Rational® ClearCase® and ClearCase MultiSite®

Release Notes

VERSION: 2003.06.00

UNIX EDITION

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HP-UX 11.0, 11.0 ACE, 11.11
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SGI IRIX 6.5.12 THROUGH 6.5.19
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RED HAT ENTERPRISE LINUX 2.1, 3 FOR X86
SUSE LINUX STANDARD SERVER 8 FOR X86
SUSE LINUX ENTERPRISE SERVER 8 FOR X86
SUSE LINUX ENTERPRISE SERVER 7, 8 FOR IBM S/390 AND ZSERIES

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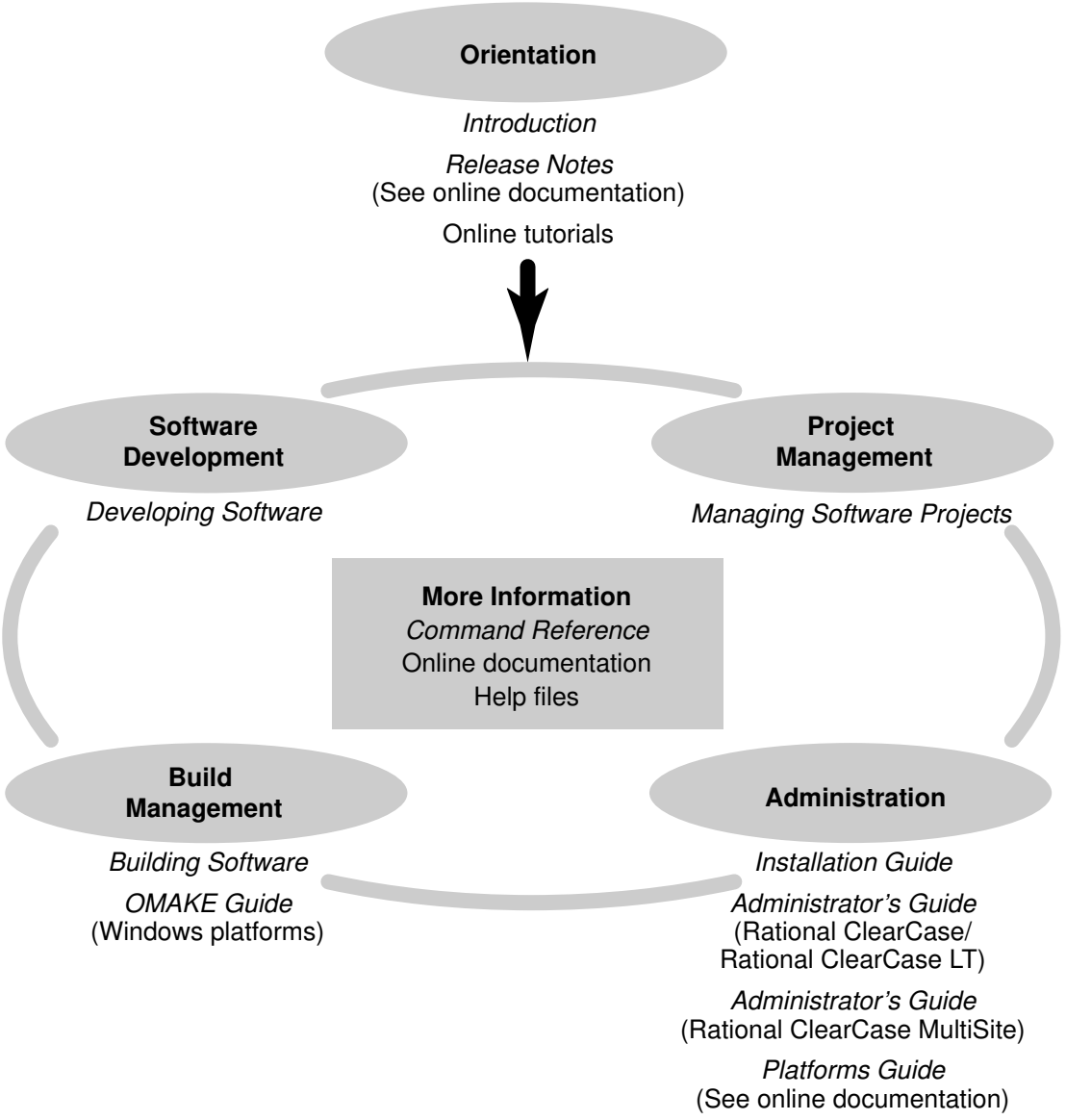
Preface

About This Manual

This document describes Version 2003.06.00 of both Rational ClearCase configuration management software and Rational ClearCase MultiSite software for the UNIX operating system.

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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Europe, Middle East, and Africa	+31-(0)20-4546-200 Netherlands	+31-(0)20-4546-201 Netherlands
Latin America and Mexico	+1-408-863-4000 Cupertino, CA	Use either location: +1-408-863-4194 Cupertino, CA +1-781-676-2460 Lexington, MA
United States and Canada	1-800-IBM-SERV	Use either location: 1-408-863-4194 Cupertino, CA 1-781-676-2460 Lexington, MA

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*
- *MVFS Scaled for Multiprocessor Systems*

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. Rational no longer supports any other Web server as the server for this interface. For more information, see the *Administrator's Guide* for Rational ClearCase.
- Support for Mozilla 1.4–based browsers on AIX, HP-UX/IPF, SGI IRIX, and Linux systems. Netscape 7 is supported on Solaris and HP-UX.

- 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 1.4.2.
- 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 (MVS and USS) and 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 and the section, *Changes to Mainframe Connector Remote Builds*.

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 is a new environment variable:

- 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.

- 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.

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.

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.

UCM-ClearQuest Integration

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

- The integration is now supported on HP-UX 11.11 and AIX.
- GUIs in the style of ClearCase on Windows. You can now create activities and view an activity's property sheet from within the **Checkin**, **Checkout**, and **Add to Source Control** dialog boxes. 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.
- You can submit new ClearQuest records using the activity list dialogs. For more information, see *Developing Software*.
- 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.

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. Single-stream projects are recommended 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.
- **Status button in UCM GUIs.** The **Deliver from Stream in Progress** and **Rebase in Progress** GUIs now include a **Show Details** button. This eliminates the need to select **Properties** on the **Stream** and then click the **Status** button.
- **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 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.

- **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.** Using the **xclearcase File Browser**, you can click **Projects > Checkin All in Current Activity** to check in all versions in the activity's change set.

- **New Events.** There are new events that support UCM operations. See the **events_ccase** reference page.

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

MVFS Scaled for Multiprocessor Systems

The ClearCase multiversion file system (MVFS) has been enhanced to reduce lock contention and to scale to large systems (that is, 8–way multiprocessors or greater) that are accessed by multiple users. This enhancement results in noticeably better performance.

Mozilla Environment Variables

New environment variables control the Mozilla browser, as follows:

- CCASE_MOZILLA may be set to specify Mozilla as the default browser.
- CCASE_MOZILLA_OPT may be set to pass options to the Mozilla command line.
- CCASE_MOZILLA_NEW_WINDOW may be set to "**,new-window**" to open a new window or to "**,new-tab**" to open a new tab in an existing window.

These environment variables are comparable to the CCASE_NETSCAPE and CCASE_NETSCAPE_OPT environment variables that are described in the reference page for **xcleardiff**. The script display_url.sh treats them as follows:

- If CCASE_MOZILLA is set, the browser that it specifies is used.
- Else if CCASE_NETSCAPE is defined, the browser that it specifies is used.
- If neither CCASE_MOZILLA nor CCASE_NETSCAPE are defined, an attempt is made to find the Mozilla executable in the search path first. Then, if it cannot be found, Netscape is used.

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** and **xcleardiff** 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** and **xcleardiff** GUIs display 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 pages for **cleardiff** and **xcleardiff**.
- **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**. In addition, MVFS performance has been enhanced so that it scales better on systems with large memories, including those hosting dynamic views.

  You no longer have to rebuild the HP-UX kernel to make MVFS caching settings persistent. On Solaris, MVFS performance parameters are now handled by this interface; the install program copies parameters from /etc/system to **setcache**-style values.

- **Multiple mount points for paths to remote storage.** The environment variable CCASE_GPATH_HINTS enables you to specify a set of NFS mount points that **mkview**, **mkvob** and **mkstgloc** try when attempting to construct pathnames to remote storage. See the **env_ccase** reference page.
- **Checkins from merge dialog box.** The dialog box for **merge** operations includes an option for checking in merged element versions. For details, see the Help.
- **Redisplaying merge session transcripts.** The **Display Transcript** command redisplays a merge session transcript after the merge session is completed and the transcript dismissed. This command is available from the **View** menu.
- **Ignoring signal handlers.** User settings to ignore signal handlers for **SIGINT**, **SIGHUP**, and **SIGTERM** are honored by **cleartool** and **multitool**. Previously, they had been replaced by program internal handlers. User signal handlers that are not **SIG_IGN** will still be replaced.
- **Refreshing selected elements during a merge.** Refreshing a large number of elements during a merge can be a time-consuming operation. Now you can also specify that only certain elements are to be refreshed. The **Refresh Selected Elements** menu option is available from the **Merge** menu and in the pop-up menu for an individual item in the merge manager log.
- **Enhanced support for mounting multiple VOBs.** On Solaris, ClearCase supports mounting up to 5119 VOBs with up to 512 unique view-extended pathnames per VOB. In addition, up to 2560 VOBs exported for non-ClearCase access may be mounted. On HP-UX, you can mount up to 8191 VOBs with up to 1024 unique view-extended pathnames. On Linux, the default limit is 1022 VOBs.
- **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 about 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.

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 Rational 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

Perl 5.6.1 is distributed with ClearCase. Perl 4 is not included in this release. For backward compatibility, this release also includes a modified version of Perl 5.002. To use 5.002 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**
Accommodation of underlying C library changes or other OS changes	
Changed to use native AIX dlopen() functions.	makedef.pl, dl_aix.xs
Add libmalloc, libndir to link list	hints/hpux.sh
Use Rational naming conventions	
Configure. Add prompt for executable name	Configure
Allow arbitrary link library path	Makefile.SH
Allow arbitrary executable and library name	Makefile.SH, installperl
Defect fixes independent of public domain	
Do not free environment in **perl_destruct** when –DPERL_USE_SAFE_PUTENV	perl.c

Table 2 Modifications to 5.6.1 Perl Distribution (Continued)

Reason for modification	
Modification	**Source file modified**
Do not free environment in **Perl_my_setenv** when –DPERL_USE_SAFE_PUTENV	util.c
Compiler related changes	
Allow C++ compiler on Sun5	Configure

Likewise, in conformance with the Artistic License Agreement Table 3 describes the modifications that were made to Perl 5.002.

Table 3 Modifications to 5.002 Perl Distribution

Reason for modification	
Modification	**Source file modified**
Accommodation of underlying C library changes or other OS changes	
Fix AIX 4.2 relocation defect	dl_aix.xs
Perl dynaloader not initializing C++ shared libraries	dl_hpux10.xs
New functions and other changes needed by the embedded ClearGuide interpreter	
Fix hang when invoked from ClearGuide	dl_dlopen_C++_sun4.xs
Changes related to ClearGuide modules	
Put **__END__** at end so Autosplitter succeeds	DynaLoader.pm
Inclusion of changes/upgrades from public domain to sources	
5.005_62 BPD rule dumps core	dl_aix.xs, cop.h, pp_ctl.c, pp_hot.c
5.004_04 Allow **sigaction()** in sig handlers	util.c
Defect fixes independent of public domain	
Fix to allow debugging	pp_ctl.c
Fix to build of miniperl to fix Linux core dump	perl.c
Fix **sprintf** for Aix 4.2/3	doop.c, pp_sys.c
AIX dynaloader; always call **loadAndInit**	dl_aix.xs
Removed misleading error message	dl_dlopen_C++_sun4.xs

Table 3 Modifications to 5.002 Perl Distribution (Continued)

Reason for modification	
Modification	**Source file modified**
Compiler related changes	
Fixes to allow certain new compilers to function	proto.h, perl.h
Use **cxxshl_** routines to handle C++ static initializers	dl_hpux.xs, dl_hpux10.xs
Support **aCC**	dl_hpux10.xs
Remove comment characters from within comments to quiet AIX compiler warnings	unixish.h
*Non-shipping changes to accommodate **clearmake** in build environment*	
Remove **perly.y** from build directories; change build scripts to eliminate **-V** switch	make_ext, perly.y
Change in build or test environment to Perl modules as shipped	
Test harness fix	ParseWords.pm
Fix autoloading	ParseWords.pm
Version related changes	
Remove v5.004 test	HTML.pm, Entities.pm
Remove **use strict** for use by Perl 5.002	HTML.pm, Parser.pm

This release is the last major release that includes 5.002. The unmodified sources for Perl versions 5.002 and 5.61, as well as the binaries built from them, may be downloaded from http://www-3.ibm.com/software/awdtools/clearcase/support/index.html.

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.

Change in Installation and Administration Directories

The default installation directory has been changed from /usr/atria to /opt/rational/clearcase. The administration directory has been changed from /var/adm/atria to /var/adm/rational/clearcase.

Manipulation of Directories When Upgrading from Version 2002.05.00 to 2003.06.00

During an upgrade from Version 2002.05.00 to 2003.06.00, the installation tool moves /var/adm/atria to /var/adm/atria.preserve. Critical files are moved back to /var/adm/rational/clearcase when the installation is complete. Other files or customizations stored in this directory remain in /var/adm/atria.preserve after the installation is complete.

CLEARCASE_OBSO_SYN Not Supported

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

Removal of the Term “atria”

The following changes were made to remove the term *atria*:

- The default installation directory has been changed from /usr/atria to /opt/rational/clearcase.
- The administration directory has been changed from /var/adm/atria to /var/adm/rational/clearcase.

- The environment variable ATRIAHOME has been renamed CLEARCASEHOME.
- The startup/shutdown scripts **rc.atria** and **atria** have been renamed **rc.clearcase** and **clearcase**, respectively. Symbolic links from the old names have been established for this release.

Examples Removed

Except for ClearCase API examples, the examples in *ccase-home-dir*/examples have been removed.

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. For information about browser support for the Web interface, see the *Installation Guide* for Rational ClearCase.

Changes to Mainframe Connector Remote Builds

The sections that follow describe changes to the mainframe connector remote builds feature.

Change to the Server Proxy

For messages issued by the Server Proxy to be in Japanese, **RCCSESM** and **RCCSESU** must be stopped and resubmitted after adding the line

```
export
RCC_CATALOG=rccbld.cat.jpn
```

to the top of the USS shell scripts, rccSSLMVSServerProxy.sh and rccSSLMVSServer-Proxy.sh.

Change to the Client

To see messages issued by the **rccbuild** command in Japanese, you must have set the environment variable RCC_CATALOG to the value **rccbld.cat.jpn** before running **rccbuild**.

To receive messages from the server in Japanese, you must have set the environment variable RCC_LANG to the value **jpn** before running **rccbuild**.

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.

Table 4 New Options and Arguments (Continued)

Command	New option/argument	Use
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.
chstream	**–cview**	Specifies the stream connected to the current view to be modified.

Table 4 New Options and Arguments (Continued)

Command	New option/argument	Use
deliver	**–reset –to** *integration-view-tag*	Resets a new integration view so that 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 Command, Options, and Arguments

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

The **clearexport_ffile** command was announced as obsolete in version 2002.05.00; it has been removed from the product.

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` to reflect the nature of the operation more accurately and distinguish it more clearly from the **rmelem** operation.
- Dates in log files are written in ISO format. Logs reside in /var/adm /rational/clearcase/log/.
- 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*/doc/hlp.

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 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 Rational 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 Version 2003.06.00 with a VOB at feature level 2, you can replicate that VOB to a host running 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 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 we still recommend 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/unix/legal_information.html.

Install-Related Restrictions

This section describes restrictions related to the installation of ClearCase.

Install Scripts and Obsolete German Locales

Some German locales are obsolete, such as **De**, **De_DE.646**, **De_DE.646@EU**, and **De_DE.646@TE**. If the current locale is set to one of these obsolete versions, the install scripts may abort with a syntax error. If this occurs, you must select and set a new locale before rerunning the installation.

ClearCase Mainframe Connectors Remote Build Server Requirements

The updated Remote Build server requirements for ClearCase Mainframe Connectors can be found in the *Rational ClearCase Mainframe Connectors User's Guide*. The Remote Build server requirements published in the Installation Guide are incorrect.

RWP Default Port Changed for Linux x86 Systems

On Linux for x86 installations, the default port number for RWP has been changed from 80 to 81. This avoids a conflict that was found on some systems.

Red Hat Linux Must be Set to Non-Unicode Locale

By default, Red Hat Linux 8.0, and 9, and Red Hat Enterprise Linux 3.0 set the locale to a Unicode locale, `en_US.UTF-8` for US installations, and may also do so for international installations. ClearCase currently does not support Unicode locales.

For ClearCase to function correctly, the locale must be explicitly set to a non-Unicode locale. Possible locales to use are the `C` locale, `en_US.iso885915`, or a locale that was used successfully in earlier Red Hat Releases.

ClearCase Web

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

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**.

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.

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 opened 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 opened 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:

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

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.

Unable to shut down rwp process in ClearCase

In Red Hat Linux 9, RWP startup and shutdown do not work correctly because of a problem with the JRE 1.4.0 that comes with the distribution. To work around this problem, Red Hat 9.0 users can use the JRE1.4.0 that is installed in opt/rational/common/java by setting the following environment variable:

```
LD_ASSUME_KERNEL=2.4.1
```

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*.

It is recommended 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.

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, stop the clients and set the SQUID_DBSET environment variable as follows: **setenv SQUID_DBSET** *dbset-name*. Then 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 nonmodifiable members.
- No baseline is ever to be made in the component.

Required Patch for Mixed-Version UCM Environments

In UCM environments that support both 2002.05.00 and 2003.06.00 hosts, 2002.05.00 hosts must apply patch clearcase_p2002.05.00–13 or later. These patches provide support for the new project policies introduced in 2003.06.00.

Disabled Japanese Text Input in Red Hat Linux GUI

The standard method to toggle between English and Japanese text input mode in Red Hat Linux GUIs is to type SHIFT SPACE. This method does not work in ClearCase GUIs. Until the problem is fixed in a later release, the following procedure is recommended to enable Japanese input on all ClearCase GUIs:

1. Open the .Xdefaults file in your home directory. If the file does not exist, create it.
2. Add the following entry:

   ***inputMethod: kinput2**
3. Save the .Xdefaults file.
4. On the command line, type **xrdb -q**.
5. If the message displayed does not confirm that the kinput2 entry is listed in .Xdefault, type the command, **xrdb .Xdefaults** to make the change take effect.

Japanese Linux GUIs Cannot Use kterm in a View

GUIs that need to use the kterm multi-byte terminal display in Japanese Linux are not able to do so when set into a view. For example, in a view context, you cannot open a file that is under ClearCase control using a screen editor. To use multi-byte kterm applications, specifiy view-extended path names instead of setting into a view.

Deleting Sockets, Devices and Named Pipes in a View on Linux

When you attempt to delete certain file types (sockets, devices, and named pipes) while set to a ClearCase view, MVFS does not correctly handle the deletion.

Resolving this problem requires a change to the MVFS and also a patch to the Linux kernel. This release contains the change to the MVFS. For details about the patch, go to the IBM Support & downloads Web page, http://www-3.ibm.com/software/support, and search for the Technote titled, LINUX: defects which concern the inability to delete sockets, devices and named pipes when set to a view.

Galaxy-based Unix applets not Level 2 or Level 3 compliant

The Galaxy-based Unix applets in ClearCase use third-party libraries that have not been internationalized. Use the command line for Galaxy applications, such as cleardescribe, cleargetlog and clearvobadmin.

Timer Patch Support for SuSE Linux 390

ClearCase supports a patch for SuSE Linux SLES7 that changes the timing method for interrupts. The patch enables SLES7 to more efficiently run multiple Linux VMs on the IBM S/390 platforms. In most cases, ClearCase support requires that you rebuild the vnode layer after installing the package. The following packages containing the patch have been released by SuSE:

- kernel-source-20020521.rpm (unpacks to linux-2.4.7.SuSE-53)

  Requires a rebuild of the vnode layer.

- kernel-source-20020708.rpm (unpacks to linux-2.4.7.SuSE-66)

  Requires a rebuild of the vnode layer, unless the vnode layer is already rebuilt for the linux-2.4.7.SuSE-53 kernel.

- kernel-source-20030221.rpm (unpacks to linux-2.4.7.SuSE-69)

  Requires a rebuild of the vnode layer.

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, Netscape 7 is recommended.

Omissions from Building Software

The information that follows was omitted from *Building Software*.

Standard compatibility mode supports the GNU make **export** and **unexport** statements as well as the **.EXPORT_ALL_VARIABLES** directive. You can use the **export** statement to pass variable or macro values to a sub-make environment. Use the **unexport** statement to prevent a variable or macro from being exported to a

sub-make environment. Using **.EXPORT_ALL_VARIABLES** causes all variables in the makefile to be exported.

Standard compatibility mode support Sun pattern rules. You can use these patterns within your makefile to indicate matching targets. Any target matching the pattern will have a dependency on the same pattern and will use the same rule as in the following example:

```
%.o: %.c  cc -c $< -o $@
```

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. (For information about how to do this, see the documentation for your HTTP server.)

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

5

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 directory Rational/doc/*platform*, where *platform* is an architecture mnemonic like ux (for UNIX computers) or nt (for Windows computers).
- In the directory *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 directory Rational/doc/*platform*.
- In the directory *ccase-home-dir*/install/ after you install the product.