Rational® ClearCase® and ClearCase® MultiSite®

Release Notes

VERSION: 2003.06.00

WINDOWS EDITION

Rational®
the software development company

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Version Number: 2003.06.00

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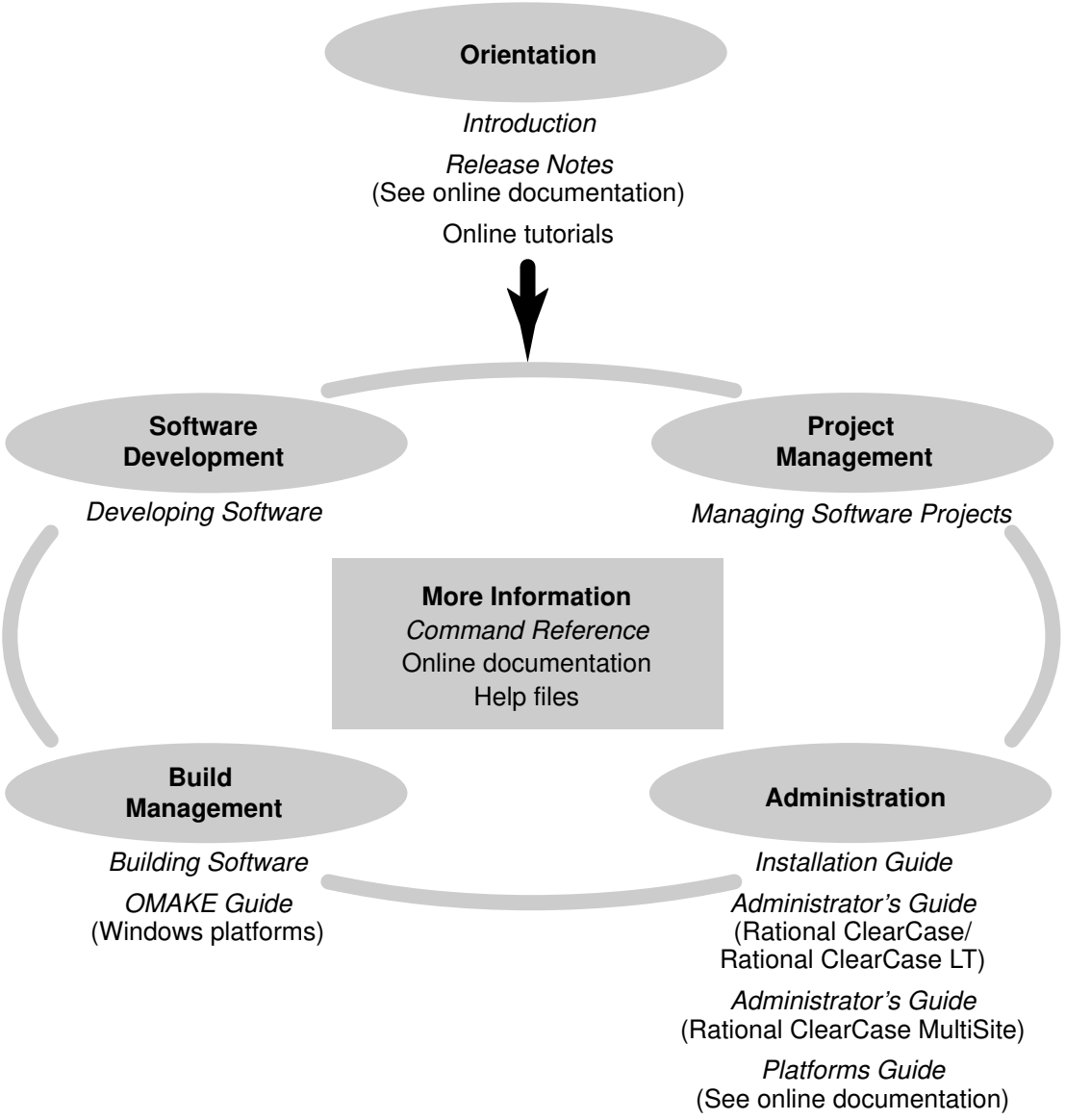
Preface

About This Manual

This document describes Version 2003.06.00 of both Rational ClearCase configuration management software and Rational ClearCase MultiSite software for Windows operating systems.

ClearCase Documentation Roadmap



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.
- **Bold** is used for names the user can enter; for example, all command names, file names, and branch names.
- A sans-serif font is used for file names, directory names, and file extensions.
- **A bold sans-serif 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

  This means that you can truncate the command name to **lsc** or any of its intermediate spellings (**lsch**, **lsche**, **lschec**, and so on).

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

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 ClearCase: Managing Software Projects 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* 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* *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* *Using Rational SoDA for Frame* SoDA Help
Base ClearCase-XDE	Stores XDE models in ClearCase	XDE Help
UCM-ClearQuest	Links UCM activities to ClearQuest records.	ClearCase: Developing Software ClearCase: Managing Software Projects ClearQuest: Administrator's Guide
UCM-Purify Plus	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* RequisitePro Help *Using UCM with Rational Suite*
UCM-Rose	Stores Rose models in ClearCase.	Rose Help *Using UCM with Rational Suite*
UCM-Rose RealTime	Associates activities with revisions.	*Rose RealTime Toolset Guide* *Rose RealTime Guide to Team Development*
UCM-SoDA	Collects information from ClearCase and presents it in various report formats.	*Using Rational SoDA for Word* *Using Rational SoDA for Frame* SoDA Help
UCM-TestManager	Stores test assets in ClearCase.	*Rational TestManager User's Guide* TestManager Help *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

ClearQuest Integrations with Other Rational Products

Integration	Description	Where it is documented
ClearQuest-Base ClearCase	Associates change requests with versions of ClearCase elements.	ClearCase: *Developing Software* ClearCase: *Managing Software Projects* ClearQuest: *Administrator's Guide*
ClearQuest-PurifyPlus	Allows developers to invoke ClearQuest from PurifyPlus.	PurifyPlus Help ClearQuest: *Administrator's Guide*
ClearQuest-RequisitePro	Allows developers to invoke ClearQuest from RequisitePro and to associate requirements with ClearQuest change requests.	Rational Suite: *Administrator's Guide* ClearQuest: *Administrator's Guide*
ClearQuest-SoDA	Collects information from ClearQuest and presents it in various report formats.	*Using Rational SoDA for Word* *Using Rational SoDA for Frame* SoDA Help
ClearQuest-Test Manager	Allows developers to invoke ClearQuest from TestManager.	*Using Rational TestManager* ClearQuest: *Administrator's Guide*
ClearQuest-Robot	Allows developers to invoke ClearQuest from Robot.	Rational Robot *User's Guide* Rational Robot Help
ClearQuest-UCM	Links UCM activities to ClearQuest records.	ClearCase: *Developing Software* ClearCase: *Managing Software Projects* ClearQuest: *Administrator's Guide*

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

What's New in ClearCase 1

This chapter describes new features and other changes in Version 2003.06.00 of Rational ClearCase, as follows:

- *New Features*
- *Announcements*
- *Changes to the Commands*
- *Changes to the Documentation*

New Features

The following is a summary of the new features that are introduced in this release of ClearCase:

- *ClearCase Web*
- *Mainframe Connector Remote Builds*
- *Build Enhancements*
- *New and Enhanced Integrations*
- *UCM Enhancements*
- *Miscellaneous Enhancements*

ClearCase Web

ClearCase Web supports the following new features:

- The Rational Web Platform (RWP) is the new server for the Web interface. ClearCase is a CGI executable that runs with the Apache Web server provided by RWP. We no longer support any other Web server as the server for this interface. For more information, see the *Administrator's Guide*.
- Support for Mozilla 1.0–based browsers, including Mozilla 1.0 and Netscape 7 .
- Reverse proxy support. The Web interface allows requests from external users to be passed through a firewall to an internal ClearCase Web server.

- Performance improvement. When you perform an update, load, or restore operation on a large number of files, the associated Progress page displays either a **Show Details** or **Hide Details** button. Hiding the details can improve performance dramatically when several thousand or more file elements are the subjects of the operation.
- You can create a UCM view based on an existing development stream, even if you are not the owner of the stream, as long as you are a member of the same group.
- Support for multibyte character sets.
- Support for Sun JVM 1.4.
- Full-text search capabilities in Help through the **Search** tab in the left navigation pane.
- Using **Compare** (in **ClearCase Properties**), you can compare the current version of an element with any other version. In previous releases, you could compare a version only with its predecessor.

For complete information, see the Help.

Mainframe Connector Remote Builds

The Mainframe Connector Remote Build feature allows you to submit build requests from ClearCase client platforms to OS/390, z/OS MVS, and USS. You can configure Remote Build to return the derived objects to the client platforms, where you can version them. In addition, you can audit the builds using **clearmake**. For more information, see the *Mainframe Connectors User's Guide* for Rational ClearCase, which is available from the Help.

Build Enhancements

The following is a summary of build-related enhancements. For more information, see *Building Software*.

- For Java builds, the **clearmake** command offers a special makefile target: **.JAVAC**. This feature enables **clearmake** to use heuristics to determine class dependencies from audits of Java compiles in dynamic views. These dependencies are stored in .class.dep files for future **clearmake** runs. They allow **clearmake** to build **.class** targets in the same order as the Java compiler does, which, in turn, enables winkin of derived objects.
- There are new environment variables:
  - CCASE_NO_DIRENT_CACHE forces **clearmake** to obtain the status of files individually by pathname when attempting to apply a suffix rule. Thus, when

a view selects no version of an element, **stat** fails to match, and **clearmake** does not apply a suffix rule for that file.

- CCASE_NO_ESC_PATT_CHARS overrides the backslash (\) as an escape character for any subsequent special character in **clearmake –C gnu** builds. For more information, see the **env_ccase** reference page.
- OMAKE_8.3_RSP_FILES directs **omake** to generate response files with 8.3 character file names. In addition, the limit of generated response file names has been increased from 100 to 1000.

- The flags **-A** and **-B** have been added to the list of flags that can be passed through MAKEFLAGS and picked up by submakes.
- The **clearmake** command supports the following long command line options in GNU compatibility mode (see the **makefile_gnu** reference page): **– –debug**, **– –directory**, **– –dry-run**, **– –environment-override**, **– –file**, **– –ignore-errors**, **– –include-dir**, **– –just-print**, **– – keep-going**, **– –makefile**, **– –no-builtin-rules**, **– –no-builtin-variables**, **– –no-print-directory**, **– –print-data-base**, **– –print-directory**, **– –question**, **– –quiet**, **– –recon**, **– –silent**, **– –warn-undefined-variables**.
- The **clearmake** command includes a **-v** level debug message so that the output from distributed builds includes the name of the .bldhost file that is being read.
- The **catcr –recurse –long** command prints the extended path of the DO that caused the config record to be written.
- The **rmdo** options **–before** and **–since** remove DOs before and since a specified date, respectively.

New and Enhanced Integrations

This section describes integrations that are new or enhanced in this release.

VS.NET

ClearCase is integrated more fully with Microsoft VS.NET than with its predecessor product, Visual Studio. This integration supports the UCM and base ClearCase process models that use either dynamic and snapshot views, with and without Rational ClearQuest.

The ClearCase-ClearQuest integration is also available in VS.NET. You can use these products separately or link them through UCM. With the UCM configuration, you can work on activities and manage change requests concurrently within the VS.NET IDE.2.

Highlights of the integration include the following:

- Whether you are working in UCM or Base ClearCase, the toolbar displays only the operations that are relevant to the process you use.
- A Front Desk utility retains a list of the most recently used views or activities associated with the VS.NET project.
- The integration includes context sensitive menus from within the VS.NET Solution Explorer.

For more information, see the Help for CC.NET.

WebSphere Studio

This release introduces the integration of ClearCase with WebSphere Studio. The integration supports WebSphere Studio versions 4 and 5.0 running on versions 1.0, 2.0, and 2.1 of the Eclipse shell. For more information, see the Help.

Sybase PowerBuilder Enhancements

This release adds support for PowerBuilder 8.0. The integration has also been enhanced to make the application path persist across sessions. For more information, see the Help.

Forte for Java

This release introduces the integration of ClearCase with Forte for Java version 3.0. For more information, see the Help.

JBuilder

This release provides support for Borland JBuilder versions 5, 6, and 7. For more information, see the Help.

Microsoft Office

This release provides support for Microsoft Office 2000 and XP.

UCM-ClearQuest Integration

This release includes the following enhancements to the UCM-ClearQuest integration:

- CAL API Calls. Seven calls have been added to the ClearCase Automation Library (CAL) API for administrators who want to customize the behavior of the integration. These calls return information about UCM objects in a project enabled

for ClearQuest. Administrators can include the CAL calls in ClearQuest hook scripts to enforce development policies. For more information, see the Help.

- Performance enhancement. This release incorporates changes that reduce the communications overhead between ClearCase and ClearQuest.
- During a **deliver** operation in a project enabled for ClearQuest that has set the policy **Transition to Complete After Delivery**, if any of the activities being delivered is set to a view, the integration unsets the activity from that view after it transitions the activity to a **Complete** type state. For more information, see *Managing Software Projects*.
- Format options implemented for this integration enable you to determine the view set to the UCM activity (**%[view]p**), the ClearQuest record type (**%[crm_record_type]p**), the likeliest view for resolving the names of versions in a change set (**%[name_resolver_view]p**), and the name of the ClearQuest database (%**[crm_database]p**). See the **fmt_ccase** reference page.
- New policies provide more flexibility in controlling the behavior of projects enabled for ClearQuest. For more information, see *Managing Software Projects* and the Help.

Base ClearCase-ClearQuest Integration

- This integration supports the association of multiple file imports (by **clearfsimport**) with a single change request. For more information, see the **clearfsimport** reference page.
- Enhanced capabilities for making ClearQuest associations. The integration lets you specify a file's association with a defect or defects by using **checkout** or **checkin** comments that contain a text pattern specified in the environment variable CQCC_COMMENT_PATTERN, or obtain a list of files to associate with a defect from the environment variable CQCC_AUTO_ASSOCIATE. For more information, see the file *ccase-home-dir*\lib\perl5\CQCCTrigger\CQCC\README.

UCM Enhancements

This release includes the following enhancements to UCM:

- **Single-stream projects.** Customers who prefer a serial, rather than a parallel, development environment can use single-stream projects. A single-stream project contains one stream: the integration stream. Developers join the project by creating an integration view attached to the integration stream. Because developers work directly on the integration stream, they do not perform **deliver** or

rebase operations. We recommend single-stream projects only for small teams of developers who work closely together.

- **Read-only streams.** You can designate specific streams as read-only to prevent developers from making changes to the stream's components. For example, you might create a read-only stream for your release engineering team members so that they can access a set of baselines without inadvertently making changes to components.
- **Support for multiple PVOBs that share components.** Projects within two or more PVOBs may reference some of the same components. To handle the common global types, administrators must link the PVOBs to an administrative VOB or a PVOB that acts as an administrative VOB. This feature supports the use case in which two project teams working in different PVOBs combine their work and need to share components.
- **Baseline naming templates.** Project managers can specify a template to be used in naming baselines within a project. They construct a baseline naming template by choosing tokens that represent variables such as project name, component name, date, and so on.
- **Performance enhancements.** This release incorporates changes that reduce the processing and communications overhead for almost all UCM operations.
- **Format options for object properties.** Formatting options for UCM object properties enable you to output the initial baseline of a component (**%[initial_bl]Xp**), the activities of a baseline (**%[activities]Xp**), the promotion level of a baseline (**%[plevel]p**), the promotion levels defined in the PVOB (**%[plevels]**), and whether or not a stream is read-only (**%[read_only]p**). See the **fmt_ccase** reference page.
- **Delivering the current activity.** The **–cactivity** option for **deliver** specifies that the currently set activity is to be delivered. See the **deliver** reference page.
- **Determining baseline membership.** The **lsbl** command supports the options **–member_of** and **–recurse**, which enable you to determine whether a baseline is a member of a composite baseline. See the reference pages for **lsbl** and **fmt_ccase**.
- **Displaying the activities of a delivery.** In the Compare Baselines GUI, you can right-click a **deliver** integration activity on the Activities tab and select **Show Contributing Activities** from the shortcut menu to show the contributing activities that were included in the **deliver** operation.

  For integration activities in projects enabled for ClearQuest, you can click **Actions > Contributors** on the ClearQuest record form to display the activities that were included in the **deliver** operation.

- **Using lsproject to display ClearQuest policies.** The **lsproject –l** command displays ClearQuest policies for a project that is enabled for ClearQuest. For more information, see the **lsproject** reference page.
- **1024–byte object names.** The**cleartool** interface supports object names of up to 1024 bytes in length (Windows imposes a limit of 260 bytes). Although this enhancement is not specific to UCM, it is of particular interest to UCM users, who must contend with long, generated object names. Note that the GUIs do not support 1024–byte object names. For information on object naming, see the **cleartool** refernce page.
- **Checking PVOB/component relationships.** The **checkvob** command incorporates functionality for detecting and repairing relationships among a PVOB, a project's components, and for projects that are enabled for ClearQuest, the ClearQuest user database. For more information, see the *Administrator's Guide* and the **checkvob** reference page.
- **Listing activities by user.** You can use the **lsactivity** command to list only those activities that are owned by a specified user. See the **lsactivity** reference page.
- **Checking in all versions in an activity's change set.** In the Project Explorer, you can right-click an activity and select **Checkin All** from the shortcut menu to check in all versions in the activity's change set. In projects that are enabled for ClearQuest, you can click **Finish Activity** from an activity's shortcut menu. This checks in all versions and performs ClearQuest actions, such as transitioning the activity to a Complete type state, based on the project policies that were set.
- **New Events.** There are new events that support UCM operations. See the **events_ccase** reference page.
- **Changes to VOB Creation Wizard and Project Explorer.** These GUIs support the creation of multiple components that are stored in the same VOB.

For more information, see *Managing Software Projects*, the reference pages cited in this section, and the Help.

Miscellaneous Enhancements

This section describes miscellaneous enhancements in this release.

- **Uncataloging elements that have checkouts.** By default, the **rmname** operation behaves correctly by failing when the element specified to be uncataloged is checked out. See the **rmname** reference page.
- **Creating elements in view-private directories.** The **mkelem** command supports a **–mkpath** option that creates an element from a view-private file or directory that resides in a view-private directory. The distinctive behavior of this option is that it

also creates elements from all view-private directories in the element path. See the **mkelem** reference page.

- **Handling white space during merges.** In previous releases, you could ignore white space when using **cleardiff** by means of the **–blank_ignore** command-line option or the **Ignore white space during merge** option in the Diff Merge Properties window. However, in graphical mode the option was supported only for comparisons, not merges. At this release, the **Ignore white space** option is available during a merge. In addition, the command option **–favor_contrib** enables you to specify a contributor to be used for white space formatting of unchanged lines. For graphical merges, the **cleardiff** GUI displays a list of contributors (**Take white space changes from:**) from which you can select one to be used for white-space formatting. See the Help and the reference page for **cleardiff**.
- **MVFS performance tuning.** The **getcache** and **setcache** options **–mvfs –persist** enable you to specify MVFS cache settings that persist across restarts of the MVFS. For more information, see the reference pages for **getcache** and **setcache** and the Help for the ClearCase **Control Panel**. In addition, MVFS performance has been enhanced so that it scales better on systems with large memories, including those hosting dynamic views.
- **WTS support of dynamic views.** Dynamic views are now supported on Windows 2000 Terminal Servers.
- **CLEARCASE_GROUPS environment variable.** The environment variable, CLEARCASE_GROUPS, can be used to specify a list of up to 32 groups that ClearCase considers first when determining or displaying which groups a user belongs to. For more information, see the *Administrator's Guide* and the **env_ccase** reference page.
- **Printing differences in contributors.** The **Diff Merge** GUI now allows you to print the differences in contributors and includes options to control the layout. See the Help for details.
- **Manual merges for graphical rebase operations.** The **Rebase Stream Preview** dialog box incorporates a new option, **Merge elements graphically**. This option disables automatic merges, allowing you to merge element versions graphically, even if there are no conflicts. See the Help for details.
- **XDE and Rose element types.** This release introduces the element types **xde** (for Rational XDE) and **rosert** (for Rational Rose RealTime). For more information, see the **type_manager** reference page.
- **Type managers for XDE Tester.** This release introduces the XDE Tester type managers **_rftdef**, **_rtfmap**, and **_rftvp**. These type managers are versions of the **binary_delta** type manager.

- **New.Net detection by CC Doctor.** The New.Net third-party plug-in software is known to have compatibility problems with ClearCase. CC Doctor now detects and reports the presence of this software.
- **Object name restriction relaxed.** The restriction on object names that disallowed numerics values has been relaxed such that only integers are disallowed. The data converters—the commands that are prefixed **clearexport_**–have been modified to take advantage of this change. For information about object naming rules, see the **cleartool** reference page.

Announcements

This section contains announcements, as follows:

- *Status of the Feature Level*
- *End of Support for ClearCase Attache Software*
- *Distribution of Perl Extension*
- *Perl Software Distributions in This Release*
- *UCM-ClearQuest Integration Support for UCM Packages*
- *Miscellaneous Announcements*

Status of the Feature Level

This release introduces feature level 4. Table 1 shows all supported feature levels and the versions at which they were introduced.

Table 1 Feature Levels and ClearCase Versions

Feature level	Introduced in version
2	4.0
3	2002.05.00
4	2003.06.00

Feature level 3 placed constraints on client/server compatibility in UCM environments. Feature level 4 introduces no additional constraint; it is equivalent to feature level 3 in terms of PVOB client/server compatibility. For information on feature level 3, see the Version 2002.05.00 *Release Notes* for your product. Also note that read-only streams and single-stream projects are restricted to PVOBs at feature levels 3 and higher (see the reference page for **mkstream**).

Raising the feature level to 4 (or in the case of a replicated VOB, raising the VOB family to feature level 4), results in the following changes in the VOB:

- The predefined element types **xml**, **html**, and **rose** (if they exist) are renamed to **xml_v5.0**, **html_v5.0**, and **rose_v5.0**, respectively. Similarly, element type names that you have changed are renamed to *name*_**v5.0**. The **v5.0** types lose their status as well-known element types. Accordingly, when you create new elements, the file-to-type mapping mechanism no longer treats these types as the defaults (see the **cc.magic** reference page). The type of an existing element does not change; however, you can use **chtype** to change it.
- The new predefined element types **xml**, **html**, and **rose** are created. The purpose of replacing these types is to base the type managers on the **binary_delta** type manager instead of the **text_file_delta** manager. The **cc.magic** file maps new elements to these types by default.
- The element type **xde** is created.

For instructions about raising the feature level of an unreplicated VOB, see the **chflevel** reference page.

For instructions about raising the feature level of replicated VOBs, see the *Administrator's Guide* for ClearCase MultiSite. Note that in a VOB family, the replica that masters the VOB object must master the element types **xml**, **html**, and **rose**.

End of Support for ClearCase Attache Software

At this release, Rational ClearCase Attache is no longer a supported product.

Distribution of Perl Extension

ClearCase::CtCmd is a Perl extension that takes **cleartool**–like arguments. **ClearCase::CtCmd** takes a string or an array as an input argument and returns a three-element Perl array, as follows: a status bit, a scalar string corresponding to **stdout**, and any error message corresponding to **stderr**. This Perl extension and its documentation are available from www.cpan.org.

Note: After upgrading to Version 2003.06.00, you must rebuild **ClearCase::CtCmd** to account for the addition of new libraries and symbols to ClearCase

Perl Software Distributions in This Release

Beginning with this release, Perl 5.6.1 is distributed with ClearCase. Perl 4 has been removed from this release. For backward compatibility, this release also includes a modified version of Perl 5.001m. To use 5.001m instead of Perl 5.6.1, set CCASE_USEPERL5 to a nonempty string (see the **env_ccase** reference page). To verify the version that is being invoked, type **ccperl –ver**.

In conformance with the Artistic License Agreement under the terms of which Perl is distributed,Table 2 describes the modifications that were made to Perl 5.6.1.

Table 2 Modifications to 5.6.1 Perl Distribution

Reason for modification	
Modification	**Source file modified**
Changes to accommodate Rational installation structure	
Customize install path	win32/config.vc, win32/cinfig.bc, win32/config.gc
Customize **@INC**	win32/win32.c
Use Rational naming conventions	
Specify **ratperl** in .def	makedef.pl
Use "ratl" name and Rational install path	win32/Makefile, win32/config.bc

Likewise, in conformance with the Artistic License Agreement Table 3 describes the modifications that were made to Perl 5.001m.

Table 3 Modifications to 5.001m Perl Distribution

Reason for modification	
Modification	**Source file modified**
Accommodation of underlying C library changes or other OS changes	
Use **tempnam** instead of **mktemp**	perlexe.cpp
Building with DLL version of C library	perl.h
Use **open_osfhandle**, so we don't need to rely on libc	perlexe.cpp
Changes to accommodate Rational installation structure	
Have **NtGetSiteLib** use CLEARCASE_HOME	ntxs.cpp
Use Rational naming conventions	
perl.exe, **perlglob.exe** become **ccperl.exe**, **ccperlglob.exe**	pp_hot.cpp
New functions and other changes needed by the embedded ClearGuide interpreter	
PerlRequire, **PerlClearAv**, **PerlPushAv**, **PerlUnshiftAv**, **PerlCreateSv**	perllib.cpp, perlexe.cpp, perllib.h
Changes related to ClearGuide modules	
Fix for **load_process_family_source**	Getopt/Long.pm

Table 3 Modifications to 5.001m Perl Distribution (Continued)

Reason for modification	
Modification	**Source file modified**
Inclusion of changes/upgrades from public domain to sources	
5.002 **PerlEval**	perllib.cpp
Defect fixes independent of public domain	
Fix of crash in catch in **PerlRequire**	perllib.cpp
Not getting **$@** or return value	perllib.cpp
Change in build or test environment to Perl modules as shipped	
Fix autoloading	ParseWords.pm
Version related changes	
Remove v5.004 test	HTML.pm, Entities.pm
Remove **use strict** for use by Perl 5.001m	HTML.pm, Parser.pm
Remove **use strict** for use by Perl 5.001m	Date.pm, Parse.pm
Changes to NT modules	
Incorporate **Net::SMTP**	Mail.pm, Mailer.pm
Make it work with NT Perl 5.001m	Net.pm, SMTP.pm
Make it work with NT Perl 5.001m	Time.pm, Zone.pm

This release is the last major release that includes 5.001m. The unmodified sources for Perl versions 5.001m and 5.61, as well as the binaries built from them, are archived at ftp.rational.com. A link to the archive can be found at www.rational.com/support/downloadcenter/index.jsp.

UCM-ClearQuest Integration Support for UCM Packages

In the **Project Properties** and **New Project Wizard** GUIs, the **ClearQuest** page displays the policies that are appropriate for the UCM level of the ClearQuest user database associated with the project. If the ClearQuest user database uses the revision 5.0 UCM package (corresponding to Version 2003.06.00), the available policies are as documented in the Help and in *Managing Software Projects*.

If the ClearQuest user database uses an earlier UCM package, the available policies are as follows:

- For UCM package revision 2.0:

- **Check assignment before WorkOn**
- **Check before ClearCase delivery**
- **Do ClearQuest action after delivery**

- For UCM package revisions 3.0 and 4.0:
  - **Check assignment before WorkOn**
  - **Check before ClearCase delivery**
  - **Check ClearQuest mastership before delivery**
  - **Do ClearQuest action after delivery**

Miscellaneous Announcements

This section contains miscellaneous announcements about this release.

New Install

The install program is new; for complete information, see the *Installation Guide*.

Change in Installation Directory

In previous releases, the name of the installation destination directory that you specified included the name of the product, "ClearCase." In this release, you should specify only the name of the directory in which the ClearCaseClearCase LT directory is to be created. The standard location for this directory is *drive*\Program Files\Rational. If you specify ClearCase in this path, the product is installed in *drive*\Program Files\Rational\ClearCase\ClearCase.

Separate sitedef Files for Servers and Clients

In previous releases, one sitedef file held default values for both servers and clients. In this release, you create separate sitedef files for servers and clients.

CLEARCASE_OBSO_SYN Not Supported

The environment variable, CLEARCASE_OBSO_SYN, is not supported in this release.

Removal of the Term "atria"

The following change was made to remove the term "atria":

- The environment variable ATRIAHOME has been renamed CLEARCASEHOME.

End of Support for 16–Bit Build Auditing

16–bit build auditing is no longer supported.

Name of Microsoft Word Integration dll changed

The name of the dll install file has been changed from CCWordIntegration.dll to ccmsoaddin.dll, and the integration has been expanded to include Microsoft Excel and PowerPoint.

Available Versions of ClearCase–ClearQuest Integrations

The ClearQuest Configuration tool (**cqconfig**) offers the administrator a choice of the V1 (previous) integration or the V2 (new) integration implementation allowing administrators to migrate to the new integration as appropriate. The default values were set to **V2** on UNIX (because V2 was a superset of the V1 implementation) and to **V1** on Windows (because the V1 integration had a GUI interface that V2 initially lacked). In this release, the V2 GUI is now available in all circumstances making it as functionally complete as the V1 Windows integration. Accordingly, the default for Windows is now set to **V2**. Administrators can still select **V1**.

Browser Support for ClearCase Web Interface

The Web interface no longer supports Netscape 4.7; use Netscape 7 instead.

The Web interface supports Internet Explorer Versions 5.5 and 6.0 running either the Microsoft JVM or the Sun Microsystems JVM, Version 1.4.0 or later.

Changes to the Commands

This section describes changes to the ClearCase command set.

New Commands

This release introduces no new commands.

New Options and Arguments

Table 4 lists new options and arguments to commands.

Table 4 New Options and Arguments

Command	New option/argument	Use
chactivity	**–view** *view-tag*	Transitions an activity in the specified view.
	–cqaction { **–cact** | *activity-selector ...* }	In a single-stream project, checks in the versions in the change set of an activity and closes the activity if the relevant ClearQuest policies have been set.
checkvob	**–ucm**	Runs **checkvob** in UCM mode.
	–view *view-tag*	Uses the view specified in *view-tag*.
	–log *log-dir-pname*	Specifies an alternative directory for the log file directory.
	–fix [**–force**]	Directs **checkvob** to try to correct any problems it finds. Without **–force**, **–fix** prompts you before fixing any problem object.
	–verbose	Specifies verbose output.
	–crm_only	Examines only references to records in a ClearQuest database
	–vob_only	Examines only references to objects in components.
	–component *component-selector*	Further restricts a **–vob_only** check to the component specified by *component-selector*
	object-selector...	Specifies the object types that are to be checked.
	–crm_dbname *user-database-name*	Checks the references held in the ClearQuest database specified by *user-database-name*.
	–activity *cq-display-name*	Checks the references held by the activity record specified in *cq-display-name*.
	–project *cq-display-name*	Checks the references held by the project record specified in *cq-display-name*.
chproject	**–blname_template** *baseline-naming-template*	Defines the baseline name template for a project.

Table 4 New Options and Arguments (Continued)

Command	New option/argument	Use
chstream	**–cview**	Specifies the stream connected to the current view to be modified.
deliver	**–reset –to** *integration-view-tag*	Resets a new integration view so you can cancel, resume, or complete a **deliver** operation after the integration view is lost during a **deliver** operation.
	–cactivity	Specifies that the currently set activity is to be delivered.
diff	**–tiny**	Same as **–window**, but uses a smaller font in a 165-character difference window.
	–window	Displays output in a separate difference window.
diffbl	**–nmerge**	Specifies that no merge is to be performed.
getcache	**–persistent**	Displays only those values which have been set to persist across MVFS restarts.
lsactivity	**-me**	Displays activities owned by the current user.
	–user *user*	Displays activities owned by the specified user.
lsbl	**-member_of** [–**recurse**]	Used by itself, displays the composite baselines of which each baseline is a direct member. Used with the **-recurse** option, displays all baselines of which each baseline is a direct or indirect member.
lsstream	**–in** { *project-selector* | *stream-selector* }	Displays a list of all streams for the specified project, or a list of child streams for the specified stream.
mkbl	**–view** *view-tag*	Specifies the view from which to create baselines.
mkdir	**–master**	Assigns mastership of the **main** branch of the directory element to the VOB replica in which you execute the **mkdir** command.

Table 4 New Options and Arguments (Continued)

Command	New option/argument	Use
mkelem	**–mkpath**	For an element that is being created from a view-private file or directory, this option creates elements from its view-private parent directories.
mkproject	**–model** { **SIMPLE** | **DEFAULT** }	Sets the project model. **SIMPLE**: A single-stream project; **DEFAULT**: A multiple-stream project.
mkstream	**–readonly**	Creates a read-only stream.
protectvob	*pname-in-vob*	Pathname of the VOB tag or of any file system object within the VOB.
rmdo	**-before** *date-time*, **–since** *date-time*	Deletes DOs at the specified pathname that were created before or since the specified date and time.

Table 4 New Options and Arguments (Continued)

Command	New option/argument	Use
setcache	**–persistent**	Specifies that all options will be applied immediately and also set persistently.
	–persistent_only	Specifies that all options will be set persistently but will not take effect until the MVFS is restarted.
	–vobfreemax *cnt*	Sets the maximum number of free (unused) attribute cache entries.
	–cvpfreemax *cnt*	Sets the number of entries in the cleartext cache.
	–vobfreemin *cnt*	Sets the minimum number of mnodes to keep on the VOB free list.
	–cvpfreemin *cnt*	Sets the minimum number of mnodes to keep on the cleartext free list.
	–mnmax *cnt*	Sets the initial number of mnodes cached by the MVFS.
	–cto	Enables close-to-open consistency checking.
	–ncto	Disables close-to-open consistency checking.
	–acache	Enables attribute caching.
	–nacache	Disables attribute caching.
	–dncache	Enables directory name caching.
	–ndncache	Disables directory name caching.
	–rlcache	Enables readlink caching.
	–nrlcache	Disables readlink caching.
	–rvcache	Enables root version caching.
	–nrvcache	Disables root version caching.
	–readdir_blocks *cnt*	Sets the number of blocks cached for each directory read by the MVFS.
	–scalefactor *val*	Sets the scaling factor used to initialize the MVFS with more memory for better performance.

Obsolete Commands

All ClearCase Attache commands are obsolete at this release.

Obsolete Options and Arguments

All ClearCase command options and arguments that were specific to ClearCase Attache are obsolete at this release.

The *dir* argument to **annotate** and the **–glossary** option for **apropos** are obsolete.

Changes to Command Output

Significant changes to command output are as follows:

- The event comment for the **rmname** operation has been changed from `Removed file element` to `Uncataloged file element` in order to reflect the nature of the operation more accurately and distinguish it more clearly from the **rmelem** operation.
- Output from the **schedule** command uses ISO dates regardless of any specified date format preference.
- For attribute types, hyperlink types, and label types, the **describe** command shows the instance mastership of the type, whether or not the VOB is replicated.

Changed Commands

Commands that have changed in one or more respects are as follows: **annotate**, **apropos**, **chactivity**, **checkvob**, **chproject**, **chstream**, **deliver**, **describe**, **diff**, **diffbl**, **find**, **getcache**, **getlog**, **lsactivity**, **lsbl**, **lsstream**, **lstype**, **man**, **mkbl**, **mkdir**, **mkelem**, **mkproject**, **mkstream**, **protectvob**, **rebase**, **rmdo**, **rmname**, **schedule**, **setcache**. For details, see the corresponding reference pages.

Changes to the Documentation

This section describes noteworthy changes to the documentation.

HTML Help

Most Help, including reference pages, is HTML.

Command Reference

The following reference pages have been removed from the *Command Reference*:

- ClearCase Attache reference pages have been removed.
- The reference pages for **mvfscache** and **mvfsstat** have been removed; see the *Administrator's Guide* for information about these commands.
- The reference page for **ClearCase::CtCmd** has been removed; for information about this Perl extension, see the Comprehensive Perl Archive Network (www.cpan.org).

Administrator's Guide

The *Administrator's Guide* contains new information about backing up and restoring ClearCase and ClearQuest data together.

Tutorial

The script-driven tutorial has been replaced with an HTML tutorial without scripts.

Managing Software Projects

A platform-independent edition of *Managing Software Projects* replaces the separate UNIX and Windows editions that were published at earlier releases.

Location of Files

Manuals in Portable Document Format (PDF) are installed in *ccase-home-dir*\doc\books. In previous releases, they were installed in *ccase-home-dir*\bin.

Most Help files are installed in *ccase-home-dir*\doc\help. In previous releases, they were installed in *ccase-home-dir*\bin.

What's New in MultiSite

2

This chapter summarizes new and changed features in Version 2003.06.00 of Rational ClearCase MultiSite. For more information, see the *Administrator's Guide* for Rational ClearCase MultiSite and the Help for MultiSite.

Preserving Permissions in Replicas

You can create new replicas or change existing replicas to preserve permissions. These replicas synchronize changes to element permissions, but do not synchronize changes to element ownership. You must raise the VOB family feature level to 4 in order to change a replica in the family to a permissions-preserving replica or to create a new permissions-preserving replica.

Note: To prevent metadata divergence, the **protect** command fails if you use the **–chmod** option, you specify an object in a permissions-preserving replica, and your client host is running a version of ClearCase associated with feature level 3 or lower. Trigger scripts that run the **protect –chmod** command fail in this situation.

Replicating a VOB to a Host Running an Earlier Major Version of ClearCase

You can replicate a VOB to a host running an earlier major version of ClearCase if the feature level of the VOB or VOB family is the same as the feature level of the ClearCase release on the target host. For example, if a host is running ClearCase Version 2003.06.00 with a VOB at feature level 2, you can replicate that VOB to a host running ClearCase Version 4.2, which is associated with feature level 2.

Setting a Timeout Period for Unreachable Hosts During Shipping Server Operation

The Rational Shipping Server can determine whether a target host was unreachable during a previous shipping attempt and avoid sending packets to unreachable hosts

during a specified timeout period. For more information, see the **shipping.conf** (UNIX) or **MultiSite Control Panel** (Windows) reference page.

Changes to Graphical Interface

The MultiSite Control Panel contains the following new fields:

- A field that specifies a program to use for e-mail notification. The default is *ccase-home-dir*\bin\notify.exe.
- A field that specifies a period of time to avoid sending packets to unreachable hosts.

Changes to Commands

Table 5 lists options and arguments that are new in this release.

Table 5 New Options and Arguments in MultiSite Version 2003.06.00

Command	New option or argument	Description
chreplica	**–perms_preserve**	Causes the replica to preserve permissions.
man	**contents**	Displays the HTML table of contents for MultiSite.
mkdir (**cleartool**)	**–master**	Assigns mastership of the main branch and any other branches created during element creation to the replica in which you execute the **mkdir** command.
mkreplica	**–perms_preserve**	Creates a replica that preserves permissions.
mkreplica	**–nprompt**	(Used with **–perms_preserve**) Suppresses the prompt.

Changes to Command Syntax

The **apropos** command no longer supports the **–glossary** option.

Changes to Command Behavior

In previous releases, if **syncreplica –import** tried to import an oplog for an **rmreplica** operation, it could fail with the error `There are still objects mastered by this replica.` In this release, the replay of the oplog succeeds with a warning. This behavior was reported as CMBU00063297; RATLC00684693.

It is possible for the oplog for a **rmreplica** operation to be replayed at a sibling replica before the last packet from that replica is imported at the sibling replica. In previous releases, **syncreplica –import** could fail with the error `Replica has been deleted` if it tried to import the packet after replaying the **rmreplica** oplog. In this release, the import will succeed with a warning. This behavior was reported as CMBU00063321; RATLC00684707.

When you delete the second-to-last replica in a family, the **rmreplica** command uses a series of write transactions to delete oplog entries. This behavior prevents the VOB database control files from becoming too large.

When the oplog entry for an **rmreplica** operation is replayed, no mastership checking is done. This change improves performance during packet import. This behavior was reported as RATLC00691265.

The Shipping Server sends packets in order of their creation time. They do not necessarily arrive at a destination site in that order. This behavior was reported as CMBU00065543; RATLC00686620.

Changes to Command Output

The following sections describe changes to command output.

The reqmaster Command

If you request mastership of a branch or branch type associated with a UCM stream, the **reqmaster** command fails and prints the following error message:

```
Requests for mastership of UCM objects are not supported.
```

The phrase “Mastership is in transit to the new master replica” has been added to the following **reqmaster** output messages:

```
Change of mastership at host "host" was successful.
Change of mastership at sibling replica "replica-name" was successful.
```

shipping_server No Longer Prints Message About Port Range

In previous releases, when you used **shipping_server** on a firewall and the **shipping_server** used a port number in the Registered Ports range (1024 through 49151), the **shipping.conf** parser printed a message recommending that you use a value in the Dynamic/Private Port Range (49152 through 65535). In this release, the

message is not printed, but Rational still recommends that you use a value within the Dynamic/Private Port Range.

The describe Command

For attribute types, hyperlink types, and label types, the **describe** command shows the instance mastership of the type, even if the VOB is not replicated.

For replica objects, the **describe –long** command contains two lines that describe the replica's preservation mode. In previous releases, the output contained the line `identities: preserved` or `identities: not preserved`. In this release, it also contains the line `permissions: preserved` or `permissions: not preserved`.

Restrictions and Guidelines for Using ClearCase

3

This chapter explains restrictions and guidelines affecting the use of Rational ClearCase Version 2003.06.00 software that are considered noteworthy. These are not necessarily considered defects because the behavior reported is not expected to change in a future release of the product.

This chapter also describes significant problems with the documentation and includes documentation that was inadvertantly omitted from the manuals or Help.

Copyright Information

In some cases, you will not be able to view the Rational copyright information online. If you want to see this information, you can find it on the ClearCase product CD under doc/windows/legal_information.html.

Install-Related Restrictions

This section describes restrictions related to the installation of ClearCase.

Installer Incompatible with Windows Change Journal Feature

File system corruption can sometimes result from installing ClearCase on Windows 2000 to an NTFS partition that has the Windows **Change Journal** log enabled on it. We are working with Microsoft to fix the problem.

Before installing ClearCase onto a Windows 2000 system, read Rational Solution 182435434 at http://solutions.rational.com/solutions/display.jsp?solutionId=182435434. Alternatively, you can search for the text *change journal* in the Rational Solutions Knowledge Base at http://solutions.rational.com/solutions.

ClearCase Web

This section describes limitations on and guidelines for using the ClearCase Web product.

Comparing Unicode Files Across Multilanguage Platforms

For a Unicode file to be processed correctly when using the **compare** operation across multilanguage platforms, the file needs a byte-order mark, as follows:

File encoding	Byte-order mark
UTF-8	EF BB BF
UTF-16/UCS-2, Little Endian	FE FF
UTF-16, UCS-2, Big Endian	FF FE
UTF-32/UCS-4, Little Endian	FF FE 00 00
UTF-32/UCS-4, Big Endian	00 00 FE FF

Load Rule Scopes

For the Web interface, snapshot view config spec load rules are specified differently from the way they are specified for the native interface. The keyword **load** is not needed in the **Load rule scopes** portion of the config spec for the Web client.

Compare/Merge Operations Limited to text_file Elements

The **Compare** and **Merge** operations are limited to elements of type **text_file**. Attempts to perform these operations on other types will fail.

Using Special Characters on Non-ASCII Operating Systems

Using special characters on non-ASCII operating systems can cause server output to be corrupted or the server to crash.

For example, the Shift-JIS double-byte tilde character (**FULLWIDTH TILDE**), which is used to indicate “Copy of” in the Japanese Windows environment, can cause this problem. The problem originates in differences between the Unicode conversion tables used by ICU (the publicly available Unicode software currently used by the Web interface) and the base operating system. The ICU Shift-JIS conversion table maps **FULLWIDTH TILDE** to **WAVE DASH**.

Setting Permissions for Temporary File Directory

The server-side CGI process needs access to a directory in which it can create temporary files. The default on Windows is `c:\`. If the permissions on this directory do not allow everybody to create files in it, obscure failures occur, often with the error message, `Operation "fileutl_tmpfile_ext_binary" failed: Permission denied.` To avoid this problem, create a directory on the server with permssions that are set to allow everybody access to create files

there. Then add a directive like the following to the RWP configuration file: **SetEnv TMP d:\temp**. The RWP configuration file is normally stored at c:\Program Files\Rational\common\rwp\conf\rwp.conf.

Relationship Between Pathnames and Hyperlinks

Pathnames that refer to files in your Web view are normally presented as hyperlinks. However, the Netscape 7 and Mozilla browsers enforce more stringent security restrictions than do other browsers. In these browsers, pathnames are not presented as hyperlinks because they cannot be traversed.

Platform Recommendations for Best Performance

For best performance, we recommend running the Web interface on Windows 2000, Windows XP, or Windows NT.

Handling SSL Warnings

When running the Web interface under SSL, the browser displays warning messages such as `You are leaving a secure site`. For example, in the VOB View, this may happen when you click a file name to view the file. The reason for the warning message is that a new window is launched to view the local file under the file protocol rather than under https. However, if you choose to view the same file by clicking **View** on the Properties page, a new window is launched under https, returning to the server, and the warning message does not appear.

You can safely ignore these warning messages because all client-server communications in the Web interface are encrypted. To disable the warning messages, use one of the following procedures:

On Mozilla and Netscape 7

1. Click **Edit > Preferences > Privacy & Security > SSL**.
2. In the SSL Warnings section of the SSL page, clear all check boxes.

On Internet Explorer

1. Click **Tools > Internet Options**.
2. On the Internet Options page, click the Advanced tab.
3. In the Security section, clear the check box that is labeled **Warn if changing between secure and not secure mode**.

Note that when running Internet Explorer 6 on Windows XP, you cannot disable these warning messages when the displayed page has content from both secure and insecure sources.

Web Client Can Be Very Slow When Browsing Large Directories

The Rational ClearCase Web client can be very slow when browsing large directories, especially when your client PC has a slow CPU or limited RAM. For example, on an 800 MHz PC with sufficient RAM, a 1500 entry directory can take approximately 2 minutes to render.

To work around this situation, use one of the following workarounds:

- Smaller directories
- A client PC with a faster processor speed
- If you are running ClearCase Version 2003.06.00, a Mozilla based browser. Mozilla based browsers seem to be faster than Microsoft Internet Explorer when browsing large directories.

Browser Pop-up Windows

When using the ClearCase Web client, display of pop-up windows must be enabled in your browser.

ClearCase-ClearQuest Integration

This section describes restrictions that affect the ClearCase–ClearQuest integration.

Activity Link with ClearQuest Record (UCM-ClearQuest Integration)

When a ClearCase activity in a project enabled for ClearQuest is linked to a ClearQuest record, the **Name** of the ClearCase activity is set to match the ClearQuest record's ID. This allows you to access the corresponding activity when you are working on a defect by using the current defect number. For example, you can use the command, **cleartool setactivity** *ClearQuest-record-ID*.

We recommend that you do not change the name of a ClearCase activity, although ClearCase does not prevent that. If you change an activity name, you cannot use the **setactivity** command as already described.

Note that the **Headline** field for a ClearCase activity is synchronized with the corresponding field in a ClearQuest record. That is, if you change this field from within either ClearCase or ClearQuest, the corresponding field in the ClearQuest record or ClearCase activity is modified as well.

Registry Problem (Base ClearCase–ClearQuest Integration)

The original Windows version of the Base ClearCase-ClearQuest integration ("V1") may on occasion fail to see the expected ClearQuest database because of outdated

or incorrect description information that is maintained in the Registry. The error message that results is `"Error trying to logon to the ClearQuest database"`

If this occurs, do the following:

1. Using **regedit**, check the following registry entries and correct the information if necessary, where *version* is the ClearQuest version, for example, 2003.06.00 and *user* is the current user name.

```
HKEY_CURRENT_USER\Software\Rational Software\ClearQuest\2003.06.00\Common\CQIntSvr\marie
```

2. Using the Windows NT Task Manager or similar tool appropriate for your operating system, locate and end the process **cqintsvr11.exe**. The process restarts as needed and checks the registry for the latest values of the keys that were set in Step 1.

Permissions Problem (Base ClearCase–ClearQuest Integration)

A problem that is believed to originate in a Microsoft service pack can cause the Base ClearCase–ClearQuest integration to fail when a user logs on to a computer with an identity other than **Administrator**. The symptoms may include error messages such as `This program can only be run within a ClearQuest trigger` or `Automation error...library not registered`. To repair the problem:

On Windows 2000 and Windows XP systems

1. Log on to the system as **Administrator**.
2. Edit the registry using the **regedt23** command, select HKEY_CLASSES_ROOT, scroll down to **TypeLib**, and click it.
3. Select **Security** > **Permissions** from the main menu.
4. In the dialog box, add an entry for **Everyone** if this entry has not already been established.
5. Enable **Allow read** access for this entry.
6. Click **Advanced**, select **Reset Permissions** on all child objects, and enable propagation of inheritable permissions.
7. Click **Apply** and confirm the changes.

On Windows NT 4.0 systems

1. Complete steps 1 through 5 of the procedure for Windows 2000 and Windows XP systems.
2. Select **Replace Permission on Existing Subkeys**.
3. Click **OK** and confirm the changes.

Naming dbsets (UCM-ClearQuest Integration)

When assigning names to dbsets, follow these rules:

- If you have only one dbset, you can name it as you want.
- If you have multiple dbsets, the dbset that is to be associated with the integration should, if possible, be named the ClearQuest version that you are using; for example, **2003.06.00**.
- If you have multiple dbsets and none of them can be assigned the name of the ClearQuest version string, use the procedure that follows for naming the dbset that is to be associated with the integration.

1. Stop the clients.
2. Start the Windows registry editor.
3. Navigate to HKEY_LOCAL_MACHINE\Software\Atria\ClearCase\CurrentVersion.
4. Click CurrentVersion, click **Edit > New > Key**, and type **ClearCase Squid**. You should now have the new registry key, HKEY_LOCAL_MACHINE\Software\Atria\ClearCase\CurrentVersion\ClearCase Squid.
5. Click ClearCase Squid, click **Edit > New > String Value**, and type **DBSet** in the **Value Name** field of the Edit String properties sheet.
6. Type the name of the master database in the **Value Data** field on the Edit String properties sheet. You should now have a single string value named **DBSet** with the database name as its data.
7. Restart the clients.

Use of Rootless UCM Components

It is no longer possible to make a baseline in a rootless component that is not modifiable. Making a baseline of a composite component for the purpose of changing its members is regarded as making a modification in a component. A rootless component should be modifiable except in the following circumstances:

- The component is to hold only non-modifiable members.
- No baseline is ever to be made in the component.

Treatment of Time Stamps by Windows and UNIX

Windows commands that display time stamps adjust for daylight saving time based on the current DST setting rather than whether daylight saving time was in effect at the time of the file modification. This is a deliberate behavior. As a result, the time

stamp output from a Windows command for a given file may be different from that shown by **cleartool** or UNIX commands for the same file.

ClearCase Server Process User in an Active Directory Domain

In the current release, when working with nested and universal groups, a spurious failure may be reported when testing whether the **clearcase_albd** user account is in the ClearCase Administrators Group. The failure should be ignored. Also, the **setup** will not create an account in a domain that has a transitive trust with the current domain.

Adding a Large Number of Files from Windows Explorer

If you attempt to add a large number of files to source control from within Windows Explorer, the operation fails. To add a large number of files to source control, use the **cleartool mkelem** command instead.

MMC taskpads and the Admin Console

A defect associated with taskpads in the Microsoft Management Console, version 1.1 and 1.2, causes problems in the ClearCase Administration Console. The problem occurs when you follow this sequence of steps:

1. Select the **All VOBs** or **All Views** node from the navigation bar of the Administration Console. The program displays the associated taskpad.
2. Select a VOB or view tag from the taskpad list, and then click **Manage storage**.
3. After the storage for that node has been successfully displayed, click the MMC back navigation arrow to return to and display the previously selected taskpad.

The taskpad list is blank.

Use either of the following methods to work around the problem:

- In taskpad mode, select **ViewTaskpad** to turn off taskpad mode.
- Navigate to the taskpad with the back arrow and select **Refresh** from the **All VOBs** or **All Views** node.

Note that with MMC 1.1, resizing the console window refreshes the list; resizing has no effect in MMC 1.2

Checking In Identical .frm Files in Visual Basic 6.0

By default, ClearCase software does not create a new version of a file that is identical to its immediate predecessor. When you attempt to check in a .frm file that is identical to the checked-in version, the integration does not check it in. However, if the .frm file has an associated .frx file, the integration checks in the .frx file as a read-only file. To avoid this problem, set the option to allow identical checkins.

Displaying Logging Text Inside IDE

To enable logging text to be displayed inside an IDE, the user must set the registry key HKEY_CURRENT_USER\Software\Atria\ClearCase\CurrentVersion\SCC\DebugTrace = **1** (or = **3** for additional logging to a file). This logging mechanism works for any IDE that supports messages from an SCC provider.

The message `Not a VOB Object` appears if you click **Add to Source Control**. In this case, the SCC proceeds to add the element to source control.

Using Trend OfficeScan on MVFS Hosts

Customers who use Trend OfficeScan virus-scanning software on MVFS hosts should upgrade that product to scan engine version 6.570 build 1002 or later to avoid problems that could cause the MVFS to hang while a virus scan was active.

Problems with the Documentation

This section describes significant problems with the documentation and supplies documentation that is missing from the manuals or the Help.

Browsing the Documentation with Netscape Navigator

If you use Netscape to browse HTML documentation, we recommend Netscape 7.

Omissions from the Command Reference

The **diffbl** reference page does not describe the **-nmerge** option. The correct syntax for the first two usage modes of **diffbl** is as follows:

- Display differences between two baselines or streams nongraphically:

diffbl [**-activities**] [**-versions**] [**-baselines**] [**-first_only**]

[**-nrecurse**] [**-nmerge**] { *baseline-selector1* | *stream-selector1* } { *baseline-selector2* | *stream-selector2* }

- Display differences between the specified baseline and its predecessor baseline nongraphically:

diffbl -predecessor [**-activities**] [**-versions**] [**-nrecurse**]

[**-nmerge**] *baseline-selector*

The **-nmerge** option is used to compare two baselines on the same stream and reports only activity and version changes made on that stream.

The **protectvob** reference page does not describe the *pname-in-vob* argument. The correct syntax for this command is as follows:

protectvob [**-force**] [**-chown** *user*] [**-chgrp** group] [**-add_group** *group*[,...]

[**-delete_group** *group*[,...]] *vob-storage-pname* | *pname-in-vob* } ...

pname-in-vob can be the pathname of the VOB tag (whether or not the VOB is mounted) or of any file system object within the VOB (if the VOB is mounted). It cannot be the pathname of the VOB storage directory.

The **checkvob –ucm** command supports a **–verbose** option, which directs the command to generate more detailed output.

Omission from the Administrator's Guide

The information that follows was omitted from the *Administrator's Guide*.

If you install Rational Web Platform (RWP) on a host that was previously using a different HTTP server to support version 4.2 or version 2002.05.00 of the ClearCase Web interface and if that HTTP server must continue to run on that host to support other applications, you must do the following:

1. Ensure that RWP and the existing HTTP server do not have any port conflicts. (This topic is treated in the *Administrator's Guide*)
2. Reconfigure the existing HTTP server to redirect Web interface requests to RWP. See the documentation for your HTTP server for information on how to do this.

Omission from Managing Software Projects

The discussion of enabling a schema to work with UCM in *Managing Software Projects* for Rational ClearCase omits an important step: mapping states to state types.

When you apply the BaseCMActivity package to a schema, ClearQuest adds the BaseCMActivity record type. When you apply the UnitedChangeManagement (UCM)

packages to the schema, ClearQuest adds the UCMUtilityActivity record type. But when you attempt to check in the schema with these changes, ClearQuest displays a series of validation errors stating that you need to map BaseCMActivity states to the AMStates Types package.

You receive this error because, in applying the UCM package to the schema, ClearQuest also applied the AMState Types package. This behavior is not described in the *Administrator's Guide* for Rational ClearQuest or in *Managing Software Projects*.

Before you can check in the schema, you must map states to state types from the AMStates Types to the BaseCMActivity record type, as follows:

1. In ClearQuest Designer, click **Package > Setup State Types**.
2. In the Setup States Type dialog box, select a **State Type** for each **State** listed.
3. Click **Finish**.
4. Click **File > Check in** to record your changes in the schema.

For more information about mapping states and state types, see the *Administrator's Guide* for Rational ClearQuest. For more information about enabling the BaseCMActivity record type, consult the Rational Support Knowledge Database.

Restrictions and Guidelines for MultiSite

4

This chapter contains release notes for Rational ClearCase MultiSite Version 2003.06.00.

Running protectvob on Identities-Preserving Replicas

If you run **protectvob -chown** or **protectvob -chgrp** on a VOB replica that preserves identities, you must follow these steps to prevent owner or group metadata divergence among replicas in the VOB family:

1. Stop synchronization among identities-preserving replicas in the family. Make sure that all update packets have been imported.
2. Run **protectvob -chown** or **protectvob -chgrp** on all identities-preserving replicas in the family. You must use the same options and arguments in each command.
3. Restart synchronization.

If you do not change the owner or group at all identities-preserving replicas at the same time, metadata divergence can occur for the owner or group of new elements created at nonpreserving replicas. When the oplog entry for the new element is imported at an identities-preserving replica, the element's owner or group is the owner or group of the VOB at the time the entry is imported. If a change to the VOB owner or group has been made at other identities-preserving replicas, the element's owner or group will be different at the different replicas.

Problems with Documentation

If no receipt handler is defined for a storage class, but a default receipt handler is defined, the default receipt handler is invoked for packets in that storage class. The **shipping.conf** (UNIX) and **MultiSite Control Panel** (Windows) reference pages do not describe this behavior.

Status of ClearCase Software Change Requests

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Noteworthy problems found in or resolved in Version 2003.06.00 of Rational ClearCase are listed in the file cc_issues.htm.

You can find this file in two places:

- On your product CD, in the folder Rational\doc*platform*, where *platform* is an architecture mnemonic like ux (for UNIX computers) or nt (for Windows computers).
- In the folder *ccase-home-dir*\install\ after you install the product.

Status of MultiSite Software Change Requests

6

Noteworthy problems found in or resolved in Version 2003.06.00 of Rational ClearCase MultiSite are listed in the file ms_issues.htm.

You can find this file:

- On your ClearCase CD, in the folder Rational\doc*platform*.
- In the folder *ccase-home-dir*\install\ after you install the product.