports multiple projects within a single Oracle schema. Refer to the procedure in this document, “Creating a Project in Oracle” on page 21 for instructions on adding an Oracle database project within RequisitePro. Use the same schema name for each of your RequisitePro projects.

Prerequisites

This document assumes that you have Oracle, installed on your LAN and the Oracle client software installed on your PC. Refer to the Oracle documentation for all questions regarding that product.

The following installation and configuration tasks need to be accomplished prior to performing the RequisitePro/Oracle integration outlined in this document.

Oracle Database Administration

Notice to database administrator:

For proper execution of the RequisitePro application, be sure to set the initialization parameter, `OPEN_CURSORS`, to at least 110.

In order to configure access to Oracle for RequisitePro projects, the database administrator needs to establish the following:

- Oracle database server name (TCP/IP Host Name)
- Oracle database alias or service name
- Oracle schema name for storing RequisitePro projects (see procedure below)
- your user ID for logging on to the Oracle database
- your user password for logging on to the Oracle database

The following sections provide instructions for configuring the last three of these items.

Platform Compatibility

RequisitePro database implementation is compatible with all Oracle-supported platforms.

Creating an Oracle Schema for RequisitePro

Oracle database administration allows the creation of multiple schemas within your Oracle database instance. **Use the scripts listed below to create a RequisitePro user and schema** within Oracle for storing your projects. The RequisitePro scripts are designed to initially allocate disk space for the various database tables and indexes that are used by RequisitePro, based on the following approximations:

- 25 projects
- 250 documents (10 per project)
- 125 document types (5 per project)
- 125 requirement types (5 per project)
- 1250 user defined attributes (10 per requirement type)
- 125 user groups (5 per project)
- 100 users
- 12,500 requirements (500 per project)
- 12,500 discussions (500 per project)

The scripts simply provide an initial size for the RequisitePro schema. They in no way imply any constraints on size or number of projects.

Extents are set to the same size as the initial allocations. They define additional table space that Oracle will allocate if the original allocation becomes insufficient.

As database administrator, you can customize the scripts to adjust the table space allocations for tables and indexes in order to accommodate your organization's intended use of RequisitePro. See the section “Editing Scripts” on page 15.

Schema Creation Scripts

The following scripts are used for creating a RequisitePro schema within your Oracle database. They can be run automatically by executing the main script, `CREATE_REQPRO`, as described in the procedure “Creating a Schema” on page 18, or you can run them individually as needed.

CREATE_REQPRO. Establishes a log which can be used to review the results of running the script and runs the other scripts, listed below.

TABLESPACE. Creates table spaces for data and indexes. Creates disk files to support these table spaces.

CREATE_USER. Creates the default RequisitePro user (`REQPRO`) and password (`REQPRO`) and connects to the database with that user ID.

TABLES. Creates tables for the RequisitePro database.

PRIMARY. Creates primary keys for each table in RequisitePro.

INDEXES. Creates indexes for the RequisitePro database.

FOREIGN. Creates foreign key relationships between tables.

FUNCTIONS. Creates user-defined functions used within RequisitePro.

SEQUENCE. Creates sequences and triggers for auto-sequencing the RqToRelationships and RqQueryCriteria tables.

PROCEDURES. Creates stored procedures used within RequisitePro.

DATA. Inserts data into the RqKeys and RqRequisite tables.

GRANT_ROLE. Creates a user role with access to the RequisitePro schema objects.

Copying the RequisitePro Scripts

If you did not install the Oracle database creation scripts as described in “Installing RequisitePro with Rational Software Setup” on page 4, you can repeat the Custom/Full installation procedure or copy the Oracle scripts from the Rational Windows Solutions media in the following location:

```
CD-ROM: \\RequisitePro\database\Oracle\
```

After installation, the scripts are located, by default, at the following location on your local machine:

```
c:\Program Files\Rational\RequisitePro\database\oracle
```

Copy the scripts to a subdirectory on your Oracle database server. We suggest that you create a “sql” directory below the home directory on the server.

Note

If your database server is running on an international operating system, be sure that the path to these scripts does not include folders with double-byte character names.

Editing Scripts

All modifications described below are made in the CREATE_REQPRO script, unless otherwise indicated.

Modifying the User Name and Password (Optional)

If you want to create the RequisitePro schema with a different entry than the default user name and password values of "ReqPro", modify the following entries:

```
DEFINE USR=reqpro
DEFINE PWD=reqpro
```

Specifying the Path for the Schema Scripts

Edit the DEFINE PATH entry to indicate the full path where the RequisitePro .SQL scripts are located. The suggested path (from the "Copying..." procedure, above) is:

```
DEFINE PATH="$HOME/sql/"
```

Note

If your environment limits your path to a maximum 8-character name for directories, be sure to reflect this format in your entry.

Indicating Data and Index Files Directory

Edit the DEFINE ORACLE _DATA entry to indicate the path and directory where the data file for the data table space will be created:

```
DEFINE ORACLE_DATA=/ORACLE_DATA/
```

Edit the DEFINE ORACLE _INDEX entry to indicate the path and directory where the data file for the index table space will be created:

```
DEFINE ORACLE_INDEX=/ORACLE_INDEX/
```

Specifying a Temporary Tablespace

Edit the `DEFINE TEMP` entry in the `CREATE_REQPRO` script to assign temporary tablespace for storing temporary objects for the user's operations.

```
DEFINE TEMP=TEMP
```

Make sure that the value for this entry is a valid, existing tablespace in your Oracle database. Some versions of Oracle use "TEMPORARY_DATA" rather than "TEMP." Your installation of Oracle may contain a custom name for the temporary tablespace.

Customizing Disk Space Allocation for Database Objects

The schema creation scripts are designed to allocate disk space for the various database tables and indexes that are used by an average set of RequisitePro projects, as described in "Creating an Oracle Schema for RequisitePro" on page 13.

If you anticipate a much larger or smaller requirement for your organization's use of RequisitePro, you can customize the disk space allocation specified in the `CREATE_REQPRO` script to accommodate your projected capacity.

Edit the following sizing variables:

```
SMALL      = 10K
MEDIUM    = 100K
LARGE     = 1000K
REQS      = 6000K
REQHIST   = 75000K
```

Note The last two variables, `REQS` and `REQHIST`, are used for the requirements (RqRequirements) and requirement history (RqRequirementHistory) tables, respectively.

Edit the `DEFINE DATA_SIZE` and `DEFINE INDEX_SIZE` entries to reflect the change in the total size of the database caused by your edits to the sizing variables.

Modifying the Limits of the VARCHAR2 Data Type

RequisitePro uses the `VARCHAR2` data type to store searchable text for requirement text, revision history reasons, and textual attribute values.

While Oracle7 supports a maximum of 2000 characters in the VARCHAR2 data type, Oracle8 supports up to 4000, allowing you to expand the constraints on the size of the searchable text from 2000 to 4000 characters.

The RequisitePro Oracle scripts set the limit on this data type to 2000 characters to accommodate both Oracle7 and Oracle8 databases. To modify this limit for Oracle8 databases, edit table settings in the TABLES and DATA scripts.

In the TABLES script, all occurrences of 2000 in the following columns can be set to the new maximum value of 4000:

Table	Column
RQDOCUMENTHISTORY	VERSIONREASON
RQDOCUMENTS	VERSIONREASON
RQPROJECTHISTORY	VERSIONREASON
RQPROJECTS	VERSIONREASON
RQQUERYDEFINITIONS	QUERYSTRING
RQREQUIREMENTHISTORY	VERSIONREASON
RQREQUIREMENTS	REQUIREMENTTEXT
RQREQUIREMENTS	VERSIONREASON
RQUSERDEFINEDFIELDVALUES	FIELDVALUE

In the DATA script, all occurrences of 2000 in the following columns can be set to the new maximum value of 4000:

Table	Column
RQREQUISITE	REQUIREMENTTEXTSIZE
RQREQUISITE	FIELDVALUESIZE
RQREQUISITE	VERSIONREASONSIZE

Creating a Schema

The Oracle database administrator performs the following procedure to create a RequisitePro schema in Oracle:

- 1 Edit the CREATE_REQPRO script, as described above in the section “Editing Scripts” on page 15.
- 2 On the Oracle database server, log on to SQL*Plus with system administrator permissions.

Note

If you run SQL*Plus from a remote client, you need to edit the RequisitePro CREATE_USER script. Change the entry connect &3/&4 to the following:

```
connect &3/&4@<target Oracle database server alias>
```

- 3 Run the CREATE_REQPRO script using the command:
@<setup directory>\CREATE_REQPRO

This script runs the schema creation scripts. A message appears upon successful completion of the schema creation. If errors occur or the completion message does not appear, review the log CREATE_REQPRO.LOG.

User ID for Accessing Oracle Database

All RequisitePro projects should access the Oracle database using the same user ID, which was created during the schema creation process, described above. The initial user name and password created by the script are "reqpro" and "reqpro", unless you modified the CREATE_REQPRO script, as described in “Editing Scripts” on page 15. You can also change the password using your Oracle database utilities.

Each user does not need a separate Oracle account because RequisitePro uses its own user and user group tables to control access to a project.

Using Multiple Projects within an Oracle Database

RequisitePro supports multiple projects within a single Oracle schema. Refer to the procedure “Creating a Project in Oracle” on page 21 for instructions on adding an Oracle database project within RequisitePro. Use the same schema name for each of your RequisitePro projects.

Connecting Projects Across Databases

Perform the following steps to enable cross-project traceability between projects in distributed Oracle databases. Refer to the following sections for details.

- Creating a reference to the remote database instance
- Creating a database link to the remote database
- Defining database aliases on each RequisitePro client

Creating a Reference to the Remote Database Instance

In order to run traceability queries between projects in distributed Oracle databases, you need to define a reference in each database instance that refers to the remote database instances. Edit the `tnsnames.ora` file, located on the Oracle server, to define the name, host, port and protocol of the remote service.

The following example shows the syntax for defining the database instance “server02” as a remote database server to “server01” in the `tnsnames.ora` file:

```
Server02.world =
  (DESCRIPTION =
    (ADDRESS_LIST =
      (ADDRESS =
        (COMMUNITY = tcp.world)
        (PROTOCOL = TCP)
        (Host = server02)
        (Port = 1521)))
    (CONNECT_DATA = (SID = ORCL)))
```

In similar fashion, the “server02” database instance needs an entry to define the remote “server01” database instance:

```
Server01.world =
  (DESCRIPTION =
    (ADDRESS_LIST =
      (ADDRESS =
        (COMMUNITY = tcp.world)
        (PROTOCOL = TCP)
        (Host = server01)
        (Port = 1521)))
    (CONNECT_DATA = (SID = ORCL)))
```

Note This feature was tested using TNSNAMES for service name resolution. Use of Oracle Names Server or any other name server mechanism will require different setup.

Creating a Database Link to the Remote Database

Next, create a database link to each remote database in each database instance using an SQL utility. The link should be defined under the user account which owns the RequisitePro schema. The following example shows the required syntax for linking to “server02” from “server01”:

```
CREATE DATABASE LINK server02.world
CONNECT TO reqpro IDENTIFIED BY reqpro
USING 'server02.world';
```

A similar statement should be executed on the server02 database instance in order to define a link to server01.

If the db_name.db_domain does not result in a unique name for each database for which a link is required, use the @connection_qualifier syntax to create a unique name.

This naming convention will work regardless of the setting of the global_names parameter in the initorcl.ora file.

Defining Database Aliases on each RequisitePro Client

Define SQL*Net database aliases or Net8 service names (resulting in local tnsnames.ora file entries) on each RequisitePro client machine (or shared centrally on a network) for each database instance. The database alias or service name on the client **MUST** match the database link you defined in the previous step for RequisitePro cross-project traceability to function correctly.

For more information on configuring client PCs for use with a Rational RequisitePro Oracle database, refer to the following section.

Setting Up PCs for Oracle Access

Use the Oracle SQL*Net or Net8 Easy Configuration tool to configure access from your client PC to the Oracle database server. If you plan to share projects with other users, be sure to use a consistent database alias or service name, as determined by your database administrator.

Creating a Project in Oracle

Note

To convert a project from an existing Microsoft Access database to an Oracle database, use the Database Type Conversion Wizard. Open the Database Type Conversion Wizard in Windows Explorer. The executable, `rqdbtypewiz.exe`, is located in the `Rational\RequisitePro\bin\` directory.

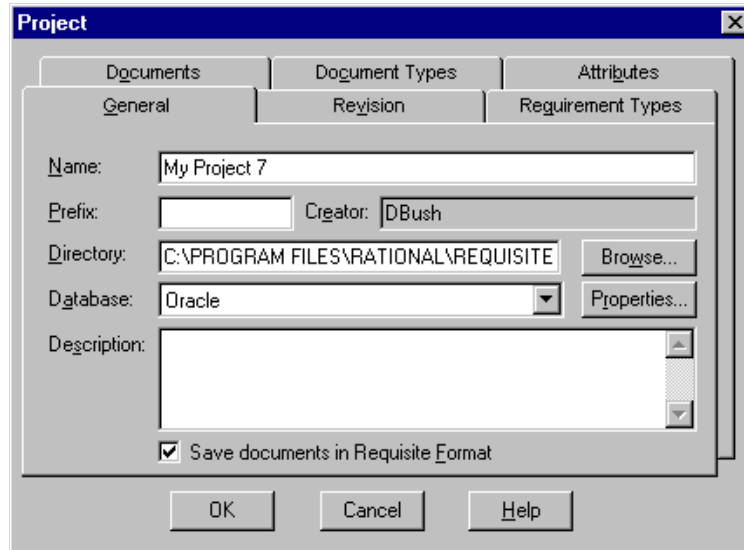
Perform the following steps to create a RequisitePro project that uses the Oracle database server for storing the RequisitePro project database.

Prior to configuring your access to Oracle from RequisitePro, the database administrator needs to provide the following information:

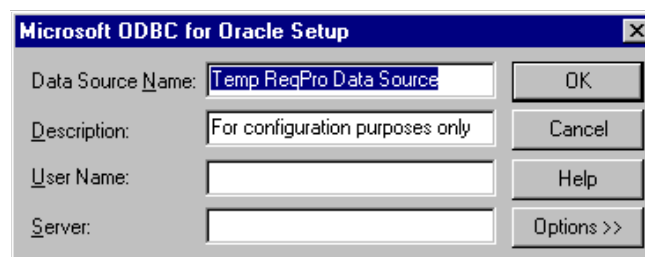
- Oracle database server name (TCP/IP Host Name)
- Oracle database alias or service name
- Oracle schema name for storing RequisitePro projects (see procedure below)
- your user ID for logging on to the Oracle database
- your user password for logging on to the Oracle database

- 1 In RequisitePro on the **Project** menu, click **New**.
- 2 At the New Project dialog box, select the method **Blank project database**.

- 3 Click **OK**. The Project dialog box appears.



- 4 Perform all actions you would normally perform when creating a project; in addition, do the following.
- 5 In the Project dialog box General tab, select **Oracle** from the **Database** drop-down list.
- 6 Click the **Properties** button. The Database Properties dialog box appears.
- 7 Click the **Configure** button. The Microsoft ODBC for Oracle Setup dialog box appears.

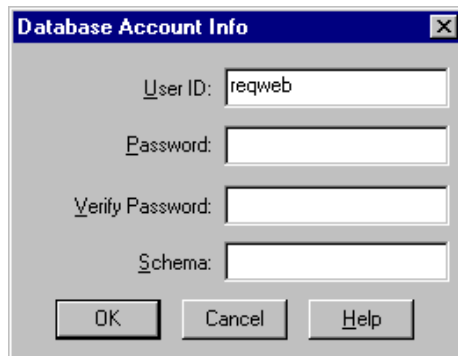


- 8 Do not modify the default entries in the **Data Source Name** and **Description** fields.
- 9 Type your **User Name** for logging into the Oracle database, as provided by your Oracle database administrator. By default, the user name is "reqpro".
- 10 For the **Server** field, type the alias or service name you entered when configuring your PC for access to the Oracle database.

Note

This database alias or service name must be identical when configuring all PCs that will access shared RequisitePro projects in the Oracle database.

- 11 Click **OK**.
- 12 On the Database Properties dialog box, click the **Account Info** button. The Database Account Info dialog box appears.



The screenshot shows a dialog box titled "Database Account Info". It contains four text input fields: "User ID" (with the value "reqweb"), "Password", "Verify Password", and "Schema". At the bottom of the dialog box are three buttons: "OK", "Cancel", and "Help".

- 13 Do not modify the User ID field. This should match the user name you entered in the previous dialog box.
- 14 Type your user password for logging into the Oracle server. This should be supplied to you by your Oracle database administrator.
- 15 Retype your password in the **Verify Password** field.
- 16 In the **Schema** field, type the name of the Oracle schema that your Oracle database administrator has established for storing RequisitePro data in Oracle.
- 17 Click **OK** to close the dialog box.

- 18 Click **OK** to close the Database Properties dialog.
- 19 Finish creating your project, then click **OK** to close the Project dialog box.

Archiving an Oracle Project

Refer to the topic "Archiving and backing up enterprise database projects" in the RequisitePro online help. This help topic is also available in Let's Go RequisitePro. Click the Project Administration Tips icon and select the link to "Archiving and backing up enterprise database projects".

Configuring SQL Server for RequisitePro

Purpose

This section provides information about configuring Rational RequisitePro for use with Microsoft SQL Server. The section includes:

- database management information for setting up a SQL Server schema to accommodate RequisitePro projects, and
- a procedure for creating a RequisitePro project in the SQL Server database.

This document is intended for use by SQL Server database administrators, system administrators, and RequisitePro project administrators.

For the most current information related to SQL Server database configuration, refer to the "SQL Server Database Configuration for RequisitePro" document that is, by default, at the following location on your system after installation:

c:\Program Files\Rational\RequisitePro\help\SQLsetup.html

Introduction

To create and access RequisitePro projects in the SQL Server database, follow the instructions in this section for enabling your SQL Server database compatibility. RequisitePro supports multiple projects within a single SQL Server schema. Refer to the procedure “Creating a Project in SQL Server” on page 29 for instructions on adding an SQL Server database project within RequisitePro. Use the same schema name for each of your RequisitePro projects.

Prerequisites

This document assumes that you have SQL Server, Version 7.0, installed on your LAN. Refer to the SQL Server documentation for all questions regarding that product.

The following installation and configuration tasks need to be accomplished prior to performing the RequisitePro/SQL Server integration outlined in this document.

SQL Server Database Administration

Prior to configuring your access to SQL Server from RequisitePro, the database administrator needs to establish the following:

- SQL Server machine name (TCP/IP Host Name)
- SQL Server default database for RequisitePro projects, such as “RequisitePro”
- a user ID for logging on to the SQL Server database, such as “ReqPro”
- a user password for logging on to the SQL Server database, such as “reqpro”

The following sections provide instructions for configuring the last three of these items.

Platform Compatibility

RequisitePro database implementation is compatible with all Microsoft SQL Server-supported platforms.

Creating a SQL Server Database for RequisitePro

Use the following instructions to create a SQL Server database and schema for RequisitePro projects. The initial database size is based on the following approximations for your use of RequisitePro:

- 25 projects
- 250 documents (10 per project)
- 125 document types (5 per project)
- 125 requirement types (5 per project)
- 1250 user-defined attributes (10 per requirement type)
- 125 user groups (5 per project)
- 100 users
- 12,500 requirements (500 per project)
- 12,500 discussions (500 per project)

To create a database in **SQL Server 7.0**, do the following:

- 1 Enter a name for the RequisitePro database. The database has an .MDF extension. The recommended database name is “RequisitePro.”

Note If you use a different database name, you will need to modify the database configuration scripts to reflect the actual name.

- 2 Set the initial size of the database to 150 MB.
- 3 Set the initial size of the transaction log file (.LDF) to one third the size of the database, in this case 50 MB.

Schema Creation Scripts

The scripts listed below are used for creating a RequisitePro schema within your SQL Server database.

- **Login and User.** Creates a default RequisitePro login and user. For more information refer to the section below, “Default Login and User.”
- **Tables and Indexes.** Creates the tables and indexes required by RequisitePro.
- **Triggers.** Creates triggers that enforce cascading deletes.
- **Initial Data.** Inserts data required by RequisitePro when it first runs.

Copying the RequisitePro Scripts

If you did not install the SQL Server database creation scripts as described in “Installing RequisitePro with Rational Software Setup” on page 4, you can repeat the Custom/Full installation procedure or copy the SQL Server scripts from the Rational Windows Solutions media in the following location:

CD-ROM: \\RequisitePro\database\SQLserver\

After installation, the scripts are located, by default, at the following location on your local machine:

c:\Program Files\Rational\RequisitePro\database\sqlserver

Copy the scripts to a subdirectory on your SQL Server database server. We suggest that you create a “sql” directory below the home directory on the server.

Running Schema Creation Scripts

The scripts listed below are used for creating a RequisitePro schema within your SQL Server database. Run the scripts in the sequence presented below. Run the scripts individually using the **SQL Server Query Analyzer**. Be sure to select the RequisitePro database in the DB drop-down list when running the scripts.

- 1 login and user.sql
- 2 tables and indexes.sql
- 3 triggers.sql
- 4 initial data.sql

Default Login and User

The schema creation scripts, described above, create default user information for accessing and creating projects in SQL Server. The user name also establishes the ownership and name of the schema (by default, “reqpro”). The default user permissions are required for use with RequisitePro.

Note

If you modify the **login and user.sql** script to use a different login and user name, you will need to modify subsequent scripts.

User	Login	Password
ReqPro	ReqPro	reqpro

The ReqPro user is assigned the following statement permissions in SQL Server:

User	Statement Permissions
ReqPro	Create Default, Create Procedure, Create Rule, Create Table, Create View

As the owner of the RequisitePro database objects, the ReqPro user is automatically assigned the following database permissions in SQL Server:

User	Database Permissions
ReqPro	Select, Insert, Update, Delete, DRI on all Tables and Views

Creating a Project in SQL Server

Note

To convert a project from an existing Microsoft Access database to an Oracle database, use the Database Type Conversion Wizard. Open the Database Type Conversion Wizard in Windows Explorer. The executable, `rqdbtypewiz.exe`, is located in the `Rational\RequisitePro\bin\` directory.

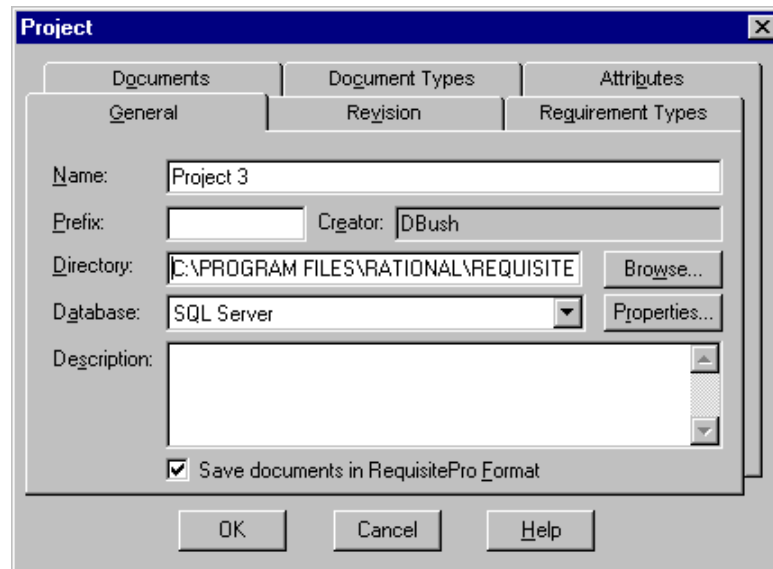
Perform the following steps to create a RequisitePro project that uses the SQL Server for the project database.

In order to configure access to SQL Server from RequisitePro, the database administrator needs to provide you with the following information:

- SQL Server machine name (TCP/IP Host Name)
- SQL Server default database for RequisitePro projects, such as “RequisitePro”
- a user ID for logging on to the SQL Server database, such as “ReqPro”
- a user password for logging on to the SQL Server database, such as “reqpro”

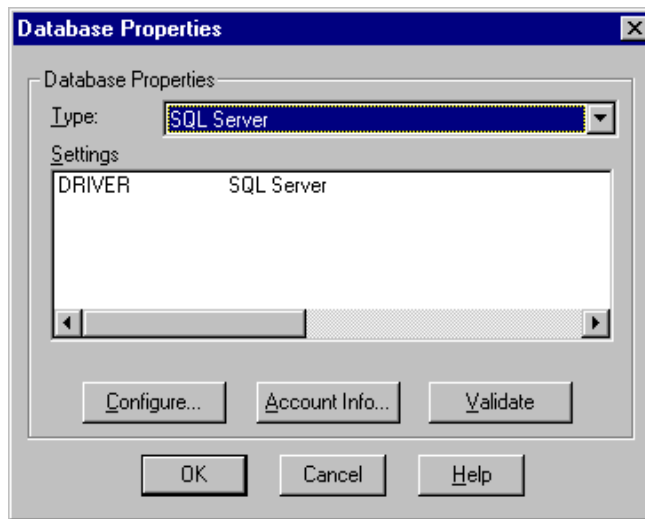
- 1 Start RequisitePro.
- 2 On the **Project** menu, click **New**.
- 3 At the New Project dialog box, select the method **Blank project database**.

- 4 Click **OK**. The Project dialog box appears.



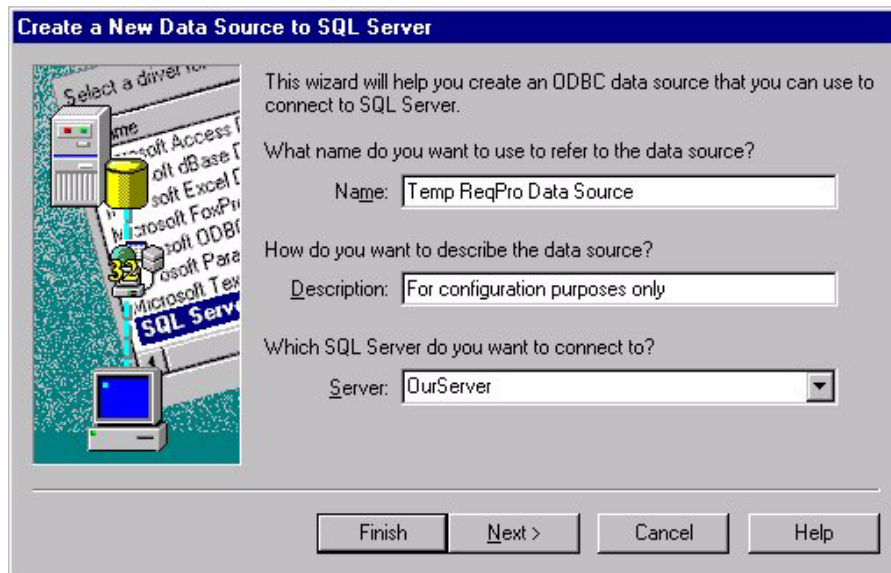
- 5 Perform all actions you would normally perform when creating a project; in addition, do the following.
- 6 In the Project dialog box General tab, select **SQL Server** from the **Database** drop-down list.

- 7 Click the **Properties** button. The Database Properties dialog box appears.



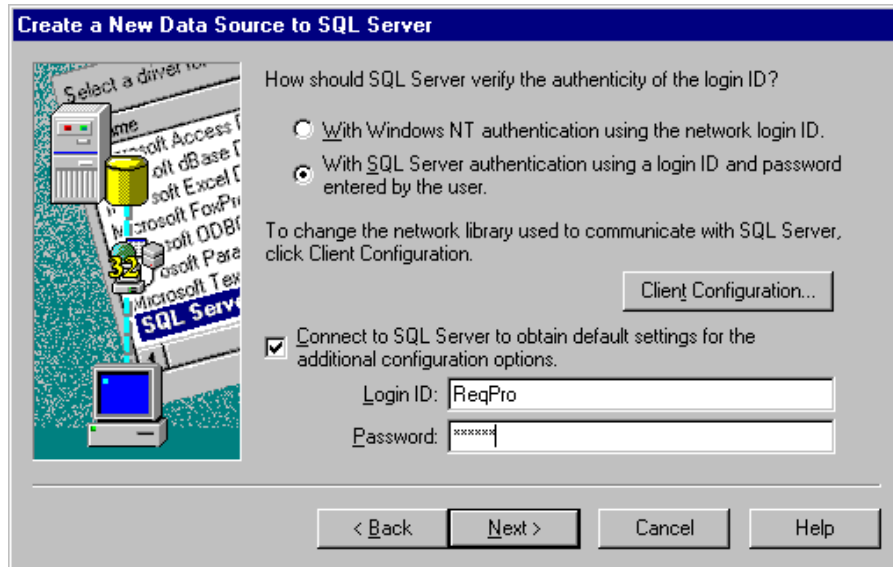
Configuring the Database

- 1 At the Database Properties dialog box, click the **Configure** button. The “Create a New Data Source to SQL Server” dialog box appears.



- 2 Do not modify the data source **Name** or **Description** fields.
- 3 In the **Server** field, type the name of the SQL Server, supplied by your database administrator.

- 4 Click **Next**. The second data source screen appears.



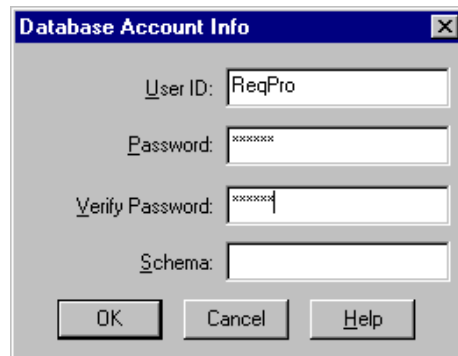
- 5 Select the option “**With SQL Server authentication using a login ID and password entered by the user.**”
Note: RequisitePro does not support Windows NT authentication.
- 6 Be sure the check box “**Connect to SQL Server to obtain default settings for the additional configuration options**” is checked.
- 7 Type a **login ID** and **password** supplied by your database administrator, such as “ReqPro” and “reqpro.”
- 8 Click **Next**.
- 9 Click the check box “**Change the default database to**” and select a database name supplied by your database administrator, such as “RequisitePro.”
- 10 Click **Next**.
- 11 Click **Next** to accept the default language, character, and regional settings. The use of log files, shown on the following screen, is optional.

Note Do not mark the check box "**Change the language of SQL Server system messages to...**" The use of this check box prevents users from opening the project after its initial creation.

- 12 Click **Finish**. The ODBC Microsoft SQL Server Setup dialog box appears.
- 13 Click the **Test Data Source** button. The SQL Server ODBC Data Source Test dialog box appears.
- 14 Click **OK**. The ODBC Microsoft SQL Server Setup dialog box appears.
- 15 Click **OK**. You return to the Database Properties dialog box.

Setting Up the Project Account Information

- 1 At the Database Properties dialog box, click the **Account Info** button. The "Database Account Info" dialog box appears.



- 2 Type the **user ID** and **password**, supplied by your database administrator for accessing the SQL Server database, such as "ReqPro" and "reqpro."
- 3 Retype your password in the **Verify Password** field.
- 4 In the **schema** field, type the user name of the owner of the RequisitePro database tables, supplied by your database administrator, such as "ReqPro."
- 5 Click **OK** to close the dialog box.

- 6 Click **OK** to close the Database Properties dialog.
- 7 Finish creating your project, then click **OK** to close the Project dialog box.

Archiving a SQL Server Project

Refer to the topic "Archiving and backing up enterprise database projects" in the RequisitePro online help. This help topic is also available in Let's Go RequisitePro. Click the Project Administration Tips icon and select the link to "Archiving and backing up enterprise database projects".

Installing and Configuring RequisiteWeb

Overview

This section describes the installation and configuration of RequisiteWeb.

RequisiteWeb allows clients to read, modify, create, and reparent Rational RequisitePro project requirements across the Internet or an Intranet. By utilizing browsers – Netscape Navigator or Microsoft Internet Explorer – RequisiteWeb provides platform-independent, thin-client access to RequisitePro project data.

RequisiteWeb requires the configuration of the Microsoft Internet Information Server and the installation of Web components on the same Microsoft Windows NT server. In addition, a Web browser must be installed on the client system. No Requisite application-specific files need to be installed on the client system.

For the most current information on RequisiteWeb, including installation, configuration, and known issues, refer to the RequisiteWeb Installation and Configuration document that is, by default, at the following location on the system where you install RequisiteWeb:

`c:\Program Files\Rational\RequisitePro\reqweb\reqwebsetup.html`

The RequisiteWeb Installation and Configuration document is also available from the online Release Notes in RequisitePro.

Note You can copy the documentation CD to the Web server if you choose.

Server Configuration Overview

The following sections provide system requirements, installation, and configuration information for installing RequisiteWeb on your NT server. This information is necessary for performing the following procedures:

- “RequisiteWeb Server Requirements” on page 123
- “Installing RequisiteWeb on the IIS Server” on page 125
- “Copying RequisiteWeb Components on the IIS Server” on page 126
- “Creating a Virtual Web Directory” on page 126
- “Configuring for UNIX Navigator Access” on page 136
- “Creating Required Directories on the IIS Server” on page 136
- “Granting Launch Permissions for Microsoft Word with IIS 5.0” on page 142
- “Setting Directory Permissions on the IIS Server” on page 137”
- “Building the Web Project Catalog” on page 147
- “Configuring E-mail Discussions for RequisiteWeb” on page 148
- “Configuring RequisiteWeb for Oracle Database Projects” on page 148
- “Starting RequisiteWeb” on page 148

For more detail on the installation procedure, including an explanation of installation types, installing shared components, and accessing support, refer to the “Additional Installation Information” on page 65.

RequisiteWeb Server Requirements

Note Make certain that you have a current backup of your Registry and system directories prior to running the Rational Software Installation procedure.

You must install either a RequisitePro startup or permanent license key to use this software. The Rational License Key Administrator online help provides detailed instructions for installing startup and permanent license keys. See “Rational Software Client Licensing” on page 73 for more information about licenses, including the procedure for obtaining an updated license key.

To use the Rational Software Setup program on a Windows NT system, you must have windows NT administrator privileges.

The following table summarizes the requirements for the RequisiteWeb server.

Table 17: RequisiteWeb Server Requirements

Item	Requirement
Operating System	NT Server 4.0, Service Pack 3 or later NT 4.0 Option Pack which includes: Microsoft Internet Information Server (IIS) 4.0 and Microsoft Transaction Server (MTS) 2.0 or Microsoft Windows 2000 Server, which includes: Internet Information Services (IIS) 5.0
Processor	300 MHz or greater
Memory	128 MB. For projects with more than 10,000 requirements or Web sites with more than 10 concurrent users, 256 MB or more is recommended.
Disk space	RequisiteWeb (includes system DLLs) -- 40 MB ASPs, Web DLLs, bitmaps -- 2 MB
Other products	Word 2000 (recommended version) or Microsoft Word 97; in Word 97, you must include the installation option: Converters and Filters/Text Converters/HTML Converter Oracle, version 7.3 or greater, client software (for accessing projects in an Oracle database) Microsoft Internet Explorer 5

RequisiteWeb Security Requirements

After you have installed RequisiteWeb, you may need to alter security permissions on your IIS server for reasons unrelated to RequisiteWeb. Use caution when modifying permissions on RequisiteWeb-related folders. For more information, see “Setting Directory Permissions on the IIS Server” on page 49.

Installing RequisiteWeb on the IIS Server

Note For current RequisiteWeb users, be sure to uninstall any earlier version of RequisiteWeb prior to installing RequisiteWeb on your server. Refer to “Removing RequisiteWeb” on page 61 for specific instructions. Be sure to retain your existing `catalog.txt` file.

- 1** Insert the Rational Solutions for Windows CD into your system’s CD drive.
The setup program starts automatically. If autorun is disabled on your system, click **Start > Run**. Using the drive letter of your CD-ROM drive, enter `drive:\SETUP.EXE`.
- 2** The Rational Software Setup wizard guides you through the software installation. On each screen, click the **Next** button to proceed to the next screen.
The Rational Software Setup program writes a log of the installation activities. The log file is located, by default, in `c:\Program Files\Rational\RSSetup\RSSetup.log`
- 3** At the Choose Product screen, select **Rational RequisitePro** on the drop-down list.
- 4** At the Setup Configuration screen, click **Custom/Full**.

Note If your database server is running on an international operating system, be sure that the install path does not include folders with double-byte character names.

- 5** At the Choose Features screen, mark the **Web Server Components** and clear the **RequisitePro** and **Rational Synchronizer** check boxes. You can expand the Web Server Components selection and clear the **RequisiteWeb Sample Projects** to install RequisiteWeb without the Learning Project and QuarterByte Bank example projects.

Possible Reboot Required

If files that are required for the installation are in use during the installation procedure, the Rational Windows Setup program may need to reboot your system to complete the installation.

After rebooting, log on as the same user to complete the installation procedure.

Copying RequisiteWeb Components on the IIS Server

The IIS installation creates a `wwwroot` directory in the server file structure; typically this is located in the `C:\Inetpub` directory.

The RequisiteWeb installation creates a `ReqWeb` directory in the RequisitePro installation directory; typically located in: `C:\Program Files\Rational\RequisitePro`. Copy and paste this directory into the `wwwroot` directory using Windows NT Explorer.

This copy procedure follows standard IIS guidelines for Web installations and ensures that proper permissions are created for RequisiteWeb.

- 1** Copy the `ReqWeb` directory located in `C:\Program Files\Rational\RequisitePro`. Be sure to include the `ReqWeb` directory and all its contents and subdirectories.
- 2** Paste the `ReqWeb` directory and all its contents in the `C:\Inetpub\wwwroot` directory on your IIS installation.

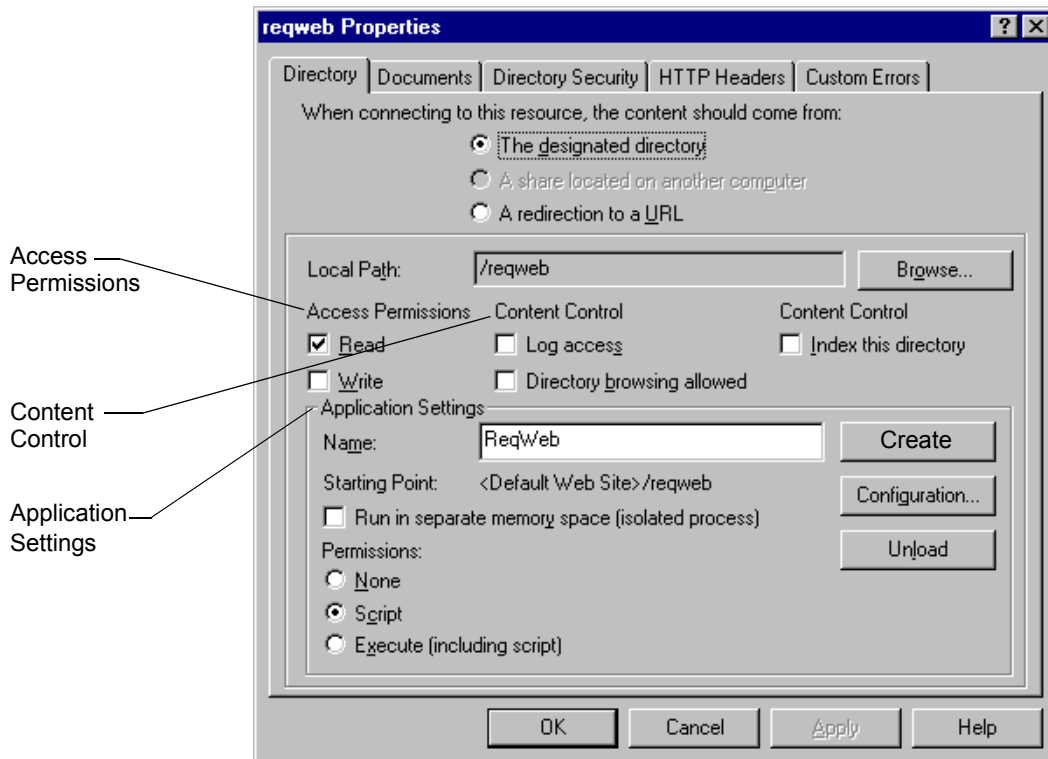
Creating a Virtual Web Directory

RequisiteWeb requires a virtual directory on your Web server in order to access the RequisiteWeb catalog and other components.

Creating a Virtual Directory on Internet Information Server 4.0

For information of creating a virtual directory on IIS 5.0, see “Creating a Virtual Directory on Internet Information Services 5.0” on page 44.

- 1 Start the Microsoft Management Console (MMC).
- Note** The default **Start** menu selections for the MMC are Programs/Windows NT 4.0 Option Pack/Microsoft Internet Information Server/Internet Service Manager.
- 2 Navigate to the ReqWeb directory under the Default Web Site.
 - 3 Right-click on the ReqWeb directory and click **Properties**. The Properties dialog box appears.

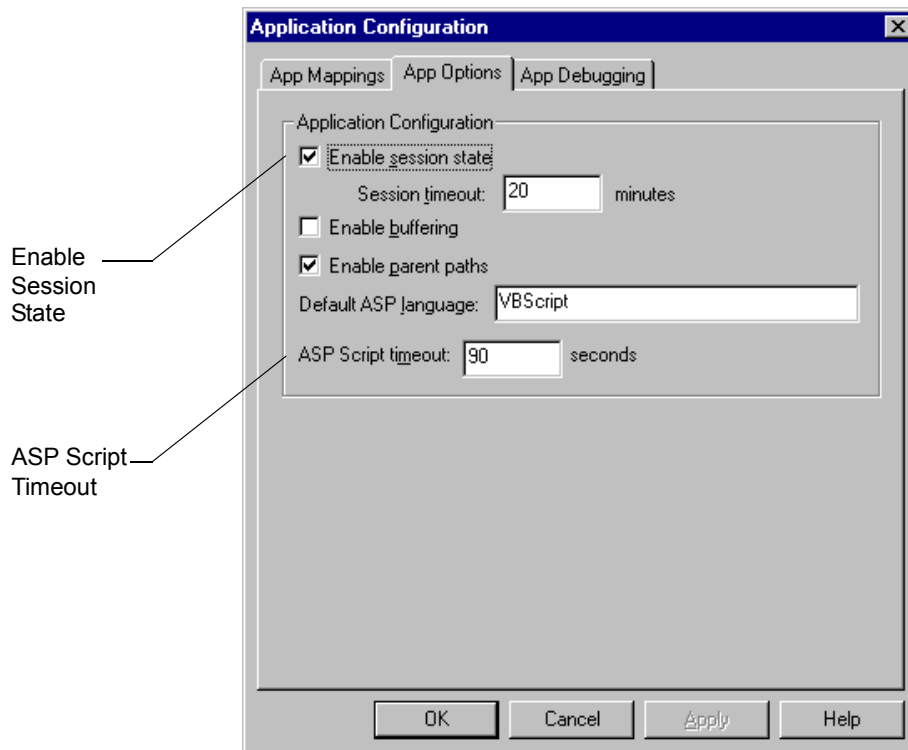


- 4 At the **Directory** tab, under Access Permissions, mark the **Read** check box and clear the **Write** check box.
- 5 Clear all the **Content Control** check boxes.
- 6 Under Application Settings, click the **Create** button to create a virtual Web directory.

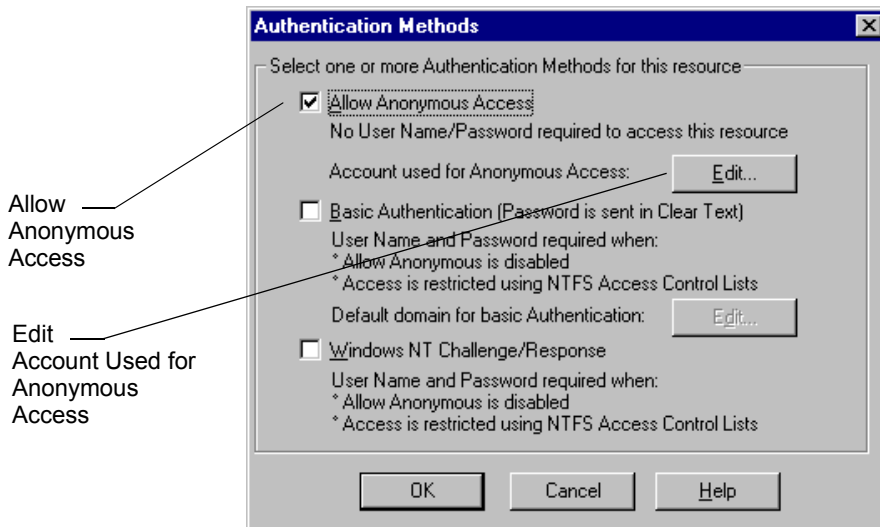
Note If the Remove button is displayed instead of the Create button, click it. The Create button appears.

- 7 In the **Name** field, type ReqWeb.
- 8 Clear the check box **Run in separate memory space (isolated process)**.
- 9 Under the Application Settings Permissions, select the **Script** option.

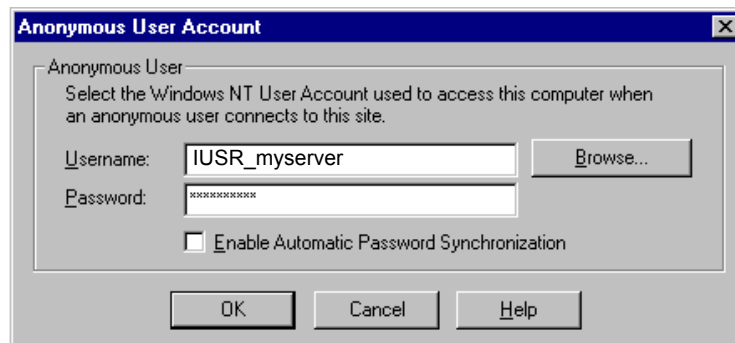
- 10 Click the **Configuration** button. The Application Configuration dialog box appears.



- 11 Click the **App Options** tab. Be sure that the **Enable session state** check box is marked.
- 12 Be sure that the **ASP script timeout** field is set to at least 90. Click **OK**.
- 13 In the Properties dialog box, click the **Directory Security** tab.
- 14 In the **Anonymous Access and Authentication Control** frame, click the **Edit** button to access to display Authentication Methods dialog box.



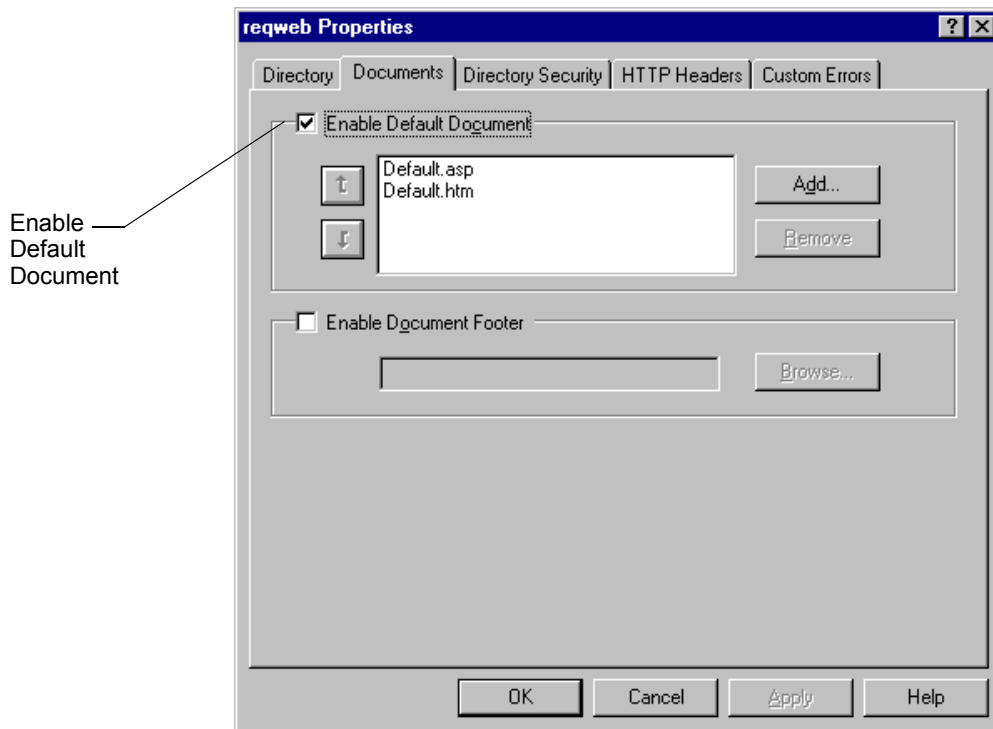
- 15 Mark the **Allow Anonymous Access** check box and clear the **Basic Authentication** and **NT Challenge/Response** check boxes. Click the **Edit** button next to the **Account Used for Anonymous Access** label. The Anonymous User Account dialog box appears.



- 16 At the **Username** field, note the IUSR user name. It should be in the form IUSR_<server name>. You will use this user name in subsequent configuration steps.

Note If you change the name of the default IIS user name in the Anonymous User Account dialog box, be sure to specify that name at each occurrence of the “IUSR_<server name>” user in this document.

- 17 Click **OK** twice to return to the Properties dialog box. Click the **Documents** tab.



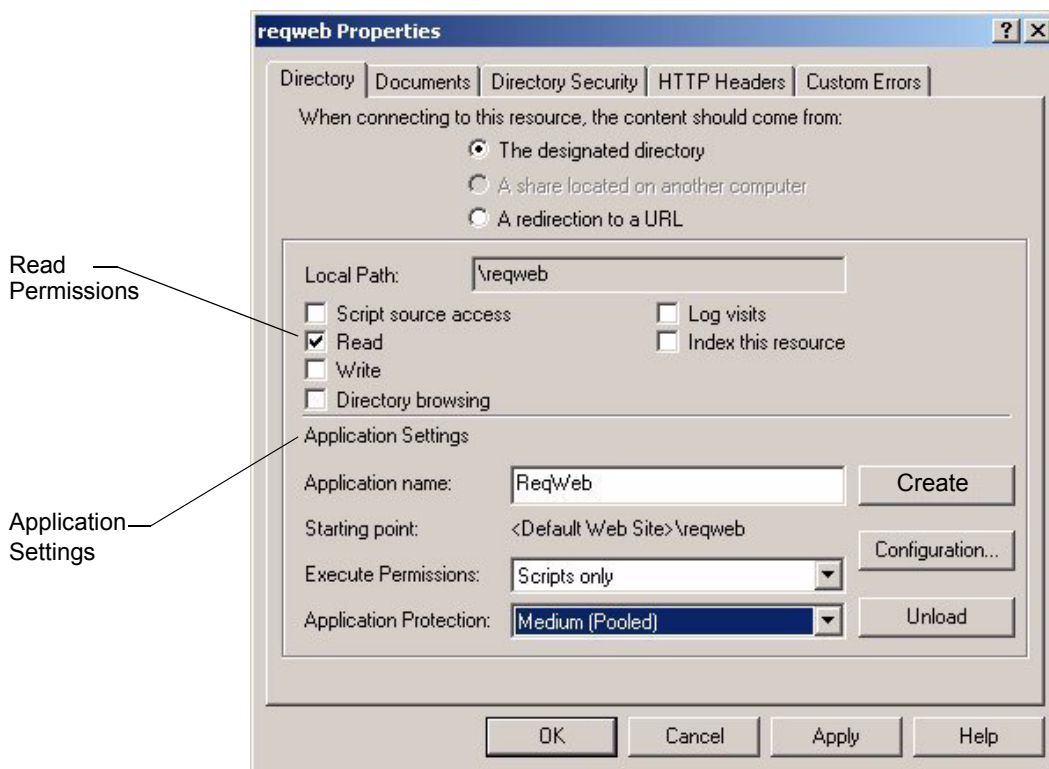
- 18 Be sure the **Enable Default Document** check box is selected. If `Default.asp` is not on the Default Document list, click **Add** and type `Default.asp` and click **OK**. If `Default.asp` is not at the top of the Default Document list, select it and click the up arrow. Click **OK**.

Creating a Virtual Directory on Internet Information Services 5.0

- 1 Start the Microsoft Management Console (MMC).

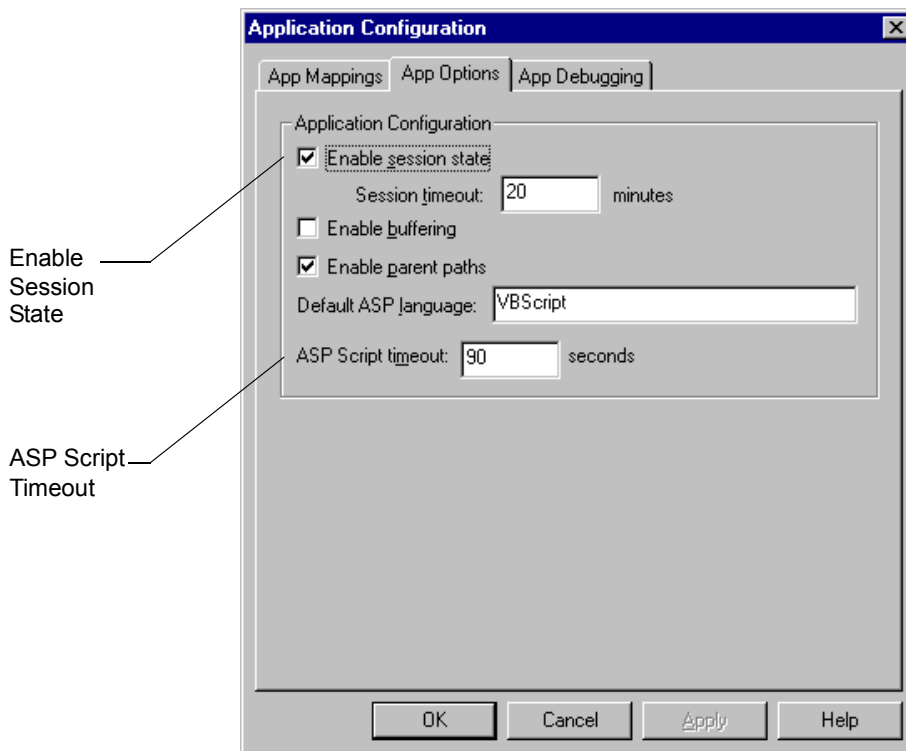
Note The default **Start** menu selections for the MMC are Programs/Administrative Tools/Internet Services Manager.

- 2 Navigate to the ReqWeb directory under the Default Web Site.
- 3 Right-click on the ReqWeb directory and click **Properties**. The Properties dialog box appears.



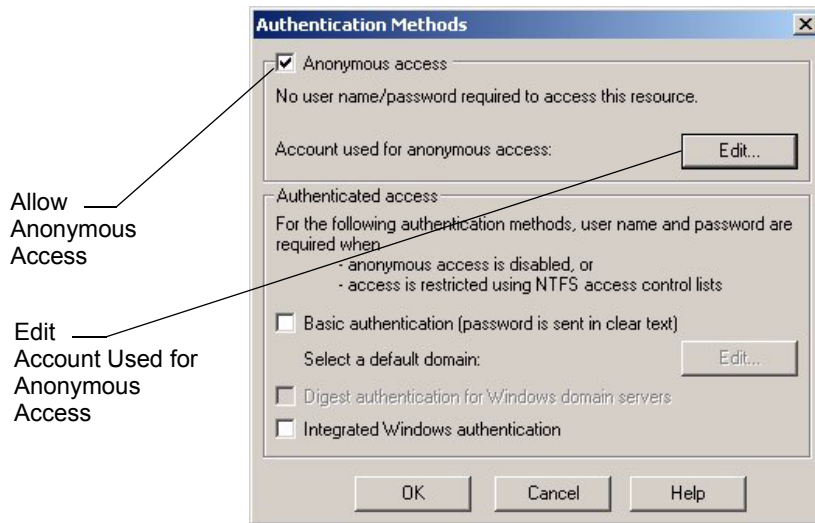
- 4 At the **Directory** tab, mark the **Read** check box and clear all the other check boxes.
- 5 Under **Application Settings**, click the **Create** button to create a virtual Web directory.

- Note** If the Remove button is displayed instead of the Create button, click it. The Create button appears.
- In the **Application Name** field, type ReqWeb.
 - Accept the default **Application Protection** setting of **Medium**.
 - Click the **Configuration** button. The Application Configuration dialog box appears.



- Click the **App Options** tab. Be sure that the **Enable session state** check box is marked.
- Be sure that the **ASP script timeout** field is set to at least 90. Click **OK**.
- In the Properties dialog box, click the **Directory Security** tab.

- 12 In the **Anonymous Access and Authentication Control** frame, click the **Edit** button to access to display Authentication Methods dialog box.



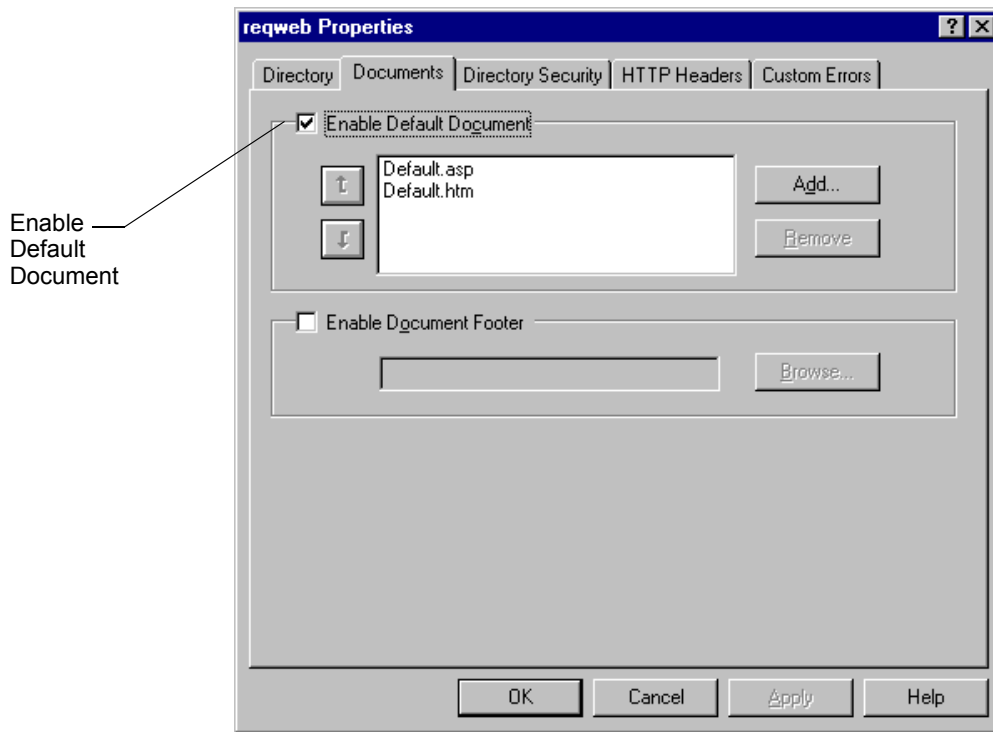
- 13 Mark the **Anonymous access** check box and clear the other check boxes.
- 14 Click the **Edit** button next to the **Account used for anonymous access** label. The Anonymous User Account dialog box appears.



- 15 At the **Username** field, note the IUSR user name. It should be in the form IUSR_<server name>. You will use this user name in subsequent configuration steps.

Note If you change the name of the default IIS user name in the Anonymous User Account dialog box, be sure to specify that name at each occurrence of the “IUSR_<server name>” user in this document.

- 16 Click **OK** twice to return to the Properties dialog box. Click the **Documents** tab.



- 17 Be sure the **Enable Default Document** check box is selected. If `Default.asp` is not on the Default Document list, click **Add** and type `Default.asp` and click **OK**. If `Default.asp` is not at the top of the Default Document list, select it and click the up arrow. Click **OK**.

Configuring for UNIX Navigator Access

If any of your RequisiteWeb users will access RequisiteWeb through the UNIX version of Netscape Navigator, you must use Microsoft Management Console (MMC) to disable the HTTP Keep-Alives setting for the RequisiteWeb default Web site.

- 1 Log on to the RequisiteWeb server.
- 2 Start the Microsoft Management Console (MMC).
- 3 In the left pane of the MMC display, right-click on the `Default Web Site` virtual directory and click **Properties**. The Properties dialog box appears.
- 4 On IIS 4.0, click the **Performance** tab; on IIS 5.0, click the **Web Site** tab.
- 5 Clear the check box **HTTP Keep-Alives Enabled** in the Connection Configuration frame.
- 6 Click **OK** to close the Properties dialog box.

Creating Required Directories on the IIS Server

In order to support RequisitePro projects and documents, you must create the following directories on your IIS server:

- `c:\Program Files\Rational\RequisitePro\Projects`
- `c:\Inetpub\wwwroot\ReqWeb\GenDoc`

Projects Directory for Storing Project Files

The Projects directory is the recommended location for your RequisitePro project subdirectories and files. Refer to the section “Accessing Projects from the RequisiteWeb Server” on page 59 for more information.

GenDoc Directory for Displaying Documents

In order to dynamically display RequisitePro documents, RequisiteWeb creates temporary directories that contain copies of the project documents on the IIS server. By default, the anonymous IIS user (`IUSR_<server name>`) does not have permission to create directories in the `ReqWeb` virtual directory.

Therefore, you must create the GenDoc directory that will contain the temporary directories for the documents. In addition, you must grant the IUSR_<server name> user permissions to create, change, and delete subdirectories and files within that GenDoc directory. Refer to the following section for instructions on setting permissions.

Setting Directory Permissions on the IIS Server

Note Because FAT drives do not limit access by the default IIS user, you do not need to configure security access. If the Security tab is not present on the directory properties dialog box, the drive is configured as a FAT drive. In this case, skip these procedures.

Required Read Permissions

On both Windows NT 4.0 and Windows 2000 Server, the following directories and their contents must provide Read permission for anonymous user IUSR_<server name>:

- C:\Inetpub\www\reqweb (and subdirectories)
- C:\program files\rational\common (for licensing)

For instructions on setting permissions, see one of the following:

- “Setting Permissions on IIS 4.0” on page 50
- “Setting Permissions for IIS 5.0” on page 52

Required Change or Modify Permissions

On both Windows NT 4.0 and Windows 2000 Server with an NTFS drive, the following directories and their contents must provide Change or Modify permission for anonymous user IUSR_<server name>:

- Inetpub\wwwroot\ReqWeb\GenDoc
- c:\Program Files\Rational\RequisitePro\bin
- c:\Program Files\Rational\RequisitePro\samples
- c:\WINNT\TEMP
- c:\TEMP
- c:\Program Files\Rational\RequisitePro\Projects

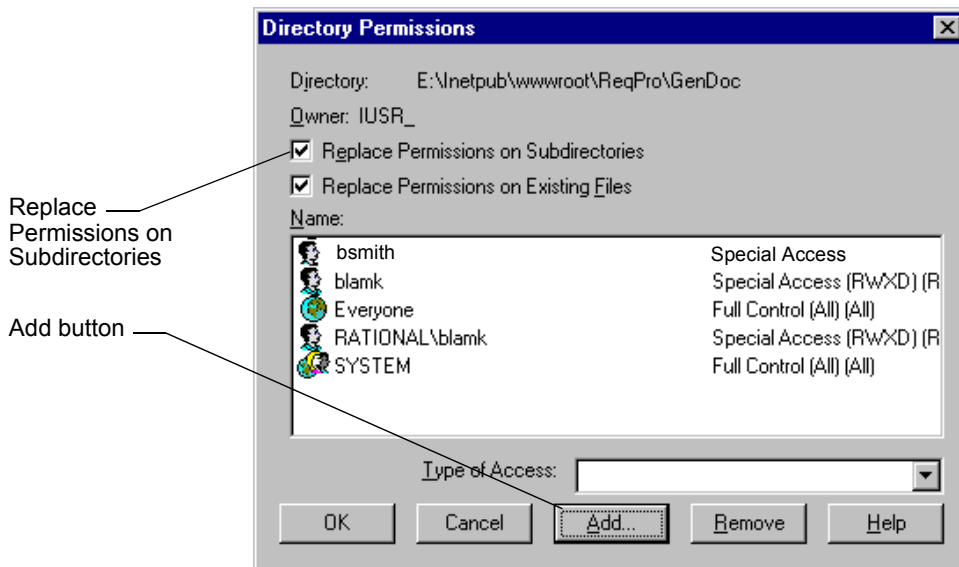
For instructions on setting permissions, see one of the following:

- “Setting Permissions on IIS 4.0” on page 50
- “Setting Permissions for IIS 5.0” on page 52

Setting Permissions on IIS 4.0

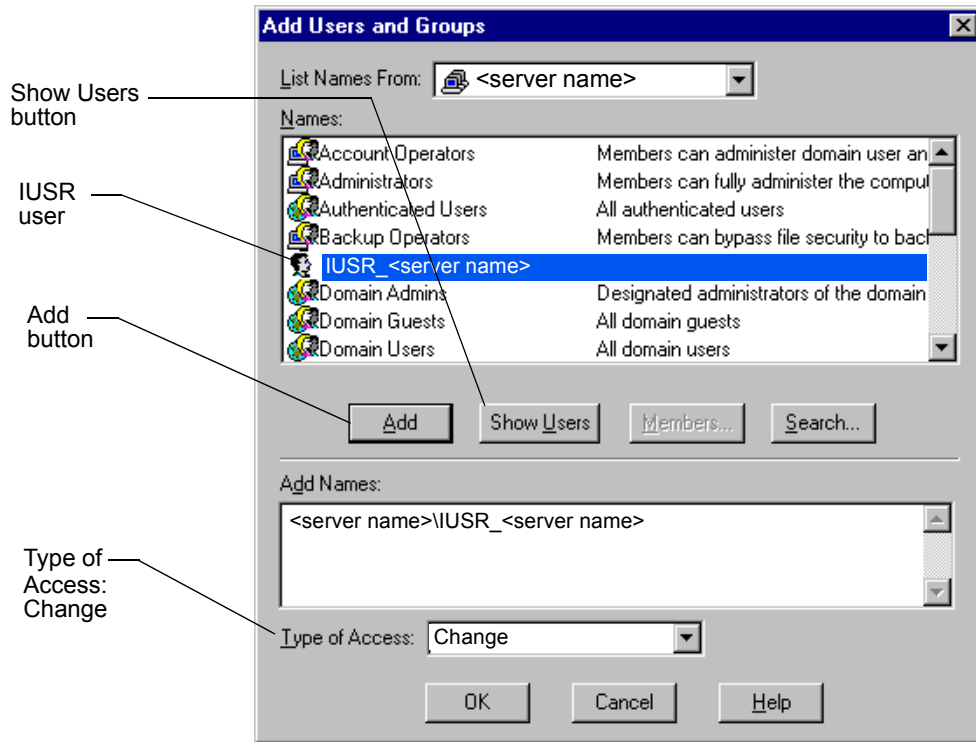
The following procedure must be applied to each of the target directories. (The target directories are listed above in the sections “Required Read Permissions” on page 49 and “Required Change or Modify Permissions” on page 49.)

- 1 On the IIS 4.0 server, in the Windows NT Explorer, navigate to the target directory on your IIS installation.
- 2 Right-click on the target directory and select **Properties**. The directory Properties dialog box appears.
- 3 Click the **Security** tab, then the **Permissions** button. The Directory Permissions dialog box appears.



- 4 Mark the **Replace permissions on subdirectories** check box.
- 5 Click the **Add** button.

The Add Users and Groups dialog box appears.



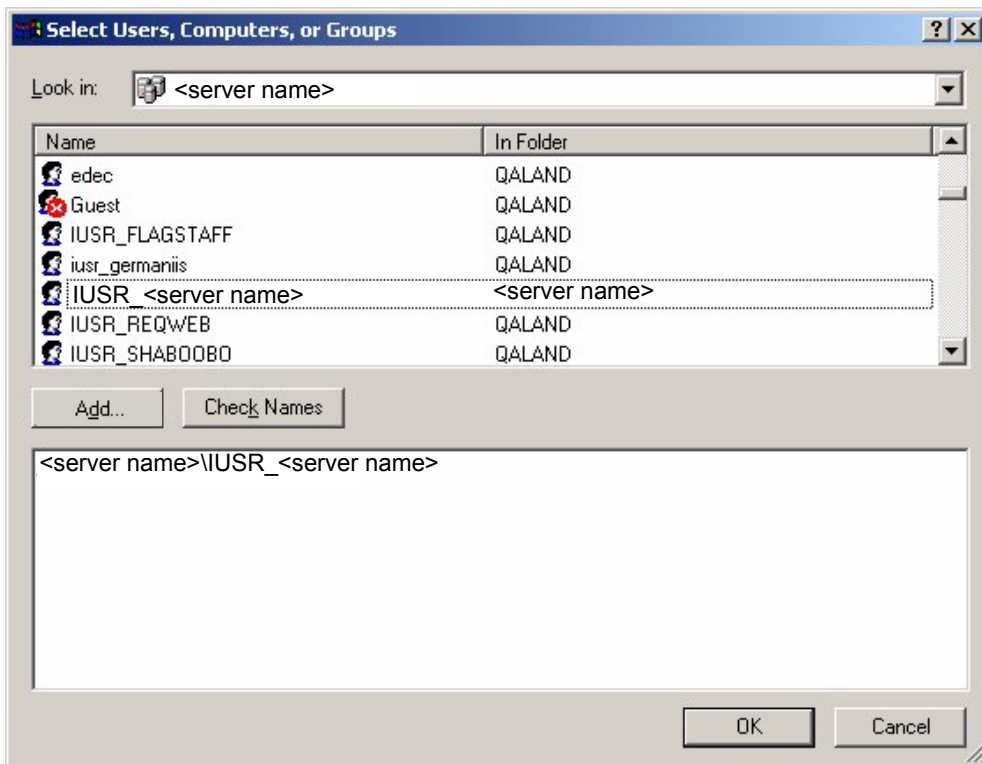
- 6 Click the **Show Users** button. Find and highlight the IUSR_<server name> user, then click the **Add** button.
- 7 In the **Type of Access** field, do one of the following:
 - select **Read** (for directories listed in “Required Read Permissions” on page 49)
 - select **Change** (for directories listed in “Required Change or Modify Permissions” on page 49).
- 8 Click the **OK** button to close the Add Users and Groups dialog box. At the Directory Permissions dialog box, you should see the IUSR_<server name> user with Change access rights listed.

- 9 Click **OK** to close the dialog box and complete the NT permissions change. Repeat this procedure for the other target directories.

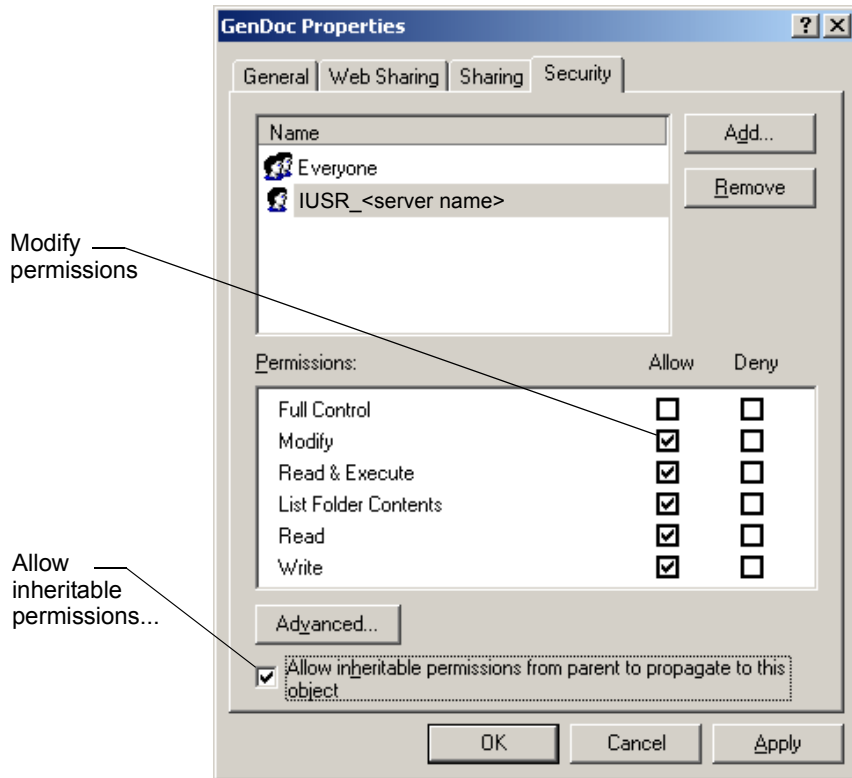
Setting Permissions for IIS 5.0

The following procedure must be applied to each of the target directories. (The target directories are listed above in the sections “Required Read Permissions” on page 49 and “Required Change or Modify Permissions” on page 49.)

- 1 On the IIS 5.0 server, navigate to the target directory.
- 2 Right-click on the target directory and select **Properties**. The target directory Properties dialog box appears.
- 3 Click the **Security** tab, then the **Add** button. The “Select Users, Computers, or Groups” dialog box appears.



- 4 Select the IUSR_<server name> entry on the **Name** list. This IUSR user name was configured for the anonymous user account when you created the reqweb virtual directory.
- 5 Click **Add**. Click **OK**. You return to the target directory Properties dialog box.



- 6 With the IUSR_<server name> entry still selected in the **Name** list, do one of the following:
 - mark the **Read** permissions check box (for directories listed in “Required Read Permissions” on page 49)
 - mark the **Modify** permissions check box (for directories listed in “Required Change or Modify Permissions” on page 49).

Accept the other permissions that are associated with the Modify option.

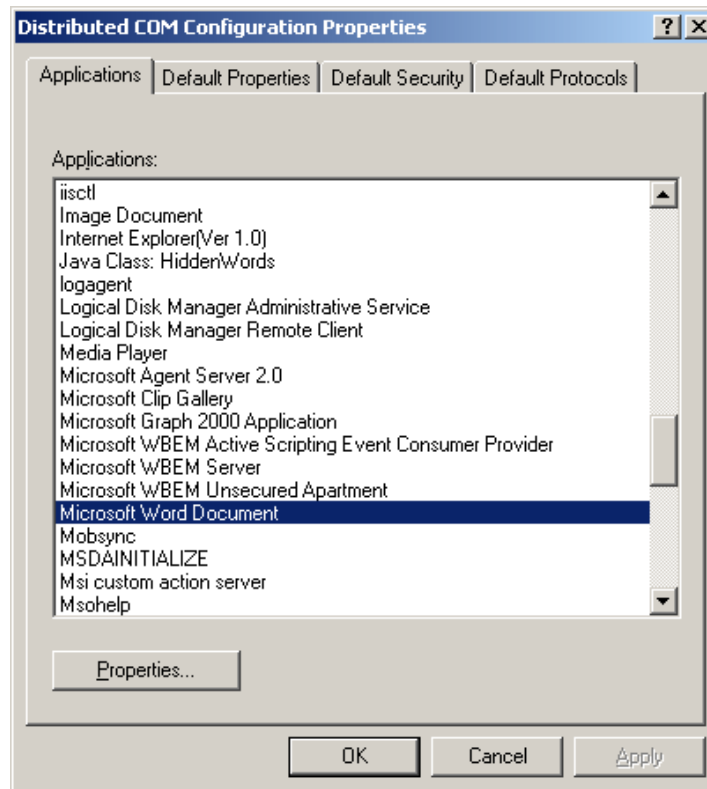
- 7 Mark the **Allow inheritable permissions...** check box.
- 8 Click **OK**. Repeat this procedure for the other target directories.

Granting Launch Permissions for Microsoft Word with IIS 5.0

RequisiteWeb requires the installation of Microsoft Word on the IIS server. With IIS 5.0, RequisiteWeb uses the Distributed Component Object Model (DCOM) to launch Microsoft Word. By default on IIS 5.0, the anonymous user IUSR_<server name> does not have permission to launch Word. Use the procedure below to use the Distributed Component Object Model (DCOM) to set permissions for launching Word.

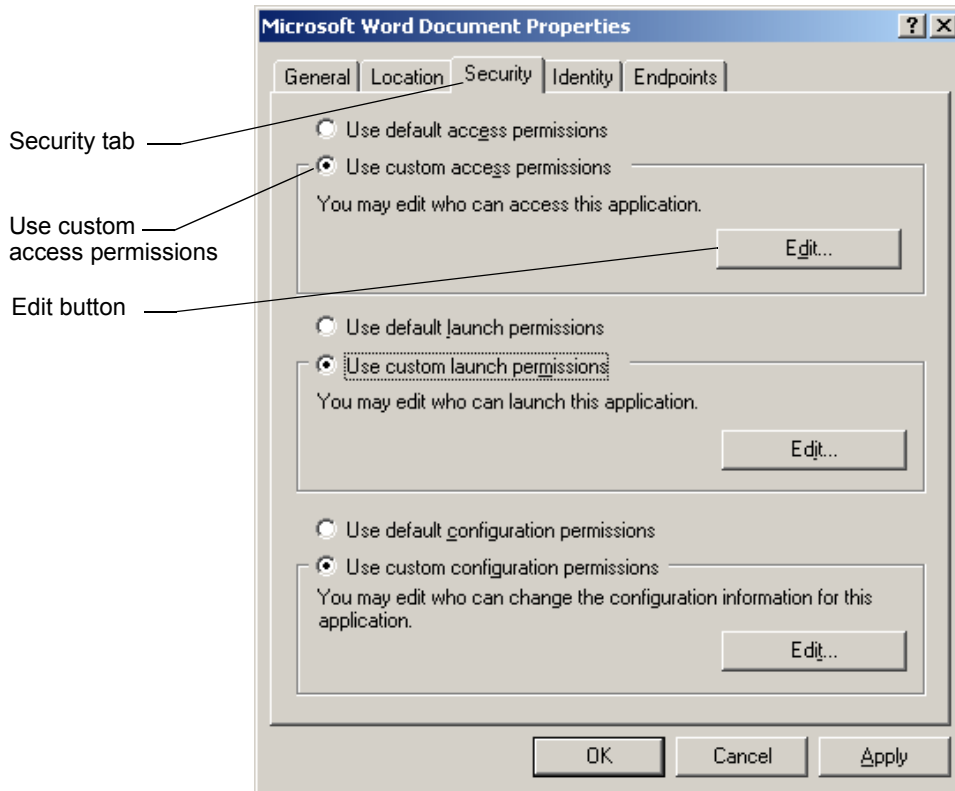
Note Do not add the IUSR_<server name> user to the Administrators group. This addition creates a security breach for all Web applications on the IIS server.

- 1 On the **Start** menu, click **Run**, and type dcomcnfg.
The Distributed COM Configuration dialog box appears.



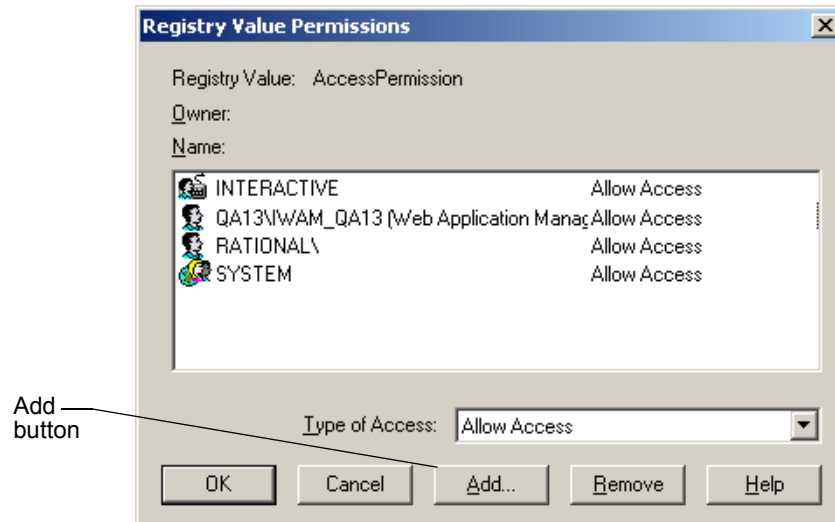
- 2 On the **Applications** tab, select **Microsoft Word Document** on the list of applications. (If the entry **Microsoft Word Basic** appears in your DCOM applications list, you will have to repeat this procedure for that entry.)

- 3 Click the **Properties** button. The Microsoft Word Document Properties dialog box appears.



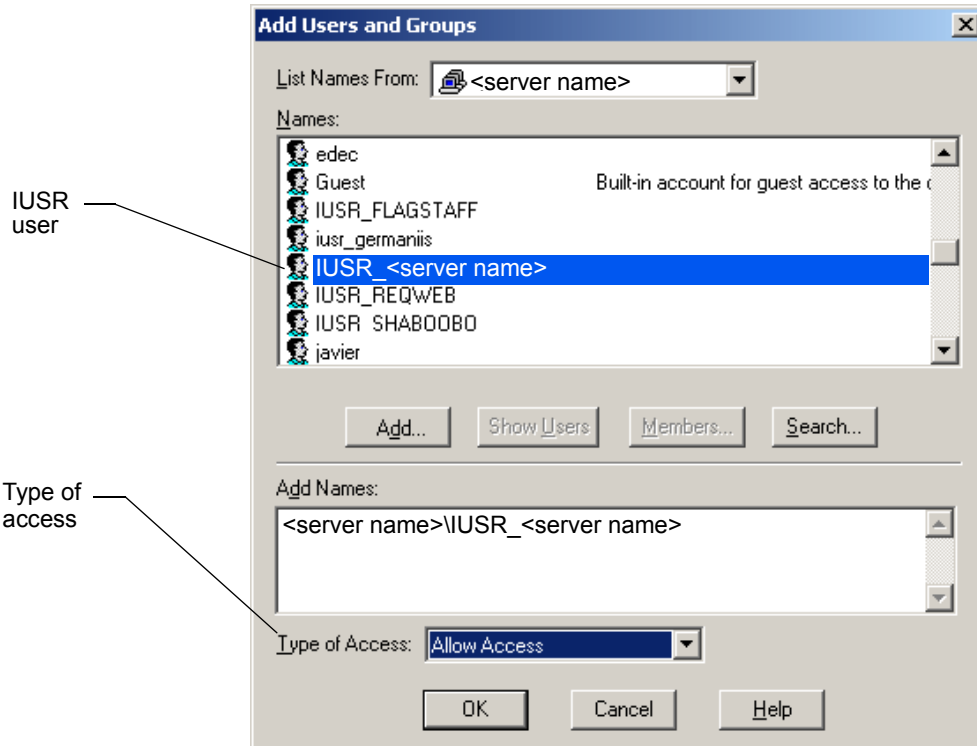
- 4 On the **Security** tab, select **Use custom access permissions**. Click the adjacent **Edit** button.

The Registry Value Permissions dialog box appears.



5 Click **Add**.

The Add Users and Groups dialog box appears.



- 6 Select the IUSR_<server name> anonymous user for RequisiteWeb. Click **Add**.
- 7 At the **Type of Access** field, select **Allow Access**. Click **OK**.
- 8 At the Registry Value Permissions dialog box, click **OK**.
- 9 At the Microsoft Word Document Properties dialog box, select the option **Use custom launch permissions**. Click the adjacent **Edit** button.
- 10 At the Registry Value Permissions dialog box, click **Add**.
- 11 Select the IUSR_<server name> anonymous user for RequisiteWeb. Click **Add**.

- 12 At the **Type of Access** field, select **Allow Launch**. Click **OK** three times to close the DCOM dialog boxes. (Repeat this procedure for the **Microsoft Word Basic** entry, if it appears in your DCOM application list.)

Building the Web Project Catalog

Before projects are available for the RequisiteWeb clients, they must be cataloged on the RequisiteWeb server. The default catalog file contains entries for the two Learning Projects.

- 1 Using a text editor, open the `catalog.txt` file in the `C:\Inetpub\wwwroot\ReqWeb` directory.
- 2 Type the full path and RequisitePro project file name (*.rq`s`).

Note

You must use full UNC paths to RQS files in Oracle and SQL Server-based projects that are not located on the IIS server.

- 3 Enter additional project files on successive lines of the text file.
- 4 Save and close the file.

Accessing Projects from the RequisiteWeb Server

The `Projects` directory that you created in the section “Creating Required Directories on the IIS Server” on page 48 is the recommended directory for your projects because you granted Change or Modify permissions to that directory.

If you are using Microsoft Access for your RequisitePro project database, the project files must be located on the IIS server in order for RequisiteWeb to access the project. RequisiteWeb can open SQL Server- and Oracle-based projects which are not physically located on the IIS server. However, to open these projects, the anonymous user `IUSR_<servername>` must have Change or Modify rights for the directory containing the RequisitePro RQS project file on the machine where that file is located.

To grant these rights, add the `IUSR_<servername>` user to the list of users with rights to that directory. Give the user a minimum of Change or Modify rights. Alternately, you may add the `IUSR_<servername>` user to a group who already has Change or Modify rights (or greater) for that directory.

Configuring E-mail Discussions for RequisiteWeb

To configure e-mail for RequisitePro discussions, refer to “Configuring E-mail for Discussions” on page 8 in this guide. You use the same Rational E-mail Reader session for both RequisitePro and RequisiteWeb; however, note the following requirements when configuring the Rational E-mail Reader for both RequisitePro and RequisiteWeb:

- You must run the Rational E-mail Reader on a **different** server than the IIS server.
- In order to enable e-mail for RequisiteWeb discussions, you must configure discussion e-mail using the **SMTP** protocol option rather than MAPI protocol option in the Rational E-mail Reader.
- The E-mail Setup option on the RequisitePro Tools menu **does not** configure e-mail for RequisiteWeb discussions. Use the Rational E-mail Reader, as described on page 8, to configure e-mail for RequisiteWeb discussions.

Configuring RequisiteWeb for Oracle Database Projects

In order to access RequisitePro projects that are stored in an Oracle database using RequisiteWeb, you must configure Oracle client software on the IIS server. Refer to the section “Setting Up PCs for Oracle Access” on page 21 in this guide. That section refers to installation on a client PC; you must perform that procedure on the IIS server.

Starting RequisiteWeb

To access a RequisitePro project in RequisiteWeb:

- 1 Open your browser.
- 2 Set the URL address to the full path of the RequisiteWeb virtual directory; for example: `http://<server name>/reqweb/`
- 3 Navigate to that address. The RequisiteWeb logon page appears.

- 4 Select a RequisitePro project from the **Project** list. If your project does not appear on the list, refer to procedure “Building the Web Project Catalog” on page 59.
- 5 Type your RequisitePro **User** name and **Password** and click **Log on**.

Removing RequisiteWeb

This section describes how to remove RequisiteWeb from your system.

Note

RequisiteWeb 4.0 SR1 required the use of Distributed COM (DCOM) for managing Microsoft Word documents on the IIS server. If you created an “Admin” user for use with DCOM and Microsoft Word, you should reset the launching user for Word. Run `dcomcnfg` at the **Start/Run** command line. Select **Microsoft Word Basic** and click **Properties**. At the **Identity** tab, select **The launching user** and click **OK**. At the Distributed COM dialog box, select **Microsoft Word Document** and repeat this change on the **Identity** tab.

Preparing to Remove RequisiteWeb

Prior to removing RequisiteWeb from your system, make sure that no one is using RequisiteWeb or any associated files. You will not be able to remove files that are in use.

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. Add your previous `catalog.txt` entries to the new catalog file that is installed with the new version of RequisiteWeb. For more information, see “Building the Web Project Catalog” on page 59.

To remove RequisiteWeb from the Windows NT system, you must have Windows NT administrator privileges on that machine.

Stop the IIS Web Site Processes

- 1 Launch Microsoft Management Console (MMC).
- Note** The default Start menu path for the MMC is Programs/Windows NT 4.0 Option Pack/Microsoft Internet Information Server/Internet Service Manager.
- 2 Select the Default Web Site.
 - 3 Click the **Stop** button on the toolbar.
 - 4 Right-click on the ReqWeb virtual directory and select **Properties**. The ReqWeb Properties dialog box appears.
 - 5 Click **Remove**.
 - 6 Click **OK** to close the dialog box.

Unload RequisiteWeb Components from Memory

- 1 At the Start/Run command line, type `cmd`.
- 2 In the MS-DOS window, type the commands indicated in the following steps. Answer **OK** to any messages. The `C:\` prompt appears after each command is successfully executed.
- 3 Type `net stop iisadmin /y` and press **Enter**.
The following message appears: "The IIS Admin Service was stopped successfully."
- 4 Type `mtxstop` and press **Enter**.
The following message appears: "Mtxstop: Stopping all application server processes..."
- 5 Type `net start w3svc` and press **Enter**.
The following message appears: "The World Wide Web Publishing Service was started successfully."
- 6 Close the MS-DOS window.

To Remove RequisiteWeb

Use the **Add/Remove Programs** function in the Windows NT Control Panel to select and remove **RequisitePro**. After the uninstall process is complete, check to see if the ReqWeb directory is still present on the server. If so, delete the ReqWeb directory and its subdirectories.

Client Browser Requirements

To access RequisiteWeb from client machines, you must install one of the following Web browsers on the client system. No additional client installation is required for use of RequisiteWeb.

- Microsoft Internet Explorer 4 or 5
- Netscape Navigator 4 (Win 95/98/NT)
- Netscape Navigator 4 (UNIX)

Removing RequisitePro

This section describes how to remove RequisitePro from your system.

Preparing to Remove RequisitePro

Make sure that no one is using RequisitePro and any associated files. You will not be able to remove files that are in use.

To remove RequisitePro from a Windows NT system, you must have Windows NT administrator privileges on the local machine.

To Remove RequisitePro

Use the **Add/Remove Programs** control panel to select and remove RequisitePro. The Rational Software Setup removes RequisitePro from your system.

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

If you are upgrading to a new version of RequisitePro that uses a different installation path and you choose to leave the previous directories intact, you should delete the .gid files from your former help directories (for example, \Rational\RequisitePro 4.5\help\reqpro.gid). This prevents the new RequisitePro help from looking in the old directories for its contents information.

6

ClearQuest: Post - Install

This chapter covers upgrading and configuring ClearQuest, and setting up ClearQuest Web.

Upgrading ClearQuest

This section describes how to upgrade your existing ClearQuest installation. Before you begin the upgrade, read the release notes (`\\ClearQuest\readme.html`) to become familiar with what has changed in this release.

Topics covered in this section include:

- “Understanding the Upgrade Process” on page 153
- “Preparing to Upgrade” on page 154
- “Performing a Test Upgrade” on page 155
- “Performing the Production Upgrade” on page 160
- “Upgrading Clients” on page 160
- “Upgrading ClearQuest Web” on page 161

Note

If you are using Rational ClearQuest/TeamTest Edition, see the Getting Started with Rational ClearQuest TeamTest Guide This guide is available as a Portable Document Format (PDF) file in the `\\ClearQuest\books` directory.

Understanding the Upgrade Process

The following steps summarize the upgrade procedure. The sections of this chapter describe the steps in detail.

- 1 Read the ClearQuest release notes (`\\Program Files\Rational\ClearQuest\readme.htm`) to learn what has changed in this release.
- 2 Read this chapter and be sure you understand the upgrade procedure before you begin.

Warning Back up your current schema repository and user databases.

3 Perform a test upgrade.

- Create new, empty vendor databases for your schema repository and user databases.
- Install the new version of ClearQuest.
- Use the ClearQuest Maintenance Tool to upgrade your schema repository and user databases.
- Unlock your old databases so users can continue to work with those databases during the testing period.

4 Perform the upgrade on your production databases.

5 Notify your users of the new database connection information.

Important If you are using multiple products from the Rational Suite, all products must be from the same Suite version (installed from the same CD-ROM). If you want to upgrade a product from the Suite, uninstall all Rational Suite products and install the desired products from the newer Suite CD-ROM.

Preparing to Upgrade

The ClearQuest upgrade process upgrades the application and your databases. Because upgrading changes the underlying structure of your data and can change your schemas, we highly recommend the following:

- Do complete backups of your databases.

Having a backup is the only way to be assured that you can recover your schemas and user data if something goes wrong during the upgrade process.

- Do a test upgrade.

By testing the upgrade, you can be sure that your data upgrades successfully and your customizations work with the new release. Testing also gives you the chance to try new functionality in the form of Packages (for more information on packages, see the release notes).

You should only upgrade your user databases when you completely understand the upgrade process and are sure the upgrade works with your customizations.

Note Upgrading might fail if you have custom database tables that were not created by ClearQuest. For information about upgrading if you have custom database tables, read the release notes (`\\Program Files\Rational\ClearQuest\readme.htm`).

Performing a Test Upgrade

We strongly recommend the following steps for performing a test upgrade. You should be sure the process works before upgrading your production databases.

Database Locking

To upgrade, install the latest version of ClearQuest, then use the ClearQuest Maintenance Tool to upgrade your databases. After ClearQuest upgrades your data, it locks your original databases. When your original databases are locked, you have two options for how to proceed with the upgrade:

- You can complete the entire upgrading testing with the original databases locked.

This means that your users will not be able to use ClearQuest until the upgrade testing is completed. How long that takes depends on the size and complexity of your database and the amount of testing you do. If the upgrade is successful, upgrade your client installations, and notify users about how to connect to the upgraded databases.

- You can unlock your original databases while you test the upgrade.

This means that your users can continue to use your current version of ClearQuest and continue to enter records while the upgrade testing is performed. The only down time for your users occurs while the actual database upgrade and unlock procedures are being performed. If the upgrade test is successful, you must discard the test databases and perform the process again to upgrade the most current data.

To unlock your original schema repository and user databases, see “Unlocking Your Original Databases” on page 158.

Upgrade Steps

The upgrade steps are the same whether you are performing a test upgrade or the final production upgrade. We highly recommend performing a test run. The following steps assume you are doing a test upgrade first.

To perform an upgrade:

- 1 Install the latest version of ClearQuest on your test machine using the Administrator installation.

Follow the installation steps in “Installing ClearQuest for the Administrator” on page 161 to install the new version of ClearQuest.

- 2 Create new, empty vendor databases for your schema repository and user databases. You should create the new databases in a new test directory or on a test server. For information on creating vendor databases see:
 - “Setting up Microsoft Access” on page 32
 - “Setting up SQL Anywhere” on page 33
 - “Setting up Microsoft SQL Server Version 6.5” on page 37
 - “Setting up Microsoft SQL Server 7” on page 42
 - “Setting up the Oracle Server” on page 45

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

- 3 Notify users to log off from ClearQuest, and shut down your web server.

Users should not access ClearQuest during the upgrade process.

Note Some high-end databases give the administrator a tool for logging users off from the database. Check your vendor database to see if it has such a tool.

4 Back up your data.

Use your vendor tools to back up your schema repository and user databases. Upgrading changes the underlying structure of your data and can change your schemas. We strongly recommend you have a backup to revert to it if necessary.

5 Upgrade your schema repository and user databases.

- a** Run the ClearQuest Maintenance Tool from the Start menu.
- b** Select the **Upgrade schema repository and/or user database(s)** and click **Next**.
- c** Specify the schema repository to upgrade from (your existing production schema repository). Click **Next**.
- d** To upgrade databases associated to this schema repository, select the **Upgrade user databases** option (recommended).
- e** Enter the ClearQuest login name and password for a ClearQuest user account with Superuser privileges, then click **Next**.
- f** Select the user databases to upgrade, then click **Next**.
- g** Enter the schema repository to upgrade to (the new, empty database you created), then click **Next**.
- h** For each of your user databases, enter the user database to upgrade to (the new, empty databases you created), then click **Finish**.

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

6 Determine whether you want to unlock your original databases and allow users to continue working with ClearQuest during upgrade testing. If you choose to unlock the database, see “Unlocking Your Original Databases” on page 158.

7 Apply packages.

If you are upgrading from release 1.1 and had applied e-mail rule or integration add-ins, you must apply certain upgrade Packages to your schemas. For details, see the release notes and the online Help for the Package Wizard in the ClearQuest Designer. After the packages are applied, you must upgrade the user databases associated with that schema.

8 Test the application.

Enter a few test records and move them through your entire state model to be sure the upgrade is working correctly.

Unlocking Your Original Databases

If you choose to allow users to continue using your original databases while you test the upgrade, you must unlock the database.

Note

After you perform the final upgrade, do not unlock your original databases. Keeping the original databases locked prevents your users from accessing the wrong databases.

- 1 Start a command window ("DOS prompt"), and change to the new ClearQuest home directory.

- 2** To unlock the schema repository, type the command for your vendor database:

```
> installutil unlockschemarepo dbvendor server db
dbologin dbopassword ""
```

where:

- `dbvendor` (vendor database) is either:
 - `SQL_SERVER` for SQL Server databases
 - `MS_ACCESS` for Microsoft Access
 - `SQL_ANYWHERE` for Sybase SQL Anywhere
 - `ORACLE` for Oracle
 - `server` is either:
 - the hostname of the SQL Server database server
 - the SQL Anywhere database server name
 - the Oracle SQL*Net alias
 - an empty string ("") for Microsoft Access
 - `db` is the database name containing your original schema repository for Oracle and SQL Server, or the full path to the database for Microsoft Access and SQL Anywhere
 - `dbologin` is the userid that owns the database (use `admin` for Microsoft Access or SQL Anywhere)
 - `dbopassword` is the password to that userid (use `admin` for Microsoft Access or SQL Anywhere)
- 3** To unlock user databases, repeat the above steps with the following exceptions:
- the `installutil` subcommand to use is `unlockuserdb` instead of `unlockschemarepo`
 - point to the server database containing the original user database, not the schema repository

Performing the Production Upgrade

After you have performed a test upgrade and are comfortable with the process, you are ready to upgrade your production schema repository and user databases.

- 1 Determine if you need to perform the upgrade on your production database.
 - a If you chose to leave your production database locked during testing and the test upgrade was successful, you can put your upgraded databases into production.
 - b If you choose to allow users to continue working with your production database during test, you need to repeat the upgrade process (see “Upgrade Steps” on page 156), but this time you will not unlock your original databases.

Note You will need to create new target databases before repeating the upgrade steps for production databases.

- 2 Inform users of the new connection information to use when upgrading their client installations of ClearQuest.

Upgrading Clients

Each client installation should be upgraded by uninstalling the current ClearQuest installation, installing the latest version of ClearQuest (see “Installing ClearQuest for End-users” on page 165), and connecting to the newly upgraded databases.

Note Uninstalling the current version does not delete your databases or license information.

After upgrading, users who had enabled e-mail notification must reenable it. To do this:

- 1 Choose **View > E-mail Options**. This opens the E-mail Setup dialog.
- 2 Select **Enable E-mail Notification**.
- 3 Select either **SMTP** or **MAPI**.

- 4 If you entered SMTP:
 - Enter the SMTP host address of your mail server.
 - Enter your e-mail address.
 - Click **Finish**.
- 5 If you entered MAPI:
 - Choose a MAPI profile from the list.
 - Click **Finish**.

Upgrading ClearQuest Web

To upgrade ClearQuest Web:

- 1 If you have not done so already, shut down your web server.
- 2 Uninstall the current version and install the new version of ClearQuest on your Web server. See “Installing ClearQuest for the Administrator” on page 161.
- 3 Repeat all the steps in “Setting up ClearQuest Web” on page 173.
- 4 Restart your web server.

Installing ClearQuest

This section describes how to install ClearQuest and covers the following topics:

- “Installing ClearQuest for the Administrator” on page 161
- “Installing ClearQuest for End-users” on page 165

Installing ClearQuest for the Administrator

Before installing ClearQuest on client machines you must install it on the administrator’s machine, set up licensing, and set up your schema repository and user databases.

If you are using an Oracle database, install the Oracle client software **before** installing ClearQuest. See “Setting up the Oracle Server” on page 45 for more information.

To install ClearQuest for administrators:

- 1 Load the ClearQuest CD-ROM.
- 2 If the setup program does not run automatically, navigate to the top level directory of the CD-ROM and double-click `setup.exe`.
The Rational Software Setup wizard prompts you through the ClearQuest installation.
- 3 If you are evaluating ClearQuest, choose the **Evaluator** installation. Otherwise, choose the **Administrator** installation.
- 4 Launch the Licence Administrator to enter your ClearQuest licenses. Follow the instructions on your License Certificate and in the online Help for the License Key Administrator.

Creating ClearQuest Databases

After you install ClearQuest, you must create the ClearQuest databases (schema repository and user databases). Initially you can create a sample user database to use while you familiarize yourself with the product. You can create your production user databases later.

If you chose the Evaluator installation, Microsoft Access databases are created for you automatically. If you chose the Administrator installation, follow these steps to create ClearQuest databases:

- 1 Launch the ClearQuest Maintenance Tool (**Start > Programs > Rational ClearQuest > ClearQuest Maintenance Tool**).
- 2 Select **Create a new schema repository** and click **Next**.

Note The first time you launch ClearQuest, the Maintenance Tool runs automatically.

- 3 Select the vendor database you plan to use, enter the properties appropriate for that vendor, then click **Next**. Save this information for clients to use when they connect to the databases. The information to enter is as follows:

- **MS_ACCESS**

- Enter a name for the schema repository. Enter the entire path to the file using a UNC style path. For example:

```
\\DevServer\ProjectShare\CQ_DBS\schema_repo.mdb
```

You can browse to the directory where you want to create the database. Be sure to browse using the Network Neighborhood to preserve the UNC style path name.

- **SQL_ANYWHERE**

- Enter a name for the schema repository. Enter the entire path to the file using a UNC style path. For example:

```
\\DevServer\ProjectShare\CQ_DBS\schema_repo.mdb
```

You can browse to the directory where you want to create the database. Be sure to browse using the Network Neighborhood to preserve the UNC style path name.

- Enter the name of the database server.
- Enter the protocols used to communicate with the SQL Anywhere server.
- Enter the database host name. The database host machine must be visible to the client machines via network share and via one or more of the communication protocols. For TCP/IP, this can also be the IP address.

- **SQL_SERVER**

- Enter an SQL Server database name for the database that will contain the schema repository.
- Enter the name of the database server.
- Enter the database owner (DBO or Administrator) login.
- Enter the password for the database owner (DBO or Administrator) login.

- Enter the general purpose or read/write login.
- Enter the password for the general purpose or read/write user login.
- Enter the schema repository or read-only user login.
- Enter the password for the schema repository or read-only login.
- ORACLE
 - Enter the TNS name (SQL*Net Alias pointing to the Oracle instance).
 - Enter the Oracle login you created for the schema repository.
 - Enter the password for the login.

Note All ClearQuest users must use the same SQL*Net Alias (TNS name), Database Instance (system ID or SID), TCP/IP protocol, and Host Name (Oracle server machine).

- 4** We recommend that you create a sample database using one of the provided schemas. Select a schema, give the sample database a name, then click **Next**.
- 5** If you created a sample database, you must select a vendor and enter the database properties. When you are finished, click **Next**.
- 6** You can save these settings as a default profile, or click **Finish** to complete the setup. The profile records the entries you made and saves them to a file (the default name is `cqprofile.ini`). Clients can connect to the database by using the profile file instead by typing the connection information.

You have completed Step 2 of the steps described in “Understanding the ClearQuest Install Process” on page 31. Return to that page to determine the next step.

Installing ClearQuest for End-users

ClearQuest must be installed on each end-user machine. When ClearQuest is installed and connected to the database, users can enter and modify records.

Note It is also possible to allow users to install ClearQuest from a network location, for more information see *Installing Rational ClearQuest*.

To install ClearQuest for end-users:

- 1 Load the ClearQuest CD-ROM.
- 2 If the setup program does not run automatically, navigate to the top level directory of the CD-ROM and double-click `setup.exe`.

The Rational Software Setup wizard prompts you through the ClearQuest installation.

- 3 Choose the **Client** installation.

If you will be doing schema development, select the **Administrator** installation, which includes additional administrative tools.

- 4 Launch the Licence Administrator to enter your ClearQuest licenses.

Connecting to ClearQuest Databases

After installing ClearQuest as a client user, the first time you run ClearQuest, client users need to connect to an existing schema repository. You must provide them database properties information needed.

You can create a database profile for client users to use to connect to the schema repository, see Step 6 of “Connecting to ClearQuest Databases” on page 165.

The following instructions apply to client users who need to connect to a schema repository:

- 1 Launch the ClearQuest Maintenance Tool (**Start > Programs > Rational ClearQuest > ClearQuest Maintenance Tool**).

Note The first time you launch ClearQuest, the Maintenance Tool runs automatically.

- 2 Select **Connect to Existing schema repository** and click **Next**.

- 3 Select the vendor database that you plan to use, enter the properties appropriate for that vendor, then click **Next**.

Enter the information provided by your administrator, or, if your ClearQuest administrator created a user profile file (usually called `cqprofile.ini`) that includes the database information you need, click **Load Profile** to navigate to the profile file.

If you did not create a profile for client users, they must enter the following information:

- **MS_ACCESS**

- Enter the entire path to the schema repository using a UNC style path. For example:

```
\\DevServer\ProjectShare\CQ_DBS\schema_repo.mdb
```

You can browse to the directory containing the database. Be sure to browse using the Network Neighborhood to preserve the UNC style path name.

- **SQL_ANYWHERE**

- Enter the path to the schema repository using a UNC style path. For example:

```
\\DevServer\ProjectShare\CQ_DBS\schema_repo.mdb
```

You can browse to the directory containing the database by using Network Neighborhood, which preserves the UNC style path name.

- Enter the name of the database server.
- Enter the protocols used to communicate with the SQL Anywhere server.
- Enter the database host name.

- **SQL_SERVER**
 - Enter an SQL Server database name for the database containing the schema repository.
 - Enter the name of the database server.
 - Enter the schema repository or read-only user login.
 - Enter the password for the schema repository or read-only login.
 - **ORACLE**
 - Enter the SQL*Net Alias (alias pointing to the Oracle instance).
 - Enter the Oracle login created for the schema repository.
 - Enter the password for the login.
- 4 Click **Finish** to complete the connection.

Enabling E-mail Notification

After installing ClearQuest, users must enable e-mail notification if they want to receive automatic e-mail messages from ClearQuest. To do this:

- 1 Launch ClearQuest (**Start > Programs > Rational ClearQuest > Rational ClearQuest**).
- 2 Choose **View > E-mail Options**. This opens the E-mail Setup dialog.
- 3 Select **Enable E-mail Notification**.
- 4 Select either **SMTP** or **MAPI**
- 5 If you entered SMTP:
 - Enter the SMTP host address of your mail server.
 - Enter your e-mail address.
 - Click **Finish**.
- 6 If you entered MAPI:
 - Choose a MAPI profile from the list.
 - Click **Finish**.

After You Install ClearQuest

This section describes what to do after you install and configure ClearQuest and covers the following topics:

- “Setting up Configuration Management Integrations” on page 168
- “Setting up Record Submission via E-mail” on page 172
- “Installing Crystal Reports” on page 172

Setting up Configuration Management Integrations

You can integrate ClearQuest with software configuration management tools to create a complete change management system. ClearQuest relates change requests directly to changes in your evolving code base, allowing you to answer such questions as:

- Which defects have been fixed in one release but not in another?
- Which defects can be attributed to a specific release?

Integrating with Rational ClearCase

The integration of ClearQuest and ClearCase allows you to associate change requests with one or more ClearCase elements. To set up the integration:

- 1 Within ClearCase, use the ClearQuest Integration Configuration tool located on the ClearCase Administration menu. The online Help describes how to set up and use the integration.
- 2 Within ClearQuest, apply the ClearCase package to a schema to enable the integration. For more information on installing packages, see the *Administering Rational ClearQuest* guide.

Note If you have a previous installation of ClearQuest that used the ClearCase add-in, select the **Upgrade 1.0** version of the ClearCase package. If this is the first time you are installing the integration, use the **1.0** version of the package.

Unified Change Management (UCM)

To use the ClearQuest/ClearCase UCM integration, consult the following documentation:

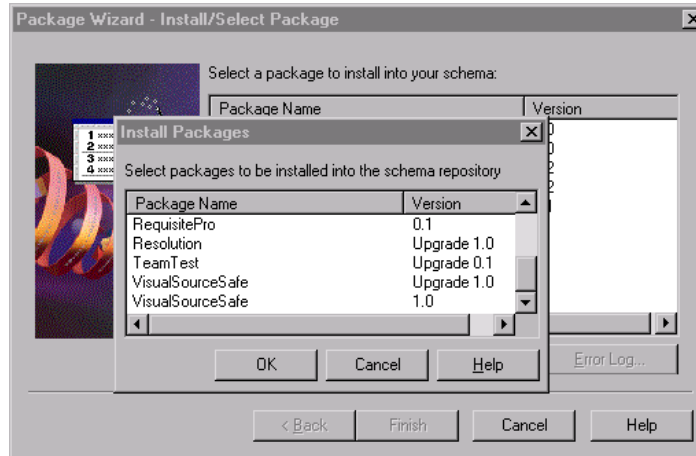
- To set up the ClearCase part of the integration and to learn about the UCM process, see the *Managing Software Projects with ClearCase* guide provided with ClearCase.
- To set up the ClearQuest part of the integration, see Appendix B, “Enabling ClearQuest for Unified Change Management,” in the *Administering Rational ClearQuest* guide.

Integrating with Microsoft Visual SourceSafe

The ClearQuest/Visual SourceSafe integration adds Visual SourceSafe fields to a record type you choose, and the Visual SourceSafe tab to the record type form.

To enable the integration:

- 1 Install ClearQuest and Visual Studio according to the normal procedure for each product.
- 2 Set up your ClearQuest schema repository and user databases.
- 3 Use the ClearQuest Designer to add the Visual SourceSafe integration package to your schema using the Package Wizard.
 - a Launch the ClearQuest Designer from the Start menu
 - b Check out the schema you want to use with the integration.
 - c Install the Visual SourceSafe package by choosing **Package > Package Wizard**. Click **More Packages** to locate the VisualSourceSafe package, then click **OK**.



d Select the Visual SourceSafe package and click **Next**.

Note

If you have a previous installation of ClearQuest that used the Visual SourceSafe add-in, select the **Upgrade 1.0** version of the package. If this is the first time you are installing the integration, use the **1.0** version.

e Select the record types to be enabled by the package, then click **Finish**.

For more information on packages, consult the *Administering Rational ClearQuest* guide or the Help for the ClearQuest Designer.

4 Check in the schema.

5 Upgrade your user database to the new version of the schema.

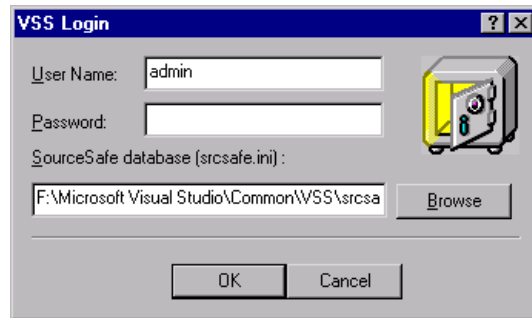
Important

We recommend that you first upgrade a test database and familiarize yourself with the integration features before upgrading your production database.

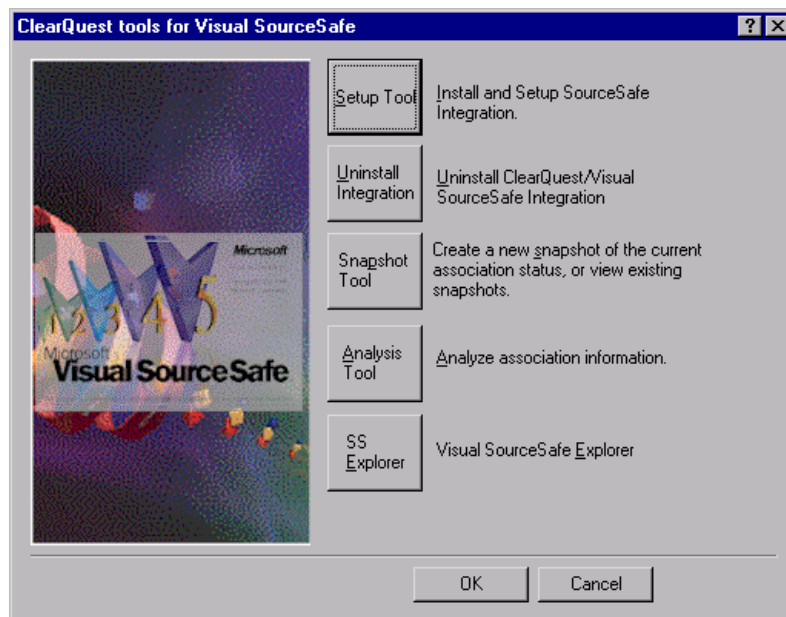
6 In ClearQuest, create a query that your end users can use to find the records you want to associate to projects in Visual SourceSafe.

7 On each client that wants to use the integration, launch the ClearQuest Visual Source Safe tool (cqyss.exe) located in the ClearQuest home directory. You can drag a copy of cqyss.exe to the desktop to create a shortcut to it.

- 8 Log in and select the Visual SourceSafe database you want to use.



- 9 From the ClearQuest tools for Visual SourceSafe screen, select **Setup Tool**.



- 10 In the Visual SourceSafe Integration dialog, select the ClearQuest query you want to use and click **OK**.

The installation of the integration is complete. To begin using the integration, see the Help for the ClearQuest Visual SourceSafe tool.

Setting up Record Submission via E-mail

To enable your users to submit and modify records via e-mail, you configure the Rational E-mail Reader. The E-mail Reader is an e-mail processing tool that parses submitter's e-mail and commits new records or changes to the database. The E-mail Reader requires a dedicated e-mail account to be assigned for parsing records.

Use the Rational E-mail Reader to designate one machine to be the Rational Mail Server. We recommend that the Rational Mail Server run on the same machine as your ClearQuest database(s) to ensure that the service is always available.

The E-mail Reader (mailreader.exe) is automatically installed in the `\Rational\common` directory. You can drag a copy of the mailreader.exe to the desktop to create a shortcut to it. You can then follow the instructions in the online Help (located in `\Rational\common\mailreader.hlp`) on how to set up the E-mail Reader. For more information on the E-mail Reader see "Administering ClearQuest E-mail" in the *Administering Rational ClearQuest Guide*.

Installing Crystal Reports

If you want to customize the defect reports that ship with ClearQuest, you must install Crystal Reports Pro 6.0. This software comes on a separate CD in your Rational ClearQuest software kit.

To install Crystal Reports, use the Crystal Reports installation directions that come with the CD.

Note Users who will not be editing existing or creating new report formats, do not need to install Crystal Reports.

Setting up ClearQuest Web

This section describes how to set up the ClearQuest Web server for both Microsoft Internet Information Server version 4 (IIS 4) for Windows NT, and Windows 2000 Server, which includes Microsoft Internet Information Server version 5 (IIS 5).

This section covers the following topics:

- “Understanding the ClearQuest Web Installation Process” on page 173
- “Setting up ClearQuest Web for IIS 4” on page 174
- “Setting Up ClearQuest Web for IIS 5” on page 186
- “Enabling E-mail Notification for Web Clients” on page 202
- “Providing ClearQuest Web Information to Web Clients” on page 203

Understanding the ClearQuest Web Installation Process

The following are special considerations for using ClearQuest Web:

- ClearQuest Web does not support Microsoft Access databases.
- Your browser must have cookies enabled when using ClearQuest Web.
- Make sure your web server is set to display 256 colors. This is necessary for generating charts.

To install and configure ClearQuest Web on your Windows server, you must complete the following tasks:

- 1 If you are using Windows NT, verify that Windows NT 4.0 Option Pack, which includes Microsoft Internet Information Server 4.0 (IIS), is installed on your web server.
- 2 Install ClearQuest on the Web server. See “Installing ClearQuest for the Administrator” on page 161.

Note

We recommend, for improved performance, security, and reliability, that the Web server machine and the database server machine be two different machines, each with its software installed onto an NTFS partition.

- 3 Follow the instructions in this chapter to configure Microsoft Internet Information Server to serve the ClearQuest Web pages.
- 4 Configure the web server so that web clients can take advantage of ClearQuest's e-mail notification feature.
- 5 Provide users with the path to ClearQuest Web.

Note You can copy the documentation CD to the Web server if you choose.

Setting up ClearQuest Web for IIS 4

This section is for users using Windows NT (Workstation or Server) with IIS 4. If you are using Windows 2000 Server, which has IIS 5 as an embedded component, see "Setting Up ClearQuest Web for IIS 5" on page 186.

This section contains the following:

- "Setting up an Anonymous User Account for IIS 4" on page 174
- "Creating a Cache Directory for IIS 4" on page 177
- "Configuring IIS 4.0 to Serve ClearQuest Web Pages" on page 177

Setting up an Anonymous User Account for IIS 4

Create an anonymous user account for IIS to use when it serves the ClearQuest pages. If you are using an SQL Server database, the anonymous user account should be known in the domain that contains the ClearQuest database, and should have full access to that database.

Create the Anonymous User Account

Create the anonymous user account as follows:

- 1 Log on as a Windows NT administrator.
- 2 If the web server belongs to a Windows NT domain, ask your Windows NT system administrator to create a domain user and provide you with the user name and password. (If not, go to Step 4.)

- 3 Run the User Manager (**Start > Programs > Administrative Tools > User Manager**), select **Policies > User Rights**, select the **Show Advanced Rights** checkbox, and give this user the following privileges on the Web server:

- **Access this computer from network**
- **Log on locally**
- **Log on as a service**

Also provide access to any other resources used by your hook scripts such as mail accounts or auxiliary databases. Skip to Step 6.

- 4 If the web server operates in stand-alone mode (does not belong to a Windows NT domain), use the default anonymous account created by the IIS installation (IUSR_<machine_name>) for Step 5.
- 5 Run the User Manager (**Start > Programs > Administrative Tools > User Manager**), select **Policies > User Rights**, select the **Show Advanced Rights** checkbox, and give the IUSR_<machine_name> account the following privileges:

- **Access this computer from network**
- **Log on locally**
- **Log on as a service**

Also provide access to any other resources used by your hook scripts such as mail accounts or auxiliary databases.

- 6 Verify that the anonymous user account has a specific, known password (you will need it later). Make sure there are no password policies in effect such as “User must change password at next login,” because these prevent the anonymous user account from functioning properly.

Set up the Registry Key Access Privileges

Give the anonymous user account full access privileges to the HKEY_LOCAL_MACHINE\Software\Rational Software\ClearQuest registry key as follows.

- 1 Select **Run** from the Start menu and type REGEDT32 to run the REGEDT32 program.
- 2 In the HKEY_LOCAL_MACHINE MDI window, select **Software\Rational Software\ClearQuest**.
- 3 On the Registry Editor menu bar, select **Security > Permissions**.
- 4 In the Registry Key Permissions dialog box, select the anonymous user. For the type of access, select **Full Control**. Select **Replace Permission on Existing Subkeys** so that the anonymous user can update the entire registry tree below ClearQuest.
- 5 Close the REGEDT32 program.

Set up Read Access Permission

Give the anonymous user account read access permission to the directory tree containing the ClearQuest web files (this is the www directory in the ClearQuest installation area).

- 1 Use the Windows Explorer to locate the directory in which you installed ClearQuest. Right-click the www directory and select **Properties** from the shortcut menu.
- 2 On the Properties dialog box, click the **Security** tab. Click **Permissions** and select **Replace Permissions on Subdirectories**.

Note

If you installed ClearQuest onto a FAT partition instead of an NTFS partition, you will not see a Security tab and can skip this step.

- 3 On the Directory Permissions dialog box, click **Add**.
- 4 Select the anonymous user account.
 - If you chose the default local anonymous username in Step 2, set **List Names From** to the name of the local machine, click **Show Users** below the **Names** list, then select the IUSR_machinename account from the **Names** list.

- If you are using a domain account, select that domain in the **List Names From** field, click **Show Users**, and select the domain account from the **Names** list.
- 5 Click **Add**.
 - 6 Set **Type of Access** to Read.
 - 7 Click **OK**.

Creating a Cache Directory for IIS 4

Create a cache directory in the ClearQuest Web directory hierarchy:

- 1 At the top of the web directory tree, there should be a directory called *cache*. If a cache directory does not exist, create one under the ClearQuest *www* directory. For example:

```
c:\Program Files\Rational\ClearQuest\WWW\cache
```

- 2 Give the anonymous user full access to everything in this directory tree.

Configuring IIS 4.0 to Serve ClearQuest Web Pages

This section describes how to configure the IIS 4.0 web server to serve ClearQuest Web pages.

- “Create a Virtual Directory for IIS 4” on page 178
- “Edit the Properties of the Virtual Directory for IIS 4” on page 181
- “Edit the Properties of the Cache Directory for IIS 4” on page 185
- “Edit the Properties of the Images Directory for IIS 4” on page 185
- “Restart the Web Server for IIS 4” on page 185

Note

If the Internet Service Manager is not available, you must install the Windows NT 4.0 Option Pack. When installing the Option pack, be sure to explicitly select the Internet Service Manager.

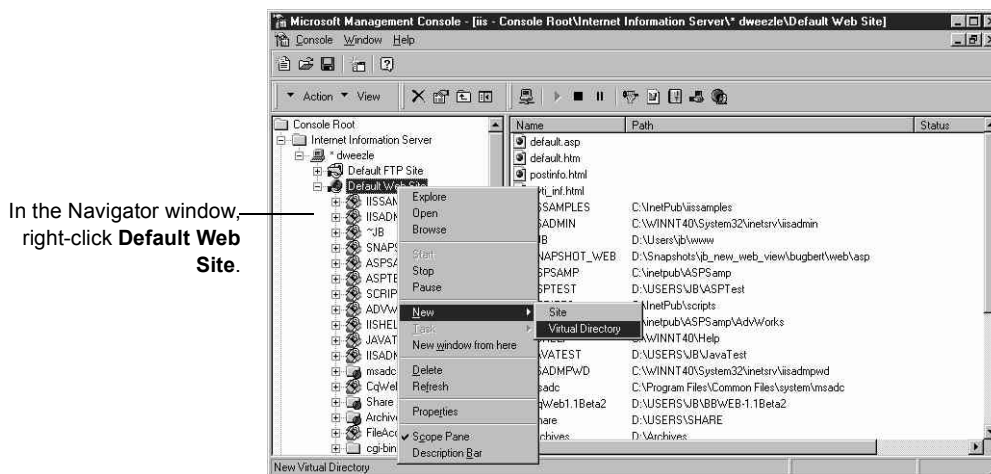
Create a Virtual Directory for IIS 4

The first step in setting up IIS 4.0 is to create a virtual directory for the web. To create this directory, you use the Internet Service Manager program (Microsoft Management Console) that comes with IIS 4.0.

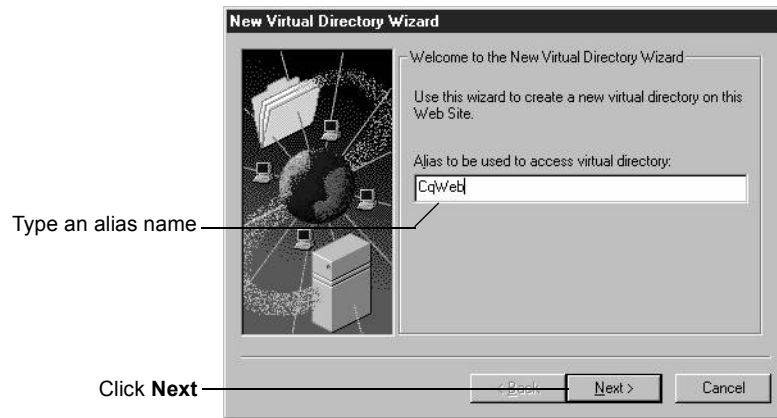
- 1 Start the Microsoft Management Console program (Internet Service Manager).

Start > Programs > Windows NT 4.0 Option Pack > Microsoft Internet Information Server > Internet Service Manager

- 2 In the Navigator window, right-click **Default Web Site**, then click **New > Virtual Directory** from the shortcut menu.

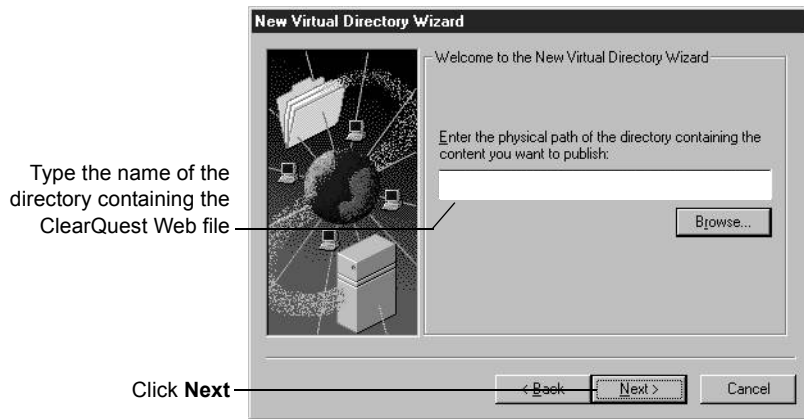


- 3 In the **New Virtual Directory Wizard**, type an alias name, such as CqWeb. Do not use a “/” character in the alias name.

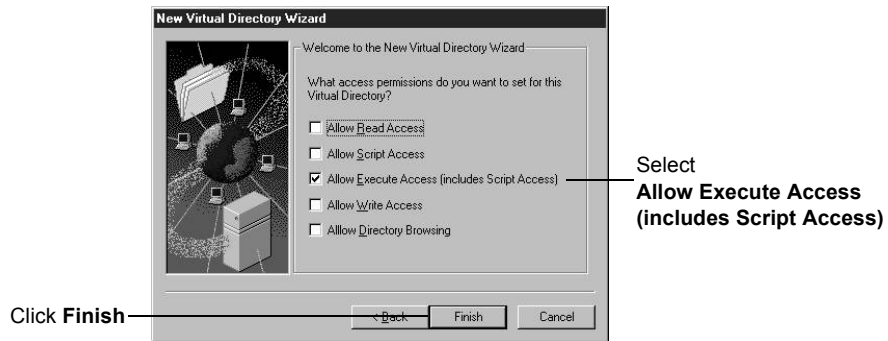


- 4 Type or browse to the name of the directory containing the ClearQuest Web files. These files are located in the www subdirectory of the ClearQuest installation directory. For example:

C:\Program Files\Rational\ClearQuest\WWW



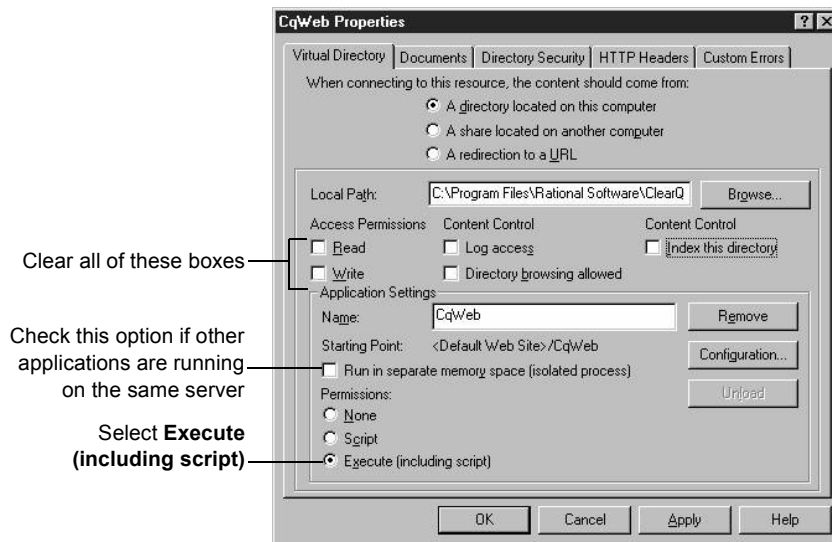
- 5 Select the default permissions for the virtual directory:



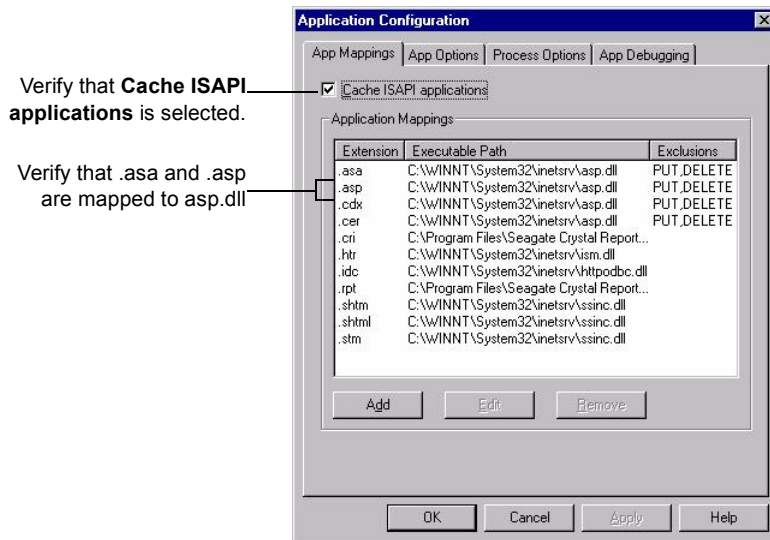
Edit the Properties of the Virtual Directory for IIS 4

Edit the properties of the virtual directory as follows:

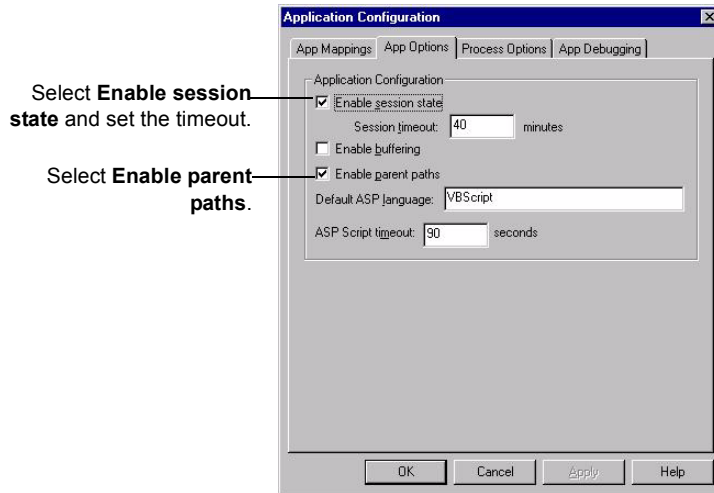
- 1 In the Microsoft Management Console left pane, navigate to the virtual directory you created earlier.
- 2 Right-click on the virtual directory and select **Properties** from the shortcut menu.
- 3 In the Properties dialog box, click the **Virtual Directory** tab.



- 4 In the same Properties dialog box, click **Configuration**. In the Application Configuration dialog, click the **App Mappings** tab.

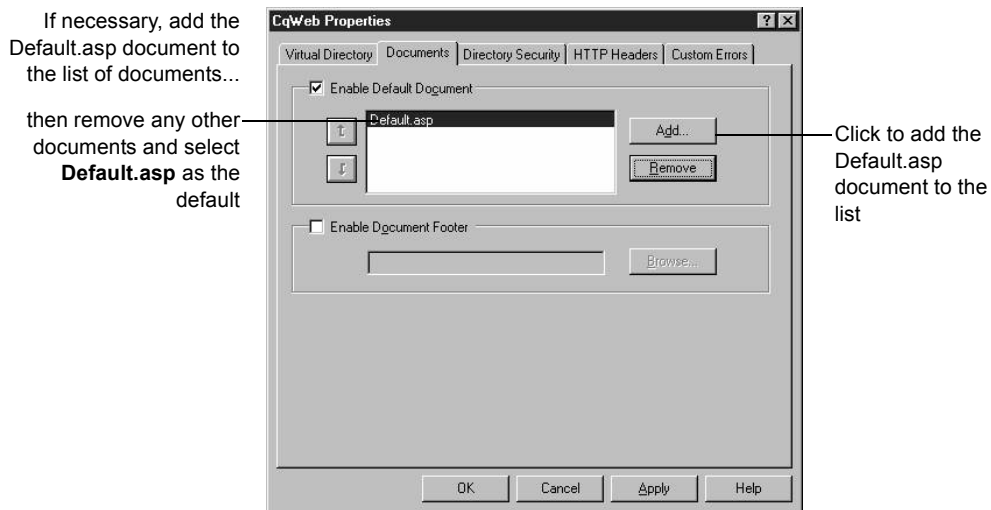


- 5 In the same Application Configuration dialog box, click the **App Options** tab.

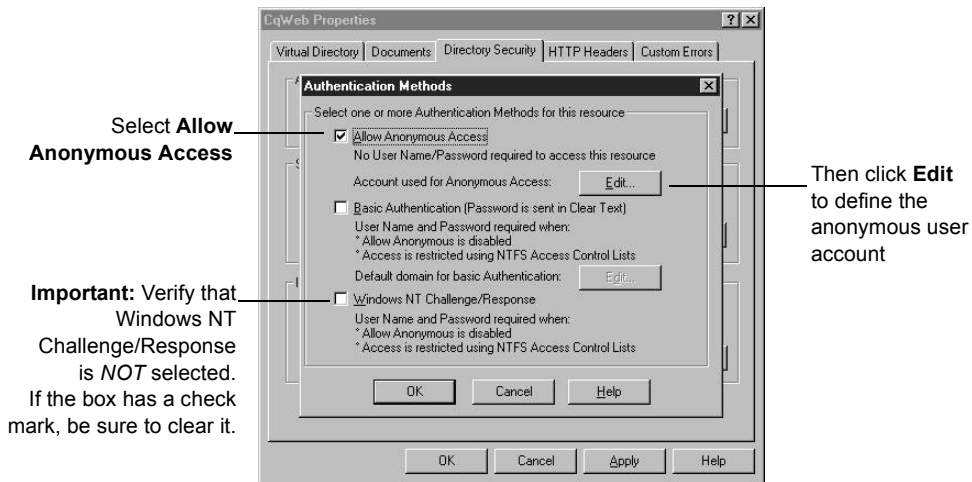


6 Click **OK** to return to the Properties dialog box.

7 In the Properties dialog box, click the **Documents** tab.



8 In the same Properties dialog box, click the **Directory Security** tab. In the Anonymous Access and Authentication Control, click **Edit** to open the Authentication Methods dialog box.



9 Define the anonymous user account:



Note ClearQuest Web does *not* work if **Enable Automatic Password Synchronization** is selected.

- 10** Click **OK**.
- 11** Type the password in the Confirm Password dialog box and click **OK**.
- 12** Click **OK** again to close the Properties dialog.

Edit the Properties of the Cache Directory for IIS 4

Edit the properties of the cache subdirectory as follows:

- 1 In the Microsoft Management Console left pane, navigate to the cache directory under the virtual directory name.
- 2 Right-click the cache directory.
- 3 Click **Properties** from the shortcut menu.
- 4 In the Properties dialog box, click the **Directory** tab.
- 5 For Access Permissions, select only **Read**. Verify that no other options are selected.
- 6 For Permissions, select **None**.
- 7 Click **OK**.

Edit the Properties of the Images Directory for IIS 4

Edit the properties of the images subdirectory as follows:

- 1 In the Navigator window of the Microsoft Management Console, expand the directory tree of the Default Web Site until you locate the images directory under your alias name.
- 2 Right-click the images directory.
- 3 Click **Properties** from the shortcut menu.
- 4 In the Properties dialog box, click the **Directory** tab.
- 5 For Access Permissions, select only **Read**. Verify that no other options are selected.
- 6 For Permissions, select **None**.
- 7 Click **OK**.

Restart the Web Server for IIS 4

Close the Microsoft Management Console, saving your console settings, then restart the web server.

You have completed installing and configuring the ClearQuest web server for IIS 4.

Setting Up ClearQuest Web for IIS 5

This section describes how to set up the ClearQuest Web server for Windows 2000 Server, which includes Microsoft Internet Information Server version 5 as an embedded component. If you are using Windows NT, see “Setting up ClearQuest Web for IIS 4” on page 174.

This section contains the following:

- “Setting up an Anonymous User Account for IIS 5” on page 186
- “Creating a Cache Directory for IIS 5” on page 190
- “Configuring IIS 5 to Serve ClearQuest Web Pages” on page 191

Setting up an Anonymous User Account for IIS 5

Create an anonymous user account for IIS to use when it serves the ClearQuest pages. If you are using an SQL Server database, the anonymous user account should be known in the domain that contains the ClearQuest database, and should have full access to that database.

Create the Anonymous User Account

Create the anonymous user account as follows:

- 1 Log on as a Windows 2000 administrator.
- 2 If the web server belongs to a Windows domain, ask your Windows system administrator to create a domain user and provide you with the user name and password. (If not, go to Step 4.)
- 3 For this domain user, click **Start > Programs > Administrative Tools > Local Security Policy**, select **Local Policies > User Rights Assignment**, and use the **Add** button to grant this user the following privileges on the Web server:
 - **Access this computer from network**
 - **Log on as a service**
 - **Log on locally**

Also provide access to any other resources used by your hook scripts, such as mail accounts. (Go to Step 6.)

- 4 If the web server operates in stand-alone mode (does not belong to a Windows NT domain), use the default anonymous account created by the IIS installation (IUSR_<machine_name>). Click **Start > Programs > Administrative Tools > Local Security Policy**, select **Local Policies > User Rights Assignment**, and use the **Add** button to grant this user the following privileges on the Web server:

- **Access this computer from network**
- **Log on as a service**
- **Log on locally**

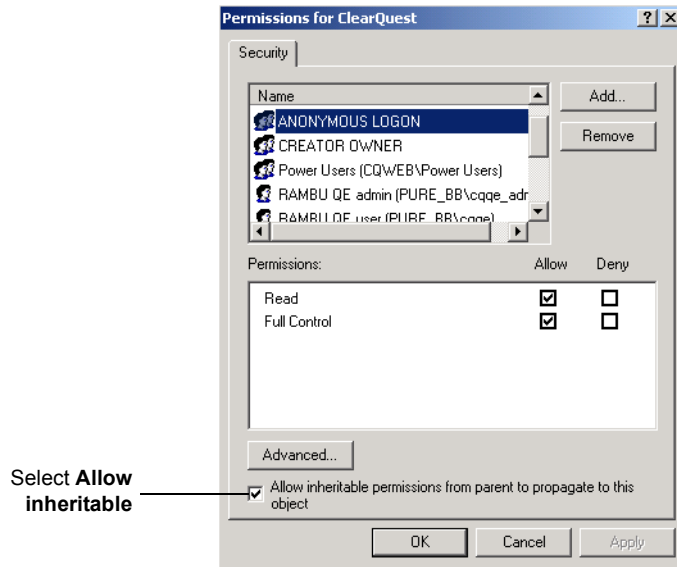
Also provide access to any other resources used by your hook scripts, such as mail accounts.

- 5 Verify that the anonymous user account has a specific, known password (you will need it later). Make sure there are no password policies in effect such as “User must change password at next login,” because these prevent the anonymous user account from functioning properly.

Set up Registry Key Access Privileges

Give the anonymous user account full access privileges to the HKEY_LOCAL_MACHINE\Software\Rational Software\ClearQuest registry key as follows.

- 1 Select **Run** from the Start menu and type REGEDT32 to run the REGEDT32 program.
- 2 In the HKEY_LOCAL_MACHINE MDI window, select **Software\Rational Software\ClearQuest**.
- 3 On the Registry Editor menu bar, select **Security > Permissions**.
- 4 In the Registry Key Permissions dialog box, select the anonymous user. For the Permissions, select **Full Control**.
- 5 Select **Allow inheritable permissions**.



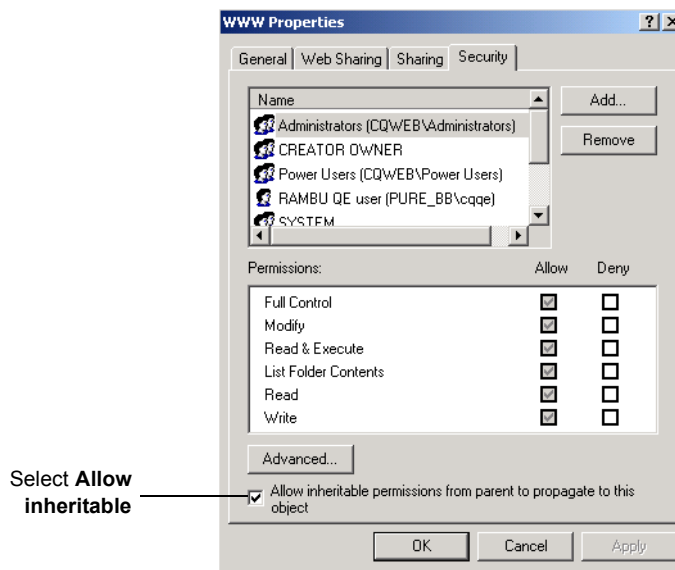
6 Close the REGEDT32 program.

Set up Read Access Permission

Give the anonymous user account read access permission to the directory tree containing the ClearQuest web files (this is the `www` directory in the ClearQuest installation area).

- 1 Use the Windows Explorer to locate the directory in which you installed ClearQuest. Right-click the `www` directory and select **Properties** from the shortcut menu.
- 2 On the Properties dialog box, click the **Security** tab and select **Allow inheritable permissions**.

Note If you installed ClearQuest onto a FAT partition instead of an NTFS partition, you will not see a Security tab and can skip this step.



- 3 On the Security tab, click **Add**.

- 4 Select the anonymous user account.
 - If you chose the default local anonymous username in Step 2, set **Look in** to the name of the local machine, then select the IUSR_machinename account from the **Name** list.
 - If you are using a domain account, select that domain in the **Look in** field, and select the domain account from the **Name** list.
- 5 Click **Add**, then click **OK**.
- 6 On the Security tab, in the **Permissions** section, select the checkbox to allow Read, then click **OK**.

Creating a Cache Directory for IIS 5

Create a cache directory in the ClearQuest Web directory hierarchy:

- 1 At the top of the web directory tree, there should be a directory called `cache`. If a `cache` directory does not exist, create one your ClearQuest WWW directory. For example:

```
c:\Program Files\Rational\ClearQuest\WWW\cache
```
- 2 Right-click the `cache` directory to see its properties.
- 3 On the Properties dialog box, click the **Security** tab.
- 4 In the **Permissions** section, select the checkbox to allow **Full Control**.

Configuring IIS 5 to Serve ClearQuest Web Pages

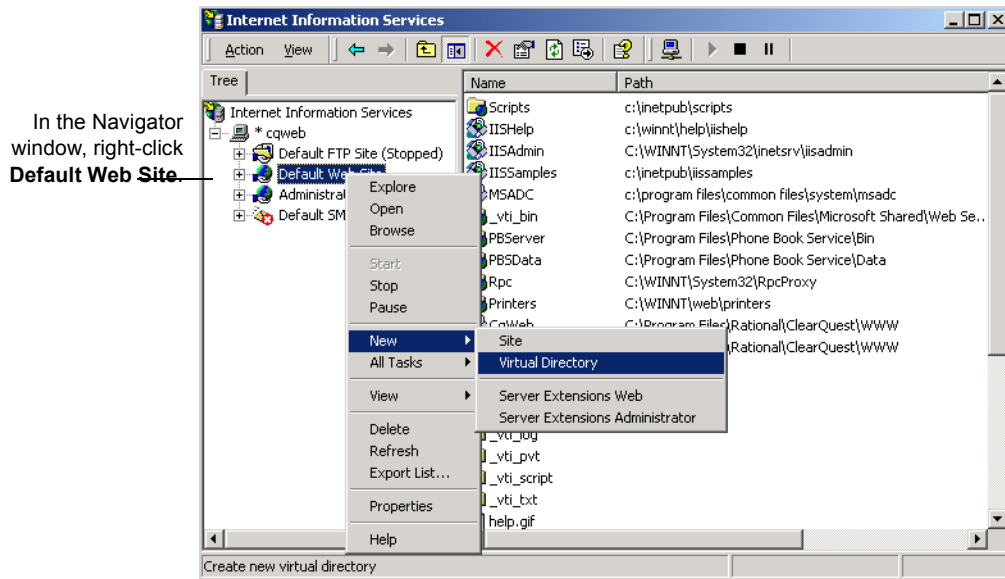
This section describes how to configure the IIS 5 web server to serve ClearQuest Web pages.

- “Create a Virtual Directory for IIS 5” on page 192
- “Edit the Properties of the Virtual Directory for IIS 5” on page 195
- “Editing the Properties of the Cache Directory for IIS 5” on page 200
- “Edit the Properties of the Images Directory for IIS 5” on page 200
- “Restart the Web Server for IIS 5” on page 201

Create a Virtual Directory for IIS 5

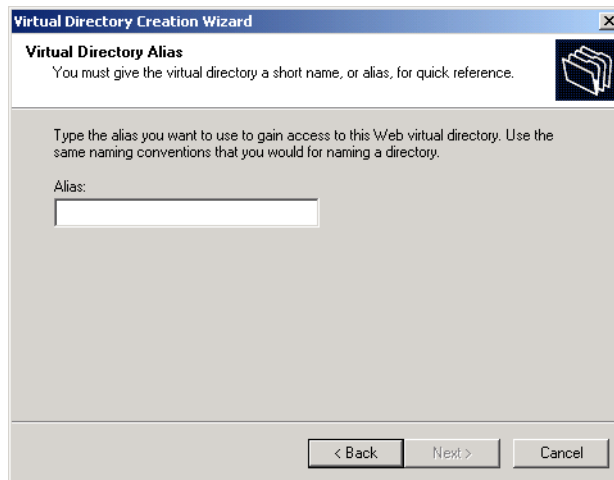
Create a virtual directory for the web as follows.

- 1 Start the Internet Services Manager.
Start > Programs > Administrative Tools > Internet Services Manager
- 2 In the Navigator window, right-click **Default Web Site**.
- 3 On the shortcut menu, click **New > Virtual Directory**.



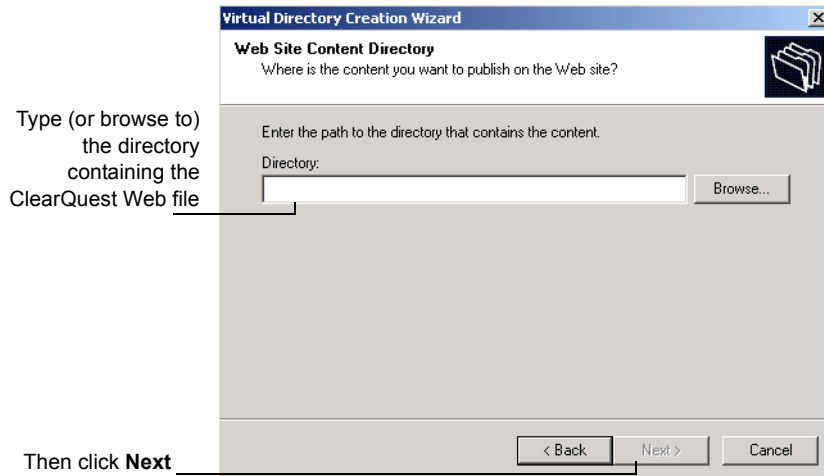
- 4 Click **Next** when the Virtual Directory Creation Wizard appears.

- 5 Type an alias name, such as `CqWeb`. Do not use a “/” character in the alias name. Then click **Next**.

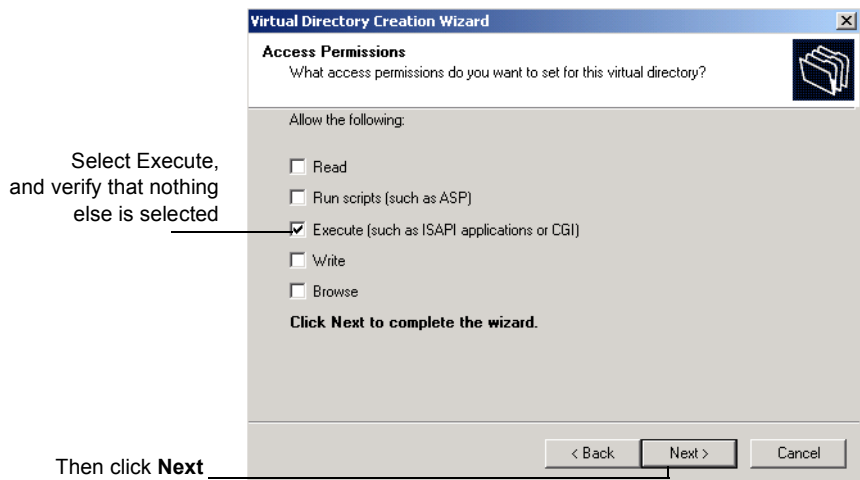


- 6 Type or browse to the name of the directory containing the ClearQuest Web files. These files are located in the `www` subdirectory of the ClearQuest installation directory. For example:

`C:\Program Files\Rational\ClearQuest\WWW`



7 Clear **Read**, clear **Run scripts**, and select **Execute**. Then click **Next**.

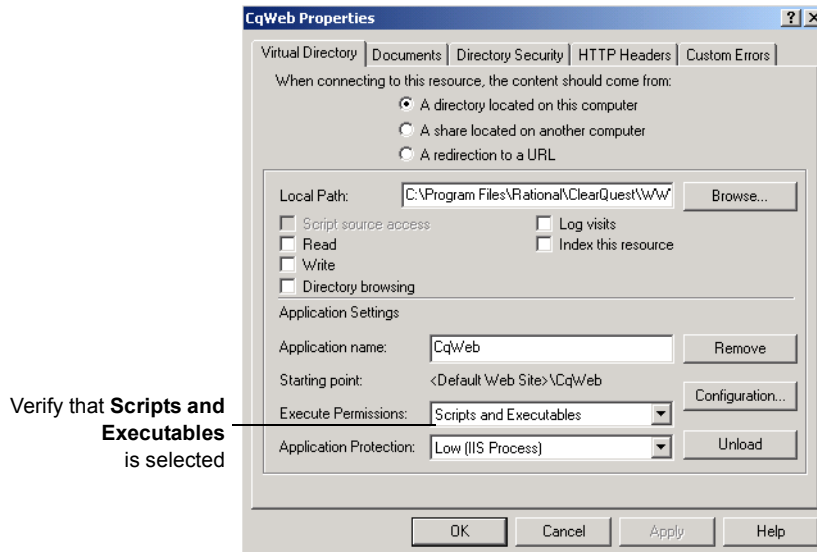


8 Click **Finish** to complete the Wizard.

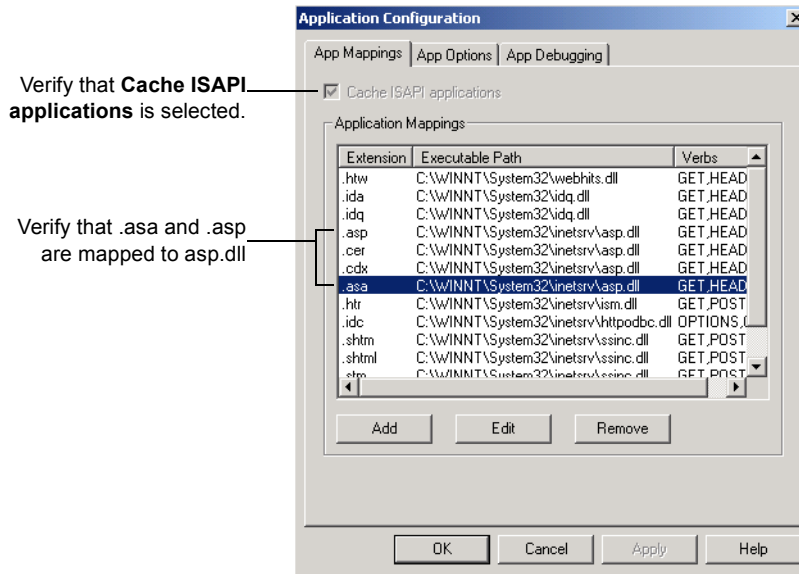
Edit the Properties of the Virtual Directory for IIS 5

Edit the properties of the virtual directory as follows:

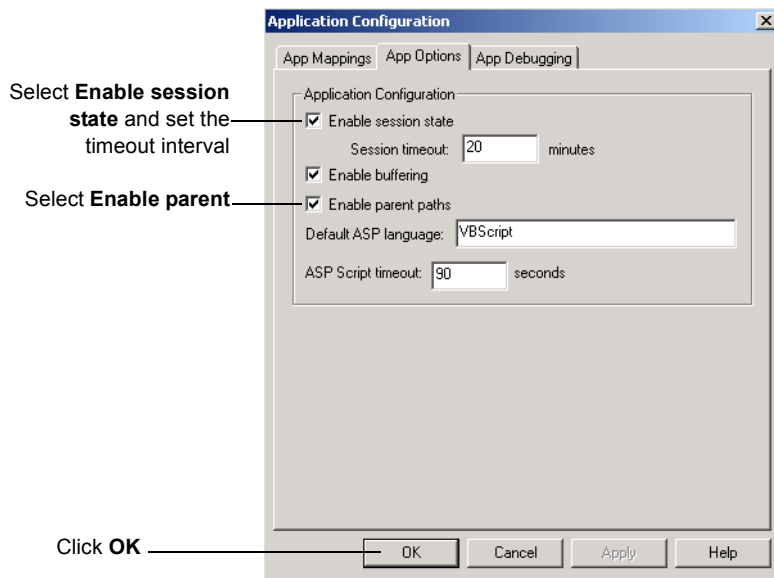
- 1 In the Internet Information Services left pane, navigate to the virtual directory you created earlier.
- 2 Right-click on the virtual directory and select **Properties** from the shortcut menu.
- 3 In the Properties dialog box, click the **Virtual Directory** tab.



- 4 In the same Virtual Directory tab, click **Configuration**. In the Application Configuration dialog, click the **App Mappings** tab.



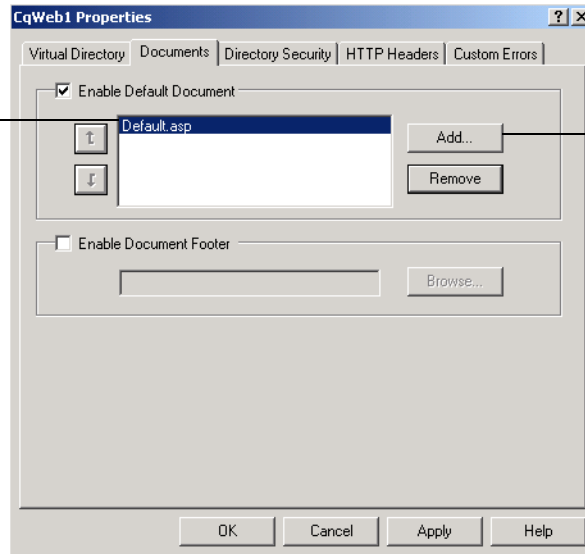
- 5 In the same Application Configuration dialog box, click the **App Options** tab.



6 In the Properties dialog box, click the **Documents** tab.

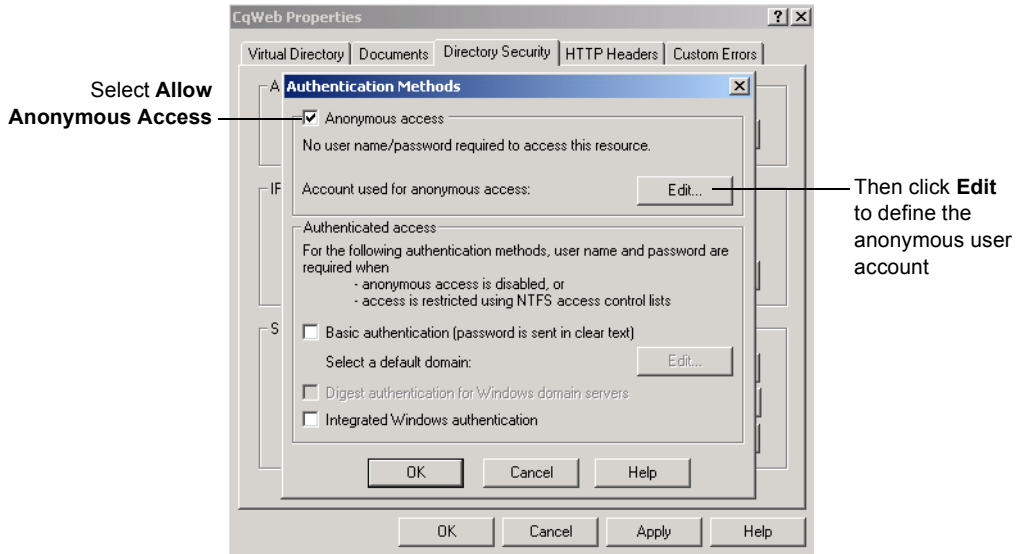
If necessary, add the Default.asp document to the list of documents...

then remove any other documents and select **Default.asp** as the default



Click to add the Default.asp document to the list

- In the same Properties dialog box, click the **Directory Security** tab. In the Anonymous Access and Authentication Control, click **Edit** to open the Authentication Methods dialog box.



- Define the anonymous user account:



- Click **OK**.
- Type the password in the Confirm Password dialog box, then click **OK**.
- Click **OK**, then click **OK** again to close the Properties dialog.

Editing the Properties of the Cache Directory for IIS 5

Edit the properties of the cache subdirectory as follows:

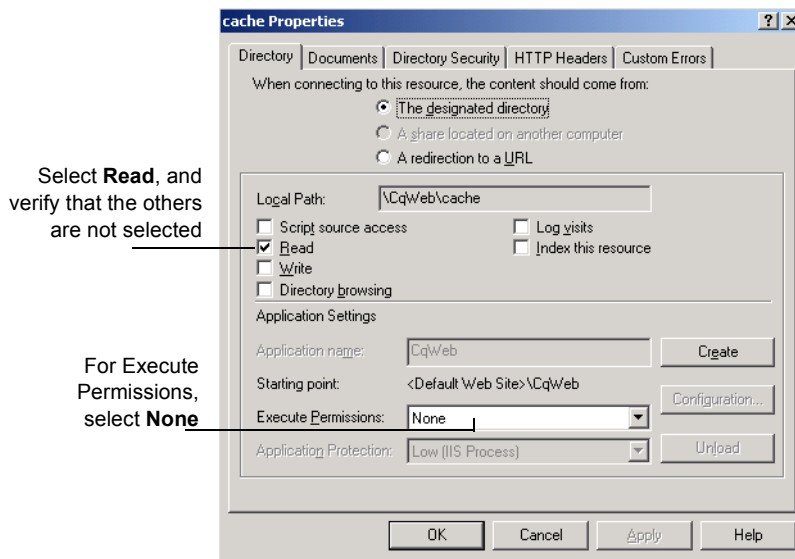
- 1** In the Internet Information Services left pane, navigate to the cache directory under the virtual directory name.
- 2** Right-click the `cache` directory.
- 3** Click **Properties** from the shortcut menu.
- 4** In the Properties dialog box, click the **Directory** tab.
- 5** Select the **Read** check box. Verify that no other options are selected.
- 6** For Execute Permissions, select **None**.
- 7** Click **OK**.

Edit the Properties of the Images Directory for IIS 5

Edit the properties of the images subdirectory as follows:

- 1** In the Navigator window of Internet Information Services, expand the directory tree of the Default Web Site until you locate the images directory under your alias name.
- 2** Right-click the `images` directory.
- 3** Click **Properties** from the shortcut menu.

- 4 In the Properties dialog box, click the **Directory** tab.
- 5 Select the **Read** check box. Verify that no other options are selected.
- 6 For Execute Permissions, select **None**.



- 7 Click **OK**.

Restart the Web Server for IIS 5

Close Internet Information Services, saving your console settings, then restart the web server.

You have completed installing and configuring the ClearQuest web server for IIS 5.

Enabling E-mail Notification for Web Clients

ClearQuest clients use e-mail notification according to the business rules of your schema. To extend e-mail notification support to users of the web client, perform the following steps.

- 1 Copy the code below into a text editor.

```
REGEDIT4

[HKEY_USERS\.DEFAULT\Software\Rational Software\ClearQuest\\SendMail]
"MailTransport"="Protocol"
"MAPIProfile"="MyMAPIProfile"
"SendActive"=dword:00000001
"SMTPHost"="MyMailHost"
"RealName"="Web Server On \\.\MyWebServerMachine"
"ReplyTo"="MyGenericReturnAddress@MyDomainName"
```

The `<version_no>` number is the current ClearQuest release number. If you have a service pack release (for example 1.1 Service Pack 1), enter the release number portion only (in this example, just 1.1).

- 2 Edit the pertinent entries (`MailTransport`, `MAPIProfile`, `SMTPHost`, `RealName`, and `ReplyTo`) of the text in step 1 so that
 - `Protocol` is either SMTP or MAPI
 - `MyMAPIProfile` is the name of your MAPI profile (this value is ignored if `MailTransport` is set to anything other than MAPI)
 - `MyMailHost` is the name of your mail host computer if you are using SMTP
 - `MyWebServerMachine` is the name of your web server
 - `MyGenericReturnAddress@MyDomainName` is the email address for receiving e-mail notification
- 3 Save the file.
- 4 Import the text file into the Registry Editor (select **Registry > Import Registry File**).

Providing ClearQuest Web Information to Web Clients

To enable your users to access ClearQuest over the web, tell them to enter the URL:

```
http://<host>/<alias>
```

where <host> is the host name of the ClearQuest Web server machine, and <alias> is the directory containing the ClearQuest Web files.

7

Rational Rose RealTime: Post - Install

This chapter describes how to test the environment of Rational Rose RealTime.

Note If you just want to construct UML models and not execute them, you needn't read this chapter.

Testing Your Environment

You must have Microsoft Visual C++ 5.0 or 6.0 installed on your system and configured to be run from the DOS prompt to make use of the code generation and execution capabilities of Rational Rose RealTime.

The following instructions help you determine whether you have Visual C++ properly installed and configured on your system.

To perform testing on your environment:

- 1 Open a Windows NT command prompt. From the Windows Start menu, select **Start > Programs > Command Prompt**.
- 2 Type `nmake`, then press **Enter**.
- 3 Type `cl`, then press **Enter**.

If your environment is correctly configured, then these two applications should report errors similar to the ones below:

```
C:\>nmake
Microsoft (r) Program Maintenance Utility
Version 6.00.8168.0
Copyright (c) Microsoft Corp 1988-1998. All rights
reserved.
NMAKE = fatal error B1864: MAKEFILE not found and no
target specified
Stop.
C:\>cl
```

```
Microsoft (r) 32-bit C/C++ Optimizing Compiler  
Version 12.00.8168 for 80x86  
Copyright (c) Microsoft Corp 1984-1998. All rights  
reserved.  
Usage = cl { option... } filename... { /link  
linkoption... }
```

If your environment is NOT properly configured, then you will see an error similar to this one:

```
Command Prompt  
C:\> nmake  
The name specified is not recognized as an internal or  
external command, operable program or batch file.
```

If you see this error message, your compiler environment setup is improperly installed. Please contact your System Administrator to verify.

8

Troubleshooting

If you have any problems running the Rational Software Setup program, try the following suggestions before you call Rational Customer Support for help:

- Stop all applications before you begin the installation.
- Turn off all virus protection software. These programs often run in the background and interfere with the installation and file decompression process.
- Turn off any user interface managers or desktop environments that run on top of Microsoft Windows.
- Change to a standard VGA video driver while Rational Setup is running, or disable video features such as virtual screens or screen switching.
- Change to a standard mouse driver, or disable special mouse features that perform tasks such as leaving pointer trails or changing pointer sizes.
- Make certain that your system meets the minimum system requirements listed in Table 9, Rational Suite Requirements, on page 52.

Installation Messages

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

Table 18: Silent Installation Messages

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

Support Information

Contact Rational Customer Support if you have questions regarding the installation, use, or maintenance of this Rational Software product.

"Contacting Rational Technical Support" on page 11 provides Rational Customer Support telephone and e-mail contact information.

9

Silent Installations

You can configure Rational Software Setup to perform silent installations of Rational software. Silent installations allow you to perform an installation of a Rational Software product, using the same parameters, repeatedly on a number of systems.

The following sections provide a brief summary of the silent installation features.

Note

We recommend you read Rational's *Silent Installation White Paper* before you attempt a silent installation. The white paper is available from the Rational Web site at <http://www.rational.com/>. Select the following links in order: Technical Support, Whitepapers, and Rational Suite.

Overview of Silent Installations

This section describes how to perform a silent install. The basic steps, explained below, are:

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

Recording a Software Installation

You can record a software installation session and then use the responses that you provide to replay the installation. At the end of the recorded installation procedure, you can exit without installing the product.

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

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

Where `<Location>` is the location of the Rational Solutions for Windows CD.

- 3 When the Rational Software Setup program starts, proceed with the installation procedure, as described in “Installing Rational Suite with the Rational Software Setup Procedure” on page 57. Your responses will be recorded in the responses file `<Install Path>\RSSetup\response.ini`.

Note The option to use a temporary license is not supported when using the `-autocapture` switch. The silent installation procedure will not support the capture of license certificate information into the `response.ini` file.

- 4 After you have answered all of the questions related to the installation, you will be prompted to continue with the installation of the product or to exit from the setup program. Click **OK** to proceed with the installation or **Cancel** to exit.

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

Example

The following example shows how to record an installation of Rational Rose. For more information, see “Silent Installations” on page 209.

```
<Install Location>\setup\rssetup -autocapture /product Rose98i
```

Specifying a Post-Installation Command

You can specify a command to perform after the silent installation has completed.

After you have completed preparation for a silent installation, perform the following steps:

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

```
[PostInstallCmd]
Command=post-installation-commands.bat
```

where the `post-installation-commands.bat` is a batch file that contains the commands to execute. Such a file might contain the following commands:

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

In this example, the License Key Administrator, `licadmin`, starts and uses the information in `server.txt` to specify the name of the license server that the current system will use. (See License Key Administrator Syntax on page 216 for the proper license command syntax.) The batch file then sends a message to the administrator, indicating that the installation procedure is complete.

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

Performing a Silent Software Installation

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

```
<Location>\setup\rsetup -silent -response:response-path
```

In the example, `response-path` is the path of the response file. The default path is

```
c:\Program Files\Rational\RSSetup\response.ini.
```

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

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

For additional information about the Rational Software Setup command-line syntax, see `RSSetup Command Syntax` on page 213.

Preparing Multiple Response Files

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

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

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

RSSetup Command Syntax

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

Table 19: RSSetup Command Parameters

Parameter	Description
-silent	Performs a silent (unattended) installation.
-verbose	Replays a previously recorded installation, allowing you to override the recorded responses. Note: if you override the responses, those changes are not written to the response file.
-response: response-path	Specifies the path to the response file. response-path is the path for the response file. You must specify the response-path . The default path is <Install Location>\Setup\RSSetup\response.ini, where <Install Location> is the location of the installation files.
-autocapture	Records your responses to a software installation, storing the responses in a file for later replay.
/product product-identifier	Specifies the product you are installing. Do not use this parameter for silent installations. For a silent installation, you instead specify the product name in the response file. See Table 20, Product Identifiers, on page 214 for the list of identifiers you can use with this switch.

Table 19: RSSetup Command Parameters (Continued)

Parameter	Description
/install	Installs the product you specified with the /product switch. This switch cannot be combined with /uninstall or /update. Do not use this parameter for silent installations. For a silent installation, you instead specify the product name in the response file.
/uninstall	Removes the product you specified with the /product switch. This switch cannot be combined with /install or /update.
/update	Updates the product you specified with the /product switch. This switch cannot be combined with /install or /uninstall. Do not use this parameter for silent installations.

Table 20, Product Identifiers, lists the product identifiers to use with the /product switch.

Table 20: Product Identifiers

Product Name	Product Identifiers
Rational LoadTest	atbuLoadTest
Rational Suite Performance Studio Agent	atbuPSAgent
Rational Suite Performance Studio	atbuRSuitePerformanceStudio
Rational Test Enablers	atbuSetupEnablers
Rational TeamTest	atbuTeamTest
Rational TestAccelerator	atbuTestAccelerator
Rational Robot	atbuTSRobot

Table 20: Product Identifiers (Continued)

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

Table 20: Product Identifiers (Continued)

Product Name	Product Identifiers
Rational Suite DevelopmentStudio - RealTime Edition	wsbuDevelopmentStudioRT
Rational Suite Enterprise	wsbuEnterprise
Globetrotter FLEXIm License Server	wsbuFLEXImServer
Sybase SQL Anywhere Database Server	wsbuSQLAnywhereServer
Rational Suite TestStudio	wsbuTestStudio
Rational Suite Web Server Components	wsbuWebComponents

License Key Administrator Command Line

Note This section is included because of its relevance to silent install. You can run the Rational License Key Administrator from a command line or batch file to automate your license key installations and configuration.

License Key Administrator Syntax

```
licadmin -filename.ext
```

Table 21: Licadmin Command Parameters

Parameter	Description
-filename.ext	Specifies the path to the license parameter file. The license parameter file specifies the name of the license key server that you will use. For example: Server:group-license-server The keyword Server is case-sensitive.

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

Example

- 1 Create a file that contains the following line:
Server:**group-license-server**
where **group-license-server** is the name of your FLEXlm License Server system.
- 2 Save the file as `server-info.txt`.
- 3 In a command window, run the following command:
`licadmin -fserver-info.txt`
Your system will be configured to use floating license keys from `group-license-server`.

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