Rational Software Corporation®

# Rational® ClearCase®

## Installation Guide

VERSION: 2003.06.00 AND LATER

PART NUMBER: 800-026154-000

WINDOWS EDITION

Rational®
the software development company

support@rational.com
http://www.rational.com

**Legal Notices**

©1992-2003, Rational Software Corporation. All rights reserved.

Part Number: 800-026154-000

Version Number: 2003.06.00 and later

Publication Date: February 2003

IMPORTANT NOTICE

**Copyright**

Copyright © 1992, 2003 Rational Software Corporation. All rights reserved.
Copyright 1989, 1991 The Regents of the University of California
Copyright 1984–1991 by Raima Corporation

Permitted Usage

THIS DOCUMENT IS PROTECTED BY COPYRIGHT AND CONTAINS INFORMATION PROPRIETARY TO RATIONAL. ANY COPYING, ADAPTATION, DISTRIBUTION, OR PUBLIC DISPLAY OF THIS DOCUMENT WITHOUT THE EXPRESS WRITTEN CONSENT OF RATIONAL IS STRICTLY PROHIBITED. THE RECEIPT OR POSSESSION OF THIS DOCUMENT DOES NOT CONVEY ANY RIGHTS TO REPRODUCE OR DISTRIBUTE ITS CONTENTS, OR TO MANUFACTURE, USE, OR SELL ANYTHING THAT IT MAY DESCRIBE, IN WHOLE OR IN PART, WITHOUT THE SPECIFIC WRITTEN CONSENT OF RATIONAL.

Trademarks

Rational, Rational Software Corporation, the Rational logo, Rational Suite ContentStudio, ClearCase, ClearCase MultiSite ClearQuest, Object Testing, Object-Oriented Recording, Objectory, PerformanceStudio, PureCoverage, PureDDTS, PureLink, Purify, Purify'd, Quantify, Rational Apex, Rational CRC, Rational PerformanceArchitect, Rational Rose, Rational Suite, Rational Summit, Rational Unified Process, Rational Visual Test, Requisite, RequisitePro, RUP, SiteCheck, SoDA, TestFactory, TestMate, TestStudio, The Rational Watch, among others are trademarks or registered trademarks of Rational Software Corporation in the United States and in other countries. All other names are used for identification purposes only, and are trademarks or registered trademarks of their respective companies.

Sun, Solaris, and Java are trademarks or registered trademarks of Sun Microsystems, Inc.

Microsoft, the Microsoft logo, the Microsoft Internet Explorer logo, Windows, the Windows logo, Windows NT, the Windows Start logo are trademarks or registered trademarks of

Microsoft Corporation in the United States and other countries.

**Patent**
U.S. Patent Nos.5,574,898 and 5,649,200 and 5,675,802. Additional patents pending.

Government Rights Legend

Use, duplication, or disclosure by the U.S. Government is subject to restrictions set forth in the applicable Rational License Agreement and in DFARS 227.7202-1(a) and 227.7202-3(a) (1995), DFARS 252.227-7013(c)(1)(ii) (Oct 1988), FAR 12.212(a) 1995, FAR 52.227-19, or FAR 52.227-14, as applicable.

Warranty Disclaimer

This document and its associated software may be used as stated in the underlying license agreement. Rational Software Corporation expressly disclaims all other warranties, express or implied, with respect to the media and software product and its documentation, including without limitation, the warranties of merchantability or fitness for a particular purpose or arising from a course of dealing, usage, or trade practice.

Technical Acknowledgments

This software and documentation is based in part on BSD Networking Software Release 2, licensed from the Regents of the University of California. We acknowledge the role of the Computer Systems Research Group and the Electrical Engineering and Computer Sciences Department of the University of California at Berkeley and the Other Contributors in its development.

This product includes software developed by Greg Stein <gstein@lyra.org> for use in the mod_dav module for Apache (http://www.webdav.org/mod_dav/).

# Contents


**Preface . . . . . ix**

About This Manual . . . . . ix
ClearCase Documentation Roadmap . . . . . x
ClearCase Integrations with Other Rational Products . . . . . xi
Typographical Conventions . . . . . xii
Online Documentation . . . . . xiii
Customer Support . . . . . xiv

**Installation Overview . . . . . 1**

About Rational ClearCase . . . . . 1
Choosing the Right Installation Option . . . . . 1
Upgrading from ClearCase LT . . . . . 2
Additional Functionality . . . . . 2
Installation Road Map . . . . . 2
If You Are New to ClearCase Terminology . . . . . 4

**Before You Install ClearCase . . . . . 5**

Preinstallation Checklist . . . . . 5
Reviewing ClearCase Release Notes . . . . . 6
System Requirements . . . . . 7
Supported Platforms . . . . . 7
Supported Platforms for Rational Web Platform . . . . . 8
Supported File Systems . . . . . 8
Windows/UNIX Interoperation . . . . . 8
Platform Requirements for ClearCase Mainframe Connectors . . . . . 10
Disk Space Requirements . . . . . 10
Disk Space Requirements for the Release Area . . . . . 10
Disk Space Requirements for Individual Hosts . . . . . 11
Software Requirements . . . . . 11
Windows Server Software and ClearCase Servers . . . . . 12
Using ClearCase and Windows Domains . . . . . 12
Operating System Vendor Web Site . . . . . 12
Planning Your Installation . . . . . 12
Learning About ClearCase Host Types . . . . . 12
Designating Server and Client Hosts . . . . . 14

Understanding VOB Database Formats . . . . . 14
VOB Database Formats and MultiSite . . . . . 15
Upgrading From a Previous Version of ClearCase . . . . . 15
Removing Previous Versions of ClearCase . . . . . 15
General Information About Upgrading . . . . . 16
Ensuring Feature Compatibility Across Versions of ClearCase . . . . . 16
Planning for MultiSite Installation . . . . . 18
Ensuring MultiSite Compatibility with ClearCase . . . . . 18
Compatibility Issues Across MultiSite Versions . . . . . 18
Ensuring ClearQuest Compatibility with ClearCase . . . . . 19
Planning for ClearCase Installations on Dual-Boot Computers . . . . . 20
Choosing to Enable Remote Administration . . . . . 20
Ensuring Compatible Character Encoding Systems . . . . . 21
Allocating Licenses . . . . . 21
Allocating ClearCase Licenses . . . . . 21
Allocating MultiSite Licenses . . . . . 22
Understanding Directory Naming Conventions . . . . . 23
Shorthand Conventions . . . . . 23
Installation Directory Conventions . . . . . 23
Environment Specific Tasks . . . . . 24
Initial Installation Tasks . . . . . 24
Logging In with Appropriate Privileges . . . . . 25
Defining Domain Accounts for the ClearCase Server Process User . . . . . 25
Defining Required Domain Accounts Manually . . . . . 26
Installing Internet Explorer . . . . . 27

**Performing Simple Deployment of the ClearCase Server . . . . . 29**

Choosing the Simple Deployment Option . . . . . 29
Installing and Configuring the ClearCase Server Using Simple Deployment . . . . . 29
Preparing to Run the Getting Started Wizard . . . . . 30
Installing ClearCase Using the Simple Deployment Option . . . . . 30
Configuring ClearCase With The Getting Started Wizard . . . . . 31
Completing the Installation . . . . . 32
Canceling and Rerunning the Getting Started Wizard . . . . . 32

**Performing Enterprise Deployment of the ClearCase Server . . . . . 33**

Choosing the Enterprise Deployment Option . . . . . 33
Before You Begin . . . . . 33
Enterprise Deployment Installation Roadmap . . . . . 34

Upgrading ClearCase LT to ClearCase . . . . . 34
Upgrade Checklist . . . . . 35
What Happens When You Upgrade? . . . . . 35
Upgrade Options . . . . . 35
Upgrade Considerations . . . . . 37
Preparing To Upgrade . . . . . 39
Acquiring ClearCase Licenses . . . . . 39
Establishing Your ClearCase Release Area . . . . . 39
Remove All ClearCase LT Views . . . . . 39
Upgrading with the Simple Upgrade Procedure . . . . . 40
If You Cannot Upgrade All Your Clients at the Same Time . . . . . 40
Performing the Simple Upgrade Procedure . . . . . 40
Upgrading with the Upgrade and Merge Procedure . . . . . 42
Performing the Upgrade and Merge Procedure . . . . . 42
Creating New UCM Views Using Existing Streams . . . . . 44
Installing ClearCase Using the Enterprise Deployment Option . . . . . 45
The Rational Setup Wizard . . . . . 45
Understanding the Installation Process . . . . . 45
Running the Rational Setup Wizard . . . . . 46
Configuring Storage with the Server Storage Wizard . . . . . 49
Using the Server Storage Wizard . . . . . 49
Post-Installation Procedures . . . . . 49
Required Post-Installation Procedures . . . . . 50
Additional Post-Installation Procedures . . . . . 51
Reinstalling the FrontPage Web Authoring Integration . . . . . 51
License Server Postinstallation Procedure . . . . . 52
Reformatting for VOB Database Format 54 . . . . . 53
If Your Installation Was Not Successful . . . . . 53
Creating Multiple Site Defaults for a Release Area . . . . . 54
Saving the Site Defaults File . . . . . 54
Creating Multiple Release Areas . . . . . 55
Configuring MultiSite Synchronization . . . . . 55

**Installing the ClearCase Client . . . . . 57**

Overview of Client Installation . . . . . 57
Installing the Client Software From a Release Area . . . . . 57

**Evaluating ClearCase On a Local Computer . . . . . 61**

Evaluating This Release of ClearCase . . . . . 61

What the Evaluation Installation Does . . . . . 61
Limitations of the Evaluation Copy of ClearCase . . . . . 61
Preserving Your Evaluation Data . . . . . 62
Performing the Evaluation Installation. . . . . 62
Evaluating the Server and Client . . . . . 62
Starting the ClearCase Tutorial . . . . . 64
Completing the Evaluation . . . . . 64

**Using the Silent Install Feature . . . . . 65**

Overview of the Silent Install Feature . . . . . 65
Editing the Site Defaults File Using the Site Preparation Tool . . . . . 65
Executing and Monitoring the Silent Install . . . . . 66
Executing the Silent Install . . . . . 66
Monitoring the Silent Install . . . . . 67
Preparing the Target Computers. . . . . 67
Ensuring the Appropriate Site Defaults File Resides in the Release Area . . . . . 67
Running ClearCase Doctor on Target Computers . . . . . 67
Executing Silent Install on Target Computers . . . . . 68
Performing a Silent Uninstall. . . . . 68

**Environment Specific Tasks During Preinstallation. . . . . 69**

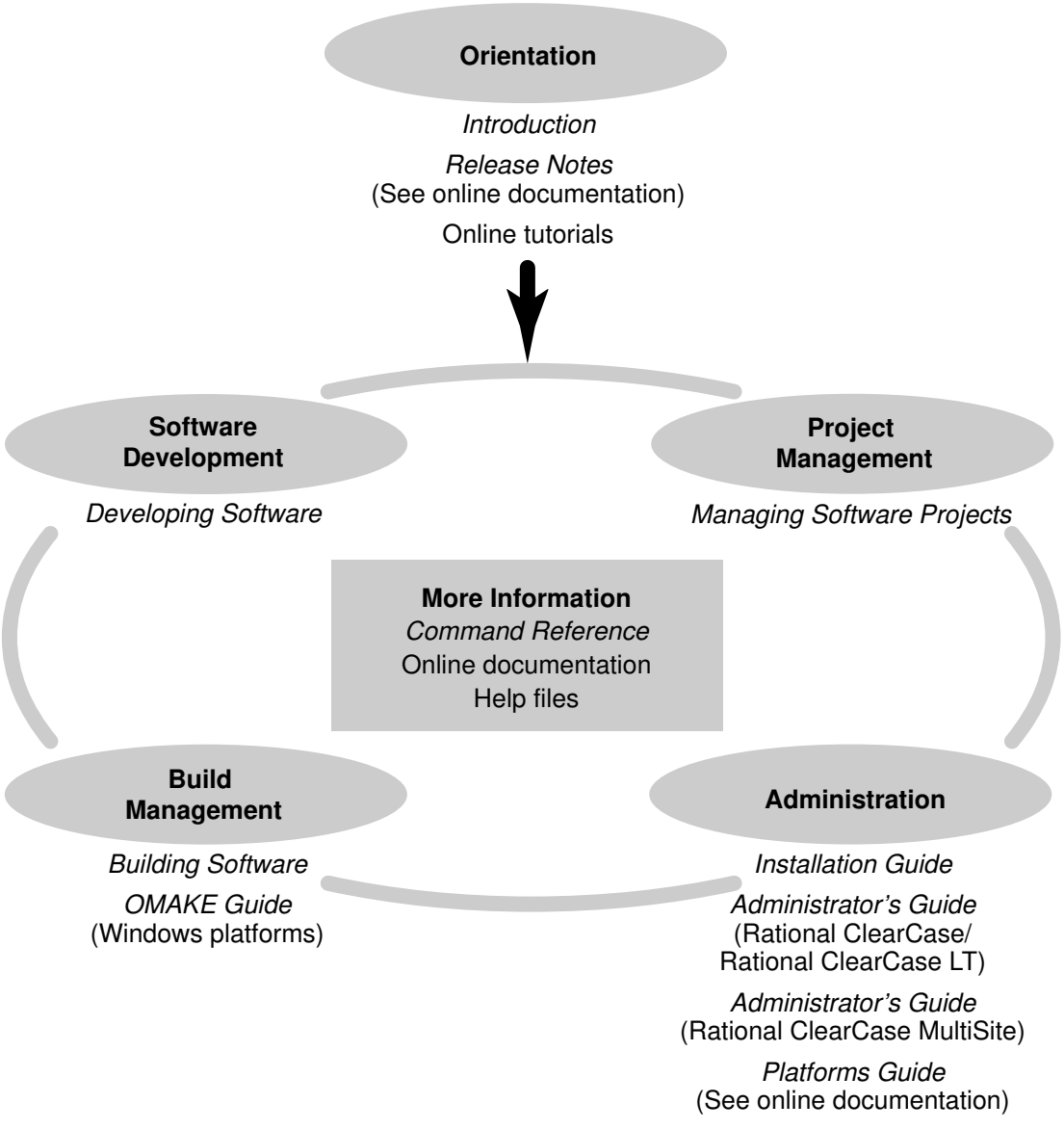
About Environment Specific Tasks . . . . . 69
Setting Up the IBM VisualAge for Java Integration . . . . . 69
Installing VisualAge for Java . . . . . 69
Running the Configuration Wizard . . . . . 69
Installation of the UCM Integration with Rational ClearQuest . . . . . 70

# Preface

## About This Manual

The manual describes using Rational ClearCase primarily from ClearCase Explorer. ClearCase is integrated with ClearCase Explorer and Windows Explorer using shortcut menus (for ClearCase objects) and with many authoring and development environments. Read this manual to understand the basics of using ClearCase; then refer to ClearCase online help for information about using ClearCase from your authoring or development environment. For a complete list of ClearCase integrations, refer to the Rational Web site at www.rational.com.

## ClearCase Documentation Roadmap



## ClearCase Integrations with Other Rational Products

| Integration | Description | Where it is documented |
|---|---|---|
| Base ClearCase-ClearQuest | Associates change requests with versions of ClearCase elements. | ClearCase: *Developing Software*<br>ClearCase: *Managing Software Projects*<br>ClearQuest: *Administrator's Guide* |
| Base ClearCase-Apex | Allows Apex developers to store files in ClearCase. | *Installing Rational Apex* (UNIX) |
| Base ClearCase-ClearDDTS | Associates change requests with versions of ClearCase elements. | *ClearCase ClearDDTS Integration* |
| Base ClearCase-PurifyPlus | Allows developers to invoke ClearCase from PurifyPlus. | PurifyPlus Help |
| Base ClearCase-RequisitePro | Archives RequisitePro projects in ClearCase. | *RequisitePro User's Guide*<br>RequisitePro Help |
| Base ClearCase-Rose | Stores Rose models in ClearCase. | Rose Help |
| Base ClearCase-Rose RealTime | Stores Rose RealTime models in ClearCase. | *Rose RealTime Toolset Guide*<br>*Rose RealTime Guide to Team Development* |
| Base ClearCase-SoDA | Collects information from ClearCase and presents it in various report formats. | *Using Rational SoDA for Word*<br>*Using Rational SoDA for Frame*<br>SoDA Help |
| Base ClearCase-XDE | Stores XDE models in ClearCase | XDE Help |
| UCM-ClearQuest | Links UCM activities to ClearQuest records. | ClearCase: *Developing Software*<br>ClearCase: *Managing Software Projects*<br>ClearQuest: *Administrator's Guide* |
| UCM-PurifyPlus | Allows developers to invoke ClearCase from PurifyPlus. | PurifyPlus Help |

| Integration | Description | Where it is documented |
|---|---|---|
| UCM-RequisitePro | Allows RequisitePro administrators to create baselines of RequisitePro projects in UCM, and to create RequisitePro projects from baselines. | *RequisitePro User's Guide*<br>RequisitePro Help<br>*Using UCM with Rational Suite* |
| UCM-Rose | Stores Rose models in ClearCase. | Rose Help<br>*Using UCM with Rational Suite* |
| UCM-Rose RealTime | Associates activities with revisions. | *Rose RealTime Toolset Guide*<br>*Rose RealTime Guide to Team Development* |
| UCM-SoDA | Collects information from ClearCase and presents it in various report formats. | *Using Rational SoDA for Word*<br>*Using Rational SoDA for Frame*<br>SoDA Help |
| UCM-TestManager | Stores test assets in ClearCase. | *Rational TestManager User's Guide*<br>TestManager Help<br>*Using UCM with Rational Suite* |
| UCM-XDE | Stores XDE models in ClearCase | XDE Help |
| UCM-XDE Tester | Stores XDE Tester Datastores in ClearCase | XDE Tester Help |

## Typographical Conventions

This manual uses the following typographical conventions:

- *ccase-home-dir* represents the directory into which the ClearCase Product Family has been installed. By default, this directory is /opt/rational/clearcase on UNIX and C:\Program Files\Rational\ClearCase on Windows.
- *cquest-home-dir* represents the directory into which Rational ClearQuest has been installed. By default, this directory is /opt/rational/clearquest on UNIX and C:\Program Files\Rational\ClearQuest on Windows.

- **Bold** is used for names the user can enter; for example, command names and branch names.
- A sans-serif font is used for file names, directory names, and file extensions.
- **A sans-serif bold font** is used for GUI elements; for example, menu names and names of check boxes.
- *Italic* is used for variables, document titles, glossary terms, and emphasis.
- `A monospaced font` is used for examples. Where user input needs to be distinguished from program output, **bold** is used for user input.
- Nonprinting characters appear as follows: <EOF>, <NL>.
- Key names and key combinations are capitalized and appear as follows: SHIFT, CTRL+G.
- [ ] Brackets enclose optional items in format and syntax descriptions.
- { } Braces enclose a list from which you must choose an item in format and syntax descriptions.
- | A vertical bar separates items in a list of choices.
- ... In a syntax description, an ellipsis indicates you can repeat the preceding item or line one or more times. Otherwise, it can indicate omitted information.

  **Note:** In certain contexts, you can use "**...**" within a pathname as a wildcard, similar to "*" or "?". For more information, see the **wildcards_ccase** reference page.
- If a command or option name has a short form, a "medial dot" ( · ) character indicates the shortest legal abbreviation. For example:

  **lsc·heckout**

## Online Documentation

The ClearCase Product Family (CPF) includes online documentation, as follows:

**Help System:** Use the **Help** menu, the **Help** button, or the F1 key. To display the contents of the online documentation set, do one of the following:

- On UNIX, type **cleartool man contents**
- On Windows, click **Start > Programs > Rational Software > Rational ClearCase > Help**

- On either platform, to display contents for Rational ClearCase MultiSite, type **multitool man contents**
- Use the **Help** button in a dialog box to display information about that dialog box or press F1.

**Reference Pages:** Use the **cleartool man** and **multitool man** commands. For more information, see the **man** reference page.

**Command Syntax:** Use the **–help** command option or the **cleartool help** command.

**Tutorial:** Provides a step-by-step tour of important features of the product. To start the tutorial, do one of the following:

- On UNIX, type **cleartool man tutorial**
- On Windows, click **Start > Programs > Rational Software > Rational ClearCase > ClearCase Tutorial**

**PDF Manuals:** Navigate to:

- On UNIX, *ccase-home-dir*/doc/books
- On Windows, *ccase-home-dir*\doc\books

## Customer Support

If you have any problems with the software or documentation, please contact Rational Customer Support by telephone, fax, or electronic mail as described below. For information regarding support hours, languages spoken, or other support information, click the **Support** link on the Rational Web site at **www.rational.com**.

| Your location | Telephone | Facsimile | Electronic mail |
|---|---|---|---|
| North America | 800-433-5444<br>toll free or<br>408-863-4000<br>Cupertino, CA | 408-863-4194<br>Cupertino, CA<br>781-676-2460<br>Lexington, MA | **support@rational.com** |
| Europe, Middle East, and Africa | +31-(0)20-4546-200<br>Netherlands | +31-(0)20-4546-201<br>Netherlands | **support@europe.rational.com** |

| | | | |
|---|---|---|---|
| Asia Pacific | 61-2-9419-0111<br>Australia | 61-2-9419-0123<br>Australia | **support@apac.rational.com** |

# Installation Overview 1

## About Rational ClearCase

Rational ClearCase is a comprehensive software configuration management (SCM) system that manages multiple variants of evolving software systems and tracks changes.

ClearCase maintains a complete version history of all software development artifacts, including code, requirements, models, scripts, test assets, and directory structures. It performs audited system builds, enforces site-specific development policies, offers multiple developer workspaces, and provides advanced support for parallel development. ClearCase includes Unified Change Management (UCM), an optional, out-of-the-box process for organizing software development teams and their work products.

## Choosing the Right Installation Option

This manual describes three installation options. Before you begin, identify the installation flow to follow based on the type of installation you are performing.

**Simple deployment option.** Use this option if you are new to the Rational ClearCase family of products and want to start using ClearCase with the default single-server configuration.

**Enterprise deployment option.** Use this option if you want to install ClearCase in a multiple server configuration, if you are upgrading from Rational ClearCase LT, or if you want to use ClearCase MultiSite.

**Desktop installation from CD image option.** Choose this type of installation when you are installing ClearCase for use on a single computer. This option is used primarily for evaluation purposes.

The *Installation Road Map* on page 2 presents the sequence of the installation. Use the task checklists in this manual to ensure that you complete each step of the installation.

## Upgrading from ClearCase LT

Rational ClearCase LT can be easily upgraded to full-figured Rational ClearCase. ClearCase includes a tool that helps you automate the upgrade process, though a few manual steps may be required to upgrade certain configurations. The upgrade preserves all of your VOB data. For more information, see *Upgrading ClearCase LT to ClearCase* on page 34.

### Additional Functionality

ClearCase supports a number of powerful features not available in ClearCase LT:

- Ability for a client to access multiple servers
- Dynamic views, using the ClearCase multiversion file system (MVFS)
- ClearCase build auditing tools
- An expanded ClearCase registry that supports registry regions
- Compatibility with Rational ClearCase MultiSite, which you can purchase to provide support for geographically dispersed development teams

You can read about these and other ClearCase features in the *Introduction* to Rational ClearCase and in *Managing Software Projects*.

# Installation Road Map

1. Read the *Release Notes*.
2. Read Chapter 1, *Installation Overview*, to get an overview of the installation process.
3. Read Chapter 2, *Before You Install ClearCase*, to verify that your installation environment meets all requirements. A preinstallation checklist is provided at the beginning of the chapter.
4. Select the product you want to install: the **Simple deployment** option, the **Enterprise deployment** option, or the **Desktop installation from CD image**option.

   Choosing either the **Simple deployment** or **Enterprise deployment** options allows you to create a release area. A release area is a central location on your network, accessible by all client hosts that contains files used by the installation process.

   - If you want to run ClearC1ase using a single server, use the **Simple deployment** install option. We recommend selecting this option if you are a new user, setting

up a new ClearCase environment. For more information about performing this type of installation, read Chapter 3, *Performing Simple Deployment of the ClearCase Server*. After installation completes, the Getting Started Wizard starts and guides you through configuration of your environment.

**Note:** To decide whether to set up a multiple-server or single-server environment, see *Planning Your Installation* on page 12.

- The **Enterprise deployment** option enables you to create a release area by choosing from a number of site default parameters. After the release area is set up, the ClearCase server is installed from this release area. For more information about performing this type of installation, read Chapter 4, *Performing Enterprise Deployment of the ClearCase Server*.
- The **Desktop installation from CD image** option installs the server and client directly from the CD, rather than creating a release area. If you do not create a release area, it is difficult to maintain your ClearCase installation. Therefore, we do not recommend installing from CD, except when you are installing ClearCase in select instances (such as evaluation), on a single computer.

5 After you set up your server environment, you install ClearCase on your client computers by running the Rational Setup Wizard from the release area you set up during server installation. Read Chapter 5, *Installing the ClearCase Client*.

See Table 1 for a summary of the recommended reading path.

**Table 1 Recommended Reading Path for ClearCase Installation Documentation**

| Scenario | Reading path |
|---|---|
| If you want to run ClearCase using a single server, use the **Simple deployment** install option. We recommend selecting this option if you are a new user, setting up a new ClearCase environment.<br>**Note:** After reading Chapter 2, you may decide you need to set up a multiple-server environment. In that case, use the **Enterprise deployment** option. | Chapter 1, *Installation Overview*<br>Chapter 2, *Before You Install ClearCase*<br>Chapter 3, *Performing Simple Deployment of the ClearCase Server*<br>Chapter 5, *Installing the ClearCase Client* |

**Table 1 Recommended Reading Path for ClearCase Installation Documentation**

| Scenario | Reading path |
|---|---|
| If any of the following applies to you:<br>➤ You are upgrading from an existing version of ClearCase<br>➤ You are upgrading from ClearCase LT to ClearCase<br>➤ You are a new user and want to set up a multiple server configuration of ClearCase<br>➤ You plan to install ClearCase MultiSite<br>use the **Enterprise deployment** option. | Chapter 1, *Installation Overview*<br>Chapter 2, *Before You Install ClearCase*<br>Chapter 4, *Performing Enterprise Deployment of the ClearCase Server*<br>Chapter 5, *Installing the ClearCase Client* |
| Installing ClearCase for an evaluation. | Chapter 1, *Installation Overview*<br>Chapter 2, *Before You Install ClearCase*<br>Appendix A, *Evaluating ClearCase On a Local Computer* |
| Creating a silent install. | Appendix B, *Using the Silent Install Feature* |

## If You Are New to ClearCase Terminology

If you have not used ClearCase before, the *Introduction* explains some basic terms and concepts. It is not necessary to read the entire *Introduction* before installing the product, but it is helpful to become acquainted with the basics of VOBs and views before reading the next chapter.

# Before You Install ClearCase

# 2

## Preinstallation Checklist

Use the checklist in Table 2 as a guide to ensure that you meet all recommended prerequisites before installing ClearCase in your environment.

**Table 2 Preinstallation Checklist**

| Done | Task: | Reference: |
|---|---|---|
| | Review release notes. | *Reviewing ClearCase Release Notes* on page 6 |
| | Ensure that your installation meets all system requirements. | *System Requirements* on page 7 |
| | Learn about the different host types that are used by ClearCase. | *Learning About ClearCase Host Types* on page 12 |
| | Designate which hosts assume each logical host type. | *Designating Server and Client Hosts* on page 14 |
| | Ensure that you select the appropriate VOB format. | *Understanding VOB Database Formats* on page 14 |
| | Plan for an upgrade from an older version of ClearCase. | *Upgrading From a Previous Version of ClearCase* on page 15 |
| | If you are running different versions of ClearCase on multiple ClearCase hosts, ensure compatibility of clients and servers among the various versions. | *Ensuring Feature Compatibility Across Versions of ClearCase* on page 16 |
| | If you plan to install ClearCase MultiSite, ensure your environment is compatible. | *Planning for MultiSite Installation* on page 18 |
| | If you plan to install Rational ClearQuest, ensure your environment is compatible. | *Ensuring ClearQuest Compatibility with ClearCase* on page 19 |

**Table 2 Preinstallation Checklist**

| Done | Task: | Reference: |
|---|---|---|
| | Plan for ClearCase installations on a dual-boot computer. | *Planning for ClearCase Installations on Dual-Boot Computers* on page 20 |
| | Deicde whether to enable Remote Administration. | *Choosing to Enable Remote Administration* on page 20 |
| | Ensure that your system supports compatible character encoding schemes across ClearCase clients. | *Ensuring Compatible Character Encoding Systems* on page 21 |
| | Decide how many ClearCase and MultiSite licenses you need and how to allocate these licenses on your network. | *Allocating Licenses* on page 21 |
| | Review ClearCase directory naming conventions. | *Understanding Directory Naming Conventions* on page 23 |
| | Determine whether you need to perform any tasks dependent on your unique environment. | *Environment Specific Tasks* on page 24 |
| | Log in with appropriate privileges. | *Logging In with Appropriate Privileges* on page 25 |
| | Define or ensure you have defined the ClearCase administrator's group and the ClearCase Server Process User. | *Defining Domain Accounts for the ClearCase Server Process User* on page 25 |
| | Install Internet Explorer. | *Installing Internet Explorer* on page 27 |

## Reviewing ClearCase Release Notes

Before beginning the install process, review the *Release Notes* for Rational ClearCase and ClearCase MultiSite for any recent changes and additions to the material in this manual. Access the *Release Notes* either in print or on the product CD in the \ClearCase\doc directory. They are also available in the release area, following product installation.

If you are upgrading from a previous version of ClearCase, review all release notes published in the interval between the version you are running and the current version. Release Notes are located in the password-protected ClearCase Customer area of the Rational Software Web page. To access this page, go to http://www.rational.com and click the Documentation link.

# System Requirements

Use this section to determine compatibility of your platforms, file system, hardware, software, and network before you attempt to install ClearCase.

The term CPF stands for ClearCase Product Family and refers to the products ClearCase and ClearCase MultiSite.

See the *Release Notes* for the latest updates.

## Supported Platforms

ClearCase and MultiSite version 2003.06.00 run on the platforms listed in Table 3.

**Table 3 Supported Platforms for ClearCase and MultiSite in Version 2003.06.00**

| Hardware platform | Operating system |
|---|---|
| Intel x86 | Windows NT 4.0 SP6a (but not 4.0SP6) and SRP – Security Rollup Package, Microsoft Knowledge Base Article - Q299444<br>Windows 2000 SP2, SP3<br>Windows .NET Server<br>Windows XP Professional[1] |

[1] Rational ClearCase 2003.06.00 clients support the latest Windows 2000, Windows NT, and Windows XP Professional releases. Older releases of Windows, such as Windows 95, Windows 98, WIndows ME, and Windows NT 4.0 SP4, are no longer supported with this release. We do not support Windows XP Home Edition. Customers who require support for earlier releases of Windows must run an earlier version of ClearCase that supports such releases.

## Supported Platforms for Rational Web Platform

The Rational Web Platform (RWP) provides support for Web interfaces to Rational ClearCase, Rational ClearQuest, and other Rational products. All supported ClearCase platforms support RWP.

RWP hosts must support local VOBs and views. Support for the MVFS is not required. The host must have adequate disk space available for the Web views that are created by ClearCase Web interface users (we recommend 0.5-1MB of space per view).

# Supported File Systems

Table 4 lists the file systems that ClearCase supports. If a file system does not appear on the list, it is not supported. Inform Rational Customer Support or your sales representative of any concerns you have about this list.

**Table 4 Supported File Systems by Platform**

| Platform | Supported file systems |
|---|---|
| Windows NT | FAT, NTFS, LANMAN, NFS[1] |
| Windows 2000 | FAT, FAT32, NTFS, LANMAN |
| Windows XP | FAT, FAT32, NTFS, LANMAN |

1. See Table 5 for more information about NFS platforms

## Windows/UNIX Interoperation

This section provides information about ClearCase support for file access between Windows and UNIX platforms, as it pertains to version 2003.06.00. As of this release, ClearCase supports these Windows/UNIX interoperation solutions:

- ClearCase File Server
- The third-party NFS client products listed in Table 5
- The third-party SMB server products listed in Table 6

**Table 5 Supported NFS Client Products for Windows**

| Product | Supported product releases |
|---|---|
| Hummingbird NFS Maestro | 7.0.0.1 or later |
| Shaffer Solutions Corporation DiskAccess | 5.0 or 5.1 |

**Table 6 Supported SMB Server Products for Windows NT**

| Product | Platform | Supported product releases |
|---|---|---|
| LSI Logic Storage Systems TotalNET Advanced Server (TAS) | Solaris 2.6 or later | 5.2 (Patch 10),<br>5.3 (Patch 3),<br>5.4.1 patch 3,<br>6.0, 6.1 |
| | HP-UX 11.0 or later | 5.4.1 patch 3; 6.0, 6.1 |
| | AIX 4.3.2 and above | TAS 6.0 |
| SAMBA (available from http://www.samba.org) | Solaris 8 or later | SAMBA 2.0.7, 2.2 |
| | HP-UX 11.0 or later | Samba 2.0.7, 2.2 |
| | AIX 5.1 | Samba 2.2 |
| | Linux RedHat 7.2 | Samba 2.2 |

For more information about using these products with ClearCase, see the *Administrator's Guide*.

## Platform Requirements for ClearCase Mainframe Connectors

If you plan to installing the ClearCase Mainframe Connectors feature, refer to the client (Table 7) and server (Table 8) platform requirements. You must use TCP/IP to use this feature.

**Table 7 Client Requirements for ClearCase Mainframe Connectors Feature**

| Hardware platform | Operating system |
|---|---|
| IBM PC-compatibles | Windows NT 4.0 SP5 and higher<br>Windows 2000 SP1 and higher<br>Windows XP Pro |
| Solaris SPARC | Solaris 2.6,7,8,9(latest beta). (2.6 32-bit only, others 32- and 64- bit) |
| HP 9000 Series 700 and Series 800 | HP-UX 11.0, 11.0 ACE and 11.11 (11i version 1.0). Supported HP-UX ACE release is November 1999 ACE. |

**Table 8 Server Requirements for ClearCase Mainframe Connectors Feature**

| Hardware Platform | Operating System |
|---|---|
| IBM System/390 | OS/390 2.9 and higher, including UNIX System Services (USS) |
| IBM zSeries | OS/390 2.9 and higher, including USS<br>z/OS 1.3, including USS |

# Disk Space Requirements

This section describes disk space requirements for running ClearCase and ClearCase MultiSite.

## Disk Space Requirements for the Release Area

The file system of the networkwide release host must have sufficient disk space to hold the release area. The minimum disk space required for release areas on different platforms is 140 MB.

## Disk Space Requirements for Individual Hosts

Table 9 shows the approximate disk space requirements for a new installation of ClearCase. These figures are for ClearCase files and upgraded system files only. In addition to these requirements, the installation needs 15 MB of temporary disk space.

**Table 9 Disk Space Required for ClearCase Files and Upgraded System Files**

| ClearCase installation type | Disk space required |
|---|---|
| Windows NT, Windows XP, and Windows 2000 client or server using standard installation with dynamic views (5 MB additional to support MVFS installation), local VOBs, and local views | 120 MB |
| Windows NT, Windows XP, and Windows 2000 client or server with all optional components | 138 MB |

In addition, snapshot view directories need enough disk space to contain all files loaded into the snapshot views and all view-private files added to the views. The amount of space required depends on the number and sizes of the files in the views.

Any host that must contain VOB storage or view storage directories must have enough disk space to contain the files and databases used for storage of VOB-storage or view-storage directories. The amount of space required depends on the characteristics and use of the VOBs and views.

## Software Requirements

ClearCase and MultiSite require the following additional software be installed:

- Windows workstation or Windows server
- A Web browser, either Netscape (version 4.72 through 4.78) or Internet Explorer (5.5, or 6.0). Internet Explorer does not have to be the default browser, but is required for use of some ClearCase features, including the ClearCase Explorer, the HTML DiffMerge tool, and the ClearCase Administration Console. We recommend using at least Internet Explorer 5.5 SP2.
- If acting as a server for the ClearCase integrations with Microsoft FrontPage 98, Microsoft FrontPage 2000 or Visual InterDev, IISWeb server software and the FrontPage Server Extensions (FPSE) are required.

### Windows Server Software and ClearCase Servers

Windows workstations impose a limitation on concurrent access: a maximum of 10 systems can access a Windows system simultaneously by means of file system mounts or UNC names. If you anticipate this level of use, install Windows server software on your primary ClearCase servers.

### Using ClearCase and Windows Domains

ClearCase is a distributed client/server application; many operations initiated on client hosts are completed by server processes elsewhere in the network. Therefore, all ClearCase hosts running Windows must belong to a Windows domain or an Active Directory domain, except when running a single-host evaluation copy of ClearCase.

To use ClearCase from a supported Windows host, you must log on to a domain account (not a local, per-system user account). For more information about Windows Domains, see the *Administrator's Guide*.

## Operating System Vendor Web Site

You can find up-to-date information about Microsoft Windows operating system issues at the Microsoft Web site, www.microsoft.com.

# Planning Your Installation

To install ClearCase, you must have a proper system infrastructure. It is critical to read the following sections, particularly if you are setting up a new ClearCase environment.

## Learning About ClearCase Host Types

When you install ClearCase on a computer, you choose whether to configure that computer as a server or a client:

- A server is a reliable computer that provides VOBs or views accessed by other computers on a local area network.
- A client is a computer on which a ClearCase user works, typically using one or more views to access VOBs on servers.

Various system tasks are assigned to server hosts. Take some time to become familiar with the server host types used in ClearCase installations. Use these descriptions to

understand and plan the number and types of each host you need to allocate for your installation. You can designate a single computer as the server that handles multiple server functions. For more information about these server host types, see the *Administrator's Guide*.

- **Server host**. Any host on which a VOB or view is created is a server host. Some hosts may be dedicated servers on which client software is rarely used. Other server hosts double as clients. All server hosts must run ClearCase.
- **Registry server host.** One host in the network acts as the ClearCase registry server host. Each host is assigned to a particular registry server host at ClearCase install time. This host stores access-path information for all the VOBs and views in the network. ClearCase client and server programs on all hosts communicate with the registry server when accessing ClearCase data. If you are a new ClearCase customer and are choosing a multiple server, Enterprise deployment installation, see Chapter 4, *Performing Enterprise Deployment of the ClearCase Server* for details on setting up a registry server host.
- **License server host.** One or more hosts in the network act as license server hosts, authorizing and limiting ClearCase use according to the terms of your license agreement. Each host on which ClearCase is installed is assigned to a particular license server host and communicates with that host periodically. If you are a new ClearCase customer and are choosing a multiple server, Enterprise deployment installation, see Chapter 4, *Performing Enterprise Deployment of the ClearCase Server* for details on setting up a license server host.
- **Networkwide release host.** One host in the network acts as the networkwide release host. A directory on this host stores an entire ClearCase release that has been extracted from distribution media or downloaded from Rational. When necessary, patches can be applied to a release area to update the entire release with the latest enhancements and defect fixes. The networkwide release host does not need to run ClearCase.
- **Rational Web Platform (RWP) host.** If you want to use the ClearCase Web interface, you'll need at least one RWP host.

  We recommend that the RWP server host have an additional 128 MB of physical memory beyond what is required to support any VOBs and views on the host. Unless the RWP host is the ClearCase LT server, we do not recommend using the RWP host as a VOB- or view-server host.

  For more details on RWP, see the *Administrator's Guide*.

## Designating Server and Client Hosts

If you are setting up a ClearCase installation for the first time, you designate and configure the registry and license server hosts first. You may choose to install the registry and license server hosts on the same computer, or on different computers.

If you choose the Simple deployment installation, you are choosing to run ClearCase using a single server. The Getting Started Wizard configures the registry and license server hosts on a single computer when you run **setup.exe** and select the Simple deployment option.

If you choose the Enterprise deployment installation, you first need to set up the registry and license server hosts by creating a release area and installing the hosts from that release area using a set of site defaults which you define. After you set up the registry and license server hosts, you run **setup.exe** and select the Enterprise deployment option to configure other server hosts that support storage locations where clients can create VOB storage and view storage directories.

You must also designate the computers you utilize as clients. All Windows clients can optionally support Dynamic views (if you have installed MVFS) as well as local VOBs and snapshot views.

The features installed on a ClearCase computer depend on site defaults chosen by the administrator. These defaults may be overridden later in the installation process by an individual user.

## Understanding VOB Database Formats

ClearCase supports two VOB database formats: the older format (schema version 53) and the newer format (schema version 54).

Choosing schema version 54 format provides these features:

- Improved support for Windows security.
- Active Directory support. Schema version 54 is required when using ClearCase in Active Directory environments.
- Expansion beyond 2 GB for files in the VOB database.

If you are an existing ClearCase customer, choose the format you currently use. Run the **cleartool -ver** command from the command line to see the current VOB database schema version.

If you are a new ClearCase customer, choose schema version 54 (the default).

**Note:** If you are currently using schema version 53 and select schema version 54, you must reformat your VOBs to use the newer format. Until you do, users cannot access VOB data. For more information about reformatting your VOBs, see the ClearCase *Administrator's Guide*.

If you have an existing ClearCase installation that uses schema version 53 and you select the same VOB format for this installation, then change your mind, you can reinstall ClearCase, select schema version 54, and reformat your VOBs.

If you have an existing installation that uses schema version 53 and you select schema version 54 for this installation but change your mind before having reformatted your VOBs, you can reinstall ClearCase and select schema version 53. However, if you have already reformatted your VOBs, you cannot reformat back to the older VOB format.

### VOB Database Formats and MultiSite

If a server host contains replicated VOBs using ClearCase MultiSite, we recommend that all VOB servers of the same set of replicas use the same VOB format.

**Caution:** If you use MultiSite and update one or more replicas in a VOB family to the new format, you must update all other replicas in the family before the reformatted replicas exceed the database file size limit of the previous schema (53). If you do not, synchronization imports fail for any replica that has not been updated.

## Upgrading From a Previous Version of ClearCase

**Important:** Before you install ClearCase version 2003.06.00, you must completely uninstall all previous versions of ClearCase. Do not install version 2003.06.00 directly over a previous version.

### Removing Previous Versions of ClearCase

Uninstall older versions of ClearCase by running uninstal.exe from the release area you created when you installed ClearCase. If you have removed the release area you set up when you installed ClearCase, or cannot find ClearCase in your list of installed programs, run the uninstal.exe program either directly from the installation CD-ROM or from a previously set up release area.

## General Information About Upgrading

If you are upgrading from a previous version of ClearCase to version 2003.06.00, here is some general information to keep in mind:

- Make sure that all views and VOBs are fully backed up. For information about backing up VOBs and views, see the *Administrator's Guide*.
- You do not need to upgrade your license server or get new ClearCase licenses. Licenses work with any version of ClearCase product family software, and ClearCase version 2003.06.00 hosts can use a ClearCase license server running a 4.x or later version of the software.
- Be sure you install the new release of ClearCase on VOB and view servers before you install on client hosts; version 2003.06.00 clients cannot access VOBs or views on hosts that are running an earlier version of ClearCase.
- If you have modified any files in *ccase-home-dir* (by default, C:\Program Files\Rational\ClearCase), you must most them prior to installation of ClearCase.

# Ensuring Feature Compatibility Across Versions of ClearCase

Even the simplest ClearCase operation invokes a communications chain that can involve several components. For example, the act of checking out a file element involves a client program (running on the developer's workstation), which acts through a particular view (located on that workstation or elsewhere) and uses a particular VOB (typically located on a dedicated VOB server host). If all the components in this operation are running the same ClearCase version, compatibility is guaranteed.

Table 10, Table 11, and Table 12 show the compatibility paths if all hosts are not running the same ClearCase version. In these tables, client means ClearCase client software. In each table, a component in a row can use a component in a column if there is a yes at the intersection of the row and column. For example, Table 10 shows that a 2002.05.00 view can use a 2002.05.00 VOB or a 2003.06.00 VOB, but a 2003.06.00 view cannot use a 2002.05.00 VOB.

**Table 10 Compatibility: Views with VOBs**

| | 4.2 VOB | 2002.05.00 VOB | 2003.06.00 VOB |
|---|---|---|---|
| 4.2 view | yes | yes | yes |

**Table 10 Compatibility: Views with VOBs**

| | 4.2 VOB | 2002.05.00 VOB | 2003.06.00 VOB |
|---|---|---|---|
| 2002.05.00 view | no | yes | yes |
| 2003.06.00 view | no | no | yes |

**Table 11 Compatibility: Clients with Views**

| | 4.2 View | 2002.05.00 View | 2003.06.00 View |
|---|---|---|---|
| 4.2 client | yes | yes | yes |
| 2002.05.00 client | no | yes | yes |
| 2003.06.00 client | no | no | yes |

**Table 12 Compatibility: Clients with VOBs**

| | 4.2 VOB | 2002.05.00 VOB | 2003.06.00 VOB |
|---|---|---|---|
| 4.2 client | yes | yes | yes |
| 2002.05.00 client | no | yes | yes |
| 2003.06.00 client | no | no | yes |

Specifically, these tables make two points:

- ClearCase 2003.06.00 clients can use only views and VOBs that reside on ClearCase 2003.06.00 hosts.
- ClearCase 2002.05.00 clients can use views and VOBs that reside on 2002.05.00 or 2003.06.00 hosts.

In general, older versions of clients can access servers that are at their same release levels or above, while current clients can access only servers that are at their same release level. A notable exception is that 2003.06.00 clients and servers communicate with 4.2 albd_servers to support access to license servers, and other administrative functions.

A version 2003.06.00 client on UNIX can access a VOB on Windows by using a snapshot view. However, the snapshot view storage directory and the VOB storage directory must be on servers running version 2003.06.00 or later.

## Planning for MultiSite Installation

You can install ClearCase MultiSite only on ClearCase server hosts.

MultiSite need not be installed on all ClearCase computers. In most cases, only the following computers require MultiSite installation:

- Computers on which one or more replicated VOBs reside.
- Computers that belong to users with ClearCase and MultiSite administration responsibilities.
- Computers on which the **shipping_server** utility is used, even if no replicated VOBs reside on that computer. Running **shipping_server** does not require a MultiSite license. For more information about this utility, see the *Administrator's Guide* for Rational ClearCase MultiSite.

You do not need to upgrade all the servers in a VOB family at the same time.

### Ensuring MultiSite Compatibility with ClearCase

ClearCase MultiSite is layered on ClearCase. To use MultiSite on a host running release 2003.06.00 of ClearCase, you must be running release 2003.06.00 of MultiSite. ClearCase MultiSite release 2003.06.00 is fully compatible with ClearCase release 2003.06.00 client and server hosts:

- A MultiSite release 2003.06.00 replicated VOB can reside on any ClearCase release 2003.06.00 server host.
- Any ClearCase release 2003.06.00 client program can access and modify any replicated VOB residing on a ClearCase release 2003.06.00 server host. Other client VOB access is the same as that documented in *Ensuring Feature Compatibility Across Versions of ClearCase* on page 16.

### Compatibility Issues Across MultiSite Versions

The following sections describe compatibility restrictions and issues when different sites are running different MultiSite versions.

### Replica Creation

There are compatibility restrictions on creating replicas. You can replicate a VOB to a host running an earlier major version of ClearCase only if the feature level of the VOB is the same as the feature level on the target host.

For example, if a host is running ClearCase Version 2003.06.00 and has a VOB whose feature level is 2, you can replicate that VOB to a host running ClearCase Version 4.2. Similarly, if a host is running ClearCase Version 2003.06.00 and has a VOB replica whose VOB family feature level is 3, you can export a replica-creation packet from that replica and import it on a host running ClearCase Version 2002.05.00. However, you cannot import the packet on a host running ClearCase Version 4.2.

### Replica Synchronization

As long as VOB feature levels are compaible, existing replicas hosted on systems running ClearCase 2003.06.00 can synchronize with existing replicas on systems running either ClearCase version 4.*x* or 2002.05.00. For more information about feature levels, see the *Administrator's Guide* for Rational ClearCase MultiSite.

### Upgrading to New Schema Version

If you decide to update one or more replicas in a VOB family to use the latest VOB database schema version (schema 54), you do not have to update all other replicas in the VOB family at the same time. However, you must update all other replicas in the family before the reformatted replicas exceed the database limit of the previous schema (53). If you do not, synchronization imports fail at any replica that has not been updated.

### Uninstalling ClearCase MultiSite or Rational Shipping Server

If you are using ClearCase MultiSite and the Rational Shipping Server on the same computer and you uninstall either one of the products, one may be partially uninstalled and stop working. Uninstall both and reinstall the product that is needed.

## Ensuring ClearQuest Compatibility with ClearCase

ClearCase and MultiSite version 2003.06.00 can be integrated with Rational ClearQuest software in two different ways:

- If you are using ClearCase with the Unified Change Management (UCM) process, you can enable the UCM-ClearQuest integration and use it with ClearQuest release 2003.06.00.
- If you are using base ClearCase (that is, not using the UCM process), you can integrate with ClearQuest 2003.06.00 using the ClearCase-ClearQuest integration 1.0.

**Note:** You must run at least version 2003.06.00 of ClearQuest on systems where ClearCase release 2003.06.00 is installed.

## Planning for ClearCase Installations on Dual-Boot Computers

On a computer that can boot multiple Windows installations, do not install ClearCase in the same directory for any two installations.

If you install to the same directory, various identical ClearCase components are shared. Removing ClearCase from that directory disables ClearCase for every version of Windows that uses the common directory. Furthermore, when a common directory is used, it is not possible to install different ClearCase releases for each version of Windows.

To avoid these problems, install ClearCase in distinct directories for each version of the operating system.

## Choosing to Enable Remote Administration

If you enable ClearCase Remote Administration, any user who is both logged on to another host and a member of the ClearCase administrators group can use the ClearCase Administration Console to change ClearCase properties for clients and servers.

Remote administration capability is useful if, for example, you move your license server to a new host. You can then change the settings for all clients from a single computer.

These ClearCase properties can be changed:

- Registry region
- License server
- Registry and backup registry servers
- MVFS cache sizes

If you do not enable Remote Administration, only the local user can change that computer's ClearCase properties.

For more information, see the *Administrator's Guide*.

## Ensuring Compatible Character Encoding Systems

Because the interpretation of multibyte characters is controlled by a host's locale setting (established on UNIX through the LOCALE environment variable and on Windows by using the Regional Options tool in Control Panel), all tags in a region must use the same character set, and all hosts in a region must use the same locale setting.

## Allocating Licenses

This section provides an overview of single licensing server setup. For information about setting up a multiple license server environment, see the *Administrator's Guide*.

The set of licenses is maintained on the license server. The network can have one license server or several. Each license server runs a ClearCase server process, and so must have ClearCase installed. You set up your license servers during the installation process.

After you determine your initial license allocation (see *Allocating ClearCase Licenses* on page 21) fill in the appropriate number of License Registration Forms and submit them according to the instructions on the form. A copy of the License Registration Form appears at the back of this manual. You receive your license keys by return fax.

Rational ClearCase and Rational ClearCase MultiSite implement an active-user floating license scheme. Details of how this scheme controls a user's access to ClearCase and MultiSite are available in the **clearlicense** reference page and in the *Administrator's Guide* for Rational ClearCase.

ClearCase and MultiSite use the same license server.

### Allocating ClearCase Licenses

Suppose that your organization has purchased 25 ClearCase licenses. You must decide how many license servers to use and how to allocate licenses to them. Here are two examples.

- **Use a single license server.** In this case, request a single license authorization code for 25 licenses. Create a single license database incorporating this code.

A drawback of this strategy is its single point of failure. If your network's lone license server fails, no one is able to use ClearCase. If you use this strategy, select a reliable server and take this scenario into account when constructing a disaster recovery plan.

- **Use multiple license servers.** In this case, request two license authorization codes, perhaps one for 15 licenses and another for 10 licenses. Create two license databases incorporating these codes, on two different servers.

  This strategy provides for more robustness. If the 15-license server fails, developers can still use ClearCase. Using ClearCase Host Administration, the administrator can find the properties of each affected host and reset the license server. For more information, see the *Administrator's Guide* for Rational ClearCase.

## Allocating MultiSite Licenses

Each user of a replicated VOB must acquire both a ClearCase license and a MultiSite license; moreover, the two licenses must be acquired from the same license server host. Therefore, plan your MultiSite licenses by analyzing each current ClearCase license server.

- If some or all of the users of a particular license server access replicated VOBs, you must install MultiSite licenses on that license server.
- If all users access replicated VOBs, you must install the same number of MultiSite licenses as ClearCase licenses.
- If some users access unreplicated VOBs only, you do not need MultiSite licenses for these users.

For example, a company has two sites, with 20 developers at site A and 5 developers at site B. The company has three VOBs at site A; two of them are replicated to site B and one is not replicated. Five developers at site A access only the unreplicated VOB, and the remaining 15 work in all VOBs. Therefore, the company needs to purchase the following numbers of licenses:

| Site | ClearCase licenses | MultiSite licenses |
|---|---|---|
| A | 20 | 15 |
| B | 5 | 5 |

**Note:** This example assumes that you purchase a ClearCase license for each developer. If you have fewer ClearCase licenses than developers, you can purchase a proportionate number of MultiSite licenses. For example, if site B purchased three ClearCase licenses, it would also purchase three MultiSite licenses.

## Understanding Directory Naming Conventions

Before installing ClearCase, take time to become familiar with the following directory naming conventions.

### Shorthand Conventions

ClearCase documentation uses *ccase-home-dir* as shorthand for the ClearCase installation directory. When you encounter this notation, substitute your own local ClearCase installation directory for *ccase-home-dir*.

### Installation Directory Conventions

For new installations, the default installation directory is *drive_letter:*\Program Files\Rational\ClearCase, where *drive_letter* is the drive that contains Windows system files. A typical installation directory is C:\Program Files\Rational\ClearCase.

For an existing installation of ClearCase, the default installation directory is the one in which the previous version is installed.

When creating the ClearCase installation directory name specified in the Rational Setup Wizard, do not use slashes (/) or embedded spaces.

## Environment Specific Tasks

Depending on your installation environment, there may be other tasks you must perform, or issues you must be aware of, before installing ClearCase. To determine whether you need to perform any of these tasks, refer to Table 13 . Some tasks require you to follow more detailed procedures, which are outlined in Appendix C, *Environment Specific Tasks During Preinstallation*.

**Table 13 Environment Specific Tasks**

| Product installed: | Task: | Information: |
|---|---|---|
| ClearCase integration with IBM Visual Age for Java | Install IBM VisualAge for Java and ClearCase in any order, and then run the IBM VisualAge for Java Integration Configuration Wizard. | *Installing VisualAge for Java* on page 69 |
| ClearCase UCM Integration with Rational ClearQuest | Before implementing the UCM integration with ClearQuest, ensure compatibility of product features | *Installation of the UCM Integration with Rational ClearQuest* on page 70 |
| Expat XML Parser | This product incorporates the expat XML parser 1.0 under the Mozilla 1.1 license. | The license is available for browsing at www.mozilla.org/MPL/MPL-1.1.txt.<br>The source code version of the expat XML parser is available at www.jclark.com/xml/expat.html. |

## Initial Installation Tasks

Before you begin the installation, log on to the first server host you want to install on, and perform the following tasks:

1. Log in with appropriate privileges.
2. Define or ensure that you have defined the ClearCase administrator's group and the ClearCase server process.
3. Install Internet Explorer.

## Logging In with Appropriate Privileges

To install ClearCase, ensure that you are logged on with appropriate privileges. You must be logged on to a Windows domain account that is a member of the local host's Administrators group.

**Note**: If you have a multi domain environment, see the *Administrator's Guide* for more information about using Windows domains with ClearCase.

## Defining Domain Accounts for the ClearCase Server Process User

Any ClearCase community must define a group to which all users who perform routine ClearCase operations using a common set of VOBs and views belong. This manual refers to this group as the ClearCase users group. It can be an existing domain global group or one created specifically for this purpose.

The ClearCase users group must have the following characteristics:

- It must be a domain global group or an Active Directory universal group. We recommend that you use a domain global group unless the group needs to include other groups.
- If members of the group must access VOBs or views on a UNIX host, the group name must be the same as the name of the ClearCase users group on UNIX. For more information, see the *Administrator's Guide*.

In addition to the ClearCase users group, a ClearCase community requires two additional domain accounts:

- A ClearCase server process user. The **albd_server** program runs with this identity. In examples throughout this document, the ClearCase server process user is named **clearcase_albd**. The ClearCase server process user must be a member of the ClearCase administrators group.
- A ClearCase administrators group. Members of this group can perform all ClearCase operations, including those that permanently destroy data. Membership in this group must be restricted to the ClearCase server process user and a few ClearCase administrators.

If you are performing the ClearCase installation with domain administrator privleges, the ClearCase server process user and ClearCase administrators group must be created. You do this when you configure your site defaults.

If you do not have domain administrator privileges, you must create the accounts manually. See *Defining Required Domain Accounts Manually* on page 26 for more information.

## Defining Required Domain Accounts Manually

During site default configuration, you will create the ClearCase administrators group and ClearCase server process user accounts if they do not exist. The account and group names specified during configuration are presented as the defaults when users run the ClearCase Installation program on individual hosts. In addition, the account names and the ClearCase server process user's password are used as the default when you rerun the wizard to create a new release area on a host.

If the user configuring ClearCase site defaults does not have Domain Administrator privileges, the wizard cannot create these accounts. A domain administrator must create them by using the following procedure:

1. Log on as a user with domain administrator privileges.
2. Using the appropriate domain user and group account management tool, create a new **global** group called **clearcase** (or another group name the community has chosen). In the **Description** box, type the following text:

   **Used exclusively by ClearCase server processes and administrators.**
3. Create a new user, **clearcase_albd** (or another user name the community has chosen), and put the group name defined in Step 2 in the new user's group list.
   - Select the **Password never expires** check box.
   - In the **Description** box, type the following text:

     **Used exclusively by ClearCase servers**
   - On each ClearCase host that is configured to support local VOBs and views, give the **clearcase_albd** user the right to **Log on as a service**.

### NonDomain Installations

Except when evaluating ClearCase, we do not recommend installation on nondomain systems. For more information about using ClearCase on nondomain systems, see the *Administrator's Guide* for Rational ClearCase.

## Installing Internet Explorer

To function correctly, the ClearCase Explorer, the ClearCase HTML Diff Merge tool, the ClearCase Automation Library (CAL) documentation, and the ClearCase Administration Console, including its help, require at least Internet Explorer Version 5.5 Service Pack 2 (SP2) or later. Moreover, the Microsoft Management Console (which is used by the ClearCase Administration Console) may not install correctly without Internet Explorer Version 5.5 SP2 or later.

You can download and install Internet Explorer from the Microsoft Web site:

www.microsoft.com/windows/IE

For more information, see *Choosing to Enable Remote Administration* on page 20.

# Performing Simple Deployment of the ClearCase Server

# 3

## Choosing the Simple Deployment Option

The simple deployment option and the Getting Started Wizard are designed for use by new customers who want to deploy the product quickly for evaluation or limited use by a small development team.

For best performance, we recommend keeping view_server processes (especially those that support dynamic views) off of VOB server hosts, so you may want to limit the number of additional dynamic views you create on the server after the Getting Started Wizard has run.

If you want to install ClearCase in a multiple server environment, or use ClearCase MultiSite, see Chapter 4, *Performing Enterprise Deployment of the ClearCase Server*, for information about installing an enterprise deployment of ClearCase.

You must use the Enterprise deployment option to use MultiSite.

## Installing and Configuring the ClearCase Server Using Simple Deployment

Use the Getting Started Wizard to set up a standard ClearCase environment on a single server. The wizard performs the following funcitons.

- Sets up the ClearCase registry and license server hosts.
- Sets up ClearCase software configuration management.
- Creates an initial Unified Change Management (UCM) environment.
- Creates a defect and change request database, if you have installed ClearQuest.
- Configures the ClearCase client on this server only.

**Note:** When you install ClearCase by running the Getting Started Wizard, you install a server and a client on your computer. During the server installation process, a release area is created. Later, you set up additional ClearCase clients by running software in this release area.

## Preparing to Run the Getting Started Wizard

Before you run the wizard, use the checklist in Table 14 to ensure that you have all the information you need to complete the installation.

**Table 14 Getting Started Wizard Preparation Checklist**

| Done | Before running the Getting Started Wizard, complete these tasks: |
|---|---|
| | Obtain your license key in preparation for configuring the ClearCase License Server. For more information about obtaining your license key, see *Allocating Licenses* on page 21. |
| | If you have ClearQuest installed, verify that you have proper permissions and information to configure your database with your database administrator. |
| | To install ClearCase, ensure that you are logged on with appropriate privileges. You must be logged on to a Windows domain account that is a member of the local host's Administrators group.<br>For more information about setting up the appropriate domain accounts and the Administrators group, see *Defining Domain Accounts for the ClearCase Server Process User* on page 25. |
| | Shut down all other programs before starting the installation. A reboot is neccesary following completion of the installation. |
| | If you have not already done so, review Chapter 2, *Before You Install ClearCase*, and follow the instructions in the section *Initial Installation Tasks* on page 24. |

## Installing ClearCase Using the Simple Deployment Option

To install ClearCase using the Simple deployment option, perform these steps.

1. Insert the Rational Solutions for Windows Disc 1 CD into the CD drive. The setup program starts automatically and the Welcome to the Rational Setup Wizard page appears.

   Click **Next** to start setup and to advance through the following pages.

2. On the Deployment Type page, select the **Simple deployment** option.
3. On the Simple deployment page, read a short description of the Simple deployment option and the process of creating a release area.

4. On the NAME OF SCREEN page, specify the directory where you want to create a release area. Click **Browse** to modify the location.
5. The NAME OF SCREEN page appears. Click **Next** to create the release area. The Installing Rational ClearCase page indicates that the product is being installed.
6. The Product Warning page appears to notify you of any potential disruption the install may cause with other products currently installed on the computer.
7. On the License Agreement page, read the license agreement and if you accept the terms, select **I accept the terms in the license agreement**. To view any third party product terms, click **View**.
8. On the Network Location page, specify the directory where you want to install ClearCase. We recommend that you install ClearCase with the following directiory structure: \\Program Files\Rational\ClearCase

   **Important** A subdirectory named ClearCase is appended to the pathname you select. For example, if you specify C:\Program Files\Rational\, the pathname where ClearCase is installed is C:\Program Files\Rational\ClearCase. Be aware of this behavior and change the installation pathname, if needed, to conform to the directory structure \\Program Files\Rational\ClearCase.
9. The Ready to Install the Program page appears. Click **Install** to start installation. The Installing Rational ClearCase page indicates that the product is being installed.

   While the wizard runs, ClearCase Doctor ensures that your computer is properly configured for ClearCase. If there are problems, you are prompted to correct them before proceeding to the next step. For more information, see *Using the ClearCase Doctor* on page 69.
10. When the wizard finishes copying the installation files, it prompts you to reboot your computer. Click **Yes**.

## Configuring ClearCase With The Getting Started Wizard

After you reboot, the Getting Started Wizard configures your ClearCase environment with the standard set of site defaults. Click **Next** or **Back** to navigate through the wizard pages. If you need help completing fields in the wizard, refer to the online Help, on the left side of the wizard window.

The wizard guides you through the following tasks:

- Verifying the configuration tasks you perform

- Configuring the License Server
- If you have installed ClearQuest, configuring a defect and change request tracking database and creating the ClearQuest administrator password
- Creating the ClearCase storage directories
- Creating the ClearCase source VOB and initial view

If the wizard does not finish successfully, the Error Summary page appears. You can browse the error log from the Error Summary page by clicking **View Log**.

Upon succesfull completion of the wizard, the Getting Started Wizard Completed page appears.

Click **Finish** to end the installation and reboot your computer.

## Completing the Installation

After running the Getting Started Wizard, complete the installation process for performing any applicable postinstallation tasks. See *Post-Installation Procedures* on page 49 for a list of required postinstallation tasks and other procedures you may need to perform depending on your individual requirements.

## Canceling and Rerunning the Getting Started Wizard

You can safely stop the Getting Started Wizard at any time and rerun it by clicking **Start > Programs > Rational Software > ClearCase Administration > ClearCase Administration Console > Getting Started Wizard**.

The wizard does not perform any configuration until you reach the Summary page.

# Performing Enterprise Deployment of the ClearCase Server

# 4

## Choosing the Enterprise Deployment Option

Follow the procedures in this chapter if any of the following are true:

- You use Rational ClearCase LT and want to upgrade to the enterprise version of Rational ClearCase.
- You want to install ClearCase in a multiple server configuration.
- You want to use ClearCase MultiSite.

This chapter assumes that you are a ClearCase administrator who is familiar with the site-preparation and installation procedures.

## Before You Begin

Use the checklist in Table 15 to ensure that you are ready to begin installing ClearCase with the **Enterprise deployment** option.

**Table 15 PreInstallation Checklist for Enterprise Deployment of ClearCase**

| Done | Task: | Information: |
|---|---|---|
| | Review release notes. | *Reviewing ClearCase Release Notes* on page 6 |
| | Review all preinstallation requirements. | Chapter 2, *Before You Install ClearCase* |
| | Obtain your license keys in preparation for configuring the ClearCase License Server. Remember to obtain keys for all ClearCase LT users or hosts you plan to upgrade. | *Allocating Licenses* on page 21 |

**Table 15 PreInstallation Checklist for Enterprise Deployment of ClearCase**

| Done | Task: | Information: |
|---|---|---|
| | To install ClearCase, log on with appropriate privileges. You must be:<br>➤ Logged on to a Windows domain account with system administrator privileges<br>➤ A member of the local host's Administrators group | *Logging In with Appropriate Privileges* on page 25 |

## Enterprise Deployment Installation Roadmap

Use Table 16 to determine where to begin reading, based on your installation requirements.

**Table 16 Enterprise Deployment Installation Roadmap**

| Customer: | Procedure: |
|---|---|
| A ClearCase LT customer who is upgrading to enterprise ClearCase | *Upgrading ClearCase LT to ClearCase* on page 34 |
| ➤ A new ClearCase customer and are setting up a multiple server environment<br>➤ An existing ClearCase customer upgrading from a previous version of ClearCase | *Installing ClearCase Using the Enterprise Deployment Option* on page 45 |

## Upgrading ClearCase LT to ClearCase

Rational ClearCase LT can be easily upgraded to full-featured Rational ClearCase. ClearCase includes a tool that helps you automate the upgrade process, though a few manual steps may be required to upgrade certain configurations. This section explains the upgrade process and two common upgrade scenarios.

## Upgrade Checklist

When you upgrade ClearCase LT to ClearCase, use the upgrade checklist in Table 17 to ensure that you perform all steps.

**Table 17 Checklist for upgrading ClearCase LT to ClearCase**

| Done | Upgrade task: | Information: |
|---|---|---|
| | Understand changes in ClearCase functionality as a result of upgrading. | *What Happens When You Upgrade?* on page 35 |
| | Ensure that you have acquired upgraded ClearCase LT licenses for users and/or hosts. | *Preparing To Upgrade* on page 39 |
| | Establish your ClearCase release area. | *Establishing Your ClearCase Release Area* on page 39 |
| | Check in all checked-out files or directories and remove all ClearCase LT views. | *Remove All ClearCase LT Views* on page 39 |
| | Perform either the simple upgrade procedure or the upgrade and merge procedure. | *Upgrading with the Simple Upgrade Procedure* on page 40 or *Upgrading with the Upgrade and Merge Procedure* on page 42 |

## What Happens When You Upgrade?

When you upgrade from ClearCase LT to ClearCase, you add many new capabilities to your existing ClearCase LT environment. Your upgraded ClearCase LT server and client hosts need little to no configuration. The upgrade preserves your VOB data.

### Upgrade Options

When you upgrade, choose one of two options:

- Simple upgrade
- Upgrade and merge

### Simple Upgrade Option

In the simple upgrade procedure, you upgrade a single ClearCase LT community (one server and some or all of its clients) to ClearCase. Use this procedure if any of the following are true.

- You are not already running ClearCase at your site.
- You are running ClearCase at your site but do not want to make the upgraded ClearCase LT hosts members of an existing ClearCase community.
- You cannot upgrade all of your ClearCase LT client hosts at once and need to preserve VOB access for both ClearCase LT clients and upgraded clients.

The ClearCase LT server becomes a ClearCase server, retains the role of ClearCase registry host, and continues to host all the VOBs it hosted as a ClearCase LT server. The ClearCase LT clients become ClearCase clients.

You can upgrade your ClearCase LT server and its clients in a single operation or upgrade the server first and upgrade the clients later. A ClearCase LT client can access an upgraded ClearCase LT server as long as it can acquire a ClearCase license from that server; but the client cannot take advantage of ClearCase features until it has been upgraded.

### Upgrade and Merge Option

In the upgrade and merge procedure, you upgrade the ClearCase LT server and all its clients at the same time and then makes the server and clients part of a ClearCase community that already exists at your site. Use this procedure if all of the following are true.

- You are running ClearCase at your site.
- You want the upgraded ClearCase LT server and clients to use the existing ClearCase registry.
- You can upgrade all ClearCase LT client hosts when you upgrade the server.

The VOBs can remain on the upgraded ClearCase LT server or can be moved to another ClearCase VOB server.

**Caution:** Do not use the upgrade and merge procedure unless you can upgrade all ClearCase LT clients at the same time. Upgrade and merge requires you to make the upgraded ClearCase LT server use an existing ClearCase registry. When you do this, the upgraded server cannot continue as the registry server for any remaining ClearCase LT clients, and these clients cannot access VOBs on the upgraded server.

## Upgrade Considerations

This section explains the differences in functionality when you upgrade from ClearCase LT to enterprise ClearCase.

### ClearCase License Server and Registry Server Hosts

ClearCase requires a license server host and a registry server host. These may be on separate computer or the same computer. If you choose the simple upgrade option, the upgraded ClearCase LT server performs both functions. If you choose the upgrade and merge option, existing ClearCase license and registry server hosts perform these functions.

If you choose the simple upgrade option and designate your ClearCase LT server as the ClearCase license server and registry server host, all ClearCase LT clients, whether or not they have been upgraded, can access VOBs and views on the upgraded ClearCase LT server with minimum reconfiguration.

If you are upgrading and merging with an existing ClearCase site, you install ClearCase from that site's networkwide release area and can use that release area's site defaults for the license and registry server hosts. More ClearCase licenses may be needed after the upgrade, and you may have to add them to the license database of the existing license server host.

### Registry Regions

ClearCase LT clients are members of a single region in a ClearCase registry that is maintained on the ClearCase LT server. The VOB tags and view tags in this registry region are unsuitable for use by ClearCase hosts.

During a simple upgrade, the VOBs stored on the upgraded ClearCase LT server host are registered and tags are created for them in the server's default ClearCase registry region (the region to which the server is assigned).

If you need to access these VOBs from client hosts that are not of the same platform type (UNIX or Windows) as the ClearCase LT server, you must create an additional registry region for use by these clients, and then create tags appropriate for the hosts that use this region. Step 5 of *Performing the Simple Upgrade Procedure* on page 40 describes this process in more detail.

If you use the upgrade and merge option, you can take advantage of existing registry regions.

### VOB Access Between Windows and UNIX

If you plan to use ClearCase with both Windows and UNIX, be aware of the following interoperability restriction.

ClearCase hosts running UNIX cannot use dynamic views to access VOBs hosted on Windows. If your ClearCase LT server runs Windows and you need to access it using UNIX dynamic views, see the *Administrator's Guide* for information about moving a VOB from Windows to UNIX.

### Issues with Interoperability and Dynamic Views

ClearCase supports three kinds of views: snapshot views, dynamic views, and Web views.

- **Snapshot views**. Using snapshot views, you copy file and directory versions from a VOB into the platform's native file system. Snapshot view users cannot see changes checked in to the VOB by other users until they update their views Snapshot view are supported by ClearCase LT.
- **Dynamic views**. The ClearCase multiversion file system (MVFS) permits users to see changes made by other users as soon as they check in files or directories. ClearCase supports dynamic views on UNIX and Windows computers. Dynamic views are not supported by ClearCase LT.
- **Web views.** Web views operate in a similar manner to snapshot views and can be accessed through any supported browser.

When you use dynamic views in a homogeneous environment (views on UNIX hosts that access VOBs on UNIX servers or views on Windows hosts that access VOBs on Windows servers), the MVFS works with the native network file system (NFS on UNIX, LAN Manager on Windows) and needs no additional support. If your upgraded Windows clients use dynamic views to access VOBs or views on UNIX servers, you must install and configure a third-party software package to support heterogeneous file system access. Two types of software provide support for this type of access.

To receive this support, install one of the following packages:

- An NFS client package enables a Windows client to access a UNIX file system using the NFS protocol. You install NFS client software on each upgraded ClearCase LT client that uses dynamic views to access any VOB on a UNIX server.
- An SMB server package enables a UNIX server to support the LAN Manager SMB protocol, which is native to all Windows computers. You install SMB server software on the upgraded ClearCase LT server.

If you plan to install such a package, install it after the upgrade is complete. For more information, see the *Administrator's Guide* for Rational ClearCase.

## Preparing To Upgrade

Before you upgrade, complete the following tasks:

- Acquire your ClearCase licenses.
- Establish your ClearCase release area.
- Remove your ClearCase LT views.

### Acquiring ClearCase Licenses

Before upgrading, verify that you have acquired ClearCase (and ClearCase MultiSite) licenses for all users. Node-locked licenses are not supported with ClearCase.

For more information, see *Allocating Licenses* on page 21.

**Note:** ClearCase and ClearCase LT use different procedures for requesting and installing licenses. The Rational License Key Administrator and Rational AccountLink Web site cannot be used to acquire ClearCase licenses.

### Establishing Your ClearCase Release Area

Before you begin, verify that you have adequate disk space on an appropriate host platform for a ClearCase networkwide release area. For more informatio, see*Disk Space Requirements for the Release Area* on page 10.

You must create a new networkwide release area with each release, except when using the upgrade and merge procedure (since you use one that already exists).

### Remove All ClearCase LT Views

All ClearCase LT views must be removed before you upgrade and re-created after the upgrade. Views created using ClearCase LT do not work under any circumstances in a ClearCase environment. UCM components, projects, and streams are available for use when the upgrade is complete, although the associated views need to be re-created.

**Note:** If your ClearCase LT server is running UNIX and you plan to use the simple upgrade procedure to upgrade the server and some, but not all, ClearCase LT clients,

you can leave your ClearCase LT views in place until all the clients have been upgraded.

To remove your ClearCase LT views:

1. If you are using UCM, complete any deliveries that are in progress.
2. To verify that there are no remaining checkouts, use the ClearCase Explorer or the **cleartool lscheckout** command.
3. Remove all views. To do so, we recommend that you use the ClearCase Explorer on any Windows platform or the **cleartool rmview** command on either Windows or UNIX.

## Upgrading with the Simple Upgrade Procedure

In this procedure, you must upgrade the server first, and then upgrade some or all of the clients. Many steps in this procedure are also required in the upgrade and merge procedure.

### If You Cannot Upgrade All Your Clients at the Same Time

If you have chosen to do a simple upgrade, you can defer upgrading some of your ClearCase LT client hosts for a few days or weeks to accommodate development schedules or other organizational requirements. ClearCase LT client hosts can access VOBs on the upgraded ClearCase LT server as long as the server is configured as a ClearCase license server host.

The remaining ClearCase LT client hosts need to acquire ClearCase licenses to access VOBs on the upgraded server, which is possible only if the server itself has been configured as a ClearCase license server host. These clients cannot be configured to acquire ClearCase licenses from another ClearCase license server host, even if one is present in your environment. ClearCase LT clients that operate in this transitional mode are still limited to using the ClearCase LT feature set even though they require a ClearCase license.

### Performing the Simple Upgrade Procedure

To perform a simple upgrade:

1. **Prepare.** Complete the applicable upgrade prerequisites described in *Preparing To Upgrade* on page 39.

2 **If you are running ClearCase LT version 2002.05.20 and older, remove ClearCase LT software from the ClearCase LT server.** Follow the instructions in the *Server Installation Guide f*or Rational Suite. Do not remove ClearCase LT data unless you are sure you do not need it after the upgrade. The upgrade procedure preserves all ClearCase LT data and makes it available to ClearCase after the upgrade is complete.

3 **Install ClearCase on the ClearCase LT server.** Follow all instructions in the section *Running the Rational Setup Wizard* on page 46.

When you configure your site defaults, you are prompted to create server storage locations for VOBs and views. The remainder of the upgrade process converts existing VOB server storage locations on the upgraded ClearCase LT server, so you only need to create view storage locations at this time. You may also create additional VOB storage locations if you want.

Ensure you install ClearCase in the same directory where ClearCase LT is installed. If necessary, change the default installation directory.

For information about view and VOB storage locations, see the *Administrator's Guide*.

4 **Run the upgrade tool.** You must next run the **cclt2cc** upgrade tool. The upgrade tool performs these tasks:

- Registers VOB storage locations on the upgraded ClearCase LT server in the server's default registry region.
- Creates VOB tags for VOBs on the upgraded ClearCase LT server in the server's default registry region.
- Changes file system protection information about all VOB storage directories so that it is appropriate for ClearCase.

**Note**: If the installation process detects that a ClearCase LT server resides on the system, you have to uninstall ClearCase LT and start the installation again.

**cclt2cc** is located in the *ccase-home-dir*\etc\utils directory. To run **cclt2cc**:

**a** Log in as a user with local administrator privilege to the upgraded ClearCase LT server.

**b** Run the command at the Windows command prompt. The example below upgrades all the VOBs on the ClearCase LT server and creates tags for them in the server's default region

*ccase-home-dir***etc****utils****cclt2cc -w** *tag-registry-password*

**c** After the tool finishes running and the system is restarted, you are asked if you want to proceed with the upgrade and set a registry password

For more information about the **cclt2cc** tool and associated command line options, see the *Command Reference*.

5 **Create an additional ClearCase registry region if needed.** If you require interoperability between Windows and Unix hosts:

**a** Create a new region for Unix hosts.

**b** On Windows hosts, specify this region as a peer region.

Read about creating peer regions and other associated tasks, such as importing VOB tags, in the *Administrator's Guide*.

6 **Install ClearCase on the ClearCase LT clients.** Follow the instructions in Chapter 5, *Installing the ClearCase Client*. Accept the default choices for registry region and License Server host

7 **Create new snapshot and/or dynamic views.** Use the ClearCase Explorer or the **mkview** command. For information about reusing UCM streams, see *Creating New UCM Views Using Existing Streams* on page 44.

## Upgrading with the Upgrade and Merge Procedure

Using this option, you upgrade ClearCase LT server and all of its clients to ClearCase, and then incorporate the ClearCase LT VOBs and upgraded hosts into an existing ClearCase community.

**Caution:** Do not use the upgrade and merge procedure unless you can upgrade all ClearCase LT clients at the same time. Upgrade and merge requires you to make the upgraded ClearCase LT server use an existing ClearCase registry. When you do this, the upgraded server cannot continue as the registry server for any remaining ClearCase LT clients, and these clients cannot access VOBs on the upgraded server.

### Performing the Upgrade and Merge Procedure

To upgrade and merge your ClearCase LT community:

1 **Prepare.** Complete the applicable upgrade prerequisites described in *Preparing To Upgrade* on page 39. Verify that all of your ClearCase LT clients are ready to be

upgraded. After you complete Step 2 in this procedure, no ClearCase LT client can access VOBs or views on the ClearCase LT server.

2 **If you are running ClearCase LT version 2002.05.20 and older, remove ClearCase LT software from the ClearCase LT server.** Follow the instructions in the *Server Installation Guide f*or Rational Suite. Do not remove ClearCase LT data unless you are sure you do not need it after the upgrade. The upgrade procedure preserves all ClearCase LT data and makes it available to ClearCase after the upgrade is complete.

3 **Install additional ClearCase licenses on the license server host if needed.** Users who run ClearCase commands on upgraded ClearCase LT hosts can use licenses from the existing license pool. If you already have an adequate number of these licenses, you do not need to install additional licenses.

4 **Install ClearCase on the ClearCase LT server.** Follow all instructions in *Running the Rational Setup Wizard* on page 46. Accept the predefined site default values.

**Note**: When you upgrade the ClearCase LT server, you must install ClearCase in the directory where ClearCase LT was installed (normally C:\Program Files\Rational\ClearCase). Otherwise, the upgrade procedure cannot complete successfully. This restriction does not apply when upgrading ClearCase LT clients.

5 **Run the upgrade tool.** See Step 4 on page 41.

6 **Get information about storage locations and VOBs on the upgraded server.** Log on to the upgraded ClearCase LT server. Run the **cleartool lsstgloc -l** and **lsvob -l** commands to get information about server storage locations and VOBs on the upgraded server. You need this information in Step 7 and Step 8 of this procedure.

7 **Register the upgraded server's storage locations in the existing registry.** On another ClearCase host—one that has network access to the file system of the upgraded ClearCase LT server and is a member of the registry in which you want VOBs on the upgraded ClearCase LT server to have tags—run the **cleartool mkstgloc** command to register storage locations on the upgraded ClearCase LT server.

8 **Register and create tags for the upgraded server's VOBs in the existing registry.** On the same ClearCase host that you used in Step 7, run the **cleartool register** and **mktag** commands to register and check tags for the VOBs on the upgraded ClearCase LT server.

9 **Verify that the VOBs are accessible.** Verify that all ClearCase hosts in the region can access the VOBs on the upgraded ClearCase LT server.

10 **Make the upgraded server a member of the existing registry.** Reconfigure the upgraded ClearCase LT server so that it is no longer a registry server and is instead a member of the existing registry region.

11 **Create an additional ClearCase registry region if needed.** If you require interoperability between Windows and Unix hosts:

   a Create a new region for Unix hosts.

   b On Windows hosts, specify this region as a peer region.

   Read about creating peer regions and other associated tasks, such as importing VOB tags, in the *Administrator's Guide*.

12 **Install ClearCase on the ClearCase LT clients.** Follow the instructions in Chapter 5, *Installing the ClearCase Client*. Accept the default choices for registry region and license server host.

13 **Create new snapshot and/or dynamic views as needed for the upgraded clients.** Use the ClearCase Explorer or the **mkview** command. For information about reusing UCM streams, see *Creating New UCM Views Using Existing Streams* on page 44.

## Creating New UCM Views Using Existing Streams

The upgrade process preserves all of a UCM project's streams. If your upgrade takes place while a project is active, you may want to create new views using the project's existing streams. You can use either the Project Explorer or the Join Project Wizard to do so:

In the Project Explorer:

1 Select the stream you want to use.

2 Click **File > New > View.**

In the Join Project Wizard:

1 Select the project you want to join.

2 In Step 2 (**Create a Development Stream**), click **Advanced Options**.

3 On the **Stream** tab, click **Reuse an existing development stream**, and then select the stream you want to reuse.

# Installing ClearCase Using the Enterprise Deployment Option

When you install the ClearCase server using the Enterprise deployment option, you use the Rational Setup Wizard.

## The Rational Setup Wizard

Before you install ClearCase with the **Enterprise deployment** option, ensure that you understand the installation process flow.

### Understanding the Installation Process

The Rational Setup Wizard guides you through the following installation process:

1. You start the wizard by selecting the **Enterprise deployment** option.
2. You configure ClearCase for your installation by setting parameters called *site defaults*. Which site defaults you select determine the specific aspects of your ClearCase configuration, including MVFS performance settings, account information, shortcuts, and so forth. Your chosen site defaults are then written to a data file (such as sitedefs.dat).
3. You select a location for creation of a release area, a central installation area on your network. The wizard creates the release area by using the parameters contained within the site defaults file. A release area contains at least one site default file, and can contain multiple site default files.
4. The ClearCase server is installed from the release area, using the configuration settings in your site defaults file.
5. After installation completes, you are prompted to restart your computer.
6. After restart, the ClearCase Doctor and Server Storage Wizard run automatically.

   The ClearCase Doctor detects any problems with your installation and provides possible solutions. The Server Storage Wizard assists you in setting up storage directories for VOB and view storage.
7. You must perform required and optional post-installation tasks to complete before you can connect to the ClearCase server and begin using the product in a production environment. See *Post-Installation Procedures* on page 49 for more details.

8 After you set up all your VOB server hosts, you install your client computers from the release area you created when you installed your VOB server hosts.

### If You Are Setting Up A New ClearCase Environment

If you are setting up your ClearCase environment for the first time, you must first set up your registry and license server hosts, which can be the same computer or different computers. To set up these hosts, follow the procedures in this chapter, starting with *Running the Rational Setup Wizard* on page 46 and continue to the end of the chapter.

As you select your site defaults, use the Administrative Information page to designate the current computer as the registry server. When configuring a license server, use the License Server Type page to enter the license keys you have received from Rational.

After you set up the registry and license server hosts, set up your additional VOB server hosts in a similar manner, starting with *Running the Rational Setup Wizard* on page 46 and continuing to the end of the chapter. You may use the same site defaults file and release area you created when you set up the registry and license server hosts, or you may create site defaults if you need to modify the parameters for your additional VOB server hosts.

## Running the Rational Setup Wizard

To install ClearCase using the Enterprise deployment option, run the Rational Setup Wizard, as follows:

1 Insert the Rational Solutions for Windows Disc 1 CD into the CD drive. The setup program starts and the Welcome to the Setup Wizard page appears. Click **Next**.

2 On the Deployment Type page, select the **Enterprise deployment** option. Click **Next**.

3 On the License Agreement page, read the license agreement and if you accept the terms, select **I accept the terms in the license agreement**. To view any third party product terms, click **View**. When you are ready to continue, click **Next**.

4 Specify your site defaults.

The left pane of the Site Preparation Tool contains a tree structure that you can use to navigate between the various site default selection pages. Page names in the left pane of the tool marked with a red dot contain required fields that must be completed before the **Done** button is available. When you modify site default data on a page, the page name is marked with a pencil icon to indicate you have made changes to the page.

After you specify your site defaults, you must also complete the following pages in the **Completion** section:

- **Description** - Enter a short description of your configuration on this page. This is helpful documentation for others who may need to later modify your site defaults.
- **Create Release Area** - Specify the network location of your release area, as indicated, as well as the name of your site defaults file (for example, sitedefs.dat). The site defaults file is stored in the release area.

  Keep in mind the release area must be accessible by all of your users. Write the pathname here for future reference when installing ClearCase clients:

  _____

- **Launch Installation** - Mark the checkbox on this page to verify you wish to launch installation of ClearCase with the site defaults you have specified.

To advance through the pages in the Site Preparation Tool, click **Next**. When you complete all pages, click **Done**.

Detailed information about choosing your site defaults is available in the online Help.

5 On the Configure and Setup Release Area page, click **Next**.

6 The Create a Release Area page appears and indicates progress as your release area is created.

7 The Setup Complete page appears. Optionally, mark the appropriate checkbox to view the READ ME file, or to go to the Rational Developer Network. Click **Finish** to proceed.

8 The Welcome to the Setup Wizard for Rational ClearCase page appears indicating you are ready to begin installing the product from the release area. Click **Next**.

9 The Product Warning page may appear, indicating any problems you must correct before proceeding. Click **Next** if this page appears, when you are ready to proceed.

10 On the License Agreement page, read the license agreement and if you accept the terms, select **I accept the terms in the license agreement**. To view any third party product terms, click **View**. Click **Next** when you are ready to proceed.

11 On the Destination Folder page, specify the directory where you want to install ClearCase. Click **Change** if you want to install to another location.

**Note:** If the **Change** button is unavailable, you have other Rational products installed on your system. In this case, you must use the default pathname listed.

**Important** If you are upgrading from ClearCase LT, you must install ClearCase in the same directory in which you installed ClearCase LT. If you are upgrading from a previous version of ClearCase, install the new release of ClearCase in the same network location as the previous version of ClearCase.

**12** The Site Default Configuration page appears with the description you entered earlier when you created your release area.

Select one of the following options:

**Use the standard configuration** - Use this option to install the product with the site defaults you configured when you created your release area. If you select this option, go to Step 14.

**I will create my own custom configuration** - Use this option to select additional product features, such as MVFS, ClearCase MultiSite, and RWP. After you select the additional features, you will be given a chance to modify your site defaults and save them to your release area. Read Step 13 for information on using the Custom Setup page.

**13** On the Custom Setup page, choose how the product features are installed and configured by performing these steps:

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

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

**This feature will be installed on local hard drive -** This option installs the selected product feature on your computer's disk drive.

**This feature, and all subfeatures, will be installed on local hard drive -** This option installs the selected product feature, as well as all features and subfeatures in the product tree below the selection, on your computer's disk drive.

**This feature will not be available -** This option installs neither the product nor product features, including all features and subfeatures in the product tree below the selection, on your computer's disk drive.

For more information about the product features, see the online Help.

14 The Ready to Install the Program page appears. Click **Install** to begin copying the product installation files. The Installing Rational ClearCase page indicates installation progress.

15 the Setup Complete page appears when the installation files have finished copying. Optionally, mark the appropriate checkbox to view the READ ME file, or to go to the Rational Developer Network.

Click **Finish** to restart you computer.

16 After you restart your computer, the ClearCase Doctor and Server Storage Wizard appear.

## Configuring Storage with the Server Storage Wizard

If you specified that your computer is to be a ClearCase server and that locations on that server are to be available to ClearCase clients for creating VOB and view storage directories, the ClearCase Server Storage Configuration Wizard runs when you first log on after the installation restart.

This wizard allows you to specify locations on the server that are available to ClearCase clients for VOB and view storage directories.

You must log on with the same user ID you used to run the installation.

You can configure the locations by using the wizard now or wait until the next logon. On the next logon, you can configure the locations from the ClearCase Registry snap-in of the ClearCase Administration Console. You can also run *ccase-home-dir***etc****SvrStor.exe** or the **mkstgloc** command from the **cleartool** command line.

### Using the Server Storage Wizard

The Help for the wizard provides detailed configuration information. For more information about storage configuration, see the *Administrator's Guide*.

## Post-Installation Procedures

After you run the Rational Setup Wizard, you perform several post-installation procedures. Some are required; you perform others depending on your environment and unique needs.

## Required Post-Installation Procedures

After you install ClearCase, perform these required procedures:

- Share the release area directory.
- Set the CLEARCASE_PRIMARY_GROUP environment variable.
- Install additional ClearCase clients from the release area you created.

### Sharing the Release Area Directory

Make the release area directory shareable. Even if the drive containing that directory is already shareable, making the directory itself shareable makes it easier to find the ClearCase release area. Ensure that only the administrator has write permission for the directory.

1. In Windows Explorer, right-click the network release area to display the directory shortcut menu.
2. Click **Sharing**. The Properties dialog box appears.
3. On the **Sharing** tab, click **Shared As** and supply a meaningful share name, such as CC60 Release Area.

### Setting the CLEARCASE_PRIMARY_GROUP Environment Variable

ClearCase access controls consider domain group membership information when determining a user's rights to access ClearCase data. In Windows, a user who logs on to a domain account may not be assigned the primary group specified by the Windows domain account management tools.

To ensure proper assignment, set the user environment variable CLEARCASE_PRIMARY_GROUP to refer to the correct primary group. The value of this variable must be the name of an existing domain group that includes the user as a member. All ClearCase users must belong to the CLEARCASE_PRIMARY_GROUP.

This environment variable must be set on every ClearCase host. On Windows systems, set the value of CLEARCASE_PRIMARY_GROUP using the System program in Control Panel.

For more information about CLEARCASE_PRIMARY_GROUP and ClearCase access controls, see the *Administrator's Guide*.

### Installing ClearCase Clients From the Release Area

Install ClearCase on your additional client computers from the release area you created. Read Chapter 5, *Installing the ClearCase Client*.

## Additional Post-Installation Procedures

Depending on your unique requirements, you may need to perform other post-installation procedures.

Use Table 18 to determine what tasks to perform and where to find more information about them.

**Table 18 Additional Enterprise Deployment PostInstallation Tasks**

| If you: | See: |
|---|---|
| Need to perform a feature level upgrade. | The ClearCase *Administrator's Guide* and ClearCase *Release Notes* for more information. |
| Use the FrontPage Web Authoring integration | *Reinstalling the FrontPage Web Authoring Integration* on page 51 |
| Specified that your computer is to be a ClearCase license server and did not enter the license key information during installation | *License Server Postinstallation Procedure* on page 52 |
| Currently use VOB database format 53 and chose VOB database format 54 during installation | *Reformatting for VOB Database Format 54* on page 53 |
| If your installation did not finish with the desired result | *If Your Installation Was Not Successful* on page 53 |
| Need to repair, modify or remove the ClearCase installation | *If Your Installation Was Not Successful* on page 53 |

## Reinstalling the FrontPage Web Authoring Integration

If you use the FrontPage Web Authoring integration, you need to reinstall it after installing ClearCase release 2003.06.00.

To reinstall the integration, perform these steps:

1. Click **Start > Program Files > Rational Software > ClearCase Administration > Integrations > Web Authoring Integration Configuration.** The Web Authoring Integration Wizard opens.
2. Select **Enable source control integration for Web projects.** Click **Next**.
3. Select **Local Mode Configuration**. Click **Next**.
4. Choose to either replace SourceSafe with ClearCase or use SourceSafe as your source control provider. Then, on the Replace SourceSafe page, select the appropriate option. Click **Next**.
5. Click **Finish** to close the wizard.

The FrontPage Web Authoring integration has now been reinstalled.

## License Server Postinstallation Procedure

If you specified that your computer is to be a ClearCase license server and did not enter the license key information during installation, you must enter the appropriate ClearCase license keys (sometimes called license authorization codes) before you can use ClearCase.

When you have the license keys, enter them using the following procedure:

1. On the ClearCase license server, open the ClearCase Control Panel.
2. On the Services Startup tab:
   a. Click **Shutdown ClearCase**.
   b. Click **Yes**, and then click **OK**.
3. On the Licensing tab:
   a. Select the **Use local host as license server** option.
   b. Enter your ClearCase and MultiSite license keys.

      **Note:** License keys must be entered exactly as specified (for example, uppercase and lowercase letters must be preserved.)

   c. Click **OK**.
4. On the Services Startup tab, click **Startup ClearCase**.

## Reformatting for VOB Database Format 54

If you are currently using schema version 53, and you selected schema version 54 during installation, you must reformat you VOBs to use the newer format. Until you do, you cannot access your VOB data.

For more information about formatting your VOBs, see the *Administrator's Guide* and the **reformatVOB** command in the *Command Reference* for Rational ClearCase.

## If Your Installation Was Not Successful

If your installation did not finish with the desired result:

- View the log output for error messages and more information.
- Diagnose probable causes of errors with ClearCase Doctor.
- Run the installshield to modify, repair or remove the installation.

### Viewing the ClearCase Log

To view the ClearCase log for more detailed error information, follow the instructions in *Using the ClearCase Installation Log File* on page 70.

### Diagnosing Errors with ClearCase Doctor

ClearCase Doctor can analyze your ClearCase servers and clients for existing and potential problems. For more information about using ClearCase Doctor, see *Using the ClearCase Doctor* on page 69.

### Modifying, Repairing or Removing ClearCase

To reinstall ClearCase, follow these steps:

1. Click **Start > Control Panel > Add/Remove Programs** .
2. Select **ClearCase** from the list of programs and click **OK**.
3. After the installshield starts, choose from one of the following options, click **OK**, and follow the installshield instructions:
   - **Modify the Existing Installation** - Choosing this option allows you to change which products and product features are installed.
   - **Repair the Existing Installation** - Choosing this option allows you to repair any installation files that may be damaged.

- **Remove the Existing Installation** - Choosing this option removes all files that you previously installed for this product. See

## Creating Multiple Site Defaults for a Release Area

Many sites handle only one set of ClearCase users. But some sites require different sets of users to work with different default settings. For example, a development group and a quality engineering group may use different **Start** menu commands or different registry servers. In this case, you can create one site defaults file for each group.

To create multiple site defaults for a release area, follow these steps:

1. Create your initial release area by following the instructions in *Running the Rational Setup Wizard* on page 46. Set up this area with the site-specific parameters relevant to the first group of users.
2. Run the ClearCase Site Preparation Tool from the release area that you created in Step 1. Do not run the wizard from the CD. Instead, double-click **SitePrep.exe** in the release area or run **SitePrep.exe** on the command line.

   Follow the instructions to set the ClearCase parameters. Because you have created a first site defaults file (sitedefs.dat for instance), in the initial release area, the Site Preparation Tool displays the values set in sitedefs.dat. Keep the values that apply to both groups and change the ones according to the needs of the second group.
3. After you complete the Description page in the Site Preparation Tool, click **Finish**. The **Save As** dialog box opens.

### Saving the Site Defaults File

After you run Site Preparation manually (when you run **siteprep.exe**) you must save your site defaults file for future use.

1. In the **Save As** dialog box, enter the location of the release area you want to create. By default, the location of your existing release area(if you have one) is displayed in the Folder field. You can use this location for your new site defaults file, or select another location.
2. In the Save As dialog box, enter a name for the new site defaults file in the **File name** field.

## Creating Multiple Release Areas

Because ClearCase supports multiple site defaults per release area, creating multiple release areas become unnecessary but remains an alternative.

To create a second release area, run **setup.exe** from the installation CD.

## Configuring MultiSite Synchronization

You enable ClearCase MultiSite by selecting the option during installation. See *Running the Rational Setup Wizard* on page 46 for more information.

For information about replicating VOBs and automating synchronization among replicas, see the *Administrator's Guide* for Rational ClearCase MultiSite.

m

# Installing the ClearCase Client

5

## Overview of Client Installation

You must follow the procedures in this chapter if you have created a networkwide release area using the procedures in either Chapter 3, *Performing Simple Deployment of the ClearCase Server* or Chapter 4, *Performing Enterprise Deployment of the ClearCase Server*.

Use the procedures in this chapter to install the Client from a networkwide release area only.

To install ClearCase on a client computer, you must:

1. Run **setup.exe** from the appropriate release area to set up the ClearCase client.
2. Perform the postinstallation procedure on each client you set up.
3. Set up client views to access your VOBs.

## Installing the Client Software From a Release Area

To install the client software from a release area, perform these steps:

1. Log on as a user with local administrator privileges.
2. From the release area you set up using the procedures in Chapter 4, *Performing Enterprise Deployment of the ClearCase Server*, run **setup.exe**.
3. The Welcome to the Rational Setup Wizard page appears. Click **Next**.
4. The Product Warning page may appear, indicating any problems you must correct before proceeding. Click **Next** if this page appears, when you are ready to proceed.
5. On the License Agreement page, read the license agreement and if you accept the terms, select **I accept the terms in the license agreement**. To view any third party product terms, click **View**. Click **Next**.
6. On the Destination Folder page, specify the directory where you want to install ClearCase. Click **Change** if you want to install to another location.

**Note:** If the **Change** button is unavailable, you have other Rational products installed on your system. In this case, you must use the default pathname listed.

7 The Site Default Configuration page appears with the description you entered earlier when you created your release area.

Select one of the following options:

**Use the standard configuration** - Use this option to install the product with the site defaults you configured when you created your release area. If you select this option, go to Step 9.

**I will create my own custom configuration** - Use this option to select additional product features. After you select the additional features, you will be given a chance to modify your site defaults. Read Step 8 for information on using the Custom Setup page.

8 On the Custom Setup page, choose how the product features are installed and configured by performing these steps:

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

**MVFS -** Select this option to install the ClearCase multiversion file system (MVFS) on this client. If you install this component, users on this client can access ClearCase objects using dynamic views. Otherwise, they must use snapshot views to access ClearCase objects.

**Local Views and VOBs** - Select this option if you want to work with your views and VOBs on your local computer, in addition to accessing them from the network.

**Rational ClearCase Microsoft VisualStudio.NET** - Select this option to install the ClearCase Microsoft VisualStudio.NET integration.

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

**This feature will be installed on local hard drive -** This option installs the selected product feature on your computer's disk drive.

**This feature, and all subfeatures, will be installed on local hard drive -** This option installs the selected product feature, as well as all features and subfeatures in the product tree below the selection, on your computer's disk drive.

**This feature will not be available -** This option installs neither the product nor product features, including all features and subfeatures in the product tree below the selection, on your computer's disk drive.

For more information about the product features, see the online Help.

9 The Ready to Install the Program page appears. Click **Install** to begin copying the product installation files. The Installing Rational ClearCase page indicates installation progress.

10 the Setup Complete page appears when the installation files have finished copying. Optionally, mark the appropriate checkbox to view the READ ME file, or to go to the Rational Developer Network.

Click **Finish** to restart you computer.

The client computer is now configured.

# Evaluating ClearCase On a Local Computer

# A

## Evaluating This Release of ClearCase

When you install ClearCase for evaluation, you choose the **Desktop installation from CD image** option. This option does not create a release area, unlike the other installation methods. It is designed to enable you to rapidly install the product for evaluation on a single computer.

If you intend to install ClearCase permanently, you must choose either the **Simple deployment** or **Enterprise deployment** options. The **Desktop installation from CD image** option is not intended for production work or any permanent use, nor is it supported for any production work or permanent use.

**Note**: You cannot perform an evaluation installation over a previous permanent ClearCase installation.

## What the Evaluation Installation Does

The evaluation installation creates a ClearCase server process user (clearcase_albd) and a ClearCase administrators group, both local to the evaluation computer.

In the ClearCase configuration for the evaluation installation, the evaluation computer serves as both license and registry server. These registry have a default region named evaluation_region.

The evaluation installation allows you to run the ClearCase tutorial and to try most ClearCase functions.

## Limitations of the Evaluation Copy of ClearCase

You cannot share VOB or view data with other users.

The evaluation configuration allows users logged on to this computer to create versioned object bases (VOBs) and ClearCase views. These VOBs and views cannot be

preserved past their use in the evaluation installation. For information about preserving your VOB and view data, see *Preserving Your Evaluation Data* on page 62.

The server process users and groups created under the evaluation installation are transitory and local to the computer on which you installed the evaluation copy.

For this installation, the evaluation computer is configured for a one-month license, starting from the date of the initial evaluation installation. Even if you remove ClearCase and then reinstall an evaluation copy, the period is one month from the initial installation. If you want to extend the evaluation period, contact your Rational sales representative.

### Preserving Your Evaluation Data

To preserve your VOB and view data for later import into a non-evaluation copy of ClearCase, we recommend you use snapshot views, rather than dynamic views. After you install a production copy of ClearCase, copy your VOB and view data from your snapshot view directory into ClearCase.

You can alternately use the **clearexport_ccase** command. For information about this command and it's usage, see the *Administrator's Guide* and the *Command Reference* for Rational ClearCase.

## Performing the Evaluation Installation

Follow these steps to install the ClearCase Server for evaluation, and to start using the ClearCase tutorial.

### Evaluating the Server and Client

To perform a server evaluation installation of ClearCase, follow these steps:

1. Ensure you are logged on with administrator privileges.
2. Insert the CD-ROM media into an available drive on the initial server where you plan to evaluate ClearCase.
3. The Welcome to the Setup Wizard page appears. Click **Next** to start the installation, and to advance through the following pages.
4. On the Installation Type page, select the **Desktop installation from CD image** option.

5 On the Client/Server page, select **Install server and client software**. This option allows you to evaluate both server and client on one computer.

6 The Welcome to the Rational Wizard for Rational ClearCase appears. Click **Next**.

7 On the License Agreement page, read the license agreement and if you accept the terms, select **I accept the terms in the license agreement**. To view any third party product terms, click **View**.

8 On the Destination Folder page, specify the directory where you want to install ClearCase. Click **Change** if you want to install to another location.

**Note:** If the **Change** button is unavailable, you have other Rational products installed on your system. In this case, you must use the default pathname listed.

9 On the Custom Setup page, choose how the product features are installed and configured by performing these steps:

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

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

**This feature will be installed on local hard drive -** This option installs the selected product feature on your computer's disk drive.

**This feature, and all subfeatures, will be installed on local hard drive -** This option installs the selected product feature, as well as all features and subfeatures in the product tree below the selection, on your computer's disk drive.

**This feature will not be available -** This option installs neither the product nor product features, including all features and subfeatures in the product tree below the selection, on your computer's disk drive.

For more information about the product features, see the online Help.

10 Configure your site defaults.

The left pane of the Configure page contains a tree structure that you can use to navigate between the various site default selection pages. Page names in the left pane of the tool marked with a red dot contain required fields that must be completed before the **Done** button is enabled. When you modify site default data on a page, the page name is marked with a pencil icon to indicate you have made changes to the page.

Advance through the pages by clicking **Next**. When you complete all pages, click **Done**.

Detailed information about choosing your site defaults is available in the online Help.

11 The Ready to Install the Program page appears. Click **Install** to begin installing the product.

12 After the file have finished copying, the Installation Complete page appears. Click **Finish**. Optionally, mark the appropriate checkbox to view the READ ME file, or to go to the Rational Developer Network.

13 Restart your computer, when prompted.

14 After you reboot and log in, the ClearCase Server Storage Configuration Wizard appers. Use this wizard to configure storage for your evaluation copy of ClearCase. For more information about the Server Storage Wizard, see *Configuring Storage with the Server Storage Wizard* on page 49.

The evaluation computer is now configured as a stand-alone ClearCase host. All accounts and services created are local to the evaluation computer.

### Starting the ClearCase Tutorial

To start the ClearCase tutorial, click **Help > ClearCase Tutorial** from the Windows Explorer online Help.

## Completing the Evaluation

After evaluting ClearCase, if you choose to upgrade your evaluation installation to a licensed installation, perform a standard product installation using this manual. If you choose to do this, all temporary accounts local to your workstation are removed.

If you choose to remove ClearCase, see *Modifying, Repairing or Removing ClearCase* on page 53 for more information.

**Note**: The ClearCase evaluation installation creates a shared directory on the evaluation computer. Uninstalling the evaluation does not remove this shared directory or any storage areas you create while evaluating ClearCase. You must remove these areas manually.

# Using the Silent Install Feature

# B

Silent install is a method of installing Rational products on client computers without intervention from users. It greatly reduces the work of an administrator during a rollout of ClearCase. It also ensures that a consistent software configuration is installed on each target system.

## Overview of the Silent Install Feature

To use the silent install feature, you must have:

- A site defaults file (such as sitedefs.dat) that exists in a networkwide release area.
- Target client computers on which you plan to install ClearCase using the silent install feature.

Perform the silent install:

1. After you evaluate what Site Preparation options are necessary for the target ClearCase client computers, you may edit the site defaults file (or create more) by using the Site Preparation Tool.
2. You then execute the silent install on a test target computer, monitoring the installation log for any unexpected results.
3. Once you are confident the silent install works as you expect, prepare the target client computers on which to execute the silent install. You can optionally create and send a batch file to your client computer users, enabling them to invoke the silent install.

## Editing the Site Defaults File Using the Site Preparation Tool

You created a site defaults file when you created your initial networkwide release area, using the Enterprise install option. Before you create the site defaults file for silent install, you may run **siteprep.exe** from your initial release area to review the site

defaults you have chosen, or to make any modifications needed for rollout to your target client computers.

To do this:

1. Navigate to your networkwide release area and execute **siteprep.exe**.
2. In the Site Preparation Tool, click **File > Open** and navigate to the location of the site defaults file you want to review.
3. Use the Site Preparation Tool to customize site default values for your target computers.
4. After you finish running the Site Preparation Tool, you are prompted to save the site defaults file you created with a unique name (preferably with the .dat extension).

If you want to create additional versions of the site defaults file for different target groups of client computers, you can name each version to reflect the target group name or function (for example, qasitedefs.dat for the Quality Assurance group). You need to provide the name of each site defaults file when invoking each silent install.

# Executing and Monitoring the Silent Install

Now that you have customized and saved the site defaults file, you must execute **setup.exe** with a special parameter indicating you have selected the silent install feature.

## Executing the Silent Install

It is very important that you test every version of the site defaults file you plan to use with the silent install feature prior to executing it on any target workstations to ensure proper results.

On a test computer, in a command window, execute the silent install:

**path\setup.exe /g path***sitedefs.dat*

**Note:** Unless you have mapped **setup.exe** and your site defaults file to a network disk drive, you must specify UNC pathnames for both files when executing the above command.

### Monitoring the Silent Install

The silent install is designed to be invisible to users. Therefore, it is not possible to monitor the process by observing dialog boxes, completion bars, or other interface elements that appear during a conventional installation.

Instead, you must monitor the silent install by observing the installation log output. Locate the installation log in your TEMP directory. To find the location, open a command Window and type **echo %TEMP%**. The location of the directory depends on the system environment variable TEMP you have set on your computer.

**Note:** To view the log, you must ensure that you are displaying hidden system files, if you are using Windows Explorer.

## Preparing the Target Computers

Once you have tested the silent install and checked for any errors that may have occurred, prepare the target computers by doing the following:

1. Ensure the site defaults file you intend to use for your target computers resides in your networkwide release area.
2. Run ClearCase Doctor to verify that the proper ClearCase environment exists.
3. Execute the silent install on your target computers.

### Ensuring the Appropriate Site Defaults File Resides in the Release Area

By default, the site defaults file is created in the networkwide release area. If you have created another site defaults file that you want to use for a particular group of target computers, copy that file to the release area now.

### Running ClearCase Doctor on Target Computers

ClearCase Doctor tests a computer's readiness to run ClearCase. It can identify configuration problems that prevent ClearCase from installing or running properly. You can run ClearCase Doctor on your target computers prior to executing a silent install, or view the results of the ClearCase Doctor analysis following silent installation.

Run ClearCase Doctor by executing ccdoctor.exe from your networkwide release area, using your target computer. ccdoctor.exe resides in *Release Area*\Setup\program

files\Rational\ClearCase\bin where *release area* is the location of your networkwide release area.

### Executing Silent Install on Target Computers

Execute the silent install by entering the following on your target computer:

**path\setup.exe /g path***sitedefs.dat*

**Note:** Unless you have mapped **setup.exe** and your site defaults file to a disk drive on your computer, you must specify absolute pathnames for both files when executing the above command.

If you have multiple site defaults files, be extremely careful to provide each user with a batch file that points to the right version.

## Performing a Silent Uninstall

You can also silently uninstall previous versions of ClearCase from target computers.

To do this, execute the following command:

**msiexec.exe /X** *path to product.msi* **/qn**

*path to product.msi* is the path to a file (ClearCase.msi), found in your networkwide release area in the Setup directory, used by ClearCase during installation. **/X** indicates an uninstall operation is executed. **/qn** indicates no UIs are displayed during the uninstall operation.

**Note:** You must specify the UNC pathname for ClearCase.msi when executing the above command.

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

# Environment Specific Tasks During Preinstallation

C

## About Environment Specific Tasks

Depending on the various products you are planning to use in your environment, you may need to perform other tasks before installing a new release of ClearCase.

Before performing any of the tasks in this section, refer to Table 13 in Chapter 2 to determine if any apply to your environment.

## Setting Up the IBM VisualAge for Java Integration

The ClearCase integration with IBM Visual Age for Java enables you to use ClearCase source control functions, such as checking out, modifying, and checking in your files, without leaving the Visual Age for Java IDE or starting another application.

Before you can configure the VisualAge for Java integration with ClearCase, you must install both VisualAge for Java and ClearCase, in any order, and then run the VisualAge for Java Integration Configuration Wizard. This section describes these procedures.

### Installing VisualAge for Java

1. Run the installation program for IBM VisualAge for Java Version 3.5, Enterprise Edition. Follow the installation instructions and prompts.
2. During the installation, select the **Custom** option. In the list of components to install, select the **External Version Control** option.
3. Download and install the patch for the VisualAge for Java Version 3.5, Enterprise Edition from http://www.ibm.com .

### Running the Configuration Wizard

After both VisualAge for Java and ClearCase are installed, you must run the VisualAge for Java Integration Configuration Wizard.

If you installed ClearCase using the procedure titled *Running the Configuration Wizard* in this section, click **Start > Programs > Rational Software > Rational ClearCase Administration > Integrations > VisualAge for Java Integration Configuration**.

If ClearCase was previously installed or if the **VisualAge for Java Integration Configuration** shortcut menu does not appear in the **Integrations** menu:

**a** In your Windows Taskbar, click **Start > Run**.

**b** In the Run window, enter the path to the file, vaj_config.exe, in the bin folder of your ClearCase installation. For example, a typical path is C:\Program Files\Rational\Clearcase\bin\vaj_config.exe.

**c** Click **OK**.

## Installation of the UCM Integration with Rational ClearQuest

To use the UCM integration with ClearQuest, take into account the following issues with the compatibility and version support of the following elements:

- ClearCase version (client and server)
- ClearQuest version
- UCM schema package
- ClearQuest metaschema feature level

Consider the following points before you implement the package integration:

- The feature level of the metaschema for ClearQuest 2001.03.00 database is 3. The feature level for ClearQuest 2001A.04.00 database is 5.
- A ClearCase version 4.2 client requires a ClearQuest 2001A.04.00 client, because the integration of UCM with ClearQuest uses new ClearQuest API calls.

Table 19 shows the compatibility of different releases of ClearCase and ClearQuest, the UCM package revision number, and the ClearQuest database feature level.

**Table 19 Integration of UCM with Rational ClearQuest**

| ClearCase release | ClearQuest version | UCM package revision number | ClearQuest database feature level |
|---|---|---|---|
| 4.2 | 2001A.04.00<br>2001A.04.20<br>2002.05.00<br>2003.06.00 | 2.0, 3.0 | 3, 5 |
| 4.2 with patch | 2001A.04.00<br>2001A.04.20<br>2002.05.00<br>2003.06.00 | 2.0, 3.0, 4.0 | 3, 5 |
| 5.0 | 2001A.04.00<br>2001A.04.20<br>2002.05.00<br>2003.06.00 | 2.0, 3.0, 4.0 | 3, 5 |
| 5.0 with 2002G patch | 2002.05.20<br>2003.06.00 | 2.0, 3.0, 5.0 | 3, 5 |
| 2003.06.00 | 2002.05.20<br>2003.06.00 | 2.0, 3.0, 4.0, 5.0 | 3, 5 |

To upgrade to version 5.0 from 4.2 and continue to use your integration of UCM with ClearQuest, follow these steps:

1 Install ClearQuest.

2 Upgrade the ClearCase server and client.

**Note:** This step is optional if you are running release 2001A.04.00 or 2002.05.00 of ClearQuest.

3 Upgrade your UCM-enabled ClearQuest schema with the new version of the **UnifiedChangeManagement** package. This step is optional if you are running version 2.0 or later of the **UnifiedChangeManagement** package

4 Upgrade your ClearQuest user database to the new version of the schema.

**Note:** The UnifiedChangeManagement Package Revision 5.0 is dependent on AMStateTypes 1.0 and UCMPolicyScripts 3.0 packages. When upgrading, apply the AMStateTypes and UCMPolicyScripts packagess before applying the UnifiedChangeManagement Package Revision 5.0.

Rational®
the software development company

# *Licensing Forms for the ClearCase Product Family*

# *ClearCase Product Family License Registration Form*

The ClearCase family of products includes a license enforcement mechanism. As described in the product's installation documentation, you must obtain a *license authorization code*, an encoded line of text to be inserted into a special *license database file*. Please fill in the following form completely. Upon completing the form, FAX it to Rational Software Corporation at **(781) 676-2460**. You will receive your authorization code via return FAX as soon as possible.

## *Product to License (check one):*

_____ ClearCase _____ MultiSite

## *Your Company*

1. Company name_____
2. Address _____
3. City/State/Country/Postal Code _____
4. Contact Person _____
5. Phone number (with area code): _____
6. FAX number (with area code): _____
7. Electronic mail address of contact person: _____

## *Licensing Information*

8. Purchase Order Number (For new licenses purchased): _____
9. License server host ID:_____

   If ClearCase is installed, enter **clearlicense –hostid** on the license server. If not:

   | | |
   |---|---|
   | *Solaris*: | run **/usr/sbin/sysdef –h** to determine 8-digit hex number |
   | *HP-UX*: | run **/bin/uname –i** to determine number (usually, 10 or 12 digits) |
   | *AIX*: | run **/bin/uname –m** to determine 12-digit number |
   | *Red Hat Linux*: | run **hostid** |
   | *SuSE Linux*: | run **hostid** |
   | *Windows*: | on the command line, **cd** to **SETUP\program files\Rational\SETUP\hostid** on the ClearCase CD-ROM and run **hostid** |

10. New licenses requested or additional licenses required:

    Number of licenses: _____

(Do not include licenses already installed. For additional licenses, add new License Authorization Code to the **.db** file.)

***Please FAX — do not phone and do not use electronic mail***

# *Request to MOVE ClearCase Product Family Licenses*

Please complete and sign the following form. Upon completion, FAX to Rational Software Corporation at **(781) 676-2460**.

I certify that Rational's ClearCase software, under the terms of the signed Software License Agreement, will be deleted in its entirety from the *old* host referenced below, and will be installed on one or more *new* hosts.

## Authorized Signature: _____

## *Move Licenses (check one):*

_____ ClearCase _____ MultiSite

## *Your Company*

1. Company name_____
2. Address _____
3. City/State/Country/Postal Code _____
4. Contact Person _____
5. Phone number (with area code): _____
6. FAX number (with area code): _____
7. Electronic mail address of contact person: _____

## *Licensing Information*

8. Host ID of *old* license server:_____ # of licenses _____
   Host ID of *new* license server #1: _____ # of licenses _____
   Host ID of *new* license server #2: _____ # of licenses _____
   If ClearCase is installed, enter **clearlicense –hostid** on the license server. If not:

| | |
|---|---|
| *Solaris*: | run **/usr/sbin/sysdef –h** to determine 8-digit hex number |
| *HP-UX*: | run **/bin/uname –i** to determine number (usually, 10 or 12 digits) |
| *AIX*: | run **/bin/uname –m** to determine 12-digit number |
| *Red Hat Linux*: | run **hostid** |
| *SuSE Linux*: | run **hostid** |
| *Windows*: | on the command line, **cd** to **SETUP\program files\Rational\SETUP\hostid** on the ClearCase CD-ROM and run **hostid** |

***Please FAX — do not phone and do not use electronic mail***